



# Racing Valve Springs

Master Product Catalog



## VALVE SPRINGS

BEEHIVE • DUALS • TRIPLES



## RETAINERS

TITANIUM • STEEL



## LOCKS

TITANIUM • STEEL



## SEATS & CUPS

CHROME MOLY • TOOL STEEL



## VALVE-TRAIN COMPONENTS

LASH CAPS  
LS ENGINE LIFTERS  
LS PUSH RODS



## TOOLS & ACCESSORIES



## THROTTLE KITS



Proudly made in the U.S.A.

# CIRCLE TRACK VALVE SPRINGS

## Valve Springs ABOUT

Over the last decade PAC Racing Springs drive has been developing the best design, process, and manufacturing technology for valve springs. We have continued to develop cutting edge valve train products that exceed demands of racing and continuously strive for improvements.

100% USA MADE

## NEW SERIES "R" Series Valve Springs THE LATEST ADVANCEMENT

Launching in 2015 as the premier valve spring, with an approach introducing the latest in material technology combined with state of the art performance, processing, and design.

- "R" Series springs use USA Made spring alloy with inclusion advancements
- Reduction of nearly 40% in inclusion size and quantity-over traditional alloys
- Advanced "blueprinting" of springs ensure a consistent load range in batch
- Available "tip conditioning"
- Tight tolerance range - batch sorting by qualified technicians
- Fully documented and serialized

### 1300 SERIES

THE BENCH MARK IN SPRINT CAR, LATE MODEL, AND MODIFIED RACING

- Utilizing in house heat treating
- Nano-peening
- Super-finish polish
- Optimized for load loss and aggressive valve trains
- High lift abusive applications
- Now available as "R" Series upgrade

### 1500 SERIES

-EXTREME ENDURANCE-  
PROCESSING FOR ROAD RACING AND SPEEDWAY ENDURANCE

- Fully nitrided
- Optimized for endurance and life
- Nano peened finish
- Super-finish polish
- Ideal for refined dynamics and valve control

### 1200 SERIES

DESIGNED FOR SPORTSMAN RACERS

- In house heat treating
- Pacaloy- PAC enhanced processing
- Budget minded
- Good performance for medium and abusive environments

# PAC RACING INTRODUCES

# “R” SERIES SPRINGS

From decades of research and development comes the next level of performance and batch consistency. We have developed a 100% made in USA exclusive spring alloy that improves the inclusion size and content by nearly 40%. These advancements are designed for the pro engine builder who is looking for the next level of performance.

## PROFESSIONAL OPTIONS:

### STANDARD “R” SERIES ← OPTION 1

- Advanced material USA made
- Load sorted to 4% of spec L1 & L2
- Solid Sort to +/- 0.020 of nominal
- Certified batch signed by PAC Racing quality technician

### “R” SERIES BLUE-PRINT OPTION ← OPTION 2

- Advanced material USA made
- Load sorted to 3% of spec L1 & L2
- Solid sort to +/- 0.010 of nominal (between H1 & H2)
- Spec sheet ID (spreadsheet) with loads for each spring in box (L1, L2, Solid, Rate)
- Certified batch signed by PAC Racing quality technician

### “R” SERIES TIP CONDITION ← OPTION 3

- Tip condition
- Fully radius tips and ends for improved wear and performance
- Done in process to maintain shot peening effectiveness and performance

# "R" SERIES EXTREME ENDURANCE VALVE SPRINGS

From decades of research and development comes the next level of performance and batch consistency. We have developed a 100% made in USA exclusive spring alloy that improves the inclusion size and content by nearly 40%. These advancements are designed for the pro engine builder who is looking for the next level of performance.

Part Number	Spring Diameters			Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Comments	
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)					Open Load (Valve Open)
<b>1300 Series</b>										
PAC-1326R	1.550	1.100	Yes	0.706	275 @ 2.000	805 @ 1.200	662	1.150	0.800	Sprint Car- Late Model
PAC-1341R	1.575	1.125	Yes	0.720	270 @ 2.050	766 @ 1.250	620	1.170	0.800	Late Model-Off Road Endurance
PAC-1373R	1.430	1.002	No	0.688	250 @ 2.100	855 @ 1.200	670	1.160	0.850	Sprint Car- High RPM- High lift Low Mass
PAC-1387R	1.600	1.150	Yes	0.744	285 @ 1.95	780 @ 1.200	660	1.150	0.750	Late Model- Off Road Endurance
PAC-1374R	1.510	1.086	No	0.762	180 @ 1.980	685 @ 1.180	631	1.110	0.850	Endurance- Paved Circle Track
PAC-1375R	1.409	0.995	No	0.700	150 @ 2.000	645 @ 1.150	582	1.110	0.850	Endurance- Paved Circle Track
PAC-1389R	1.464	1.050	No	0.754	250 @ 2.000	627 @ 1.250	502	1.160	0.750	Endurance- Paved Circle Track
PAC-1390R	1.474	1.050	No	0.754	250 @ 2.050	670 @ 1.200	525	1.195	0.800	Endurance- Paved Circle Track
PAC-1391R	1.536	1.100	Yes	0.694	275 @ 2.000	800 @ 1.200	654	1.16	0.800	Endurance- Paved Circle Track

## 700 Series Spring Retainers

### PREMIUM COMPONENTS FOR "R" Series Valve Springs

700 Series Steel Retainers are made from "Space Plane" alloy. This alloy is used on the most sophisticated defense air craft, which demonstrates its toughness. This alloy was previously unavailable to the public.

PAC Racing Combines this extra premium alloy with vacuum hardening processing, cryogenics, and our nano peening to add strength and maximize weight savings.

"X" Series Spring Seats Are Made from an extremely tough "tool steel" material that is harder and more robust than traditional 4140 or 8620 chrome moly steel. With nearly 20% improvement in hardness and 40% in strength use these as the absolute extreme in spring seats to reduce wear and breakage.

700 Series Retainers	Fits Spring PN	OD Dim "A"	ID of Outer Spring Dim "B"	ID of Inner Spring Dim "C"	Inner Step Thickness	Lock Angle	Weight (Grams)	Pull Thru Load	Matching Seats	Matching Step Seats
PAC-R761	PAC-1326R	1.480	1.090	0.695	0.060	Mini 8	Call	Call	PAC-S105X PAC-S106X	PAC-S139X
PAC-R758	PAC-1341R	1.480	1.115	0.710	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R759	PAC-1373R	1.360	0.990	0.675	0.060	Mini 8	18.9	Call	PAC-S137X PAC-S140X	
PAC-R767	PAC-1387R	1.480	1.140	0.735	0.060	Mini 8	Call	Call	PAC-S117X PAC-S118X	PAC-S124X
PAC-R768	PAC-1374R	1.450	1.075	0.750	0.060	Mini 8	Call	Call	PAC-S117X PAC-S118X	PAC-S124X
PAC-R769	PAC-1375R	1.360	0.985	0.690	0.060	Mini 8	Call	Call	PAC-S114X PAC-S115X	
PAC-R770	PAC-1389R	1.360	1.040	0.745	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R771	PAC-1390R	1.360	1.040	0.745	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R772	PAC-1391R	1.380	1.090	0.685	0.060	Mini 8	Call	Call	PAC-S105X PAC-S106X	



# CIRCLE TRACK ENDURANCE VALVE SPRINGS

## 1300 SERIES

The 1300 Series springs were designed to have the highest endurance and latest advancements in spring processing. PAC Racing continually improves the process to ensure the customer has the latest and highest endurance springs available. The 1300 Series comes with ID Chamfers, Nano-Peening, and are 100% load sorted to ensure they exceed our customers demands.

Part Number	Spring Diameters				Spring Loads			Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	400 & 500 Series Retainers				300 & 600 Series Retainers	Spring Seats	Spring Cups		
PAC-1325	1.550	1.100	No	0.788	250 @ 2.000	765 @ 1.200	644	1.150	0.800	PAC-R505 PAC-R405 PAC-R556	NA	PAC-S103 PAC-S104	PAC-C204	High rate dual spring for aggressive valvetrains.	
PAC-1326	1.550	1.100	Yes	0.706	275 @ 2.000	805 @ 1.200	662	1.150	0.800	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	PAC-C204	High rate dual spring with a damper for aggressive valvetrains.	
PAC-1340	1.500	1.085	No	0.790	250 @ 2.030	614 @ 1.250	467	1.180	0.780	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without damper for roller cam application.	
PAC-1341	1.575	1.125	Yes	0.720	270 @ 2.050	766 @ 1.250	620	1.170	0.800	PAC-R515 PAC-R557	PAC-R315 PAC-R615 PAC-R658	PAC-S110 PAC-S127	PAC-C204	Dual Spring with Damper for Sprint Cars and Late Model Endurance applications.	
PAC-1342	1.574	1.150	No	0.826	250 @ 2.050	655 @ 1.250	506	1.200	0.800	PAC-R537 PAC-R538	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	
PAC-1343	1.550	1.136	No	0.812	240 @ 1.900	625 @ 1.200	550	1.150	0.700	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring for short installed high roller cams	
PAC-1344	1.570	1.120	No	0.780	190 @ 1.950	710 @ 1.250	743	1.035	0.800	PAC-R551	PAC-R651	PAC-S103 PAC-S104	PAC-C204	High Frequency High Lift Dual Spring for Roller Cam applications.	
PAC-1371	1.374	1.000	No	0.716	150 @ 1.950	455 @ 1.250	436	1.190	0.700	PAC-R517 PAC-R552	PAC-R317 PAC-R348	PAC-S114 PAC-S115	NA	Small diameter flat tappet spring for high RPM engines. Low mass and high frequency.	
PAC-1373	1.430	1.002	No	0.688	250 @ 2.100	855 @ 1.200	670	1.160	0.850	NA	PAC-R659	PAC-S137X	NA	Small Diameter Endurance Spring. MUST USE SPECIAL RETAINER.	
PAC-1374	1.536	1.100	Yes	0.694	275 @ 2.000	800 @ 1.200	654	1.160	0.800	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	NA	Dual Spring with Damper for Sprint Cars and Late Model Endurance Applications	
PAC-1385	1.564	1.150	Yes	0.744	250 @ 2.000	670 @ 1.200	525	1.140	0.800	PAC-R514 PAC-R519	PAC-R614 PAC-R619	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift applications.	
PAC-1386	1.564	1.150	No	0.826	245 @ 2.000	655 @ 1.200	513	1.150	0.800	PAC-R537 PAC-R538	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	
PAC-1387	1.600	1.150	Yes	0.744	285 @ 1.950	780 @ 1.200	660	1.149	0.750	PAC-R514 PAC-R519	PAC-R614 PAC-R619	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift roller applications.	
PAC-1395	1.574	1.150	Yes	0.744	265 @ 2.000	705 @ 1.200	550	1.150	0.800	PAC-R514 PAC-R519	PAC-R614 PAC-R619	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift roller applications.	
PAC-1396	1.574	1.150	No	0.826	260 @ 2.000	690 @ 1.200	538	1.150	0.800	PAC-R537	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	

## 1500 SERIES

The 1500 Series springs were designed from our historical use in Circle Track. These are nitrided springs for use in the highest endurance applications. Nitriding allows for a durable surface and improved compressive stress. Additional Nano-Peening and ID and OD chamfering are performed to improve spring life and retainer fitment.

Part Number	Spring Diameters				Spring Loads			Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	400 & 500 Series Retainers				300 & 600 Series Retainers	Spring Seats	Spring Cups		
PAC-1509	1.539	1.125	Yes	0.731	200 @ 2.000	550 @ 1.300	500	1.130	0.750	PAC-R515	NA	PAC-S117 PAC-S118	PAC-C204	High endurance nitrided spring for high lift roller applications.	
PAC-1512	1.102	0.806	No	0.580	110 @ 1.470	300 @ 0.920	346	0.850	0.575	PAC-R439	PAC-R539	NA	NA	FMOD Ford Dual Nitrided Spring. For high RPM applications.	
PAC-1529	1.284	0.900	No	0.630	180 @ 1.900	600 @ 1.150	560	1.085	0.750	PAC-R432 PAC-R532	PAC-R632	PAC-S128 PAC-S138	NA	Small diameter lightweight spring for lightweight valvetrains.	
PAC-1530	1.284	0.900	No	0.616	160 @ 2.000	580 @ 1.250	560	1.180	0.750	PAC-R432 PAC-R532	PAC-R632	PAC-S128 PAC-S138	NA	Small diameter lightweight spring for lightweight valvetrains.	
PAC-1541	1.510	1.086	No	0.790	230 @ 2.050	625 @ 1.250	494	1.185	0.800	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.	
PAC-1561	1.514	1.100	No	0.804	250 @ 2.000	636 @ 1.200	483	1.160	0.800	PAC-R505 PAC-R405	NA	PAC-S119 PAC-S120	PAC-C202	High endurance nitrided spring for high lift aggressive applications.	
PAC-1572	1.510	1.086	No	0.774	180 @ 1.980	650 @ 1.180	588	1.110	0.800	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without a damper for high lift roller applications.	
PAC-1574	1.510	1.086	No	0.762	180 @ 1.980	685 @ 1.180	631	1.110	0.850	PAC-R553	NA	PAC-S117 PAC-S118	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.	
PAC-1575	1.409	0.995	No	0.700	150 @ 2.000	645 @ 1.150	582	1.110	0.850	PAC-R552	NA	PAC-S114 PAC-S115	NA	High endurance Nitrided Spring for high lift aggressive applications.	
PAC-1589	1.464	1.050	No	0.754	250 @ 2.000	627 @ 1.250	502	1.160	0.750	PAC-R508 PAC-R509	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C201	High endurance Nitrided Spring for high lift aggressive applications.	
PAC-1590	1.474	1.050	No	0.754	250 @ 2.050	670 @ 1.200	525	1.195	0.800	PAC-R508 PAC-R509	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.	



# CIRCLE TRACK ENDURANCE VALVE SPRINGS

## 1200 SERIES

The 1200 Series Springs were developed for the sportsman racer looking for a quality but budget minded product. 1200 Series springs come with PAC Racing Proprietary heat treat process that will allow for outstanding load loss and durability.

Part Number	Spring Diameters			Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments	
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)				Open Load (Valve Open)	400 & 500 Series Retainers	300 & 600 Series Retainers	Spring Seats		Spring Cups
PAC-1200	1.244	0.860	Yes	0.770	125 @ 1.750	350 @ 1.250	450	1.100	0.550	NA	PAC-R349 PAC-R649	NA	NA	Small diameter to fit stock pocket without machining. Single Spring with a Damper.
PAC-1201	1.260	0.860	Yes	0.770	140 @ 1.750	437 @ 1.200	540	1.115	0.550	NA	PAC-R349 PAC-R649	NA	NA	Small diameter to fit stock SBC pocket without machining. Single Spring with a Damper. High rate for aggressive cam.
PAC-1201X	1.260	0.860	Yes	0.770	150 @ 1.750	460 @ 1.200	540	1.115	0.550	NA	PAC-R349 PAC-R649	NA	NA	Additional RPM Processing to allow for Extreme Use and Endurance over Traditional PAC-1201 spring.
PAC-1202	1.244	0.860	No	0.624	160 @ 1.750	484 @ 1.150	540	1.100	0.575	NA	PAC-R334	PAC-S128	NA	Dual Spring for aggressive cams.
PAC-1203	1.260	0.860	No	0.624	145 @ 1.800	511 @ 1.200	610	1.115	0.650	NA	PAC-R334	PAC-S128	NA	Dual Spring for aggressive cams.
PAC-1216	1.260	0.876	Yes	0.906	115 @ 1.800	350 @ 1.300	470	1.048	0.500	NA	NA	NA	NA	Race Saver Spring
PAC-1227	1.539	1.125	Yes	0.731	200 @ 1.950	550 @ 1.250	500	1.130	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift flat tappet applications. General purpose spring that works well with many endurance applications.
PAC-1239	1.550	1.126	Yes	0.720	220 @ 2.050	625 @ 1.300	540	1.180	0.800	PAC-R515	PAC-R315 PAC-R615	PAC-S110 PAC-S126	PAC-C204	Dual spring with a damper for roller cam applications.
PAC-1240	1.500	1.085	No	0.790	250 @ 2.030	614 @ 1.250	467	1.180	0.780	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without damper for roller cam application.
PAC-1243	1.550	1.136	No	0.812	240 @ 1.900	625 @ 1.200	550	1.150	0.700	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring for short installed high roller cams.
PAC-1244	1.570	1.120	No	0.780	190 @ 1.950	710 @ 1.250	743	1.035	0.800	PAC-R551	NA	PAC-S103 PAC-S104	PAC-C204	High Frequency High Lift Dual Spring for Roller Cam applications.
PAC-1245	1.550	1.136	No	0.812	240 @ 2.000	608 @ 1.300	526	1.200	0.750	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring for roller cam applications.
PAC-1254	1.554	1.140	Yes	0.746	194 @ 1.950	499 @ 1.300	470	1.170	0.650	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for various applications including marine.
PAC-1289	1.550	1.136	No	0.812	230 @ 2.000	580 @ 1.300	500	1.210	0.750	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring without damper for roller cam applications.
PAC-1294	1.545	1.131	Yes	0.757	175 @ 1.900	442 @ 1.275	428	1.180	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for flat tappet applications.
PAC-1297	1.539	1.125	Yes	0.731	200 @ 2.000	550 @ 1.300	500	1.130	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift flat tappet applications. General purpose spring that works well with many endurance applications.
PAC-1298	1.625	1.175	Yes	0.769	250 @ 2.000	648 @ 1.300	564	1.210	0.700	PAC-R507	NA	PAC-S107 PAC-S108	PAC-C205	Dual spring with a damper for high lift roller applications.
PAC-1299	1.625	1.175	Yes	0.769	250 @ 2.050	673 @ 1.300	564	1.210	0.750	PAC-R507	NA	PAC-S107 PAC-S108	PAC-C205	Dual spring with a damper for high lift roller applications.





# DRAG RACE SPRINGS

## 1200 SERIES PAC's standard HP processing without sacrificing performance

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components					Comments
	OD Outer	ID Outer	ID Middle	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				400 Series Retainers	500 Series Retainers	600 Series Retainers	Spring Seats	Spring Cups	
PAC-1224	1.625	1.175	N/A	0.851	275 @ 2.000	810 @ 1.150	629	1.100	0.850	PAC-R404	PAC-R504	N/A	PAC-S101 PAC-S102	PAC-C205	Dual Drag Race Spring - Bracket Race applications
PAC-1228	1.625	1.175	N/A	0.851	280 @ 2.100	847 @ 1.150	629	1.100	0.900	PAC-R404	PAC-R504	N/A	PAC-S101 PAC-S102	PAC-C205	Dual Drag Race Spring - Bracket Race applications with higher lift / more aggressive cam and RPM requirements
PAC-1225	1.550	1.100	N/A	0.788	250 @ 2.000	765 @ 1.200	644	1.150	0.800	PAC-R405	PAC-R505 PAC-R556	N/A	PAC-S103 PAC-S104	PAC-C204	Smaller Diameter Dual Drag Race Spring
PAC-1226	1.550	1.100	N/A	0.706	275 @ 2.000	805 @ 1.200	663	1.150	0.800	N/A	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	PAC-C204	Smaller Diameter Dual Drag Race Spring with a Damper
PAC-1298	1.625	1.175	N/A	0.769	250 @ 2.000	648 @ 1.300	564	1.210	0.700	N/A	PAC-R507	N/A	PAC-S107 PAC-S108	PAC-C205	Dual Drag spring with a damper for lower lift applications
PAC-1299	1.625	1.175	N/A	0.769	250 @ 2.050	673 @ 1.300	564	1.210	0.750	N/A	PAC-R507	N/A	PAC-S107 PAC-S108	PAC-C205	Dual Drag spring with a damper for lower lift applications
PAC-1246	1.645	1.195	0.871	0.635	250 @ 2.050	801 @ 1.250	689	1.130	0.800	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1247	1.645	1.195	0.871	0.635	290 @ 2.070	835 @ 1.270	682	1.130	0.800	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1248	1.645	1.195	0.871	0.635	332 @ 2.100	950 @ 1.200	687	1.130	0.900	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1258	1.645	1.195	0.871	0.635	350 @ 2.150	1004 @ 1.200	688	1.130	0.950	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1249	1.645	1.195	0.871	0.635	375 @ 2.200	1064 @ 1.200	689	1.130	1.000	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - High Lift / Top Fuel applications
PAC-1250	1.645	1.195	0.871	0.635	440 @ 2.200	1129 @ 1.200	689	1.130	1.000	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - High Lift / Top Fuel applications



**PAC-1224**



**PAC-1248**



# DRAG RACE SPRINGS

## 1300 SERIES

Premium processed with Nano-Peen™ spring technology for enhanced durability and exotic heat treatment for minimal load loss

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components					Comments
	OD Outer	ID Outer	ID Middle	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				400 Series Retainers	500 Series Retainers	600 Series Retainers	Spring Seats	Spring Cups	
PAC-1324	1.625	1.175	N/A	0.851	275 @ 2.000	810 @ 1.150	629	1.100	0.850	PAC-R404	PAC-R504	N/A	PAC-S101 PAC-S102	PAC-C205	Dual Drag Race Spring - Bracket / high lift applications
PAC-1328	1.625	1.175	N/A	0.851	280 @ 2.100	847 @ 1.150	629	1.100	0.900	PAC-R404	PAC-R504	N/A	PAC-S101 PAC-S102	PAC-C205	Dual Drag Race Spring - Bracket / high lift applications
PAC-1325	1.550	1.100	N/A	0.788	250 @ 2.000	765 @ 1.200	644	1.150	0.800	PAC-R405	PAC-R505 PAC-R556	N/A	PAC-S103 PAC-S104	PAC-C204	Smaller Diameter Dual Drag Race Spring
PAC-1326	1.550	1.100	N/A	0.706	275 @ 2.000	805 @ 1.200	663	1.150	0.800	N/A	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	PAC-C204	Smaller Diameter Dual Drag Race Spring with a Damper
PAC-1346	1.645	1.195	0.871	0.635	250 @ 2.050	801 @ 1.250	689	1.130	0.800	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1347	1.645	1.195	0.871	0.635	290 @ 2.070	835 @ 1.270	682	1.130	0.800	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1348	1.645	1.195	0.871	0.635	332 @ 2.100	950 @ 1.200	687	1.130	0.900	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1358	1.645	1.195	0.871	0.635	350 @ 2.150	1004 @ 1.200	688	1.130	0.950	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications
PAC-1349	1.645	1.195	0.871	0.635	375 @ 2.200	1064 @ 1.200	689	1.130	1.000	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - High Lift / Bracket Race Applications
PAC-1350	1.645	1.195	0.871	0.635	440 @ 2.200	1129 @ 1.200	689	1.130	1.000	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Pro Stock / Top Fuel applications
PAC-1351	1.667	1.195	0.871	0.635	450 @ 2.300	1240 @ 1.250	752	1.160	1.050	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Pro Stock / Top Fuel applications
PAC-1351H	1.667	1.195	0.871	0.635	525 @ 2.300	1315 @ 1.250	752	1.160	1.050	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Pro Stock / Top Fuel applications
PAC-1352	1.681	1.195	0.871	0.635	480 @ 2.300	1315 @ 1.250	795	1.190	1.050	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C207	Triple Drag Race Spring - Pro Stock / Top Fuel applications
PAC-1353	1.695	1.195	0.871	0.635	500 @ 2.300	1500 @ 1.200	900	1.140	1.100	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C207	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1362	1.725	1.225	0.871	0.635	475 @ 2.300	1515 @ 1.100	945	1.134	1.100	N/A	PAC-R503 PAC-R565	N/A	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1363	1.725	1.225	0.871	0.635	525 @ 2.350	1565 @ 1.250	945	1.134	1.100	N/A	PAC-R503 PAC-R565	N/A	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1364	1.681	1.195	0.871	0.635	525 @ 2.300	1365 @ 1.300	840	1.100	1.100	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C207	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1364L	1.681	1.195	0.871	0.635	500 @ 2.200	1256 @ 1.300	840	1.100	0.900	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C207	Triple Drag Race Spring- Top Alcohol
PAC-1365	1.715	1.195	0.871	0.635	500 @ 2.300	1605 @ 1.300	1005	1.165	1.100	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock
PAC-1366	1.710	1.210	0.871	0.635	380 @ 2.550	1545 @ 1.250	896	1.140	1.350	N/A	PAC-R503 PAC-R565	N/A	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1367	1.659	1.195	0.871	0.635	480 @ 2.550	1356 @ 1.250	674	1.190	1.400	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring for Mountain Motor Engines with High Lift and relatively low RPM under 8400
PAC-1368	1.720	1.210	0.871	0.635	380 @ 2.550	1624 @ 1.250	957	1.145	1.350	N/A	PAC-R503 PAC-R565	N/A	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1377	1.667	1.195	0.871	0.635	400 @ 2.550	1356 @ 1.250	735	1.190	1.300	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C208	Triple Drag Race Spring - Pro Stock / Mountain Motor
PAC-1378	1.645	1.195	0.871	0.635	400 @ 2.200	1280 @ 1.100	800	1.000	1.100	PAC-R401 PAC-R402	PAC-R501 PAC-R502	PAC-R601 PAC-R602	PAC-S109	PAC-C206	Triple Drag Race Spring - Bracket Race Applications High Lift use when you have too short of valves and looking for more lift



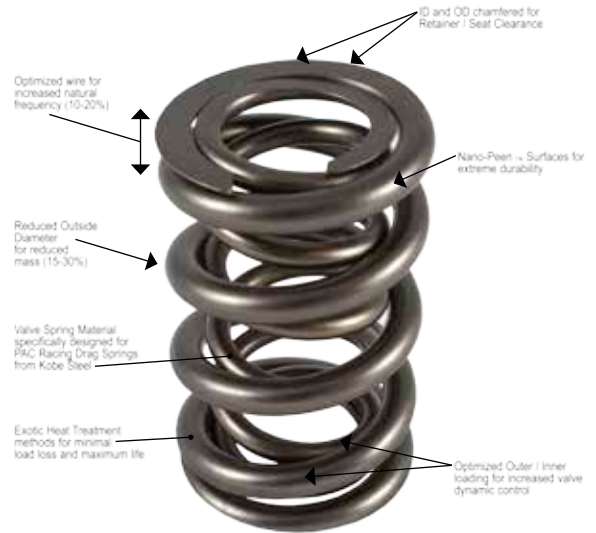
# DUAL DRAG RACE SPRINGS

**Next generation springs feature all of the material and processing features of the 1300 series with smaller diameters for minimal weight for increased valvetrain stability and high RPM's**

PAC Racing Springs has brought the latest technology to the Drag Racing Market. Traditional springs were made with higher load and rates without concern of spring mass and frequency. PAC Racing Springs has taken years of research and coupled that with exotic new heat treatment methods to produce the next generation drag race springs.

These springs feature a 15-30% reduction in physical mass! This coupled with a natural frequency increase of 20% means that your engine will rev higher, faster and last longer with more aggressive valve motion. Get the performance of Titanium with improved life and cost of steel directly from the spring manufacturer.

A complete line of retainers is available for these springs. Retainers are available in 8 and 10 degree angles and with and without solid stops in the bottom. PAC also has Pacaloy® billet steel retainers available for all of these dual springs.



Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components						Comments
	OD Outer	ID Outer	ID Middle	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				400 Series Retainers	500 Series Retainers	Mini 8 Degree Retainers	600 Series Retainers	Spring Seats	Spring Cups	
PAC-1312	1.106	0.810	NA	0.574	150 @ 1.700	430 @ 1.000	400	0.700	0.800	PAC-R439	NA	NA	NA	PAC-S132	NA	Ford 4V Drag Spring
PAC-1335	1.300	0.900	N/A	0.616	250 @ 1.800	860 @ 1.050	813	0.985	0.800	PAC-R432	PAC-R532	PAC-R532 PAC-R632	PAC-R632	PAC-S128 PAC-138	NA	Very Small diameter drag race valve spring for high lift LS style engines. Very lightweight spring for very aggressive valvetrains - Very high RPM
PAC-1354	1.550	1.050	N/A	0.726	425 @ 2.300	1440 @ 1.300	1015	1.230	1.000	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C204	High Lift Dual Drag Race Spring - Very high rate springs for very aggressive valve trains - very high RPM potential
PAC-1355	1.500	1.050	N/A	0.726	420 @ 2.175	1200 @ 1.175	780	1.130	1.000	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - Works well in TAFD and Pro-Mod alcohol Engines
PAC-1355H	1.500	1.050	N/A	0.726	440 @ 2.200	1220 @ 1.200	780	1.130	1.000	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - Works well in TAFD and Pro-Mod alcohol Engines
PAC-1330	1.500	1.050	N/A	0.726	275 @ 2.050	938 @ 1.200	780	1.130	0.850	PAC-R408	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - great spring for Comp, superstock engines
PAC-1331	1.514	1.050	N/A	0.726	425 @ 2.200	1288 @ 1.200	863	1.160	1.000	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C203	High Lift Dual Drag Race Spring - Very high rate springs for very aggressive valvetrains - very high RPM potential
PAC-1332	1.514	1.050	N/A	0.726	350 @ 2.100	1127 @ 1.200	863	1.160	0.900	PAC-R408	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C203	High Lift Dual Drag Race Spring - great spring for Comp,superstock engines
PAC-1356	1.500	1.050	N/A	0.726	300 @ 2.100	1002 @ 1.200	780	1.130	0.900	PAC-R408	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - great spring for Comp, superstock engines
PAC-1329	1.500	1.050	N/A	0.726	350 @ 2.100	1052 @ 1.200	780	1.130	0.900	PAC-R408	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - great spring for Comp, superstock engines
PAC-1357	1.500	1.050	N/A	0.726	375 @ 2.150	1116 @ 1.200	780	1.130	0.950	PAC-R408	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High Lift Dual Drag Race Spring - great spring for Comp, superstock engines
PAC-1359	1.522	1.050	N/A	0.726	375 @ 2.200	1200 @ 1.300	895	1.190	0.900	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C203	High Lift Dual Drag Race Spring - Works well in TAFD and Pro-Mod alcohol Engines
PAC-1360	1.522	1.050	N/A	0.726	400 @ 2.250	1252 @ 1.300	895	1.190	0.950	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C203	High Lift Dual Drag Race Spring - Works well in TAFD and Pro-Mod alcohol Engines
PAC-1361	1.536	1.050	N/A	0.726	425 @ 2.300	1389 @ 1.300	964	1.215	1.000	NA	PAC-R508 PAC-R509	PAC-R544 PAC-R644	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C203	High Lift Dual Drag Race Spring
PAC-1369	1.635	1.125	N/A	0.785	550 @ 2.350	1535 @ 1.300	938	1.230	1.050	NA	PAC-R566	NA	NA	PAC-S103 PAC-S104	NA	High Lift High Rate Dual Drag Race Spring
PAC-1370	1.550	1.065	N/A	0.740	555 @ 2.350	1433 @ 1.300	836	1.230	1.050	N/A	PAC-R547	NA	NA	PAC-S110 PAC-S126	NA	High Lift Dual Drag Race Spring
PAC-1376	1.465	0.990	Damper	0.590	410 @ 2.400	1500 @ 1.300	990	1.240	1.075	NA	NA	PAC-R660	PAC-R660	NA	PAC-C213X	Dual High RPM Drag Race Spring Dampened Spring Requires Steel Retainers and Mini 8 Locks



# RPM Series

PAC Racing Springs developed this new process using all the latest advancements from our circle track and drag racing success. We have applied this new method to great designs that will allow for a performance increase that exceeds all demands. If you don't see your application with the RPM process, please contact us for available options.



## Dual Springs

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
PAC-1204X	1.290	0.950	No	0.694	145 @ 1.800	385 @ 1.150	369	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1205X	1.304	0.950	No	0.694	155 @ 1.800	410 @ 1.150	392	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1206X	1.290	0.950	No	0.680	145 @ 1.800	411 @ 1.150	409	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1207X	1.304	0.950	No	0.680	155 @ 1.800	436 @ 1.150	433	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1208X	1.324	0.950	No	0.694	160 @ 1.800	482 @ 1.100	460	1.000	0.750	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1209X	1.324	0.950	No	0.680	160 @ 1.800	510 @ 1.100	500	1.000	0.750	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136	NA	RPM Series Dual LS Engine Spring
PAC-1221X	1.300	0.895	No	0.655	160 @ 1.800	424 @ 1.150	408	1.080	0.650	PAC-R416 PAC-R516	PAC-R616	PAC-S121	NA	RPM Series Dual Ovate Wire
PAC-1222X	1.280	0.925	No	0.655	180 @ 1.800	480 @ 1.100	425	1.055	0.700	PAC-R455	PAC-R355 PAC-R655	PAC-S121	NA	RPM Series Dual LS Engine Spring Aftermarket Cylinder Heads Upgrade Spring
PAC-1237X	1.274	0.900	No	0.630	200 @ 1.800	585 @ 1.100	550	1.045	0.700	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High Rate High Frequency Dual LS spring Used for Drag Racing, Street Strip Application
PAC-1238X	1.274	0.900	No	0.630	250 @ 1.800	700 @ 1.050	600	0.985	0.750	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High Rate High Frequency Dual LS spring Used for Drag Racing

## Beehive Single Springs

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)				Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
	OD	ID	OD	ID										
PAC-1211X	1.290	0.906	1.034	0.650	130 @ 1.800	370 @ 1.175	385	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Round Wire Beehive RPM Series Processing
PAC-1218X	1.290	0.885	1.055	0.650	140 @ 1.800	328 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1218 but with premium RPM processing and higher loads to withstand the vigors of street and strip use.
PAC-1219X	1.207	0.885	1.072	0.650	145 @ 1.800	358 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1219 but with premium RPM processing and higher loads to withstand the vigors of street and strip use.
PAC-1409X	1.250	0.845	1.055	0.650	175 @ 1.800	425 @ 1.250	436	1.190	0.550	PAC-R510 PAC-R511	PAC-R310 PAC-R311 PAC-R333 PAC-R633	NA	NA	Stock Eliminator Drag Racing - Recent rule changes allow the use of the latest technology which allows for a very sophisticated spring with reduced end size for a small lightweight retainer. <b>DRAG RACING ONLY APPLICATIONS</b>
PAC-1220X	1.445	1.000	1.095	0.650	160 @ 1.900	400 @ 1.250	370	1.210	0.650	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S112 PAC-S113	PAC-C201	Same as the PAC-1220 but with premium RPM processing and higher loads to withstand the vigors of street and strip use.
PAC-1232X	1.345	0.900	1.095	0.650	175 @ 2.050	450 @ 1.400	423	1.346	0.650	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	6.4L Hemi Drop in spring
PAC-1234X	1.021	0.698	0.848	0.525	110 @ 1.500	230 @ 1.000	240	0.941	0.500	PAC-R464	NA	NA	NA	Coyote 5.0 Drop in spring
PAC-1255X	1.445	0.990	1.186	0.731	175 @ 1.950	440 @ 1.300	408	1.220	0.700	PAC-R513	PAC-R313	PAC-S111 PAC-S112	PAC-C201	Same as the PAC-1255 but with premium RPM processing and higher loads to withstand the vigors of street and strip use.
PAC-1295X	1.589	1.135	1.185	0.731	175 @ 2.000	410 @ 1.250	313	1.180	0.750	PAC-R513	PAC-R313	PAC-S116	PAC-C202	Same as the PAC-1295 but with premium RPM processing and higher loads to withstand the vigors of street and strip use.



# SPECIFICATIONS: SPRING LOADS AND HEIGHTS

## DUAL

## BEEHIVE

PART NO.	DUAL										BEEHIVE									
	PAC-1204X	PAC-1205X	PAC-1206X	PAC-1207X	PAC-1208X	PAC-1209X	PAC-1221X	PAC-1222X	PAC-1237X	PAC-1238X	PAC-1211X	PAC-1218X	PAC-1219X	PAC-1232X	PAC-1234X	PAC-1408X	PAC-1220X	PAC-1255X	PAC-1295X	
Mass (g)	85	89	86	90	93	94	102	93	93	87	75	75	67	87	36	60	80	87	90	
Outer Freq	2930.0	2932	2930	2932	3179	3179	29745	27620	33101	35938	32952	29277	31258	32716	37515	40564	30755	30344	25686	
Inner Freq	30877.0	30877	33662	33662	30870	33662	28480	33143	35380	38918	NA	NA	NA	1.346	NA	NA	NA	NA	NA	
Coil Bind	1.000	1.000	1.000	1.000	1.080	1.080	1.055	1.055	1.050	0.985	1.100	1.140	1.100	1.346	0.941	1.115	1.210	1.220	1.170	
2.500																				18
2.450														6						34
2.400														27						50
2.350														48						65
2.300														69						81
2.250														90						97
2.200	3	3	3	3				18						112						112
2.150	16	14	16	16	2		17	42	13	40		15	9	133		16	68	93		128
2.100	34	26	29	22	14	14	38	55	35	70	15	46	26	154		39	86	114		144
2.050	53	37	43	47	45	35	58	74	62	100	34	62	60	175		61	105	134		159
2.000	71	77	63	69	68	60	79	95	90	130	53	77	77	196		84	123	155		175
1.950	90	96	84	90	91	85	99	116	118	160	72	93	94	217		107	142	175		191
1.900	108	116	104	112	114	110	119	137	145	190	92	109	111	238		130	160	195		206
1.850	127	135	125	133	137	135	140	159	173	220	111	124	128	260		152	178	216		222
1.800	145	155	145	155	160	160	160	180	200	250	130	140	145	281		175	197	236		238
1.750	163	175	165	177	183	185	180	201	228	280	149	156	162	302		198	215	257		253
1.700	182	194	186	198	206	210	201	223	255	310	168	171	179	323		220	234	277		269
1.650	200	214	206	220	229	235	221	244	283	340	188	187	196	344		243	252	297		285
1.600	219	233	227	241	252	260	241	265	310	370	207	203	213	365		266	271	318		300
1.550	237	253	247	263	275	285	262	286	338	400	226	218	230	387		289	289	338		316
1.500	256	273	268	285	298	310	282	308	365	430	245	234	247	408		311	308	358		332
1.450	274	292	288	306	321	335	303	329	393	460	264	250	264	429		334	326	379		347
1.400	293	312	309	328	344	360	323	350	420	490	284	265	281	450		357	345	399		363
1.350	311	332	329	350	367	385	343	372	448	520	303	281	298	471		380	363	420		379
1.300	330	351	350	371	390	410	364	393	475	550	322	297	315			402	382	440		394
1.250	348	371	370	393	413	435	384	414	503	580	341	312	332			425	400	460		410
1.200	367	390	391	414	436	460	404	435	530	610	360	328	349			447	418	481		426
1.150	385	410	411	436	459	485	425	457	558	640	380	344	366			470	437			441
1.100	403	430	432	458	482	510	445	478	585	670	399	359	383							
1.050	422	449	452	479	505	535	465		613	700										
1.000	440	469	473	501	528	560	486		730											
0.950														242						



# OVATE BEEHIVE SPRINGS

## 1200 Series

Part Number	Spring Diameters				Spring Loads				Recommended Matching Components				Comments	
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)	Spring Rate	Max Coil Bind	Max Lift	Titanium Retainers	Steel Retainers	Spring Seats		Spring Cups
	OD	ID	OD	ID										
PAC-1213	1.061	0.738	0.959	0.636	80 @ 1.640	185 @ 1.090	191	1.020	0.550	NA	NA	NA	NA	Ford 4.6L 2 valve spring for up to 550 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.
PAC-1214	1.061	0.698	0.999	0.636	100 @ 1.640	265 @ 1.080	275	1.040	0.600	NA	NA	NA	NA	Ford 4.6L 2 valve spring for up to 600 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.
PAC-1215	1.290	0.885	1.055	0.650	105 @ 1.800	293 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	OEM type LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats and retainers. This spring has higher loading for more demanding applications.
PAC-1218	1.290	0.885	1.055	0.650	130 @ 1.800	318 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Performance LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats & retainers. This spring has higher loading for more demanding applications.
PAC-1219	1.307	0.885	1.072	0.650	135 @ 1.800	348 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	LS Ovate beehive spring that has increased loads, rates and frequencies for more aggressive cams. This remains a drop-in spring for stock parts but will handle increased lifts.
PAC-1220	1.445	1.000	1.095	0.650	155 @ 1.880	377 @ 1.280	370	1.210	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S112 PAC-S113	PAC-C201	Primarily designed as Big Block Chevy spring. This larger ovate beehive can replace numerous springs for flat tappet and hydraulic roller applications.
PAC-1223	1.105	0.742	0.943	0.580	90 @ 1.470	252 @ 0.970	324	0.900	0.500	PAC-R512 PAC-R442 PAC-R445	PAC-R312	NA	NA	Ford 4.6L 4 valve spring for up 500 lift. This ovate beehive spring is a drop-in spring that requires no machining and fits stock retainers and seats. Fits V-Rod Motorcycles
PAC-1233	1.025	0.662	0.930	0.567	105 @ 1.670	270 @ 1.120	300	1.060	0.550	PAC-R512	PAC-R312	NA	NA	Ford 4.6L 3 valve spring for up 550 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.
PAC-1235	1.210	0.805	1.035	0.630	135 @ 1.800	350 @ 1.200	358	1.160	0.600	NA	NA	NA	NA	Chrysler Hemi 5.7L, 6.1L Valve spring for up to 0.600 Lift. This ovate beehive spring is a drop-in design that requires no machining.
PAC-1283	1.250	0.845	1.085	0.680	110 @ 1.750	328 @ 1.150	363	1.080	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	NA	NA	SRT Viper V-10 performance ovate beehive spring for applications up to 0.600 lift. This is a drop-in spring that fits the stock retainers and seats.
PAC-1286	1.405	1.000	1.055	0.650	125 @ 1.750	295 @ 1.150	283	1.060	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S112 PAC-S113	NA	HP Beehive spring designed for a variety of hydraulic or flat tappet applications that can make use of 1.405 OD spring. Works well on many small block engines.
PAC-1295	1.589	1.135	1.185	0.731	150 @ 2.000	385 @ 1.250	313	1.180	0.750	PAC-R513	PAC-R313	PAC-S116	PAC-C202	Large Ovate beehive spring for high lift applications. Higher load and lift capability spring for applications up to 0.750 lift. This spring is PAC-Enhanced processed to handle the additional increased durability.

## SPECIFICATIONS: SPRING LOADS AND HEIGHTS

PART NO.	PAC-1213	PAC-1214	PAC-1215	PAC-1218	PAC-1219	PAC-1220	PAC-1223	PAC-1233	PAC-1235	PAC-1283	PAC-1286	PAC-1295	PART NO.
Mass (g)	45	52	75	75	67	97	45	51	73	73	78	106	Mass (g)
Freq (cpm)*	26302	31946	29277	29277	31258	27047	38138	33317	31793	33960	29337	25074	Freq (cpm)*
Coil Bind	0.964	1.030	1.093	1.096	1.100	1.210	0.850	1.060	1.100	1.080	1.080	1.130	Coil Bind
2.500												22	2.500
2.450												35	2.450
2.400						15						48	2.400
2.350						28						61	2.350
2.300					4	41						73	2.300
2.250					15	54						86	2.250
2.200					22	67						94	2.200
2.150	2		14	40	16	80			10		12	112	2.150
2.100	8		27	53	33	92			28		26	124	2.100
2.050	16		40	66	50	105			45		40	137	2.050
2.000	23	12	53	79	67	118		6	63	19	54	150	2.000
1.950	30	26	66	92	84	132		21	81	37	68	163	1.950
1.900	38	40	79	105	101	147		36	99	56	83	175	1.900
1.850	46	53	92	118	118	161		51	117	74	97	188	1.850
1.800	54	67	106	131	135	176		66	135	92	111	201	1.800
1.750	63	81	119	145	152	191	8	81	153	110	125	214	1.750
1.700	72	95	132	158	169	208	22	96	171	128	139	228	1.700
1.650	81	108	145	172	186	224	36	111	189	146	153	242	1.650
1.600	90	122	159	187	203	241	51	126	207	165	168	256	1.600
1.550	99	136	174	202	220	259	66	141	225	183	182	270	1.550
1.500	108	150	189	218	237	278	80	156	243	201	196	287	1.500
1.450	117	163	206	234	254	298	95	171	260	219	210	304	1.450
1.400	126	177	222	251	271	318	110	186	278	237	224	321	1.400
1.350	135	191	239	267	288	339	125	201	296	255	238	339	1.350
1.300	144	205	257	283	305	361	140	216	314	274	253	356	1.300
1.250	153	218	275	300	322	384	155	231	332	292	267	373	1.250
1.200	163	232	294	318	339	415	172	246	350	310	281	397	1.200
1.150	173	246	313	337	356		188	261	368	328	295	526	1.150
1.100	184	260	456	354	373		206	276	386	346	309		1.100
1.050	195	273					223						1.050
1.000	208						241						1.000
0.950	607						261						0.950
0.900							281						0.900

\* The frequency of beehive springs are extremely variable depending on installation height. The base frequency is listed but can be greatly influenced by installation height.

# SPECIALTY & CLASS SPECIFIC SPRINGS

## CIRCLE TRACK

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)				Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
	OD	ID	OD	ID										
<b>1200 Series</b>														
PAC-1210X	1.245	0.891	NA	NA	87 @ 1.700	212 @ 1.270	290	1.150	0.430	NA	NA	NA	NA	GM 602 Crate motor "Cheater" Spring. Includes features that allow more RPM capability and better endurance
PAC-1212X	1.355	0.910	NA	NA	125 @ 1.750	315 @ 1.250	380	1.180	0.550	NA	NA	NA	NA	GM 604 Crate motor "Cheater" Spring. This spring meets the nominal specs but has variable rate features that allow more RPM capability.
PAC-1216	1.260	0.906	Yes	0.876	115 @ 1.800	350 @ 1.300	470	1.048	0.500	NA	NA	NA	NA	Race Saver Spec'd Spring
PAC-1280X	1.282	0.860	1.077	0.655	92 @ 1.80	285 @ 1.300	386	1.181	0.5	NA	NA	NA	NA	GM 604 Crate motor "Blue Beehive" Spring. This spring meets the nominal class specs but has variable rate features that allow more RPM capability.

## DRAG RACE

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)				Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
	OD	ID	OD	ID										
PAC-1409X	1.250	0.845	1.055	0.650	175 @ 1.800	425 @ 1.250	436	1.190	0.550	PAC-R510 PAC-R511	PAC-R310 PAC-R311 PAC-R333 PAC-R633	NA	NA	Stock Eliminator - Recent rule changes allow the use of the latest technology which allows for a very sophisticated spring with reduced end size for a small lightweight retainer. This spring is recommended for drag race applications only
PAC-1427	1.454	1.000	1.104	0.650	200 @ 1.850	500 @ 1.250	500	1.190	0.625	PAC-R510	PAC-R310 PAC-R333 PAC-R643	PAC-S112 PAC-S113	PAC-C201	This is actually a true conical spring for the BBC stock eliminator applications. This spring has very advanced processing technology and highly variable rates for aggressive camshafts. This spring is recommended for drag race applications only

**PAC-1210X**



**PAC-1280X**



**PAC-1212X**



**PAC-1427**



**CONICAL**



# LS ENGINE VALVE SPRINGS



Part Number	Spring Diameters				Spring Loads			Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)	Titanium Retainers				Steel Retainers	Spring Seats	Spring Cups		
	OD	ID	OD	ID											
PAC-1215	1.290	0.885	1.055	0.650	105 @ 1.800	293 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	OEM type LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats and retainers.	
PAC-1218	1.290	0.885	1.055	0.650	130 @ 1.800	318 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Performance LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats and retainers.	
PAC-1219	1.307	0.885	1.072	0.650	135 @ 1.800	348 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	LS Ovate beehive spring that has increased loads, rates and frequencies for more aggressive cams. This remains a drop-in spring for stock parts but will handle increased lifts.	
<b>RPM Series Beehives</b>															
PAC-1211X	1.290	0.906	1.034	0.650	130 @ 1.800	370 @ 1.175	385	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Round Wire Beehive	
PAC-1218X	1.290	0.885	1.055	0.650	140 @ 1.800	328 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1218 but with premium processing and higher loads to withstand the vigors of street and strip use.	
PAC-1219X	1.307	0.885	1.072	0.650	145 @ 1.800	358 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1219 but with premium processing and higher loads to withstand the vigors of street and strip use.	

## SPECIFICATIONS: SPRING LOADS AND HEIGHTS

PN	PAC-1215	PAC-1218	PAC-1219	PAC-1211X	PAC-1218X	PAC-1219X
Mass (g)	75	75	67	75	75	67
Outer Freq	29277	29277	31258	32952	29277	31258
Inner Freq	NA	NA	NA	NA	NA	NA
Coil Bind	1.140	1.140	1.100	1.100	1.140	1.100
2.300		4				
2.250		15				
2.200		22			15	9
2.150	14	40	16		30	26
2.100	27	53	33	15	46	43
2.050	40	66	50	34	62	60
2.000	53	79	67	53	77	77
1.950	66	92	84	72	93	94
1.900	79	105	101	92	109	111
1.850	92	118	118	111	124	128
1.800	106	131	135	130	140	145
1.750	119	145	152	149	156	162
1.700	132	158	169	168	171	179
1.650	145	172	186	188	187	196
1.600	159	187	203	207	203	213
1.550	174	202	220	226	218	230
1.500	189	218	237	245	234	247
1.450	206	234	254	264	250	264
1.400	222	251	271	284	265	281
1.350	239	267	288	303	281	298
1.300	257	283	305	322	297	315
1.250	275	300	322	341	312	332
1.200	294	318	339	360	328	349
1.150	313	337	356	380	344	366
1.100	456	354	373	399	359	383
1.050						
1.000						
0.950						

# LS ENGINE RPM SERIES

PAC Racing Springs developed this new process using all the latest advancements from our circle track and drag racing successes. We have applied this new method to great designs that will allow for a performance increase that exceeds all demands. If you don't see your application with the RPM process, please contact us for available options.



## RPM Series Dual Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS023	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS024	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS025	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS026	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS027	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS028	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS029	LS9 Engine Kit	155 @ 1.815	528 @ 1.065	500	1.000	0.750	PAC-1209X, PAC-R450, PAC-S136, PAC-L8142 and premium seals
PAC-KS031	LS Engine Kit	145 @ 1.800	411 @1.500	409	1.000	0.700	PAC-1206X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS032	LS Engine Kit	155 @ 1.800	436 @1.500	433	1.000	0.700	PAC-1207X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS033	LS Engine Kit	160 @ 1.800	482 @1.100	460	1.000	0.750	PAC-1208X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS034	LS Engine Kit	160 @ 1.800	510 @1.100	500	1.000	0.750	PAC-1209X, PAC-R435, PAC-S129, PAC-L8113 and economy seals

## RPM Series Beehive LS Engine Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS021	LS Engine Kit	140 @ 1.800	328 @ 1.175	318	1.140	0.600	PAC-1218X, PAC-R311, PAC-S111, PAC-L8113 and economy seals
PAC-KS022	LS Engine Kit	145 @ 1.800	358 @ 1.200	340	1.100	0.625	PAC-1219X, PAC-R311, PAC-S111, PAC-L8113 and economy seals

### Aftermarket Cylinder Heads (with larger valve guides)

PAC-KS035	LS Engine Kit	145 @ 1.800	411 @1.500	409	1.000	0.700	PAC-1206X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS036	LS Engine Kit	155 @ 1.800	436 @1.500	433	1.000	0.700	PAC-1207X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS037	LS Engine Kit	160 @ 1.800	482 @1.100	460	1.000	0.750	PAC-1208X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS038	LS Engine Kit	160 @ 1.800	510 @1.100	500	1.000	0.750	PAC-1209X, PAC-R435, PAC-S135, PAC-L8113 and economy seals

# HOT ROD SERIES KITS

## Hotrod Series Dual LS Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS011	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R335, PAC-S129, OE locks and economy seals
PAC-KS012	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R335, PAC-S129, OE locks and economy seals
PAC-KS015	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS016	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS017	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS018	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS019	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS020	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S129, PAC-L8113 and premium seals
Aftermarket Cylinder Heads- with larger valve guides							
PAC-KS006	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS007	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S135, PAC-L8113 and economy seals

Our most economical kit

## Hotrod Series Beehive LS Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS013	LS Engine Kit	135 @ 1.800	348 @ 1.175	340	1.100	0.625	PAC-1219, PAC-R311, PAC-S111, PAC-L8113 and economy seals
PAC-KS014	LS Engine Kit	130 @ 1.800	318 @ 1.200	313	1.140	0.600	PAC-1218, PAC-R311, PAC-S111, PAC-L8113 and economy seals

LS Engine - SPRING KITS

# LS ENGINE VALVE-TRAIN COMPONENTS

## Valve-Train Components for LS Engines!

### LS Lifters

Part Number	T-Bar Style	Style	Type	Mass (Grams)	OD	Application	Plunger travel STD or Limited	Restrictions	Comments
PAC-LFT101-LS	NA	Stock Lifter Tray	Hydraulic	138.7	0.842	LS Engine	STD Travel	NA	STD and High Lift Applications
PAC-LFT102-LS	NA	Stock Lifter Tray	Hydraulic	138.7	0.842	LS Engine	Limited Travel	NA	STD and High Lift Applications
PAC-LFT103-LS	Straight	T-Bar Style	Hydraulic	313.0	0.842	LS Engine	STD Travel	NA	Street Performance Lifter
PAC-LFT104-LS	Straight	T-Bar Style	Hydraulic	313.0	0.842	LS Engine	STD Travel	NA	Street Performance Lifter + Motown Block
PAC-LFT105-LS	Straight	T-Bar Style	Hydraulic	317.9	0.842	LS Engine	STD Travel	NA	Race + Motown Block - Most Popular
PAC-LFT106-LS	Straight	T-Bar Style	Hydraulic	320.0	0.842	LS Engine	Limited Travel	NA	Will Fit Motown Block
PAC-LFT107-LS	Angled	T-Bar Style	Hydraulic	320.3	0.842	LS Engine	STD Travel	NA	Will Fit Warhawk Block
PAC-LFT108-LS	Angled	T-Bar Style	Hydraulic	320.0	0.842	LS Engine	Limited Travel	NA	Will Fit Warhawk Block
PAC-LFT109-LS	Straight	T-Bar Style	Hydraulic	318.7	0.842	LS Engine	STD Travel		High RPM on Center
PAC-LFT110-LS	Angled	T-Bar Style	Hydraulic	320.0	0.842	LS Engine	STD Travel	Do not use oil heavier than 5W30	High RPM on Center will fit Warhawk Block
PAC-LFT111-LS	Straight	T-Bar Style	Hydraulic	354.9	0.903	LS Engine	STD Travel		Hi RPM on Center roller Pin oiling
PAC-LFT112-LS	Angled	T-Bar Style	Hydraulic	303.1	0.903	LS Engine	STD Travel		High RPM on Center roller Pin oiling fit Warhawk Block
PAC-LFT113-LS	NA	Stock Lifter Tray	Mechanical	142.0	0.842	LS Engine	NA	NA	STD and High Lift Applications
PAC-LFT114-LS	Straight	T-Bar Style	Mechanical	309.1	0.842	LS Engine	NA	NA	Street Performance
PAC-LFT115-LS	Straight	T-Bar Style	Mechanical	243.6	0.842	LS Engine	NA	NA	Performance
PAC-LFT116-LS	Angled	T-Bar Style	Mechanical	245.0	0.842	LS Engine	NA	NA	Performance, will fit Warhawk Block

### LS Pushrods

Part Number	Mass (grams)	Length 5/16 Inch OD	Type	OD	Wall Thickness
<b>5/16 Inch OD</b>					
PAC-PR200-LS	53.60	7.375	Straight- Stock	5/16	0.080
PAC-PR201-LS	54.00	7.400	Straight- Stock	5/16	0.080
PAC-PR202-LS	54.50	7.425	Straight- Stock	5/16	0.080
PAC-PR203-LS	53.80	7.450	Straight- Stock	5/16	0.080
PAC-PR204-LS	54.90	7.475	Straight- Stock	5/16	0.080
PAC-PR205-LS	54.30	7.500	Straight- Stock	5/16	0.080
PAC-PR206-LS	63.60	7.300	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR207-LS	63.80	7.350	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR208-LS	65.00	7.400	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR209-LS	64.70	7.450	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR210-LS	65.70	7.500	0.210 Radius Heavy Wall	5/16	0.105
<b>3/8 Inch OD</b>					
PAC-PR211-LS	68.40	7.375	Straight- Stock	3/8	0.080
PAC-PR212-LS	69.60	7.400	Straight- Stock	3/8	0.080
PAC-PR213-LS	69.20	7.425	Straight- Stock	3/8	0.080
PAC-PR214-LS	69.10	7.450	Straight- Stock	3/8	0.080
PAC-PR215-LS	71.00	7.475	Straight- Stock	3/8	0.080
PAC-PR216-LS	70.20	7.500	Straight- Stock	3/8	0.080
PAC-PR217-LS	93.00	7.300	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR218-LS	93.25	7.350	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR219-LS	93.60	7.400	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR220-LS	94.00	7.425	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR221-LS	94.25	7.450	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR222-LS	94.40	7.475	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR223-LS	94.20	7.500	0.210 Radius Heavy Wall	3/8	0.135





## LS Rocker Trunnion Upgrade Kit



P/N: PAC-KS030  
Rocker Arm Trunnion Upgrade Kit



P/N: PAC-T915  
Rocker Arm Trunnion Bearing Press Tool

## LS On-Head Valve Spring Changers



P/N: PAC-T925  
On-Head Spring Changer for LS Cathedral Port



P/N: PAC-T926  
On-Head Spring Changer for LS Square Port



# MOTORCYCLE AND ATV SPRINGS

Part Number	Brand	Year	Model	Additional Notes	OD Outer (in)	ID Outer (in)	ID Inner (in)	Installed Loads (lbs/in)	Open Loads (lbs/in)	Coil Bind (in)	Rate (lbs/in)	Outer Frequency (cpm)	Inner Frequency (cpm)	Lift (in)	MASS (g)	
<b>Single Springs</b>																
PAC-MX100	Yamaha	2001-2012	YZF250-I	WR250F AND 04-09 CRF250 Clutch Spring	0.634	0.450	NA	27 @ 1.100	74 @ 0.720	0.660	123.7	48979	NA	0.380	10	
PAC-MX101	Yamaha	2001-2012	YZF250E		0.708	0.512	NA	33 @ 1.100	88 @ 0.720	0.660	144.7	53370	NA	0.380	12	
PAC-MX102	Honda	2007-2012	CRF150		0.731	0.491	NA	38 @ 1.260	135 @ 0.890	0.835	262.2	52739	NA	0.370	19	
PAC-MX103	Honda	2007-2012	CRF150		0.731	0.491	NA	48 @ 1.496	138 @ 1.146	1.090	257.1	51729	NA	0.350	25	
PAC-MX104	Honda	2007-2012	CRF150		0.717	0.491	NA	39 @ 1.260	118 @ 0.890	0.835	213.5	50850	NA	0.370	18	
PAC-MX105	Honda	2008-2009	CRF250		0.740	0.514	NA	32 @ 1.309	110 @ 0.929	0.870	205.3	50747	NA	0.380	19	
PAC-MX106	Honda	2008-2009	CRF250		0.754	0.514	NA	40 @ 1.525	135 @ 1.150	1.090	253.3	52881	NA	0.375	26	
PAC-MX107	Honda	2008-2009	CRF250		0.780	0.510	NA	40 @ 1.525	168 @ 1.124	1.045	319.2	47609	NA	0.401	28	
PAC-MX108	Yamaha	2003-2012	YZF450I, E		0.756	0.560	NA	32 @ 1.060	75 @ 0.680	0.625	113.2	45009	NA	0.380	12	
PAC-MX109	Honda	2007-2012	CRF150		0.761	0.491	NA	49 @ 1.496	163 @ 1.146	1.095	325.7	47149	NA	0.350	29	
PAC-MX110	Kawasaki	2004-2012	KXF250		0.800	0.560	NA	35 @ 1.317	120 @ 0.957	0.870	236.1	52862	NA	0.360	22	
PAC-MX111	Kawasaki	2004-2012	KXF250	RMZ 250 AND 07-08 GSXR 750	0.800	0.560	NA	35 @ 1.317	128 @ 0.920	0.835	234.3	52447	NA	0.397	21	
PAC-MX112	Kawasaki	2004-2012	KXF450-I, E		0.825	0.575	NA	36 @ 1.240	131 @ 0.852	0.800	244.8	49926	NA	0.388	22	
PAC-MX113	Kawasaki	2004-2012	KXF250	08-09 KXFR and 06-11 KXF	0.800	0.560	NA	37 @ 1.315	135 @ 0.935	0.885	257.9	57739	NA	0.380	22	
PAC-MX114	Kawasaki	2004-2012	KXF450-I, E		0.845	0.575	NA	37 @ 1.319	162 @ 0.915	0.865	309.4	50798	NA	0.404	26	
PAC-MX115	Honda	2002-2012	CRF450E		0.934	0.650	NA	52 @ 1.416	179 @ 1.031	0.960	329.9	51912	NA	0.385	33	
PAC-MX116	Honda	2002-2012	CRF450I		0.934	0.650	NA	42 @ 1.337	170 @ 0.902	0.850	294.3	46307	NA	0.435	30	
PAC-MX117	Suzuki	2008-2012	RMZ450E		0.910	0.670	NA	28 @ 1.160	105 @ 0.760	0.705	192.5	50070	NA	0.400	20	
PAC-MX118	Suzuki	2008-2012	RMZ450I		1.000	0.730	NA	37 @ 1.160	134 @ 0.760	0.710	242.5	48505	NA	0.400	25	
*PAC-MX119*	Yamaha	2008-2012	Rhino 700	09-12 Grizzly 550 and 08-12 Grizzly 700	1.055	0.515	NA	85 @ 1.250	195 @ 0.850	0.780	275.0	43565	NA	0.400	28	
PAC-MX123	Suzuki	1999-2007	Hyabusa E		0.930	0.608	NA	47 @ 1.400	170 @ 1.000	0.920	308.0	44511	NA	0.400	38	
PAC-MX126	Yamaha	2010-2012	YZF 450		0.856	0.600	NA	46 @ 1.370	143 @ 0.992	0.935	257.0	50681	NA	0.378	27	
PAC-MX127	Yamaha	2010-2012	YZF 450		0.738	0.528	NA	37 @ 1.210	101 @ 0.847	0.822	176	54850	NA	0.363	16	
PAC-MX130	KTM	2008-2013	250 SXF-I,E	2008-2013 SX-F and XC-F	0.78	0.554	NA	40 @ 1.350	106 @ 1.000	0.86	189	49594	NA	0.35	20	
PAC-MX131	KTM	2011-2012	350 SXF-I,E	2011-2012 SX-F and XC-F	0.875	0.625	NA	52 @ 1.300	120 @ 1.000	0.83	227	49520	NA	0.3	23	
*PAC-MX132*	KTM	2009-2013	450 EXC-E	2009-2011 530 EXC AND 400 XC, 2012-2013 XC 500	1.081	0.785	0.580	66 @ 1.500	163 @ 1.200	1.05	323	50827	NA	0.3	46	
*PAC-MX133*	KTM	2009-2013	450 EXC-I	2009-2011 530 EXC AND 400 XC, 2012-2013 XC 500	1.096	0.8	0.650	62 @ 1.600	190 @ 1.150	1.065	284	45933	NA	0.45	48	
PAC-MX134	KTM	2009-2010	450 SXF	2010 SX ATV 450 and 505	0.944	0.66	NA	62 @ 1.400	163 @ 1.050	0.9	289	45986	NA	0.35	31	

\*Beehive Spring

Part Number	Brand	Year	Model	Additional Notes	OD Outer (in)	ID Outer (in)	ID Inner (in)	Installed Loads (lbs/in)	Open Loads (lbs/in)	Coil Bind (in)	Rate (lbs/in)	Outer Frequency (cpm)	Inner Frequency (cpm)	Lift (in)	MASS (g)	
<b>Single Springs (Cont'd)</b>																
PAC-MX135	Polaris	2012-2013	RZR-XP900	2013 Ranger 900	0.975	0.725	NA	45 @ 1.350	120 @ 0.950	0.815	188	46425	NA	0.4	26	
PAC-MX137	Honda	2004-2007	CR250F	2012 Polaris Sportsman 500HO	0.834	0.578	NA	42 @ 1.315	136 @ 1.015	0.934	313	60013	NA	0.300	26	
PAC-MX138	Yamaha	2008-2014	R6-I,E		0.84	0.57	NA	42 @ 1.300	160 @ 0.950	0.858	337	54962	NA	0.350	25	
PAC-MX140	Honda	2008-2014	CBR-1000-E	All Models	0.922	0.638	NA	55 @ 1.350	160 @ 1.050	0.92	350	54245	NA	0.300	31	

Part Number	Brand	Year	Model	Additional Notes	OD Outer (in)	ID Outer (in)	ID Inner (in)	Installed Loads (lbs/in)	Open Loads (lbs/in)	Coil Bind (in)	Rate (lbs/in)	Outer Frequency (cpm)	Inner Frequency (cpm)	Lift (in)	MASS (g)	
<b>Dual Springs</b>																
PAC-MX219	Kawasaki	2004-2012	Teryx 750	Brute Force 650&700, Prairie750 and KXF 700	1.010	0.740	0.580	80 @ 1.250	181 @ 0.850	0.760	252.5	39455	42170	0.400	35	
PAC-MX222	Suzuki	1999-2007	Hyabusa I		0.963	0.707	0.523	70 @ 1.400	200 @ 1.000	0.900	325.0	48137	50551	0.400	42	
PAC-MX224	Yamaha	2003-2008	Rhino 660	Grizzly 660	0.970	0.730	0.546	68 @ 1.150	173 @ 0.750	0.630	263.8	41279	54189	0.400	27	
PAC-MX225	Polaris	2008-2012	RZR	Sportsman 800	1.125	0.841	0.657	80 @ 1.200	197 @ 0.800	0.650	292.5	44436	35571	0.400	37	
PAC-MX228	KTM	2000-2009	400-525		1.080	0.784	0.574	100 @ 1.300	260 @ 0.800	0.810	400.0	44981	41713	0.400	48	
PAC-MX229	Polaris	2012	RZR-XP		0.975	0.719	0.535	85 @ 1.300	209 @ 0.900	0.790	310.0	45957	50392	0.400	37	
PAC-MX236	Suzuki	2000-2013	DRZ400		0.930	0.694	0.522	55 @ 1.200	141 @ 0.850	0.683	246.0	46594	43507	0.350	28	
PAC-MX241	Honda	2008-2014	CBR-1000-I	All Models	0.907	0.651	0.479	50 @ 1.350	165 @ 1.000	0.864	329.0	48305	50538	0.350	35	



# Ford F<sup>MOD</sup> VALVE SPRINGS

Part Number	Spring Diameters				Spring Loads				Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)		Open Load (Valve Open)					Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
	OD	ID	OD	ID												
<b>1200 Series Beehive Springs</b>																
PAC-1213	1.061	0.738	0.959	0.636	80 @ 1.640	185 @ 1.090	191	1.020	0.550	NA	NA	NA	NA	Ford 4.6L 2 valve spring for up 550 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.		
PAC-1214	1.061	0.698	0.999	0.636	100 @ 1.640	265 @ 1.080	275	1.040	0.600	NA	NA	NA	NA	Ford 4.6L 2 valve spring for up 600 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.		
PAC-1223	1.105	0.742	0.943	0.580	90 @ 1.470	252 @ 0.970	324	0.900	0.500	PAC-R512	PAC-R312	NA	NA	Ford 4.6L 4 valve spring for up 500 lift. This ovate beehive spring is a drop-in design.		
PAC-1233	1.025	0.662	0.930	0.567	105 @ 1.670	270 @ 1.120	300	1.060	0.550	PAC-R512	PAC-R312	NA	NA	Ford 4.6L 3 valve spring for up 550 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.		
<b>RPM Series</b>																
PAC-1217X	1.061	0.698	0.873	0.525	115 @ 1.600	300 @ 1.000	308	0.965	0.625	PAC-R464 PAC-R564	NA	NA	NA	Ford 5.0L Coyote valve spring for extreme RPM and valve lift. Also works on other F <sup>MOD</sup> 's with PAC-R331 and PAC-R346* which adds .060" installed height.		
PAC-1234X	1.021	0.698	0.848	0.525	110 @ 1.500	230 @ 1.000	240	0.941	0.500	PAC-R464 PAC-R564				Ford 5.0L Coyote valve spring for up 500 lift. This ovate beehive spring is a drop-in design that requires no machining and fits stock retainers and seats.		
PAC-1512	1.102	0.806	NA	0.580	110 @ 1.470	300 @ 0.920	346	0.850	0.575	PAC-R439 PAC-R539	N/A	PAC-S132	NA	F <sup>MOD</sup> Ford Dual Nirtided Spring. Very High RPM.		
PAC-1312	1.106	0.810	NA	0.574	150 @ 1.700	430 @ 1.000	400	0.825	0.700	PAC-R439 PAC-R539	NA	PAC-S132	NA	Ford 4V Dual Drag Race Spring. Very High Lift and RPM.		
PAC-1312L	1.106	0.810	NA	0.574	110 @ 1.550	330 @ 1.000	400	0.825	0.550	PAC-R439 PAC-R539	NA	PAC-S132	NA	Ford 4V Dual Drag Race Spring. Very High Lift and RPM.		

## SPECIFICATIONS: SPRING LOADS AND HEIGHTS

PN	PAC-1213	PAC-1214	PAC-1223	PAC-1233	PAC-1217X	PAC-1234X	PAC-1512	PAC-1312	PAC-1312L
Mass (g)	45	52	45	51	40	34	53	54	54
Outer Freq	26302.0	31946	38138	33385	35241	37515	33486	37229	37229
Inner Freq	N/A	N/A	N/A	N/A	N/A	N/A	39747	42789	42789
Coil Bind	0.980	1.030	0.880	1.060	0.965	0.941	0.850	0.825	0.825
2.200									
2.150								5	
2.100	8							16	
2.050	17							27	
2.000	27	12		6				39	
1.950	36	26		21	7	2		50	
1.900	46	39		36	23	14		70	
1.850	55	53		51	38	26	4	90	7
1.800	65	67		66	53	38	14	110	18
1.750	74	81		81	69	50	24	130	30
1.700	84	94	15	96	84	62	34	150	50
1.650	94	108	32	111	100	74	48	170	70
1.600	103	122	48	126	115	86	65	190	90
1.550	113	136	64	141	130	98	82	210	110
1.500	122	150	80	156	146	110	100	230	130
1.450	132	163	96	171	161	122	117	250	150
1.400	141	177	113	186	177	134	134	270	170
1.350	151	191	129	201	192	146	151	290	190
1.300	160	205	145	216	208	158	169	310	210
1.250	170	218	161	231	223	170	186	330	230
1.200	179	232	177	246	238	182	203	350	250
1.150	189	246	194	261	254	194	221	370	270
1.100	199	260	210	276	269	206	238	390	290
1.050	208	273	226		285	218	255	410	310
1.000	218	287	242		300	230	272	430	330
0.950	227		258		315	242	290	450	350
0.900			275				307	470	370
0.850			291				324	490	390

\*Beehive spring



# HOT ROD SINGLE WITH DAMPER

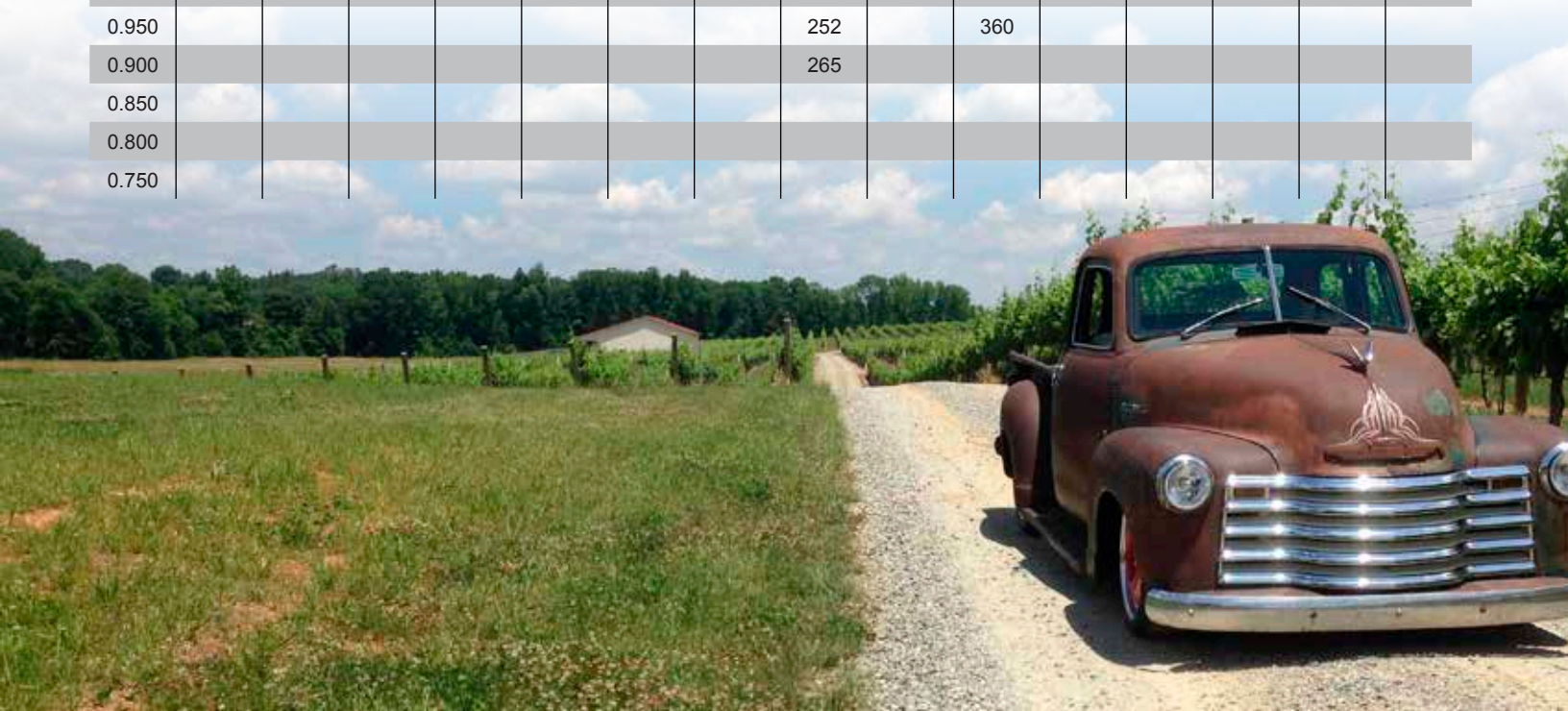
Part Number	Spring Type	Spring Diameters (inches)				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Comments and Application Recommendations
		OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				
PAC-1900	Single Std.	1.500	1.086	Y	0.996	98 @ 1.880	316 @ 1.300	376	1.115	0.600	AMC and BBC Street <b>Replaces 99839</b>
PAC-1902	Beehive	1.254	0.880	N	0.790	120 @ 1.940	375 @ 1.380	455	1.316	0.575	SBC Beehive Hyd roller/ Flat tappet
PAC-1909	Single Std.	1.255	0.871	Y	0.781	110 @ 1.700	311 @ 1.200	402	1.150	0.500	SBC Street and truck Replaces 99848
PAC-1911	Single Std.	1.265	0.865	Y	0.765	125 @ 1.750	388 @ 1.250	526	1.150	0.600	Single W/Damper for SBC Hyd Roller, LT1 and NMCA <b>Replaces 99846</b>
PAC-1913	Single Std.	1.355	0.940	Y	0.851	90 @ 1.850	300 @ 1.350	418	1.200	0.550	Hyd Flat tappet
PAC-1915	Single Std.	1.430	1.066	Y	0.976	110 @ 1.750	225 @ 1.250	230	1.125	0.600	Hyd Flat tappet
PAC-1917	Single Std.	1.437	1.037	Y	0.947	115 @ 1.700	285 @ 1.200	340	1.150	0.500	Small Block Hyd Flat tappet
PAC-1919	Single Std.	1.437	1.073	Y	1.003	115 @ 1.500	240 @ 1.030	266	0.900	0.500	Hyd Flat tappet
PAC-1921	Single Std.	1.460	1.060	Y	0.970	109 @ 1.850	293 @ 1.250	307	1.145	0.600	Hyd Flat tappet
PAC-1923	Single Std.	1.460	1.060	Y	0.970	92 @ 1.580	296 @ 1.100	425	1.050	0.500	Pontiac V-8, Ford GT40 <b>Replaces 99840</b>
PAC-1925	Single Std.	1.464	1.080	Y	0.990	95 @ 1.900	236 @ 1.300	235	1.190	0.600	Hyd Flat tappet
PAC-1927	Single Std.	1.476	1.062	Y	0.972	110 @ 1.800	318 @ 1.300	416	1.170	0.550	Hyd Flat tappet
PAC-1929	Single Std.	1.495	1.081	Y	0.991	101 @ 1.650	253 @ 1.220	355	1.100	0.450	Hyd Flat tappet
PAC-1931	Single Std.	1.525	1.110	Y	1.000	127 @ 1.900	311 @ 1.400	368	1.110	0.600	Hyd Flat tappet
PAC-1933	Single Std.	1.540	1.125	Y	1.016	145 @ 1.900	320 @ 1.338	311	1.200	0.600	Hyd Flat tappet



Hot Rod Series Springs are designed to offer the engine builder and hot rod enthusiast a mild upgrade and replacement for their hot rod. Most of the Hot Rod Series Springs are offered based on application or are vehicle specific. PAC Racing is proud to also offer complete packages that allow for an entire valve-train rebuild or upgrade.

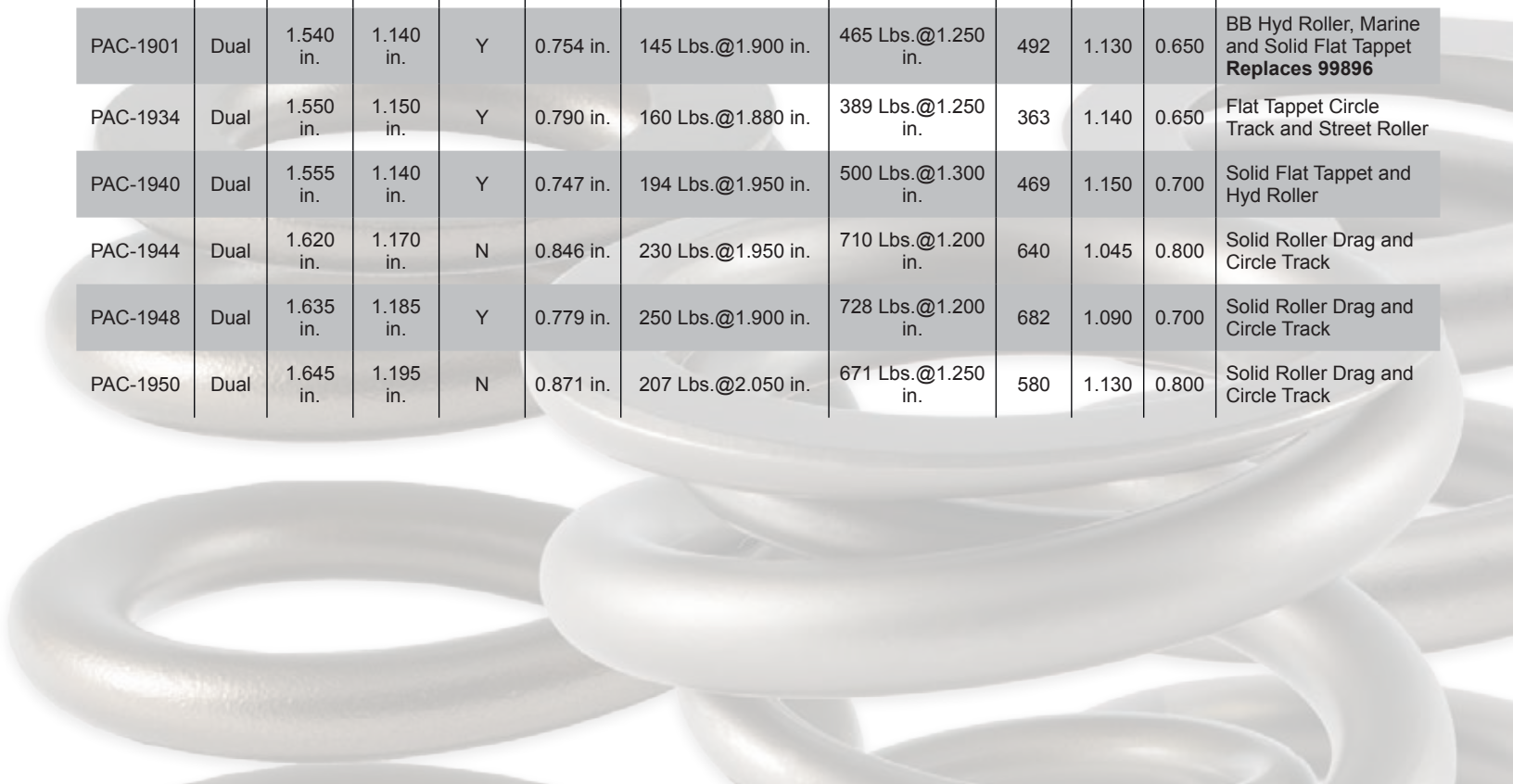
# SPECIFICATIONS: SPRING LOADS AND HEIGHTS

Part No.	PAC-1900	PAC-1902	PAC-1909	PAC-1911	PAC-1913	PAC-1915	PAC-1917	PAC-1919	PAC-1921	PAC-1923	PAC-1925	PAC-1927	PAC-1929	PAC-1931	PAC-1933
Mass (g)	102	115	80	82	97	87	94	70	100	79	100	105	100	107	115
Freq (cpm)*	29314	30033	32641	36052	27982	23556	27271	29988	25239	34723	21472	31745	27283	27560	22821
Coil Bind	1.115	1.150	1.150	1.150	1.200	1.125	1.150	0.900	1.145	1.050	1.190	1.170	1.100	1.110	1.200
2.200						15					24			24	60
2.150		24				25			17		36			40	73
2.100	15	47				35			32		48			57	87
2.050	34	70			9	45			47		60	7		73	100
2.000	53	93			28	55	17		63		71	27		90	114
1.950	72	115	9	25	48	65	32		78		83	48		109	129
1.900	90	138	30	49	69	75	48	12	94		95	68	13	127	145
1.850	109	161	50	72	90	87	64	24	109		107	89	30	145	161
1.800	128	184	70	99	111	98	81	37	124		119	110	48	164	176
1.750	147	207	90	125	132	110	98	50	140	20	130	131	65	182	192
1.700	166	229	110	151	153	122	115	62	155	41	142	152	83	201	207
1.650	184	252	130	178	174	133	132	75	171	62	154	172	101	219	223
1.600	203	275	150	204	195	145	149	88	186	84	166	193	119	237	238
1.550	222	298	170	230	215	156	166	102	201	105	177	214	137	256	254
1.500	241	320	190	257	236	168	183	115	217	126	189	235	154	274	270
1.450	260	343	211	283	257	179	200	128	232	147	201	256	172	293	285
1.400	278	366	231	309	278	191	217	142	247	169	213	276	190	311	301
1.350	297	389	251	335	299	202	234	155	263	190	224	297	208	329	316
1.300	316	411	271	362	320	214	251	168	278	211	236	318	225	348	332
1.250	335	434	291	388	341	225	268	181	294	232	248	339	243	366	347
1.200	354	457	311	414	362	237	285	195	309	254	260	360	261	385	363
1.150	372	480	331	441		248	302	208	324	275		380	279	403	
1.100				467		260	319	221		296			296	421	
1.050								235		317					
1.000								240		339					
0.950								252		360					
0.900								265							
0.850															
0.800															
0.750															



# HOT ROD DUAL SPRINGS

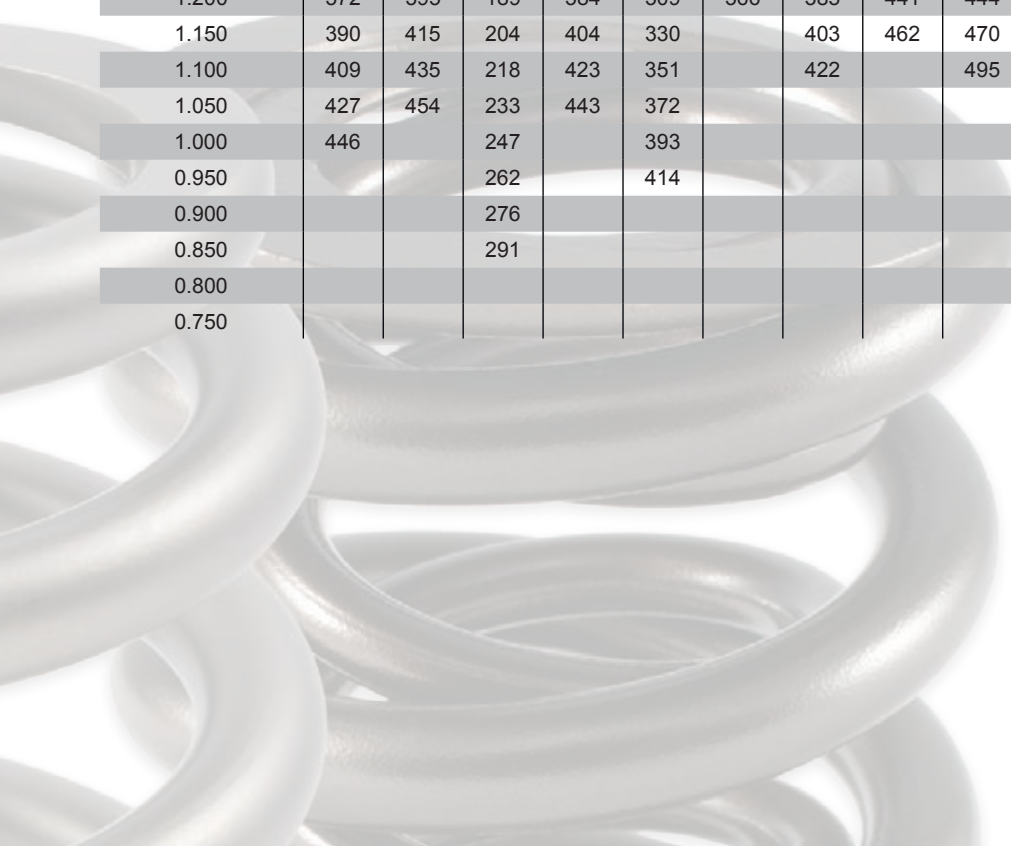
Part Number	Spring Type	Spring Diameters (inches)				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Comments and Application Recommendations
		OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)				
PAC-1904	Dual	1.290 in.	0.950 in.	N	0.694 in.	150 Lbs.@ 1.800 in.	400 Lbs.@1.125 in.	370	1.010	0.625	LS Dual Spring
PAC-1905	Dual	1.304 in.	0.950 in.	N	0.694 in.	160 Lbs.@1.800 in.	425 Lbs.@1.125 in.	392	1.020	0.650	LS Dual Spring
PAC-1906	Dual	1.112 in.	0.900 in.	N	0.674 in.	97 Lbs.@1.516 in.	256 Lbs.@0.970 in.	291	0.850	0.550	Buick V-6 and Buick 350 <b>Replaces 99891</b>
PAC-1903	Dual	1.459 in.	1.075 in.	N	0.794 in.	120 Lbs.@1.875 in.	394 Lbs.@1.175 in.	391	1.050	0.700	Ford, GM and Mopar BB Hyd Roller, Solid Flat Tappet Race <b>Replaces 99893</b>
PAC-1908	Dual	1.465 in.	1.090 in.	N	0.807 in.	106 Lbs. @1.688 in.	306 Lbs. @1.208 in.	417	0.910	0.650	6 Cyl AMC, Buick V-8 and Other Short Installed Height Applications <b>Replaces 99838</b>
PAC-1912	Dual	1.464 in.	1.080 in.	Y	0.724 in.	133 Lbs.@1.900 in.	333 Lbs.@1.300 in.	333	1.200	0.600	Hyd Flat tappet
PAC-1914	Dual	1.490 in.	1.105 in.	N	0.810 in.	165 Lbs.@1.800 in.	385 Lbs.@1.200 in.	367	1.075	0.600	Hyd Roller
PAC-1916	Dual	1.538 in.	1.140 in.	Y	0.752 in.	157 Lbs.@1.850 in.	440 Lbs.@1.200 in.	436	1.090	0.650	Hyd Roller
PAC-1918	Dual	1.545 in.	1.130 in.	Y	0.737 in.	140 Lbs.@1.800 in.	457 Lbs.@1.175 in.	507	1.130	0.625	Solid Flat Tappet and Hyd Roller
PAC-1924	Dual	1.540 in.	1.140 in.	Y	0.754 in.	144 Lbs.@1.900 in.	403 Lbs.@1.300 in.	431	1.125	0.650	BB Hyd Roller <b>Replaces 99895</b>
PAC-1901	Dual	1.540 in.	1.140 in.	Y	0.754 in.	145 Lbs.@1.900 in.	465 Lbs.@1.250 in.	492	1.130	0.650	BB Hyd Roller, Marine and Solid Flat Tappet <b>Replaces 99896</b>
PAC-1934	Dual	1.550 in.	1.150 in.	Y	0.790 in.	160 Lbs.@1.880 in.	389 Lbs.@1.250 in.	363	1.140	0.650	Flat Tappet Circle Track and Street Roller
PAC-1940	Dual	1.555 in.	1.140 in.	Y	0.747 in.	194 Lbs.@1.950 in.	500 Lbs.@1.300 in.	469	1.150	0.700	Solid Flat Tappet and Hyd Roller
PAC-1944	Dual	1.620 in.	1.170 in.	N	0.846 in.	230 Lbs.@1.950 in.	710 Lbs.@1.200 in.	640	1.045	0.800	Solid Roller Drag and Circle Track
PAC-1948	Dual	1.635 in.	1.185 in.	Y	0.779 in.	250 Lbs.@1.900 in.	728 Lbs.@1.200 in.	682	1.090	0.700	Solid Roller Drag and Circle Track
PAC-1950	Dual	1.645 in.	1.195 in.	N	0.871 in.	207 Lbs.@2.050 in.	671 Lbs.@1.250 in.	580	1.130	0.800	Solid Roller Drag and Circle Track





# SPECIFICATIONS: SPRING LOADS AND HEIGHTS

Part Number	PAC-1904	PAC-1905	PAC-1906	PAC-1903	PAC-1908	PAC-1912	PAC-1914	PAC-1916	PAC-1918	PAC-1924	PAC-1901	PAC-1934	PAC-1940	PAC-1944	PAC-1948	PAC-1950
Mass (g)	85	90	62	115	100	139	126	147	148	148	146	142	151	151	151	161
Freq Outer(cpm)*	29975	29344	30144	25170	28261	21473	22606	22984	26365	22871	27123	23164	24210	30193	31692	27484
Freq Inner(cpm)*	30890	30890	31259	26835	30642	21188	25219	27459	27945	26384	29956	21729	26361	27877	32538	26610
Coil Bind	1.010	1.020	0.850	1.050	0.910	1.200	1.075	1.090	1.130	1.125	1.130	1.140	1.150	1.045	1.090	1.130
2.200	8	8				34	18	21		23	15	45	82	70	60	120
2.150	21	23		12		50	37	34		36	29	62	103	102	82	149
2.100	39	42		32		66	55	48	8	58	47	80	125	134	115	178
2.050	58	62		51		83	73	70	23	79	71	98	147	166	148	207
2.000	76	82		71		100	92	92	42	101	96	116	171	198	182	236
1.950	95	101		91		116	110	113	65	122	120	135	194	230	216	265
1.900	113	121		110	18	133	128	135	89	144	145	153	217	262	250	294
1.850	132	140		130	39	150	147	157	115	166	170	171	241	294	284	323
1.800	150	160	14	149	59	166	165	179	140	187	194	189	264	326	318	352
1.750	168	180	29	169	80	183	183	201	165	209	219	207	288	358	352	381
1.700	187	199	43	189	101	200	202	222	191	230	243	225	311	390	387	410
1.650	205	219	58	208	122	216	220	244	216	252	268	244	335	422	421	439
1.600	224	238	73	228	143	233	238	266	241	274	293	262	358	454	455	468
1.550	242	258	87	247	164	250	257	288	267	295	317	280	382	486	489	497
1.500	261	278	102	267	184	266	275	310	292	317	342	298	405	518	523	526
1.450	279	297	116	286	205	283	293	331	318	338	367	316	429	550	557	555
1.400	298	317	131	306	226	300	312	353	343	360	391	334	452	582	591	584
1.350	316	337	145	326	247	316	330	375	368	381	416	353	476	614	626	613
1.300	335	356	160	345	268	333	348	397	394	403	440	371	499	646	660	642
1.250	353	376	174	365	289	350	367	419	419	425	465	389	522	678	694	671
1.200	372	395	189	384	309	366	385	441	444	446	490	407	546	710	728	700
1.150	390	415	204	404	330		403	462	470		514	425		742	762	729
1.100	409	435	218	423	351		422		495			444		774	765	
1.050	427	454	233	443	372											
1.000	446		247		393											
0.950			262		414											
0.900			276													
0.850			291													
0.800																
0.750																



# SPRING RETAINERS

PAC offers a full line of matching retainers, seats, and cups for PAC Valve Springs. They are specifically matched with radii and diameters to optimize the performance of the valve-train.



## 300 Series Spring Retainers

These retainers are made from 4140 chrome moly steel, primarily designed for smaller beehive springs. These retainers are heat treated, black oxide finished and processed to maintain high strength with lightweight designs.

### 300 Series Chrome Moly Steel

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 300 Series</b>							
PAC-R310	1.035	0.640	N/A	N/A	STD 10	10.2	Retainer for 1215,1218,1219,1220 and other beehives
PAC-R311	1.035	0.640	N/A	N/A	LS (7°)	10.4	Steel Beehive LS Retainer for 1218 and more
PAC-R312	0.865	0.570	N/A	N/A	FMOD 7	7.7	Ford (FMOD)
PAC-R313	1.115	0.721	N/A	N/A	STD 10	11.6	Retainer for 1255,1295,1595
PAC-R331	0.800	0.500	N/A	N/A	FMOD 7	5.4	Ford (FMOD)
PAC-R333	0.875	0.640	N/A	N/A	STD 7	6.3	Super Stock Only
PAC-R342	0.865	0.580	N/A	N/A	6	9.2	V-Rod
PAC-R346	0.800	0.495	N/A	N/A	FMOD 7	5.5	Ford (FMOD) This is a +0.060 install height retainer
PAC-R362	1.035	0.640	N/A	N/A	FMOD 7	12.8	Retainer for 1218,1220, and others with FMOD Locks
PAC-R363	1.035	0.640	N/A	N/A	STD 7	12.8	Retainer for 1218, 1220 and others with STD 7 degree lock
<b>Dual Spring 300 Series</b>							
PAC-R315	1.475	1.110	0.710	N/A	STD 10	26.3	Steel retainer for Marine applications
PAC-R316	1.235	0.880	0.640	N/A	LS (7°)	19.3	Steel LS retainer for 1221,1521
PAC-R317	1.325	0.990	0.700	N/A	STD 10	17.0	Steel retainer for 1371
PAC-R334	1.200	0.850	0.600	N/A	7	17.0	Steel retainer for 1202,1203
PAC-R335	1.300	0.940	0.680	N/A	LS (7°)	20.0	Steel retainer for LS RPM Series Duals
PAC-R348	1.360	0.985	0.690	N/A	mini 8	15.1	Steel retainer for 1371 Spring
PAC-R349	1.200	0.775	N/A	N/A	STD 8	18.8	Steel retainer for 1200-1201
PAC-R355	1.225	0.920	0.650	N/A	LS (7°)	19.0	Steel retainer for 1222X LS spring

## 400 Series Spring Retainers

PAC-Tuff™ Retainers are made from the best 6AL-4V Titanium alloy and completely sonic tested to aerospace standards prior to being machined. These retainers are designed for standard to high durability use and are designed to be very robust.

### 400 Series PAC-TUFF™ 64 Titanium

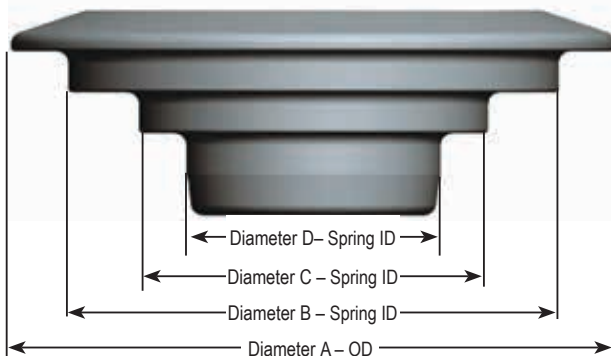
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 400 Series</b>							
PAC-R442	0.865	0.580	N/A	N/A	6	5.2	V-Rod
PAC-R445	0.825	0.565	N/A	N/A	6	4.8	V-Rod Destroyer
PAC-R464	0.795	0.517	N/A	N/A	FMOD	4.0	5.0 Liter Coyote Titanium retainer
<b>Dual Spring 400 Series</b>							
PAC-R404	1.480	1.165	0.840	N/A	STD 10	18.8	+0.050 Sportsman Drag Race/Circle Track
PAC-R405	1.450	1.090	0.780	N/A	STD 10	16.6	+0.050 Sportsman Drag Race/Circle Track
PAC-R408	1.450	1.040	0.715	N/A	STD 10	15.0	+0.050 Sportman retainer for all 1.050 ID dual drag springs
PAC-R416	1.235	0.880	0.640	N/A	LS (7°)	10.9	Titanium LS retainer for 1221,1521
PAC-R432	1.200	0.890	0.600	N/A	Mini 8	10.4	Titanium LS retainer for 1530,1335
PAC-R435	1.300	0.940	0.680	N/A	LS (7°)	11.1	Titanium retainer for LS RPM Series Duals
PAC-R439	1.075	0.800	0.575	N/A	7	7.8	Titanium Ford (FMOD) for 1512 spring
PAC-R450	1.240	0.940	0.685	N/A	Mini 8	11.7	RPM Series Dual Springs (mini 8 Locks)
PAC-R455	1.225	0.920	0.650	N/A	LS (7°)	11.1	Titanium retainer for 1222X spring
<b>Triple Spring 400 Series</b>							
PAC-R401	1.480	1.185	0.865	0.635	STD 10	17.9	+0.050 Sportsman Triple Spring Drag Race
PAC-R402	1.480	1.185	0.865	0.635	STD 8	18.1	+0.050 Sportsman Triple Spring Drag Race

# 500 Series Spring Retainers

Titanium spring retainers made from Ti-17 alloy. This alloy has shown greater tensile properties over other titanium products with its high strength and deep hardening alloys. These retainers are micropolished for enhanced fatigue life and are laser engraved for PN and batch identification.

## 500 Series Ti-17 Titanium

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 500 Series</b>							
PAC-R510	0.990	0.640	N/A	N/A	STD 10	5.7	
PAC-R511	0.990	0.640	N/A	N/A	LS (7°)	5.7	Titanium Beehive LS Retainer for 1218 and more
PAC-R512	0.865	0.570	N/A	N/A	7	5.3	Ford (FMOD)
PAC-R513	1.115	0.721	N/A	N/A	10	7.7	
<b>Dual Spring 500 Series</b>							
PAC-R504	1.475	1.165	0.840	N/A	STD 10	17.0	Ti retainer for 1.175 Series Dual Springs
PAC-R505	1.400	1.090	0.780	N/A	STD 10	15.0	Ti retainer for 1225,1325,1243,1561 Dual Springs
PAC-R506	1.400	1.090	0.695	N/A	STD 10	14.4	Ti retainer for 1226,1326 Dual Springs
PAC-R507	1.475	1.165	0.760	N/A	STD 10	16.5	Ti retainer for 1298, 1299 Dual springs
PAC-R508	1.365	1.040	0.715	N/A	STD 10	12.9	Ti retainer for all 1.050 ID Dual Springs
PAC-R509	1.365	1.040	0.715	N/A	STD 8	12.9	Ti retainer for all 1.050 ID Dual Springs
PAC-R514	1.475	1.140	0.735	N/A	STD 10	14.8	Ti retainer for 1385,1395 Dual springs
PAC-R515	1.475	1.110	0.710	N/A	STD 10	14.4	Ti retainer for 1227,1239,1254,1297,1509, Dual Springs
PAC-R516	1.235	0.880	0.640	N/A	LS (7°)	7.7	Ti retainer for LS Dual Springs, 1221,1521
PAC-R517	1.325	0.990	0.700	N/A	STD 10	11.8	Ti retainer for 1371 Dual Spring
PAC-R519	1.475	1.140	0.735	N/A	STD 8	14.7	Ti retainer for 1385,1395 Dual springs
PAC-R532	1.200	0.890	0.600	N/A	Mini 8	10.2	Ti retainer for 1530,1335 Dual springs
PAC-R536	1.450	1.125	0.800	N/A	STD 10	15.9	Ti retainer for 1245,1289 Dual springs
PAC-R537	1.475	1.140	0.815	N/A	STD 8	15.8	Ti retainer for 1342,1386,1396 Dual springs
PAC-R538	1.475	1.140	0.815	N/A	STD 10	17.3	Ti retainer for 1342,1386,1396 Dual springs
PAC-R539	1.075	0.800	0.575	N/A	7	7.8	Titanium Ford (FMOD) for 1512 spring
PAC-R540	1.400	1.080	0.770	N/A	STD 8	14.1	Ti retainer for 1240,1340,1540 Dual spring
PAC-R541	1.400	1.090	0.695	N/A	STD 8	13.2	Ti retainer for 1226, 1326,Dual Springs
PAC-R544	1.365	1.040	0.715	N/A	Mini 8	14.2	Ti retainer for all 1.050 ID Dual Springs (mini 8 Locks)
PAC-R547	1.450	1.060	0.735	N/A	STD 8	17.0	Ti retainer for 1370 Dual Drag Race Spring
PAC-R550	1.240	0.940	0.685	N/A	Mini 8	11.7	RPM Series Dual Springs (mini 8 Locks)
PAC-R551	1.450	1.110	0.785	N/A	STD 8	16.8	Titanium Retainer for 1244 Dual spring
PAC-R552	1.360	0.985	0.680	N/A	Mini 8	13.1	Titanium Retainer for 1371,1575 Dual spring
PAC-R553	1.440	1.070	0.750	N/A	STD 8	15.8	Titanium Retainer for 1574 Dual spring
PAC-R556	1.440	1.090	0.780	N/A	STD 8	16.3	Ti retainer for 1225,1325,1243,1561 Dual Springs
PAC-R557	1.450	1.120	0.715	N/A	STD 8	15.4	Ti retainer for 1341
PAC-R566	1.550	1.120	0.780	NA	STD 10	Call	Ti retainer for 1369 spring
<b>Triple Spring 500 Series</b>							
PAC-R501	1.475	1.185	0.865	0.635	STD 10	16.6	Titanium Retainer for Triple Drag Race Springs
PAC-R502	1.475	1.185	0.865	0.635	STD 8	16.6	Titanium Retainer for Triple Drag Race Springs
PAC-R503	1.490	1.215	0.865	0.635	STD 10	17.2	Titanium Retainer for 1362,1363,1366 Triple Drag Springs
PAC-R565	1.620	1.215	0.865	0.630	STD 10	21.5	Large OD Retainer for Large Triple Spring- for better edge wear
<b>Solid Stop Retainers</b> <i>These retainers feature a detent at the bottom of the cone to mechanically stop locks from pulling through</i>							
PAC-R520	1.325	1.040	0.715	N/A	10	16.0	Standard Duty for Sportsman Racers
PAC-R521	1.325	1.040	0.715	N/A	8	15.8	Standard Duty for Sportsman Racers
PAC-R522	1.480	1.180	0.865	0.635	10	19.4	Heavy Duty Top for abusive Top Alcohol Engines-Triple
PAC-R523	1.480	1.180	0.865	0.635	8	19.4	Heavy Duty Top for abusive Top Alcohol Engines-Triple
PAC-R524	1.380	1.040	0.715	N/A	10	16.7	Heavy Duty Top for abusive Top Alcohol Engines-Dual
PAC-R525	1.380	1.040	0.715	N/A	8	16.7	Heavy Duty Top for abusive Top Alcohol Engines-Dual
PAC-R526	1.365	1.040	0.715	N/A	TF7	17.8	This is for use in Top Fuel 7 Degree - Dual Spring
PAC-R527	1.480	1.180	0.865	0.630	TF7	21.0	This is for use in Top Fuel 7 Degree - Triple Spring



Ask about Custom and Private Label Retainers

# SPRING RETAINERS

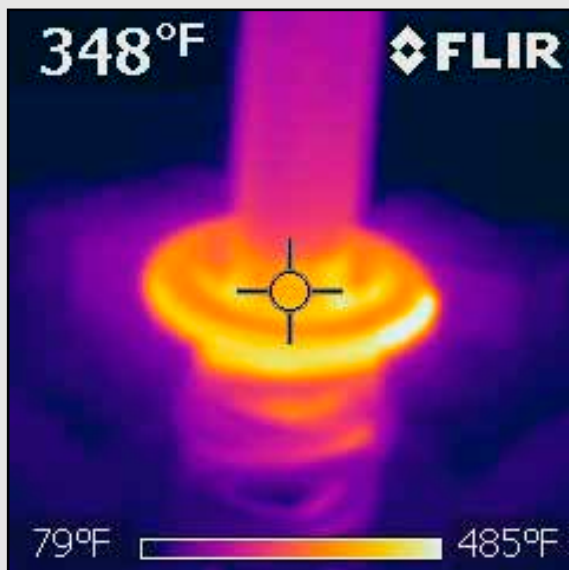
## 600 Series Spring Retainers

PACALOY® BILLET TOOL STEEL RETAINERS – These are the latest developments from PAC Racing Springs. These retainers feature ultra lightweight designs from valve spring type alloys. Sophisticated processing such as micropolishing and Nano Peen™ technology are used to enhance the retainer life. The high hardness of the steel has higher wear resistance properties.

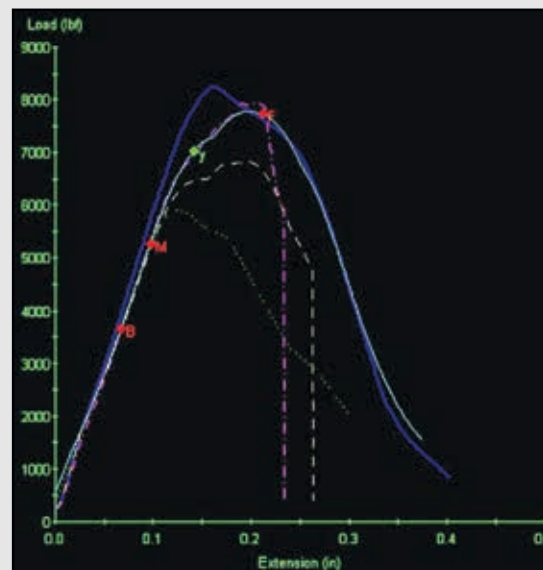
### 600 Series Tool Steel

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 600 Series</b> <i>Some require special spring seats for proper installation</i>							
PAC-R633	0.875	0.640	N/A	N/A	7	6.0	Ultra Light Weight Steel for Super Stock 1409 Spring
PAC-R643	0.950	0.640	N/A	N/A	Mini 8	8.4	Ultra Light Weight Steel for Super Stock 1427 Spring
PAC-R649	1.200	0.775	N/A	N/A	STD 8	14.8	Light Weight Vrsion Steel Retainer for 1200-1201
PAC-R654	1.125	0.715	N/A	N/A	Mini 8	13.0	Ultra Light Weight Steel for PAC-1295, 1295X, 1595 Spring
<b>Dual Spring 600 Series</b> <i>Some require special spring seats for proper installation</i>							
PAC-R606	1.400	1.090	0.695	N/A	STD 10	16.6	Tool Steel retainer for 1226,1326 Dual Springs
PAC-R608	1.350	1.040	0.715	N/A	STD 10	15.7	Tool Steel retainer for all 1.050 ID Dual Springs
PAC-R609	1.350	1.040	0.715	N/A	STD 8	15.9	Tool Steel retainer for all 1.050 ID Dual Springs
PAC-R614	1.450	1.140	0.735	N/A	STD 10	18.8	Tool Steel retainer for 1385,1395 Dual springs
PAC-R615	1.475	1.110	0.710	N/A	STD 10	21.8	Tool Steel retainer for 1227,1239,1254,1297,1509, Duals
PAC-R616	1.235	0.880	0.640	N/A	LS (7°)	12.6	Tool Steel retainer for LS Dual Springs, 1221,1521
PAC-R619	1.450	1.140	0.735	N/A	STD 8	17.8	Tool Steel retainer for 1385,1395 Dual springs
PAC-R632	1.250	0.890	0.600	N/A	mini 8	Call	Tool Steel retainer for 1530,1335 Dual springs
PAC-R635	1.200	0.940	0.685	N/A	LS (7°)	13.4	Light Weight Steel Version of R335 LS RPM Dual Spring
PAC-R641	1.400	1.090	0.695	N/A	STD 8	17.5	Tool Steel retainer for 1226, 1326,Dual Springs
PAC-R644	1.400	1.040	0.715	N/A	mini 8	Call	Mini 8 Tool Steel retainer for all 1.050 ID Dual Springs
PAC-R649	1.200	0.775	N/A	N/A	STD 8	14.8	Tool Steel retainer 1200-1201 spring
PAC-R650	1.250	0.940	0.685	N/A	mini 8	15.9	RPM Series Dual Springs (mini 8 Locks)
PAC-R651	1.450	1.110	0.785	N/A	STD 8	Call	Tool steel retainer for PAC-1244 and 1344 Dual spring
PAC-R655	1.225	0.920	0.650	N/A	LS (7°)	Call	Tool Steel retainer for 1222X spring
PAC-R658	1.450	1.120	0.715	N/A	mini 8	Call	Tool Steel Pro Series Race for 1341 spring (DLC Option)
PAC-R659	1.380	0.990	0.675	N/A	mini 8	21.0	Tool Steel Pro Series Race for 1373 spring (DLC Option)
PAC-R660	1.400	0.990	0.585	N/A	mini 8	Call	Tool Steel Pro Drag Race for 1376 spring (DLC Option)
PAC-R661	1.430	1.095	0.695	N/A	mini 8	22.0	Tool Steel Pro Series for 1326 spring (DLC Option)
<b>Triple Spring 600 Series</b> <i>Some require special spring seats for proper installation</i>							
PAC-R601	1.450	1.185	0.865	0.635	10	19.1	Tool Steel Retainer for Triple Drag Race Springs
PAC-R602	1.440	1.185	0.865	0.635	8	19.3	Tool Steel Retainer for Triple Drag Race Springs

## RETAINER TECHNOLOGY RESEARCH & DEVELOPMENT



Infrared camera used for DLC testing



Pull testing retainers chart

## 700 Series Spring Retainers

### PREMIUM COMPONENTS FOR "R" Series Valve Springs

700 Series Steel Retainers are made from "Space Plane" alloy. This alloy is used on the most sophisticated defense air craft, which demonstrates its toughness. This alloy was previously unavailable to the public.

PAC Racing Combines this extra premium alloy with vacuum hardening processing, cryogenics, and our nano peening to add strength and maximize weight savings.

"X" Series Spring Seats Are Made from an extremely tough "tool steel" material that is harder and more robust than traditional 4140 or 8620 chrome moly steel. With nearly 20% improvement in hardness and 40% in strength use these as the absolute extreme in spring seats to reduce wear and breakage.

700 Series Retainers	Fits Spring PN	OD Dim "A"	ID of Outer Spring Dim "B"	ID of Inner Spring Dim "C"	Inner Step Thickness	Lock Angle	Weight (Grams)	Pull Thru Load	Matching Seats	Matching Step Seats
PAC-R761	PAC-1326R	1.480	1.090	0.695	0.060	Mini 8	Call	Call	PAC-S105X PAC-S106X	PAC-S139X
PAC-R758	PAC-1341R	1.480	1.115	0.710	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R759	PAC-1373R	1.360	0.990	0.675	0.060	Mini 8	18.9	Call	PAC-S137X PAC-S140X	
PAC-R767	PAC-1387R	1.480	1.140	0.735	0.060	Mini 8	Call	Call	PAC-S117X PAC-S118X	PAC-S124X
PAC-R768	PAC-1374R	1.450	1.075	0.750	0.060	Mini 8	Call	Call	PAC-S117X PAC-S118X	PAC-S124X
PAC-R769	PAC-1375R	1.360	0.985	0.690	0.060	Mini 8	Call	Call	PAC-S114X PAC-S115X	
PAC-R770	PAC-1389R	1.360	1.040	0.745	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R771	PAC-1390R	1.360	1.040	0.745	0.060	Mini 8	Call	Call	PAC-S110X PAC-S127X***	PAC-S122X
PAC-R772	PAC-1391R	1.380	1.090	0.685	0.060	Mini 8	Call	Call	PAC-S105X PAC-S106X	

# VALVE LOCKS

## LASH CAP RECESS LOCKS

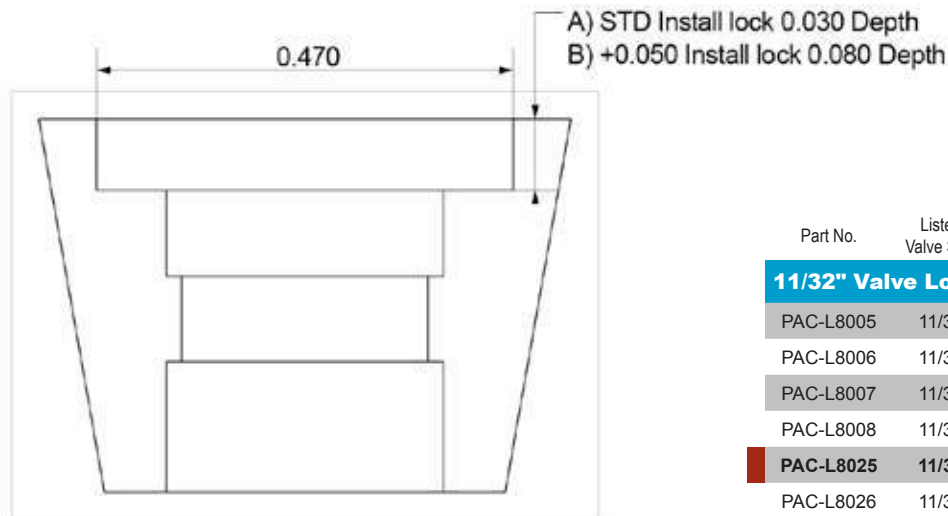
We have added several lock part numbers that feature a machined recess for lash caps. The available locks with these feature are highlighted blue.

TO ORDER USE:

**PAC-LR xxxx** instead of the standard Part Number **PAC-Lxxxx**

Reference:

- LR = Lash Recess
- L= STD Lock no Recess
- STD installed height has recess of 0.030
- +0.050 installed height has recess of 0.080 depth



Part No.	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
<b>3/8" Valve Locks</b>						
PAC-L8090	3/8	STD 10	10°	Square	STD	Titanium
PAC-L8091	3/8	STD 10	10°	Square	+0.050	Titanium
PAC-L8092	3/8	STD 10	10°	Square	STD	Steel
PAC-L8093	3/8	STD 10	10°	Square	+0.050	Steel
PAC-L8094	3/8	STD 8	8°	Square	STD	Titanium
PAC-L8095	3/8	STD 8	8°	Square	+0.050	Titanium
PAC-L8096	3/8	STD 8	8°	Square	STD	Steel
PAC-L8097	3/8	STD 8	8°	Square	+0.050	Steel
PAC-L8127	3/8	Mini 8	8°	Square	STD	Steel
PAC-L8128	3/8	Mini 8	8°	Square	+0.050	Steel

Part No.	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
<b>11/32" Valve Locks</b>						
PAC-L8005	11/32	STD 10	10°	Square	0.000	Titanium
PAC-L8006	11/32	STD 10	10°	Radius	0.000	Titanium
PAC-L8007	11/32	STD 10	10°	Square	+0.050	Titanium
PAC-L8008	11/32	STD 10	10°	Radius	+0.050	Titanium
<b>PAC-L8025</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>0.000</b>	<b>Steel</b>
PAC-L8026	11/32	STD 10	10°	Radius	0.000	Steel
<b>PAC-L8027</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>+0.050</b>	<b>Steel</b>
<b>PAC-L8028</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>+0.050</b>	<b>Steel</b>
PAC-L8015	11/32	STD 8	8°	Square	0.000	Titanium
PAC-L8016	11/32	STD 8	8°	Radius	0.000	Titanium
PAC-L8017	11/32	STD 8	8°	Square	+0.050	Titanium
PAC-L8018	11/32	STD 8	8°	Radius	+0.050	Titanium
PAC-L8119	11/32	Mini 8	8°	Radius	STD	Titanium
PAC-L8121	11/32	Mini 8	8°	Square	STD	Titanium
PAC-L8035	11/32	STD 8	8°	Square	0.000	Steel
PAC-L8036	11/32	STD 8	8°	Radius	0.000	Steel
PAC-L8037	11/32	STD 8	8°	Square	+0.050	Steel
PAC-L8038	11/32	STD 8	8°	Radius	+0.050	Steel
PAC-L8131	11/32	Mini 8	8°	Radius	STD	Steel
PAC-L8132	11/32	Mini 8	8°	Radius	+0.050	Steel
PAC-L8133	11/32	Mini 8	8°	Square	STD	Steel
PAC-L8134	11/32	Mini 8	8°	Square	+0.050	Steel
PAC-L8146	11/32	STD 7°	7°	Square	STD	Steel
PAC-L8147	11/32	STD 7°	7°	Square	+0.050	Steel
PAC-L8154	11/32	STD 7°	7°	Radius	STD	Steel
PAC-L8155	11/32	STD 7°	7°	Radius	+0.050	Steel

**AVAILABLE IN LASH CAP RECESS USE P/N PAC-LRxxxx**

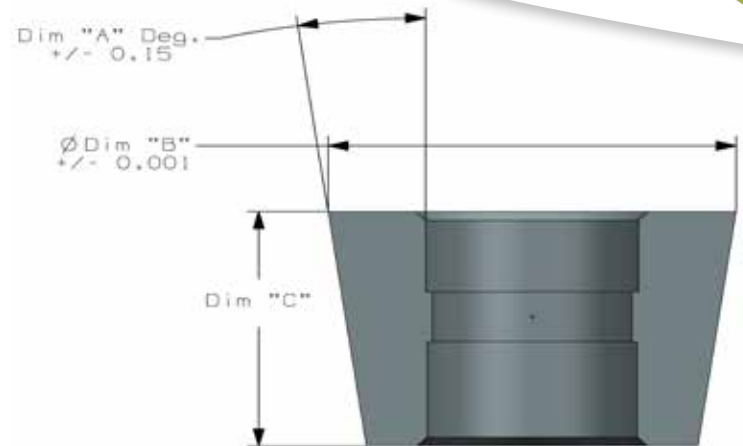
Part No.	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
<b>5/16" Valve Locks</b>						
PAC-L8045	5/16	STD 10	10°	Square	0.000	Titanium
PAC-L8046	5/16	STD 10	10°	Radius	0.000	Titanium
PAC-L8047	5/16	STD 10	10°	Square	+0.050	Titanium
PAC-L8048	5/16	STD 10	10°	Radius	+0.050	Titanium
<b>PAC-L8064</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>0.000</b>	<b>Steel</b>
<b>PAC-L8065</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>0.000</b>	<b>Steel</b>
<b>PAC-L8066</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>+0.050</b>	<b>Steel</b>
<b>PAC-L8067</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>+0.050</b>	<b>Steel</b>
PAC-L8055	5/16	STD 8	8°	Square	0.000	Titanium
PAC-L8056	5/16	STD 8	8°	Radius	0.000	Titanium
PAC-L8057	5/16	STD 8	8°	Square	+0.050	Titanium
PAC-L8058	5/16	STD 8	8°	Radius	+0.050	Titanium
PAC-L8123	5/16	Mini 8	8°	Radius	STD	Titanium
PAC-L8124	5/16	Mini 8	8°	Radius (+)	0.050	Titanium
PAC-L8125	5/16	Mini 8	8°	Square	STD	Titanium
PAC-L8073	5/16	STD 8	8°	Square	0.000	Steel
PAC-L8074	5/16	STD 8	8°	Radius	0.000	Steel
PAC-L8075	5/16	STD 8	8°	Square	+0.050	Steel
PAC-L8076	5/16	STD 8	8°	Radius	+0.050	Steel
PAC-L8135	5/16	Mini 8	8°	Radius	STD	Steel
PAC-L8136	5/16	Mini 8	8°	Radius	+0.050	Steel
PAC-L8137	5/16	Mini 8	8°	Square	STD	Steel
PAC-L8138	5/16	Mini 8	8°	Square	+0.050	Steel
PAC-L8148	5/16	STD 7°	7°	Square	STD	Steel
PAC-L8149	5/16	STD 7°	7°	Square	+0.050	Steel
PAC-L8150	5/16	STD 7°	7°	Radius	STD	Steel
PAC-L8151	5/16	STD 7°	7°	Radius	+0.050	Steel

<b>7mm Valve Locks</b>						
PAC-L8078	7 mm	STD 10	10°	Radius	STD	Titanium
PAC-L8079	7mm	STD 10	10°	Radius	+0.050	Titanium
PAC-L8080	7mm	STD 10	10°	Radius	STD	Steel
PAC-L8081	7mm	STD 10	10°	Radius	+0.050	Steel
PAC-L8082	7mm	STD 8	8°	Radius	STD	Titanium
PAC-L8083	7mm	STD 8	8°	Radius	+0.050	Titanium
PAC-L8084	7mm	STD 8	8°	Radius	STD	Steel
PAC-L8085	7mm	STD 8	8°	Radius	+0.050	Steel
PAC-L8129	7mm	Mini 8	8°	Radius	STD	Titanium
PAC-L8130	7mm	Mini 8	8°	Radius	+0.050	Titanium
PAC-L8086	7mm	FMOD 7	7°	Triple Radius	STD	Steel OE
PAC-L8087	7mm	FMOD 7	7°	Radius	STD	Steel

## LS ENGINE VALVE LOCKS

Part No.	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
PAC-L8117	8mm	Mini 8	8°	Radius	STD	Titanium
PAC-L8118	8mm	Mini 8	8°	Radius	+0.050	Titanium
PAC-L8141	8mm	Mini 8	8°	Radius	STD	Steel
PAC-L8142	8mm	Mini 8	8°	Radius	+0.050	Steel
PAC-L8113	8mm	LS-1	7°	Radius	STD	Steel
PAC-L8114	8mm	LS-1	7°	Radius	+0.050	Steel
PAC-L8116	8mm	LS-1	7°	Radius	-0.050	Steel
PAC-L8152	8mm	STD 7	7°	Radius	STD	Steel
PAC-L8153	8mm	STD 7	7°	Radius	+0.050	Steel
PAC-L8159	8mm	STD 10	10°	Radius	STD	Steel
PAC-L8160	8mm	STD 10	10°	Radius	+0.050	Steel
PAC-L8161	5/16	LS-1	7°	Radius	STD	Steel

AVAILABLE IN LASH CAP RECESS USE P/N PAC-LRxxxx



### VALVE LOCK STANDARDS

Lock Type	Dim. A (Angle)	Dim. B (Cone Top)	Dim. C (Lock Height)
STD 10	10.00°	0.6100	0.400
STD 8	8.00°	0.6000	0.400
Mini 8	8.00°	0.5200	0.380
LS-1	7.00°	0.4700	0.300
STD 7°	7.00°	0.4950	0.360

## PAC-T950 LOCK AND RETAINER CONE IDENTIFICATION TOOL KIT

PAC Racing Springs has developed this tool for Racers and Engine builders to correctly identify lock angles and correct cones for the various locks and retainers. This tool has a combined lock standards guide and assorted lock standards to alleviate choosing the wrong locks with matching retainers.

This tool simply works by choosing the lock standard cone (laser marked and identified) and placing it on the easy to grip handle and inserting into current or new retainers. Use this tool if you don't know what angle you need and alleviate lost part number headaches. This information will help identify the correct parts and allow

PAC Racing Associates to get you the correct parts

### The PAC-T950 Kit comes with the following parts:

- PAC-T951 Aluminum Knurled Anodized Handle
- PAC-T953 STD 7 Degree Street Lock Cone (LT-1)
- PAC-T954 STD 8 Degree Cone (Also known as Super 7)
- PAC-T955 Mini 8 Degree Cone (Top Lock Design)
- PAC-T956 STD 10 Degree Cone
- PAC-T958 LS Based 7 degree Cone
- PAC-T959 Top Fuel 7 degree Cone

Bolts to use with the handle

Allen Wrench to secure lock standards to handle

# LASH CAPS

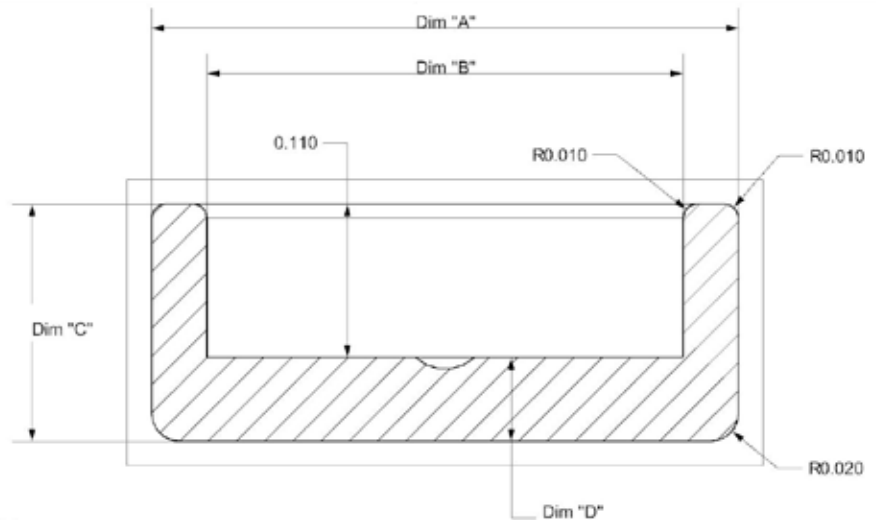
## PAC RACING HAS EXPANDED ITS PRODUCT OFFERING TO INCLUDE LASH CAPS!

We offer two grades of materials that meet and exceed your expectations and budget. Both series of lash caps feature precise machining and finishing.

Premium grade steel is a complete hardened 8620 grade steel that comes with a black oxide coating

Super high strength steel is a proprietary alloy that will withstand extreme abuse.

**IF YOU DON'T SEE WHAT YOU'RE LOOKING FOR CONTACT US AND WE WILL BUILD IT FOR YOU!**



Part Number	Diameters (in.)				Stem Size
	Diameter A	Diameter B	Dim "C"	Dim "D"	
<b>Premium Steel</b>					
PAC-LC1001	0.386	0.2755-0.2765	0.170	0.060	7mm
PAC-LC1002	0.386	0.3097-0.3107	0.170	0.060	Small 5/16
PAC-LC1003	0.386	0.3097-0.3107	0.180	0.070	Small 5/16
PAC-LC1004	0.386	0.3097-0.3107	0.190	0.080	Small 5/16
PAC-LC1005	0.386	0.3107-0.3117	0.170	0.060	Mild Fit 5/16
PAC-LC1006	0.386	0.3107-0.3117	0.180	0.070	Mild Fit 5/16
PAC-LC1007	0.386	0.3107-0.3117	0.190	0.080	Mild Fit 5/16
PAC-LC1008	0.386	0.3117-0.3127	0.170	0.060	True 5/16
PAC-LC1009	0.386	0.3117-0.3127	0.180	0.070	True 5/16
PAC-LC1010	0.386	0.3117-0.3127	0.190	0.080	True 5/16
PAC-LC1011	0.420	0.3407-0.3417	0.170	0.060	11/32
PAC-LC1012	0.420	0.3407-0.3417	0.180	0.070	11/32
PAC-LC1013	0.420	0.3407-0.3417	0.190	0.080	11/32
<b>Super High Strength Steel</b>					
PAC-LC2001	0.386	0.2755-0.2760	0.170	0.060	7mm
PAC-LC2002	0.386	0.3097-0.3103	0.170	0.060	Small 5/16
PAC-LC2003	0.386	0.3097-0.3103	0.180	0.070	Small 5/16
PAC-LC2004	0.386	0.3097-0.3103	0.190	0.080	Small 5/16
PAC-LC2005	0.386	0.3107-0.3113	0.170	0.060	Mild Fit 5/16
PAC-LC2006	0.386	0.3107-0.3113	0.180	0.070	Mild Fit 5/16
PAC-LC2007	0.386	0.3107-0.3113	0.190	0.080	Mild Fit 5/16
PAC-LC2008	0.386	0.3117-0.3123	0.170	0.060	True 5/16
PAC-LC2009	0.386	0.3117-0.3123	0.180	0.070	True 5/16
PAC-LC2010	0.386	0.3117-0.3123	0.190	0.080	True 5/16
PAC-LC2011	0.420	0.3407-0.3413	0.170	0.060	11/32
PAC-LC2012	0.420	0.3407-0.3413	0.180	0.070	11/32
PAC-LC2013	0.420	0.3407-0.3413	0.190	0.080	11/32



# SPRING CUPS, SEATS, AND SHIMS

## CHROME MOLY SPRING CUPS

(0.060 THICKNESS)

Part No.	Diameters (in.)		
	Diameter A (OD)	Diameter B (Spring ID)	Diameter C (ID)
PAC-C201	1.570	1.475	0.640
PAC-C202	1.625	1.525	0.640
PAC-C203	1.670	1.550	0.640
PAC-C204	1.670	1.575	0.640
PAC-C205	1.740	1.650	0.640
PAC-C206	1.740	1.675	0.640
PAC-C207	1.780	1.695	0.640
PAC-C208	1.825	1.725	0.640
PAC-C209	1.740	1.650	0.570
PAC-C210	1.740	1.675	0.570
PAC-C211	1.780	1.695	0.570
PAC-C212	1.825	1.725	0.570
PAC-C213X	1.550	1.475	0.570

Tool Steel Cups also available, to order add a "-X" to the Chrome Moly Cup number.

## CHROME MOLY SPRING SEATS

(0.060 THICKNESS)

Part No.	Diameters (in.)			Dim "E" Thickness
	Diameter A (OD)	Diameter B (Spring ID)	Diameter C (ID)	
PAC-S101	1.550	0.855	0.575	0.060
PAC-S102	1.550	0.855	0.635	0.060
PAC-S103	1.550	0.770	0.575	0.060
PAC-S104	1.550	0.770	0.635	0.060
PAC-S105	1.550	0.700	0.575	0.060
PAC-S106	1.550	0.700	0.635	0.060
PAC-S107	1.625	0.760	0.635	0.060
PAC-S108	1.625	0.760	0.575	0.060
PAC-S109	1.650	0.630	0.570	0.060
PAC-S110	1.500	0.715	0.570	0.060
PAC-S111	1.270	0.870	0.570	0.060
PAC-S112	1.450	0.980	0.570	0.060
PAC-S113	1.450	0.980	0.630	0.060
PAC-S114	1.450	0.700	0.570	0.060
PAC-S115	1.450	0.700	0.630	0.060
PAC-S116	1.550	1.120	0.630	0.060
PAC-S117	1.550	0.730	0.575	0.060
PAC-S118	1.550	0.730	0.630	0.060
PAC-S119	1.550	0.800	0.575	0.060
PAC-S120	1.550	0.800	0.630	0.060
PAC-S121	1.270	0.640	0.520	0.060
PAC-S126	1.500	0.715	0.630	0.060
PAC-S127	1.500	0.715	0.630**	0.030
PAC-S128	1.270	0.600	0.520	0.060
PAC-S129	1.270	0.680	0.520	0.060
PAC-S130	1.550	0.820	0.575	0.060
PAC-S131	1.550	0.820	0.630	0.060
PAC-S132	1.100	0.580	0.510**	0.030
PAC-S133	1.650	0.630	0.570**	0.030
PAC-S134	1.500	0.715	0.570**	0.030
PAC-S135	1.270	0.680	0.570	0.060
PAC-S136	1.270	0.680	0.510**	0.030
PAC-S137X	1.400	0.685	0.570	0.030
PAC-S138	1.270	0.615	0.575	0.060
PAC-S140X	1.400	0.685	0.570	0.060

AVAILABLE IN TOOL STEEL!

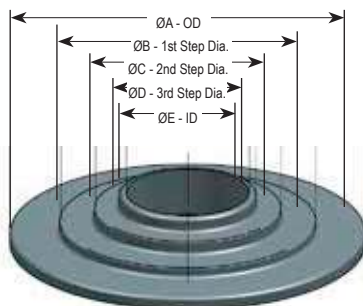
\*\* 0.030 thick seats. These are a great way to get more installed height.

Tool Steel Seats also available, to order add a "-X" to the Chrome Moly Seat Part number.

## STEP SEATS For Use w/600 Series Retainers

Part No.	Diameters (in.)				
	Diameter A (OD)	Diameter B (1st Step Dia.)	Diameter C (2nd Step Dia.)	Diameter D (3rd Step Dia.)	Diameter E (ID)
PAC-S122	1.500	1.040	0.715	N/A	0.570
PAC-S123	1.650	1.185	0.865	0.635	0.570
PAC-S124	1.550	1.140	0.730	N/A	0.570
PAC-S125	1.270	0.880	0.640	N/A	0.520
PAC-S139X	1.500	1.100	0.710	N/A	0.570

Note: PAC-S122, PAC-S124, and PAC-S125 have only (2) steps.



Step Seat

## SPRING SHIMS

Hardened spring shims are critical to achieving the correct spring installed height. PAC has several sizes to choose to set it correctly.

Part No.	Outside Diameter (in)	Inside Diameter (in)	Thickness (in)
PAC-S181	1.040	0.615	0.015
PAC-S182	1.040	0.615	0.020
PAC-S183	1.040	0.615	0.030
PAC-S184	1.500	0.570	0.050
PAC-S185	1.500	0.570	0.030
PAC-S186	1.500	0.570	0.020
PAC-S187	1.500	0.570	0.015
PAC-S188	1.250	0.570	0.050
PAC-S189	1.250	0.570	0.030
PAC-S190	1.250	0.570	0.020
PAC-S191	1.250	0.570	0.015
PAC-S192	1.500	0.645	0.050
PAC-S193	1.500	0.645	0.030
PAC-S194	1.500	0.645	0.020
PAC-S195	1.500	0.645	0.015
PAC-S196	1.620	0.645	0.050
PAC-S197	1.620	0.645	0.030
PAC-S198	1.620	0.645	0.020
PAC-S199	1.620	0.645	0.015

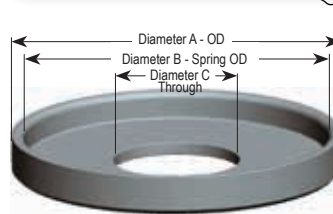
## X SERIES TOOL STEEL

HOW TO ORDER:

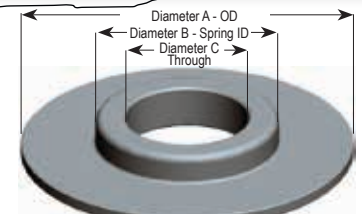
PAC — S103 — X

→ Adds tool steel option

→ Chrome Moly Standard Seats



Chrome Moly Spring Cup



Chrome Moly Spring Seat

The following kits contain 16 pcs each of 0.015, 0.020, 0.030 and 0.050 thick shims for precise adjustment of the spring installed height.

Part No.	Description	ID
PAC-KS91	1.620 Dia shim kit -(64 pcs total)	0.645
PAC-KS92	1.500 Dia shim kit -(64 pcs total)	0.645
PAC-KS93	1.250 Dia shim kit -(64 pcs total)	0.570
PAC-KS94	1.500 Dia shim kit -(64 pcs total)	0.570

# VALVETRAIN TOOLS

## DIGITAL GRAM SCALE

This small, inexpensive scale is extremely useful for weighing springs, retainers, locks or any of your valvetrain components. This scale is used regularly by PAC engineers.

- 1000 gram capacity
- Easy one-button calibration
- Stainless steel platform
- Backlit LCD display
- Powered by 2 AAA batteries (included)
- Auto-off timeout feature to save battery life



**PAC-T940**

## CHECKING SPRINGS

### PAC-T910

These lightweight springs are used for valvetrain mock-up 0.860 OD x 3.0 long.



These springs are easily compressed by hand for ease of valvetrain setup and checking.

## CALIBRATION SPRINGS



### PAC-T900

Specially designed springs for calibrating spring testers.

These springs come complete with data sheets showing various loads at heights to check the accuracy of spring testers.

## SPRING INSTALLED HEIGHT GAGE

- Stainless steel construction for extremely long life
- Non-magnetic to avoid pulling shims when using
- Increased accuracy and precision with finer pitch threads
- Several models to choose from



**PAC-T902**

**PAC-T901**

**PAC-T903**

**PAC-T904**

Part Number	Height Range	ID	Per Turn	Use	Color
PAC-T901	1.400 to 2.000	0.760	0.050	Beehive springs	Blue
PAC-T902	1.800 to 2.500	1.200	0.050	Pro Series & Drag Race	Red
PAC-T903	1.400 to 1.900	1.200	0.050	Engine Builders	Orange
PAC-T904	1.400 to 2.000	0.975	0.050	LS Dual Springs	Purple



## SPRING CHAMFER TOOL

### PAC-T920

Shank Diameter 3/8"  
 Outside Diameter 1.750"  
 Chamfer 100-200 springs before needing to be coated again.



## TAPE MEASURE

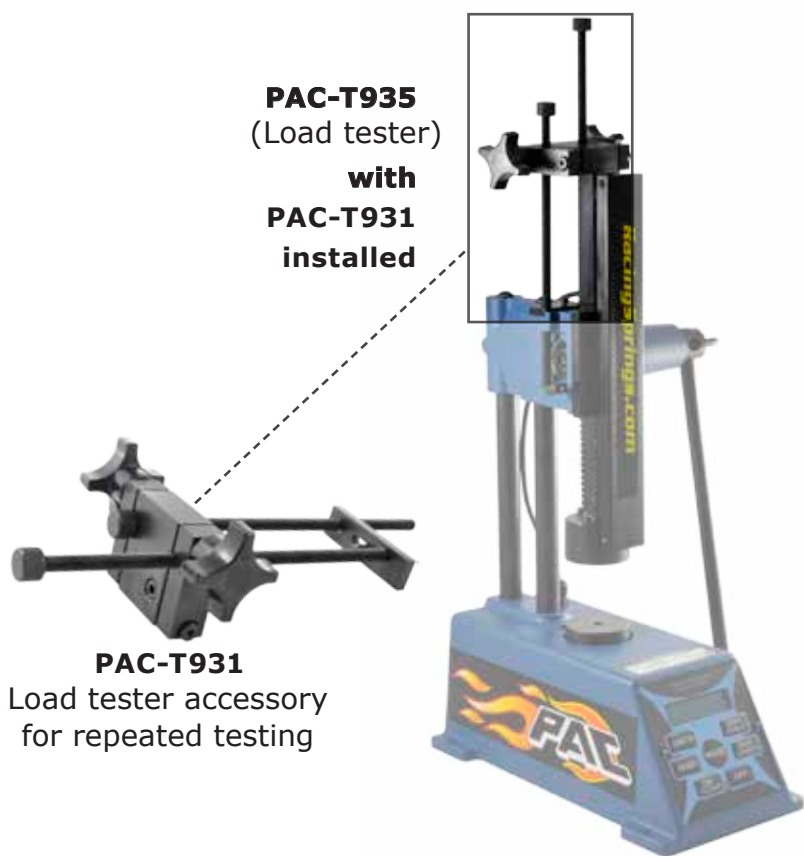
### PAC-T941

# SPRING TESTING EQUIPMENT

Our testers offer a full functioning digital load test capability. They utilize an electronic force transducer rather than an un-reliable spring scale, which changes with temperature. They have a two line backlit LCD display of force and length. Also included is a base deflection compensation module for accurate NIST capable readings. These units have rugged cast aluminum base and steel frame for mounting to any work bench. Height measurement uses a well engineered, hand operated rack and pinion mechanism, that allowing for ease of deflection measurement. Machines also come with the ability to lock the spring at a set height and mechanical overrides to prevent overload damage.

- Compression testing of force and length
- Tracking or peak modes (2,000 samples / sec)
- Load cell and frame deflection compensation
- Mechanical and software overload protection
- Built-in shunt calibration verification
- Digital calibration and linearization
- Standard 5" range
- Standard 5" stroke
- 2" Ø platform
- Up to 0.001" length resolution
- NIST traceable calibration
- Backlit digital LED display of force and length
- Wipe-clean embossed key faceplate
- Push-button force and length zeroing

Part No.	Load Capacity
PAC-T930	750
PAC-T935	1,500
PAC-T931	Accessory for use with both load testers. Use this for repeated testing and batch sorting multiple springs.
PAC-T936	Use this to accurately check and constantly measure solid heights and bind heights.



**PAC-T935**  
(Load tester)  
**with**  
**PAC-T931**  
**installed**

**PAC-T931**  
Load tester accessory  
for repeated testing



**PAC-T936**  
Solid height  
checker

# THROTTLE ACCESSORIES

## THROTTLE SPRINGS

Part Number	Free Length	Tension
PAC-3001	2.500	Light
PAC-3002	2.500	Medium
PAC-3003	2.500	Heavy
PAC-3004	3.750	Light
PAC-3005	3.750	Medium
PAC-3006	3.750	Heavy
PAC-3007	5.000	Light
PAC-3008	5.000	Medium



PAC throttle springs are designed and produced with extreme emphasis on safety. The ends of the springs are designed with larger radii so that stresses remain low and any danger of a broken spring is virtually eliminated. Don't trust a cheap hardware store spring when safety is concerned! PAC Racing Springs offer a variety of springs that are sure to fit any application.



Showroom kits for display!  
Point of sale for Hotrod Shops

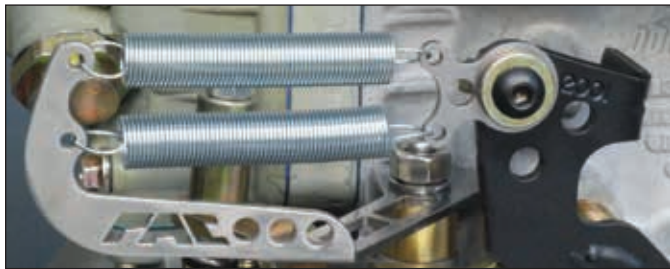


PAC-TK01

# THROTTLE ACCESSORIES

## THROTTLE SPRING BRACKETS

Billet Throttle Brackets now available with springs and hardware for use in multiple applications. Use these Billet Aluminum throttle brackets with black anodize and all the hardware to bolt these up to your carb. These are some of the nicest brackets we have seen and come paired with performance throttle springs to keep your foot under enough control. While they might not add Horsepower they sure do bring awesomeness to under your hood.



PAC-TK01



PAC-TK07

PAC-TK11

Part Number	Carb Type Series	Cable Type	Color
PAC-TK01	4500	Steel construction	Chrome
PAC-TK02	4500	GM Cable	Black
PAC-TK03	4500	Lokar Cable	Black
PAC-TK04	4500	Morse Cable	Black
PAC-TK05	4500	Ford Cable	Black
PAC-TK06	4500	Mopar Cable	Black
PAC-TK07	4500	Bracket and Throttle return	Black
PAC-TK08	Edelbrock	GM Cable	Black
PAC-TK09	Edelbrock	Lokar Cable	Black
PAC-TK10	Edelbrock	Morse Cable	Black
PAC-TK11	Edelbrock	Ford Cable	Black
PAC-TK12	Edelbrock	Mopar Cable	Black
PAC-TK13	4150 and Edelbrock	Bracket and Throttle return	Black

# PAC RACING SPRINGS CUSTOM SPRINGS

There are many springs available from our listings catalog and many HP cam and valve companies. However, with the multitude of engines that are available and the different valvetrain configurations possible, it becomes very difficult to find the correct spring. PAC racing springs custom design and manufacturing services can produce a proprietary spring tailored specifically for your application.



PAC Racing spring is not limited to just valve springs. We have produced many HP racing clutch, throttle, oil pump and suspension springs. PAC is a leader in piston pin retaining ring production.

PAC Racing Springs has a wide range of capabilities through our connection to the automotive OEM market. We offer springs with wire diameters from 0.008 to 1.250 inches. Spring diameters can range from 0.024 to 18 inches with free lengths up to 8 feet long. Numerous processing methods and variations of peening, heat treating, nitriding and finishing work make PAC the leader in custom springs.

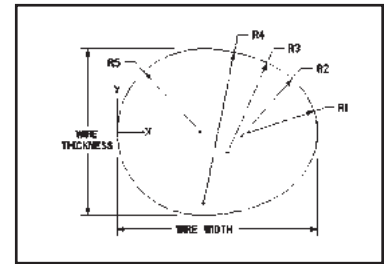
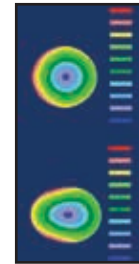


## SPRING WIRE



PAC Racing Springs has many material options for wire chemistry and shape. We utilize all of the latest grades from Kobe steel in both round wire and multi-arc (ovate) sections.

PAC has many standard ovate sections readily available and custom sections can be produced from FEA analyzed sections.



Ovate wire analysis

## SPRING DESIGN

There is a vast number of ways to produce springs with characteristics that improve engine performance. The best way to start is with the custom design form or call PAC Racing Springs. Engineers at PAC will review the data and design unique and exact solutions for your spring requirements.

## OPTIONS...OPTIONS...OPTIONS...

There are many options that PAC Racing can provide for custom springs beyond the design and wire:

**Processing:** The manufacturing process is designed to match with the life, stress and cost compromises.

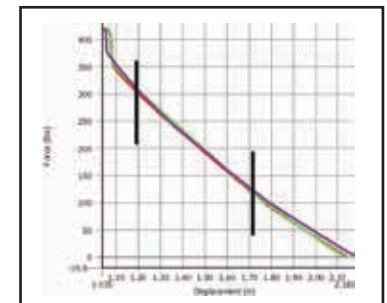
**Finishing:** PAC has numerous finishing options such as polishing, Nano Peening® and identification.

**Packaging:** Many packaging options from individual to bulk and engine sets.

**Details:**

- ID / OD chamfering
- Tip conditioning
- Tolerances – Coil bind height, loads, diameters, etc.
- Documentation for wire, spring and assembly characteristics

**Spring Loads:** The loads of the springs can be tailored to specific applications high load versions (-H) and low load versions (-L) are available for various PN's. Call PAC for more details.



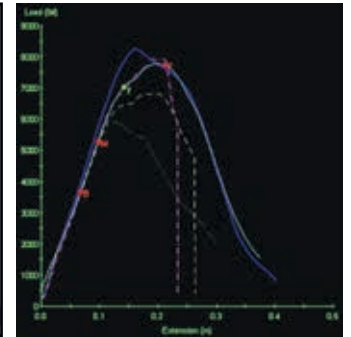
Load Testing



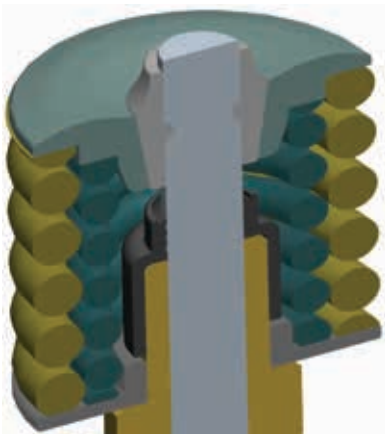
# TECHNICAL INFORMATION PAC RACING SPRINGS

## INSTALLED HEIGHT

With high rate springs that are used in today's engines, the installed height accuracy is more critical than ever. For example, a 0.015 difference in height on a 800 lb/in rate spring will have 12 lbs. of spring force variation. Measuring and setting the height to within 0.005 inches with PAC gages and shims will insure a smoother running valvetrain.

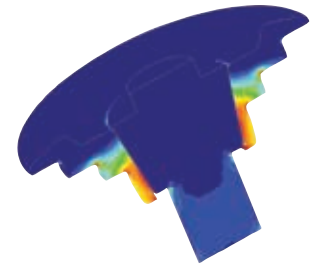


Retainer pull-through testing



## COIL BIND CALCULATION EXAMPLE

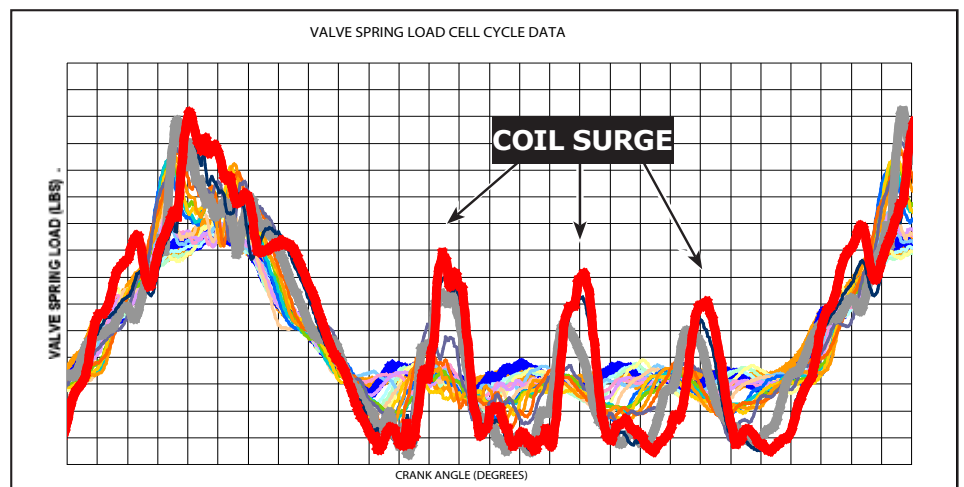
Installed height	1.950
Valve Lift (minus lash)	-0.785
Spring Coil Bind Height	<u>-1.105</u>
CLEARANCE	0.060



FEA analysis

## COIL BIND CLEARANCE

This number is a valvetrain tuning parameter. Higher-revving engines generally run closer to bind to reduce valve spring surging. The close running of the spring coils to each other will inherently reduce the spring surging. The chart below illustrates the spring load from a load cell under the spring. The large fluctuations of load are from coil surging. This can reach very high loads and go to zero in the worst case. Valvetrain damage will result. This clearance relies heavily on the quality of valvetrain parts, measurement equipment and engine builder skill to be able to run close tolerances without going past bind.



## SPRING DESIGN

Racing valve spring design is extremely complicated when the harmonics of high-speed valvetrain operations are applied. PAC has various valvetrain software analysis packages developed in-house to optimize the spring to suit high-speed operation.

One of the most successful methods is our Rapid Prototype Development (RPD) process of utilizing our in-house Spintron® with our coiling machines to produce a spring that provides superior dynamic valvetrain stability with actual on-engine hardware. This can be validated with high-speed video (see website for samples), load cells and other instrumentation.

## TESTING...TESTING...TESTING...

PAC Racing Springs has the most elaborate testing facility complete with a full metallurgical lab. Capabilities include electron microscope, XRD, metallography, tensile testing, fatigue, RBF, EDAX, impact as well as various forms of fatigue testing are used.



S.E.M.



Tensile Tester



XRD Tester

## PAC APPAREL

Show off your favorite spring makers with our exclusive PAC Racing wearables! We have T-shirts, long sleeved Tees, sweatshirts, hoodies and hats available in many sizes. Contact us for large apparel orders or custom screenprinting & embroidery questions. High quality, heavyweight cotton blends.



PAC T-Shirts & Long Sleeved Tees  
Sizes S-3X



PAC Flat Bill Hats PAC Structured Hats



PAC Women's T-Shirts  
Sizes S-3X



Special Edition  
Limited Supply



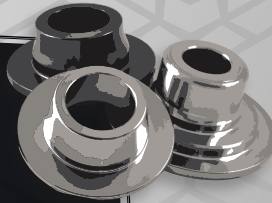
PAC Beanie  
One-size



# Manufacturers of:

## VALVE TRAIN COMPONENTS

- Titanium Retainers
- Pacaloy® Steel Retainers
- Titanium & Steel Locks
- Spring Cups & Locators
- Custom Applications



## VALVE SPRINGS

- Drag Race
- Circle Track
- Marine
- Endurance
- Street & Strip
- RPM Beehives
- Custom Applications & Vintage



## SHOCKS

- Complete line-up for all markets
- Full Suspension system approach
- Made In the USA
- Un-Paralleled performance



## SUSPENSION SPRINGS

- Off-Road
- Drag Race
- Circle Track
- Coil Over Shock Springs
- Road Magnet Series - Lowering



## TOOLS & ENGINEERING

- Assembly Tools
- Fully Accredited Metallurgic Lab
- SpinTron® Engine Testing
- Rapid Prototype Capability
- Retail Kits & Specialized Packaging



## SWAY BARS

- Steel
- Titanium
- Link Arms
  - Aluminum
  - Steel
  - Fabricated
- Custom Designs



PAC Racing Springs are proudly made in the U.S.A.

PAC Racing Springs

 **PETERSON SPRING**  
MANUFACTURERS OF ENGINEERED METAL PRODUCTS

**PAC**



# **PAC**

## ***Master Suspension Catalog***

**Suspension Springs  
Sway Bars  
Shocks  
Rod Ends**



**OFFROAD**



**DRAG RACE**



**CIRCLE TRACK**



**HOT ROD &  
STREET CAR**



**POWER SPORTS**

***RacingSprings.com***

Proudly made in the U.S.A



# About PAC Racing



## ABOUT PAC

PAC Racing Springs, based in Detroit, MI, is the Racing and Aftermarket Division of the Peterson Spring Company. With more than 10 divisions around the world, Peterson Spring is the largest privately held, family owned Spring Company in the USA. With more than 100 years of operation, Peterson Spring proudly manufactures all the Racing and Aftermarket components in Detroit, Michigan.



## SERVICE COMMITMENT

We understand the demands of racing and provide a commitment to all of our customers to provide the best service possible. We continue to expand products, and offer expanded onsite technical services at various racing events. We believe these interactions allow us to provide the latest product advancements and respond to additional future requirements. Because we are the manufacturer we are able to design, build, and supply parts within days if needed.

## CUSTOM PRODUCTS

We believe in providing custom products for every product line. This philosophy is a premium choice to allow our customers an enhanced product or something unique to the application. Additional Private Label programs are available to many companies looking for their own brand identity and are typically for larger volume applications. We honor proprietary agreements and are dedicated to providing any aftermarket company a superior American made product at sustainable market pricing.

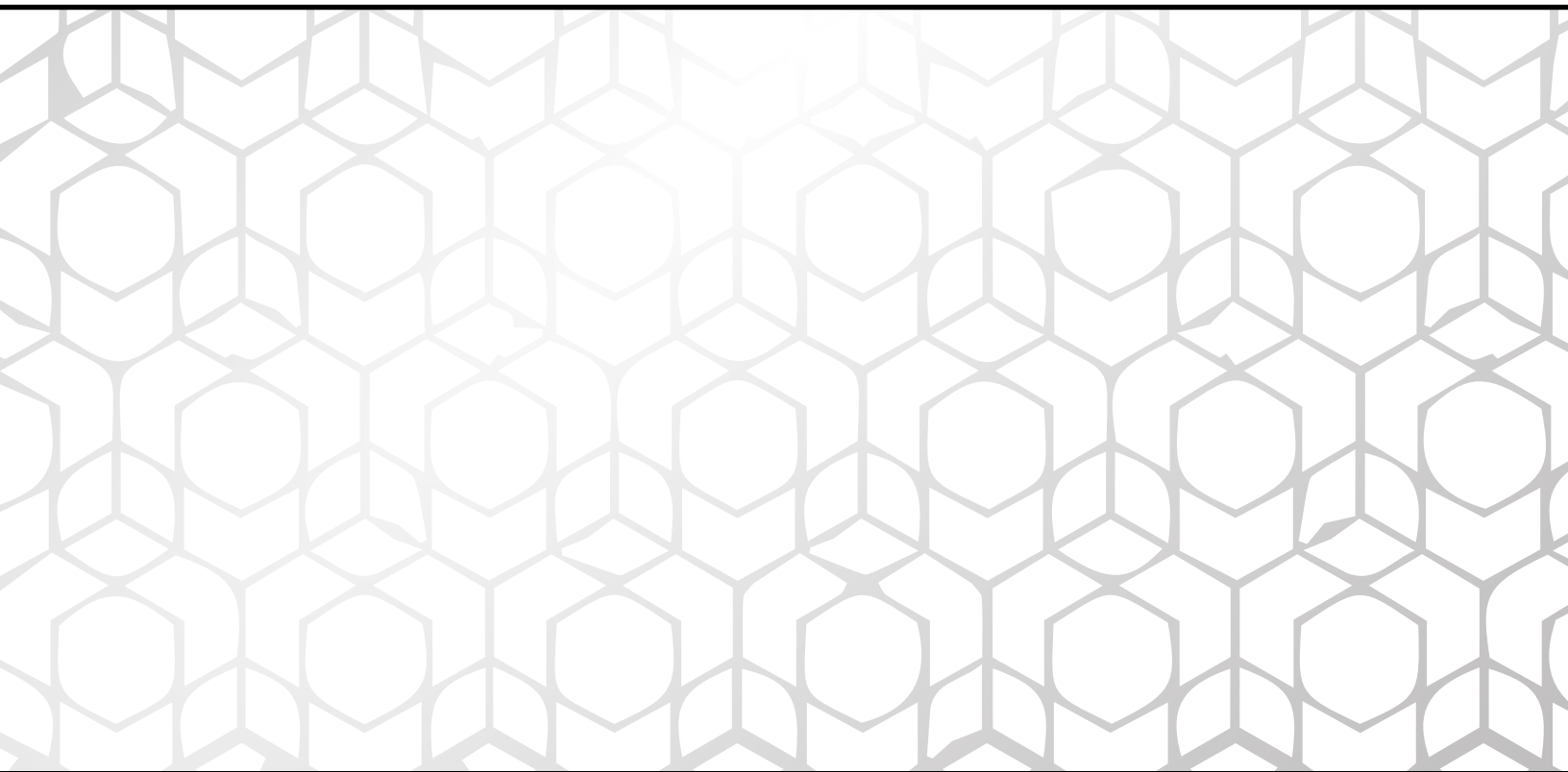


The primary focus of the Peterson Spring group is Automotive and Industrial applications; these interactions increase technical advancements for PAC Racing Spring products. We can offer enhanced technology through engineering resources and expanded experience from all of our power-train engineers. Additionally with nearly 100 years of manufacturing experience we continually improve our products to exceed demanding expectations.



Because of the extreme demands of racing, we routinely test all of our components using advanced testing technology. We have a fully accredited metallurgy lab with dedicated staff and equipment such as: SEM with EDAX, Xray Diffraction, Micro Hardness, Impact Testing, and MTS Tensile Test machine. Additionally, we are able to test functionality and fatigue properties in our Dynamics Laboratory, which includes a single post MTS Servo Hydraulic test machine, various bench type equipment, and our High Tech Engine test lab. Whatever your application we strive to bring confidence that our products meet and exceed designed parameters.

TECHNOLOGY  
TESTING



# ONLINE TOOLS

- User guided tools for our customers looking for self driven design
- Sway Bar rate calculator (online)
- Suspension Spring Rate Calculator tools (online)
- Basic Technical reference information
- Dual Suspension Spring Rate Chart (Reference tools)



Sway Bar Inputs		
Parameters	Value	Description
Active Diameter (in)	0.875	Diameter of turned down portion in center
Overall Length (in)	35	End to End
Arm Length (in)	16	Length from axis of sway bar to rod end mounting point
Bushing Length (in)	1.5	Standard Bar is 1.5. Short Course is 3.0
Spline Length (in)	1.75	Standard is 1.5
Degrees of Twist (deg)	19.7	Twist in Sway Bar, see left for calculations

Outputs	
Force (lbs)	508
Previous Value	200
% Difference	153.8%

### Maximum Degrees of Twist (full bump to full droop)

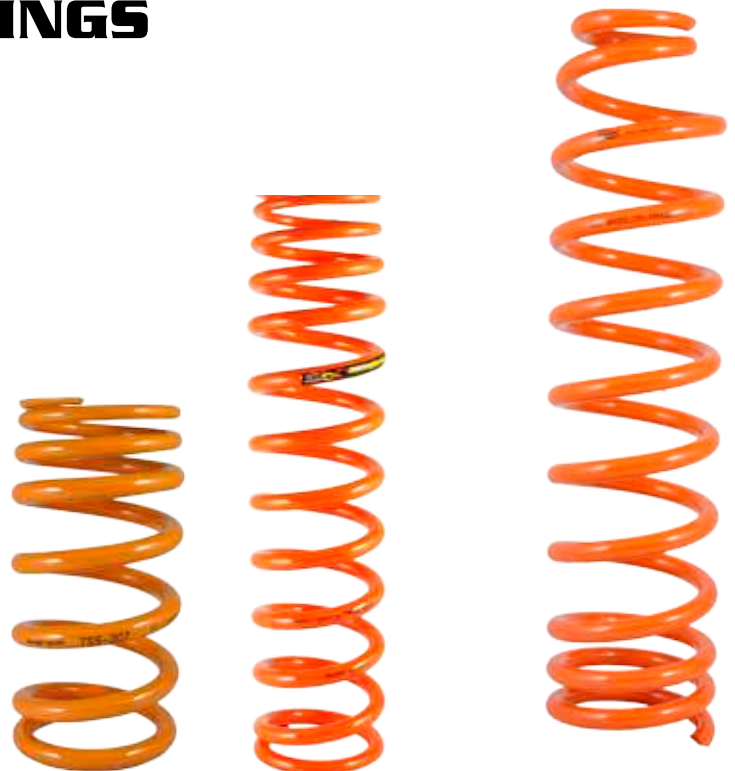
Parameters	Value	Description
Track Width (in)	26	Outside to outside of tires
Tire Width (in)	12	
Offset from inside of tire to sway bar mounting point on axle (in)	12	Mounting location of radius rod on axle
Wheel Travel (in)	10	Total Wheel Travel, not shock travel
Length of Link Arm (in)	13	Effective Length from axis of sway bar to rod end mounting point
Length of Radius Rods (in)	23	Effective Length from rod end hole to rod end hole

Outputs	
Maximum Angular Twist (deg)	19.7
When tires are at full bump to full droop	

Degrees of Twist (during operation)  
 If degrees of twist is desired for intermediate values (like deflection when going around a corner), know that the sway bar only reacts when the mounting points move relative to each other. Therefore, when going around a corner, one side the car rises, the other squats, and the amount of wheel travel is the sum of those two values. Enter that into the wheel travel cell G7 to then find the angular twist of the sway bar.

# TAPERED WIRE SPRINGS

Traditional Springs are made from the same size (Diameter) wire throughout the helix of the spring. PAC Racing Springs has partnered with technology leaders in order to provide this advanced new tapered wire product. **Tapered wire allows for a true progressive and dual rate without reducing spring travel and increasing weight from traditional methods.** Tapered wire has several advantages to the true chassis engineer and extreme racer looking for the next level of performance. PAC Racing Springs is currently looking for additional applications, so if you have a challenging situation please contact us to see if this solution is right for you.



TAPERED WIRE SPRINGS

JEEP SPEED 220 PROGRESSIVE

# PAC Technical Support

Starting in 2013, we expanded our onsite tech and product support at race events around the country. On the west coast we teamed with Alltech Motorsports, an industry company that specializes in Off Road Racing. Wayne and his crew offer complete vehicle prep, and specialize in shock and suspension tuning. This allows **PAC Racing to be at the forefront of the Off Road industry with products on hand to suit the needs of the racing community** on the west coast.



Combined with our west coast presence **we have a complete trailer geared to support drag race, off road, road race, and other events.** Our trailers are equipped with tools and full products to support our customers and PAC



Racing representatives available to answer questions. From car club events, track days, test and tunes, track rentals, or a simple car show- look for PAC Racing at many events!

We are excited to expand support and look forward to serving the racing community with added benefits. **If you have a special need or a track day scheduled, contact us and we will do what we can to support your endeavors.**

**Look for  at your next racing event!**

# PAC Apparel

Show off your favorite springmakers with our exclusive PAC Racing wearables! We have T-shirts, long sleeved T-shirts, sweatshirts, hoodies and hats available in many sizes. Contact us for large apparel orders or custom screenprinting & embroidery questions. High quality, heavyweight cotton blends.



PAC Beanie  
One-size



PAC Flat Bill Hats  
Sizes S-3X

PAC Structured Hats  
Sizes S-3X



PAC T-Shirts & Long Sleeved Tees  
Sizes S-3X



PAC Women's T-Shirts  
Sizes S-3X



Special Edition  
Limited Supply

# NEW PRODUCTS

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SHOCK ACCESSORIES

**DOUBLE STACKED SPRING SLIDERS**

**HELPER SPRING SHOCK SLIDERS**

**NEEDLE THRUST BEARINGS**

**2.5 TO 3.0 SPRING ADAPTER**



URETHANE BUMP HARDWARE

**ELLIPSE SHAPE (SKATE)**

**SINGLE TAPER**

**URETHANE BUMP ACCESSORIES**

**“TREE” SHAPE**



CONICAL WASHERS



NEW FLAT WIRE SPRING  
SIZES AVAILABLE

200 SERIES LINK ARMS



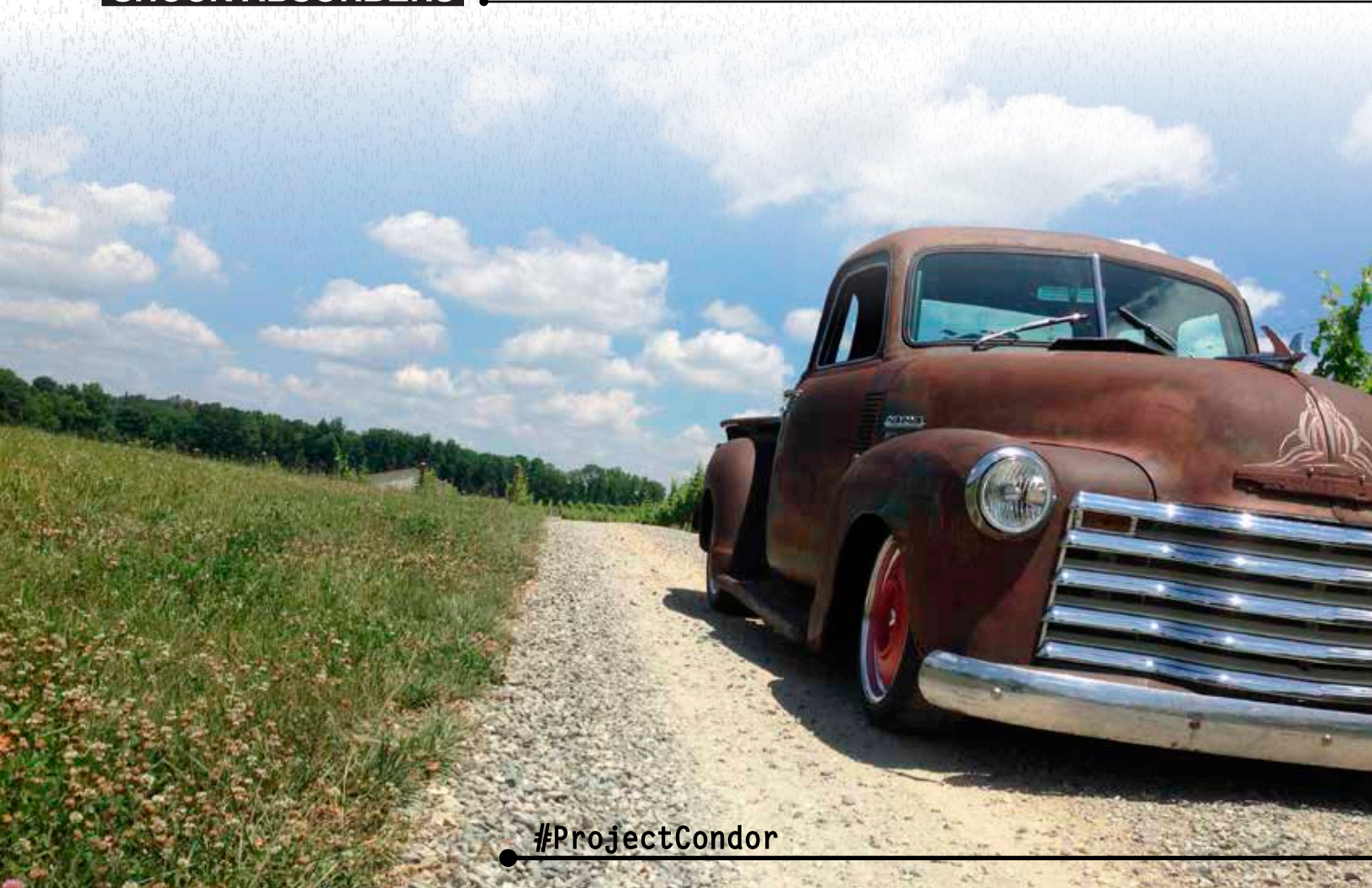


TROPHY  
TRUCK  
BILLET  
7075 ARMS

SHOCKS

**BILSTEIN**  
SHOCK ABSORBERS

CIRCLE TRACK SHOCKS



#ProjectCondor



Proudly made in the U.S.A



# ***Suspension Springs***



# About Suspension Springs

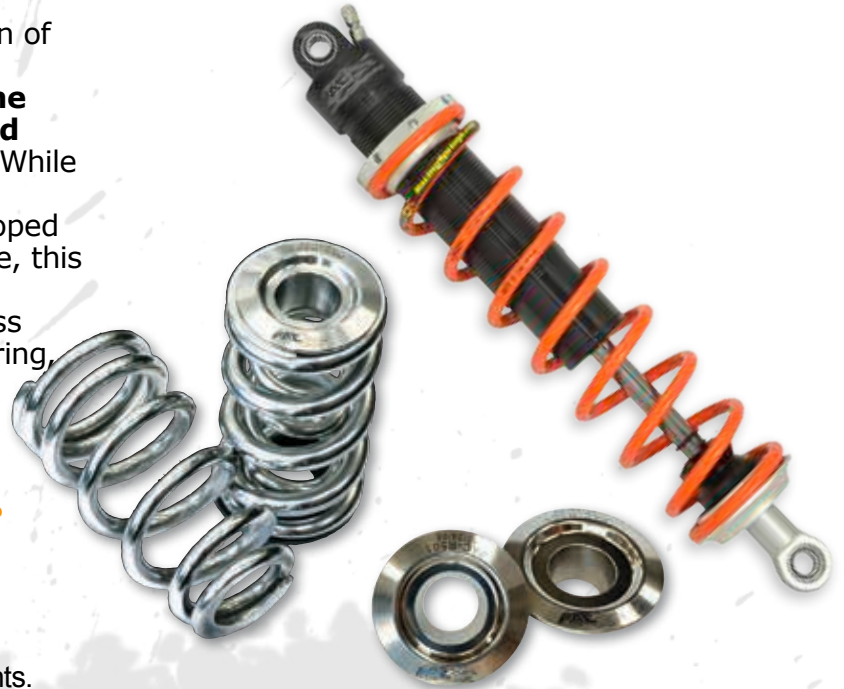
WE ARE A MANUFACTURER OF SUSPENSION SPRINGS, VALVE SPRINGS, SPRING RETAINER PRODUCTS, SWAY BARS, AND MANY OTHER METAL COMPONENTS.

PAC Racing Springs is a stand alone division of Peterson Spring which has been in business for over 100 years. **Peterson Spring is the largest family owned and privately held spring company in the United States.** While PAC Racing Springs specializes in valve springs, we have developed a substantial suspension spring product line, this product utilizes our technology from valve springs. PAC Racing Springs has world class engineering, materials, testing, manufacturing, and distribution systems that will react to your needs.

## WHY ARE PAC RACING SPRINGS BETTER?

We demand the highest technology and best performance from our products-we work very diligently ensuring our designs, materials, and processing withstand all performance requirements. **Years of experience in high stressed valve springs and race engines, provides understanding on what it takes to manufacture a lighter, better performing suspension spring.**

We validate these claims by testing the competition in our Dynamics Laboratory, setting baseline standards to exceed current sag (load loss), spring weight, and fatigue life. Cost is always a factor and with being a division of Peterson Spring, it allows for our metallurgists to demand the highest strength alloys, while leveraging our suppliers to meet market price demands.



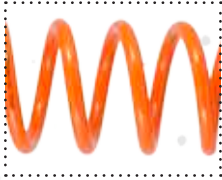
## PAC RACING SPRINGS HAS MANY MATERIAL OPTIONS

### Materials:

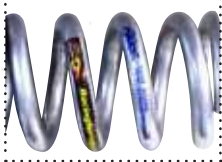
- Super High Tensile Chrome Silicon + Alloy
- Aerospace High Tensile Steels
- Titanium
- Wire sizes from 0.008 up to 1.250 Diameter!

# Powder Coat & Identification Options

## STANDARD COLORS



Orange



Silver



Black

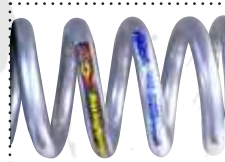
## OPTIONAL COLORS



Blue



Red



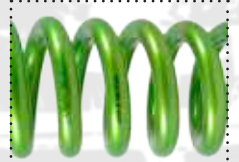
Near Chrome

{ Additional charge }

## ADDITIONAL STOCKED COLORS



Rust Brown



Sparkle Green



Bomber Sparkle Orange

{ Additional charge }

CUSTOM COLORS AND PANTONES AVAILABLE TO MATCH YOUR APPLICATION

## CUSTOM INKJET LABELING

Add any label to your coil spring:  
Part numbers, team names, batch and date codes



# COIL WRAPS AND COVER ACCESSORIES

Part Number	Size	Description
PAC-CW10	10"	Fits 2.5 and 3.0 ID Coil springs 10 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW12	12"	Fits 2.5 and 3.0 ID Coil springs 12 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW14	14"	Fits 2.5 and 3.0 ID Coil springs 14 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW16	16"	Fits 2.5 and 3.0 ID Coil springs 16 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW18	18"	Fits 2.5 and 3.0 ID Coil springs 18 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW20	20"	Fits 2.5 and 3.0 ID Coil springs 20 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW22	22"	Fits 2.5 and 3.0 ID Coil springs 22 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW24	24"	Fits 2.5 and 3.0 ID Coil springs 24 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW26	26"	Fits 2.5 and 3.0 ID Coil springs 26 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW28	28"	Fits 2.5 and 3.0 ID Coil springs 28 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW30	30"	Fits 2.5 and 3.0 ID Coil springs 30 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW32	32"	Fits 2.5 and 3.0 ID Coil springs 32 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing



## SUSPENSION SPRING COVERS

- Manufactured from military ballistic nylon
- Durable high strength construction
- Hook and loop enclosure

# DOUBLE SPRING SLIDERS

Assembly Part Number	Description	Spring Size	Replacement Insert Part Number
PAC-800-101	Fits 2.0 Fox and Sway Away Shock	2.5 I.D.	PAC-800-101-01
PAC-800-102	Fits 2.0 King Shock	2.5 I.D.	PAC-800-102-01
PAC-800-103	Fits Fox, King, and Sway Away 2.5 Shock	3.0 I.D.	PAC-800-103-01
PAC-200-101	Fits Ohlins 2.0 Shock	2.5 I.D.	PAC-200-101-01
PAC-200-102	Fits Penske 2.0 Shock	2.5 I.D.	PAC-200-102-01

\*Fox, King, Sway A Way, Ohlins and Penske are all trademarks not affiliated with PAC Racing Springs



**PAC Racing Springs**  
**Dual Coil Spring Stacker Chart**  
 Formula:  $(Rate \times Rate) / (Rate + Rate)$

Easy reference chart for calculating spring rates of dual spring shock applications...

**Call today to order your**  
**25"x25"**  
**PAC SPRING**  
**STACKER CHART**

# SHOCK ACCESSORIES

## DOUBLE STACKED SPRING SLIDERS

### CIRCLE TRACK

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type
PAC-200-101	2.50	2.200	2.0 Ohlins	Nylon Center Body with Spun Shield
PAC-200-102	2.50	2.106	2.0 Penske	Nylon Center Body with Spun Shield
PAC-200-103	2.50	2.184	2.0 Afco	Nylon Center Body with Spun Shield
PAC-200-104	2.50	2.014	2.0 Integra	Nylon Center Body with Spun Shield

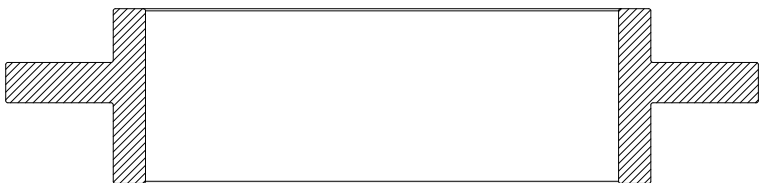
## HELPER SPRING SHOCK SLIDERS

### OFF-ROAD

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type	Coating Type
PAC-800-201	2.50	2.120	2.0 Fox / Sway Away	Solid Aluminum	Hard Anodize
PAC-800-202	2.50	2.030	2.0 King	Solid Aluminum	
PAC-800-203	3.00	2.580	3.0 Fox / King / Sway Away	Solid Aluminum	
PAC-800-205	3.00	2.060	2.0 Bilstein	Solid Aluminum	
PAC-800-206	2.50	2.630	2.5 Bilstein	Solid Aluminum	

### CIRCLE TRACK

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type	Coating Type
PAC-200-201	2.50	2.200	2.0 Ohlins	Solid Aluminum	Hard Anodize
PAC-200-202	2.50	2.106	2.0 Penske	Solid Aluminum	
PAC-200-203	2.50	2.184	2.0 Afco	Solid Aluminum	
PAC-200-204	2.50	2.014	2.0 Integra	Solid Aluminum	



Helper Spring Slider





## NEEDLE THRUST BEARINGS WITH 2 WASHERS

Part Number	ID	OD	Type	Bearing Thickness	Washer Thickness
PAC-TB01	2.50	3.14	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB02	3.00	3.74	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB03	3.85	5.00	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB04	2.50	3.50	Thick Stainless Steel Washer	-	0.100
PAC-TB05	3.00	4.00	Thick Stainless Steel Washer	-	0.100

## 2.5 TO 3.0 SPRING ADAPTER

PAC Racing has designed a spring adaptor to allow use of 3.0 ID springs on a smaller shock. The spring adaptor is designed to accommodate the inside diameter to locate the coil over spring on the perch.

Part Number	Spring Size (in)	Perch Thickness (in)	Type
PAC-300412	3.00	0.375	Aluminum
PAC-300413	3.00	0.250	Steel



2.5-3.0 Springs Adapter

# URETHANE BUMP HARDWARE



PAC Racing has worked to develop urethane bump technology that exceeds current standards. Urethane is unique when compared to a steel spring, and can see force loss or force differences when in compression and rebound. We have designed a complete line-up that utilized premium USA made Urethane to resist loss and tested on the same equipment as our suspension springs. Use the Urethane hardware as a high rate bump stop or stack them to get the desired rate curve.

**Elliptical Bump Urethane:** Offers a uniform rate profile that is considered progressive as the profile closes out.

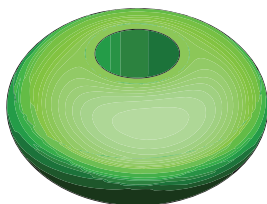
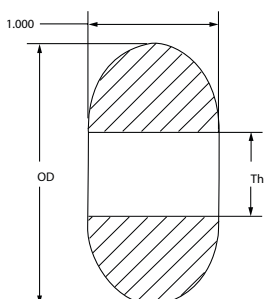
**Single Taper Urethane:** Offers a rate change once the tapered top is closed out.

**Urethane Hardware:** Use this hardware to mount and align the urethane hardware to your desired stack setup.



## ELLIPSE SHAPE (SKATE)

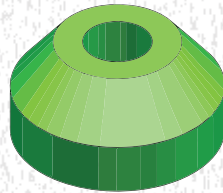
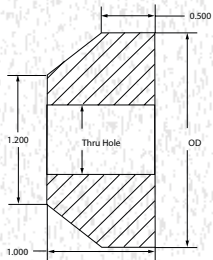
Part Number	OD	Height	Thru Hole	Shape	Color	Durameter (Ref)	Rate	Max Force Deflection
PAC-BR101	2.00	1.00	0.650	Ellipse	Orange	40	CALL FOR MORE INFORMATION	
PAC-BR102	2.00	1.00	0.650	Ellipse	Black	50		
PAC-BR103	2.00	1.00	0.650	Ellipse	Purple	60		
PAC-BR104	2.00	1.00	0.650	Ellipse	Green	70		
PAC-BR105	2.00	1.00	0.650	Ellipse	Yellow	80		
PAC-BR106	2.00	1.00	0.650	Ellipse	Red	85		



# URETHANE BUMP SPRINGS

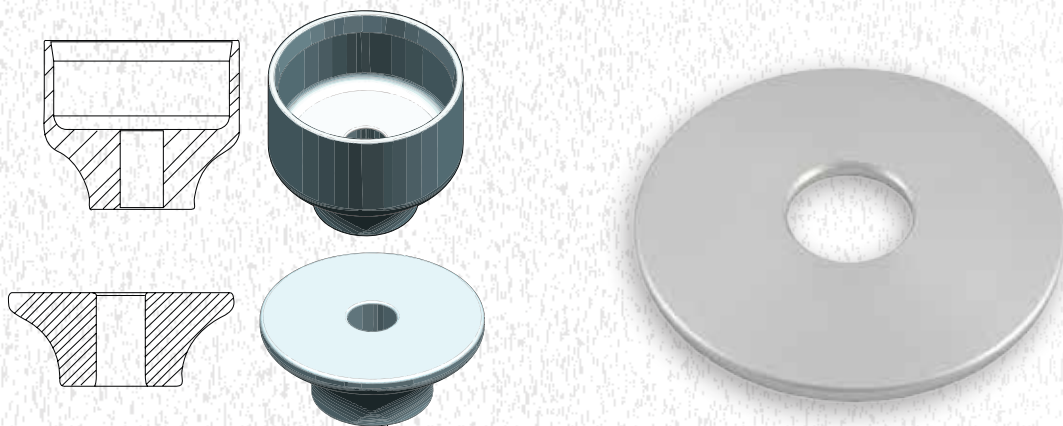
## SINGLE TAPER

Part Number	OD	Height	Thru Hole	Shape	Color	Durameter (Ref)	Rate	Max Force Deflection
PAC-BR110	2.00	1.00	0.650	Taper Top	Orange	40	CALL FOR MORE INFORMATION	
PAC-BR111	2.00	1.00	0.650	Taper Top	Black	50		
PAC-BR112	2.00	1.00	0.650	Taper Top	Purple	60		
PAC-BR113	2.00	1.00	0.650	Taper Top	Green	70		
PAC-BR114	2.00	1.00	0.650	Taper Top	Yellow	80		
PAC-BR115	2.00	1.00	0.650	Taper Top	Red	85		



## URETHANE BUMP ACCESSORIES

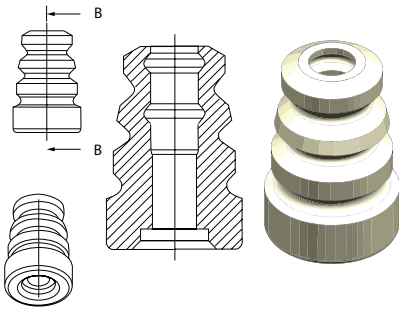
Part Number	OD	ID	Height	Material	Type
PAC-C280	1.975	0.505	0.100	Aluminum	Washer/Spacer
PAC-C281	1.975	0.630	0.100	Aluminum	Washer/Spacer
PAC-C282	2.300	0.505	2.000	Aluminum	Cup Standoff for Urethane Bumps (All Shapes)
PAC-C283	2.300	0.630	2.000	Aluminum	Cup Standoff for Urethane Bumps (All Shapes)
PAC-C284	2.300	0.505	0.950	Aluminum	Tapered Standoff for Urethane Bumps (All Shapes)
PAC-C285	2.300	0.630	0.950	Aluminum	Tapered Standoff for Urethane Bumps (All Shapes)
PAC-C246	1.375	1.190	0.500	Titanium	Single Cup
PAC-C247	1.375	1.190	0.850	Titanium	Double Cup



# URETHANE BUMP SPRINGS

## “TREE” SHAPE

Part Number	OD	Height	Thru Hole	Shape	Color	Grams/CC	Rate	Max Force Deflection
PAC-BTR200	2	3	0.650	3 inch Foam Tree Bump	Black	30	Please call for more information	
PAC-BTR201	2	3	0.650	3 inch Foam Tree Bump	Purple	40		
PAC-BTR202	2	3	0.650	3 inch Foam Tree Bump	Green	60		
PAC-BTR203	2	3	0.650	3 inch Foam Tree Bump	Yellow	80		
PAC-BTR205	2	2	0.650	2 inch Foam Tree Bump	Black	30		
PAC-BTR206	2	2	0.650	2 inch Foam Tree Bump	Purple	40		
PAC-BTR207	2	2	0.650	2 inch Foam Tree Bump	Green	60		
PAC-BTR208	2	2	0.650	2 inch Foam Tree Bump	Yellow	80		



## CONICAL WASHERS

Part Number	OD	Thru Hole	Free Length	Thickness	Height @ 100 Lbs	Height @ 400 Lbs	Rate	Total Travel
PAC-300405-1	1.850	0.640	0.125	0.025			Call for more information	
PAC-300405-2	1.850	0.640	0.125	0.035				
PAC-300405-3	1.850	0.640	0.125	0.045				
PAC-300405-4	1.850	0.640	0.125	0.055	0.110	0.090	15,000 Lbs	0.070
PAC-300405-5	1.850	0.640	0.125	0.065	0.110	0.100	22,000 Lbs	0.060
PAC-300405-6	1.850	0.640	0.125	0.075	0.115	0.105	32,000 Lbs	0.050
PAC-300405-7	1.850	0.640	0.125	0.085	0.115	0.110	45,000 Lbs	0.030



# COMING SOON!

# ***BUILDER PARTS***

CALL FOR MORE INFORMATION



Heavy Duty Forged Rod Ends



Urethane Weld In Supports



Urethane Mounts



# FLAT WIRE SPRINGS (PAC-FW SERIES)

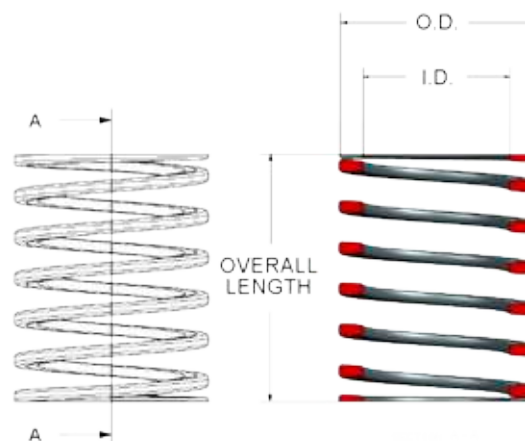
These have been known as “Tender Springs” or “Helper Springs” and are traditionally used in conjunction with dual rate coil over shock springs. These are designed to be used when your spring stack does not have enough pre-load for the full extension of the shock. These will allow for full extension of the shock without losing your coil spring buckets or retainers.

PAC Racing Springs designed these springs using high tensile keystone shape wire, allowing for an even stress distribution on the wire. These are designed to be run at bind height without losing free-length, and are designed to withstand many cycles of compression and extension.

If you would like to know more about flat or shaped wire springs or have an inquiry about a custom wire shape for your application, please let us know.

## FLAT WIRE HELPER & SLACK SPRINGS

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>1 Inch Tall Helper Springs</b>														
PAC-FW-1x2.0x84	1.21	30.73	2.03	51.56	84	1.32	58	26	0.424	10.77	0.786	19.96	0.19	0.09
PAC-FW-1x2.25x84	1.21	30.73	2.28	57.91	84	1.50	44	20	0.688	17.48	0.522	13.26	0.34	0.15
PAC-FW-1x2.5x84	1.21	30.73	2.53	64.26	84	1.50	51	23	0.600	15.24	0.610	15.49	0.33	0.15
<b>2 Inch Tall Helper Springs</b>														
PAC-FW-2x2.0x104	2.00	50.80	2.04	51.69	104	1.86	121	55	0.828	21.03	1.172	29.77	0.49	0.22
PAC-FW-2x2.25x104	2.00	50.80	2.28	57.79	104	1.86	135	61	0.700	17.78	1.300	33.02	0.45	0.20
PAC-FW-2x2.5x104	2.00	50.80	2.53	64.26	104	2.05	105	48	1.085	27.56	0.915	23.24	0.78	0.35
<b>3 Inch Tall Helper Springs</b>														
PAC-FW-3x2.0x15	3.00	76.20	2.00	50.80	15	0.27	35	16	0.693	17.60	2.307	58.60	0.31	0.14
PAC-FW-3x2.0x25	3.00	76.20	2.00	50.80	25	0.45	56	25	0.762	19.35	2.238	56.85	0.34	0.15
PAC-FW-3x2.5x50	3.00	76.20	2.53	64.26	50	0.89	130	59	0.825	20.96	2.175	55.25	0.58	0.26
PAC-FW-3x3.0x50	3.00	76.20	3.03	76.96	50	0.89	115	52	0.691	17.55	2.309	58.65	0.58	0.26
PAC-FW-3x2.5x128	3.00	76.20	2.53	64.26	128	2.29	253	115	1.020	25.91	1.980	50.29	0.73	0.33
<b>5 Inch Tall Helper Springs</b>														
PAC-FW-5x2.5x25	5.00	127.00	2.53	64.26	25	0.45	85	39	1.600	40.64	3.400	86.36	0.88	0.40
PAC-FW-5x2.5x75	5.00	127.00	2.53	64.26	75	1.34	218	99	2.100	53.34	2.900	73.66	1.50	0.68
PAC-FW-5x3.0x25	5.00	127.00	3.03	76.96	25	0.45	97	44	1.100	27.94	3.900	99.06	0.70	0.32
PAC-FW-5x3.0x75	5.00	127.00	3.03	76.96	75	1.34	273	124	1.350	34.29	3.650	92.71	1.20	0.54
<b>6 Inch Tall Helper Springs</b>														
PAC-FW-6x2.5x5	6.00	152.40	2.53	64.26	5	0.09	34	15	0.517	13.13	5.483	139.27	0.21	0.10



## Suspension Spring Listings

# 2.0 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>5" TALL</b>														
PAC-5x2.0x500	5.000	127	2.03	52	500	8.9	1343	610	2.314	59	2.686	68	1.48	0.67
PAC-5x2.0x525	5.000	127	2.03	52	525	9.4	1470	668	2.200	56	2.8	71	1.40	0.64
PAC-5x2.0x550	5.000	127	2.03	52	550	9.8	1574	716	2.138	54	2.862	73	1.36	0.62
PAC-5x2.0x600	5.000	127	2.03	52	600	10.7	1639	745	2.268	58	2.732	69	1.52	0.69
PAC-5x2.0x650	5.000	127	2.03	52	650	11.6	1723	783	2.349	60	2.651	67	1.62	0.73
PAC-5x2.0x700	5.000	127	2.03	52	700	12.5	1954	888	2.209	56	2.791	71	1.52	0.69
PAC-5x2.0x750	5.000	127	2.03	52	750	13.4	1903	865	2.463	63	2.537	64	1.81	0.82
PAC-5x2.0x800	5.000	127	2.03	52	800	14.3	2134	970	2.330	59	2.67	68	1.71	0.77
PAC-5x2.0x850	5.000	127	2.03	52	850	15.2	2218	1008	2.391	61	2.609	66	1.81	0.82
PAC-5x2.0x900	5.000	127	2.03	52	900	16.1	2270	1032	2.477	63	2.523	64	1.93	0.87
<b>6" TALL</b>														
PAC-6x2.0x500	6.000	152	2.03	52	500	8.9	1677	762	2.646	67	3.354	85	1.78	0.81
PAC-6x2.0x550	6.000	152	2.03	52	550	9.8	1842	837	2.651	67	3.349	85	1.85	0.84
PAC-6x2.0x600	6.000	152	2.03	52	600	10.7	1830	832	2.950	75	3.05	77	2.19	0.99
PAC-6x2.0x650	6.000	152	2.03	52	650	11.6	2092	951	2.781	71	3.219	82	2.05	0.93
PAC-6x2.0x700	6.000	152	2.03	52	700	12.5	2227	1012	2.819	72	3.181	81	2.15	0.97
PAC-6x2.0x750	6.000	152	2.03	52	750	13.4	2330	1059	2.893	73	3.107	79	2.27	1.03
PAC-6x2.0x800	6.000	152	2.03	52	800	14.3	2380	1082	3.025	77	2.975	76	2.45	1.11
<b>8" TALL</b>														
PAC-8x2.0x150	8.000	203	2.03	52	150	2.7	773	351	2.846	72	5.154	131	1.42	0.65

# 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>4" TALL</b>														
PAC-4x2.5x400	4.000	102	2.50	64	400	7.1	1042	474	1.395	35	2.605	66	0.95	0.43
PAC-4x2.5x450	4.000	102	2.50	64	450	8.0	1180	536	1.427	36	2.573	65	0.98	0.45
PAC-4x2.5x500	4.000	102	2.50	64	500	8.9	1289	586	1.422	36	2.578	65	0.30	0.14
PAC-4x2.5x650	4.000	102	2.50	64	650	11.6	1633	742	1.537	39	2.463	63	1.21	0.55
<b>5" TALL</b>														
PAC-5x2.5x225	5.000	127	2.50	64	225	4.0	774	352	1.610	41	3.39	86	0.98	0.45
PAC-5x2.5x300	5.000	127	2.50	64	300	5.4	1028	467	1.571	40	3.429	87	1.05	0.48
PAC-5x2.5x350	5.000	127	2.50	64	350	6.2	1030	468	2.058	52	2.942	75	1.59	0.72
PAC-5x2.5x375	5.000	127	2.50	64	375	6.7	1145	521	1.946	49	3.054	78	1.50	0.68
PAC-5x2.5x400	5.000	127	2.50	64	400	7.1	1261	573	1.848	47	3.152	80	1.42	0.65
PAC-5x2.5x425	5.000	127	2.50	64	425	7.6	1376	626	1.762	45	3.238	82	1.35	0.61
PAC-5x2.5x450	5.000	127	2.50	64	450	8.0	1344	611	2.014	51	2.986	76	1.68	0.76
PAC-5x2.5x500	5.000	127	2.50	64	500	8.9	1573	715	1.855	47	3.145	80	1.52	0.69
PAC-5x2.5x650	5.000	127	2.50	64	650	11.6	2012	915	1.955	50	3.045	77	1.71	0.78
<b>6" TALL</b>														
PAC-6x2.5x50	6.000	152	2.50	64	50	0.9	247	112	1.062	27	4.938	125	0.49	0.22
PAC-6x2.5x100	6.000	152	2.50	64	100	1.8	470	214	1.300	33	4.7	119	0.61	0.28
PAC-6x2.5x150	6.000	152	2.50	64	150	2.7	667	303	1.553	39	4.447	113	0.89	0.40
PAC-6x2.5x200	6.000	152	2.50	64	200	3.6	851	387	1.747	44	4.253	108	1.26	0.57
PAC-6x2.5x250	6.000	152	2.50	64	250	4.5	1047	476	1.813	46	4.187	106	1.06	0.48

# Suspension Spring Listings

## 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>6" TALL (cont'd)</b>														
PAC-6x2.5x300	6.000	152	2.50	64	300	5.4	1224	556	1.920	49	4.08	104	1.21	0.55
PAC-6x2.5x350	6.000	152	2.50	64	350	6.2	1380	627	2.058	52	3.942	100	1.50	0.68
PAC-6x2.5x400	6.000	152	2.50	64	400	7.1	1511	687	2.223	56	3.777	96	1.62	0.74
PAC-6x2.5x450	6.000	152	2.50	64	450	8.0	1707	776	2.207	56	3.793	96	1.70	0.77
PAC-6x2.5x500	6.000	152	2.50	64	500	8.9	1896	862	2.209	56	3.791	96	1.94	0.88
PAC-6x2.5x550	6.000	152	2.50	64	550	9.8	2008	913	2.649	67	3.351	85	2.13	0.97
PAC-6x2.5x600	6.000	152	2.50	64	600	10.7	2171	987	2.381	60	3.619	92	2.49	1.13
PAC-6x2.5x650	6.000	152	2.50	64	650	11.6	2303	1047	2.457	62	3.543	90	2.78	1.26
PAC-6x2.5x700	6.000	152	2.50	64	700	12.5	2474	1124	2.466	63	3.534	90	2.41	1.09
<b>7" TALL</b>														
PAC-7x2.5x100	7.000	178	2.50	64	100	1.8	534	243	1.664	42	5.336	136	0.87	0.39
PAC-7x2.5x150	7.000	178	2.50	64	150	2.7	788	358	1.875	48	5.125	130	0.91	0.41
PAC-7x2.5x175	7.000	178	2.50	64	175	3.1	921	419	1.909	48	5.091	129	1.14	0.52
PAC-7x2.5x200	7.000	178	2.50	64	200	3.6	1010	459	1.919	49	5.0815	129	1.36	0.62
PAC-7x2.5x225	7.000	178	2.50	64	225	4.0	1131	514	2.010	51	4.99	127	1.49	0.68
PAC-7x2.5x250	7.000	178	2.50	64	250	4.5	1247	567	2.270	58	4.73	120	1.68	0.76
PAC-7x2.5x275	7.000	178	2.50	64	275	4.9	1299	590	2.350	60	4.65	118	1.76	0.80
PAC-7x2.5x300	7.000	178	2.50	64	300	5.4	1464	665	2.440	62	4.56	116	1.89	0.86
PAC-7x2.5x325	7.000	178	2.50	64	325	5.8	1564	711	2.470	63	4.53	115	1.94	0.88
PAC-7x2.5x350	7.000	178	2.50	64	350	6.2	1658	754	2.610	66	4.39	112	2.01	0.91
PAC-7x2.5x400	7.000	178	2.50	64	400	7.1	1826	830	2.552	65	4.448	113	2.14	0.97
PAC-7x2.5x450	7.000	178	2.50	64	450	8.0	2065	939	2.840	72	4.16	106	2.26	1.03
PAC-7x2.5x500	7.000	178	2.50	64	500	8.9	2189	995	2.970	75	4.03	102	2.48	1.13
PAC-7x2.5x550	7.000	178	2.50	64	550	9.8	2403	1092	3.210	82	3.79	96	2.86	1.30
PAC-7x2.5x600	7.000	178	2.50	64	600	10.7	2608	1186	3.460	88	3.54	90	3.01	1.37
PAC-7x2.5x650	7.000	178	2.50	64	650	11.6	2661	1210	3.420	87	3.58	91	3.54	1.61
PAC-7x2.5x700	7.000	178	2.50	64	700	12.5	2837	1290	2.947	75	4.053	103	3.87	1.76
PAC-7x2.5x750	7.000	178	2.50	64	750	13.4	3002	1365	2.997	76	4.003	102	4.04	1.84
<b>8" TALL</b>														
PAC-8x2.5x60	8.000	203	2.50	64	60	1.1	395	179	1.645	42	6.355	161	0.820	0.37
PAC-8x2.5x100	8.000	203	2.50	64	100	1.8	585	266	1.530	39	6.47	164	0.970	0.44
PAC-8x2.5x125	8.000	203	2.50	64	125	2.2	776	353	1.790	45	6.21	158	1.020	0.46
PAC-8x2.5x140	8.000	203	2.50	64	140	2.5	861	391	1.940	49	6.06	154	1.570	0.71
PAC-8x2.5x180	8.000	203	2.50	64	180	3.2	1057	481	2.549	65	5.451	138	1.760	0.80
PAC-8x2.5x200	8.000	203	2.50	64	200	3.6	1116	507	2.549	65	5.451	138	2.010	0.91
PAC-8x2.5x220	8.000	203	2.50	64	220	3.9	1214	552	2.810	71	5.19	132	2.130	0.97
PAC-8x2.5x250	8.000	203	2.50	64	250	4.5	1300	591	2.900	74	5.1	130	2.140	0.97
PAC-8x2.5x275	8.000	203	2.50	64	275	4.9	1469	668	2.658	68	5.342	136	2.184	0.99
PAC-8x2.5x300	8.000	203	2.50	64	300	5.4	1627	740	2.734	69	5.266	134	2.230	1.01
PAC-8x2.5x350	8.000	203	2.50	64	350	6.2	1846	839	2.937	75	5.063	129	2.460	1.12
PAC-8x2.5x400	8.000	203	2.50	64	400	7.1	2035	925	3.170	81	4.83	123	2.390	1.09
PAC-8x2.5x450	8.000	203	2.50	64	450	8.0	2193	997	3.248	82	4.752	121	2.560	1.16
PAC-8x2.5x500	8.000	203	2.50	64	500	8.9	2449	1113	3.220	82	4.78	121	2.520	1.15
PAC-8x2.5x550	8.000	203	2.50	64	550	9.8	2695	1225	3.450	88	4.55	116	2.840	1.29
PAC-8x2.5x600	8.000	203	2.50	64	600	10.7	2778	1263	3.370	86	4.63	118	3.571	1.62
PAC-8x2.5x650	8.000	203	2.50	64	650	11.6	2994	1361	3.394	86	4.606	117	3.684	1.67
PAC-8X2.5X700	8.000	203	2.50	64	700	12.5	3249	1477	3.408	87	4.592	117	3.760	1.71
PAC-8X2.5X800	8.000	203	2.50	64	800	14.3	3631	1650	3.501	89	4.499	114	4.060	1.85



Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>8" TALL (cont'd)</b>														
PAC-8X2.5X850	8.000	203	2.50	64	850	15.2	3804	1729	3.575	91	4.425	112	4.230	1.92
PAC-8x2.5x1100	8.000	203	2.50	64	1100	19.6	4571	2078	3.845	98	4.155	106	5.184	2.36
PAC-8x2.5x1200	8.000	203	2.50	64	1200	21.4	4516	2053	4.237	108	3.763	96	5.850	2.66
<b>9" TALL</b>														
PAC-9x2.5x60	9.000	229	2.50	64	60	1.1	441	200	1.650	42	7.35	187	0.76	0.34
PAC-9x2.5x100	9.000	229	2.50	64	100	1.8	685	311	2.155	55	6.845	174	1.24	0.56
PAC-9x2.5x140	9.000	229	2.50	64	140	2.5	932	424	2.342	59	6.658	169	1.51	0.68
PAC-9x2.5x180	9.000	229	2.50	64	180	3.2	1143	520	2.010	51	6.99	178	1.96	0.89
PAC-9x2.5x220	9.000	229	2.50	64	220	3.9	1374	625	2.980	76	6.02	153	2.26	1.03
PAC-9x2.5x300	9.000	229	2.50	64	300	5.4	1849	841	3.174	81	5.826	148	2.49	1.13
PAC-9x2.5x350	9.000	229	2.50	64	350	6.2	2104	956	3.425	87	5.5755	142	2.77	1.26
PAC-9x2.5x400	9.000	229	2.50	64	400	7.1	2328	1058	3.428	87	5.572	142	3.25	1.48
PAC-9x2.5x450	9.000	229	2.50	64	450	8.0	2519	1145	3.572	91	5.428	138	3.48	1.58
PAC-9x2.5x550	9.000	229	2.50	64	550	9.8	2949	1341	3.620	92	5.38	137	4.09	1.86
PAC-9x2.5x650	9.000	229	2.50	64	650	11.6	3283	1492	3.371	86	5.629	143	4.86	2.21
<b>10" TALL</b>														
PAC-10x2.5x100	10.000	254	2.50	64	100	1.8	755	343	2.511	64	7.489	190	1.56	0.71
PAC-10x2.5x125	10.000	254	2.50	64	125	2.2	928	422	2.423	62	7.577	192	1.80	0.82
PAC-10x2.5x150	10.000	254	2.50	64	150	2.7	1083	492	2.772	70	7.228	184	1.98	0.90
PAC-10x2.5x175	10.000	254	2.50	64	175	3.1	1220	555	2.792	71	7.208	183	2.01	0.91
PAC-10x2.5x200	10.000	254	2.50	64	200	3.6	1402	637	2.992	76	7.008	178	2.29	1.04
PAC-10x2.5x225	10.000	254	2.50	64	225	4.0	1577	717	3.400	86	6.6	168	2.49	1.13
PAC-10x2.5x250	10.000	254	2.50	64	250	4.5	1746	794	3.489	89	6.511	165	2.90	1.32
PAC-10x2.5x275	10.000	254	2.50	64	275	4.9	1825	829	3.651	93	6.349	161	3.27	1.49
PAC-10x2.5x300	10.000	254	2.50	64	300	5.4	1973	897	3.422	87	6.578	167	3.04	1.38
PAC-10x2.5x325	10.000	254	2.50	64	325	5.8	2008	913	3.703	94	6.297	160	3.34	1.52
PAC-10x2.5x350	10.000	254	2.50	64	350	6.2	2248	1022	3.930	100	6.07	154	3.56	1.62
PAC-10x2.5x375	10.000	254	2.50	64	375	6.7	2373	1079	3.867	98	6.133	156	3.69	1.68
PAC-10x2.5x400	10.000	254	2.50	64	400	7.1	2489	1131	3.989	101	6.011	153	3.64	1.65
PAC-10x2.5x425	10.000	254	2.50	64	425	7.6	2596	1180	4.302	109	5.698	145	3.92	1.78
PAC-10x2.5x450	10.000	254	2.50	64	450	8.0	2693	1224	4.371	111	5.629	143	4.00	1.82
PAC-10x2.5x500	10.000	254	2.50	64	500	8.9	3020	1373	4.352	111	5.648	143	4.67	2.12
PAC-10x2.5x550	10.000	254	2.50	64	550	9.8	3161	1437	4.650	118	5.35	136	4.84	2.20
PAC-10x2.5x600	10.000	254	2.50	64	600	10.7	3454	1570	4.820	122	5.18	132	4.97	2.26
PAC-10x2.5x650	10.000	254	2.50	64	650	11.6	3735	1698	4.254	108	5.746	146	5.03	2.29
PAC-10x2.5x700	10.000	254	2.50	64	700	12.5	3780	1718	4.600	117	5.4	137	5.65	2.57
PAC-10x2.5x750	10.000	254	2.50	64	750	13.4	4022	1828	4.638	118	5.362	136	5.53	2.51
PAC-10x2.5x800	10.000	254	2.50	64	800	14.3	4250	1932	4.688	119	5.312	135	6.06	2.75
<b>12" TALL</b>														
PAC-12X2.5X60	12.000	305	2.50	64	60	1.07	519	236	3.36	85	8.641	219	1.84	0.84
PAC-12X2.5X70	12.000	305	2.50	64	70	1.25	635	289	2.93	74	9.071	230	1.58	0.72
PAC-12x2.5x80	12.000	305	2.50	64	80	1.4	722	328	3.037	77	8.9635	228	1.87	0.85
PAC-12x2.5x90	12.000	305	2.50	64	90	1.6	806	367	3.098	79	8.902	226	1.91	0.87
PAC-12x2.5x100	12.000	305	2.50	64	100	1.8	886	403	3.103	79	8.897	226	2.06	0.94
PAC-12x2.5x110	12.000	305	2.50	64	110	2.0	963	438	3.220	82	8.78	223	2.11	0.96
PAC-12x2.5x120	12.000	305	2.50	64	120	2.1	1079	490	3.201	81	8.799	223	2.17	0.99
PAC-12x2.5x125	12.000	305	2.50	64	125	2.2	1137	517	3.245	82	8.755	222	2.34	1.06
PAC-12x2.5x130	12.000	305	2.50	64	130	2.3	1151	523	3.385	86	8.6146	219	2.41	1.10
PAC-12x2.5x140	12.000	305	2.50	64	140	2.5	1218	554	3.245	82	8.755	222	2.39	1.08
PAC-12x2.5x150	12.000	305	2.50	64	150	2.7	1280	582	3.415	87	8.585	218	2.66	1.21
PAC-12x2.5x165	12.000	305	2.50	64	165	2.9	1395	634	3.755	95	8.245	209	2.73	1.24
PAC-12x2.5x175	12.000	305	2.50	64	175	3.1	1511	687	3.755	95	8.245	209	3.01	1.37
PAC-12x2.5x185	12.000	305	2.50	64	185	3.3	1562	710	3.604	92	8.3965	213	2.95	1.34
PAC-12x2.5x200	12.000	305	2.50	64	200	3.6	1665	757	3.674	93	8.326	211	3.00	1.37
PAC-12x2.5x225	12.000	305	2.50	64	225	4.0	1794	815	4.124	105	7.8762	200	3.26	1.48
PAC-12x2.5x250	12.000	305	2.50	64	250	4.5	1993	906	4.193	106	7.8075	198	3.71	1.69

# Suspension Spring Listings

## 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>12" TALL (cont'd)</b>														
PAC-12x2.5x275	12.000	305	2.50	64	275	4.9	2184	993	4.057	103	7.943	202	3.71	1.69
PAC-12x2.5x300	12.000	305	2.50	64	300	5.4	2253	1024	4.490	114	7.51	191	4.34	1.97
PAC-12x2.5x325	12.000	305	2.50	64	325	5.8	2419	1100	4.293	109	7.707	196	4.11	1.87
PAC-12x2.5x350	12.000	305	2.50	64	350	6.2	2576	1171	4.344	110	7.656	194	4.72	2.14
PAC-12x2.5x375	12.000	305	2.50	64	375	6.7	2724	1238	4.560	116	7.44	189	4.94	2.24
PAC-12x2.5x400	12.000	305	2.50	64	400	7.1	3013	1370	4.467	113	7.533	191	4.65	2.11
PAC-12x2.5x425	12.000	305	2.50	64	425	7.6	2987	1358	4.473	114	7.527	191	4.81	2.19
PAC-12x2.5x450	12.000	305	2.50	64	450	8.0	3103	1411	4.698	119	7.302	185	5.12	2.33
PAC-12x2.5x475	12.000	305	2.50	64	475	8.5	3207	1458	4.553	116	7.447	189	5.39	2.45
PAC-12x2.5x500	12.000	305	2.50	64	500	8.9	3497	1589	4.664	118	7.336	186	5.44	2.47
PAC-12x2.5x525	12.000	305	2.50	64	525	9.4	3588	1631	5.165	131	6.835	174	5.86	2.66
PAC-12x2.5x550	12.000	305	2.50	64	550	9.8	3668	1667	5.331	135	6.669	169	6.46	2.94
PAC-12x2.5x575	12.000	305	2.50	64	575	10.3	3734	1697	5.506	140	6.494	165	6.58	2.99
PAC-12x2.5x600	12.000	305	2.50	64	600	10.7	4024	1829	5.294	134	6.706	170	6.87	3.12
PAC-12x2.5x625	12.000	305	2.50	64	625	11.2	4076	1853	5.478	139	6.522	166	7.01	3.19
PAC-12x2.5x650	12.000	305	2.50	64	650	11.6	4365	1984	5.284	134	6.716	171	7.12	3.24
PAC-12x2.5x675	12.000	305	2.50	64	675	12.1	4404	2002	5.476	139	6.524	166	7.25	3.30
PAC-12x2.5x700	12.000	305	2.50	64	700	12.5	4428	2013	5.674	144	6.326	161	7.54	3.43
PAC-12x2.5x750	12.000	305	2.50	64	750	13.4	4726	2148	5.699	145	6.301	160	8.11	3.69
PAC-12x2.5x800	12.000	305	2.50	64	800	14.3	4697	2135	6.129	156	5.871	149	8.81	4.00
PAC-12x2.5x900	12.000	305	2.50	64	900	16.1	5177	2353	6.248	159	5.752	146	9.93	4.51
PAC-12x2.5x1000	12.000	305	2.50	64	1000	17.9	5184	2356	6.816	173	5.184	132	10.81	4.91
<b>14" TALL</b>														
PAC-14X2.5X50	14.000	356	2.50	64	50	0.9	473	215	4.541	115	9.459	240	2.65	1.21
PAC-14X2.5X65	14.000	356	2.50	64	65	1.2	688	313	3.410	87	10.59	269	2.12	0.96
PAC-14x2.5x70	14.000	356	2.50	64	70	1.2	746	339	3.344	85	10.656	271	2.04	0.93
PAC-14x2.5x80	14.000	356	2.50	64	80	1.4	850	386	3.844	98	10.156	258	2.01	0.91
PAC-14x2.5x90	14.000	356	2.50	64	90	1.6	910	414	4.092	104	9.908	252	2.74	1.25
PAC-14x2.5x100	14.000	356	2.50	64	100	1.8	1046	476	3.641	92	10.359	263	2.72	1.24
PAC-14x2.5x110	14.000	356	2.50	64	110	2.0	1089	495	3.822	97	10.178	259	2.83	1.29
PAC-14x2.5x120	14.000	356	2.50	64	120	2.1	1225	557	3.786	96	10.214	259	2.78	1.26
PAC-14x2.5x125	14.000	356	2.50	64	125	2.2	1239	563	3.991	101	10.009	254	2.86	1.30
PAC-14x2.5x130	14.000	356	2.50	64	130	2.3	1307	594	3.893	99	10.107	257	2.91	1.32
PAC-14x2.5x140	14.000	356	2.50	64	140	2.5	1384	629	4.178	106	9.822	249	3.24	1.47
PAC-14x2.5x150	14.000	356	2.50	64	150	2.7	1520	691	4.378	111	9.622	244	3.40	1.55
PAC-14x2.5x165	14.000	356	2.50	64	165	2.9	1588	722	4.373	111	9.627	245	3.59	1.63
PAC-14x2.5x175	14.000	356	2.50	64	175	3.1	1725	784	4.584	116	9.4165	239	3.43	1.56
PAC-14x2.5x185	14.000	356	2.50	64	185	3.3	1783	811	4.727	120	9.273	236	3.56	1.62
PAC-14x2.5x200	14.000	356	2.50	64	200	3.6	1904	865	4.928	125	9.072	230	4.37	1.99
PAC-14x2.5x225	14.000	356	2.50	64	225	4.0	2054	934	5.129	130	8.871	225	4.64	2.11
PAC-14x2.5x250	14.000	356	2.50	64	250	4.5	2288	1040	5.249	133	8.751	222	5.08	2.31
PAC-14x2.5x275	14.000	356	2.50	64	275	4.9	2513	1142	5.582	142	8.418	214	5.75	2.61
PAC-14x2.5x300	14.000	356	2.50	64	300	5.4	2597	1180	5.345	136	8.655	220	5.45	2.48
PAC-14x2.5x325	14.000	356	2.50	64	325	5.8	2794	1270	5.403	137	8.597	218	5.64	2.56

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>14" TALL (cont'd)</b>														
PAC-14x2.5x350	14.000	356	2.50	64	350	6.2	2981	1355	5.766	146	8.234	209	5.74	2.61
PAC-14x2.5x375	14.000	356	2.50	64	375	6.7	3158	1436	5.849	149	8.151	207	5.92	2.69
PAC-14x2.5x400	14.000	356	2.50	64	400	7.1	3324	1511	5.901	150	8.099	206	6.30	2.86
PAC-14x2.5x425	14.000	356	2.50	64	425	7.6	3478	1581	6.104	155	7.896	201	6.57	2.99
PAC-14x2.5x450	14.000	356	2.50	64	450	8.0	3620	1646	6.034	153	7.966	202	6.93	3.15
PAC-14x2.5x475	14.000	356	2.50	64	475	8.5	3750	1705	6.105	155	7.895	201	7.30	3.32
PAC-14x2.5x500	14.000	356	2.50	64	500	8.9	3867	1758	6.267	159	7.733	196	7.56	3.44
PAC-14x2.5x525	14.000	356	2.50	64	525	9.4	4206	1912	5.989	152	8.011	203	8.82	4.01
PAC-14x2.5x550	14.000	356	2.50	64	550	9.8	4059	1845	6.620	168	7.38	187	8.84	4.02
PAC-14x2.5x575	14.000	356	2.50	64	575	10.3	4133	1879	6.812	173	7.188	183	8.98	4.08
PAC-14x2.5x600	14.000	356	2.50	64	600	10.7	4472	2033	6.546	166	7.454	189	8.54	3.88
PAC-14x2.5x625	14.000	356	2.50	64	625	11.2	4532	2060	6.749	171	7.251	184	8.98	4.08
PAC-14x2.5x650	14.000	356	2.50	64	650	11.6	4870	2214	6.507	165	7.493	190	8.66	3.94
PAC-14x2.5x675	14.000	356	2.50	64	675	12.1	4914	2234	6.720	171	7.28	185	9.13	4.15
PAC-14x2.5x700	14.000	356	2.50	64	700	12.5	4941	2246	6.941	176	7.059	179	9.62	4.37
PAC-14x2.5x750	14.000	356	2.50	64	750	13.4	4946	2248	7.406	188	6.594	167	10.67	4.85
PAC-14x2.5x800	14.000	356	2.50	64	800	14.3	5622	2556	6.972	177	7.028	179	10.04	4.56
PAC-14x2.5x900	14.000	356	2.50	64	900	16.1	5831	2651	7.521	191	6.479	165	11.46	5.21
PAC-14x2.5x1000	14.000	356	2.50	64	1000	17.9	5862	2665	8.138	207	5.862	149	13.08	5.95
<b>16" TALL</b>														
PAC-16x2.5x85	16.000	406	2.50	64	85	2.7	1012	460	4.099	104	11.901	302	2.80	1.27
PAC-16x2.5x100	16.000	406	2.50	64	100	1.8	1098	499	4.688	119	11.312	287	3.64	1.65
PAC-16X2.5X125	16.000	406	2.50	64	125	2.2	1310	596	5.518	140	10.482	266	4.60	2.09
PAC-16x2.5x150	16.000	406	2.50	64	150	2.7	1607	730	4.820	122	11.18	284	4.28	1.95
PAC-16X2.5X175	16.000	406	2.50	64	175	3.1	1749	795	6.001	152	9.9993	254	5.59	2.54
PAC-16x2.5x200	16.000	406	2.50	64	200	3.6	2114	961	4.893	124	11.107	282	5.13	2.33
PAC-16x2.5x225	16.000	406	2.50	64	225	4.0	2160	982	6.452	164	9.548	243	6.38	2.90
PAC-16x2.5x250	16.000	406	2.50	64	250	4.5	2550	1159	4.961	126	11.039	280	6.24	2.84
PAC-16x2.5x300	16.000	406	2.50	64	300	5.4	2902	1319	5.004	127	10.996	279	6.98	3.17
PAC-16x2.5x350	16.000	406	2.50	64	350	6.2	3345	1520	6.443	164	9.557	243	7.23	3.29
PAC-16x2.5x400	16.000	406	2.50	64	400	7.1	3742	1701	6.646	169	9.354	238	7.80	3.55
PAC-16x2.5x450	16.000	406	2.50	64	450	8.0	4088	1858	6.915	176	9.085	231	8.48	3.85
PAC-16x2.5x500	16.000	406	2.50	64	500	8.9	4117	1871	7.767	197	8.233	209	10.14	4.61
PAC-16x2.5x550	16.000	406	2.50	64	550	9.8	4615	2098	7.609	193	8.391	213	10.14	4.61
PAC-16x2.5x600	16.000	406	2.50	64	600	10.7	4787	2176	8.022	204	7.978	203	11.12	5.06
PAC-16X2.5X650	16.000	406	2.50	64	650	11.6	4891	2223	8.475	215	7.525	191	12.12	5.51
PAC-16x2.5x700	16.000	406	2.50	64	700	12.5	4525	2057	9.586	243	6.414	163	14.53	6.60
<b>18" TALL</b>														
PAC-18x2.5x100	18.000	457	2.50	64	100	1.8	1239	563	5.610	142	12.39	315	4.42	2.01
PAC-18x2.5x150	18.000	457	2.50	64	150	2.7	1732	787	6.454	164	11.546	293	5.81	2.64
PAC-18x2.5x200	18.000	457	2.50	64	200	3.6	2170	986	7.152	182	10.848	276	7.14	3.25
PAC-18x2.5x225	18.000	457	2.50	64	225	4.0	2335	1061	7.622	194	10.378	264	7.99	3.63
PAC-18x2.5x250	18.000	457	2.50	64	250	4.5	2623	1192	7.509	191	10.491	266	8.06	3.66
PAC-18x2.5x300	18.000	457	2.50	64	300	5.4	2981	1355	8.064	205	9.936	252	9.27	4.22
PAC-18x2.5x350	18.000	457	2.50	64	350	6.2	3453	1570	8.133	207	9.867	251	9.77	4.44
PAC-18x2.5x400	18.000	457	2.50	64	400	7.1	3874	1761	8.315	211	9.685	246	10.42	4.74
PAC-18x2.5x450	18.000	457	2.50	64	450	8.0	4239	1927	8.581	218	9.419	239	11.21	5.10
PAC-18x2.5x500	18.000	457	2.50	64	500	8.9	4543	2065	8.915	226	9.085	231	12.13	5.51

# Suspension Spring Listings

## 3.0 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>6" TALL</b>														
PAC-6x3x250	6.000	152	3.00	76	250	4.5	1081	491	1.722	44	4.278	109	1.46	0.66
<b>8" TALL</b>														
PAC-8x3x100	8.000	203	3.00	76	100	1.8	654	297	1.458	37	6.542	166	0.95	0.43
PAC-8x3x150	8.000	203	3.00	76	150	2.7	949	432	1.671	42	6.329	161	1.27	0.58
PAC-8x3x200	8.000	203	3.00	76	200	3.6	1158	526	2.209	56	5.791	147	2.01	0.91
PAC-8x3x250	8.000	203	3.00	76	250	4.5	1445	657	2.222	56	5.778	147	2.14	0.97
PAC-8x3x300	8.000	203	3.00	76	300	5.4	1713	779	2.290	58	5.71	145	2.34	1.06
PAC-8x3x350	8.000	203	3.00	76	350	6.2	1904	865	2.560	65	5.44	138	2.86	1.30
<b>10" TALL</b>														
PAC-10x3x80	10.000	254	3.00	76	80	1.4	626	285	2.226	57	7.774	197	1.59	0.72
PAC-10x3x90	10.000	254	3.00	76	90	1.6	699	318	2.288	58	7.712	196	1.69	0.77
PAC-10x3x100	10.000	254	3.00	76	100	1.8	816	371	1.845	47	8.155	207	1.32	0.60
PAC-10x3x150	10.000	254	3.00	76	150	2.7	1118	508	2.545	65	7.455	189	2.27	1.03
PAC-10x3x200	10.000	254	3.00	76	200	3.6	1464	665	2.681	68	7.319	186	2.61	1.19
PAC-10x3x250	10.000	254	3.00	76	250	4.5	1770	804	2.922	74	7.078	180	3.10	1.41
PAC-10X3X325	10.000	254	3.00	76	325	5.8	2202	1001	3.224	82	6.776	172	3.45	1.57
PAC-10X3X800	10.000	254	3.00	76	800	14.3	4834	2197	3.957	101	6.043	153	5.70	2.59
<b>12" TALL</b>														
PAC-12x3x100	12.000	305	3.00	76	100	1.8	939	427	2.606	66	9.394	239	2.12	0.96
PAC-12x3x150	12.000	305	3.00	76	150	2.7	1332	605	3.120	79	8.88	226	2.97	1.35
PAC-12x3x175	12.000	305	3.00	76	175	3.1	1520	691	3.315	84	8.685	221	3.34	1.52
PAC-12x3x200	12.000	305	3.00	76	200	3.6	1752	796	3.240	82	8.76	223	3.35	1.52
PAC-12x3x225	12.000	305	3.00	76	225	4.0	1979	900	3.203	81	8.797	223	3.40	1.55
PAC-12x3x250	12.000	305	3.00	76	250	4.5	2128	967	3.751	95	8.249	210	4.43	2.01
PAC-12x3x275	12.000	305	3.00	76	275	4.9	2339	1063	3.496	89	8.504	216	4.02	1.83
PAC-12x3x300	12.000	305	3.00	76	300	5.4	2354	1070	4.155	106	7.845	199	5.15	2.34
PAC-12x3x350	12.000	305	3.00	76	350	6.2	2715	1234	4.242	108	7.758	197	5.51	2.50
PAC-12x3x400	12.000	305	3.00	76	400	7.1	3046	1385	4.384	111	7.616	193	5.53	2.51
PAC-12x3x450	12.000	305	3.00	76	450	8.0	3344	1520	4.569	116	7.431	189	6.48	2.94
PAC-12x3x500	12.000	305	3.00	76	500	8.9	3606	1639	4.789	122	7.211	183	7.08	3.22
<b>14" TALL</b>														
PAC-14x3x75	14.000	356	3.00	76	75	1.3	852	387	2.942	75	11.058	281	2.01	0.91
PAC-14x3x100	14.000	356	3.00	76	100	1.8	1074	488	3.256	83	10.744	273	2.84	1.29
PAC-14x3x125	14.000	356	3.00	76	125	2.2	1336	607	3.309	84	10.691	272	3.07	1.39
PAC-14x3x150	14.000	356	3.00	76	150	2.7	1472	669	4.189	106	9.811	249	4.37	1.99
PAC-14x3x175	14.000	356	3.00	76	175	3.1	1749	795	4.006	102	9.994	254	4.28	1.95
PAC-14x3x200	14.000	356	3.00	76	200	3.6	1932	878	4.338	110	9.662	245	4.91	2.23
PAC-14x3x225	14.000	356	3.00	76	225	4.0	2124	965	4.562	116	9.438	240	5.40	2.46
PAC-14x3x250	14.000	356	3.00	76	250	4.5	2372	1078	4.047	103	9.9535	253	5.47	2.49
PAC-14x3x275	14.000	356	3.00	76	275	4.9	2509	1140	4.877	124	9.123	232	6.20	2.82
PAC-14x3x300	14.000	356	3.00	76	300	5.4	2736	1244	4.879	124	9.121	232	6.35	2.89
PAC-14x3x350	14.000	356	3.00	76	350	6.2	3168	1440	4.950	126	9.05	230	6.73	3.06
PAC-14x3x400	14.000	356	3.00	76	400	7.1	3412	1551	5.470	139	8.53	217	7.94	3.61

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil BindTravel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>14" TALL (cont'd)</b>														
PAC-14x3x450	14.000	356	3.00	76	450	8.0	3755	1707	5.656	144	8.344	212	8.55	3.89
PAC-14x3x500	14.000	356	3.00	76	500	8.9	4057	1844	5.887	150	8.113	206	9.26	4.21
PAC-14x3x550	14.000	356	3.00	76	550	9.8	4530	2059	5.763	146	8.237	209	9.24	4.20
PAC-14x3x650	14.000	356	3.00	76	650	11.6	4653	2115	6.891	175	7.109	181	7.16	3.25
<b>16" TALL</b>														
PAC-16x3x75	16.000	406	3.00	76	75	1.3	949	431	3.353	85	12.647	321	3.16	1.44
PAC-16x3x100	16.000	406	3.00	76	100	1.8	1237	562	3.631	92	12.369	314	3.28	1.49
PAC-16x3x125	16.000	406	3.00	76	125	2.2	1493	678	4.060	103	11.94	303	4.01	1.82
PAC-16x3x150	16.000	406	3.00	76	150	2.7	1772	805	4.189	106	11.811	300	4.37	1.99
PAC-16x3x175	16.000	406	3.00	76	175	3.1	1943	883	4.900	124	11.1	282	5.56	2.53
PAC-16x3x200	16.000	406	3.00	76	200	3.6	2092	951	5.538	141	10.462	266	6.74	3.06
PAC-16x3x225	16.000	406	3.00	76	225	4.0	2384	1084	5.403	137	10.597	269	6.73	3.06
PAC-16x3x250	16.000	406	3.00	76	250	4.5	2669	1213	5.323	135	10.677	271	6.78	3.08
PAC-16x3x300	16.000	406	3.00	76	300	5.4	2953	1342	6.156	156	9.844	250	8.58	3.90
PAC-16x3x350	16.000	406	3.00	76	350	6.2	3587	1631	5.751	146	10.249	260	8.18	3.72
PAC-16x3x400	16.000	406	3.00	76	400	7.1	3877	1762	6.308	160	9.692	246	9.54	4.34
PAC-16x3x450	16.000	406	3.00	76	450	8.0	4279	1945	6.491	165	9.509	242	10.22	4.64
PAC-16x3x500	16.000	406	3.00	76	500	8.9	4638	2108	6.725	171	9.275	236	11.00	5.00
PAC-16x3x575	16.000	406	3.00	76	575	10.3	5696	2589	6.150	156	9.85	250	10.15	4.61
PAC-16x3x600	16.000	406	3.00	76	600	10.7	5474	2488	6.876	175	9.124	232	11.89	5.40
PAC-16x3x650	16.000	406	3.00	76	650	11.6	5709	2595	7.217	183	8.783	223	12.93	5.88
PAC-16x3x700	16.000	406	3.00	76	700	12.5	6194	2816	7.151	182	8.849	225	14.54	6.61
PAC-16x3x800	16.000	406	3.00	76	800	14.3	6785	3084	7.519	191	8.481	215	14.44	6.56
<b>18" TALL</b>														
PAC-18x3x75	18.000	457	3.00	76	75	1.3	1068	485	3.764	96	14.236	362	3.20	1.46
PAC-18x3x100	18.000	457	3.00	76	100	1.8	1351	614	4.490	114	13.51	343	4.32	1.96
PAC-18x3x150	18.000	457	3.00	76	150	2.7	1941	882	5.060	129	12.94	329	5.58	2.54
PAC-18x3x200	18.000	457	3.00	76	200	3.6	2492	1133	5.538	141	12.462	317	6.74	3.06
PAC-18x3x250	18.000	457	3.00	76	250	4.5	2938	1335	6.249	159	11.751	298	8.34	3.79
PAC-18x3x300	18.000	457	3.00	76	300	5.4	3409	1550	6.637	169	11.363	289	9.45	4.29
PAC-18x3x350	18.000	457	3.00	76	350	6.2	3799	1727	7.146	182	10.854	276	10.71	4.87
PAC-18x3x400	18.000	457	3.00	76	400	7.1	4098	1863	7.756	197	10.244	260	12.48	5.67
PAC-18x3x450	18.000	457	3.00	76	450	8.0	4534	2061	7.925	201	10.075	256	13.22	6.01
PAC-18x3x500	18.000	457	3.00	76	500	8.9	4657	2117	8.686	221	9.314	237	15.30	6.95
PAC-18x3x550	18.000	457	3.00	76	550	9.8	4660	2118	9.527	242	8.473	215	17.68	8.04
PAC-18x3x600	18.000	457	3.00	76	600	10.7	5536	2516	8.773	223	9.227	234	16.28	7.40
PAC-18x3x650	18.000	457	3.00	76	650	11.6	5407	2458	9.681	246	8.319	211	18.90	8.59
PAC-18x3x700	18.000	457	3.00	76	700	12.5	6283	2856	9.025	229	8.975	228	17.90	8.14
PAC-18x3x750	18.000	457	3.00	76	750	13.4	6009	2731	9.988	254	8.012	204	20.47	9.31
PAC-18x3x800	18.000	457	3.00	76	800	14.3	6884	3129	9.395	239	8.605	219	19.26	8.75
<b>20" TALL</b>														
PAC-20x3x600	20.000	508	3.00	76	600	10.7	6765	3075	9.593	244	10.407	264	18.73	8.51
PAC-20x3x650	20.000	508	3.00	76	650	11.6	6764	3075	9.593	244	10.407	264	18.73	8.51
PAC-20x3x700	20.000	508	3.00	76	700	12.5	7745	3520	8.936	227	11.064	281	17.45	7.93

# Suspension Spring Listings

## 3.75 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>12" TALL</b>														
PAC-12x3.75x100	12.000	305	3.75	95	100	1.8								Call For Pricing and Availability
PAC-12x3.75x125	12.000	305	3.75	95	125	2.2								Call For Pricing and Availability
PAC-12x3.75x150	12.000	305	3.75	95	150	2.7								Call For Pricing and Availability
PAC-12x3.75x250	12.000	305	3.75	95	250	4.5								Call For Pricing and Availability
PAC-12x3.75x350	12.000	305	3.75	95	350	6.2								Call For Pricing and Availability
PAC-12x3.75x450	12.000	305	3.75	95	450	8.0								Call For Pricing and Availability
PAC-12x3.75x500	12.000	305	3.75	95	500	8.9								Call For Pricing and Availability
PAC-12x3.75x550	12.000	305	3.75	95	550	9.8								Call For Pricing and Availability
<b>14" TALL</b>														
PAC-14x3.75x100	14.000	356	3.75	95	100	1.8								Call For Pricing and Availability
PAC-14x3.75x150	14.000	356	3.75	95	150	2.7								Call For Pricing and Availability
PAC-14x3.75x200	14.000	356	3.75	95	200	3.6								Call For Pricing and Availability
PAC-14x3.75x300	14.000	356	3.75	95	300	5.4								Call For Pricing and Availability
PAC-14x3.75x400	14.000	356	3.75	95	400	7.1								Call For Pricing and Availability
PAC-14x3.75x500	14.000	356	3.75	95	500	8.9								Call For Pricing and Availability
<b>16" TALL</b>														
PAC-16x3.75x300	16.000	406	3.75	95	300	5.4								Call For Pricing and Availability
PAC-16x3.75x350	16.000	406	3.75	95	350	6.2								Call For Pricing and Availability
PAC-16x3.75x400	16.000	406	3.75	95	400	7.1								Call For Pricing and Availability
PAC-16x3.75x450	16.000	406	3.75	95	450	8.0								Call For Pricing and Availability
PAC-16x3.75x500	16.000	406	3.75	95	500	8.9								Call For Pricing and Availability
PAC-16x3.75x600	16.000	406	3.75	95	600	10.7								Call For Pricing and Availability
PAC-16x3.75x700	16.000	406	3.75	95	700	12.5								Call For Pricing and Availability
PAC-16x3.75x800	16.000	406	3.75	95	800	14.3								Call For Pricing and Availability
PAC-16x3.75x900	16.000	406	3.75	95	900	16.1								Call For Pricing and Availability
PAC-16x3.75x1000	16.000	406	3.75	95	1000	17.9								Call For Pricing and Availability
<b>18" TALL</b>														
PAC-18x3.75x75	18.000	457	3.75	95	75	1.3								Call For Pricing and Availability
PAC-18x3.75x300	18.000	457	3.75	95	300	5.4								Call For Pricing and Availability
PAC-18x3.75x400	18.000	457	3.75	95	400	7.1								Call For Pricing and Availability
PAC-18x3.75x500	18.000	457	3.75	95	500	8.9								Call For Pricing and Availability
PAC-18x3.75x600	18.000	457	3.75	95	600	10.7								Call For Pricing and Availability
PAC-18x3.75x700	18.000	457	3.75	95	700	12.5								Call For Pricing and Availability
PAC-18x3.75x800	18.000	457	3.75	95	800	14.3								Call For Pricing and Availability
PAC-18x3.75x900	18.000	457	3.75	95	900	16.1								Call For Pricing and Availability
PAC-18x3.75x1000	18.000	457	3.75	95	1000	17.9								Call For Pricing and Availability

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)

### 20" TALL

PAC-20x3.75x300	20.000	508	3.75	95	300	5.4								Call For Pricing and Availability
PAC-20x3.75x400	20.000	508	3.75	95	400	7.1								Call For Pricing and Availability
PAC-20x3.75x500	20.000	508	3.75	95	500	8.9								Call For Pricing and Availability
PAC-20x3.75x600	20.000	508	3.75	95	600	10.7								Call For Pricing and Availability
PAC-20x3.75x700	20.000	508	3.75	95	700	12.5								Call For Pricing and Availability
PAC-20x3.75x800	20.000	508	3.75	95	800	14.3								Call For Pricing and Availability
PAC-20x3.75x900	20.000	508	3.75	95	900	16.1								Call For Pricing and Availability
PAC-20x3.75x1000	20.000	508	3.75	95	1000	17.9								Call For Pricing and Availability

### 22" TALL

PAC-22x3.75x250	22.000	559	3.75	95	250	4.5								Call For Pricing and Availability
PAC-22x3.75x300	22.000	559	3.75	95	300	5.4								Call For Pricing and Availability
PAC-22x3.75x400	22.000	559	3.75	95	400	7.1								Call For Pricing and Availability
PAC-22x3.75x500	22.000	559	3.75	95	500	8.9								Call For Pricing and Availability
PAC-22x3.75x600	22.000	559	3.75	95	600	10.7								Call For Pricing and Availability
PAC-22x3.75x700	22.000	559	3.75	95	700	12.5								Call For Pricing and Availability
PAC-22x3.75x800	22.000	559	3.75	95	800	14.3								Call For Pricing and Availability
PAC-22x3.75x900	22.000	559	3.75	95	900	16.1								Call For Pricing and Availability
PAC-22x3.75x1000	22.000	559	3.75	95	1000	17.9								Call For Pricing and Availability

### 24" TALL

PAC-24x3.75x225	24.000	610	3.75	95	225	4.0								Call For Pricing and Availability
PAC-24x3.75x300	24.000	610	3.75	95	300	5.4								Call For Pricing and Availability
PAC-24x3.75x475	24.000	610	3.75	95	475	8.5								Call For Pricing and Availability

### 26" TALL

PAC-26x3.75x450	26.000	660	3.75	95	450	8.0								Call For Pricing and Availability
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### 32" TALL

PAC-32x3.75x150	32.000	813	3.75	95	150	2.7								Call For Pricing and Availability
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### 36" TALL

PAC-36x3.75x175	36.000	914	3.75	95	175	3.1								Call For Pricing and Availability
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## Mike Palmer's Baja 1000 Trophy Truck

Equipped with custom 3.75 ID  
Suspension Springs



# JEEPSPEED SPRINGS

CHOOSE PAC FOR A WEIGHT SAVINGS OF NEAR 5 LBS OVER COMPETITION!

→ PAC Jeep Speed Springs

Competitor Springs

13.5 lbs

18 lbs

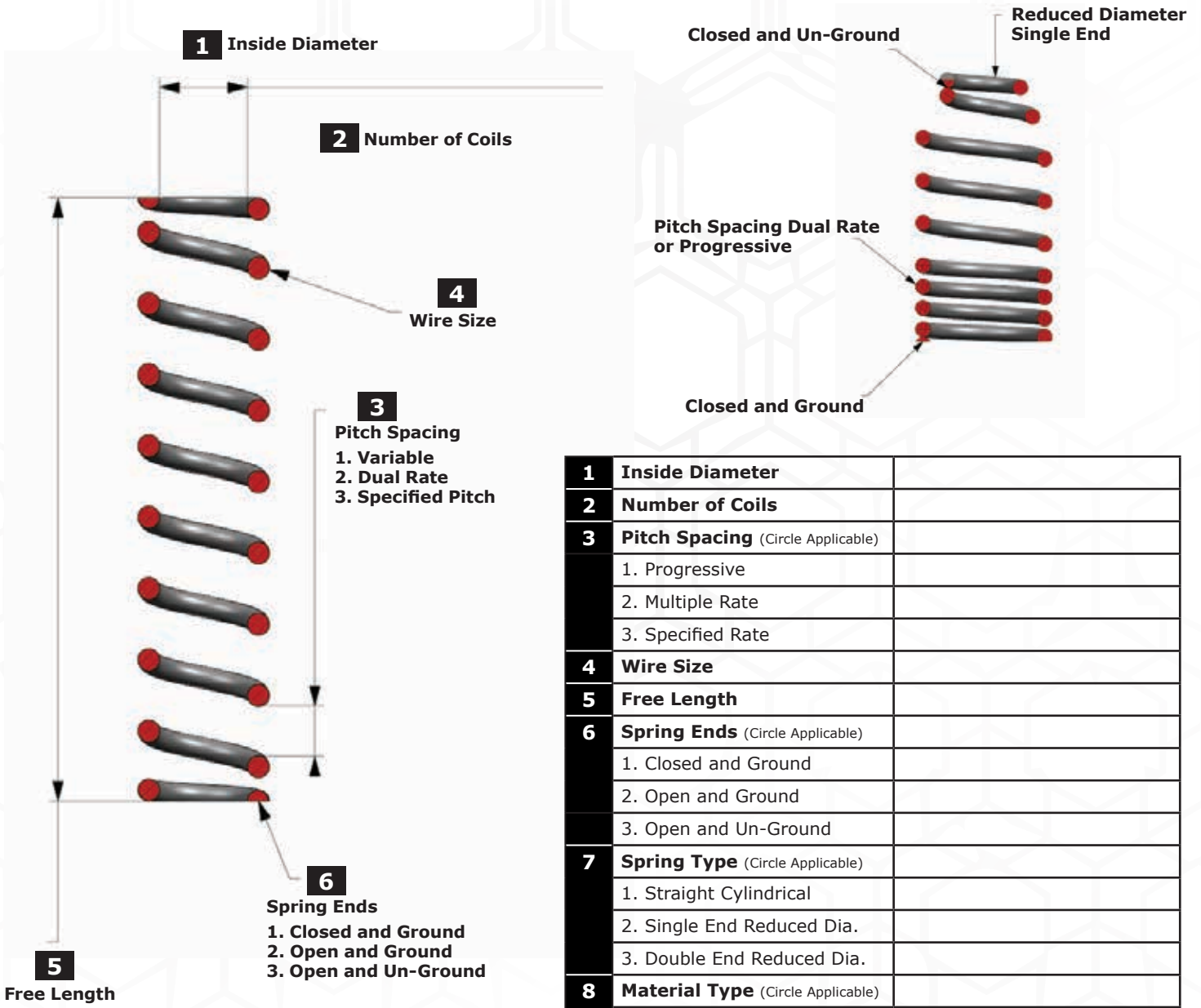


Part Number	Nominal Free Length	Nominal Inside Diameter (top)	Nominal Inside Diameter (bottom)	Linear Spring Rate	Coil Bind Height	Free Length to Coil Bind Travel (total)	Spring Weight	Rate Type	Lift Height (Est.)	Type and Comments
	(in)	(in)	(in)	(lbs/in)	(in)	(in)	(lbs)			
PAC-JP25x4.0x200P	25.000	2.530	4.04	200	9.50	15.500	17.3	Progressive	8.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP24x4.0x130P	24.000	2.530	4.04	130	8.38	15.620	13.3	Progressive	7.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x200P	22.000	2.530	4.04	200	9.500	12.500	17.3	Progressive	6.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x220P	22.000	2.530	4.04	220	8.400	13.600	14.9	Progressive	6.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x250P	22.000	2.530	4.04	250	7.600	14.400	13.3	Progressive	6.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x250L	22.000	2.530	4.04	250	7.100	14.900	12.2	Linear	6.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x180P	22.000	2.530	4.04	180	7.100	14.900	12.2	Progressive	6.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP22x4.0x165P	22.000	2.530	4.04	165	7.000	15.000	10.5	Progressive	4.0 inch	Front Coil Spring Can be used as ZJ Rear
PAC-JP20x4.0x200P	20.000	2.530	4.04	200	6.200	13.800	9.1	Progressive	4.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP20x4.0x250P	20.000	2.530	4.04	250	7.000	13.000	11.6	Progressive	4.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP18x4.0x200P	18.000	2.530	4.04	200	6.500	11.500	9.8	Progressive	2.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)
PAC-JP18x4.0x250P	18.000	2.530	4.04	250	5.700	12.300	8.8	Progressive	2.0 inch	Front Coil Spring for Jeep Vehicle (Race Use)

Jeep is a registered trademark of the Chrysler Corporation



# CUSTOM SPRING DESIGN REQUEST FORM



<b>1</b>	<b>Inside Diameter</b>	
<b>2</b>	<b>Number of Coils</b>	
<b>3</b>	<b>Pitch Spacing</b> (Circle Applicable)	
	1. Progressive	
	2. Multiple Rate	
	3. Specified Rate	
<b>4</b>	<b>Wire Size</b>	
<b>5</b>	<b>Free Length</b>	
<b>6</b>	<b>Spring Ends</b> (Circle Applicable)	
	1. Closed and Ground	
	2. Open and Ground	
	3. Open and Un-Ground	
<b>7</b>	<b>Spring Type</b> (Circle Applicable)	
	1. Straight Cylindrical	
	2. Single End Reduced Dia.	
	3. Double End Reduced Dia.	
<b>8</b>	<b>Material Type</b> (Circle Applicable)	
	1. Standard Spring Steel	
	2. Super High Tensile Alloy	
	3. High Temperature	
	4. Titanium	
	5. Shaped Wire	
<b>9</b>	Bind Height	
<b>10</b>	Application	
<b>11</b>	Spring Rate	
<b>12</b>	Target Pricing	

CONTACT NAME \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

ZIP CODE \_\_\_\_\_ COUNTRY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

FAX NUMBER \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

WEBSITE \_\_\_\_\_

**Additional Notes or Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



LUCAS  
OIL PRODUCTS  
INC.

Grizzly

Powerstroke

Miller

WARN

MILLER  
RUGGIERO

FOX

SPIDERTRAX  
OFF-ROAD

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WAGNER

WAGNER

Proudly made in the U.S.A

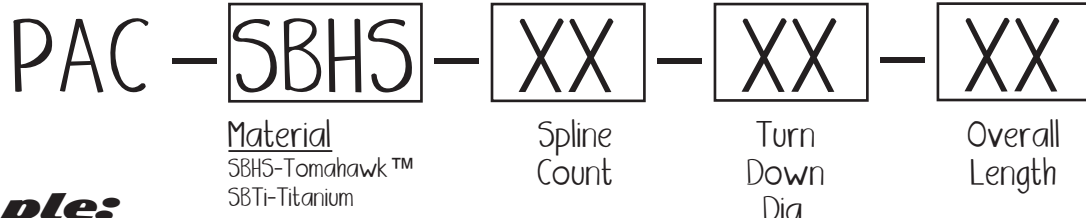


# ***Racing Sway Bars***

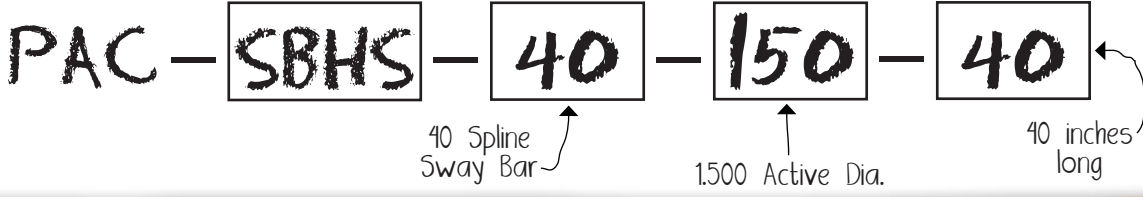


# About PAC Sway Bars

## How to order:



## Example:



## SWAY BAR PAC ADVANTAGE

PAC Racing Springs is a stand alone division of Peterson Spring which has been in business for over 100 years. **Peterson Spring is the largest family owned and privately held spring company in the United States.** While PAC Racing Springs specializes in valve springs, we have developed a substantial suspension spring product line, this product utilizes our technology from valve springs. PAC Racing Springs has world class engineering, materials, testing, manufacturing, and distribution systems that will react to your needs.

### WHY ARE PAC RACING SWAY BARS BETTER?

We demand the highest technology and best performance from our products-we work very diligently ensuring our designs, materials, and processing withstand all performance requirements. **Years of experience in high stressed valve springs and race engines, provides understanding on what it takes to manufacture a lighter, better performing sway bar.**

We validate these claims by testing the competition in our Dynamics Laboratory, setting baseline standards to exceed current sag (load loss), spring weight, and fatigue life. Cost is always a factor and with being a division of Peterson Spring, it allows for our metallurgists to demand the highest strength alloys, while leveraging our suppliers to meet market price demands.

• FK Rod Ends were selected because they cater to high stress racing applications. All rod ends are made in the USA, the way it should be!



• ARP Racing Products fasteners were also selected for their high performance reputation. If you race, you should be using ARP hardware to get you to the finish line.



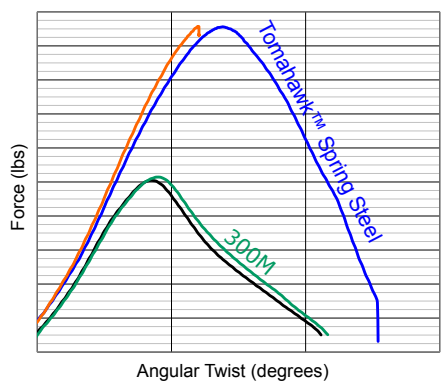
**PAC QUALITY**  
 • 5 Year limited warranty  
 • 30-40% stronger than 300M

### WHY DO WE POWDERCOAT?

- We coat sway bars to prevent rust - rust pitting could cause bar failure.
- Better coating than paint with improved corrosion resistance - longer life.
- Thicker coating without runs or sags.
- Practically no waste from overspray.
- Less VOC's transmitted to environment - more environmentally friendly.



### TOMAHAWK™ SPRING STEEL 30-40% BETTER ULTIMATE TENSILE STRENGTH (UTS)



PAC Racing has performed extensive testing evaluating the strength of Tomahawk™ Steel vs. the previous industry standard for performance: 300M. Our results speak for themselves, and we provide a sway bar material that is stronger with better fatigue life at about the same cost!

— 300M Test 1  
 — 300M Test 2  
 — Tomahawk Steel Test 1  
 — Tomahawk Steel Test 2

All Sway Bars come with thread for cap

## 45 SPLINE

1.900 Major Dia.  
1.750 Max Active  
Special Order

## 40 SPLINE

1.750 Major Dia.  
1.625 Max Active  
Special Order

## 35 SPLINE

1.500 Major Dia.  
1.375 Max Active

## 28 SPLINE

1.200 Major Dia.  
1.100 Max Active

## GUN DRILL

Option available  
35 thru 45 Spline  
Special Order



Gun Drilled  
Retainment Washer

Standard  
Retainment  
Washer

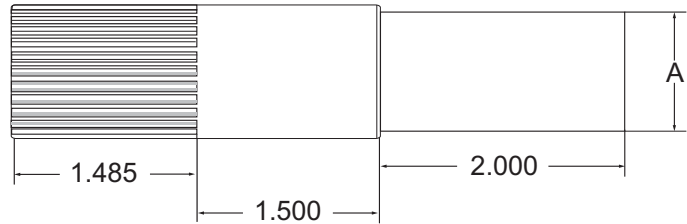
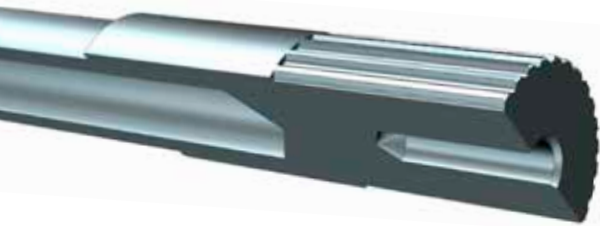
# CHROME MOLY TUBING SWAY BARS

## Make your own Sway Bar!

Chrome Moly DOM Tubing



TUBE INSERTS				
Part Number	Tubing OD	Tubing ID (DIM A)	Tubing Wall Thickness	Spline
<b>28 Spline</b>				
PAC-SBDOM-28-120	1.250	1.005	0.120	28
PAC-SBDOM-28-088	1.250	1.080	0.088	28
<b>35 Spline</b>				
PAC-SBDOM-35-120	1.500	1.260	0.120	35
PAC-SBDOM-35-088	1.500	1.335	0.088	35



## DOM SWAY BAR TECHNICAL DATA

Part Number	lb-ft-in (divide by bar length for torque)	Not Recommended Unless Heat Treated		Recommended Without Heat Treat			
		12" length twisted 10 deg (ft-lbs)	18" length twisted 10 deg (ft-lbs)	24" length twisted 10 deg (ft-lbs)	30" length twisted 10 deg (ft-lbs)	36" length twisted 10 deg (ft-lbs)	42" length twisted 10 deg (ft-lbs)
PAC-DOM125-120	23402	1950	1300	975	780	650	557
PAC-DOM125-088	18559	1547	1031	773	619	516	442
PAC-DOM150-120	42468	3539	2359	1770	1416	1180	1011
PAC-DOM150-088	33239	2770	1847	1385	1108	923	791

### DOM Tubing By the Foot

PAC-DOM125-120  
PAC-DOM125-088  
PAC-DOM150-120  
PAC-DOM150-088

\*\*\* Note when ordering specify QTY for length  
(example PAC-DOM125-120 Qty 3 Equals 3 ft)



# 28 SPLINE TOMAHAK™ STEEL SWAY BARS

Part number includes small package of loctite, custom fender washers and ARP flanged head cap screws for the end of the sway bar.

## 0.750" ACTIVE DIAMETER BARS

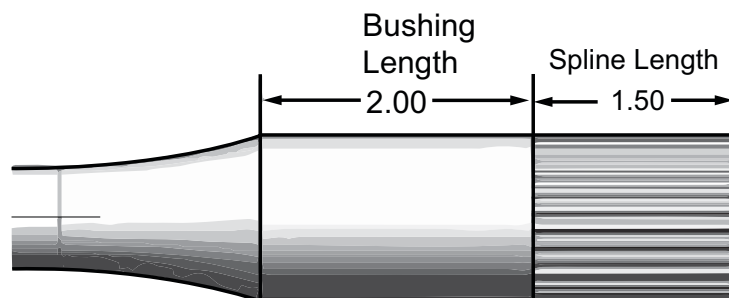
Part No. (For Titanium, Substitute TI for HS)	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-28-75-30	30.0	27.0	0.750	2.00
PAC-SBHS-28-75-31	31.0	28.0	0.750	2.00
PAC-SBHS-28-75-32	32.0	29.0	0.750	2.00
PAC-SBHS-28-75-33	33.0	30.0	0.750	2.00
PAC-SBHS-28-75-34	34.0	31.0	0.750	2.00
PAC-SBHS-28-75-35	35.0	32.0	0.750	2.00
PAC-SBHS-28-75-36	36.0	33.0	0.750	2.00
PAC-SBHS-28-75-37	37.0	34.0	0.750	2.00
PAC-SBHS-28-75-38	38.0	35.0	0.750	2.00
PAC-SBHS-28-75-39	39.0	36.0	0.750	2.00
PAC-SBHS-28-75-40	40.0	37.0	0.750	2.00
PAC-SBHS-28-75-41	41.0	38.0	0.750	2.00
PAC-SBHS-28-75-42	42.0	39.0	0.750	2.00
PAC-SBHS-28-75-43	43.0	40.0	0.750	2.00
PAC-SBHS-28-75-44	44.0	41.0	0.750	2.00
PAC-SBHS-28-75-45	45.0	42.0	0.750	2.00
PAC-SBHS-28-75-46	46.0	43.0	0.750	2.00
PAC-SBHS-28-75-47	47.0	44.0	0.750	2.00
PAC-SBHS-28-75-48	48.0	45.0	0.750	2.00
PAC-SBHS-28-75-49	49.0	46.0	0.750	2.00
PAC-SBHS-28-75-50	50.0	47.0	0.750	2.00

## 0.875" ACTIVE DIAMETER BARS

Part No. (For Titanium, Substitute TI for HS)	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-28-875-30	30.0	27.0	0.875	2.00
PAC-SBHS-28-875-31	31.0	28.0	0.875	2.00
PAC-SBHS-28-875-32	32.0	29.0	0.875	2.00
PAC-SBHS-28-875-33	33.0	30.0	0.875	2.00
PAC-SBHS-28-875-34	34.0	31.0	0.875	2.00
PAC-SBHS-28-875-35	35.0	32.0	0.875	2.00
PAC-SBHS-28-875-36	36.0	33.0	0.875	2.00
PAC-SBHS-28-875-37	37.0	34.0	0.875	2.00
PAC-SBHS-28-875-38	38.0	35.0	0.875	2.00
PAC-SBHS-28-875-39	39.0	36.0	0.875	2.00
PAC-SBHS-28-875-40	40.0	37.0	0.875	2.00
PAC-SBHS-28-875-41	41.0	38.0	0.875	2.00
PAC-SBHS-28-875-42	42.0	39.0	0.875	2.00
PAC-SBHS-28-875-43	43.0	40.0	0.875	2.00
PAC-SBHS-28-875-44	44.0	41.0	0.875	2.00
PAC-SBHS-28-875-45	45.0	42.0	0.875	2.00
PAC-SBHS-28-875-46	46.0	43.0	0.875	2.00
PAC-SBHS-28-875-47	47.0	44.0	0.875	2.00
PAC-SBHS-28-875-48	48.0	45.0	0.875	2.00
PAC-SBHS-28-875-49	49.0	46.0	0.875	2.00
PAC-SBHS-28-875-50	50.0	47.0	0.875	2.00

## 1.000" ACTIVE DIAMETER BARS

Part No. (For Titanium, Substitute TI for HS)	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-28-100-30	30.0	27.0	1.00	2.00
PAC-SBHS-28-100-31	31.0	28.0	1.00	2.00
PAC-SBHS-28-100-32	32.0	29.0	1.00	2.00
PAC-SBHS-28-100-33	33.0	30.0	1.00	2.00
PAC-SBHS-28-100-34	34.0	31.0	1.00	2.00
PAC-SBHS-28-100-35	35.0	32.0	1.00	2.00
PAC-SBHS-28-100-36	36.0	33.0	1.00	2.00
PAC-SBHS-28-100-37	37.0	34.0	1.00	2.00
PAC-SBHS-28-100-38	38.0	35.0	1.00	2.00
PAC-SBHS-28-100-39	39.0	36.0	1.00	2.00
PAC-SBHS-28-100-40	40.0	37.0	1.00	2.00
PAC-SBHS-28-100-41	41.0	38.0	1.00	2.00
PAC-SBHS-28-100-42	42.0	39.0	1.00	2.00
PAC-SBHS-28-100-43	43.0	40.0	1.00	2.00
PAC-SBHS-28-100-44	44.0	41.0	1.00	2.00
PAC-SBHS-28-100-45	45.0	42.0	1.00	2.00
PAC-SBHS-28-100-46	46.0	43.0	1.00	2.00
PAC-SBHS-28-100-47	47.0	44.0	1.00	2.00
PAC-SBHS-28-100-48	48.0	45.0	1.00	2.00
PAC-SBHS-28-100-49	49.0	46.0	1.00	2.00
PAC-SBHS-28-100-50	50.0	47.0	1.00	2.00



PAC Racing selected the highest quality hardware available for the bolts in the end of the sway bar. ARP has years of racing experience to get you to the finish line!

28 SPLINE

## 28 SPLINE TOMAHAWK™ STEEL SWAY BAR TECHNICAL DATA

Part Number	Overall Length (in)	Weight (lbs)	Stiffness (lb-ft/deg)	30 Degree Twist					45 Degree Twist					60 Degree Twist				
				12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)	12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)	12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)
<b>0.750" ACTIVE DIAMETER 28 SPLINE SWAY BAR</b>																		
PAC-SBHS-28-75-30	30.0	5.1	23.90	717	574	478	410	358	1075	860	717	614	538	1434	1147	956	819	717
PAC-SBHS-28-75-31	31.0	5.2	22.86	686	549	457	392	343	1029	823	686	588	514	1372	1097	915	784	686
PAC-SBHS-28-75-32	32.0	5.3	21.92	657	526	438	376	329	986	789	657	564	493	1315	1052	877	751	657
PAC-SBHS-28-75-33	33.0	5.5	21.04	631	505	421	361	316	947	758	631	541	473	1263	1010	842	721	631
PAC-SBHS-28-75-34	34.0	5.6	20.24	607	486	405	347	304	911	729	607	520	455	1214	971	809	694	607
PAC-SBHS-28-75-35	35.0	5.7	19.49	585	468	390	334	292	877	702	585	501	439	1169	936	780	668	585
PAC-SBHS-28-75-36	36.0	5.8	18.80	564	451	376	322	282	846	677	564	483	423	1128	902	752	645	564
PAC-SBHS-28-75-37	37.0	6.0	18.15	545	436	363	311	272	817	653	545	467	408	1089	871	726	622	545
PAC-SBHS-28-75-38	38.0	6.1	17.55	526	421	351	301	263	790	632	526	451	395	1053	842	702	602	526
PAC-SBHS-28-75-39	39.0	6.2	16.99	510	408	340	291	255	764	611	510	437	382	1019	815	679	582	510
PAC-SBHS-28-75-40	40.0	6.3	16.46	494	395	329	282	247	741	592	494	423	370	987	790	658	564	494
PAC-SBHS-28-75-41	41.0	6.5	15.96	479	383	319	274	239	718	575	479	410	359	958	766	638	547	479
PAC-SBHS-28-75-42	42.0	6.6	15.49	465	372	310	266	232	697	558	465	398	349	930	744	620	531	465
PAC-SBHS-28-75-43	43.0	6.7	15.05	452	361	301	258	226	677	542	452	387	339	903	722	602	516	452
PAC-SBHS-28-75-44	44.0	6.9	14.63	439	351	293	251	220	659	527	439	376	329	878	702	585	502	439
PAC-SBHS-28-75-45	45.0	7.0	14.24	427	342	285	244	214	641	513	427	366	320	854	684	570	488	427
PAC-SBHS-28-75-46	46.0	7.1	13.87	416	333	277	238	208	624	499	416	357	312	832	666	555	475	416
PAC-SBHS-28-75-47	47.0	7.2	13.51	405	324	270	232	203	608	486	405	347	304	811	649	540	463	405
PAC-SBHS-28-75-48	48.0	7.4	13.18	395	316	264	226	198	593	474	395	339	296	791	632	527	452	395
PAC-SBHS-28-75-49	49.0	7.5	12.86	386	309	257	220	193	578	463	386	331	289	771	617	514	441	386
PAC-SBHS-28-75-50	50.0	7.6	12.55	376	301	251	215	188	565	452	376	323	282	753	602	502	430	376
<b>0.875" ACTIVE DIAMETER 28 SPLINE SWAY BAR</b>																		
PAC-SBHS-28-875-30	30.0	6.1	43.72	1312	1049	874	749	656	1967	1574	1312	1124	984	2623	2098	1749	1499	1312
PAC-SBHS-28-875-31	31.0	6.3	41.85	1256	1004	837	717	628	1883	1507	1256	1076	942	2511	2009	1674	1435	1256
PAC-SBHS-28-875-32	32.0	6.5	40.14	1204	963	803	688	602	1806	1445	1204	1032	903	2408	1926	1605	1376	1204
PAC-SBHS-28-875-33	33.0	6.7	38.55	1157	925	771	661	578	1735	1388	1157	991	867	2313	1851	1542	1322	1157
PAC-SBHS-28-875-34	34.0	6.8	37.09	1113	890	742	636	556	1669	1335	1113	954	835	2226	1781	1484	1272	1113
PAC-SBHS-28-875-35	35.0	7.0	35.74	1072	858	715	613	536	1608	1287	1072	919	804	2144	1716	1430	1225	1072
PAC-SBHS-28-875-36	36.0	7.2	34.48	1034	828	690	591	517	1552	1241	1034	887	776	2069	1655	1379	1182	1034
PAC-SBHS-28-875-37	37.0	7.3	33.31	999	799	666	571	500	1499	1199	999	857	749	1999	1599	1332	1142	999
PAC-SBHS-28-875-38	38.0	7.5	32.21	966	773	644	552	483	1450	1160	966	828	725	1933	1546	1289	1104	966
PAC-SBHS-28-875-39	39.0	7.7	31.19	936	749	624	535	468	1403	1123	936	802	702	1871	1497	1248	1069	936
PAC-SBHS-28-875-40	40.0	7.9	30.23	907	725	605	518	453	1360	1088	907	777	680	1814	1451	1209	1036	907
PAC-SBHS-28-875-41	41.0	8.0	29.32	880	704	586	503	440	1319	1056	880	754	660	1759	1407	1173	1005	880
PAC-SBHS-28-875-42	42.0	8.2	28.47	854	683	569	488	427	1281	1025	854	732	641	1708	1366	1139	976	854
PAC-SBHS-28-875-43	43.0	8.4	27.66	830	664	553	474	415	1245	996	830	711	622	1660	1328	1107	948	830
PAC-SBHS-28-875-44	44.0	8.5	26.90	807	646	538	461	404	1211	969	807	692	605	1614	1291	1076	922	807
PAC-SBHS-28-875-45	45.0	8.7	26.18	786	628	524	449	393	1178	943	786	673	589	1571	1257	1047	898	786
PAC-SBHS-28-875-46	46.0	8.9	25.50	765	612	510	437	383	1148	918	765	656	574	1530	1224	1020	874	765
PAC-SBHS-28-875-47	47.0	9.0	24.86	746	597	497	426	373	1118	895	746	639	559	1491	1193	994	852	746
PAC-SBHS-28-875-48	48.0	9.2	24.24	727	582	485	416	364	1091	873	727	623	545	1454	1164	970	831	727
PAC-SBHS-28-875-49	49.0	9.4	23.65	710	568	473	406	355	1064	852	710	608	532	1419	1135	946	811	710
PAC-SBHS-28-875-50	50.0	9.6	23.10	693	554	462	396	346	1039	831	693	594	520	1386	1109	924	792	693



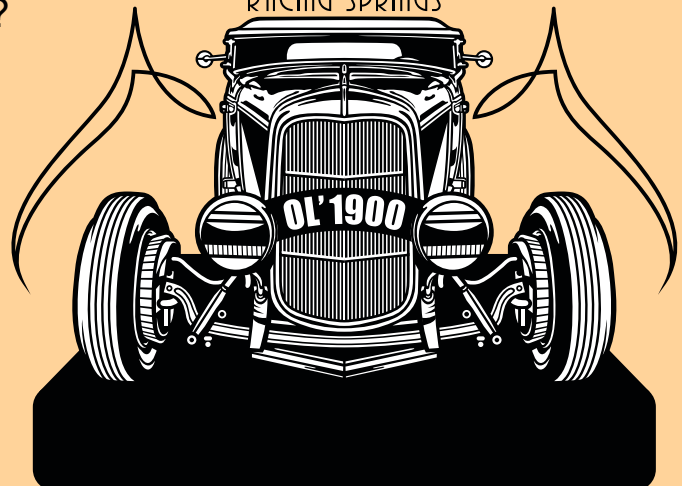
# 28 SPLINE TOMAHAWK™ STEEL SWAY BAR TECHNICAL DATA

Part Number	Overall Length (in)	Weight (lbs)	Stiffness (lb-ft/deg)	30 Degree Twist					45 Degree Twist					60 Degree Twist					
				12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)	12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)	12" Link Arm Reaction Force (Lbs)	15" Link Arm Reaction Force (Lbs)	18" Link Arm Reaction Force (Lbs)	21" Link Arm Reaction Force (Lbs)	24" Link Arm Reaction Force (Lbs)	
<b>1.000" ACTIVE DIAMETER 28 SPLINE SWAY BAR</b>																			
PAC-SBHS-28-100-30	30.0	7.4	73.47	2204	1763	1469	1259	1102	3306	2645	2204	1889	1653	4408	3526	2939	2519	2204	
PAC-SBHS-28-100-31	31.0	7.6	70.37	2111	1689	1407	1206	1056	3167	2533	2111	1810	1583	4222	3378	2815	2413	2111	
PAC-SBHS-28-100-32	32.0	7.8	67.53	2026	1621	1351	1158	1013	3039	2431	2026	1736	1519	4052	3241	2701	2315	2026	
PAC-SBHS-28-100-33	33.0	8.1	64.90	1947	1558	1298	1113	974	2921	2337	1947	1669	1460	3894	3115	2596	2225	1947	
PAC-SBHS-28-100-34	34.0	8.3	62.48	1874	1499	1250	1071	937	2811	2249	1874	1607	1406	3749	2999	2499	2142	1874	
PAC-SBHS-28-100-35	35.0	8.5	60.22	1807	1445	1204	1032	903	2710	2168	1807	1549	1355	3613	2891	2409	2065	1807	
PAC-SBHS-28-100-36	36.0	8.7	58.13	1744	1395	1163	997	872	2616	2093	1744	1495	1308	3488	2790	2325	1993	1744	
PAC-SBHS-28-100-37	37.0	9.0	56.17	1685	1348	1123	963	843	2528	2022	1685	1444	1264	3370	2696	2247	1926	1685	
PAC-SBHS-28-100-38	38.0	9.2	54.35	1630	1304	1087	932	815	2446	1957	1630	1398	1223	3261	2609	2174	1863	1630	
PAC-SBHS-28-100-39	39.0	9.4	52.64	1579	1263	1053	902	790	2369	1895	1579	1353	1184	3158	2526	2105	1805	1579	
PAC-SBHS-28-100-40	40.0	9.6	51.03	1531	1225	1021	875	765	2296	1837	1531	1312	1148	3062	2449	2041	1750	1531	
PAC-SBHS-28-100-41	41.0	9.8	49.52	1485	1188	990	849	743	2228	1783	1485	1273	1114	2971	2377	1981	1698	1485	
PAC-SBHS-28-100-42	42.0	10.1	48.09	1443	1154	962	824	721	2164	1731	1443	1237	1082	2885	2308	1924	1649	1443	
PAC-SBHS-28-100-43	43.0	10.3	46.74	1402	1122	935	801	701	2103	1683	1402	1202	1052	2805	2244	1870	1603	1402	
PAC-SBHS-28-100-44	44.0	10.5	45.47	1364	1091	909	780	682	2046	1637	1364	1169	1023	2728	2183	1819	1559	1364	
PAC-SBHS-28-100-45	45.0	10.7	44.27	1328	1062	885	759	664	1992	1594	1328	1138	996	2656	2125	1771	1518	1328	
PAC-SBHS-28-100-46	46.0	11.0	43.12	1294	1035	862	739	647	1941	1552	1294	1109	970	2587	2070	1725	1479	1294	
PAC-SBHS-28-100-47	47.0	11.2	42.04	1261	1009	841	721	631	1892	1513	1261	1081	946	2522	2018	1682	1441	1261	
PAC-SBHS-28-100-48	48.0	11.4	41.01	1230	984	820	703	615	1845	1476	1230	1054	923	2460	1968	1640	1406	1230	
PAC-SBHS-28-100-49	49.0	11.6	40.02	1201	961	800	686	600	1801	1441	1201	1029	901	2401	1921	1601	1372	1201	
PAC-SBHS-28-100-50	50.0	11.9	39.09	1173	938	782	670	586	1759	1407	1173	1005	879	2345	1876	1564	1340	1173	

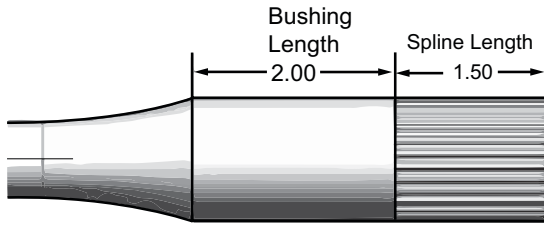
**28 SPLINE**

HAVE A **HOT ROD** PROJECT CAR?

PAC Racing Springs started manufacturing sway bars for the off road industry based on extremely demanding applications. The same high strength sway bars can now be used in your hot rod, pro-street, pro-touring, and drag race applications.



# 35 SPLINE TOMAHAWK™ STEEL SWAY BARS



Part number includes small package of loctite, custom fender washers and ARP flanged head cap screws for the end of the sway bar.

## 0.875" Active Diameter Bars

Part Number	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-35-875-30	30.0	27.0	0.875	2.00
PAC-SBHS-35-875-31	31.0	28.0	0.875	2.00
PAC-SBHS-35-875-32	32.0	29.0	0.875	2.00
PAC-SBHS-35-875-33	33.0	30.0	0.875	2.00
PAC-SBHS-35-875-34	34.0	31.0	0.875	2.00
PAC-SBHS-35-875-35	35.0	32.0	0.875	2.00
PAC-SBHS-35-875-36	36.0	33.0	0.875	2.00
PAC-SBHS-35-875-37	37.0	34.0	0.875	2.00
PAC-SBHS-35-875-38	38.0	35.0	0.875	2.00
PAC-SBHS-35-875-39	39.0	36.0	0.875	2.00
PAC-SBHS-35-875-40	40.0	37.0	0.875	2.00
PAC-SBHS-35-875-41	41.0	38.0	0.875	2.00
PAC-SBHS-35-875-42	42.0	39.0	0.875	2.00
PAC-SBHS-35-875-43	43.0	40.0	0.875	2.00
PAC-SBHS-35-875-44	44.0	41.0	0.875	2.00
PAC-SBHS-35-875-45	45.0	42.0	0.875	2.00
PAC-SBHS-35-875-46	46.0	43.0	0.875	2.00
PAC-SBHS-35-875-47	47.0	44.0	0.875	2.00
PAC-SBHS-35-875-48	48.0	45.0	0.875	2.00
PAC-SBHS-35-875-49	49.0	46.0	0.875	2.00
PAC-SBHS-35-875-50	50.0	47.0	0.875	2.00

## 1.125" Active Diameter Bars

Part Number	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-35-112-30	30.0	27.0	1.125	2.00
PAC-SBHS-35-112-31	31.0	28.0	1.125	2.00
PAC-SBHS-35-112-32	32.0	29.0	1.125	2.00
PAC-SBHS-35-112-33	33.0	30.0	1.125	2.00
PAC-SBHS-35-112-34	34.0	31.0	1.125	2.00
PAC-SBHS-35-112-35	35.0	32.0	1.125	2.00
PAC-SBHS-35-112-36	36.0	33.0	1.125	2.00
PAC-SBHS-35-112-37	37.0	34.0	1.125	2.00
PAC-SBHS-35-112-38	38.0	35.0	1.125	2.00
PAC-SBHS-35-112-39	39.0	36.0	1.125	2.00
PAC-SBHS-35-112-40	40.0	37.0	1.125	2.00
PAC-SBHS-35-112-41	41.0	38.0	1.125	2.00
PAC-SBHS-35-112-42	42.0	39.0	1.125	2.00
PAC-SBHS-35-112-43	43.0	40.0	1.125	2.00
PAC-SBHS-35-112-44	44.0	41.0	1.125	2.00
PAC-SBHS-35-112-45	45.0	42.0	1.125	2.00
PAC-SBHS-35-112-46	46.0	43.0	1.125	2.00
PAC-SBHS-35-112-47	47.0	44.0	1.125	2.00
PAC-SBHS-35-112-48	48.0	45.0	1.125	2.00
PAC-SBHS-35-112-49	49.0	46.0	1.125	2.00
PAC-SBHS-35-112-50	50.0	47.0	1.125	2.00

## 1.000" Active Diameter Bars

Part Number	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-35-100-30	30.0	27.0	1.00	2.00
PAC-SBHS-35-100-31	31.0	28.0	1.00	2.00
PAC-SBHS-35-100-32	32.0	29.0	1.00	2.00
PAC-SBHS-35-100-33	33.0	30.0	1.00	2.00
PAC-SBHS-35-100-34	34.0	31.0	1.00	2.00
PAC-SBHS-35-100-35	35.0	32.0	1.00	2.00
PAC-SBHS-35-100-36	36.0	33.0	1.00	2.00
PAC-SBHS-35-100-37	37.0	34.0	1.00	2.00
PAC-SBHS-35-100-38	38.0	35.0	1.00	2.00
PAC-SBHS-35-100-39	39.0	36.0	1.00	2.00
PAC-SBHS-35-100-40	40.0	37.0	1.00	2.00
PAC-SBHS-35-100-41	41.0	38.0	1.00	2.00
PAC-SBHS-35-100-42	42.0	39.0	1.00	2.00
PAC-SBHS-35-100-43	43.0	40.0	1.00	2.00
PAC-SBHS-35-100-44	44.0	41.0	1.00	2.00
PAC-SBHS-35-100-45	45.0	42.0	1.00	2.00
PAC-SBHS-35-100-46	46.0	43.0	1.00	2.00
PAC-SBHS-35-100-47	47.0	44.0	1.00	2.00
PAC-SBHS-35-100-48	48.0	45.0	1.00	2.00
PAC-SBHS-35-100-49	49.0	46.0	1.00	2.00
PAC-SBHS-35-100-50	50.0	47.0	1.00	2.00

## 1.250" Active Diameter Bars

Part Number	OAL	Mounting Width	Active Diameter	Bushing Width
PAC-SBHS-35-125-30	30.0	27.0	1.250	2.00
PAC-SBHS-35-125-31	31.0	28.0	1.250	2.00
PAC-SBHS-35-125-32	32.0	29.0	1.250	2.00
PAC-SBHS-35-125-33	33.0	30.0	1.250	2.00
PAC-SBHS-35-125-34	34.0	31.0	1.250	2.00
PAC-SBHS-35-125-35	35.0	32.0	1.250	2.00
PAC-SBHS-35-125-36	36.0	33.0	1.250	2.00
PAC-SBHS-35-125-37	37.0	34.0	1.250	2.00
PAC-SBHS-35-125-38	38.0	35.0	1.250	2.00
PAC-SBHS-35-125-39	39.0	36.0	1.250	2.00
PAC-SBHS-35-125-40	40.0	37.0	1.250	2.00
PAC-SBHS-35-125-41	41.0	38.0	1.250	2.00
PAC-SBHS-35-125-42	42.0	39.0	1.250	2.00
PAC-SBHS-35-125-43	43.0	40.0	1.250	2.00
PAC-SBHS-35-125-44	44.0	41.0	1.250	2.00
PAC-SBHS-35-125-45	45.0	42.0	1.250	2.00
PAC-SBHS-35-125-46	46.0	43.0	1.250	2.00
PAC-SBHS-35-125-47	47.0	44.0	1.250	2.00
PAC-SBHS-35-125-48	48.0	45.0	1.250	2.00
PAC-SBHS-35-125-49	49.0	46.0	1.250	2.00
PAC-SBHS-35-125-50	50.0	47.0	1.250	2.00

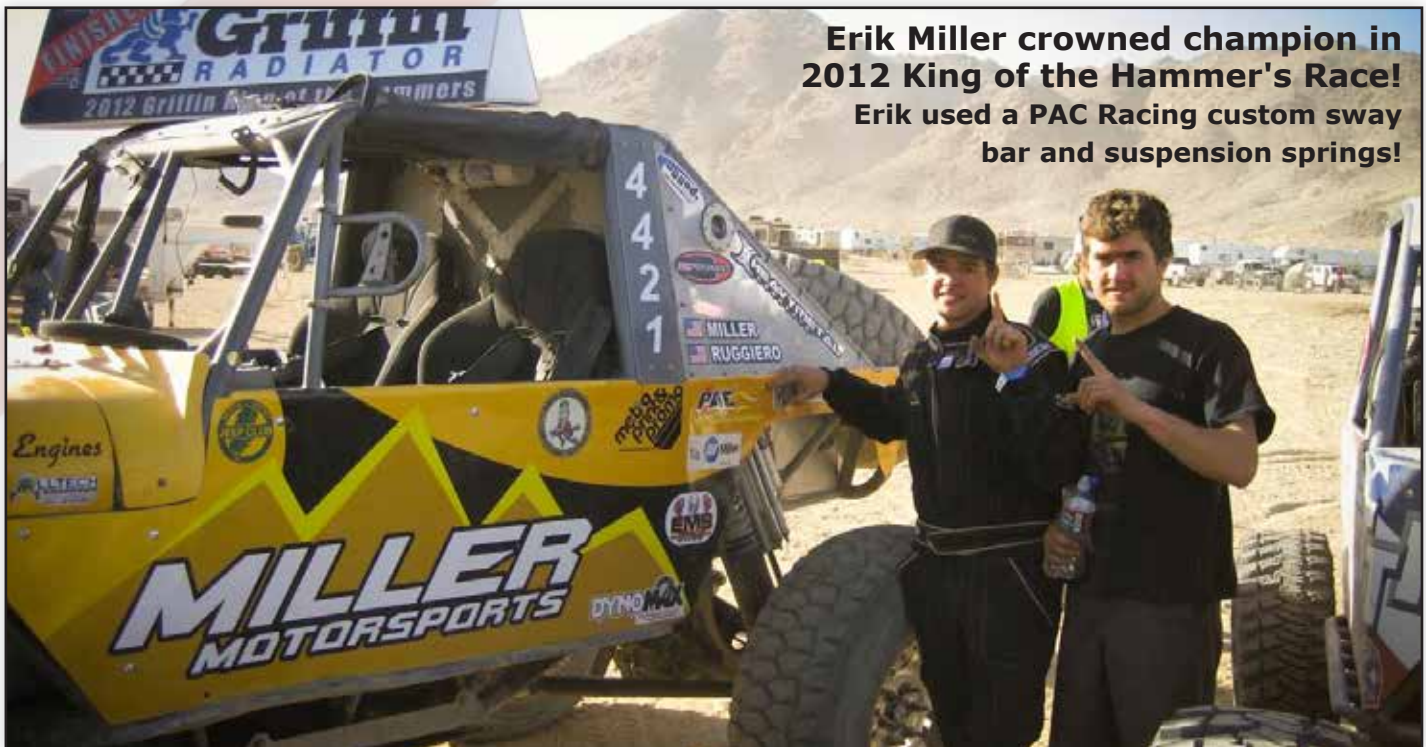


# TITANIUM

## 28 SPLINE TITANIUM SWAY BARS

### SPECIAL ORDER ONLY

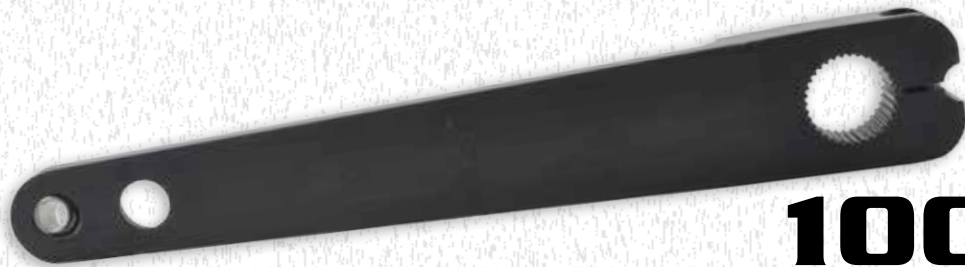
- Titanium sway bars available using the highest grade titanium for your high performance application where weight is critical.
- Typical weight savings are 4-6 lbs over a steel sway bar.
- 28 Spline Titanium 0.750", 0.850", 1.000" active diameter bars available.
- Part number includes small package of loctite, custom fender washers and ARP cap screws for the end of the sway bar.



**Erik Miller crowned champion in 2012 King of the Hammer's Race!**  
Erik used a PAC Racing custom sway bar and suspension springs!

# SWAY BAR LINK ARMS

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**100 SERIES**

PRO RACE



**200 SERIES**

SPORTSMAN RACE



**300 SERIES**

BUILDER & FABRICATOR KITS



**TROPHY TRUCK**

CUSTOM & SPECIAL ORDER

# 100 SERIES LINK ARMS

## HIGH STRENGTH RACING LINK ARMS

Most manufacturers use a bolt in single shear at the end connection, but our aluminum arms use a spherical bearing (FK Rod Ends) and can be purchased with a high strength clevis to bolt directly to the radius rod. The design was driven by stress analysis, and will meet the needs of most applications. All arms come engraved with part number near the splines and PAC Flame logo on each side.

WARNING

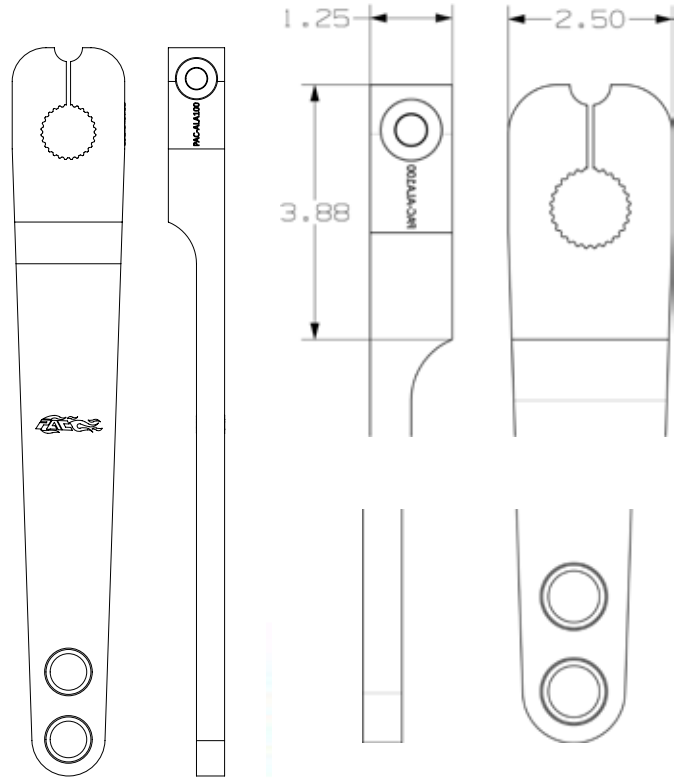
Part Number	Length Range	Spline Count	Material
<b>ALUMINUM</b>			
PAC-ALA100	12, 13.5	28	6061-T6, Anodized Black
PAC-ALA101	15, 16.5	28	6061-T6, Anodized Black
PAC-ALA102	18, 19.5	28	6061-T6, Anodized Black
PAC-ALA103	21, 22.5	28	6061-T6, Anodized Black
PAC-ALA104	24, 25.5	28	6061-T6, Anodized Black
PAC-ALA110	12, 13.5	35	6061-T6, Anodized Black
PAC-ALA111	15, 16.5	35	6061-T6, Anodized Black
PAC-ALA112	18, 19.5	35	6061-T6, Anodized Black
PAC-ALA113	21, 22.5	35	6061-T6, Anodized Black
PAC-ALA114	24, 25.5	35	6061-T6, Anodized Black

Any of these arms can be upgraded to 7075 aluminum, call for pricing

<b>STEEL</b>			
PAC-SLA100	12, 13.5	28	1018 Steel, Pocketed Body
PAC-SLA101	15, 16.5	28	1018 Steel, Pocketed Body
PAC-SLA102	18, 19.5	28	1018 Steel, Pocketed Body
PAC-SLA103	21, 22.5	28	1018 Steel, Pocketed Body
PAC-SLA104	24, 25.5	28	1018 Steel, Pocketed Body
PAC-SLA110	12, 13.5	35	1018 Steel, Pocketed Body
PAC-SLA111	15, 16.5	35	1018 Steel, Pocketed Body
PAC-SLA112	18, 19.5	35	1018 Steel, Pocketed Body
PAC-SLA113	21, 22.5	35	1018 Steel, Pocketed Body
PAC-SLA114	24, 25.5	35	1018 Steel, Pocketed Body

Part Number includes spherical bearing and retaining ring. Also includes a premium ARP 7/16" bolt and ARP locknut to clamp down on the splines.

■ = WARNING DO NOT USE FOR 30"-35" @ 1.250 ACTIVE DIAMETER BARS



## WHY DOUBLE SHEAR?

### LESS STRESS = LONGER LIFE, AND YOU FINISH THE RACE!

When designing any bolted joint, especially with a rod end, it is best practice to use a double shear connection. This means that there is material on either side of one of the components, resulting in three contact areas on the bolt instead of two.



**Double Shear Design = MOST RELIABLE**



100 Series Link Arm Assembly



200 Series Link Arm Assembly



300 Series Link Arm Assembly

# 100 SERIES LINK ARM BLANKS

For the builder/fabricator not interested in a spherical bearing connection to the radius rod, we also stock the same machined link arms with a blank end so you can drill your own holes or design an end condition specific for your application. The steel arms have the same pocketed body as the SLA100-104's.

Part Number	Length Range	Spline Count	Material	Overall Length
<b>ALUMINUM</b>				
PAC-ALA105	9" - 13.5"	28	6061-T6, Anodized Black, Blank End	16.25"
PAC-ALA106	12" - 16.5"	28		19.25"
PAC-ALA107	15" - 19.5"	28		22.25"
PAC-ALA108	18" - 22.5"	28		25.25"
PAC-ALA109	21" - 25.5"	28		28.25"
<b>WARNING</b> PAC-ALA115	9" - 13.5"	35		16.25"
PAC-ALA116	12" - 16.5"	35		19.25"
PAC-ALA117	15" - 19.5"	35		22.25"
PAC-ALA118	18" - 22.5"	35		25.25"
PAC-ALA119	21" - 25.5"	35		28.25"

Any of these arms can be upgraded to 7075 aluminum, call for pricing.

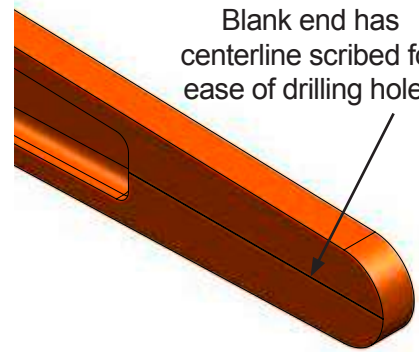
<b>STEEL</b>				
PAC-SLA105	11"-13.75"	28	1018 Steel, Blank End, Pocketed Body	16.25"
PAC-SLA106	14"-16.75"	28		19.25"
PAC-SLA107	17"-19.75"	28		22.25"
PAC-SLA108	20"-22.75"	28		25.25"
PAC-SLA109	23"-25.75"	28		28.25"
PAC-SLA115	11"-13.75"	35		16.25"
PAC-SLA116	14"-16.75"	35		19.25"
PAC-SLA117	17"-19.75"	35		22.25"
PAC-SLA118	20"-22.75"	35		25.25"
PAC-SLA119	23"-25.75"	35		28.25"

Part Number includes spherical bearing and retaining ring. Also includes a premium ARP 7/16" bolt and ARP locknut to clamp down on the splines.

**■ = WARNING DO NOT USE FOR 30"-35" @ 1.250 ACTIVE DIAMETER BARS**



SLA105 Blank  
Pocketed Body



Blank end has  
centerline scribed for  
ease of drilling holes

## DOUBLE SHEAR BRACKET FOR LINK ARM BLANKS (PAC-300345)

Want to use a rod end at the end of your premium machined link arm, but don't want a single shear connection? Our double shear bracket is for you. Comes with two ARP bolts and top lock jam nuts to bolt to the link arm blank, all you have to do is place the bracket in the desired position and drill the holes. The 1/2" holes for mounting a rod end have 15/16" of spacing between them. Also, the bracket comes with a 1/2" bolt, washer and top lock jam nut to mount a rod end.



**PAC-300345**  
Installed on PAC-SLA105  
Steel Link Arm Blank



**PAC-300345**  
Uses PAC-300349  
Rod End

# 100 SERIES LINK ARMS (CONT.)

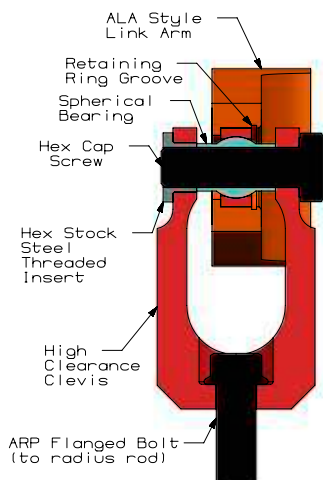
Our clevis' have been designed specifically to mate up to the 100 Series ALA style aluminum or steel arms, without needing spacers or bushings. One side of the aluminum clevis has an integrated steel threaded insert to reduce the assembly width and prevent clearance issues with suspension and chassis components.

The high clearance clevis and steel clevis are made specifically for high articulation applications where any one of the following criteria are met:

- More than 16" of wheel travel (not shock but actual wheel travel based on suspension geometry)
- Using the first mounting hole closest to the splines (length of either 12", 15", 18", 21", 24")
- ALA Armor end caps (below) are being used
- At ride height the radius rod is not vertical
- At ride height the link arm is not horizontal



Steel Clevis  
Assembled  
PAC-300271



Part Number	Material	Dimensions
Aluminum clevis includes hex cap screw, and steel threaded insert to bolt to the link arm. Steel clevis includes a hex cap screw, 2 washers, and a top lock jam nut. Also includes a 1/2-20 x 1.25" ARP bolt to connect to a radius rod.		
PAC-300270	7075 Aluminum, Anodized Orange	1.875" OD x 2.75" long
PAC-300306	7075 Aluminum, Anodized Orange	High Clearance, 2" OD x 3.5" long
PAC-300271	3/16" Steel, Bent Construction	1.5" Wide x 3.5" Long



PAC-300271



PAC-300306



PAC-300270





# TROPHY TRUCK BILLET

## 7075 ARMS

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- ANY LENGTH
- CUSTOM ORDER
- AVAILABLE IN 35, 40 AND 45 SPLINE



Steel captive nuts & double shear bracket



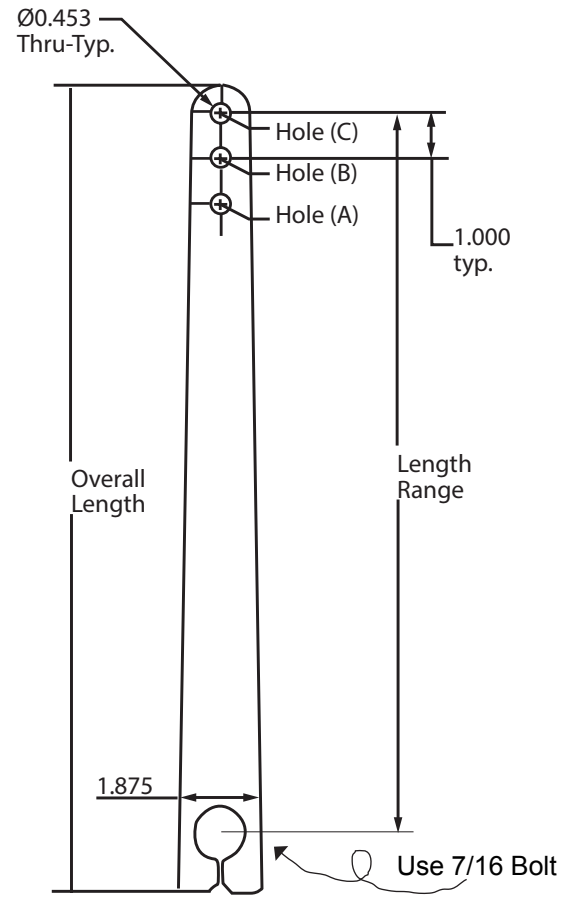
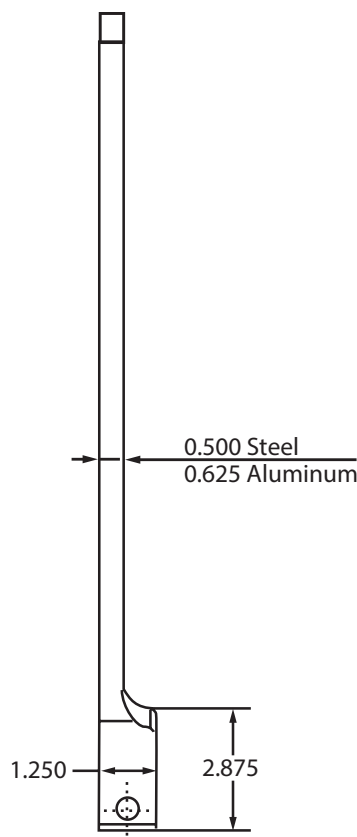
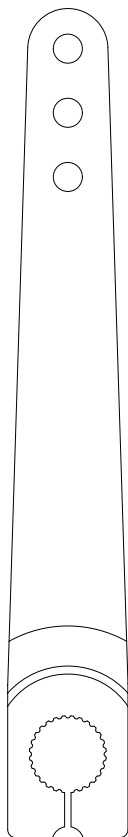
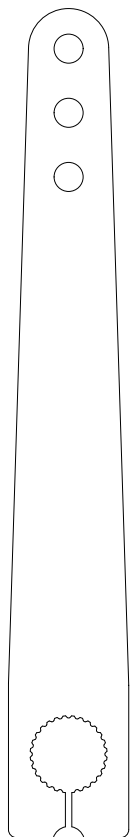
# 200 SERIES LINK ARMS

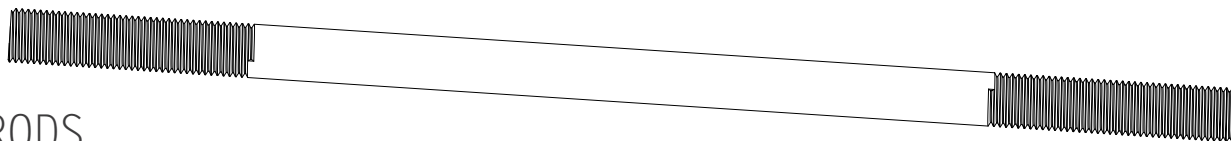
## 200 SERIES SPORTSMAN ARMS - STEEL (SINGLE SHEAR)

Part Number	Length Range	Overall Length	Spline Count	Hole Size	Material	Surface Finish
<b>STEEL</b>						
PAC-SLA200	5,6,7	8.925	28	0.453	Chrome Moly Steel	Powder Coated Black
PAC-SLA201	8,9,10	11.925	28	0.453	Chrome Moly Steel	Powder Coated Black
PAC-SLA202	11,12,13	14.925	28	0.453	Chrome Moly Steel	Powder Coated Black
PAC-SLA203	14,15,16	17.925	28	0.453	Chrome Moly Steel	Powder Coated Black
PAC-SLA204	17,18,19	20.925	28	0.453	Chrome Moly Steel	Powder Coated Black
PAC-SLA205	20,21,22	23.925	28	0.453	Chrome Moly Steel	Powder Coated Black

## 200 SERIES SPORTSMAN ARMS - ALUMINUM (SINGLE SHEAR)

Part Number	Length Range	Overall Length	Spline Count	Hole Size	Material	Surface Finish
<b>ALUMINUM</b>						
PAC-ALA200	5,6,7	8.925	28	0.453	6061-T6 Aluminum	Clear Anodized
PAC-ALA201	8,9,10	11.925	28	0.453	6061-T6 Aluminum	Clear Anodized
PAC-ALA202	11,12,13	14.925	28	0.453	6061-T6 Aluminum	Clear Anodized
PAC-ALA203	14,15,16	17.925	28	0.453	6061-T6 Aluminum	Clear Anodized
PAC-ALA204	17,18,19	20.925	28 <td 0.453	6061-T6 Aluminum	Clear Anodized	
PAC-ALA205	20,21,22	23.925	28	0.453	6061-T6 Aluminum	Clear Anodized





## RADIUS RODS

Part Number	Thread	Overall Length	Thread Length
300273T-6	7/16-20	6	2.000
300273T-7	7/16-20	7	2.000
300273T-8	7/16-20	8	2.000
300273T-9	7/16-20	9	2.000
300273T-10	7/16-20	10	2.000
300273T-11	7/16-20	11	2.000
300273T-12	7/16-20	12	2.000
300273T-13	7/16-20	13	2.000
300273T-14	7/16-20	14	2.000
300273T-15	7/16-20	15	2.000
300273T-16	7/16-20	16	2.000

## ROD ENDS

Part Number	Thread	Type	Coating	Thread	
JF7YT	Right Hand	Female Thread	With Stud	Teflon Coated	7/16-20
JFL7YT	Left Hand	Female Thread	With Stud	Teflon Coated	7/16-20
JM7T	Right Hand	Male Thread	No Stud	Teflon Coated	7/16-20
JML7T	Left Hand	Male Thread	No Stud	Teflon Coated	7/16-20
SJNR07	Right Hand	Jam Nut	N/A	N/A	7/16-20
SJNL07	Left Hand	Jam Nut	N/A	N/A	7/16-20

# SPORTSMAN OFFROAD LINK ARM KITS

## 200 SERIES INSERTS AND LINK ARMS

The 300260 inserts can either be bolted or welded to the arm design and length of your choice. We offer a low cost PAC-SLA200 steel arm made of rectangular tubing that covers a wide range of applications. You can cut a section out to put a bend in the arms and then reweld them, or drill more holes for greater tuning capability. If you prefer to fabricate the arms yourself, then only the inserts are needed.

### 28 SPLINE INSERTS

Part Number	Material	Overall Dimensions	Bolt Pattern
Part Number includes a 7/16" ARP bolt and ARP locknut to clamp down on the splines. Also includes 2 custom cut large washers, 2 hex cap screws and 2 jam top lock nuts to bolt to an SLA style link arm.			
PAC-300260-6A	6061-T6 Aluminum	4.625" L x 1.75 H x 1.25" W	1/2" holes, 1" center spacing
PAC-300260-7A	7075 Aluminum	4.625" L x 1.75 H x 1.25" W	1/2" holes, 1" center spacing
PAC-300260-1S	Low Carbon Steel	4.625" L x 1.75 H x 1.25" W	1/2" holes, 1" center spacing

35 Spline not available



PAC-300260-1S

# 300 SERIES LINK ARMS

Prefer to completely weld and design your own arms? Then our round splined weld insert is for you. These are made from 4130 chromoly for the ultimate in strength and durability. We also offer laser cut side pieces in 1/8" and 3/16" thicknesses which make it easy to fab your own arms. Order the top and bottom 1/8" thick strips to box in the arm and a high misalignment rod end to get a complete "custom" arm package. We highly recommend fully boxing in any welded arm design to handle the loads without deflection.

## ROUND WELD INSERT

Part Number	Spline Configuration	Dimensions
PAC-300308	28 Spline	2.00" OD x 1.50" wide
PAC-300309	35 Spline	2.00" OD x 1.50" wide



PAC-300308



PAC-300339

## SPLINE CLAMP TUBE

We have selected and cut to length a tube that can be welded directly to the front of the arm for clamping down on the splines. It has a radius cut out which fits into the PAC-300308 or PAC-300309 OD (picture left)



3" length can be used for the 35 spline or 28 spline application. Purchase of the tube comes with a 7/16" ARP bolt and ARP top lock nut.

Part Number	Length	OD	ID
PAC-300339	3.00"	.937"	.500"

## HIGH MISALIGNMENT ROD END

(FOR PRO-FAB ARM)

We have selected a FK high misalignment rod in the 1/2" size that is 15/16" wide, matching the OD of the PAC-300339 spline clamp tube for easy alignment. Order the rod end and use it as a jig while tacking in the arms to keep proper spacing. All rod end purchases come with a jam nut.

Part Number	Width	Hole Size	Shank
PAC-300329	.937"	.500"	1/2-20 Thread



PAC-300329



## 300 SERIES STEEL ARM SIDES

Part Number	Dimension A (length range)	Overall Length	Dimension B (Thickness)	Dimension C (Insert Cutout)
<b>1/8" wall thickness side plates in stock</b>				
PAC-SLA300	9" - 14"	16.25"	.125"	2.00"
PAC-SLA301	12" - 17"	19.25"	.125"	2.00"
PAC-SLA302	15" - 20"	22.25"	.125"	2.00"
PAC-SLA303	18" - 23"	25.25"	.125"	2.00"
PAC-SLA304	21" - 26"	28.25"	.125"	2.00"
<b>3/16" wall thickness side plates in stock</b>				
PAC-SLA305	9" - 14"	16.25"	.187"	2.00"
PAC-SLA306	12" - 17"	19.25"	.187"	2.00"
PAC-SLA307	15" - 20"	22.25"	.187"	2.00"
PAC-SLA308	18" - 23"	25.25"	.187"	2.00"
PAC-SLA309	21" - 26"	28.25"	.187"	2.00"

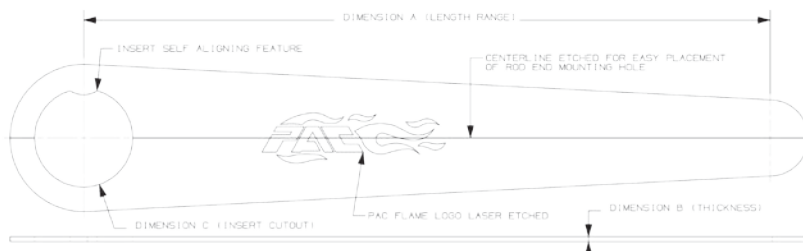


Steel arms can be bent to your application



Complete Link Arm Kit

These parts fit with either of the round weld inserts, and come with a hex cap screw, jam top lock nut, and 2 washers for bolting a 300329 rod end in place.



## STEEL STRIP TO BOX IN ARMS

We have selected and cut to length a strip of cold rolled 1018 steel that will fit over the arm sides and still give a nice corner to fillet weld along the length of the arms. PAC Racing has also machined a radius out of the end of the strip which will fit around the PAC- 300339 tube, reducing gaps to a minimum for easy welding, picture below left.

Part Number	Length	Thickness	Width	Details
PAC- 300343	29"	.125"	1.25"	Needs 2 per arm



PAC-300343 cut to fit the spline clamp tube



Pro Fabricator Link Arm tacked together

# SWAY BAR BUSHINGS TO FIT YOUR APPLICATION

## MOUNTING

Mounting of your Sway Bar can be done a variety of ways. By far the most popular is mounting inside a chassis tube. We stock all sizes of nylon bushings listed below to press inside commonly used 1.75" and 2" chassis tubes (bushings are sized .002" over the nominal ID of tubing). We offer 4 different shoulder thickness to take up any slack that will result if mounting tube length is not a whole number.

## PART NUMBERING

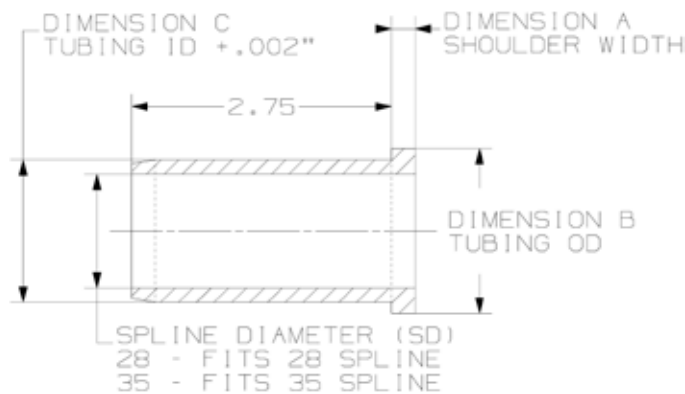
**300303-X-SD**

Specifies which size tubing the bushing presses inside

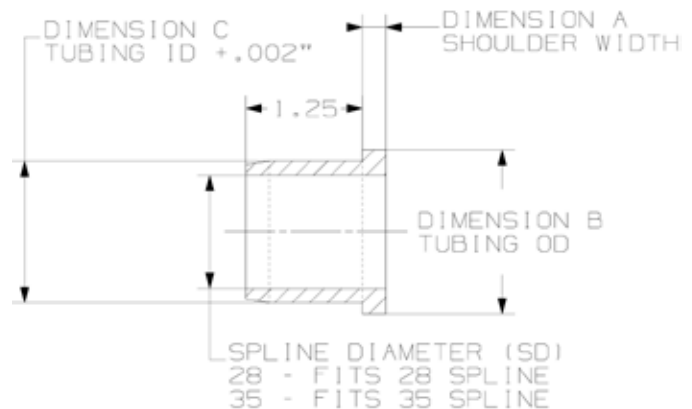
Spline Diameter-  
28 - fits a 28 spline sway bar  
35 - fits a 35 spline sway bar

ADD A -SC TO THE END OF THE PART NUMBER TO ORDER A SHORT COURSE STYLE BUSHING

SHORT COURSE LENGTH BUSHING  
(300302-X-SD-SC)



STANDARD LENGTH BUSHING  
(300302-X-SD)



0.250" SHOULDER BUSHING  
(for use with mounting tube lengths that are whole numbers, eg. 30", etc.)

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300302-1-28	0.25	1.75	1.622	0.065
PAC-300302-2-28	0.25	1.75	1.586	0.083
PAC-300302-3-28	0.25	1.75	1.562	0.095
PAC-300302-4-28	0.25	1.75	1.534	0.109
<b>PAC-300302-5-28</b>	<b>0.25</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300302-6-28</b>	<b>0.25</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300302-7-28	0.25	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300302-8-SD	0.25	2.00	1.872	0.065
PAC-300302-9-SD	0.25	2.00	1.736	0.083
PAC-300302-10-SD	0.25	2.00	1.812	0.095
PAC-300302-11-SD	0.25	2.00	1.784	0.109
<b>PAC-300302-12-SD</b>	<b>0.25</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300302-13-SD</b>	<b>0.25</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300302-14-SD	0.25	2.00	1.734	0.134

0.375" SHOULDER BUSHING  
(for use with mounting tube lengths that are 0.75" over a whole number, eg. 30.75")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300303-1-28	0.375	1.75	1.622	0.065
PAC-300303-2-28	0.375	1.75	1.586	0.083
PAC-300303-3-28	0.375	1.75	1.562	0.095
PAC-300303-4-28	0.375	1.75	1.534	0.109
<b>PAC-300303-5-28</b>	<b>0.375</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300303-6-28</b>	<b>0.375</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300303-7-28	0.375	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300303-8-SD	0.375	2.00	1.872	0.065
PAC-300303-9-SD	0.375	2.00	1.736	0.083
PAC-300303-10-SD	0.375	2.00	1.812	0.095
PAC-300303-11-SD	0.375	2.00	1.784	0.109
<b>PAC-300303-12-SD</b>	<b>0.375</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300303-13-SD</b>	<b>0.375</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300303-14-SD	0.375	2.00	1.734	0.134

**Bold** type denotes most common tubing size

0.500" SHOULDER BUSHING  
(for use with mounting tube lengths that are 0.50"  
over a whole number, eg. 30.50")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +0.02	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300304-1-28	0.500	1.75	1.622	0.065
PAC-300304-2-28	0.500	1.75	1.586	0.083
PAC-300304-3-28	0.500	1.75	1.562	0.095
PAC-300304-4-28	0.500	1.75	1.534	0.109
<b>PAC-300304-5-28</b>	<b>0.500</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300304-6-28</b>	<b>0.500</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
300304-7-28	0.500	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300304-8-SD	0.500	2.00	1.872	0.065
PAC-300304-9-SD	0.500	2.00	1.736	0.083
PAC-300304-10-SD	0.500	2.00	1.812	0.095
PAC-300304-11-SD	0.500	2.00	1.784	0.109
<b>PAC-300304-12-SD</b>	<b>0.500</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300304-13-SD</b>	<b>0.500</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300304-14-SD	0.500	2.00	1.734	0.134

0.625" SHOULDER BUSHING  
(for use with mounting tube lengths that are 0.25"  
over a whole number, eg. 30.25")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +0.02	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300305-1-28	0.625	1.75	1.622	0.065
PAC-300305-2-28	0.625	1.75	1.586	0.083
PAC-300305-3-28	0.625	1.75	1.562	0.095
PAC-300305-4-28	0.625	1.75	1.534	0.109
<b>PAC-300305-5-28</b>	<b>0.625</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300305-6-28</b>	<b>0.625</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300305-7-28	0.625	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300305-8-SD	0.625	2.00	1.872	0.065
PAC-300305-9-SD	0.625	2.00	1.736	0.083
PAC-300305-10-SD	0.625	2.00	1.812	0.095
PAC-300305-11-SD	0.625	2.00	1.784	0.109
<b>PAC-300305-12-SD</b>	<b>0.625</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300305-13-SD</b>	<b>0.625</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300305-14-SD	0.625	2.00	1.734	0.134

**Bold** type denotes most common tubing size



300302-5-28



300302-12-28



Bushing installed on sway bar

# AXLE MOUNTING TABS

Mounting your radius rods to an axle is easy with our stamped axle mounting tabs. We stock sizes to fit 3", 3.5", and 4" axle housings. Custom sizes and designs available.

Part Number	Axle Housing OD	Mounting Hole
PAC-300266-3	3.0"	0.50"
PAC-300266-3.5	3.5"	0.50"
PAC-300266-4	4.0"	0.50"



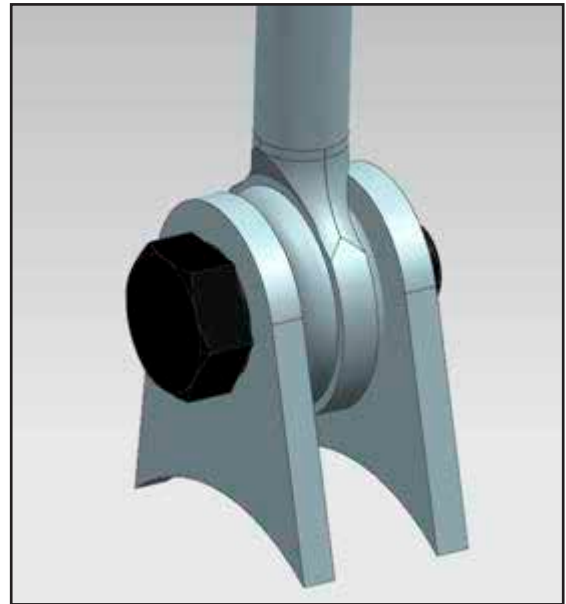
PAC-300266-3



PAC-300266-3.5



PAC-300266-4



We highly recommend mounting the rod end in a double shear method (shown above). This prevents side loading and potential buckling of the radius rod under load.



Tyree Motorsports runs PAC Racing suspension springs and sway bars!



# RADIUS RODS

We offer steel and aluminum radius rods specifically designed for the sway bar application. All welded steel sizes are stocked and ready to ship. Aluminum radius rods are made out of 7075-T651 to prevent threads from pulling out, and are special order only, requiring a 2-3 week lead time. Both steel and aluminum versions have 7/8" flats to put a wrench on for assembly. If you prefer to weld your own steel radius rods together, we can provide you with the pieces, cut to length. See part numbering for this designation.

## PART NUMBERING

**300273W-OAL**

Indicates Welding – If no welding desired, remove the W

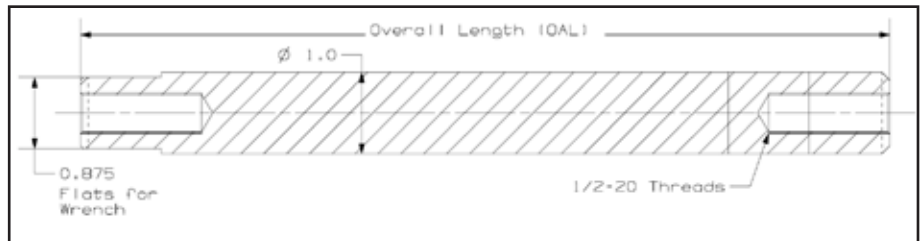
Overall Length (without ends) Depends on style of arms



### 300273W Steel Radius Rods



### 300310 Aluminum Radius Rods



## Overall Length (OAL)

If using Link Inserts and/or PAC-SLA200 series arms - You will need a 1/2" rod end on each side, one right handed, one left handed. See table for assembly length of a radius rod with different end conditions.

If using PAC-ALA100 series aluminum arms - A left hand rod end is only needed on one side, and our 300270 clevis, 300271 steel clevis, or 300306 high clearance clevis can be bolted onto the other side. Each clevis requires an extra amount of length over a rod end, see table below for final assembly lengths using a standard length radius rod.

Steel Part Number (in stock)	Aluminum Part Number (in stock)	Steel Arms Assembly Length (w/2 Rod Ends)	Aluminum Arms Assembly Length (LH Rod End, 300270 Clevis)	Aluminum Arms Assembly Length (LH Rod End, 300306 high clearance or 300271 steel clevis)
300273W-3	300310-3	6	6.5	7.5
300273W-4	300310-4	7	7.5	8.5
300273W-5	300310-5	8	8.5	9.5
<b>300273W-6</b>	<b>300310-6</b>	<b>9</b>	<b>9.5</b>	<b>10.5</b>
<b>300273W-7</b>	<b>300310-7</b>	<b>10</b>	<b>10.5</b>	<b>11.5</b>
300273W-8	300310-8	11	11.5	12.5
300273W-9	300310-9	12	12.5	13.5
300273W-10	300310-10	13	13.5	14.5
<b>300273W-11</b>	<b>300310-11</b>	<b>14</b>	<b>14.5</b>	<b>15.5</b>
<b>300273W-12</b>	<b>300310-12</b>	<b>15</b>	<b>15.5</b>	<b>16.5</b>
<b>300273W-13</b>	<b>300310-13</b>	<b>16</b>	<b>16.5</b>	<b>17.5</b>
<b>300273W-14</b>	<b>300310-14</b>	<b>17</b>	<b>17.5</b>	<b>18.5</b>
300273W-15	300310-15	18	18.5	19.5
300273W-16	300310-16	19	19.5	20.5
300273W-17	300310-17	20	20.5	21.5
300273W-18	300310-18	21	21.5	22.5
300273W-19	300310-19	22	22.5	23.5
300273W-20	300310-20	23	23.5	24.5
300273W-21	300310-21	24	24.5	25.5
300273W-22	300310-22	25	25.5	26.5
300273W-23	300310-23	26	26.5	27.5
300273W-24	300310-24	27	27.5	28.5

We can custom make any length or fraction of whole sizes, contact us for details

# SWAY BAR ROD ENDS



AUTHORIZED MASTER DISTRIBUTOR FOR FK ROD ENDS

## Rod Ends Selected For Sway Bar Application

Part Number	Description
PAC-300288R	1/2" Right Hand Regular Rod End, Teflon Lined
PAC-300288L	1/2" Left Hand Regular Rod End, Teflon Lined
PAC-300289R	1/2" Right Hand Premium Rod End, Teflon Lined
PAC-300289L	1/2" Left Hand Premium Rod End, Teflon Lined

Each Rod End Includes a Jam Nut

Need rods ends for suspension, steering, or chassis?  
**WE HAVE THEM IN STOCK!**



In addition to the rod ends specifically selected for the sway bar radius rods, we carry the full line of FK Bearings products. We only stock products suitable for racing applications, but can get any FK Bearing product within a couple days.

## Racing Application Rod Ends

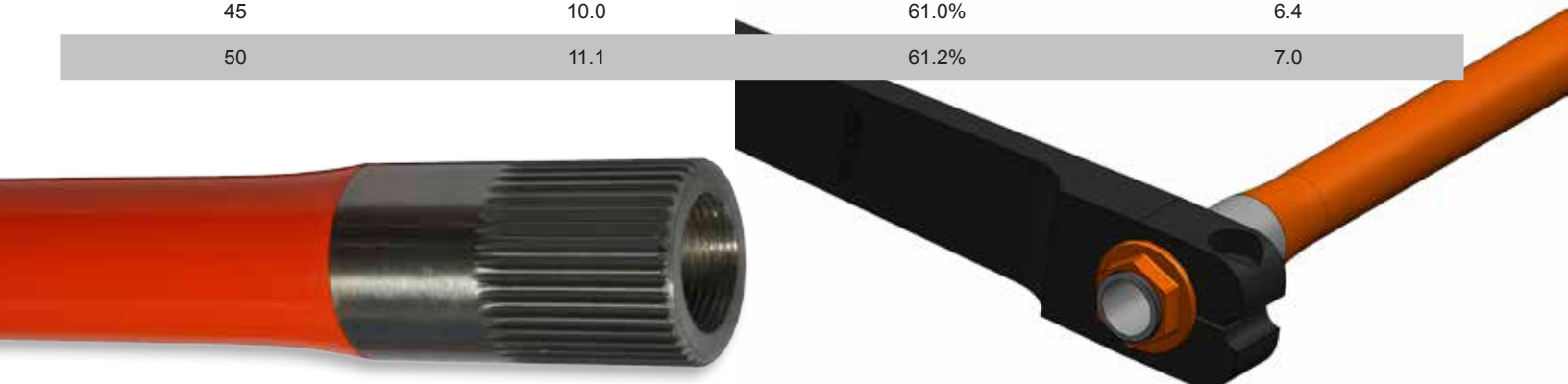
Part Number	Description
JMX	3 Piece, Precision Male, Alloy Body
KMX	3 Piece, Alloy Steel, Nylon Race
RSM	3 Piece, Low Carbon Steel Body, Heavy Shank
RSMX	3 Piece, Alloy Steel Body, Heavy Shank

# GUN DRILL OPTION FOR 35 SPLINE

PAC Racing is excited to offer a premium gun drilled option for 35 spline sway bars. The sample calculations show typical weight savings. We can gun drill any size 35 spline sway bar to your specifications. Custom machined 7075 Aluminum flanged nut and locktite comes with each purchase.

## 35 Spline, 1.25" Active Diameter, 1" Gun Drilled Sway Bar Sample Calculations

Length (in)	Weight Savings (lb)	% Weight Savings	Total Weight (lb)
30	6.7	60.0%	4.5
35	7.8	60.4%	5.1
40	8.9	60.7%	5.7
45	10.0	61.0%	6.4
50	11.1	61.2%	7.0



# SWAY BAR CUSTOM ORDER SHEET

We can create any sway bar specific for your application. Spline patterns, custom lengths, and larger/smaller diameters are all easily changed to your exact specifications.



NAME \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

COUNTRY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

FAX NUMBER \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

WEBSITE \_\_\_\_\_

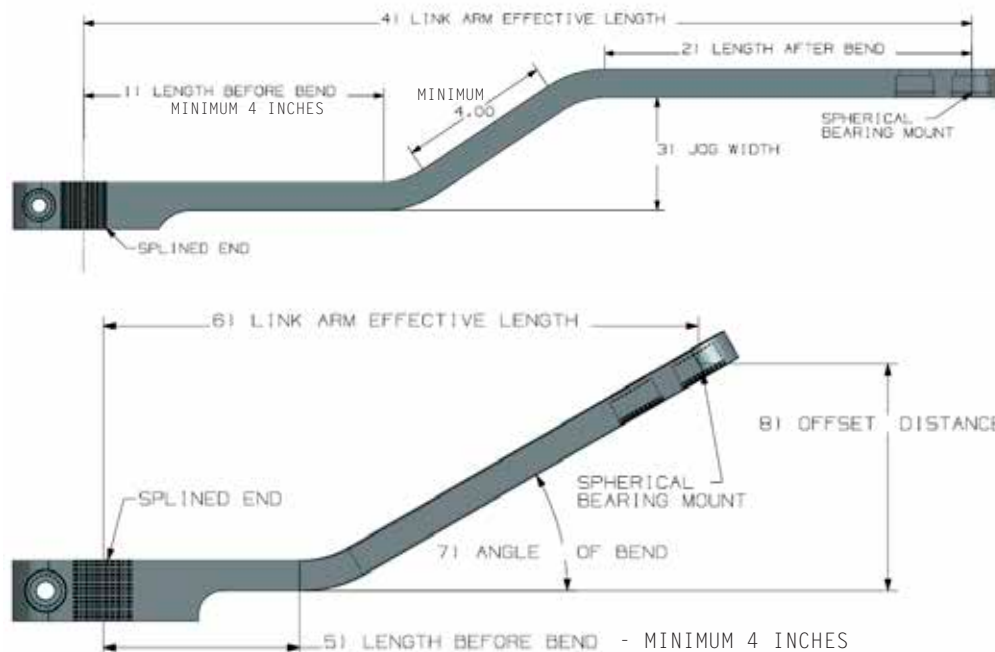
1	Overall Length	
2	Spline Length	
3	Bushing Width	
4	Active Diameter	
5	Spline Diameter	
6	Spline Pattern	



Additional Notes/ Comments: \_\_\_\_\_

# BENT LINK ARM CUSTOM ORDER SHEET

We can bend any of our standard aluminum or steel link arms to your specifications. Please enter your application information, as we need to validate your sizing to ensure that materials are not overstressed.



Your Application Information*	
Wheel Travel	
Radius Rod Length	
Sway Bar Active Diameter	
Sway Bar Material	
*Needed to determine forces experienced due to link arm lengths and suspension travel	

For Jog in Link Arm (2 Bends)		
1	Length Before Bend	
2	Length After Bend	
3	Jog Width	
4	Link Arm Effective Length	

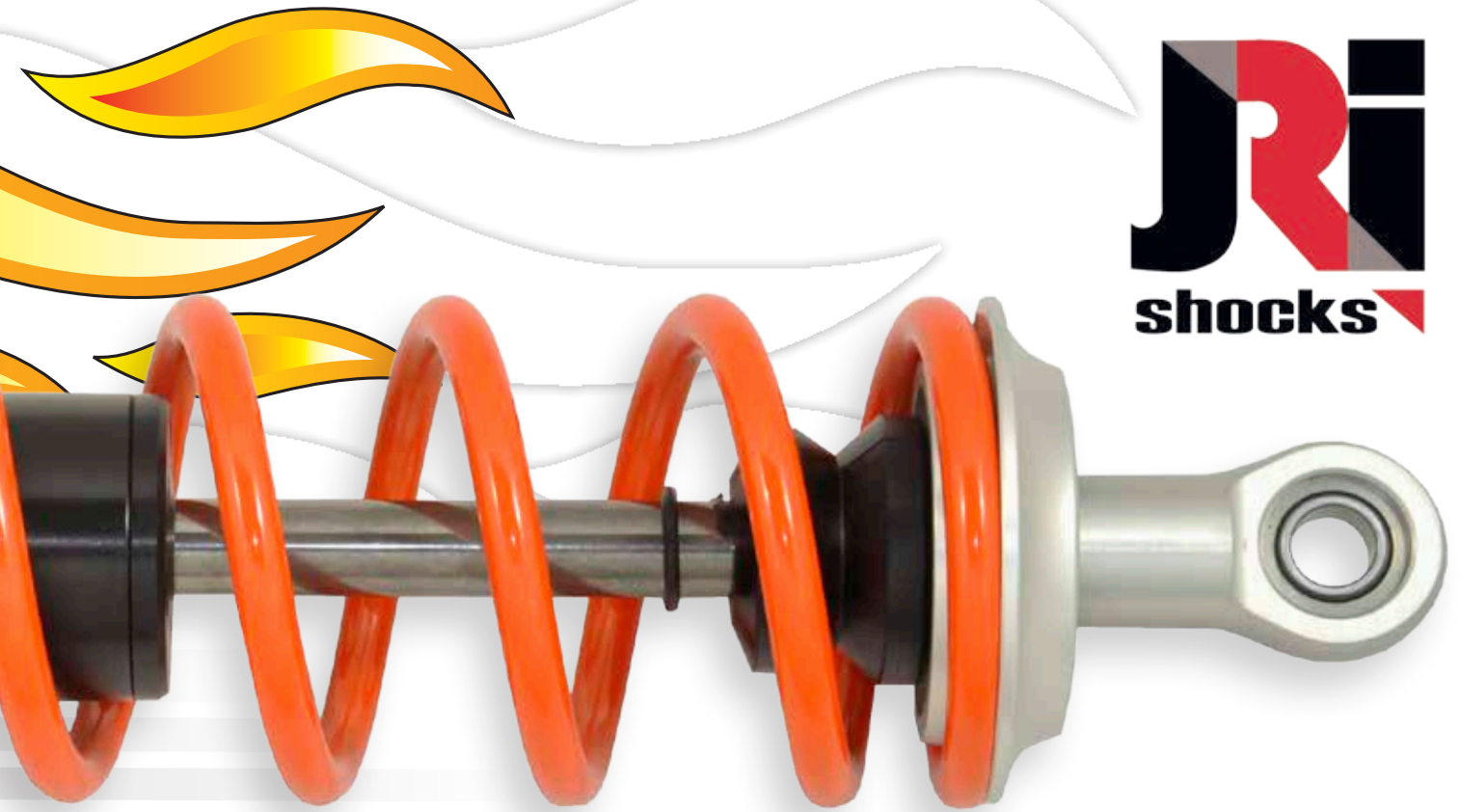
For Single Bend In Link Arm		
5	Length Before Bend	
6	Link Arm Effective Length	
7	Angle of Bend	
8	Offset Distance	



**SHOCKS**

# BILSTEIN

SHOCK ABSORBERS

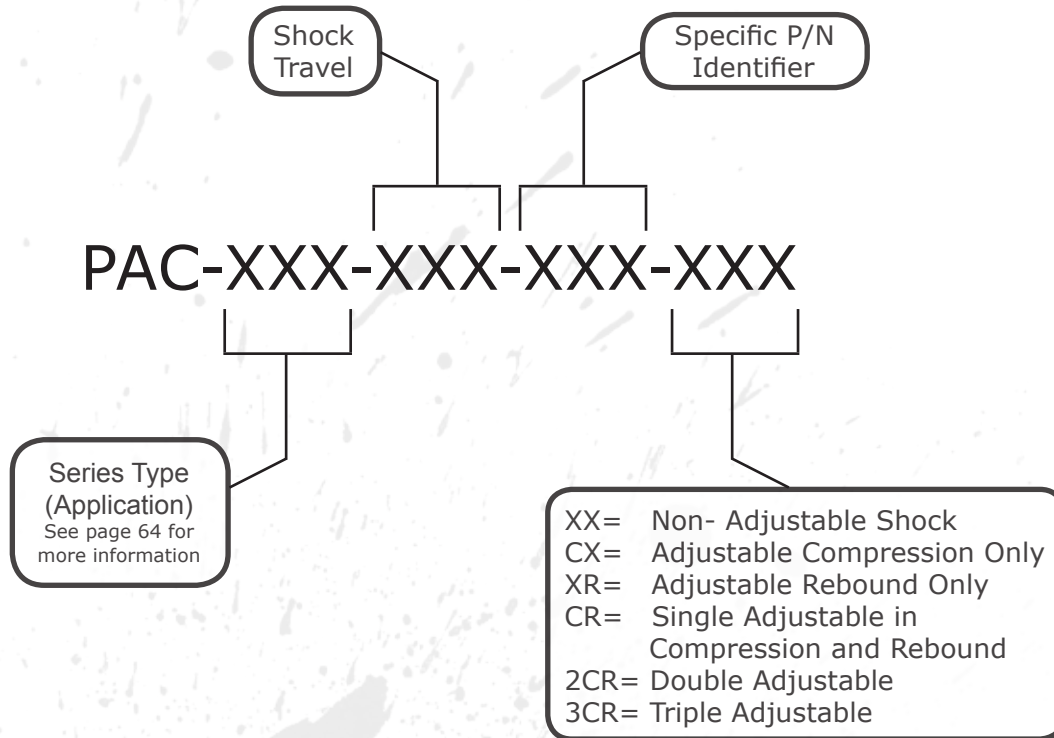


Proudly made in the U.S.A



# About PAC Shocks

## SHOCK PART NUMBER



PAC developed a technical partnership with JRi where we share our 100 year history and collaborate on products to serve as a systems approach for complete suspension engineering.

We didn't focus on a single market when we were locating a shock company capable of meeting the stringent PAC Racing Standards. Together with JRi, we offer a wide range of shocks for many applications.

JRI contributes 100+ combined years of knowledge in racing shocks to support our customers in advancing the efforts of racers and performance.

JRI has a long standing history of testing and supporting several markets. Combined with PAC technical process and highly engineered products, selecting JRi as its technical partner allows our customers to have the best engineered package available.

### SINGLE ADJUSTABLE SHOCKS

Single Adjustable features can be configured to be rebound only, or compression only, or adjust both equally based on defined valve shim forces.

### DOUBLE ADJUSTABLE SHOCKS

Double Adjustable shocks allow for adjusting the High Speed Rebound, and Low Speed Compression. These features are the most desirable type for these applications.



# FEATURES



## TRIPLE ADJUSTABLE SHOCKS

Triple adjustable shocks allow for adjusting the Low Speed Rebound, High Speed Compression, and Low Speed Compression.



Design features for adjustability

## FOUR-WAY ADJUSTABLE SHOCKS

Four Way adjustable Shocks Allow for adjustments in High Speed Rebound, Low Speed Rebound, High Speed Compression, Low Speed Compression

# Market & Series Information

## SERIES TYPE

Street  
Performance

**100**



Circle Track

**200**



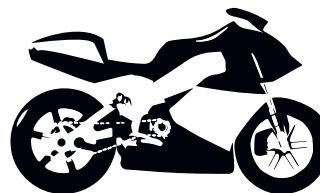
Drag Race

**400**



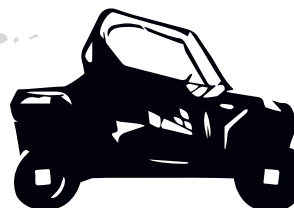
Motorcycle

**500**



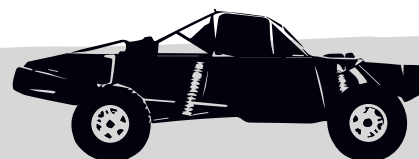
ATV Powersports

**700**



Off Road

**800**





# Shock Dyno Capabilities & Certification Methods

Every shock that is shipped is 100% tested, serialized and qualified before shipment

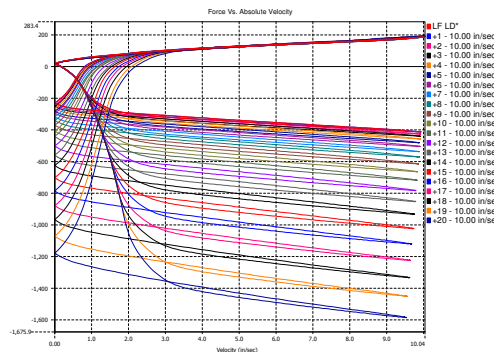
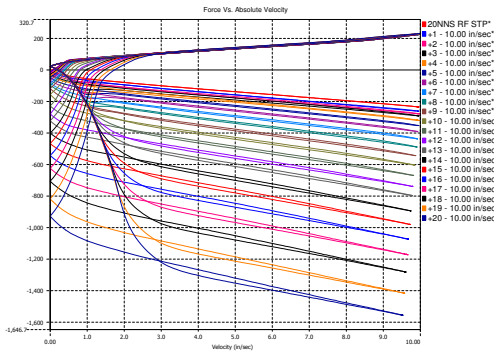
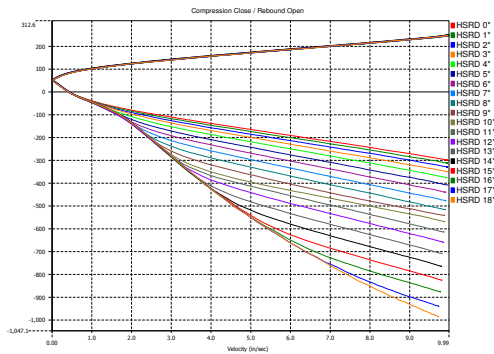
Shock Dyno data included with every shock

Serialized information can be referenced from shipment database

Help with tuning and trouble shooting in field

Ultimate data for vehicle dynamics design and performance

In-house Dynos include two 5HP (in support vehicles), three 10HP, two 30HP sinusoidal dynos and one 2k EMA variable waveform dyno. We also have the ability to test motocross and off road shocks with a 6k EMA variable waveform dyno, which will provide velocity inputs of over 150 in/sec.

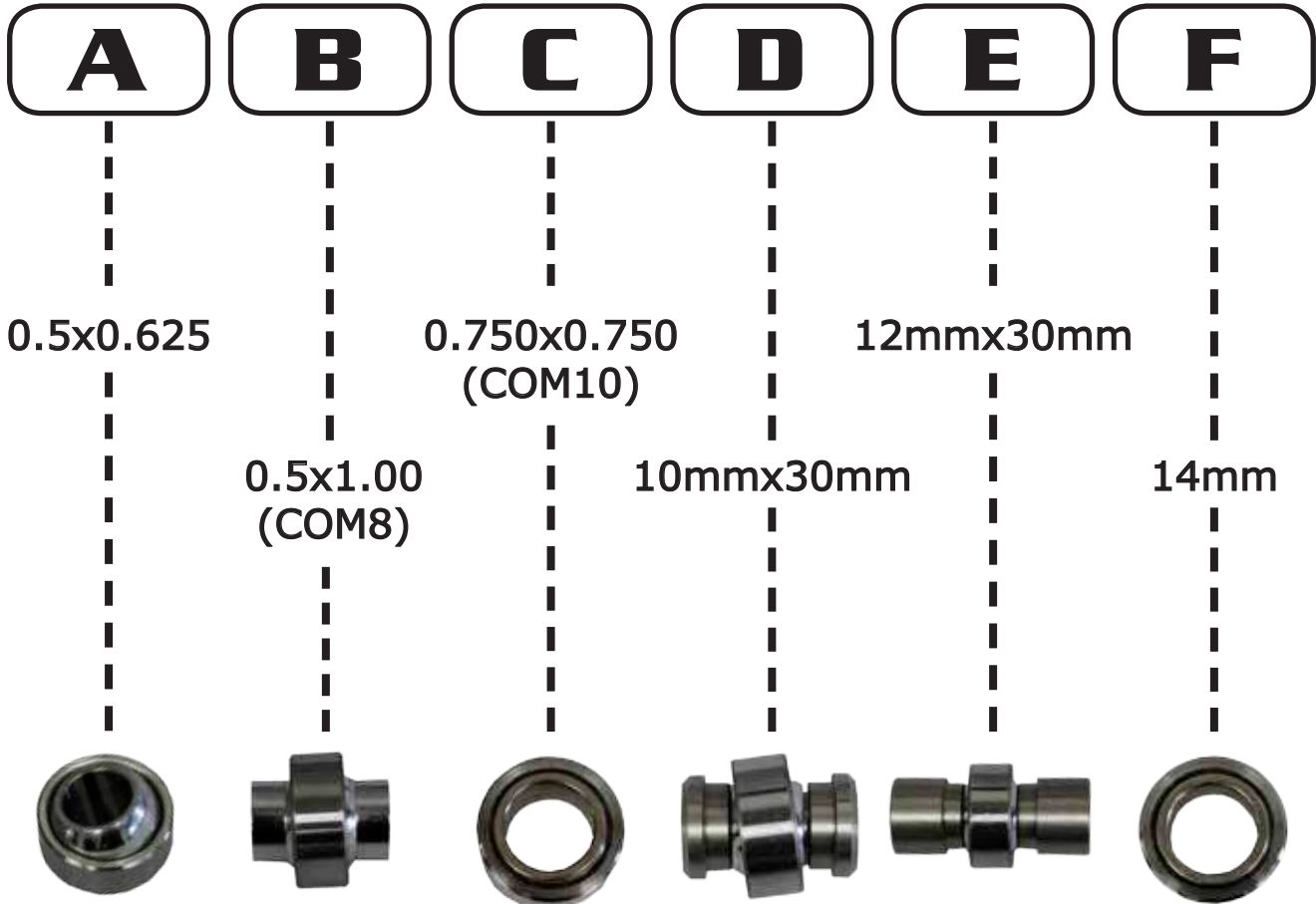


# Shock End Mounting Information

## STYLE

DIMENSIONAL PICTURE

SPHERICAL BEARING





**G**   **H**   **J**   **K**   **L**

"T" Bar Style



0.625  
Bayonet Style



Bayonet Style



Bushing



Clevis



# Performance Advantage

## Five Key Design and Engineering Elements

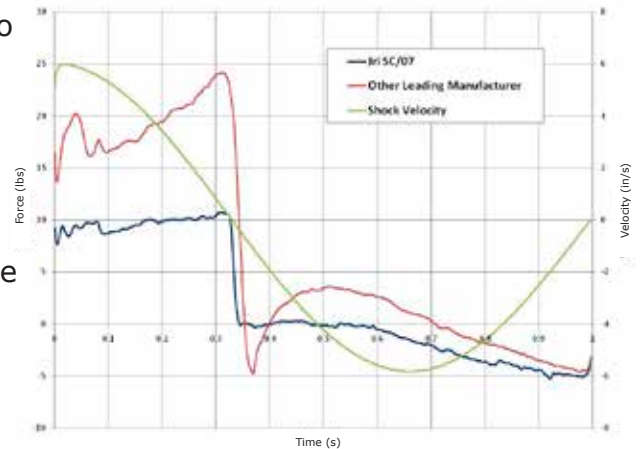
- 1 Reduce breakaway seal friction and valve shim friction
- 2 Reduce internal gas spring rate and rod force
- 3 Reduced friction designed for enhanced stability and durability in side loading conditions
- 4 Reduction in hysteresis
- 5 Increased dynamic response of higher frequencies

- Every Shock is tested and certified Using a state of the art shock dyno
- Each shock is shipped with shock dyno graph and certified performance
- Shocks are developed and fatigue tested with enhanced side loading to deliver the best performance as designed.

# 1

## Reduced Stiction

The JRi low friction, high pressure seal/shaft bearing design reduces stiction, also known as coulomb friction. This reduction results in a more stable tire contact patch loading. The reduction in the breakaway or stiction is illustrated below. A seal/bearing assembly stores and then releases energy, effecting low speed compression damping values. By decreasing this inherent stored energy the low speed adjusters or mechanisms become much more efficient and offer adjustment in ranges typically masked by the seal bearing assembly. This hydraulic trait lends itself to improved driver/chassis bio feedback.

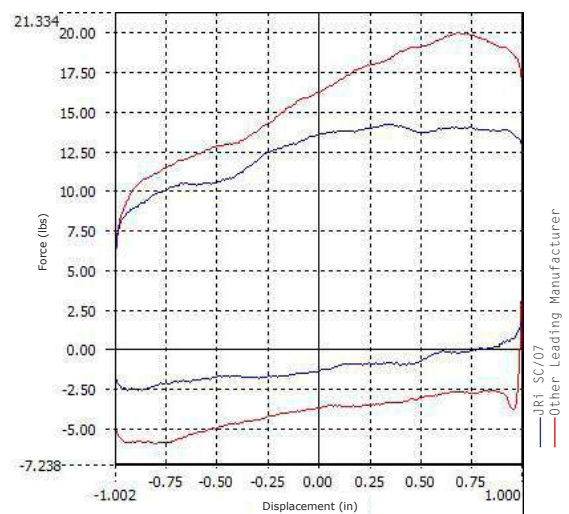


**Result: 50% improvement**

# 2

## Reduced Gas Spring Rate/Reduced Dynamic Rod Force

JRi strives to incorporate as much nitrogen gas volume as possible in every design. The increase in volume offers a large reduction in rod force which is an inherent spring rate. This rate is a stored energy source that has to be overcome by the motion of the shock absorber. The reduction of this force allows for lower load transitions in changes of direction of the shock absorber resulting in improved tire load variation and grip. Another large advantage with increased volume is internal hydraulic stability which can change dramatically with temperature variations.



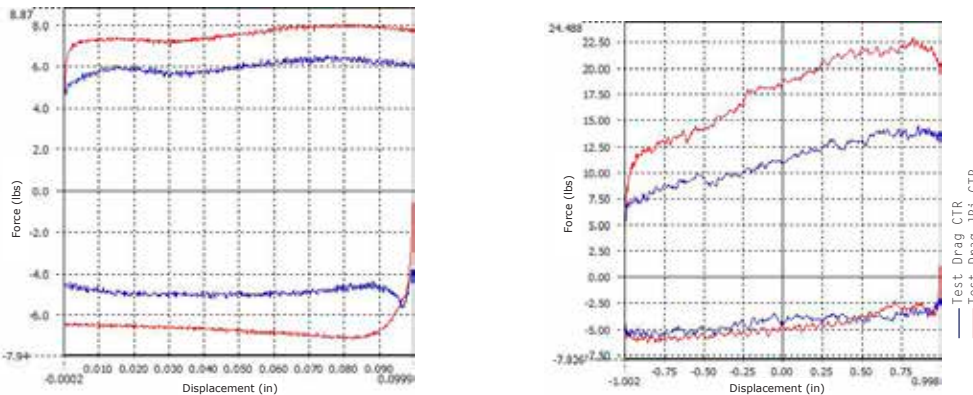
**Result: 48% improvement**

## Reduced Friction/Side Loading Effects

# 3

The JRi designed 'floating' seal/bearing head neutralizes side load induced to the shaft by the tightening of the seal/bearing head as well as chassis mounting misalignment. This is especially important with bump stop implementation. Coil-over applications generate much larger side loading effects due to the coil's tendency deflect and bend. Test results show running (coulomb) friction, and applied side loads of 15 lbs, 32 lbs, and 47 lbs (shown). By design more energy can be dissipated through the fluid and not through the friction of the components.

**Result: 35% improvement in both coulomb and side load conditions**

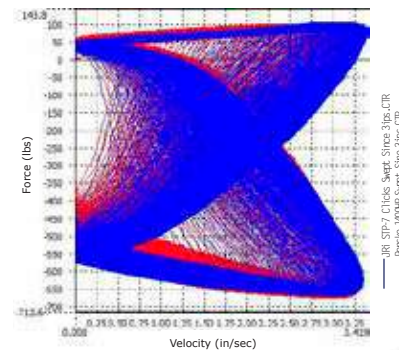


## Increased Dynamic Performance

# 4

JRi's attention to the design and function of the main piston and shim interaction plays a substantial role in the overall performance of the shock absorber and its relation to the tire. This is achieved by well calculated flow paths and the pressure relieving qualities of the radial shim stacks to create a much more stable hydraulic environment which allows a more consistent response in varying frequencies. This allows the shock to stay more closely in phase with the varying frequencies created by the tire. Figure 4 below shows fluctuating frequency phases. The tighter the pattern, the more consistent the damping is through these phases. As more teams implement advanced modeling for vehicle dynamics, this attribute benefits the accuracy of the model when JRi products.

**Result: 30% improvement**

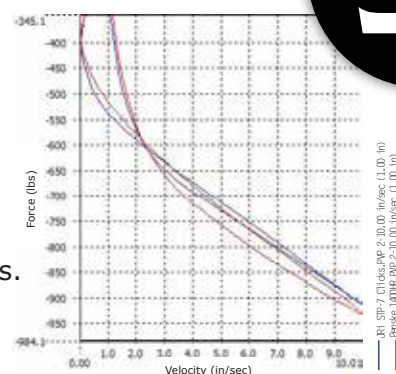


## Reducing Hysteresis

# 5

Hysteresis is typically caused by the compressibility within the shock absorber. This will consist of the hydraulic fluid, o-rings and seals, stiffness of mechanical components, shim management and the effects of cavitation. JRi has taken great care and given meticulous attention to avoid compressible design. We have sealed all unintended bleed paths, stiffened stressed components, lessened cavitation and chosen sealing materials which result in a much "stiffer" internal hydraulic system. By reducing compressible situations, JRi has increased the response to the tire in all conditions.

**Result: 30% improvement.**



# Drag Race

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Finish</b>	<b>Spring Inside DIA</b>
PAC-400-5-102-2CR	5" Travel Rear Big Tire Drag Shock	Double Adjustable Big Tire Build/ Rear	Threaded	2.5
PAC-400-6-104-2CR	6" Travel Rear Big Tire Drag Shock	Double Adjustable Big Tire Build/ Rear	Threaded	2.5
PAC-400-7-108-2CR	7" Travel Rear Big Tire Drag Shock	Double Adjustable Big Tire Build/ Rear	Threaded	2.5
PAC-400-5-101-2CR	5" Travel Rear Small Tire Drag Shock	Double Adjustable Small Tire Build/ Rear	Threaded	2.5
PAC-400-6-103-2CR	6" Travel Rear Small Tire Drag Shock	Double Adjustable Small Tire Build/ Rear	Threaded	2.5
PAC-400-7-107-2CR	7" Travel Rear Small Tire Drag Shock	Double Adjustable Small Tire Build/ Rear	Threaded	2.5
PAC-400-6-105-3CR	6" Travel Air Assist Drag Shock	Triple Adjustable Big Tire Build/ Rear	Threaded	2.5
PAC-400-7-106-4CR	6" Travel 4-Way Adjustable Shock	4-Way Adjustable Big Tire Build/ Rear	Threaded	2.5

# Sportsman Drag Race

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Finish</b>	<b>Spring Inside DIA</b>
PAC-S400-6-109-CR	5.8" Travel Rear Shock	Dragster	Threaded	2.5"
PAC-S400-6-110-CR	5.8" Travel Rear Shock	Door Car	Threaded	2.5"



<b>Stroke</b>	<b>Extended Length (in)</b>	<b>Collapsed Length (in)</b>	<b>Compression Settings</b>	<b>Rebound Settings</b>	<b>Upper Mount</b>	<b>Lower Mount</b>
5.0	17.5	12.5	40	12	"A"	"A"
6.0	19.5	13.5	40	12	"A"	"A"
7.0	21.5	14.5	40	12	"A"	"A"
5.0	17.5	12.5	40	12	"A"	"A"
6.0	19.5	13.5	40	12	"A"	"A"
7.0	21.5	14.5	40	12	"A"	"A"
6.0	19.5	13.5	40	64	"A"	"A"
7.0	20.5	14.5	40	12	"A"	"A"

<b>Stroke</b>	<b>Extended Length (in)</b>	<b>Collapsed Length (in)</b>	<b>Compression Settings</b>	<b>Rebound Settings</b>	<b>Upper Mount</b>	<b>Lower Mount</b>
5.8	19.5	13.7	5	Sweep	A	A
5.8	19.5	13.7	5	Sweep	A	A

# Circle Track

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Type</b>
PAC-200-7-125TP-2CR	Dirt Late Model	Double Adj. LF	Threaded aluminum
PAC-200-7-240-2CR	Dirt Late Model	Double Adj. RF	Threaded aluminum
PAC-200-9-134-2CR	Dirt Late Model	Double Adj. LR	Threaded aluminum
PAC-200-9-241-2CR	Dirt Late Model	Double Adj. RR	Threaded aluminum
PAC-200-9-324-XX	Dirt Late Model	Base valve LR front	Threaded aluminum
PAC-200-7-180-CX	Dirt Late Model	5th coil	Threaded aluminum
PAC-200-7-128-3CR	Asphalt Late Model	Triple Adjustable LF	Threaded aluminum
PAC-200-7-130-3CR	Asphalt Late Model	Triple Adjustable RF	Threaded aluminum
PAC-200-9-129-3CR	Asphalt Late Model	Triple Adjustable LR	Threaded aluminum
PAC-200-9-131-3CR	Asphalt Late Model	Triple Adjustable RR	Threaded aluminum
PAC-200-7-149-XX	Northeastern Modified	Multiple valving options	Threaded aluminum monotube
PAC-200-9-150-XX	Northeastern Modified	Multiple valving options	Threaded aluminum monotube
PAC-200-7-237-XX	IMCA Modified	NSV Multiple valving options	Steel monotube w/schrader valve
PAC-200-9-238-XX	IMCA Modified	NSV Multiple valving options	Steel monotube w/schrader valve
PAC-200-7-260-XX	UMP, USMTS, Open Modifieds	LF Standard	Steel monotube basevalve w/schrader valve
PAC-200-7-263-XX	UMP, USMTS, Open Modifieds	LF Slick	Steel monotube basevalve w/schrader valve
PAC-200-7-262-XX	UMP, USMTS, Open Modifieds	RF Standard	Steel monotube basevalve w/schrader valve
PAC-200-7-261-XX	UMP, USMTS, Open Modifieds	RF Slick	Steel monotube basevalve w/schrader valve
PAC-200-9-266-XX	UMP, USMTS, Open Modifieds	LR Lift Arm	Steel monotube basevalve w/schrader valve
PAC-200-9-267-XX	UMP, USMTS, Open Modifieds	LR Pullbar	Steel monotube basevalve w/schrader valve
PAC-200-9-264-XX	UMP, USMTS, Open Modifieds	RR Lift Arm	Steel monotube basevalve w/schrader valve
PAC-200-9-265-XX	UMP, USMTS, Open Modifieds	RR Pullbar	Steel monotube basevalve w/schrader valve
PAC-200-7-278-XX	UMP, USMTS, Open Modifieds	5th Coil	Steel monotube basevalve w/schrader valve
PAC-200-7-244-XX	UMP, USMTS, Open Modifieds	LF Standard	Steel monotube non basevalve w/schrader valve
PAC-200-7-247-XX	UMP, USMTS, Open Modifieds	LF Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-248-XX	UMP, USMTS, Open Modifieds	LF Super Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-246-XX	UMP, USMTS, Open Modifieds	RF Standard	Steel monotube non basevalve w/schrader valve
PAC-200-7-243-XX	UMP, USMTS, Open Modifieds	RF Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-245-XX	UMP, USMTS, Open Modifieds	RF Heavy Tie Down	Steel monotube non basevalve w/schrader valve
PAC-200-7-242-XX	UMP, USMTS, Open Modifieds	RF Tight Corner	Steel monotube non basevalve w/schrader valve





# Circle Track (CONT.)

Part Number	Application	Description	Shock Body Type
PAC-200-9-249-XX	UMP, USMTS, Open Modifieds	LR Standard	Steel monotube non basevalve w/schrader valve
PAC-200-9-250-XX	UMP, USMTS, Open Modifieds	LR Slick	Steel monotube non basevalve w/schrader valve
PAC-200-9-251-XX	UMP, USMTS, Open Modifieds	LR Lift Arm	Steel monotube non basevalve w/schrader valve
PAC-200-9-252-XX	UMP, USMTS, Open Modifieds	RR Standard	Steel monotube non basevalve w/schrader valve
PAC-200-9-253-XX	UMP, USMTS, Open Modifieds	RR Slick	Steel monotube non basevalve w/schrader valve
PAC-200-9-255-XX	UMP, USMTS, Open Modifieds	RR Heavy	Steel monotube non basevalve w/schrader valve
PAC-200-9-254-XX	UMP, USMTS, Open Modifieds	RR Lift Arm	Steel monotube non basevalve w/schrader valve
PAC-200-5-198-XR	Dirt Midget	LF standard	Threaded aluminum monotube
PAC-200-5-199-XR	Dirt Midget	RF standard	Threaded aluminum monotube
PAC-200-5-200-XR	Dirt Midget	LR standard	Threaded aluminum monotube
PAC-200-5-201-XR	Dirt Midget	RR standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	LF standard	Threaded aluminum monotube
PAC-200-5-203-XR	Asphalt Midget	RF standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	LR standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	RR standard	Threaded aluminum monotube
PAC-200-6-210-XR	LF Non Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-211-XR	RF Non Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-212-XR	LR Non Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-6-213-XR	RR Non Wing Sprintcar	RR standard	Threaded aluminum monotube
PAC-200-6-214-XR	LF 360 Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-215-XR	RF 360 Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-216-XR	LR 360 Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-8-217-XR	RR 360 Wing Sprintcar	RR standard	Threaded aluminum monotube
PAC-200-6-218-XR	LF 410 Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-219-XR	RF 410 Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-220-XR	LR 410 Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-8-221-XR	RR 410 Wing Sprintcar	RR standard	Threaded aluminum monotube



<b>Spring Inside Dia</b>	<b>Stroke</b>	<b>Extended Length</b>	<b>Collapsed Length</b>	<b>Adjustable</b>	<b>Compression Adjustment "clicks"</b>	<b>Rebound Adjustment "clicks"</b>
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12

# Circle Track (CONT.)

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Type</b>	<b>Spring Inside Dia</b>
PAC-200-7-SZ-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SZ-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-5-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-6-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-7-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-8-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-7-SLS-XX	Stock Car, Modifieds, Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SLS-XX	Stock Car, Modifieds, Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-SE7-6696	4 Bar Modifieds	Kit includes 10 SLS shocks	Steel monotube	NA
PAC-200-7-COB-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SLM-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-5-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-6-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-7-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-8-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-9-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-5-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-6-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-7-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-8-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-9-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-6-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-7-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA

# BILSTEIN

## SHOCK ABSORBERS

<b>Stroke</b>	<b>Extended Length</b>	<b>Collapsed Length</b>	<b>Adjustable</b>	<b>Compression Adjustment "clicks"</b>	<b>Rebound Adjustment "clicks"</b>	<b>Valving Type</b>
7"	20"	13.14"	Non	0	0	Digressive
9"	23.44"	14.94"	Non	0	0	Digressive
5"	16.25"	11.25"	Non	0	0	Linear
6"	18.25"	12"	Non	0	0	Linear
7"	20"	13.14"	Non	0	0	Linear
8"	22.25"	14"	Non	0	0	Linear
9"	23.44"	14.94"	Non	0	0	Linear
7"	13.14"	13.14"	Non	0	0	Linear
9"	14.94"	14.94"	Non	0	0	Linear
7" & 9"	see above	see above	Non	0	0	Linear
7"	20"	13.14"	Non	0	0	Digressive
9"	23.44"	14.94"	Non	0	0	Linear
5"	16.32"	11.48"	Non	0	0	Linear or Digressive options
6"	18.13"	12.42"	Non	0	0	Linear or Digressive options
7"	20.08"	13.50"	Non	0	0	Linear or Digressive options
8"	22.07"	14.47"	Non	0	0	Linear or Digressive options
9"	23.44"	15.16"	Non	0	0	Linear or Digressive options
5"	16.32"	11.48"	Non	0	0	Linear or Digressive options
6"	18.13"	12.42"	Non	0	0	Linear or Digressive options
7"	20.08"	13.50"	Non	0	0	Linear or Digressive options
8"	22.07"	14.47"	Non	0	0	Linear or Digressive options
9"	23.44"	15.16"	Non	0	0	Linear or Digressive options
6"	19.31"	13.35"	Non	0	0	Linear or Digressive options
7"	20.16"	15.24"	Non	0	0	Linear or Digressive options

# Circle Track (CONT.)

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Type</b>	<b>Spring Inside Dia</b>
PAC-200-7.5-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-9-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-6-ASB-XX	Sprintcars, Midgets, & Mini-Sprints	Multiple Valving Options	Threaded aluminum monotube	1.875"
PAC-200-7-ASB-XX	Sprintcars, Midgets, & Mini-Sprints	Multiple Valving Options	Threaded aluminum monotube	1.875"
PAC-200-4-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-5-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-6-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-7-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-8-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-9-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-7-BGT-XX	Super Late Models, Sprintcars, Dirt Late Models, Big Block Modifieds	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-9-BGT-XX	Super Late Models, Sprintcars, Dirt Late Models, Big Block Modifieds	Multiple Valving Options	Threaded aluminum monotube	2.5"

# BILSTEIN

## SHOCK ABSORBERS

<b>Stroke</b>	<b>Extended Length</b>	<b>Collapsed Length</b>	<b>Adjustable</b>	<b>Compression Adjustment "clicks"</b>	<b>Rebound Adjustment "clicks"</b>	<b>Valving Type</b>
7.5"	22.78"	15.24"	Non	0	0	Linear or Digressive options
9"	23.76"	15.24"	Non	0	0	Linear or Digressive options
6"	17.32"	11.44"	Non	0	0	Linear or Digressive options
7"	20.08"	12.81"	Non	0	0	Linear or Digressive options
4"	14.23"	10.45"	Non	0	0	Linear or Digressive options
5"	16.25"	11.25"	Non	0	0	Linear or Digressive options
6"	18.37"	12.66"	Non	0	0	Linear or Digressive options
7"	20.23"	13.35"	Non	0	0	Linear or Digressive options
8"	22.26"	14.70"	Non	0	0	Linear or Digressive options
9"	23.60"	15.08"	Non	0	0	Linear or Digressive options
7"	21.75"	14.75"	Non	0	0	NA
9"	25.25"	16.75"	Non	0	0	NA

# Street Car

Part Number	Application	Description	Shock Body Finish	Spring Inside DIA
PAC-100-4-139-2CR	C5/C6 Corvette	Front - Double Adjustable	Threaded	Call
PAC-100-4-152-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-151-XX	Coilover Conversion	Rear - Non Adjustable w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-149-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-148-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-185-2CR	Coilover Conversion	Front - Double Adj. Remote Reservoir w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-173-2CR	Coilover Conversion	Rear - Double Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-172-2CR	Coilover Conversion	Rear - Double Adj. Remote Reservoir w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-142-CX	Coilover Conversion	Front - Single Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4-141-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-5-208-2CR	03-'08 Viper	Front/Rear - Double Adj. Remote Reservoir w/2.25" Spring Hardware	Threaded	2.25
PAC-100-6-169-XX	65-'73 Mustang	Rear - Non Adjustable	Threaded	N/A
PAC-100-6-155-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-8-168-XX	SRT-10 Truck	Rear - Non Adjustable	Threaded	N/A
PAC-100-9-167-XX	SRT-10 Truck	Kicker - Non Adjustable	Threaded	N/A
PAC-100-3.75-137-CR	C5/C6 Corvette	Rear - Double Adjustable	Threaded	Call
PAC-100-4.5-166-XX	SRT-10 Truck	Front - Non Adjustable	Threaded	N/A
PAC-100-4.75-146-XX	Coilover Conversion	Rear - Non Adjustable w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4.75-182-2CR	Coilover Conversion	Rear - Double Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4.75-181-2CR	Coilover Conversion	Rear - Double Adj. Remote Reservoir w/2.50" Spring Hardware	Threaded	2.5
PAC-100-4.75-145-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware	Threaded	2.5
PAC-100-5.5-200-2CR	5th Gen Camaro Platform	Double Adj Platform Including Springs and Mounting Hardware	Threaded	2.5
PAC-100-6.5-201-2CX	S-197 Platform	Double Adj Platform Including Springs and Mounting Hardware	Threaded	2.5/2.25





Stroke	Extended Length (in)	Collapsed Length (in)	Compression Settings	Rebound Settings	Upper Mount	Lower Mount
4.0	17.375	13.375	30	12	"J"	"G"
4.0	14.25	10.25	0	0	"A" or "K"	"A" or "K"
4.0	14.25	10.25	0	0	"A" or "K"	"A" or "K"
4.0	15.1	11.1	0	0	"A" or "K"	"A" or "K"
4.0	15.1	11.1	0	0	"A" or "K"	"A" or "K"
4.0	15.1	11.1	30	12	"B"	"B"
4.0	15.1	11.1	30	12	"B"	"B"
4.0	15.1	11.1	30	12	"B"	"B"
4.0	15.1	11.1	50	0	"A" or "K"	"A" or "K"
4.0	15.1	11.1	50	0	"A" or "K"	"A" or "K"
5/3.75	16/14.375	11/10.625	30	12	"B"	"A" or "L"
6.0	21.25	15.25	0	0	"J"	"J"
6.0	19.625	13.625	50	0	"B"	"B"
8.0	23.5	15.5	0	0	"F"	"F"
9.0	26.275	17.275	0	0	"F"	"F"
3.8	17.5	13.75	30	12	"J"	"L"
4.5	17.6	13.1	0	0	.625" Bayonet	"G"
4.8	16.125	11.375	0	0	"A" or "K"	"A" or "K"
4.8	16.125	11.375	30	12	"B"	"B"
4.8	16.125	11.375	30	12	"B"	"B"
4.8	16.125	11.375	50	0	"A" or "K"	"A" or "K"
5.5/4	23.750/15.625	18.250/11.625	30	12	"H" or "A"	"M" or "F"
6.50/6.25	25.30/20	18.80/13.750	30	0	"H"	"M" or "E"

# Motorcycle

Part Number	Application	Description	Shock Body Finish	Spring Inside DIA
PAC-500-2-102-XR	Hyabusa/ZX14R Drag Shock	Single Adjustable - Rebound - Hayabusa Drag	Threaded	2.0
PAC-500-2-106-2CR	Hyabusa/ZX14R Drag Shock	Double Adjustable - Hayabusa Drag	Threaded	2.0
PAC-500-2-109-XR	GSXR 1000 Drag Shock	Single Adjustable - Rebound - GSXR 1000 Drag	Threaded	2.0
PAC-500-2-110-2CR	GSXR 1000 Drag Shock	Double Adjustable - GSXR 1000 Drag	Threaded	2.0
PAC-500-2.5-114-3CR	GSXR 1000 Road Race Shock	Triple Adjustable - GSXR 1000	Threaded	2.0
PAC-500-2.5-122-3CR	YZF R6 Road Race Shock	Triple Adjustable - YZF R6	Threaded	2.0
PAC-500-2.5-124-3CR	GSXR 600/750 Road Race Shock	Triple Adjustable - GSXR 600/750	Threaded	2.0
PAC-500-2.9-126-3CR	SV650 Road Race Shock	Double Adjustable - SV 650	Threaded	2.0
PAC-500-5.6-112-3CR	YZ 450F MotoCross Shock	Triple Adjustable - YZ 450F MX	Threaded	2.0
PAC-500-4-188-2CR	CRF 450TT ATV Rear Shock	Double Adjustable - CRF 450TT Rear	Threaded	2.0
PAC-500-5-107-3CR	CRF 450TT ATV Front Shock	Triple Adjustable - CRF 450 TT Front	Threaded	2.0
PAC-500-2.5-140-3CR	Triumph 675 Street Shock	Triple Adjustable - Triumph 675	Threaded	2.0

# UTV & ATV Off Road

Part Number	Application	Description	Shock Body Finish	Spring Inside DIA
PAC-700-9-101-CX	Arctic Cat Wildcat	Shaft Adjustable Compression, 2" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	2.5"
PAC-700-9-102-CX	Arctic Cat Wildcat	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"
PAC-700-6-103-CX	Can-Am Commander	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	3"
PAC-700-6-104-CX	Can-Am Commander	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"
PAC-700-7.5-105-CX	Can-Am Maverick	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	3"
PAC-700-8-106-CX	Can-Am Maverick	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"
PAC-700-7.5-107-CX	Can-Am Maverick Max	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	3"
PAC-700-8-108-CX	Can-Am Maverick Max	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"
PAC-700-7-109-CX	Polaris XP2 900	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	3"
PAC-700-8-110-CX	Polaris XP2 900	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"
PAC-700-7-111-CX	Polaris XP4 900	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Front)	Threaded	3"
PAC-700-8-112-CX	Polaris XP4 900	Shaft Adjustable Compression, 2.5" Body, 2.5" Reservoir, w/ Spring, (Rear)	Threaded	3"



Stroke	Extended Length (in)	Collapsed Length (in)	Compression Settings	Rebound Settings	Upper Mount	Lower Mount
2.0	12.5	10.5	0	50	"D"	"D"
2.0	12.5	10.5	18	50	"D"	"D"
2.0	12.25	10.25	0	50	"D"	"D"
2.0	12.25	10.25	18	50	"D"	"D"
2.5	12.5	10	240	50	"D"	"D"
2.5	11.4	8.9	240	50	"D"	"E"
2.5	12.5	10	240	50	"D"	"D"
2.9	13	10.1	18	50	"D"	"D"
5.6	18.1	12.5	240	50	"D"	"D"
4.0	17	13	18	50	"D"	"D"
5.0	16	11	240	50	"D"	"D"
2.5	11.5	9	240	50	"D"	"D"

Stroke	Extended Length (in)	Collapsed Length (in)	Compression Settings	Rebound Settings	Upper Mount	Lower Mount
8.82	25.10	16.280	70 Positions	NA	"D"	"D"
8.90	28.86	19.960	70 Positions	NA	"D"	"K"
6.147	20.25	14.103	70 Positions	NA	"D"	"D"
5.860	20.25	14.390	70 Positions	NA	"D"	"D"
7.530	22.046	14.516	70 Positions	NA	"D"	"D"
8.00	22.965	14.965	70 Positions	NA	"D"	"D"
7.530	22.046	14.516	70 Positions	NA	"E"	"E"
8.00	22.965	14.965	70 Positions	NA	"E"	"E"
6.785	22.875	16.090	70 Positions	NA	"D"	"D"
7.785	22.750	14.965	70 Positions	NA	"D"	"E"
6.785	22.875	16.090	70 Positions	NA	"D"	"D"
7.785	22.750	14.965	70 Positions	NA	"D"	"E"



Proudly made in the U.S.A



# **FAL**



# **FK** **ROD** **ENDS**

AUTHORIZED DISTRIBUTOR

## FITS FK OFFERS

**F1**

- LONGEST LIFE IN EXTREME/DIRT RACING!
- Super tight fit
- Not really able to move the ball by hand.
- Used in suspensions and control arms.
- Over time, it has a chance to burnish in (loosen up) and works very smoothly.

**F2**

- Tight fit but can still move the ball by hand.
- Used in sway bars and shifters.
- Snug but not over-tight and not usually load bearing.

**F3**

- As with all Teflon liners, it helps the wear of the rod.
- Promotes longer life due to its self-lubricating properties.

# ROD ENDS



Thread Size Vs. Hole Size (All fine threads unless specified)																	
Size (Hole)	JM	JMX	JF	JFX	KMX	ALJM	ALJMH	ALJF	RSM	RSMX	ALRSM	HJMX-T	HRSMX-T	PMX-T	SJM-T	SRSM-T	SJF-T
5 (.3125)	5/16	5/16	5/16	5/16	5/16	5/16	5/16	5/16	3/8	3/8	3/8			5/16	5/16		5/16
6 (.250)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	3/8	7/16	3/8	3/8	7/16	3/8
7 (.4375)	7/16	7/16	7/16	7/16		7/16			1/2	1/2	1/2	7/16	1/2	7/16	7/16	1/2	7/16
8 (.500)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	1/2	5/8	1/2	1/2	5/8	1/2
8-6 (.375)		1/2						1/2			5/8						
10 (.625)	5/8	5/8	5/8	5/8	5/8	5/8	5/8		3/4	3/4	3/4	5/8	3/4	5/8	5/8	3/4	5/8
10-8 (.500)					5/8					3/4	3/4						
12 (.75)	3/4	3/4	3/4	3/4	3/4	3/4	3/4		7/8			3/4	7/8	3/4	3/4		3/4
12-8 (.500)					3/4												
12-10 (.625)					3/4												
14 (.875)		7/8			7/8					1-14							
16 (1.00)	1.25-12	1.25-12	1.25-12	1.25-12	1.25-12												
16-1 (1.00)	1-14	1-14	1-14	1-14													
16-2 (1.00)	1-12		1-12														
24-1 (1.50)				1.5-12													

All Products listed are available with teflon lined race, denote with a suffix of T, Ex. JMX10T  
 To denote a left handed rod end, add an L before the size designation, Ex. JMXL10T

## Spherical Bearings

Table shows Ultimate Static Radial Load

Size (Hole)	AIN	WSSX-T / WSSX-TV	COM*	FKS	FKSSX	HIN-T
3 (.1875)	6550	2500	3250	6480	4800	
4 (.250)	8427	5500	4950	10000	7400	7560
5 (.3125)	12912	9400	6475	13900	9700	
6 (.250)	17512	13700	8400	18000	11900	16983
7 (.4375)	21290	20700	9453	22300	14180	19023
8 (.500)	28110	21400	13250	26900	17900	25275
9 (.5625)		26600	16630	36000	24900	
10 (.625)	37930	29000	21280	48000	31900	44652
12 (.75)	48675	37000	31920	78000	47850	53716
14 (.875)	48675	65200	41960	103000	62900	
14T-770 (.875)	58650			125000	82800	
16 (1.00)	90000	104000	55200			
24 (1.50)		281531				

\* Additional sizes available other than listed here, see FK Bearings website for complete product list.



## Racing Application Rod Ends

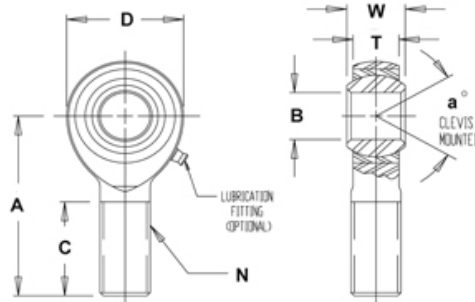
Series	Description
JM	3 Piece, Precision Male, Low Carbon Steel Body
JMX	3 Piece, Precision Male, Alloy Body
JF	3 Piece, Precision Female, Low Carbon Steel Body
JFX	3 Piece, Precision Female, Alloy Body
KMX	3 Piece, Alloy Steel, Nylon Race
ALJM	3 Piece, Aluminum Body, Male
ALJMH	3 Piece, Aluminum Heavy Duty, Male
ALJF	3 Piece, Aluminum Body, Female
RSM	3 Piece, Low Carbon Steel Body, Heavy Shank
RSMX	3 Piece, Alloy Steel Body, Heavy Shank
ALRSM	3 Piece, Aluminum Body, Heavy Shank
HJMX-T	3 Piece, High Misalignment, Teflon
HRSMX-T	3 Piece, High Misalignment, Heavy Shank, Teflon
HIN-T	Spherical Bearing, High Misalignment
PMX-T	3 Piece, Performance Racing, Alloy Body, Teflon
SJM-T	3 Piece, Stainless Body, Male, Teflon
SRSM-T	3 Piece, Stainless Body, Heavy Shank, Male, Teflon
SJF-T	3 Piece, Stainless Body, Female, Teflon
COM	Spherical Bearing, Low Carbon Steel Race
FKS	Spherical Bearing, Alloy Steel Race
FKSSX	Spherical Bearing, Stainless Steel Race
WSSX-T	Spherical Bearing, Wide Series, Plain, Teflon
WSSX-TV	Spherical Bearing, Wide Series, Grooved, Teflon
AIN	Spherical Bearing, Alloy Steel Race, Heavy Duty

### JM

- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, zinc plated and chromate treated
- Body is low carbon steel, zinc plated and chromate treated
- Teflon liners available

### JMX

- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, zinc plated and chromate treated
- Body is alloy steel, heat treated, zinc plated and chromate treated
- Teflon liners available



MALE ROD ENDS SIZE	B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (LBS)		AP-PROX. WEIGHT (lbs.)
	+0.015 -0.005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 3A	+0.062 -0.031	REF.	JM	JMX	
2	0.1250	0.500	0.250	0.187	0.312	0.937	6-32UNC	0.526	16	500	-	0.013
3	0.1900	0.625	0.312	0.250	0.437	1.250	10-32	0.750	13	1,174	2,855	0.030
4	0.2500	0.750	0.375	0.281	0.500	1.562	1/4-28	1.000	16	2,168	5,262	0.040
5	0.3125	0.875	0.437	0.344	0.625	1.875	5/16-24	1.250	14	2,796	7,640	0.070
6	0.3750	1.000	0.500	0.406	0.719	1.938	3/8-24	1.250	12	4,012	9,550	0.110
7	0.4375	1.125	0.562	0.437	0.812	2.125	7/16-20	1.375	14	4,244	10,290	0.160
8	0.5000	1.312	0.625	0.500	0.937	2.438	1/2-20	1.500	12	6,700	16,242	0.250
8-6	0.3750	1.312	0.625	0.500	0.937	2.438	1/2-20	1.500	12	-	16,242	0.270
10	0.6250	1.500	0.750	0.562	1.125	2.625	5/8-18	1.625	16	7,400	17,959	0.380
12	0.7500	1.750	0.875	0.687	1.312	2.875	3/4-16	1.750	14	11,550	28,090	0.600
14	0.8750	2.000	0.875	0.687	1.312	3.375	7/8-14	1.875	12	-	55,690	0.910
14T-770	0.8750	2.000	0.875	0.770	1.375	3.375	7/8-14	1.875	12	-	45,051	0.910
16**	1.0000	2.950	1.375	1.015	1.875	4.500	1 1/4-12	2.500	17	43,555	107,182	2.736
16-1**	1.0000	2.950	1.375	1.015	1.875	4.500	1-14	2.500	17	43,555	107,182	2.464
16-2**	1.0000	2.950	1.375	1.015	1.875	4.500	1-14	2.500	17	43,555	-	2.464

MALE ROD END LOAD RATINGS BASED ON NO LUBRICATION FITTING. FOR LOAD RATINGS OF ROD ENDS WITH LUBRICATOR, PLEASE CONTACT THE F.K. ENGINEERING DEPARTMENT.

\*\* TOLERANCE VARIATION: "D", "A" ARE +/- .020  
 "T" TOLERANCE ON JM SERIES IS +/- .015

#### NOTES:

- FOR GREASE FITTINGS ADD "Z" TO SUFFIX - EXAMPLE: JMX6Z
- FOR STUDS ADD "Y" TO SUFFIX - EXAMPLE: JMX5Y
- FOR TEFLON LINER ADD "T" TO SUFFIX - EXAMPLE: JMX12T

BODY	
JM	LOW CARBON STEEL, ZINC PLATED, CHROMATE TREATED AVAILABLE IN SIZES 2-16
JMX	ALLOY STEEL, HEAT TREATED, ZINC PLATED, CHROMATE TREATED AVAILABLE IN SIZES 3-16

MATERIALS	
BALL	RACE
52100 STEEL Rc 56 MIN. HARD HARD CHROME PLATED	STEEL ALLOY, HEAT TREATED ZINC PLATED CHROMATE TREATED

# JF / JFX

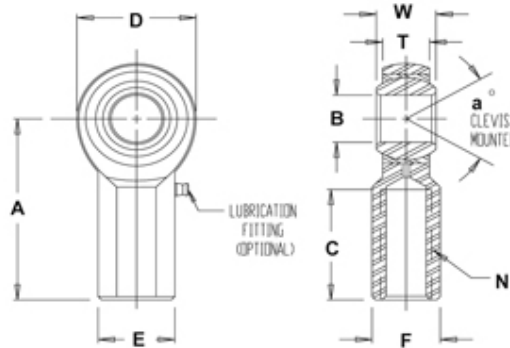
3-PIECE, PRECISION-WEAR RESISTANT / PTFE LINERS AVAILABLE

## JF

- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, and zinc plated
- Body is low carbon steel, zinc plated and chromate treated
- Teflon liners available

## JFX

- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, and zinc plated and chromate treated
- Body is alloy steel, heat and chromate treated and zinc plated
- Teflon liners available



FEMALE ROD ENDS	B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	E DIA.	F FLAT	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (LBS.)		APPROX. WEIGHT (lbs.)
	SIZE	+0.015 -0.0005	+0.10 -0.10	+0.00 -0.005	+0.005 -0.005	REF.	+0.15 -0.15	UNF 2B	+0.062 -0.031	+0.10 -0.10	+0.10 -0.10	REF.	JF	
2*	0.1250	0.500	0.250	0.187	0.312	0.812	6-32UNC	0.437	0.312	0.250	16	1,210	-	0.02
3	0.1900	0.625	0.312	0.250	0.437	1.062	10-32	0.500	0.406	0.312	13	1,624	3,736	0.04
4	0.2500	0.750	0.375	0.281	0.500	1.312	1/4-28	0.687	0.469	0.375	16	2,545	6,195	0.06
5	0.3125	0.875	0.437	0.344	0.625	1.375	5/16-24	0.687	0.500	0.437	14	3,200	7,640	0.09
6	0.3750	1.000	0.500	0.406	0.719	1.625	3/8-24	0.812	0.687	0.562	12	3,950	9,550	0.15
7	0.4375	1.125	0.562	0.437	0.812	1.812	7/16-20	0.937	0.750	0.625	14	4,300	10,290	0.20
8	0.5000	1.312	0.625	0.500	0.937	2.125	1/2-20	1.062	0.875	0.750	12	6,700	15,340	0.33
10	0.6250	1.500	0.750	0.562	1.125	2.500	5/8-18	1.375	1.000	0.875	16	7,400	17,959	0.48
12	0.7500	1.750	0.875	0.687	1.312	2.875	3/4-16	1.562	1.125	1.000	14	11,550	28,090	0.72
16**	1.0000	2.750	1.375	1.000	1.875	4.125	1 1/4-12	2.125	1.625	1.500	17	40,893	76,205	2.13
16-1**	1.0000	2.750	1.375	1.000	1.875	4.125	1-14	2.125	1.625	1.500	17	43,555	76,205	2.41
16-2**	1.0000	2.750	1.375	1.000	1.875	4.125	1-12	2.125	1.625	1.500	17	43,555	-	2.41
24-1	1.5000	3.500	1.312	1.125	2.155	5.375	1 1/2-12	2.625	2.250	2.000	6.5	-	138,800	6.50

\*GREASE FITTINGS & PTFE LINERS NOT AVAILABLE.

\*\* TOLERANCE VARIATION: "D", "A" ARE +/- .020

"T" TOLERANCE ON JM SERIES IS +/- 0.015

### NOTES:

FOR GREASE FITTINGS ADD "Z" TO SUFFIX. -EXAMPLE: JF6Z

FOR STUDS ADD "Y" TO SUFFIX. -EXAMPLE: JF5Y

FOR TEFLON LINER ADD "T" TO SUFFIX. -EXAMPLE: JF12T

FOR LEFT HAND THREADS ADD "L" TO PREFIX. -EXAMPLE: JFL8

## BODY

JF	LOW CARBON STEEL, ZINC PLATED, CHROMATE TREATED AVAILABLE IN SIZES 2-16
JFX	ALLOY STEEL, HEAT TREATED, ZINC PLATED, CHROMATE TREATED AVAILABLE IN SIZES 3-16

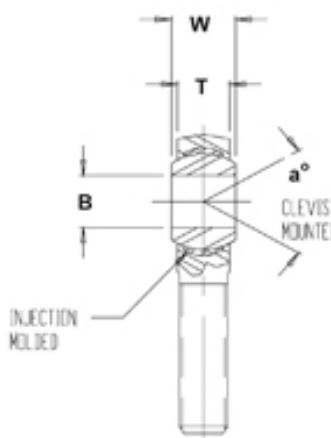
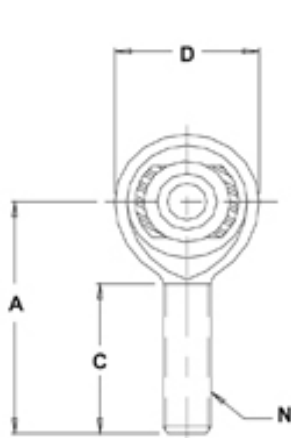
## MATERIALS

BALL	RACE
52100 STEEL Rc 56 MIN. HARD HARD CHROME PLATED	STEEL ALLOY, HEAT TREATED ZINC PLATED



**KMX**

- 3 Piece injected nylon series
- Ball made of 52100 hard chrome plated steel
- Body constructed using alloy steel, heat treated and chrome plated
- Race is made of Nylon 10 or equivalent
- Imported Series



MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS. ANGLE	ULT. STATIC RADIAL LOAD (lbs)	APPROX. WEIGHT (lbs)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+ .0025 - .0005	+ .010 - .010	+ .005 - .005	+ .005 - .005	REF.	+ .015 - .015	UNF 3A	+ .062 - .031	REF.		
KMX5	KMXL5	0.3125	0.875	0.437	0.344	0.625	1.875	5/16-24	1.250	14	7,600	0.07
KMX6-5	KMXL6-5	0.3125	0.875	0.437	0.344	0.625	1.875	3/8-24	1.250	14	7,600	0.07
KMX6	KMXL6	0.3750	1.000	0.500	0.406	0.719	1.938	3/8-24	1.250	12	9,500	0.11
KMX8	KMXL8	0.5000	1.312	0.625	0.500	0.937	2.438	1/2-20	1.500	12	12,696	0.24
KMX10-8	KMXL10-8	0.5000	1.500	0.625	0.500	0.937	2.625	5/8-18	1.625	12	19,960	0.36
KMX10	KMXL10	0.6250	1.500	0.750	0.562	1.125	2.625	5/8-18	1.625	16	14,480	0.36
KMX12-8	KMXL12-8	0.5000	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	14	23,256	0.57
KMX12-10	KMXL12-10	0.6250	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	14	23,256	0.57
KMX12	KMXL12	0.7500	1.750	0.875	0.687	1.312	2.875	3/4-16	1.750	14	23,192	0.57
KMX14	KMXL14	0.8750	2.000	0.875	0.770	1.375	3.375	7/8-14	2.000	12	45,051	0.88
KMX16	KMXL16	1.0000	2.750	1.375	1.000	1.875	4.125	1.250-12	2.125	17	76,200	2.41

FOR STUDS ADD "Y" TO SUFFIX. EXAMPLE - KMX10Y

**MATERIALS**

BALL	RACE	RACE
52100 STEEL Rc 56 MIN. HARD HARD CHROME PLATED	STEEL ALLOY, HEAT TREATED CHROME PLATED	NYLON 10 OR EQUIVALENT

# ALJM / ALJM-H / ALJF

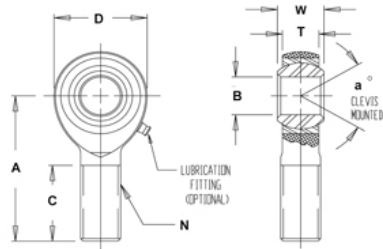
3-PIECE, ALUMINUM SERIES / PTFE LINERS AVAILABLE

## ALJM & ALJM-H

- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, and zinc plated and chromate treated
- Body is 7075-T6 aluminum with hard red anodized finish
- Teflon liners available- add H for heavy duty

## ALJF

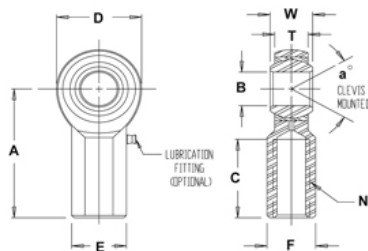
- 3-Piece, precision wear resistant rod ends
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, and zinc plated
- Body is 7075-T6 aluminum with hard red anodized finish
- Teflon liner available



### MATERIALS

BALL	BODY	RACE
52100 STEEL Rc 56 MIN. HARD HARD CHROME PLATED	ALUMINUM 7075-T6 HARD ANODIZED RED	ALLOY STEEL, HEAT TREATED ZINC PLATED CHROMATE TREATED

MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANG	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.015 -0.005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 3A	+0.062 -0.031	REF.		
ALJM3	ALJML3	0.1900	0.625	0.312	0.250	0.437	1.250	10-32	0.750	13	1,360	0.022
ALJM4	ALJML4	0.2500	0.750	0.375	0.281	0.500	1.562	1/4-28	1.000	16	2,465	0.034
ALJM5	ALJML5	0.3125	0.875	0.437	0.344	0.625	1.875	5/16-24	1.250	14	2,850	0.050
ALJM6	ALJML6	0.3750	1.000	0.500	0.406	0.719	1.938	3/8-24	1.250	12	4,208	0.078
ALJM7	ALJML7	0.4375	1.125	0.562	0.437	0.812	2.125	7/16-20	1.375	14	4,534	0.091
ALJM8	ALJML8	0.5000	1.312	0.625	0.500	0.937	2.438	1/2-20	1.500	12	7,698	0.140
ALJM8H	ALJML8H	0.5000	1.500	0.625	0.500	0.937	2.625	1/2-20	1.562	12	10,150	0.140
ALJM10	ALJML10	0.6250	1.500	0.750	0.562	1.125	2.625	5/8-18	1.625	16	8,516	0.240
ALJM10H	ALJML10H	0.6250	1.750	0.750	0.562	1.125	2.625	5/8-18	1.625	16	16,200	0.268
ALJM12	ALJML12	0.7500	1.750	0.875	0.687	1.312	2.875	3/4-16	1.750	14	13,319	0.300
ALJM12H	ALJML12H	0.7500	2.000	0.875	0.687	1.312	3.000	3/4-16	1.750	14	23,390	0.300



### NOTES:

FOR STUDS ADD "Y" TO SUFFIX - EXAMPLE: ALJM4Y  
 FOR TEFLON LINER ADD "T" TO SUFFIX - EXAMPLE: ALJM5T  
 FOR GREASE FITTING ADD "Z" TO SUFFIX - EXAMPLE: ALJM6Z

### MATERIALS

BALL	BODY	RACE
52100 STEEL Rc 56 MIN. HARD HARD CHROME PLATED	ALUMINUM 7075-T6 HARD ANODIZED RED	ALLOY STEEL, HEAT TREATED ZINC PLATED CHROMATE TREATED

FEMALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	E DIA.	F FLAT	a° MIS ANG	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.015 -0.005	+0.010 -0.010	+0.000 -0.005	+0.015 -0.015	REF.	+0.015 -0.015	UNF 2B	+0.062 -0.031	+0.010 -0.010	+0.010 -0.010	REF.		
ALJF3	ALJFL3	0.1900	0.625	0.312	0.250	0.437	1.062	10-32	0.500	0.406	0.312	13	1,360	0.022
ALJF4	ALJFL4	0.2500	0.750	0.375	0.281	0.500	1.312	1/4-28	0.687	0.469	0.375	16	2,592	0.034
ALJF5	ALJFL5	0.3125	0.875	0.437	0.344	0.625	1.375	5/16-24	0.687	0.500	0.437	14	2,890	0.050
ALJF6	ALJFL6	0.3750	1.000	0.500	0.406	0.719	1.625	3/8-24	0.812	0.687	0.562	12	3,952	0.088
ALJF8	ALJFL8	0.5000	1.312	0.625	0.500	0.937	2.125	1/2-20	1.062	0.875	0.750	12	7,006	0.186

# RSM / RSMX

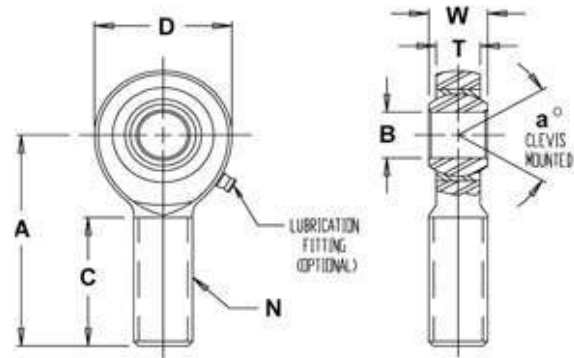
BODY - LOW CARBON STEEL, ZINC PLATED - CHROMATE TREATED

## RSM

- 3-Piece extra strength rod end with heavy duty shank
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, zinc plated and chromate treated
- Body is low carbon steel, heat treated, zinc plated and chromate treated
- Teflon liners available

## RSMX

- 3-Piece extra strength rod end with heavy duty shank
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, zinc plated and chromate treated
- Body is alloy steel, heat treated, zinc plated and chromate treated
- Teflon liners available



MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.0015 -0.0005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 3A	+0.062 -0.031	REF.		
RSM3	RSML3	0.1900	0.750	0.312	0.250	0.437	1.562	1/4-28	1.000	10	2,170	0.043
RSM4	RSML4	0.2500	0.875	0.375	0.281	0.500	1.875	5/16-24	1.250	13	3,523	0.072
RSM5	RSML5	0.3125	1.000	0.437	0.344	0.625	1.938	3/8-24	1.250	12	5,370	0.112
RSM6	RSML6	0.3750	1.125	0.500	0.406	0.719	2.125	7/16-20	1.375	10	7,230	0.160
RSM7	RSML7	0.4375	1.312	0.562	0.437	0.812	2.438	1/2-20	1.500	12	9,685	0.249
RSM8	RSML8	0.5000	1.500	0.625	0.500	0.937	2.625	5/8-18	1.625	10	12,843	0.382
RSM10	RSML10	0.6250	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	13	16,613	0.602

MALE ROD END LOAD RATINGS BASED ON NO LUBRICATION FITTING. FOR LOAD RATINGS OF ROD ENDS WITH LUBRICATOR, PLEASE CONTACT THE F.K. ENGINEERING DEPARTMENT.  
\* A trade mark of E.I. Dupont de Nemours & Co., Inc.

NOTE:  
FOR GREASE FITTINGS ADD "Z" TO SUFFIX. - EXAMPLE: RSML6Z  
FOR \*TEFLON LINER ADD "T" TO SUFFIX. - EXAMPLE: RSMX10T

MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.0015 -0.0005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 3A	+0.062 -0.031	REF.		
RSMX4	RSMXL4	0.2500	0.875	0.375	0.281	0.500	1.875	5/16-24	1.250	13	8,471	0.072
RSMX5	RSMXL5	0.3125	1.000	0.437	0.344	0.625	1.938	3/8-24	1.250	12	13,012	0.112
RSMX6	RSMXL6	0.3750	1.125	0.500	0.406	0.719	2.125	7/16-20	1.375	10	17,610	0.160
RSMX7	RSMXL7	0.4375	1.312	0.562	0.437	0.812	2.438	1/2-20	1.500	12	23,470	0.249
RSMX8	RSMXL8	0.5000	1.500	0.625	0.500	0.937	2.625	5/8-18	1.625	10	31,420	0.382
RSMX10-8	RSMXL10-8	0.5000	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	13	40,590	0.602
RSMX10	RSMXL10	0.6250	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	13	40,590	0.602
RSMX12	RSMXL12	0.7500	2.000	0.875	0.687	1.312	3.375	7/8-14	1.875	12	55,696	0.918
RSMX14T**	RSMXL14T**	0.8750	2.312	0.875	0.765	1.375	3.800	1-14	2.375	12	63,096	1.302

NOTE:  
FOR GREASE FITTINGS ADD "Z" TO SUFFIX. - EXAMPLE: RSMXL5Z  
FOR \*TEFLON LINER ADD "T" TO SUFFIX. - EXAMPLE: RSMX10T  
\* A trade mark of E.I. Dupont de Nemours & Co., Inc.  
\*\* Race is 17-4PH stainless steel, heat treated / Ball is 440C stainless steel or 52100 steel (heat treated) - Manufacturer's Option

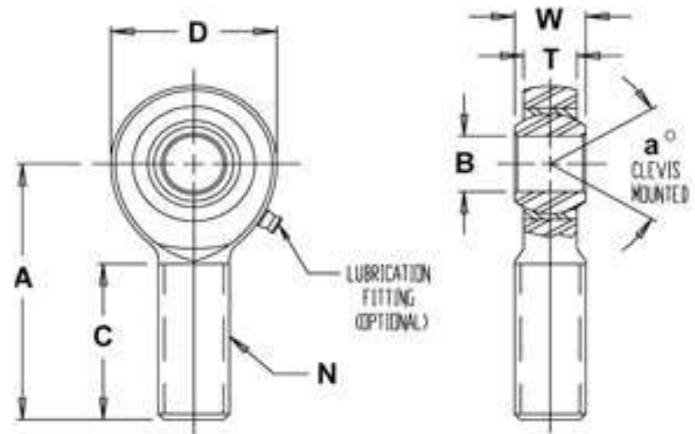
MATERIALS	
BALL	RACE
52100 STEEL HEAT TREATED HARD CHROME PLATED	STEEL ALLOY, HEAT TREATED ZINC PLATED CHROMATE PLATED

# ALRSM

3-PIECE, ALUMINUM SERIES / PTFE LINERS AVAILABLE

## ALRSM

- 3-Piece extra strength rod end with heavy duty shank
- Ball is made of 52100 steel, heat treated and hard chrome plated
- Race is heat treated steel alloy, zinc plated and chromate treated
- Body is 7075-T6 aluminum with hard red anodized finish
- Teflon liners available



MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.0015 -0.0005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 3A	+0.062 -0.031	REF.		
ALRSM5	ALRSML5	0.3125	1.000	0.437	0.344	0.625	1.938	3/8-24	1.250	12	5,590	0.060
ALRSM6	ALRSML6	0.3750	1.125	0.500	0.406	0.719	2.125	7/16-20	1.375	10	7,718	0.088
ALRSM7	ALRSML7	0.4375	1.312	0.562	0.437	0.812	2.438	1/2-20	1.500	12	11,000	0.121
ALRSM8	ALRSML8	0.5000	1.500	0.625	0.500	0.937	2.625	5/8-18	1.625	10	14,880	0.200
ALRSM8-6	ALRSML8-6	0.3750	1.500	0.625	0.500	0.937	2.625	5/8-18	1.625	10	14,880	0.200
ALRSM10	ALRSML10	0.6250	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	13	19,240	0.317
ALRSM10-8	ALRSML10-8	0.5000	1.750	0.750	0.562	1.125	2.875	3/4-16	1.750	13	19,240	0.317
RSMX12	RSMXL12	0.7500	2.000	0.875	0.687	1.312	3.375	7/8-14	1.875	12	55,696	0.918
RSMX14T**	RSMXL14T**	0.8750	2.312	0.875	0.765	1.375	3.800	1-14	2.375	12	63,096	1.302

MALE ROD END LOAD RATINGS BASED ON NO LUBRICATION FITTING. FOR LOAD RATINGS OF ROD ENDS WITH LUBRICATOR, PLEASE CONTACT F.K. ENGINEERING DEPT.

### NOTE:

FOR GREASE FITTINGS ADD "Z" TO SUFFIX. - EXAMPLE: RSMXL5Z

FOR \*TEFLON LINER ADD "T" TO SUFFIX. - EXAMPLE: RSMX10T

\* A trade mark of E.I. DuPont de Nemours & Co., Inc.

\*\* Race is 17-4PH stainless steel, heat treated / Ball is 440C stainless steel or 52100 steel (heat treated) Manufacturer's Option

## MATERIALS

### BALL

52100 STEEL  
HEAT TREATED  
HARD CHROME PLATED

### RACE

STEEL ALLOY, HEAT TREATED  
ZINC PLATED  
CHROMATE PLATED



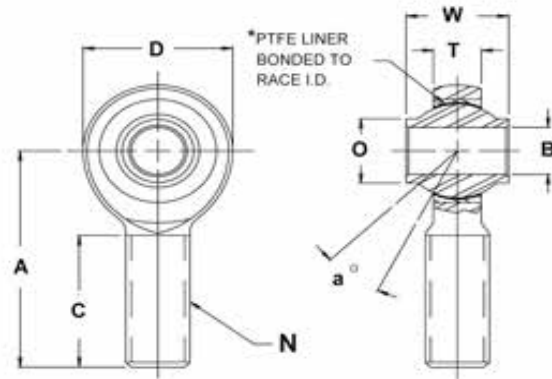
# HJMX-T / HRSMN-T / HIN-T

HIGH MISALIGNMENT SERIES - MALE ROD ENDS AND SPHERICAL BEARINGS - HEAVY DUTY

## HJMX-T/ HRSMX-T

When a high misalignment angle is necessary, look to FK Rod Ends to provide some of the highest angles available on the market - up to 23 degrees!

- Heavy-duty high misalignment rod end
- Ball is 52100 heat treated steel with hard chrome plate
- Race composed of alloy steel, heat treated, zinc plated and chromate treated
- Body is 4340 alloy steel, heat treated, zinc plated and chromate treated
- Comes standard with a Teflon fabric liner bonded to race I.D.



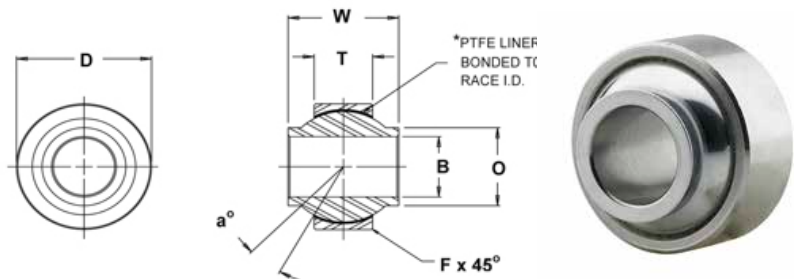
## HIN-T

- Heavy-duty high misalignment spherical bearing
- Ball is 52100 heat treated steel with hard chrome plate
- Race composed of alloy steel, heat treated and oil coated
- Comes standard with a Teflon fabric liner bonded to race I.D.

MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	O DIA.	a° MIS ANG	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.0015	+0.010	+0.000	+0.005	REF.	+0.015	UNF 3A	+0.062	REF.	REF.		
		-0.0005	-0.010	-0.005	-0.005		-0.015		-0.031				
HRSMX4T	HRSMXL4T	0.2500	1.025	0.593	0.265	0.593	1.938	3/8-24	1.187	0.390	23	10,790	0.12
HJMX6T	HJMXL6T	0.3750	1.150	0.813	0.355	0.781	2.125	3/8-24	1.281	0.512	22	11,390	0.12
HRSMX6T	HRSMXL6T	0.3750	1.150	0.813	0.355	0.781	2.125	7/16-20	1.281	0.512	22	11,789	0.15
HJMX7T	HJMXL7T	0.4375	1.337	0.875	0.355	0.875	2.438	7/16-20	1.468	0.618	21	15,716	0.23
HRSMX7T	HRSMXL7T	0.4375	1.337	0.875	0.355	0.875	2.438	1/2-20	1.468	0.618	21	17,100	0.24
HJMX8T	HJMXL8T	0.5000	1.525	0.937	0.411	1.000	2.625	1/2-20	1.562	0.730	19	23,703	0.33
HRSMX8T	HRSMXL8T	0.5000	1.525	0.937	0.411	1.000	2.625	5/8-18	1.562	0.730	19	23,703	0.39
HJMX10T	HJMXL10T	0.6250	1.775	1.200	0.577	1.250	2.875	5/8-18	1.687	0.856	19	28,109	0.57
HRSMX10T	HRSMXL10T	0.6250	1.775	1.200	0.577	1.250	2.875	3/4-16	1.687	0.856	19	32,100	0.66
HJMX12T	HJMXL12T	0.7500	2.025	1.280	0.630	1.375	3.375	3/4-16	2.000	0.970	18	38,701	0.82
HRSMX12T	HRSMXL12T	0.7500	2.025	1.280	0.630	1.375	3.375	7/8-14	2.000	0.970	18	38,701	0.89

\* A trade mark of E.I. Dupont de Nemours & Co., Inc.

MATERIALS	
BALL	BODY
52100 STEEL HEAT TREATED HARD CHROME PLATED	4340 STEEL, HEAT TREATED ZINC PLATED CHROMATE TREATED
RACE	LINER
STEEL ALLOY ZINC PLATED CHROMATE TREATED	*TEFLON FABRIC



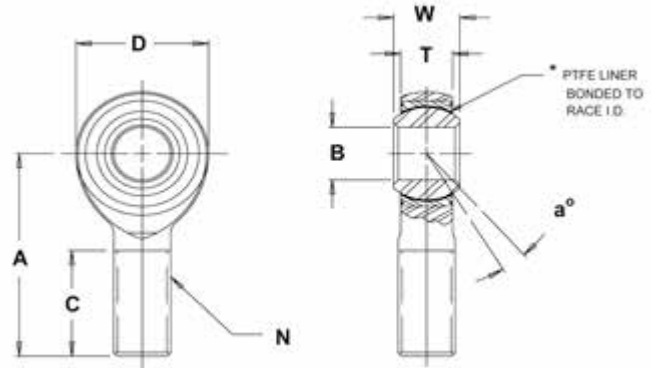
BEARING PART NO.	B DIA.	D DIA.	W WIDTH	T WIDTH	O DIA.	BALL DIA.	F CHAMFER	a° MIS. ANGLE	ULT. STATIC RADIAL LOAD (lbs)	APPROX. WEIGHT (lbs)
	+0.0015	+0.0000	+0.000	+0.005	REF.	REF.	REF.	REF.		
	-0.0005	-0.005	-0.005	-0.005						
HIN4T	0.2500	0.8700	0.593	0.255	0.390	0.593	0.020	24	7,560	0.040
HIN6T	0.3750	0.9060	0.813	0.345	0.512	0.781	0.030	23	16,983	0.068
HIN7T	0.4375	1.0000	0.875	0.345	0.618	0.875	0.030	22	19,023	0.095
HIN8T	0.5000	1.1250	0.937	0.401	0.730	1.000	0.030	20	25,275	0.160
HIN10T	0.6250	1.3750	1.200	0.567	0.856	1.250	0.030	20	44,652	0.245
HIN12T	0.7500	1.5625	1.280	0.620	0.970	1.375	0.035	18	53,716	0.315

# PMX-T / PMXL-T

3-PIECE PERFORMANCE RACING, STAINLESS STEEL RACE, WEAR RESISTANT, SELF LUBRICATING

## PMX-T/PMXL-T

- 3-Piece performance racing, wear resistant, self lubricating rod end
- Frequently used in high performance racing applications
- Ball is made of 440C stainless steel or 42100 steel heat treated R/C 56 min, with hard chrome plate\*
- Race is 17-4PH CRES heat treated stainless steel
- Body is 4340 alloy steel, heat treated, zinc plated and chromate treated
- Comes standard with a Teflon fabric liner bonded to race I.D.



MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.0015	+0.010	+0.000	+0.005	REF.	+0.10	UNF 3A	+0.031	REF.		
		-0.0005	-0.010	-0.005	-0.005		-0.10		-0.031			
PMX5T	PMXL5T	0.3125	0.900	0.437	0.327	0.593	1.875	5/16-24	1.187	14	8,302	0.08
PMX6T	PMXL6T	0.3750	1.025	0.500	0.416	0.687	1.938	3/8-24	1.187	8	10,940	0.13
PMX7T	PMXL7T	0.4375	1.150	0.562	0.452	0.781	2.125	7/16-20	1.281	10	14,052	0.18
PMX8T	PMXL8T	0.5000	1.337	0.625	0.515	0.875	2.438	1/2-20	1.468	9	23,314	0.27
PMX10T	PMXL10T	0.6250	1.525	0.750	0.577	1.062	2.625	5/8-18	1.562	12	25,900	0.42
PMX12T	PMXL12T	0.7500	1.775	0.875	0.640	1.250	2.875	3/4-16	1.687	13	34,322	0.63

## MATERIALS

BALL	BODY	RACE	LINER
440C STAINLESS STEEL OR 52100 STEEL HEAT TREATED R/C 56 MIN. HARD CHROME PLATED <b>MANUFACTURER'S OPTION</b>	4340 STEEL HEAT TREATED ZINC PLATED CHROMATE TREATED	17-4PH CRES STAINLESS STEEL HEAT TREATED	*TEFLON FABRIC

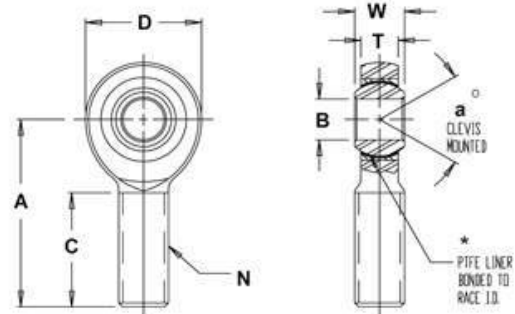


# SJM-T / SJF-T / SRSM-T

3 PIECE, PRECISION - STAINLESS STEEL, HIGH STRENGTH, SELF LUBRICATING

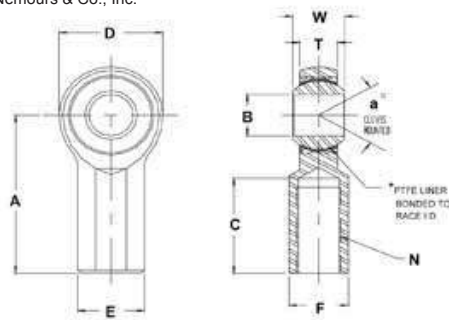
## SJM-T/SJF-T/SRSM-T

- 3- Piece precision stainless steel, high strength, self lubricating rod end
- Ball is made of 440C CRES stainless steel and heat treated
- Race is 17-4PH CRES heat treated stainless steel
- Body composed of 17-4PH CRES heat treated stainless steel
- Comes standard with a Teflon fabric liner bonded to race I.D.



MALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	a° MIS ANGLE	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.015 -0.005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.10 -0.10	UNF 3A	+0.031 -0.031	REF.		
SJM4T	SJML4T	0.2500	0.806	0.437	0.337	0.531	1.562	1/4-28	0.968	11	4,874	0.072
SJM5T	SJML5T	0.3125	0.900	0.437	0.327	0.593	1.875	5/16-24	1.187	11	7,196	0.087
SJM6T	SJML6T	0.3750	1.025	0.500	0.416	0.687	1.938	3/8-24	1.187	11	8,580	0.136
SRSM6T	SRSML6T	0.3750	1.150	0.500	0.416	0.687	2.125	7/16-20	1.375	11	17,610	0.16
SJM7T	SJML7T	0.4375	1.150	0.562	0.452	0.781	2.125	7/16-20	1.281	13	12,000	0.183
SRSM7T	SRSML7T	0.4375	1.337	0.562	0.452	0.781	2.438	1/2-20	1.500	13	23,470	0.249
SJM8T	SJML8T	0.5000	1.337	0.625	0.515	0.875	2.438	1/2-20	1.468	11	19,520	0.278
SRSM8T	SRSML8T	0.5000	1.525	0.625	0.515	0.875	2.625	5/8-18	1.625	11	33,172	0.382
SJM10T	SJML10T	0.6250	1.525	0.750	0.577	1.062	2.625	5/8-18	1.562	14	21,920	0.424
SRSM10T	SRSML10T	0.6250	1.775	0.750	0.577	1.062	2.875	3/4-16	1.750	14	40,507	0.602
SJM12T	SJML12T	0.7500	1.775	0.875	0.640	1.250	2.875	3/4-16	1.687	17	29,310	0.639

\* A trade mark of E.I. Dupont de Nemours & Co., Inc.



FEMALE ROD ENDS		B DIA.	D DIA.	W WIDTH	T WIDTH	BALL DIA.	A LGTH	N THD.	C LGTH	E DIA.	F FLAT	a° MIS ANG.	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
RIGHT HAND PART NO.	LEFT HAND PART NO.	+0.015 -0.005	+0.010 -0.010	+0.000 -0.005	+0.005 -0.005	REF.	+0.015 -0.015	UNF 2B	+0.062 -0.031	+0.010 -0.010	+0.010 -0.010	REF.		
SJF4T	SJFL4T	0.25	0.806	0.375	0.281	0.5	1.312	1/4/2028	0.75	0.469	0.375	16	4,795	0.059
SJF5T	SJFL5T	0.3125	0.9	0.437	0.344	0.625	1.375	5/16/2024	0.75	0.5	0.437	14	5,929	0.092
SJF6T	SJFL6T	0.375	1.025	0.5	0.406	0.719	1.625	3/8/2024	0.937	0.687	0.562	12	7,363	0.152
SJF7T	SJFL7T	0.4375	1.15	0.562	0.437	0.812	1.812	7/16/2020	1.062	0.75	0.625	14	7,934	0.198
SJF8T	SJFL8T	0.5	1.337	0.625	0.5	0.937	2.125	1/2/2020	1.187	0.875	0.75	12	12,527	0.329
SJF10T	SJFL10T	0.625	1.525	0.75	0.562	1.125	2.5	5/8/2018	1.5	1	0.875	16	13,851	0.477
SJF12T	SJFL12T	0.75	1.775	0.875	0.687	1.312	2.875	3/4/2016	1.75	1.125	1	14	21,664	0.723

## MATERIALS

BALL	BODY	RACE	LINER
440C STAINLESS STEEL 52100 STEEL HEAT TREATED	17-4PH CRES STAINLESS STEEL HEAT TREATED	17-4PH CRES STAINLESS STEEL HEAT TREATED	*TEFLON FABRIC

# COM / FKS / FKSSX

## PRECISION NARROW SERIES SPHERICAL BEARINGS

### COM

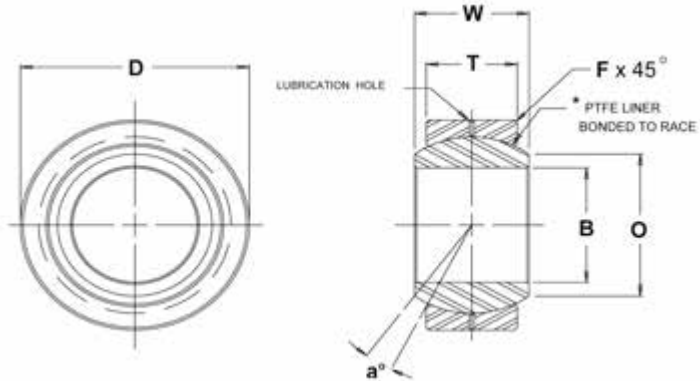
- Precision spherical bearing, narrow series
- Ball is 52100 heat treated steel with hard chrome plate
- Race is low carbon steel and oil coated
- Teflon liners available

### FKS

- Precision spherical bearing, narrow series
- Ball is 52100 heat treated steel with hard chrome plate
- Race is alloy steel, heat treated and oil coated
- Teflon liners available

### FKSSX

- Precision spherical bearing, narrow series
- Ball is made of 440C stainless steel and heat treated
- Race is 17-4PH heat treated stainless steel
- Teflon liners available



BEARING PART NO.	B DIA.	D DIA.	W WIDTH	T WIDTH	O DIA.	BALL DIA.	F CHAM-FER	a° MIS ANG.	ULT. STATIC RADIAL LOAD (LBS.)			APPROX. WEIGHT (lbs.)
	****	*****							COM	FKS	FKSSX	
	+0.0015 -0.0005	+0.0000 -0.0005	+0.005 -0.005	+0.005 -0.005	REF.	REF.	REF.	REF.				
3	0.1900	0.5625	0.281	0.218	0.293	0.406	0.015	11.0	3,250	6,480	4,800	0.014
4	0.2500	0.6562	0.343	0.250	0.364	0.500	0.022	13.5	4,950	10,000	7,400	0.022
5	0.3125	0.7500	0.375	0.281	0.419	0.562	0.032	12.0	6,475	13,900	9,700	0.030
6	0.3750	0.8125	0.406	0.312	0.516	0.656	0.032	10.0	8,400	18,000	11,900	0.038
7	0.4375	0.9062	0.437	0.343	0.530	0.687	0.032	8.0	9,453	22,300	14,180	0.047
8	0.5000	1.0000	0.500	0.390	0.600	0.781	0.032	9.5	13,250	26,900	17,900	0.065
COM8-101	0.5000	1.0000	1.000	0.390	0.600	0.781	0.032	9.5	13,250	-	-	0.065
9	0.5625	1.0937	0.562	0.437	0.671	0.875	0.032	9.5	16,630	36,000	24,900	0.086
10	0.6250	1.1875	0.625	0.500	0.739	0.968	0.032	8.5	21,280	48,000	31,900	0.110
12	0.7500	1.4375	0.750	0.593	0.920	1.187	0.044	9.0	31,920	78,000	47,850	0.204
COM12T-3R**	0.7500	1.4375	0.750	0.593	0.920	1.187	0.044	9.0	31.92	-	-	0.204
14	0.8750	1.5625	0.875	0.703	0.980	1.312	0.044	9.5	41,960	103,000	62,900	0.263
16	1.0000	1.7500	1.000	0.797	1.118	1.500	0.044	10.0	55,200	125,000	82,800	0.386
COMH16***	1.0000	2.0000	1.000	0.781	1.360	1.687	0.032	9.0	70,820	-	-	0.553
COMH19***	1.1875	2.3750	1.187	0.937	1.610	2.000	0.032	8.5	100,730	-	-	0.895
COMH20***	1.2500	2.3750	1.187	0.937	1.610	2.000	0.032	8.5	100,730	-	-	0.895
COMH24***	1.5000	2.7500	1.375	1.094	1.860	2.312	0.032	8.5	135,950	-	-	1.358
COMH28***	1.7500	3.1250	1.562	1.250	2.110	2.625	0.044	8.0	176,370	-	-	1.948
COMH32***	2.0000	3.5000	1.750	1.375	2.360	2.937	0.044	8.5	217,060	-	-	2.650



	MATERIALS		
	COM	FKS	FKSSX
RACE	LOW CARBON STEEL OIL COATED*	ALLOY STEEL HEAT TREATED OIL COATED*	17-4PH STAINLESS STEEL HEAT TREATED*
BALL	52100 STEEL HEAT TREATED HARD CHROME PLATED*	52100 STEEL HEAT TREATED HARD CHROME PLATED*	440 C STAINLESS STEEL HEAT TREATED*



# WSSX-Y / WSSX-TV

WIDE SERIES, PTFE LINED

## WSSX-T/ WSSX-TV

- Precision spherical bearing, wide series
- Ball is made of 440C stainless steel and heat treated
- Race is 17-4PH heat treated stainless steel
- Available plain or grooved
- Comes standard with a Teflon fabric liner bonded to race I.D.

BEARING PART NO.		B DIA.	D DIA.	W WIDTH	T WIDTH	O SHOULDER DIA.	BALL DIA.	a° MIS. ANG.	LOAD RATINGS (lbs.)			APPROX. WEIGHT (lbs.)
PLAIN	GROOVED	+ .0000	+ .0000	+ .000	0.005	REF.	REF.	MIN.	STATIC LIMIT		DYNAMIC OSCILLATING RADIAL LOAD	
		-0.0005	-0.0005	-0.002	-0.005				RADIAL (lbs.)	AXIAL (lbs.)		
WSSX3T	WSSX3TV	0.1900	0.6250	0.437	0.327	0.301	0.531	15	2,500	1,770	4,900	0.031
WSSX4T	WSSX4TV	0.2500	0.6250	0.437	0.327	0.301	0.531	15	5,500	1,770	4,900	0.031
WSSX5T	WSSX5TV	0.3125	0.6875	0.437	0.317	0.360	0.593	14	9,400	1,640	6,050	0.035
WSSX6T	WSSX6TV	0.3750	0.8125	0.500	0.406	0.466	0.687	8	13,700	2,630	8,310	0.060
WSSX7T	WSSX7TV	0.4375	0.9375	0.562	0.442	0.537	0.781	10	20,700	3,650	11,750	0.080
WSSX8T	WSSX8TV	0.5000	1.0000	0.625	0.505	0.607	0.875	9	21,400	4,970	14,950	0.100
WSSX9T	WSSX9TV	0.5625	1.1250	0.687	0.536	0.721	1.000	10	26,600	5,370	18,100	0.135
WSSX10T	WSSX10TV	0.6250	1.1875	0.750	0.567	0.747	1.062	12	29,000	6,130	20,250	0.160
WSSX12T	WSSX12TV	0.7500	1.3750	0.875	0.630	0.845	1.250	13	37,000	7,730	26,200	0.240
WSSX14T	WSSX14TV	0.8750	1.6250	0.875	0.755	0.995	1.375	6	65,200	10,800	33,600	0.350
WSSX16T	WSSX16TV	1.0000	2.1250	1.375	1.005	1.269	1.875	12	104,000	19,300	56,250	0.970
WSSX24T**	WSSX24TV**	1.5000	2.9170	1.962	1.500	1.927	2.750	11	281,531	43,180	112,527	2.250

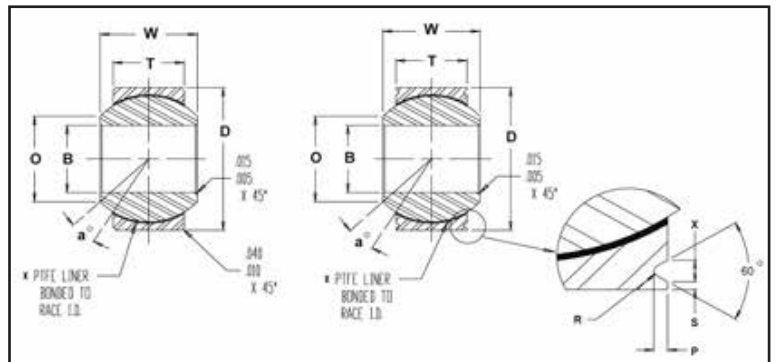
\*A trade mark of E.I. Dupont de nemours & Co., Inc.  
 \*\* WSSX24T - "B" TOLERANCE IS +.0015/-0.0005 & "W" TOLERANCE IS +.000/-0.005

Note:  
 DIAMETER "B" AND "D" ARE CONCENTRIC WITHIN .005 T.I.R

MATERIALS		
BALL	RACE	LINER
440C STAINLESS STEEL HEAT TREATED	17-4 PH STAINLESS STEEL HEAT TREATED	*TEFLON FABRIC

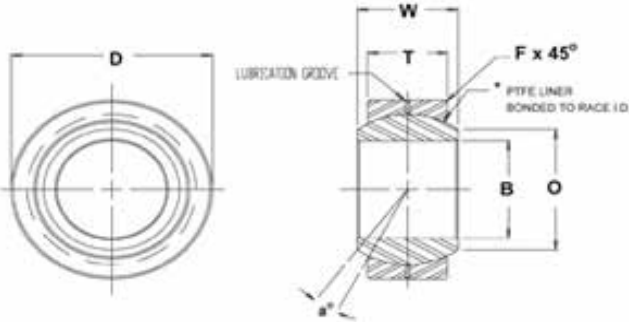
NO LOAD BREAKAWAY TORQUE	
BORE SIZES	TORQUE
3	.5 to 5.0 in. lbs.
4 THRU 12	1.0 to 5.0 in. lbs.
14 & 24	2.0 to 8.0 in. lbs.

STAKING GROOVE DATA				
BORE SIZES	S	X	R	P
	LAND	GROOVE	RAD.	DEPTH
	+ .000	+ .000	+ .000	+ .000
	-0.010	-0.010	-0.010	-0.015
3 thru 5	0.02	0.045	0.015	0.03
6 thru 10	0.03	0.055	0.02	0.04
12 thru 24	0.03	0.08	0.02	0.06



### Heavy duty precision spherical bearing

- Ball is 52100 heat treated steel (RC 56 min) with hard chrome plate
- Race is heat treated alloy steel and oil coated
- Teflon liners available



MATERIALS	
BALL	RACE
52100 STEEL HEAT TREATED HARD CHROME PLATED	ALLOY STEEL HEAT TREATED OIL COATED

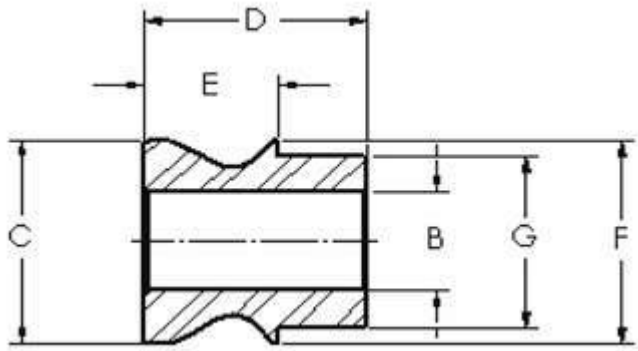
BEARING PART NO.	B	D	W	T	O	BALL	F	a°	ULT. STATIC RADIAL LOAD (lbs.)	APPROX. WEIGHT (lbs.)
	DIA.	DIA.	WIDTH	WIDTH	DIA.	DIA.	CHAMFER	MIS ANG.		
	+0.0015 -0.0005	+0.0000 -0.0007	+0.005 -0.005	+0.005 -0.005	REF.	REF.	REF.	REF.		
AIN3	0.1900	0.5312	0.312	0.250	0.307	0.437	0.020	10.5	6,550	0.016
AIN4	0.2500	0.6094	0.375	0.281	0.331	0.500	0.020	14.5	8,427	0.023
AIN5	0.3125	0.7500	0.437	0.344	0.448	0.625	0.020	11.0	12,912	0.039
AIN6	0.3750	0.8437	0.500	0.406	0.516	0.719	0.020	9.5	17,512	0.059
AIN7	0.4375	1.0000	0.562	0.437	0.587	0.812	0.020	11.0	21,290	0.079
AIN8	0.5000	1.0937	0.625	0.500	0.699	0.937	0.020	9.5	28,110	0.110
AIN10	0.6250	1.3125	0.750	0.562	0.839	1.125	0.030	12.0	37,930	0.165
AIN12	0.7500	1.5000	0.875	0.687	0.978	1.312	0.030	10.0	48,675	0.252
AIN14	0.8750	1.5000	0.875	0.687	0.978	1.312	0.030	6.0	48,675	0.248
AIN14T-770	0.8750	1.6250	0.875	0.750	1.061	1.375	0.035	6.0	58,650	0.350
AIN16	1.0000	2.1250	1.375	1.000	1.275	1.875	0.060	15.0	90,000	0.788

\* A trade mark of E.I. Dupont de Nemours & Co., Inc.

NOTES:  
FOR \*TEFLON LINER ADD "T" TO SUFFIX. EXAMPLE: FKS8T  
(UNITS WITH TEFLON LINERS HAVE NO LUBRICATION HOLES OR GROOVES IN RACE.)



# HIGH MISALIGNMENT BUSHINGS STEEL JAM NUTS



HIGH MISALIGNMENT BUSHINGS							
PART NUMBER	B	C	D	E	F	G	BEARING SIZE
8-6HB	0.375	0.645	0.627	0.342	0.667	0.499	8
10-8HB	0.500	0.840	0.900	0.530	0.795	0.624	10
10-8HB-2	0.500	0.840	1.620	1.250	0.795	0.624	10
12-8HB	0.500	0.995	0.900	0.475	0.930	0.749	12
12-10HB	0.625	0.995	0.900	0.475	0.930	0.749	12
14-8HB	0.500	1.040	1.055	0.625	1.035	0.874	RSMX14T
14-10HB	0.625	1.050	1.055	0.625	1.035	0.874	JMX14T-770
14-12HB	0.750	1.050	1.242	0.812	1.035	0.874	KMX14
16-10HB	0.625	1.245	1.497	0.817	1.225	0.999	16
16-10HB-2	0.625	1.135	1.370	0.690	1.225	0.999	16
16-12HB	0.750	1.135	1.370	0.690	1.225	0.999	16

**NOTES:**

1. ALL DIMENSIONS ARE IN INCHES.
2. MISALIGNMENT BUSHINGS INCREASE MISALIGNMENT ANGLE AND REDUCE HOLE SIZES IN ROD ENDS AND SPHERICAL BEARINGS.
3. ALL BUSHINGS ARE SOLD IN PAIRS.



INCH STEEL JAM NUTS			
RIGHT HAND	LEFT HAND	THD. SIZE UNF-2B	HEX SIZE
SJNR03	SJNL03	10-32	3/8
SJNR04	SJNL04	1/4-28	7/16
SJNR05	SJNL05	5/16-24	1/2
SJNR06	SJNL06	3/8-24	9/16
SJNR07	SJNL07	7/16-20	11/16
SJNR08	SJNL08	1/2-20	3/4
SJNR10	SJNL10	5/8-18	15/16
SJNR10-1	SJNL10-1	5/8-18	3/4
SJNR12	SJNL12	3/4-16	1-1/8
SJNR14	SJNL14	7/8-14	1-9/32
SJNR16	SJNL16	1 1/4-12	1-13/16
SJNR16-1	SJNL16-1	1-14	1-3/8
SJNR16-2	SJNL16-2	1-12	1-3/8

**MATERIAL**

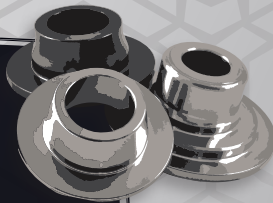
17-4PH STAINLESS STEEL

NOTES: JAM NUTS ARE SOLD IN LOTS OF 25 PCS.  
\* HEX SIZE MAY VARY DEPENDING ON AVAILABILITY OF MATERIAL.

# Manufacturers of:

## VALVE TRAIN COMPONENTS

- Titanium Retainers
- Pacaloy® Steel Retainers
- Titanium & Steel Locks
- Spring Cups & Locators
- Custom Applications



## VALVE SPRINGS

- Drag Race
- Circle Track
- Marine
- Endurance
- Street & Strip
- RPM Beehives
- Custom Applications & Vintage



## SHOCKS

- Complete line-up for all markets
- Full Suspension system approach
- Made In the USA
- Un-Paralleled performance



## TOOLS & ENGINEERING

- Assembly Tools
- Fully Accredited Metallurgic Lab
- SpinTron® Engine Testing
- Rapid Prototype Capability
- Retail Kits & Specialized Packaging



## SUSPENSION SPRINGS

- Off-Road
- Drag Race
- Circle Track
- Coil Over Shock Springs
- Road Magnet Series - Lowering



## SWAY BARS

- Steel
- Titanium
- Link Arms
  - Aluminum
  - Steel
  - Fabricated
- Custom Designs



PAC Racing Springs are proudly made in the U.S.A.

PAC Racing Springs



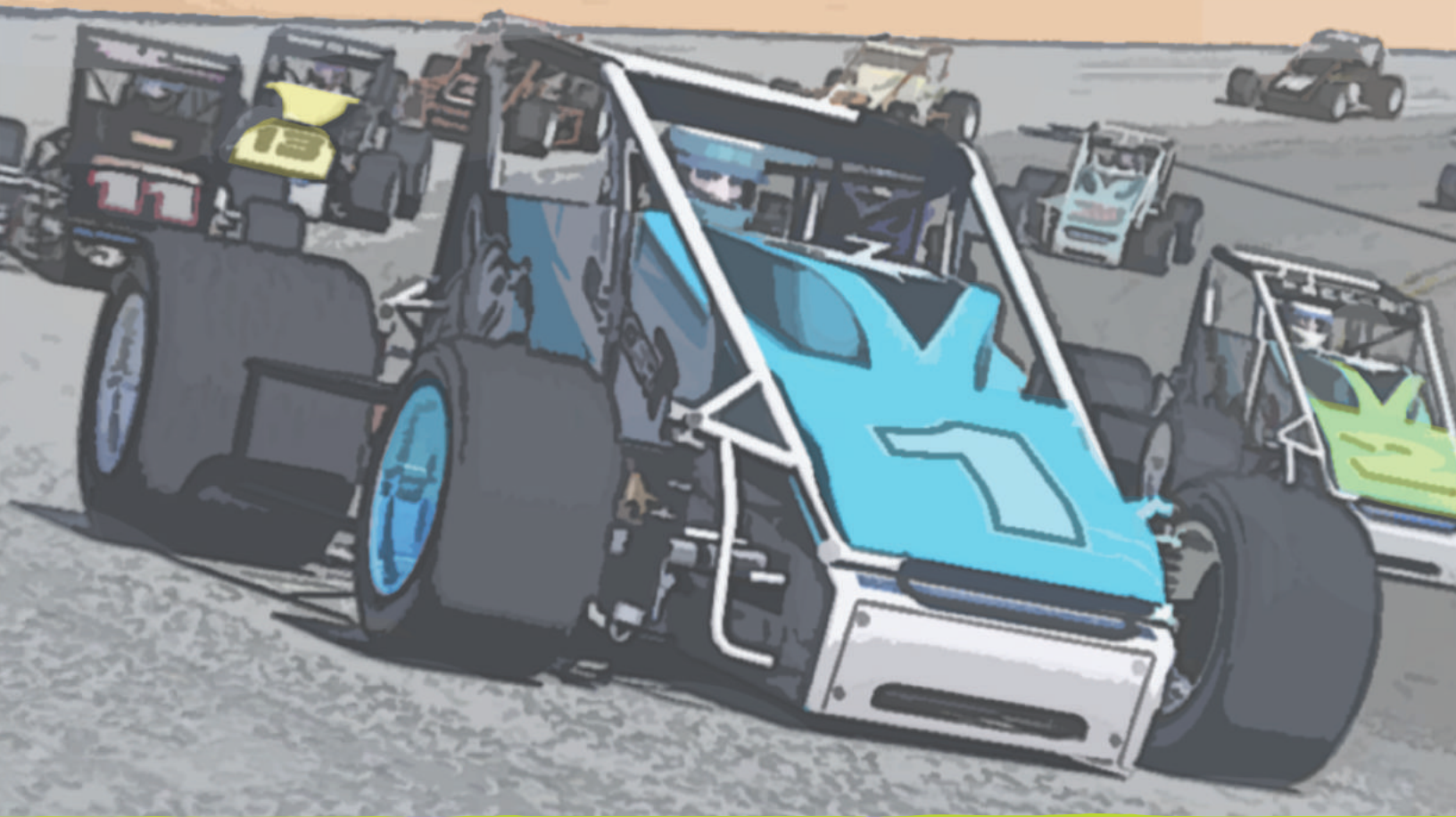
**PETERSON SPRING**  
MANUFACTURERS OF ENGINEERED METAL PRODUCTS





# ***Circle Track Products***

- BUMP SPRINGS •
- BUMP SPRING ACCESSORIES •
- TORSION BARS •
- SUSPENSION SPRINGS •
- VALVE SPRINGS •

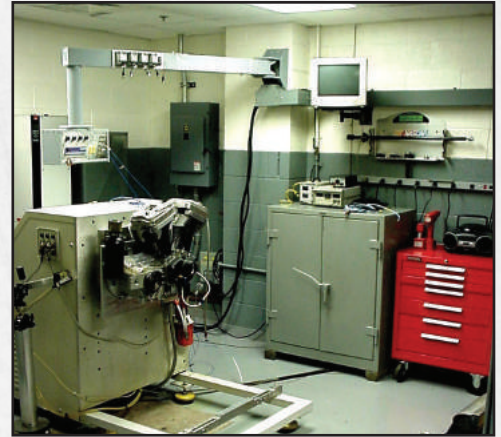


# About PAC Racing



ABOUT PAC

PAC Racing Springs, based in Detroit, MI, is the Racing and Aftermarket Division of the Peterson Spring Company. With more than 10 divisions around the world, Peterson Spring is the largest privately held, family owned Spring Company in the USA. With more than 100 years of operation, Peterson Spring proudly manufactures all the Racing and Aftermarket components in Detroit, Michigan.

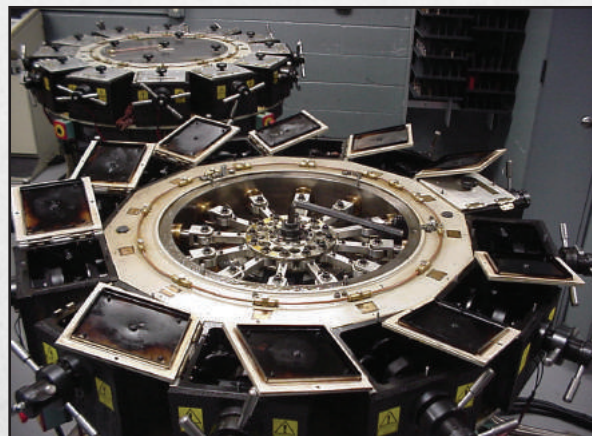


SERVICE COMMITMENT

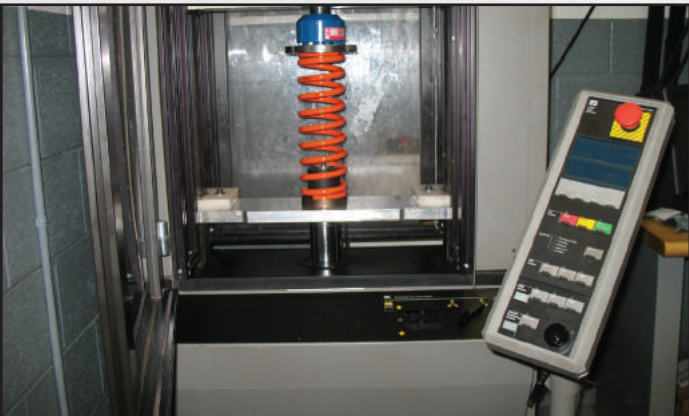
We understand the demands of racing and provide a commitment to all of our customers to provide the best service possible. We continue to expand products, and offer expanded onsite technical services at various racing events. We believe these interactions allow us to provide the latest product advancements and respond to additional future requirements. Because we are the manufacturer we are able to design, build, and supply parts within days if needed.

CUSTOM PRODUCTS

We believe in providing custom products for every product line. This philosophy is a premium choice to allow our customers an enhanced product or something unique to the application. Additional Private Label programs are available to many companies looking for their own brand identity and are typically for larger volume applications. We honor proprietary agreements and are dedicated to providing any aftermarket company a superior American made product at sustainable market pricing.



The primary focus of the Peterson Spring group is Automotive and Industrial applications, these interactions increase technical advancements for PAC Racing Spring products. We can offer enhanced technology through engineering resources and expanded experience from all of our power-train engineers. Additionally with nearly 100 years of manufacturing experience we continually improve our products to exceed demanding expectations.



Because of the extreme demands of racing, we routinely test all of our components using advanced testing technology. We have a fully accredited metallurgy lab with dedicated staff and equipment such as: SEM with EDAX, Xray Diffraction, Micro Hardness, Impact Testing, and MTS Tensile Test machine. Additionally, we are able to test functionality and fatigue properties in our Dynamics Laboratory, which includes a single post MTS Servo Hydraulic test machine, various bench type equipment, and our High Tech Engine test lab. Whatever your application we strive to bring confidence that our products meet and exceed designed parameters.

## Suspension Engineering & Design

PAC Racing Springs Engineering abilities have always extended past simply manufacturing and designing springs. The engineering team within PAC Racing and the Peterson Spring group views spring components as a system, and develops a spring solution that fits with the overall application needed to integrate the system. With a host of engineering tools, PAC Racing's expansion into suspension systems offers our customers a unique set of opportunities to develop a suspension system from the drawing board, or optimize a current system.

### **WE OFFER**

#### Engineering Services and Design

- Complete 3D CAD modeling of system.
- Suspension component design.
- Private label engineering- turn key suspension systems for aftermarket.
- Rate curve and wheel rate analysis.
- Suspension optimization- viewed as a system
- Onsite tuning and tech support- ride handling and performance
- Spring and ride handling support – spring rate optimization based on specific application
- Suspension travel and geometry changes
- IFS (Independent Front Suspension) design and optimization
- Systems approach (springs, shocks, sway bars)

# PRO SERIES BUMP SPRINGS

- Pro-Series bump springs are the extreme when it comes to travel and extreme spring rates needed for Super Speedway and Pro-Circle Track cars.
- Lowest weight possible
- Maximized travel
- Solid designs
- High tensile valve spring alloy
- Fully processed for extreme endurance and load loss improvements
- Custom versions available

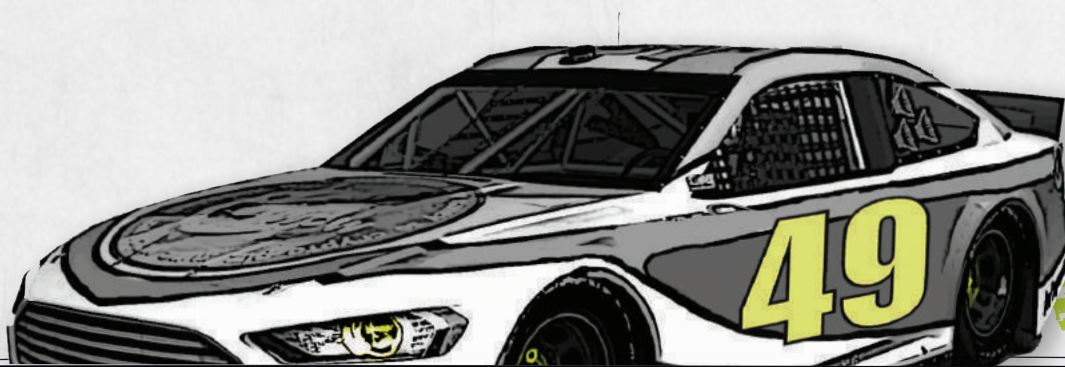


Part Number	ID	Free Length	Spring Rate	Solid Height	Weight	Travel
<b>4 INCH TALL</b>						
PAC-NB4x1.08x1500	1.080	4.000	1500	2.429	0.867	1.417
PAC-NB4x1.25x2000	1.250	4.000	2000	2.705	1.357	1.568
PAC-NB4x1.25x2500	1.250	4.000	2500	2.409	1.239	1.597
PAC-NB4x1.25x3000	1.250	4.000	3000	2.608	1.470	1.392
PAC-NB4x1.25x3500	1.250	4.000	3500	2.644	1.570	1.356
PAC-NB4x1.25x4000	1.250	4.000	4000	2.714	1.700	1.286
PAC-NB4x1.25x4500	1.250	4.000	4500	2.807	1.860	1.193
PAC-NB4x1.25x5000	1.250	4.000	5000	2.920	2.030	1.080
PAC-NB4x1.25x5500	1.250	4.000	5500	3.049	2.230	0.951
PAC-NB4x1.25x6000	1.250	4.000	6000	2.999	2.240	1.001
PAC-NB4x1.08x6500	1.080	4.000	6500	3.011	1.900	0.989
PAC-NB4x1.08x7000	1.080	4.000	7000	3.000	1.940	1.000
PAC-NB4x1.08x7500	1.080	4.000	7500	3.000	1.990	1.000
PAC-NB4x1.08x8000	1.080	4.000	8000	3.008	2.040	0.992
PAC-NB4x1.08x8500	1.080	4.000	8500	3.023	2.100	0.977
PAC-NB4x1.02x9000	1.020	4.000	9000	3.171	2.130	0.829
PAC-NB4x1.02x9500	1.190	4.000	9500	2.740	2.170	1.260
PAC-NB4x1.02x10000	1.190	4.000	10000	2.616	2.070	1.384
PAC-NB4x1.02x10500	1.150	4.000	10500	2.659	2.060	1.341
PAC-NB4x1.02x11000	1.150	4.000	11000	2.549	1.980	1.451
PAC-NB4x1.02x11500	1.150	4.000	11500	2.736	2.220	1.264
PAC-NB4x1.02x12000	1.150	4.000	12000	2.633	2.140	1.367



Part Number	ID	Free Length	Spring Rate	Solid Height	Weight	Travel
<b>3.5 INCH TALL</b>						
PAC-NB3.5x2.5x1000	1.050	3.500	1000	1.885	0.544	1.615
PAC-NB3.5x2.5x1500	0.940	3.500	1500	2.096	0.602	1.404
PAC-NB3.5x2.5x2000	0.950	3.500	2000	2.228	0.718	1.272
PAC-NB3.5x2.5x2500	0.940	3.500	2500	2.292	0.790	1.208
PAC-NB3.5x2.5x3000	1.020	3.500	3000	2.269	0.890	1.231
PAC-NB3.5x2.5x4000	0.990	3.500	4000	2.417	1.020	1.083
PAC-NB3.5x2.5x5000	0.950	3.500	5000	2.509	1.100	0.991
PAC-NB3.5x2.5x6000	0.950	3.500	6000	2.673	1.280	0.827
PAC-NB3.5x2.5x7000	0.910	3.500	7000	2.699	1.300	0.801
PAC-NB3.5x2.5x8000	0.870	3.500	8000	2.772	1.330	0.728
PAC-NB3.5x2.5x9000	0.840	3.500	9000	2.830	1.370	0.670
PAC-NB3.5x2.5x10000	0.820	3.500	10000	2.862	1.400	0.638

<b>3.0 INCH TALL</b>						
PAC-NB3x1.08x1000	1.080	3.000	1000	1.932	0.490	1.068
PAC-NB3x1.10x1500	1.100	3.000	1500	1.682	0.460	1.318
PAC-NB3x1.10x2000	1.100	3.000	2000	1.796	0.560	1.204
PAC-NB3x1.08x2500	1.080	3.000	2500	1.863	0.620	1.137
PAC-NB3x1.08x3000	1.080	3.000	3000	1.913	0.680	1.087
PAC-NB3x1.08x3500	1.080	3.000	3500	1.990	0.770	1.010
PAC-NB3x1.08x4000	1.080	3.000	4000	2.087	0.860	0.913
PAC-NB3x1.08x4500	1.080	3.000	4500	2.045	0.870	0.955
PAC-NB3x1.25x5000	1.250	3.000	5000	1.814	0.920	1.186
PAC-NB3x1.25x5500	1.250	3.000	5500	1.801	0.940	1.199
PAC-NB3x1.25x6000	1.250	3.000	6000	1.916	1.060	1.084
PAC-NB3x1.25x6500	1.250	3.000	6500	1.916	1.090	1.084
PAC-NB3x1.25x7000	1.250	3.000	7000	1.922	1.130	1.078
PAC-NB3x1.25x7500	1.250	3.000	7500	1.934	1.160	1.066
PAC-NB3x1.25x8000	1.250	3.000	8000	1.950	1.210	1.050
PAC-NB3x1.25x8500	1.250	3.000	8500	1.970	1.250	1.030
PAC-NB3x1.25x9000	1.250	3.000	9000	1.994	1.300	1.006
PAC-NB3x1.25x9500	1.250	3.000	9500	2.020	1.350	0.980
PAC-NB3x1.25x10000	1.250	3.000	10000	2.049	1.410	0.951
PAC-NB3x1.25x10500	1.250	3.000	10500	1.971	1.350	1.029
PAC-NB3x1.25x11000	1.250	3.000	11000	2.004	1.410	0.996
PAC-NB3x1.25x11500	1.250	3.000	11500	2.040	1.470	0.960
PAC-NB3x1.08x12000	1.080	3.000	12000	2.118	1.290	0.882



# SPORTSMAN BUMP STOP SPRINGS

- Designed with the sportsman dirt and paved racer in mind
- No hysteresis like urethane bump stops
- More consistent with temperature variations
- Smaller package design than pro- series
- Full retainer cups and stacker hardware available
- Maximized travel
- Solid safe

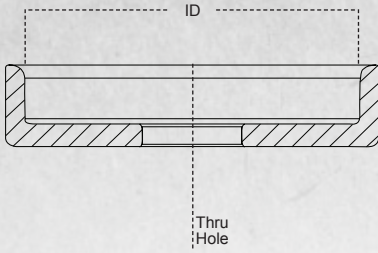


## SPORTSMAN 1 INCH SERIES

Part Number	OD	Max Travel	Weight	Free Length	Rate
PAC-B1x0.63x400	1.700	0.547	0.078	1.000	400
PAC-B1x0.63x500	1.700	0.582	0.072	1.000	500
PAC-B1x0.63x600	1.700	0.606	0.067	1.000	600
PAC-B1x0.63x700	1.700	0.578	0.077	1.000	700
PAC-B1x0.63x800	1.700	0.572	0.080	1.000	800
PAC-B1x0.63x900	1.700	0.549	0.088	1.000	900
PAC-B1x0.63x1000	1.700	0.564	0.085	1.000	1000
PAC-B1x0.63x1200	1.700	0.533	0.097	1.000	1200
PAC-B1x0.63x1400	1.700	0.527	0.101	1.000	1400
PAC-B1x0.63x1600	1.700	0.478	0.120	1.000	1600
PAC-B1x0.63x1800	1.700	0.478	0.122	1.000	1800
PAC-B1x0.63x2000	1.700	0.461	0.130	1.000	2000
PAC-B1x0.63x2200	1.700	0.441	0.138	1.000	2200

## SPORTSMAN 2 INCH SERIES

PAC-B2x0.63x400	1.1800	1.230	0.107	2.125	400
PAC-B2x0.63x500	1.1900	1.079	0.136	2.125	500
PAC-B2x0.63x600	1.1900	1.035	0.147	2.125	600
PAC-B2x0.63x700	1.1900	0.997	0.157	2.125	700
PAC-B2x0.63x800	1.1900	0.991	0.161	2.125	800
PAC-B2x0.63x900	1.1900	0.951	0.171	2.125	900
PAC-B2x0.63x1000	1.1800	1.013	0.160	2.125	1000
PAC-B2x0.63x1200	1.1900	0.878	0.191	2.125	1200
PAC-B2x0.63x1400	1.1800	0.896	0.189	2.125	1400
PAC-B2x0.63x1600	1.1800	0.857	0.200	2.125	1600
PAC-B2x0.63x1800	1.1800	0.806	0.213	2.125	1800
PAC-B2x0.63x2000	1.1800	0.791	0.218	2.125	2000

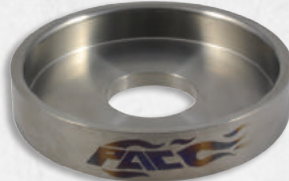


**PAC-C274**



**PAC-C240**

SINGLE SPRING  
Hard Coat Aluminum

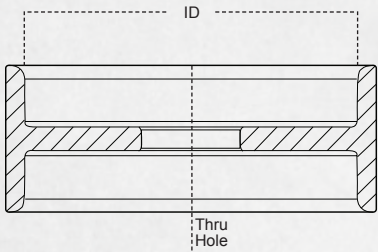


**PAC-C276**



**PAC-C246**

SINGLE SPRING  
Titanium



**PAC-C241**



**PAC-C275**

DOUBLE SPRING  
Hard Coat Aluminum



**PAC-C277**



**PAC-C247**

DOUBLE SPRING  
Titanium

## 1 INCH BUMP SPRING RETAINERS

Part Number	OD	ID	Height	Thru Hole	Material	Type
PAC-C270	1.900	1.705	0.400	0.505	Aluminum	Single Cup
PAC-C271	1.900	1.705	0.750	0.505	Aluminum	Double Cup
PAC-C272	1.900	1.705	0.400	0.505	Titanium	Single Cup
PAC-C273	1.900	1.705	0.750	0.505	Titanium	Double Cup
PAC-C274	1.900	1.705	0.400	0.630	Aluminum	Single Cup
PAC-C275	1.900	1.705	0.750	0.630	Aluminum	Double Cup
PAC-C276	1.900	1.705	0.400	0.630	Titanium	Single Cup
PAC-C277	1.900	1.705	0.750	0.630	Titanium	Double Cup

## 2 INCH BUMP SPRING RETAINERS

PAC-C240	1.375	1.190	0.500	0.505	Aluminum	Single Cup
PAC-C241	1.375	1.190	0.850	0.505	Aluminum	Double Cup
PAC-C242	1.375	1.190	0.500	0.505	Titanium	Single Cup
PAC-C243	1.375	1.190	0.850	0.505	Titanium	Double Cup
PAC-C244	1.375	1.190	0.500	0.630	Aluminum	Single Cup
PAC-C245	1.375	1.190	0.850	0.630	Aluminum	Double Cup
PAC-C246	1.375	1.190	0.500	0.630	Titanium	Single Cup
PAC-C247	1.375	1.190	0.850	0.630	Titanium	Double Cup

# URETHANE BUMP HARDWARE



PAC Racing has worked to develop urethane bump technology that exceeds current standards. Urethane is unique when compared to a steel spring, and can see force loss or force differences when in compression and rebound. We have designed a complete line-up that utilized premium USA made Urethane to resist loss and tested on the same equipment as our suspension springs. Use the Urethane hardware as a high rate bump stop or stack them to get the desired rate curve.

**Elliptical Bump Urethane:** Offers a uniform rate profile that is considered progressive as the profile closes out.

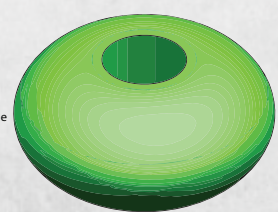
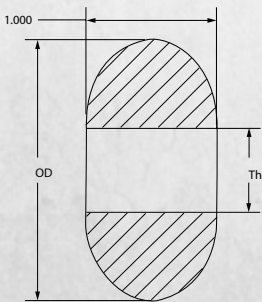
**Single Taper Urethane:** Offers a rate change once the tapered top is closed out.

**Urethane Hardware:** Use this hardware to mount and align the urethane hardware to your desired stack setup.

## ELLIPSE SHAPE (SKATED)



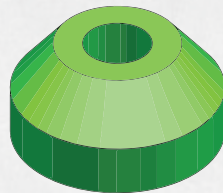
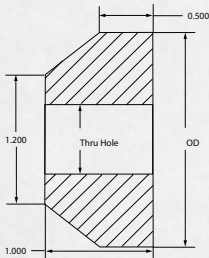
Part Number	OD	Height	Thru Hole	Shape	Color	Durometer (Ref)	Max Force Rate Deflection
PAC-BR101	2.00	1.00	0.650	Ellipse	Orange	40	CALL FOR MORE INFORMATION
PAC-BR102	2.00	1.00	0.650	Ellipse	Black	50	
PAC-BR103	2.00	1.00	0.650	Ellipse	Purple	60	
PAC-BR104	2.00	1.00	0.650	Ellipse	Green	70	
PAC-BR105	2.00	1.00	0.650	Ellipse	Yellow	80	
PAC-BR106	2.00	1.00	0.650	Ellipse	Red	85	



# URETHANE BUMP SPRINGS

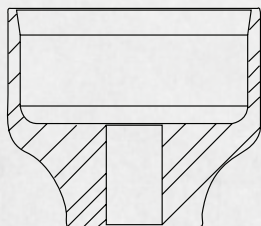
## SINGLE TAPER

Part Number	OD	Height	Thru Hole	Shape	Color	Durometer (Ref)	Rate	Max Force Deflection
PAC-BR110	2.00	1.00	0.650	Taper Top	Orange	40	CALL FOR MORE INFORMATION	
PAC-BR111	2.00	1.00	0.650	Taper Top	Black	50		
PAC-BR112	2.00	1.00	0.650	Taper Top	Purple	60		
PAC-BR113	2.00	1.00	0.650	Taper Top	Green	70		
PAC-BR114	2.00	1.00	0.650	Taper Top	Yellow	80		
PAC-BR115	2.00	1.00	0.650	Taper Top	Red	85		

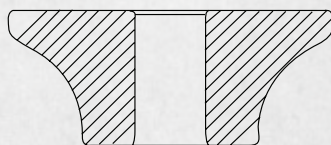


## URETHANE BUMP ACCESSORIES

Part Number	OD	Thru Hole	Height	Material	Type
PAC-C280	1.975	0.505	0.100	Aluminum	Washer/Spacer
PAC-C281	1.975	0.630	0.100	Aluminum	Washer/Spacer
PAC-C282	2.300	0.505	2.000	Aluminum	Cup Standoff for Urethane Bumps (All Shapes)
PAC-C283	2.300	0.630	2.000	Aluminum	Cup Standoff for Urethane Bumps (All Shapes)
PAC-C284	2.300	0.505	0.950	Aluminum	Tapered Standoff for Urethane Bumps (All Shapes)
PAC-C285	2.300	0.630	0.950	Aluminum	Tapered Standoff for Urethane Bumps (All Shapes)
PAC-C246	1.375	1.190	0.500	Titanium	Single Cup
PAC-C247	1.375	1.190	0.850	Titanium	Double Cup



PAC-C283



PAC-C284

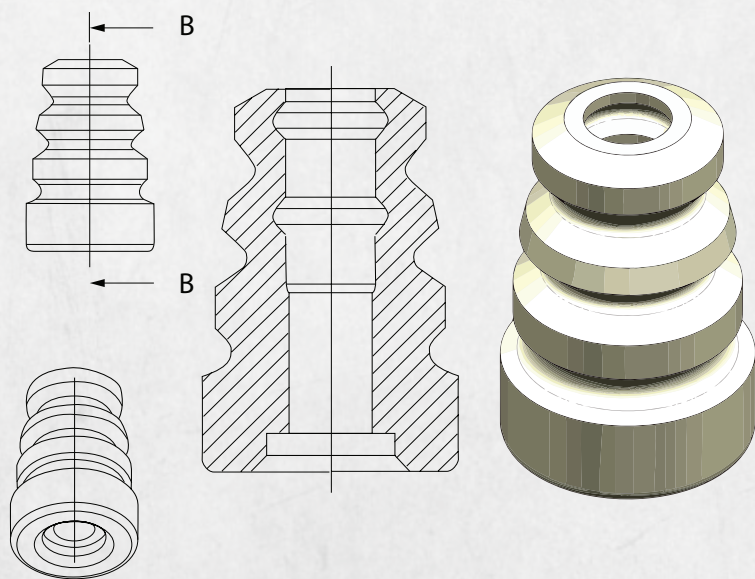
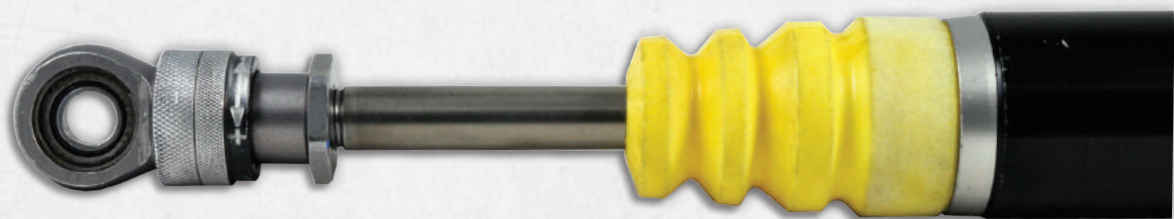


PAC-C281

# URETHANE BUMP SPRINGS

## "TREE" SHAPE

Part Number	OD	Height	Thru Hole	Shape	Color	Grams/CC	Rate	Max Force Deflection
PAC-BTR200	2	3	0.650	3 inch Foam Tree Bump	Black	30	Please call for more information	
PAC-BTR201	2	3	0.650	3 inch Foam Tree Bump	Purple	40		
PAC-BTR202	2	3	0.650	3 inch Foam Tree Bump	Green	60		
PAC-BTR203	2	3	0.650	3 inch Foam Tree Bump	Yellow	80		
PAC-BTR205	2	2	0.650	2 inch Foam Tree Bump	Black	30		
PAC-BTR206	2	2	0.650	2 inch Foam Tree Bump	Purple	40		
PAC-BTR207	2	2	0.650	2 inch Foam Tree Bump	Green	60		
PAC-BTR208	2	2	0.650	2 inch Foam Tree Bump	Yellow	80		



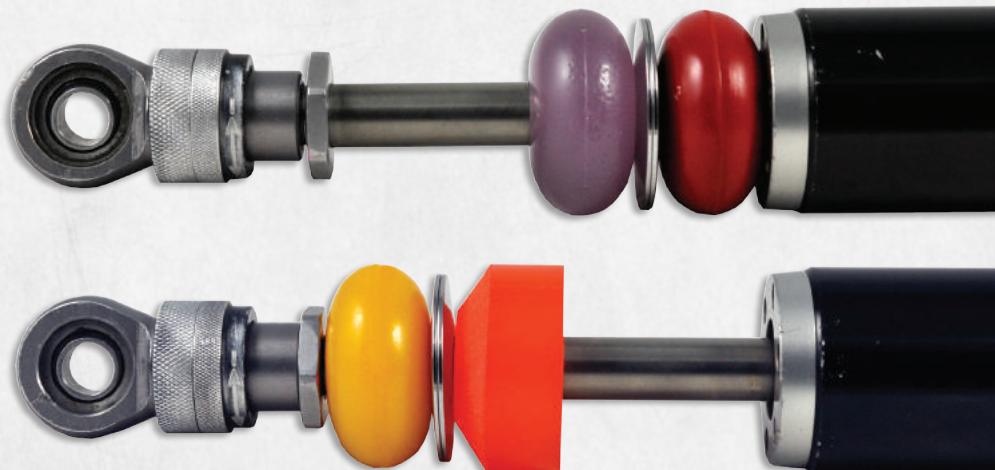
# CONICAL WASHERS

- Superior design over hardware store brands and types
- Custom made from PAC Racing spring alloy
- Designed for maximum load retention and fatigue life
- Designed for maximum travel
- Smooth radius and mirror finish
- Tested and proven on PAC Racing test machine
- Custom rates and shapes available



## CONICAL WASHERS

Part Number	OD	Thru Hole	Free Length	Thickness	Height @ 100 Lbs	Height @ 400 Lbs	Rate	Travel
PAC-300405-1	1.850	0.640	0.125	0.025				
PAC-300405-2	1.850	0.640	0.125	0.035	Call for more information			
PAC-300405-3	1.850	0.640	0.125	0.045				
PAC-300405-4	1.850	0.640	0.125	0.055	0.110	0.090	15,000 Lbs	0.070
PAC-300405-5	1.850	0.640	0.125	0.065	0.110	0.100	22,000 Lbs	0.060
PAC-300405-6	1.850	0.640	0.125	0.075	0.115	0.105	32,000 Lbs	0.050
PAC-300405-7	1.850	0.640	0.125	0.085	0.115	0.110	45,000 Lbs	0.030



# ROD ENDS

## FITS FK OFFERS

**F1**

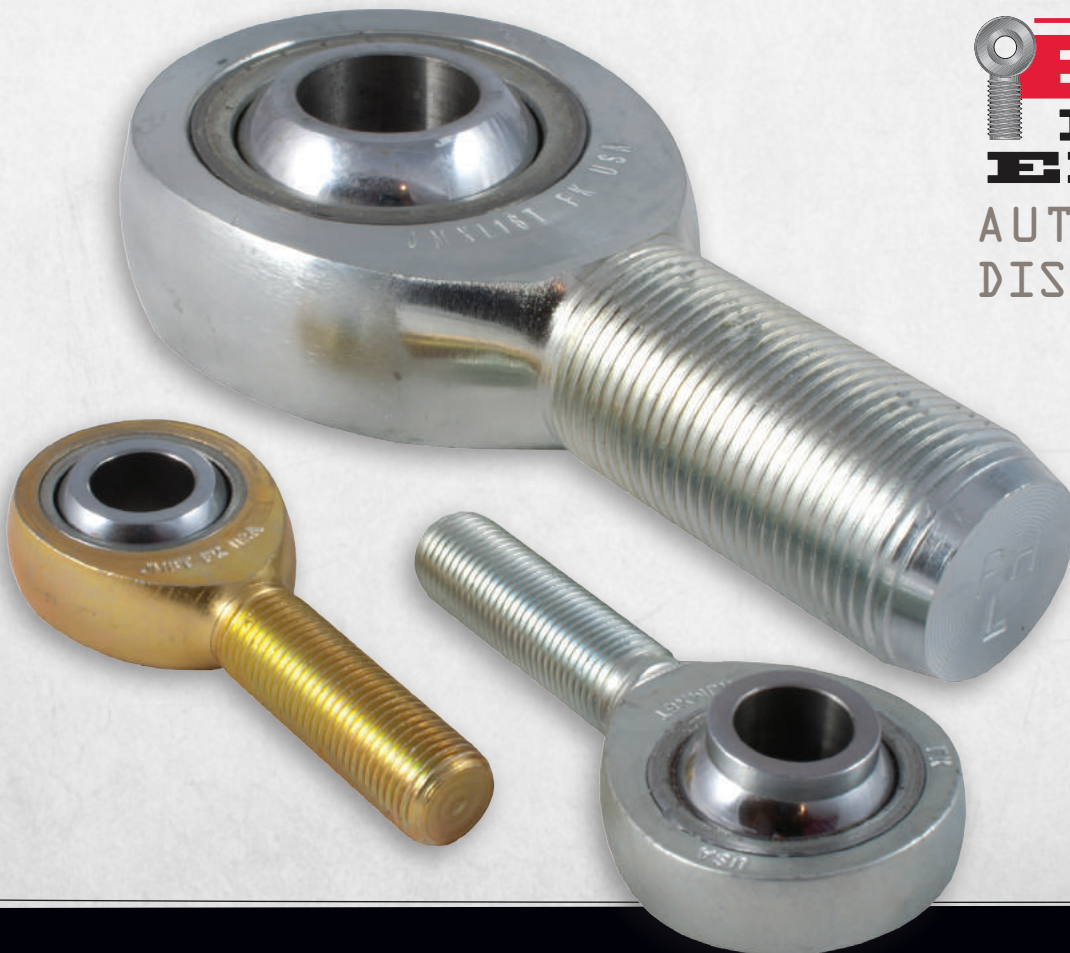
- LONGEST LIFE IN EXTREME RACING!
- Super tight fit
- Not really able to move the ball by hand.
- Used in suspensions and control arms.
- Over time, it has a chance to burnish in (loosen up) and works very smoothly.

**F2**

- Tight fit but can still move the ball by hand.
- Used in sway bars and shifters.
- Snug but not over-tight and not usually load bearing.

**F3**

- As with all Teflon liners, it helps the wear of the rod.
- Promotes longer life due to its self-lubricating properties.



**FK**  
**ROD**  
**ENDS**  
AUTHORIZED  
DISTRUBITOR



Left Hand PN	Right Hand PN	Thru Hole	Shank Size	Material	Type
<b>CM SERIES</b>					
CML4	CM4	.25"	1/4-28	Zinc plated steel	Male 2-piece (Economy)
CML5	CM5	.3125"	5/16-24	Zinc plated steel	Male 2-piece (Economy)
CML6	CM6	.375"	3/8-24	Zinc plated steel	Male 2-piece (Economy)
CML7	CM7	.4375"	7/16-20	Zinc plated steel	Male 2-piece (Economy)
CML8	CM8	.500"	1/2-20	Zinc plated steel	Male 2-piece (Economy)
CML10	CM10	.625"	5/8-18	Zinc plated steel	Male 2-piece (Economy)
CML12	CM12	.750"	3/4-16	Zinc plated steel	Male 2-piece (Economy)

<b>CF SERIES</b>					
CFL4	CF4	.25"	1/4-28	Zinc plated steel	Female 2-piece (Economy)
CFL5	CF5	.3125"	5/16-24	Zinc plated steel	Female 2-piece (Economy)
CFL6	CF6	.375"	3/8-24	Zinc plated steel	Female 2-piece (Economy)
CFL7	CF7	.4375"	7/16-20	Zinc plated steel	Female 2-piece (Economy)
CFL8	CF8	.500"	1/2-20	Zinc plated steel	Female 2-piece (Economy)
CFL10	CF10	.625"	5/8-18	Zinc plated steel	Female 2-piece (Economy)
CFL12	CF12	.750"	3/4-16	Zinc plated steel	Female 2-piece (Economy)

<b>CMX SERIES</b>					
CMXL4	CMX4	.25"	1/4-28	Zinc plated steel	Male 2-piece (Premium)
CMXL5	CMX5	.3125"	5/16-24	Zinc plated steel	Male 2-piece (Premium)
CMXL6	CMX6	.375"	3/8-24	Zinc plated steel	Male 2-piece (Premium)
CMXL7	CMX7	.4375"	7/16-20	Zinc plated steel	Male 2-piece (Premium)
CMXL8	CMX8	.500"	1/2-20	Zinc plated steel	Male 2-piece (Premium)
CMXL10	CMX10	.625"	5/8-18	Zinc plated steel	Male 2-piece (Premium)
CMXL12	CMX12	.750"	3/4-16	Zinc plated steel	Male 2-piece (Premium)

<b>JM SERIES</b>					
JML4	JM4	0.25"	1/4-28	Zinc plated steel	Male 3-Piece (economy)
JML5	JM5	0.3125"	5/16-24	Zinc plated steel	Male 3-Piece (economy)
JML6	JM6	0.375"	3/8-24	Zinc plated steel	Male 3-Piece (economy)
JML7	JM7	.4375"	7/16-20	Zinc plated steel	Male 3-Piece (economy)
JML8	JM8	0.5"	1/2-20	Zinc plated steel	Male 3-Piece (economy)
JML10	JM10	0.625"	5/8-18	Zinc plated steel	Male 3-Piece (economy)
JML12	JM12	0.750"	3/4-16	Zinc plated steel	Male 3-Piece (economy)

<b>JMX SERIES</b>					
JMXL4	JMX4	0.25"	1/4-28	Zinc plated steel	Male 3-Piece (premium)
JMXL5	JMX5	0.3125"	5/16-24	Zinc plated steel	Male 3-Piece (premium)
JMXL6	JMX6	0.375"	3/8-24	Zinc plated steel	Male 3-Piece (premium)
JMXL7	JMX7	.4375"	7/16-20	Zinc plated steel	Male 3-Piece (premium)
JMXL8	JMX8	0.5"	1/2-20	Zinc plated steel	Male 3-Piece (premium)
JMXL10	JMX10	0.625"	5/8-18	Zinc plated steel	Male 3-Piece (premium)
JMXL12	JMX12	0.750"	3/4-16	Zinc plated steel	Male 3-Piece (premium)

# PAC Sway Bars

## How to order:

PAC - SBHS - XX - XX - XX

Material

SBHS-Tomahawk™  
SBTi-Titanium

Spline  
Count

Turn  
Down  
Dia.

Overall  
Length

## Example:

PAC - SBHS - 40 - 150 - 40

40 Spline  
Sway Bar

1500 Active Dia.

40 inches  
long

## SWAY BAR PAC ADVANTAGE

PAC Racing Springs is a stand alone division of Peterson Spring which has been in business for over 100 years. **Peterson Spring is the largest family owned and privately held spring company in the United States.** While PAC Racing Springs specializes in valve springs, we have developed a substantial suspension spring product line, this product utilizes our technology from valve springs. PAC Racing Springs has world class engineering, materials, testing, manufacturing, and distribution systems that will react to your needs.

### WHY ARE PAC RACING SWAY BARS BETTER?

We demand the highest technology and best performance from our products-we work very diligently ensuring our designs, materials, and processing withstand all performance requirements. **Years of experience in high stressed valve springs and race engines, provides understanding on what it takes to manufacture a lighter, better performing sway bar.**

We validate these claims by testing the competition in our Dynamics Laboratory, setting baseline standards to exceed current sag (load loss), spring weight, and fatigue life. Cost is always a factor and with being a division of Peterson Spring, it allows for our metallurgists to demand the highest strength alloys, while leveraging our suppliers to meet market price demands.

- FK Rod Ends were selected because they cater to high stress racing applications. All rod ends are made in the USA, the way it should be!



- ARP Racing Products fasteners were also selected for their high performance reputation. If you race, you should be using ARP hardware to get you to the finish line.



### PAC QUALITY

- 5 Year limited warranty
- 30-40% stronger than 300M

### WHY DO WE POWDERCOAT?

- We coat sway bars to prevent rust - rust pitting could cause bar failure.
- Better coating than paint with improved corrosion resistance - longer life.
- Thicker coating without runs or sags.
- Practically no waste from overspray.
- Less VOC's transmitted to environment - more environmentally friendly.

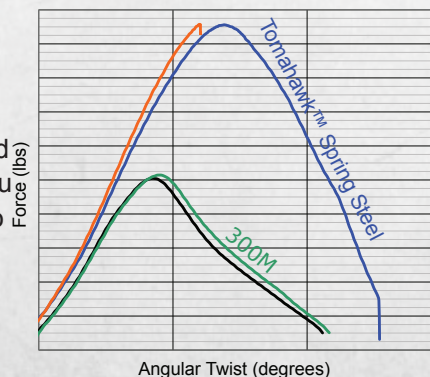
NEW BAR WITH  
POWDERCOAT



UNCOATED BAR  
AFTER ONE YEAR  
OF RACING



### TOMAHAWK™ SPRING STEEL 30-40% BETTER ULTIMATE TENSILE STRENGTH (UTS)



PAC Racing has performed extensive testing evaluating the strength of Tomahawk™ Steel vs. the previous industry standard for performance: 300M. Our results speak for themselves, and we provide a sway bar material that is stronger with better fatigue life at about the same cost!

— 300M Test 1  
— 300M Test 2  
— Tomahawk Steel Test 1  
— Tomahawk Steel Test 2

All Sway Bars come with thread for cap

## 45 SPLINE

1.900 Major Dia.  
1.850 Max Active  
Special Order

## 40 SPLINE

1.750 Major Dia.  
1.625 Max Active  
Special Order

## 35 SPLINE

1.500 Major Dia.  
1.375 Max Active

## 28 SPLINE

1.200 Major Dia.  
1.100 Max Active

## GUN DRILL

Option available  
35 thru 45 Spline  
Special Order



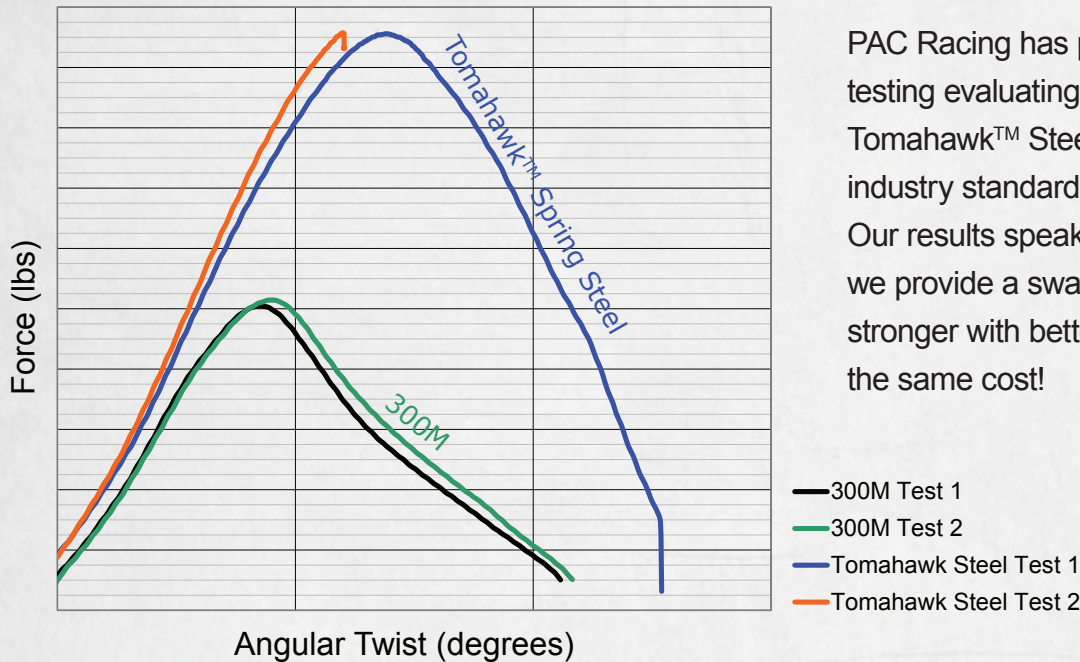
Gun Drilled  
Retainment Washer

Standard  
Retainment  
Washer

# Why PAC Racing?

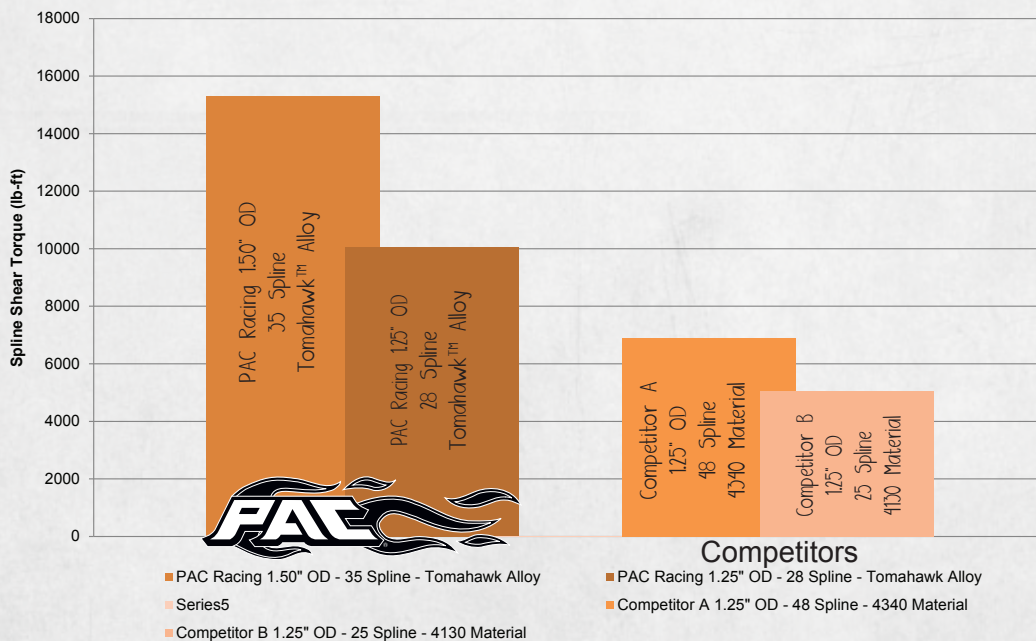
...because the facts don't lie

## Tomahawk™ Spring Steel 30-40% Better Ultimate Tensile Strength (UTS)



PAC Racing has performed extensive testing evaluating the strength of Tomahawk™ Steel vs. the previous industry standard for performance: 300M. Our results speak for themselves, and we provide a sway bar material that is stronger with better fatigue life at about the same cost!

## Sway Bar Spline Interface Comparison



PAC Racing has also designed a superior spline interface compared to the competition. The count and geometry of the splines is only a small part of the picture, as material (Tomahawk™ is stronger), spline length, and the clamping force all contribute to increasing the Spline Shear Torque. Because our shear torque is greater, we can safely run aluminum arms without risk of stripping out the splines.

# SWAY BAR ARMS & ACCESSORIES

## 100 SERIES LINK ARM BLANKS

For the builder/fabricator not interested in a spherical bearing connection to the radius rod, we also stock the same machined link arms with a blank end so you can drill your own holes or design an end condition specific for your application. The steel arms have the same pocketed body as the SLA100-104's.

Part Number	Length Range	Spline Count	Material	Overall Length
<b>ALUMINUM</b>				
PAC-ALA105	9" - 13.5"	28	6061-T6, Anodized Black, Blank End	16.25"
PAC-ALA106	12" - 16.5"	28		19.25"
PAC-ALA107	15" - 19.5"	28		22.25"
PAC-ALA108	18" - 22.5"	28		25.25"
PAC-ALA109	21" - 25.5"	28		28.25"
PAC-ALA115	9" - 13.5"	35		16.25"
PAC-ALA116	12" - 16.5"	35		19.25"
PAC-ALA117	15" - 19.5"	35		22.25"
PAC-ALA118	18" - 22.5"	35		25.25"
PAC-ALA119	21" - 25.5"	35		28.25"

Any of these arms can be upgraded to 7075 aluminum, call for pricing.

<b>STEEL</b>				
PAC-SLA105	11"-13.75"	28	1018 Steel, Blank End, Pocketed Body	16.25"
PAC-SLA106	14"-16.75"	28		19.25"
PAC-SLA107	17"-19.75"	28		22.25"
PAC-SLA108	20"-22.75"	28		25.25"
PAC-SLA109	23"-25.75"	28		28.25"
PAC-SLA115	11"-13.75"	35		16.25"
PAC-SLA116	14"-16.75"	35		19.25"
PAC-SLA117	17"-19.75"	35		22.25"
PAC-SLA118	20"-22.75"	35		25.25"
PAC-SLA119	23"-25.75"	35		28.25"

Part Number includes spherical bearing and retaining ring. Also includes a premium ARP 7/16" bolt and ARP locknut to clamp down on the splines.

■ = WARNING DO NOT USE FOR 30"-35" @ 1.250 ACTIVE DIAMETER BARS

SEE PAGE 21 FOR  
ROD END INFO

## 300 SERIES STEEL ARM SIDES

These parts fit with either of the round weld inserts. Includes a hex cap screw, jam top lock nut, and 2 washers for bolting a PAC-300329 rod end in place.

Part Number	Dimension A (length range)	Overall Length	Dimension B (Thickness)	Dimension C (Insert Cutout)
<b>1/8" wall thickness side plates in stock</b>				
PAC-SLA300	9" - 14"	16.25"	.125"	2.00"
PAC-SLA301	12" - 17"	19.25"	.125"	2.00"
PAC-SLA302	15" - 20"	22.25"	.125"	2.00"
PAC-SLA303	18" - 23"	25.25"	.125"	2.00"
PAC-SLA304	21" - 26"	28.25"	.125"	2.00"
<b>3/16" wall thickness side plates in stock</b>				
PAC-SLA305	9" - 14"	16.25"	.187"	2.00"
PAC-SLA306	12" - 17"	19.25"	.187"	2.00"
PAC-SLA307	15" - 20"	22.25"	.187"	2.00"
PAC-SLA308	18" - 23"	25.25"	.187"	2.00"
PAC-SLA309	21" - 26"	28.25"	.187"	2.00"



## ROUND WELD INSERT

Part Number	Spline Configuration	Dimensions
PAC-300308	28 Spline	2.00" OD x 1.50" wide
PAC-300309	35 Spline	2.00" OD x 1.50" wide
PAC-300310	40 Spline	2.00" OD x 1.50" wide



## SPLINE CLAMP TUBE

We have selected and cut to length a tube that can be welded directly to the front of the arm for clamping down on the splines. It has a radius cut out which fits into the PAC-300308 or PAC-300309 OD.

3" length can be used for the 35 spline or 28 spline application. Purchase of the tube comes with a 7/16" ARP bolt and ARP top lock nut.

Part Number	Length	OD	ID
PAC-300339	3.00"	.937"	.500"



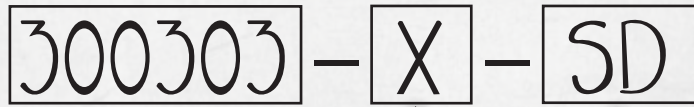
# SWAY BAR BUSHINGS

TO FIT YOUR APPLICATION

## MOUNTING

Mounting of your Sway Bar can be done a variety of ways. By far the most popular is mounting inside a chassis tube. We stock all sizes of nylon bushings listed below to press inside commonly used 1.75" and 2" chassis tubes (bushings are sized .002" over the nominal ID of tubing). We offer 4 different shoulder thickness to take up any slack that will result if mounting tube length is not a whole number.

## PART NUMBERING:

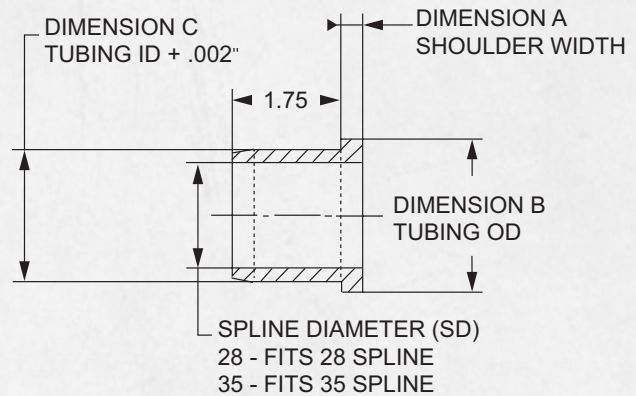


Specifies which size tubing the bushing presses inside

Spline Diameter  
28 - fits a 28 Spline Sway Bar  
35 - fits a 35 Spline Sway Bar

## STANDARD LENGTH BUSHING

(300302-X-SD)



## 0.250" SHOULDER BUSHING

(for use with mounting tube lengths that are whole numbers, eg. 30", etc.)

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300302-1-28	0.25	1.75	1.622	0.065
PAC-300302-2-28	0.25	1.75	1.586	0.083
PAC-300302-3-28	0.25	1.75	1.562	0.095
PAC-300302-4-28	0.25	1.75	1.534	0.109
<b>PAC-300302-5-28</b>	<b>0.25</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300302-6-28</b>	<b>0.25</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300302-7-28	0.25	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300302-8-SD	0.25	2.00	1.872	0.065
PAC-300302-9-SD	0.25	2.00	1.736	0.083
PAC-300302-10-SD	0.25	2.00	1.812	0.095
PAC-300302-11-SD	0.25	2.00	1.784	0.109
<b>PAC-300302-12-SD</b>	<b>0.25</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300302-13-SD</b>	<b>0.25</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300302-14-SD	0.25	2.00	1.734	0.134

\***Bold** type denotes most common tubing size

## 0.375" SHOULDER BUSHING

(for use with mounting tube lengths that are 0.75" over a whole number, eg. 30.75")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300303-1-28	0.375	1.75	1.622	0.065
PAC-300303-2-28	0.375	1.75	1.586	0.083
PAC-300303-3-28	0.375	1.75	1.562	0.095
PAC-300303-4-28	0.375	1.75	1.534	0.109
<b>PAC-300303-5-28</b>	<b>0.375</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300303-6-28</b>	<b>0.375</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300303-7-28	0.375	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300303-8-SD	0.375	2.00	1.872	0.065
PAC-300303-9-SD	0.375	2.00	1.736	0.083
PAC-300303-10-SD	0.375	2.00	1.812	0.095
PAC-300303-11-SD	0.375	2.00	1.784	0.109
<b>PAC-300303-12-SD</b>	<b>0.375</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300303-13-SD</b>	<b>0.375</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300303-14-SD	0.375	2.00	1.734	0.134

\***Bold** type denotes most common tubing size

## 0.500" SHOULDER BUSHING

(for use with mounting tube lengths that are 0.50" over a whole number, eg. 30.50")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300304-1-28	0.500	1.75	1.622	0.065
PAC-300304-2-28	0.500	1.75	1.586	0.083
PAC-300304-3-28	0.500	1.75	1.562	0.095
PAC-300304-4-28	0.500	1.75	1.534	0.109
<b>PAC-300304-5-28</b>	<b>0.500</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300304-6-28</b>	<b>0.500</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300304-7-28	0.500	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300304-8-SD	0.500	2.00	1.872	0.065
PAC-300304-9-SD	0.500	2.00	1.736	0.083
PAC-300304-10-SD	0.500	2.00	1.812	0.095
PAC-300304-11-SD	0.500	2.00	1.784	0.109
<b>PAC-300304-12-SD</b>	<b>0.500</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300304-13-SD</b>	<b>0.500</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300304-14-SD	0.500	2.00	1.734	0.134

\***Bold** type denotes most common tubing size

## 0.625" SHOULDER BUSHING

(for use with mounting tube lengths that are 0.25" over a whole number, eg. 30.25")

Part Number	Dimension A Shoulder Thickness	Dimension B Tubing OD	Dimension C Tubing ID +.002	Tubing Wall Thickness (REF)
<b>FOR USE WITH 28 SPLINE SWAY BARS ONLY</b>				
PAC-300305-1-28	0.625	1.75	1.622	0.065
PAC-300305-2-28	0.625	1.75	1.586	0.083
PAC-300305-3-28	0.625	1.75	1.562	0.095
PAC-300305-4-28	0.625	1.75	1.534	0.109
<b>PAC-300305-5-28</b>	<b>0.625</b>	<b>1.75</b>	<b>1.512</b>	<b>0.120</b>
<b>PAC-300305-6-28</b>	<b>0.625</b>	<b>1.75</b>	<b>1.502</b>	<b>0.125</b>
PAC-300305-7-28	0.625	1.75	1.484	0.134
<b>FOR USE WITH BOTH 28 SPLINE AND 35 SPLINE (Please specify when ordering)</b>				
PAC-300305-8-SD	0.625	2.00	1.872	0.065
PAC-300305-9-SD	0.625	2.00	1.736	0.083
PAC-300305-10-SD	0.625	2.00	1.812	0.095
PAC-300305-11-SD	0.625	2.00	1.784	0.109
<b>PAC-300305-12-SD</b>	<b>0.625</b>	<b>2.00</b>	<b>1.762</b>	<b>0.120</b>
<b>PAC-300305-13-SD</b>	<b>0.625</b>	<b>2.00</b>	<b>1.752</b>	<b>0.125</b>
PAC-300305-14-SD	0.625	2.00	1.734	0.134

\***Bold** type denotes most common tubing size



**PAC-300302-5-28**



**PAC-300302-12-28**



Bushing installed on sway bar

## ROD ENDS SELECTED FOR SWAY BAR APPLICATION

Part Number	Description
PAC-300288R	1/2" Right Hand Regular Rod End, Teflon Lined
PAC-300288L	1/2" Left Hand Regular Rod End, Teflon Lined
PAC-300289R	1/2" Right Hand Premium Rod End, Teflon Lined
PAC-300289L	1/2" Left Hand Premium Rod End, Teflon Lined
PAC-300329	1/2" High Misalignment Rod End, Teflon Lined, Right Hand



# ROD ENDS

# ***About Suspension Springs***

WE ARE A MANUFACTURER OF SUSPENSION SPRINGS, VALVE SPRINGS, SPRING RETAINER PRODUCTS, SWAY BARS, AND MANY OTHER METAL COMPONENTS

PAC Racing Springs is a stand alone division of Peterson Spring. Peterson Spring has been producing world class products for over 100 years and is the largest family owned and privately held spring company in the United States.

While PAC Racing Springs specializes in valve springs, we have developed a substantial suspension spring product line which utilizes our technology from valve springs. PAC Racing Springs has world class engineering, materials, testing, manufacturing, and distribution systems that strives to your needs.

## **WHY ARE PAC RACING SPRINGS BETTER?**

We demand the highest technology and best performance from our products. We work diligently to ensure our designs, materials, and processes withstand all performance requirements. Years of experience in high stressed valve springs and race engines provides understanding on what it takes to manufacture a lighter, better performing suspension spring.

We validate these claims by testing the competition in our dynamics laboratory, setting baseline standards to exceed current sag (load loss), spring weight, and fatigue life.

Cost is always a factor and with being a division of Peterson Spring, it allows for our metallurgists to demand the highest strength alloys, while leveraging our suppliers to meet market price demands.

## **PAC RACING SPRINGS HAS MANY MATERIAL OPTIONS**

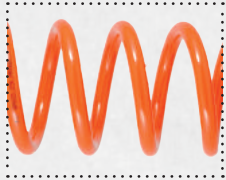
- Super High Tensile Chrome Silicon + Alloy
- Aerospace High Tensile Steels
- Titanium
- Wire sizes from 0.008 up to 1.250 Diameter!





# Powder Coat & Identification Options

## STANDARD COLORS



Orange

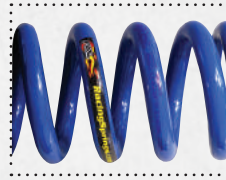


Silver



Black

## OPTIONAL COLORS



Blue



Red



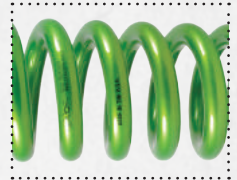
Near Chrome

{ Additional charge }

## ADDITIONAL STOCKED COLORS



Rust Brown



Sparkle Green



Bomber Sparkle Orange

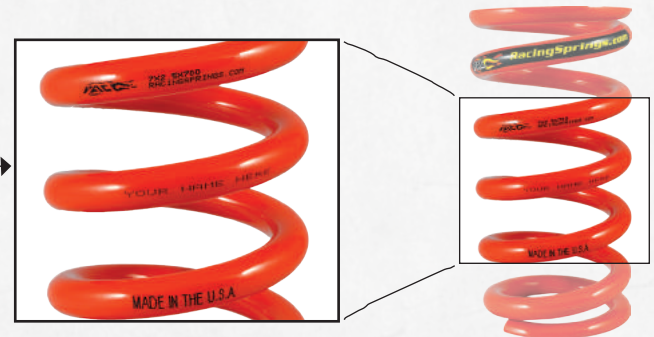
{ Additional charge }

CUSTOM COLORS AND PANTONES AVAILABLE TO MATCH YOUR APPLICATION

## CUSTOM INKJET LABELING

Add any label to your coil spring:

Part numbers, team names, batch and date codes



# SPRING ACCESSORIES

## COIL WRAPS

Part Number	Size	Description
PAC-CW10	10" Fits 2.5 and 3.0 ID Coil springs	10 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW12	12" Fits 2.5 and 3.0 ID Coil springs	12 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW14	14" Fits 2.5 and 3.0 ID Coil springs	14 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW16	16" Fits 2.5 and 3.0 ID Coil springs	16 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW18	18" Fits 2.5 and 3.0 ID Coil springs	18 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW20	20" Fits 2.5 and 3.0 ID Coil springs	20 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW22	22" Fits 2.5 and 3.0 ID Coil springs	22 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW24	24" Fits 2.5 and 3.0 ID Coil springs	24 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW26	26" Fits 2.5 and 3.0 ID Coil springs	26 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW28	28" Fits 2.5 and 3.0 ID Coil springs	28 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW30	30" Fits 2.5 and 3.0 ID Coil springs	30 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing
PAC-CW32	32" Fits 2.5 and 3.0 ID Coil springs	32 Inch Ballistic Nylon Spring Cover Universal Spring Diameter Sizing

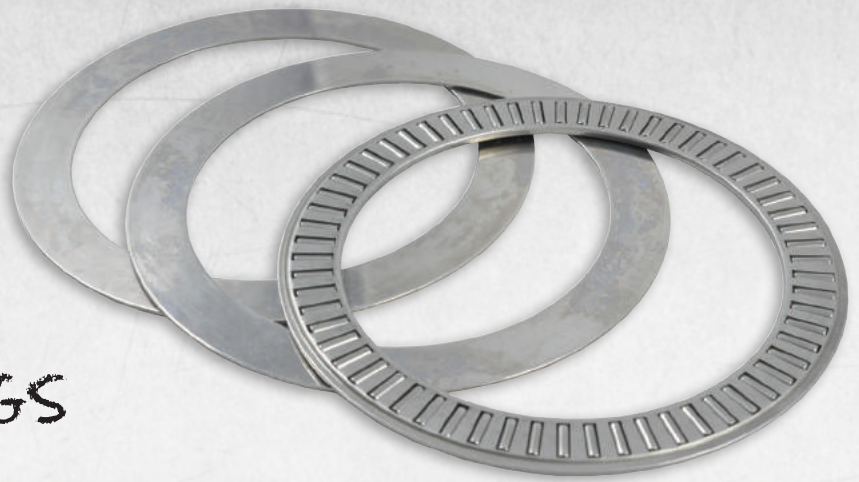
## SUSPENSION SPRING COVERS

- MANUFACTURED FROM MILITARY BALLISTIC NYLON
- DURABLE HIGH STRENGTH CONSTRUCTION
- HOOK AND LOOP ENCLOSURE



# NEEDLE ROLLER THRUST BEARINGS

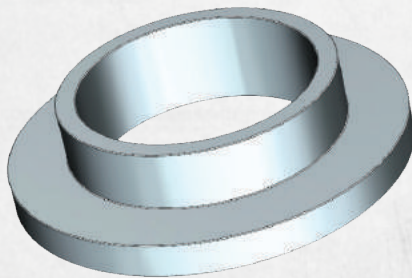
WITH 2 WASHERS



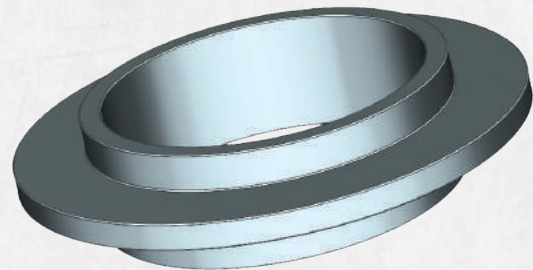
Part Number	ID	OD	Type	Bearing Thickness	Washer Thickness
PAC-TB01	2.50	3.14	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB02	3.00	3.74	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB03	3.85	5.00	Needle Thrust Bearing and Standard Washer	0.157	0.032
PAC-TB04	2.50	3.50	Thick Stainless Steel Washer	-	0.100
PAC-TB05	3.00	4.00	Thick Stainless Steel Washer	-	0.100

# 2.5 TO 3.0 SPRING ADAPTER

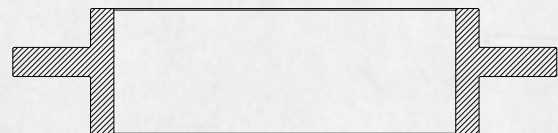
Part Number	Spring Size (in)	Perch Thickness (in)	Type
PAC-300412	3.00	0.375	Hard Anodize Aluminum
PAC-300413	3.00	0.250	Zinc Plated Steel



2.5-3.0 Springs Adapter



Helper Spring Slider



# SHOCK ACCESSORIES

## SPRING SLIDERS

CIRCLE TRACK

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type
PAC-200-101	2.50	2.200	2.0 Ohlins	Nylon Center Body with Spun Shield
PAC-200-102	2.50	2.106	2.0 Penske	Nylon Center Body with Spun Shield
PAC-200-103	2.50	2.184	2.0 Afco	Nylon Center Body with Spun Shield
PAC-200-104	2.50	2.014	2.0 Integra	Nylon Center Body with Spun Shield

## HELPER SPRING SHOCK SLIDERS

OFF-ROAD

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type
PAC-800-201	2.50	2.120	2.0 Fox / Sway Away	Solid Aluminum
PAC-800-202	2.50	2.030	2.0 King	Solid Aluminum
PAC-800-203	3.00	2.580	3.0 Fox / King / Sway Away	Solid Aluminum
PAC-800-205	3.00	2.060	2.0 Bilstein	Solid Aluminum
PAC-800-206	2.50	2.630	2.5 Bilstein	Solid Aluminum

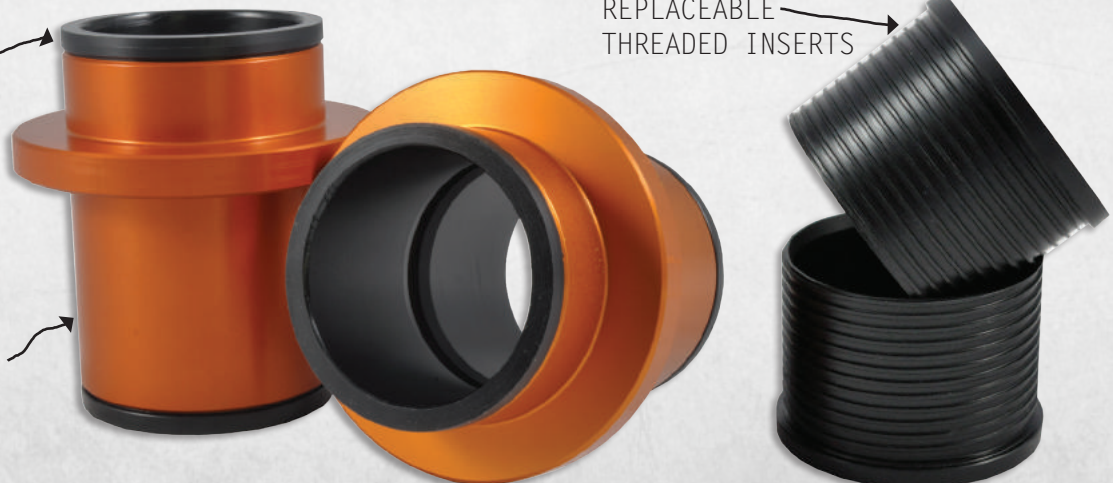
CIRCLE TRACK

Part Number	Spring Size (in)	Inside Dia (in)	Application	Design Type	Coating Type
PAC-200-201	2.50	2.200	2.0 Ohlins	Solid Aluminum	Hard Anodize
PAC-200-202	2.50	2.106	2.0 Penske	Solid Aluminum	Hard Anodize
PAC-200-203	2.50	2.184	2.0 Afco	Solid Aluminum	Hard Anodize
PAC-200-204	2.50	2.014	2.0 Integra	Solid Aluminum	Hard Anodize

SIZED FOR YOUR SPECIFIC SHOCKS

ANODIZED ALUMINUM SHELL

REPLACEABLE  
THREADED INSERTS



# FLAT WIRE HELPER SPRINGS

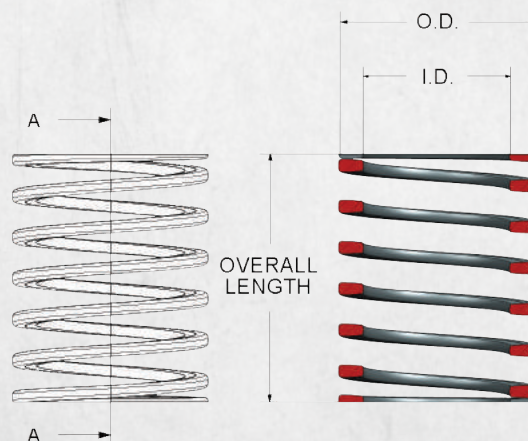
## FLAT WIRE SPRINGS (PAC-FW SERIES)

These have been known as “Tender Springs” or “Helper Springs” and are traditionally used in conjunction with dual rate coil over shock springs. These are designed to be used when your spring stack does not have enough pre load for the full extension of the shock. These will allow for full extension of the shock without losing your coil spring buckets or retainers.

PAC Racing Springs designed these springs using high tensile keystone shape wire, allowing for an even stress distribution on the wire. These are designed to be run at bind height without losing free-length, and are designed to withstand many cycles of compression and extension.

If you would like to know more about flat or shaped wire springs or have an inquiry about a custom wire shape for your application, please let us know.

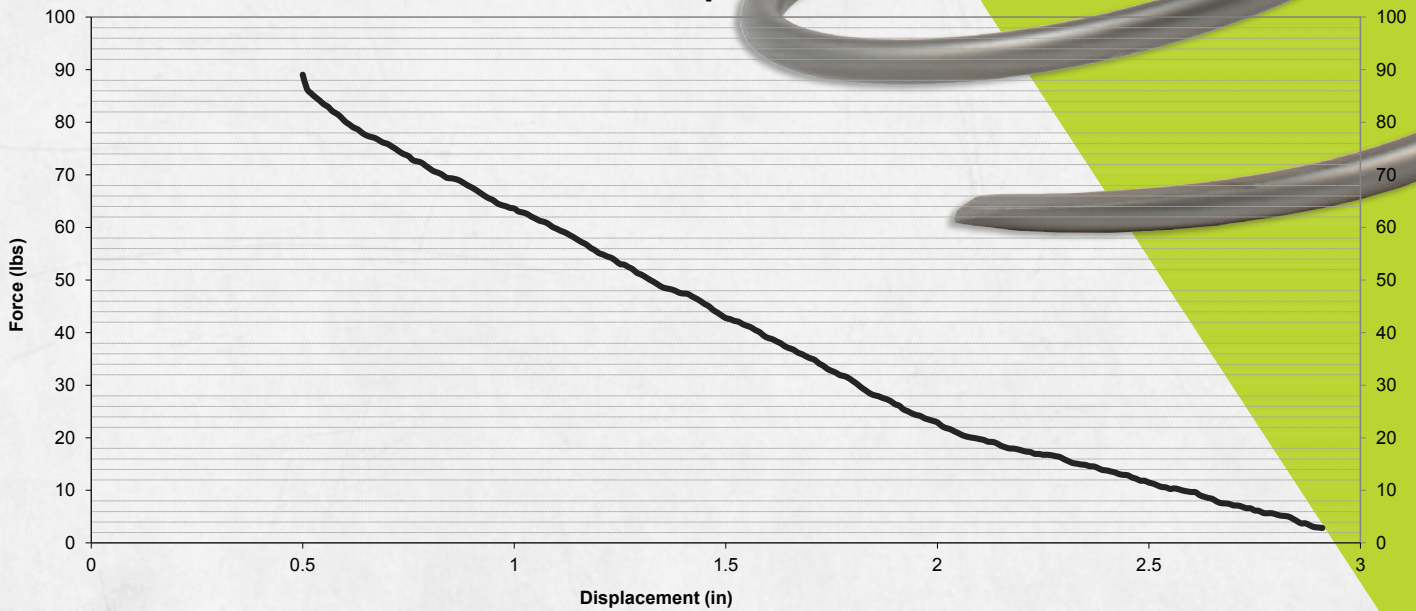
Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>1 Inch Tall Helper Springs</b>														
PAC-FW-1x2.0x84	1.21	30.73	2.03	51.56	74	1.32	58	26	0.424	10.77	0.786	19.96	0.19	0.09
PAC-FW-1x2.25x84	1.21	30.73	2.28	57.91	84	1.50	44	20	0.688	17.48	0.522	13.26	0.34	0.15
PAC-FW-1x2.5x84	1.21	30.73	2.53	64.26	84	1.50	51	23	0.600	15.24	0.610	15.49	0.33	0.15
<b>2 Inch Tall Helper Springs</b>														
PAC-FW-2x2.0x104	2.00	50.80	2.04	51.69	104	1.86	121	55	0.828	21.03	1.172	29.77	0.49	0.22
PAC-FW-2x2.25x104	2.00	50.80	2.28	57.79	104	1.86	135	61	0.700	17.78	1.300	33.02	0.45	0.20
PAC-FW-2x2.5x104	2.00	50.80	2.53	64.26	115	2.05	105	48	1.085	27.56	0.915	23.24	0.78	0.35
<b>3 Inch Tall Helper Springs</b>														
PAC-FW-3x2.0x15	3.00	76.20	2.00	50.80	15	0.27	35	16	0.693	17.60	2.307	58.60	0.31	0.14
PAC-FW-3x2.0x25	3.00	76.20	2.00	50.80	25	0.45	56	25	0.762	19.35	2.238	56.85	0.34	0.15
PAC-FW-3x2.5x50	3.00	76.20	2.53	64.26	50	0.89	130	59	0.825	20.96	2.175	55.25	0.58	0.26
PAC-FW-3x3.0x50	3.00	76.20	3.03	76.96	50	0.89	115	52	0.691	17.55	2.309	58.65	0.58	0.26
PAC-FW-3x2.5x128	3.00	76.20	2.53	64.26	128	2.29	253	115	1.020	25.91	1.980	50.29	0.73	0.33
<b>5 Inch Tall Helper Springs</b>														
PAC-FW-5x2.5x25	5.00	127.00	2.53	64.26	25	0.45	85	39	1.600	40.64	3.400	86.36	0.88	0.40
PAC-FW-5x2.5x75	5.00	127.00	2.53	64.26	75	1.34	218	99	2.100	53.34	2.900	73.66	1.50	0.68
PAC-FW-5x3.0x25	5.00	127.00	3.03	76.96	25	0.45	97	44	1.100	27.94	3.900	99.06	0.70	0.32
PAC-FW-5x3.0x75	5.00	127.00	3.03	76.96	75	1.34	273	124	1.350	34.29	3.650	92.71	1.20	0.54
<b>6 Inch Tall Helper Springs</b>														
PAC-FW-6x2.5x5	6.00	152.40	2.53	64.26	5	0.09	34	15	0.517	13.13	5.483	139.27	0.21	0.10



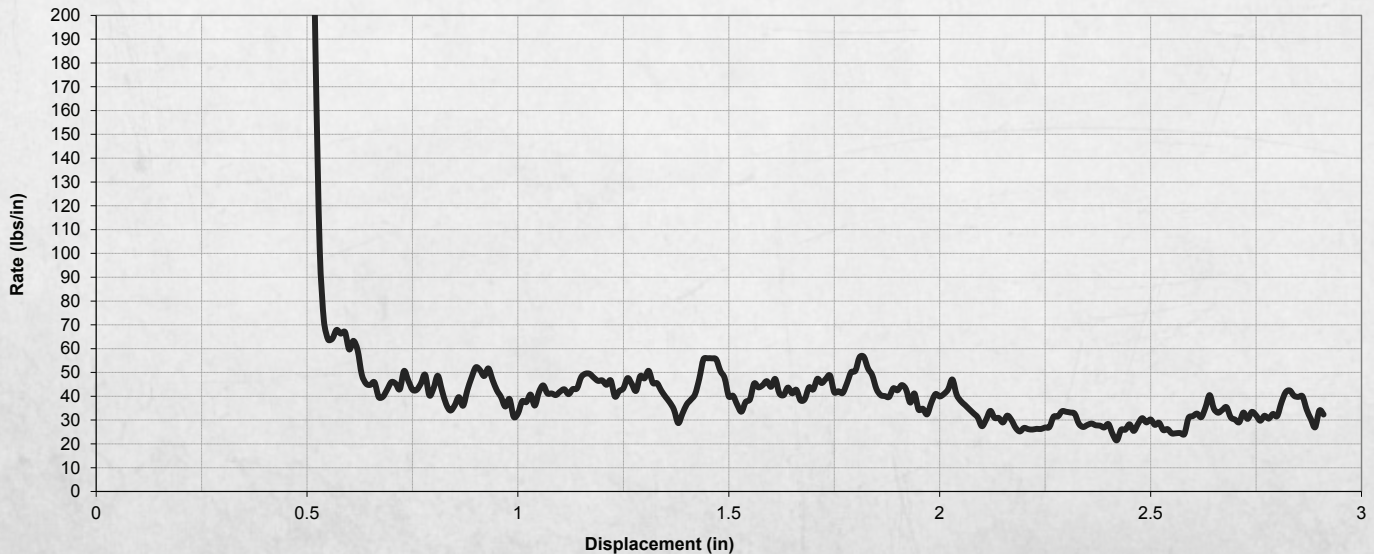
# LOCKER SPRINGS

Part Number	Feelength	Linear Rate (2.0" to 0.70")	Solid Height	Coil Direction
PAC-LOC1	2.900	50 lbs/in	0.51	RH
PAC-LOC2	2.900	50 lbs/in	0.51	LH
PAC-LOC3	2.900	75 lbs/in	0.51	RH
PAC-LOC4	2.900	75 lbs/in	0.51	LH
PAC-LOC5	2.900	90 lbs/in	0.51	RH
PAC-LOC6	2.900	90 lbs/in	0.51	LH

### Force vs. Displacement



### Rate vs. Displacement



# COIL OVER SPRINGS

WE ARE A MANUFACTURER OF SUSPENSION SPRINGS, VALVE SPRINGS, SPRING RETAINER PRODUCTS, SWAY BARS, AND MANY OTHER METAL COMPONENTS.

PAC Racing Springs is a stand alone division of Peterson Spring which has been in business for over 100 years. Peterson Spring is the largest family owned and privately held spring company in the United States. While PAC Racing Springs specializes in valve springs, we have developed a substantial suspension spring product line, this product utilizes our technology from valve springs. PAC Racing Springs has world class engineering, materials, testing, manufacturing, and distribution systems that will react to your needs.

## WHY ARE PAC RACING SPRINGS BETTER?

We demand the highest technology and best performance from our products—we work very diligently ensuring our designs, materials, and processing withstand all performance requirements. Years of experience in high stressed valve springs and race engines, provides understanding on what it takes to manufacture a lighter, better performing suspension spring.

We validate these claims by testing the competition in our Dynamics Laboratory, setting baseline standards to exceed current sag (load loss), spring weight, and fatigue life. Cost is always a factor and with being a division of Peterson Spring, it allows for our metallurgists to demand the highest strength alloys, while leveraging our suppliers to meet market price demands.



## PAC RACING SPRINGS HAS MANY MATERIAL OPTIONS

### MATERIALS:

- Super high tensile chrome silicon + alloy
- Aerospace high tensile steels
- Titanium
- Wire sizes from 0.008 up to 1.250 diameter!

# Suspension Spring Listings

## 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>4" TALL</b>														
PAC-4x2.5x400	4.000	102	2.50	64	400	7.1	1042	474	1.395	35	2.605	66	0.95	0.43
PAC-4X2.5X450	4.000	102	2.50	64	450	8.0	1180	536	1.427	36	2.573	65	0.98	0.45
PAC-4x2.5x500	4.000	102	2.50	64	500	8.9	1289	586	1.422	36	2.578	65	0.30	0.14
PAC-4X2.5X650	4.000	102	2.50	64	650	11.6	1633	742	1.537	39	2.463	63	1.21	0.55
<b>5" TALL</b>														
PAC-5x2.5x225	5.000	127	2.50	64	225	4.0	774	352	1.610	41	3.39	86	0.98	0.45
PAC-5x2.5x300	5.000	127	2.50	64	300	5.4	1028	467	1.571	40	3.429	87	1.05	0.48
PAC-5x2.5x350	5.000	127	2.50	64	350	6.2	1030	468	2.058	52	2.942	75	1.59	0.72
PAC-5x2.5x375	5.000	127	2.50	64	375	6.7	1145	521	1.946	49	3.054	78	1.50	0.68
PAC-5x2.5x400	5.000	127	2.50	64	400	7.1	1261	573	1.848	47	3.152	80	1.42	0.65
PAC-5x2.5x425	5.000	127	2.50	64	425	7.6	1376	626	1.762	45	3.238	82	1.35	0.61
PAC-5x2.5x450	5.000	127	2.50	64	450	8.0	1344	611	2.014	51	2.986	76	1.68	0.76
PAC-5x2.5x500	5.000	127	2.50	64	500	8.9	1573	715	1.855	47	3.145	80	1.52	0.69
PAC-5X2.5X650	5.000	127	2.50	64	650	11.6	2012	915	1.955	50	3.045	77	1.71	0.78
<b>6" TALL</b>														
PAC-6x2.5x50	6.000	152	2.50	64	50	0.9	247	112	1.062	27	4.938	125	0.49	0.22
PAC-6x2.5x100	6.000	152	2.50	64	100	1.8	470	214	1.300	33	4.7	119	0.61	0.28
PAC-6x2.5x150	6.000	152	2.50	64	150	2.7	667	303	1.553	39	4.447	113	0.89	0.40
PAC-6x2.5x200	6.000	152	2.50	64	200	3.6	851	387	1.747	44	4.253	108	1.26	0.57
PAC-6x2.5x250	6.000	152	2.50	64	250	4.5	1047	476	1.813	46	4.187	106	1.06	0.48
PAC-6x2.5x300	6.000	152	2.50	64	300	5.4	1224	556	1.920	49	4.08	104	1.21	0.55
PAC-6x2.5x350	6.000	152	2.50	64	350	6.2	1380	627	2.058	52	3.942	100	1.50	0.68
PAC-6x2.5x400	6.000	152	2.50	64	400	7.1	1511	687	2.223	56	3.777	96	1.62	0.74
PAC-6x2.5x450	6.000	152	2.50	64	450	8.0	1707	776	2.207	56	3.793	96	1.70	0.77
PAC-6x2.5x500	6.000	152	2.50	64	500	8.9	1896	862	2.209	56	3.791	96	1.94	0.88
PAC-6x2.5x550	6.000	152	2.50	64	550	9.8	2008	913	2.649	67	3.351	85	2.13	0.97
PAC-6x2.5x600	6.000	152	2.50	64	600	10.7	2171	987	2.381	60	3.619	92	2.49	1.13
PAC-6x2.5x650	6.000	152	2.50	64	650	11.6	2303	1047	2.457	62	3.543	90	2.78	1.26
PAC-6x2.5x700	6.000	152	2.50	64	700	12.5	2474	1124	2.466	63	3.534	90	2.41	1.09
<b>7" TALL</b>														
PAC-7x2.5x100	7.000	178	2.50	64	100	1.8	534	243	1.664	42	5.336	136	0.87	0.39
PAC-7x2.5x150	7.000	178	2.50	64	150	2.7	788	358	1.875	48	5.125	130	0.91	0.41
PAC-7x2.5x175	7.000	178	2.50	64	175	3.1	921	419	1.909	48	5.091	129	1.14	0.52
PAC-7x2.5x200	7.000	178	2.50	64	200	3.6	1010	459	1.919	49	5.0815	129	1.36	0.62
PAC-7x2.5x225	7.000	178	2.50	64	225	4.0	1131	514	2.010	51	4.99	127	1.49	0.68
PAC-7x2.5x250	7.000	178	2.50	64	250	4.5	1247	567	2.270	58	4.73	120	1.68	0.76
PAC-7x2.5x275	7.000	178	2.50	64	275	4.9	1299	590	2.350	60	4.65	118	1.76	0.80
PAC-7x2.5x300	7.000	178	2.50	64	300	5.4	1464	665	2.440	62	4.56	116	1.89	0.86
PAC-7x2.5x325	7.000	178	2.50	64	325	5.8	1564	711	2.470	63	4.53	115	1.94	0.88
PAC-7x2.5x350	7.000	178	2.50	64	350	6.2	1658	754	2.610	66	4.39	112	2.01	0.91
PAC-7x2.5x400	7.000	178	2.50	64	400	7.1	1826	830	2.552	65	4.448	113	2.14	0.97
PAC-7x2.5x450	7.000	178	2.50	64	450	8.0	2065	939	2.840	72	4.16	106	2.26	1.03
PAC-7x2.5x500	7.000	178	2.50	64	500	8.9	2189	995	2.970	75	4.03	102	2.48	1.13
PAC-7x2.5x550	7.000	178	2.50	64	550	9.8	2403	1092	3.210	82	3.79	96	2.86	1.30
PAC-7x2.5x600	7.000	178	2.50	64	600	10.7	2608	1186	3.460	88	3.54	90	3.01	1.37
PAC-7x2.5x650	7.000	178	2.50	64	650	11.6	2661	1210	3.420	87	3.58	91	3.54	1.61



Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>7" TALL CONT.</b>														
PAC-7x2.5x700	7.000	178	2.50	64	700	12.5	2837	1290	2.947	75	4.053	103	3.87	1.76
PAC-7x2.5x750	7.000	178	2.50	64	750	13.4	3002	1365	2.997	76	4.003	102	4.04	1.84
<b>8" TALL</b>														
PAC-8x2.5x60	8.000	203	2.50	64	60	1.1	395	179	1.645	42	6.355	161	0.820	0.37
PAC-8x2.5x100	8.000	203	2.50	64	100	1.8	585	266	1.530	39	6.47	164	0.970	0.44
PAC-8x2.5x125	8.000	203	2.50	64	125	2.2	776	353	1.790	45	6.21	158	1.020	0.46
PAC-8x2.5x140	8.000	203	2.50	64	140	2.5	861	391	1.940	49	6.06	154	1.570	0.71
PAC-8x2.5x180	8.000	203	2.50	64	180	3.2	1057	481	2.549	65	5.451	138	1.760	0.80
PAC-8x2.5x200	8.000	203	2.50	64	200	3.6	1116	507	2.549	65	5.451	138	2.010	0.91
PAC-8x2.5x220	8.000	203	2.50	64	220	3.9	1214	552	2.810	71	5.19	132	2.130	0.97
PAC-8x2.5x250	8.000	203	2.50	64	250	4.5	1300	591	2.900	74	5.1	130	2.140	0.97
PAC-8x2.5x275	8.000	203	2.50	64	275	4.9	1469	668	2.658	68	5.342	136	2.184	0.99
PAC-8x2.5x300	8.000	203	2.50	64	300	5.4	1627	740	2.734	69	5.266	134	2.230	1.01
PAC-8x2.5x350	8.000	203	2.50	64	350	6.2	1846	839	2.937	75	5.063	129	2.460	1.12
PAC-8x2.5x400	8.000	203	2.50	64	400	7.1	2035	925	3.170	81	4.83	123	2.390	1.09
PAC-8x2.5x450	8.000	203	2.50	64	450	8.0	2193	997	3.248	82	4.752	121	2.560	1.16
PAC-8x2.5x500	8.000	203	2.50	64	500	8.9	2449	1113	3.220	82	4.78	121	2.520	1.15
PAC-8x2.5x550	8.000	203	2.50	64	550	9.8	2695	1225	3.450	88	4.55	116	2.840	1.29
PAC-8x2.5x600	8.000	203	2.50	64	600	10.7	2778	1263	3.370	86	4.63	118	3.571	1.62
PAC-8x2.5x650	8.000	203	2.50	64	650	11.6	2994	1361	3.394	86	4.606	117	3.684	1.67
PAC-8x2.5x700	8.000	203	2.50	64	700	12.5	3249	1477	3.408	87	4.592	117	3.760	1.71
PAC-8x2.5x800	8.000	203	2.50	64	800	14.3	3631	1650	3.501	89	4.499	114	4.060	1.85
PAC-8x2.5x850	8.000	203	2.50	64	850	15.2	3804	1729	3.575	91	4.425	112	4.230	1.92
PAC-8x2.5x1100	8.000	203	2.50	64	1100	19.6	4571	2078	3.845	98	4.155	106	5.184	2.36
PAC-8x2.5x1200	8.000	203	2.50	64	1200	21.4	4516	2053	4.237	108	3.763	96	5.850	2.66
<b>9" TALL</b>														
PAC-9x2.5x60	9.000	229	2.50	64	60	1.1	441	200	1.650	42	7.35	187	0.76	0.34
PAC-9x2.5x100	9.000	229	2.50	64	100	1.8	685	311	2.155	55	6.845	174	1.24	0.56
PAC-9x2.5x140	9.000	229	2.50	64	140	2.5	932	424	2.342	59	6.658	169	1.51	0.68
PAC-9x2.5x180	9.000	229	2.50	64	180	3.2	1143	520	2.010	51	6.99	178	1.96	0.89
PAC-9x2.5x220	9.000	229	2.50	64	220	3.9	1374	625	2.980	76	6.02	153	2.26	1.03
PAC-9x2.5x300	9.000	229	2.50	64	300	5.4	1849	841	3.174	81	5.826	148	2.49	1.13
PAC-9x2.5x350	9.000	229	2.50	64	350	6.2	2104	956	3.425	87	5.5755	142	2.77	1.26
PAC-9x2.5x400	9.000	229	2.50	64	400	7.1	2328	1058	3.428	87	5.572	142	3.25	1.48
PAC-9x2.5x450	9.000	229	2.50	64	450	8.0	2519	1145	3.572	91	5.428	138	3.48	1.58
PAC-9x2.5x550	9.000	229	2.50	64	550	9.8	2949	1341	3.620	92	5.38	137	4.09	1.86
PAC-9x2.5x650	9.000	229	2.50	64	650	11.6	3283	1492	3.371	86	5.629	143	4.86	2.21
<b>10" TALL</b>														
PAC-10x2.5x100	10.000	254	2.50	64	100	1.8	755	343	2.511	64	7.489	190	1.56	0.71
PAC-10x2.5x125	10.000	254	2.50	64	125	2.2	928	422	2.423	62	7.577	192	1.80	0.82
PAC-10x2.5x150	10.000	254	2.50	64	150	2.7	1083	492	2.772	70	7.228	184	1.98	0.90
PAC-10x2.5x175	10.000	254	2.50	64	175	3.1	1220	555	2.792	71	7.208	183	2.01	0.91
PAC-10x2.5x200	10.000	254	2.50	64	200	3.6	1402	637	2.992	76	7.008	178	2.29	1.04
PAC-10x2.5x225	10.000	254	2.50	64	225	4.0	1577	717	3.400	86	6.6	168	2.49	1.13
PAC-10x2.5x250	10.000	254	2.50	64	250	4.5	1746	794	3.489	89	6.511	165	2.90	1.32
PAC-10x2.5x275	10.000	254	2.50	64	275	4.9	1825	829	3.651	93	6.349	161	3.27	1.49
PAC-10x2.5x300	10.000	254	2.50	64	300	5.4	1973	897	3.422	87	6.578	167	3.04	1.38
PAC-10x2.5x325	10.000	254	2.50	64	325	5.8	2008	913	3.703	94	6.297	160	3.34	1.52
PAC-10x2.5x350	10.000	254	2.50	64	350	6.2	2248	1022	3.930	100	6.07	154	3.56	1.62
PAC-10x2.5x375	10.000	254	2.50	64	375	6.7	2373	1079	3.867	98	6.133	156	3.69	1.68
PAC-10x2.5x400	10.000	254	2.50	64	400	7.1	2489	1131	3.989	101	6.011	153	3.64	1.65

# Suspension Spring Listings

## 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>10" TALL CONT.</b>														
PAC-10x2.5x425	10.000	254	2.50	64	425	7.6	2596	1180	4.302	109	5.698	145	3.92	1.78
PAC-10x2.5x450	10.000	254	2.50	64	450	8.0	2693	1224	4.371	111	5.629	143	4.00	1.82
PAC-10x2.5x500	10.000	254	2.50	64	500	8.9	3020	1373	4.352	111	5.648	143	4.67	2.12
PAC-10x2.5x550	10.000	254	2.50	64	550	9.8	3161	1437	4.650	118	5.35	136	4.84	2.20
PAC-10x2.5x600	10.000	254	2.50	64	600	10.7	3454	1570	4.820	122	5.18	132	4.97	2.26
PAC-10x2.5x650	10.000	254	2.50	64	650	11.6	3735	1698	4.254	108	5.746	146	5.03	2.29
PAC-10x2.5x700	10.000	254	2.50	64	700	12.5	3780	1718	4.600	117	5.4	137	5.65	2.57
PAC-10x2.5x750	10.000	254	2.50	64	750	13.4	4022	1828	4.638	118	5.362	136	5.53	2.51
PAC-10x2.5x800	10.000	254	2.50	64	800	14.3	4250	1932	4.688	119	5.312	135	6.06	2.75
<b>12" TALL</b>														
PAC-12X2.5X60	12.000	305	2.50	64	60	1.07	519	236	3.36	85	8.641	219	1.84	0.84
PAC-12X2.5X70	12.000	305	2.50	64	70	1.25	635	289	2.93	74	9.071	230	1.58	0.72
PAC-12x2.5x80	12.000	305	2.50	64	80	1.4	722	328	3.037	77	8.9635	228	1.87	0.85
PAC-12x2.5x90	12.000	305	2.50	64	90	1.6	806	367	3.098	79	8.902	226	1.91	0.87
PAC-12x2.5x100	12.000	305	2.50	64	100	1.8	886	403	3.103	79	8.897	226	2.06	0.94
PAC-12x2.5x110	12.000	305	2.50	64	110	2.0	963	438	3.220	82	8.78	223	2.11	0.96
PAC-12x2.5x120	12.000	305	2.50	64	120	2.1	1079	490	3.201	81	8.799	223	2.17	0.99
PAC-12x2.5x125	12.000	305	2.50	64	125	2.2	1137	517	3.245	82	8.755	222	2.34	1.06
PAC-12x2.5x130	12.000	305	2.50	64	130	2.3	1151	523	3.385	86	8.6146	219	2.41	1.10
PAC-12x2.5x140	12.000	305	2.50	64	140	2.5	1218	554	3.245	82	8.755	222	2.39	1.08
PAC-12x2.5x150	12.000	305	2.50	64	150	2.7	1280	582	3.415	87	8.585	218	2.66	1.21
PAC-12x2.5x165	12.000	305	2.50	64	165	2.9	1395	634	3.755	95	8.245	209	2.73	1.24
PAC-12x2.5x175	12.000	305	2.50	64	175	3.1	1511	687	3.755	95	8.245	209	3.01	1.37
PAC-12x2.5x185	12.000	305	2.50	64	185	3.3	1562	710	3.604	92	8.3965	213	2.95	1.34
PAC-12x2.5x200	12.000	305	2.50	64	200	3.6	1665	757	3.674	93	8.326	211	3.00	1.37
PAC-12x2.5x225	12.000	305	2.50	64	225	4.0	1794	815	4.124	105	7.8762	200	3.26	1.48
PAC-12x2.5x250	12.000	305	2.50	64	250	4.5	1993	906	4.193	106	7.8075	198	3.71	1.69
PAC-12x2.5x275	12.000	305	2.50	64	275	4.9	2184	993	4.057	103	7.943	202	3.71	1.69
PAC-12x2.5x300	12.000	305	2.50	64	300	5.4	2253	1024	4.490	114	7.51	191	4.34	1.97
PAC-12x2.5x325	12.000	305	2.50	64	325	5.8	2419	1100	4.293	109	7.707	196	4.11	1.87
PAC-12x2.5x350	12.000	305	2.50	64	350	6.2	2576	1171	4.344	110	7.656	194	4.72	2.14
PAC-12x2.5x375	12.000	305	2.50	64	375	6.7	2724	1238	4.560	116	7.44	189	4.94	2.24
PAC-12x2.5x400	12.000	305	2.50	64	400	7.1	3013	1370	4.467	113	7.533	191	4.65	2.11
PAC-12x2.5x425	12.000	305	2.50	64	425	7.6	2987	1358	4.473	114	7.527	191	4.81	2.19
PAC-12x2.5x450	12.000	305	2.50	64	450	8.0	3103	1411	4.698	119	7.302	185	5.12	2.33
PAC-12x2.5x475	12.000	305	2.50	64	475	8.5	3207	1458	4.553	116	7.447	189	5.39	2.45
PAC-12x2.5x500	12.000	305	2.50	64	500	8.9	3497	1589	4.664	118	7.336	186	5.44	2.47
PAC-12x2.5x525	12.000	305	2.50	64	525	9.4	3588	1631	5.165	131	6.835	174	5.86	2.66
PAC-12x2.5x550	12.000	305	2.50	64	550	9.8	3668	1667	5.331	135	6.669	169	6.46	2.94
PAC-12x2.5x575	12.000	305	2.50	64	575	10.3	3734	1697	5.506	140	6.494	165	6.58	2.99
PAC-12x2.5x600	12.000	305	2.50	64	600	10.7	4024	1829	5.294	134	6.706	170	6.87	3.12
PAC-12x2.5x625	12.000	305	2.50	64	625	11.2	4076	1853	5.478	139	6.522	166	7.01	3.19
PAC-12x2.5x650	12.000	305	2.50	64	650	11.6	4365	1984	5.284	134	6.716	171	7.12	3.24
PAC-12x2.5x675	12.000	305	2.50	64	675	12.1	4404	2002	5.476	139	6.524	166	7.25	3.30
PAC-12x2.5x700	12.000	305	2.50	64	700	12.5	4428	2013	5.674	144	6.326	161	7.54	3.43
PAC-12x2.5x750	12.000	305	2.50	64	750	13.4	4726	2148	5.699	145	6.301	160	8.11	3.69

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>12" TALL CONT.</b>														
PAC-12x2.5x800	12.000	305	2.50	64	800	14.3	4697	2135	6.129	156	5.871	149	8.81	4.00
PAC-12x2.5x900	12.000	305	2.50	64	900	16.1	5177	2353	6.248	159	5.752	146	9.93	4.51
PAC-12x2.5x1000	12.000	305	2.50	64	1000	17.9	5184	2356	6.816	173	5.184	132	10.81	4.91
<b>14" TALL</b>														
PAC-14X2.5X50	14.000	356	2.50	64	50	0.9	473	215	4.541	115	9.459	240	2.65	1.21
PAC-14X2.5X65	14.000	356	2.50	64	65	1.2	688	313	3.410	87	10.59	269	2.12	0.96
PAC-14x2.5x70	14.000	356	2.50	64	70	1.2	746	339	3.344	85	10.656	271	2.04	0.93
PAC-14x2.5x80	14.000	356	2.50	64	80	1.4	850	386	3.844	98	10.156	258	2.01	0.91
PAC-14x2.5x90	14.000	356	2.50	64	90	1.6	910	414	4.092	104	9.908	252	2.74	1.25
PAC-14x2.5x100	14.000	356	2.50	64	100	1.8	1046	476	3.641	92	10.359	263	2.72	1.24
PAC-14x2.5x110	14.000	356	2.50	64	110	2.0	1089	495	3.822	97	10.178	259	2.83	1.29
PAC-14x2.5x120	14.000	356	2.50	64	120	2.1	1225	557	3.786	96	10.214	259	2.78	1.26
PAC-14x2.5x125	14.000	356	2.50	64	125	2.2	1239	563	3.991	101	10.009	254	2.86	1.30
PAC-14x2.5x130	14.000	356	2.50	64	130	2.3	1307	594	3.893	99	10.107	257	2.91	1.32
PAC-14x2.5x140	14.000	356	2.50	64	140	2.5	1384	629	4.178	106	9.822	249	3.24	1.47
PAC-14x2.5x150	14.000	356	2.50	64	150	2.7	1520	691	4.378	111	9.622	244	3.40	1.55
PAC-14x2.5x165	14.000	356	2.50	64	165	2.9	1588	722	4.373	111	9.627	245	3.59	1.63
PAC-14x2.5x175	14.000	356	2.50	64	175	3.1	1725	784	4.584	116	9.4165	239	3.43	1.56
PAC-14x2.5x185	14.000	356	2.50	64	185	3.3	1783	811	4.727	120	9.273	236	3.56	1.62
PAC-14x2.5x200	14.000	356	2.50	64	200	3.6	1904	865	4.928	125	9.072	230	4.37	1.99
PAC-14x2.5x225	14.000	356	2.50	64	225	4.0	2054	934	5.129	130	8.871	225	4.64	2.11
PAC-14x2.5x250	14.000	356	2.50	64	250	4.5	2288	1040	5.249	133	8.751	222	5.08	2.31
PAC-14x2.5x275	14.000	356	2.50	64	275	4.9	2513	1142	5.582	142	8.418	214	5.75	2.61
PAC-14x2.5x300	14.000	356	2.50	64	300	5.4	2597	1180	5.345	136	8.655	220	5.45	2.48
PAC-14x2.5x325	14.000	356	2.50	64	325	5.8	2794	1270	5.403	137	8.597	218	5.64	2.56
PAC-14x2.5x350	14.000	356	2.50	64	350	6.2	2981	1355	5.766	146	8.234	209	5.74	2.61
PAC-14x2.5x375	14.000	356	2.50	64	375	6.7	3158	1436	5.849	149	8.151	207	5.92	2.69
PAC-14x2.5x400	14.000	356	2.50	64	400	7.1	3324	1511	5.901	150	8.099	206	6.30	2.86
PAC-14x2.5x425	14.000	356	2.50	64	425	7.6	3478	1581	6.104	155	7.896	201	6.57	2.99
PAC-14x2.5x450	14.000	356	2.50	64	450	8.0	3620	1646	6.034	153	7.966	202	6.93	3.15
PAC-14x2.5x475	14.000	356	2.50	64	475	8.5	3750	1705	6.105	155	7.895	201	7.30	3.32
PAC-14x2.5x500	14.000	356	2.50	64	500	8.9	3867	1758	6.267	159	7.733	196	7.56	3.44
PAC-14x2.5x525	14.000	356	2.50	64	525	9.4	4206	1912	5.989	152	8.011	203	8.82	4.01
PAC-14x2.5x550	14.000	356	2.50	64	550	9.8	4059	1845	6.620	168	7.38	187	8.84	4.02
PAC-14x2.5x575	14.000	356	2.50	64	575	10.3	4133	1879	6.812	173	7.188	183	8.98	4.08
PAC-14x2.5x600	14.000	356	2.50	64	600	10.7	4472	2033	6.546	166	7.454	189	8.54	3.88
PAC-14x2.5x625	14.000	356	2.50	64	625	11.2	4532	2060	6.749	171	7.251	184	8.98	4.08
PAC-14x2.5x650	14.000	356	2.50	64	650	11.6	4870	2214	6.507	165	7.493	190	8.66	3.94
PAC-14x2.5x675	14.000	356	2.50	64	675	12.1	4914	2234	6.720	171	7.28	185	9.13	4.15
PAC-14x2.5x700	14.000	356	2.50	64	700	12.5	4941	2246	6.941	176	7.059	179	9.62	4.37
PAC-14x2.5x750	14.000	356	2.50	64	750	13.4	4946	2248	7.406	188	6.594	167	10.67	4.85
PAC-14x2.5x800	14.000	356	2.50	64	800	14.3	5622	2556	6.972	177	7.028	179	10.04	4.56
PAC-14x2.5x900	14.000	356	2.50	64	900	16.1	5831	2651	7.521	191	6.479	165	11.46	5.21
PAC-14x2.5x1000	14.000	356	2.50	64	1000	17.9	5862	2665	8.138	207	5.862	149	13.08	5.95

# Suspension Spring Listings

## 2.5 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>16" TALL</b>														
PAC-16x2.5x85	16.000	406	2.50	64	85	2.7	1012	460	4.099	104	11.901	302	2.80	1.27
PAC-16x2.5x100	16.000	406	2.50	64	100	1.8	1098	499	4.688	119	11.312	287	3.64	1.65
PAC-16X2.5X125	16.000	406	2.50	64	125	2.2	1310	596	5.518	140	10.482	266	4.60	2.09
PAC-16x2.5x150	16.000	406	2.50	64	150	2.7	1607	730	4.820	122	11.18	284	4.28	1.95
PAC-16X2.5X175	16.000	406	2.50	64	175	3.1	1749	795	6.001	152	9.9993	254	5.59	2.54
PAC-16x2.5x200	16.000	406	2.50	64	200	3.6	2114	961	4.893	124	11.107	282	5.13	2.33
PAC-16x2.5x225	16.000	406	2.50	64	225	4.0	2160	982	6.452	164	9.548	243	6.38	2.90
PAC-16x2.5x250	16.000	406	2.50	64	250	4.5	2550	1159	4.961	126	11.039	280	6.24	2.84
PAC-16x2.5x300	16.000	406	2.50	64	300	5.4	2902	1319	5.004	127	10.996	279	6.98	3.17
PAC-16x2.5x350	16.000	406	2.50	64	350	6.2	3345	1520	6.443	164	9.557	243	7.23	3.29
PAC-16x2.5x400	16.000	406	2.50	64	400	7.1	3742	1701	6.646	169	9.354	238	7.80	3.55
PAC-16x2.5x450	16.000	406	2.50	64	450	8.0	4088	1858	6.915	176	9.085	231	8.48	3.85
PAC-16x2.5x500	16.000	406	2.50	64	500	8.9	4117	1871	7.767	197	8.233	209	10.14	4.61
PAC-16x2.5x550	16.000	406	2.50	64	550	9.8	4615	2098	7.609	193	8.391	213	10.14	4.61
PAC-16x2.5x600	16.000	406	2.50	64	600	10.7	4787	2176	8.022	204	7.978	203	11.12	5.06
PAC-16X2.5X650	16.000	406	2.50	64	650	11.6	4891	2223	8.475	215	7.525	191	12.12	5.51
PAC-16x2.5x700	16.000	406	2.50	64	700	12.5	4525	2057	9.586	243	6.414	163	14.53	6.60
<b>18" TALL</b>														
PAC-18x2.5x100	18.000	457	2.50	64	100	1.8	1239	563	5.610	142	12.39	315	4.42	2.01
PAC-18x2.5x150	18.000	457	2.50	64	150	2.7	1732	787	6.454	164	11.546	293	5.81	2.64
PAC-18x2.5x200	18.000	457	2.50	64	200	3.6	2170	986	7.152	182	10.848	276	7.14	3.25
PAC-18x2.5x225	18.000	457	2.50	64	225	4.0	2335	1061	7.622	194	10.378	264	7.99	3.63
PAC-18x2.5x250	18.000	457	2.50	64	250	4.5	2623	1192	7.509	191	10.491	266	8.06	3.66
PAC-18x2.5x300	18.000	457	2.50	64	300	5.4	2981	1355	8.064	205	9.936	252	9.27	4.22
PAC-18x2.5x350	18.000	457	2.50	64	350	6.2	3453	1570	8.133	207	9.867	251	9.77	4.44
PAC-18x2.5x400	18.000	457	2.50	64	400	7.1	3874	1761	8.315	211	9.685	246	10.42	4.74
PAC-18x2.5x450	18.000	457	2.50	64	450	8.0	4239	1927	8.581	218	9.419	239	11.21	5.10
PAC-18x2.5x500	18.000	457	2.50	64	500	8.9	4543	2065	8.915	226	9.085	231	12.13	5.51



# Suspension Spring Listings

## 3.0 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>6" TALL</b>														
PAC-6x3x250	6.000	152	3.00	76	250	4.5	1081	491	1.722	44	4.278	109	1.46	0.66
<b>8" TALL</b>														
PAC-8x3x100	8.000	203	3.00	76	100	1.8	654	297	1.458	37	6.542	166	0.95	0.43
PAC-8x3x150	8.000	203	3.00	76	150	2.7	949	432	1.671	42	6.329	161	1.27	0.58
PAC-8x3x200	8.000	203	3.00	76	200	3.6	1158	526	2.209	56	5.791	147	2.01	0.91
PAC-8x3x250	8.000	203	3.00	76	250	4.5	1445	657	2.222	56	5.778	147	2.14	0.97
PAC-8x3x300	8.000	203	3.00	76	300	5.4	1713	779	2.290	58	5.71	145	2.34	1.06
PAC-8x3x350	8.000	203	3.00	76	350	6.2	1904	865	2.560	65	5.44	138	2.86	1.30
<b>10" TALL</b>														
PAC-10x3x80	10.000	254	3.00	76	80	1.4	626	285	2.226	57	7.774	197	1.59	0.72
PAC-10x3x90	10.000	254	3.00	76	90	1.6	699	318	2.288	58	7.712	196	1.69	0.77
PAC-10x3x100	10.000	254	3.00	76	100	1.8	816	371	1.845	47	8.155	207	1.32	0.60
PAC-10x3x150	10.000	254	3.00	76	150	2.7	1118	508	2.545	65	7.455	189	2.27	1.03
PAC-10x3x200	10.000	254	3.00	76	200	3.6	1464	665	2.681	68	7.319	186	2.61	1.19
PAC-10x3x250	10.000	254	3.00	76	250	4.5	1770	804	2.922	74	7.078	180	3.10	1.41
PAC-10X3X325	10.000	254	3.00	76	325	5.8	2202	1001	3.224	82	6.776	172	3.45	1.57
PAC-10X3X800	10.000	254	3.00	76	800	14.3	4834	2197	3.957	101	6.043	153	5.70	2.59
<b>12" TALL</b>														
PAC-12x3x100	12.000	305	3.00	76	100	1.8	939	427	2.606	66	9.394	239	2.12	0.96
PAC-12x3x150	12.000	305	3.00	76	150	2.7	1332	605	3.120	79	8.88	226	2.97	1.35
PAC-12x3x175	12.000	305	3.00	76	175	3.1	1520	691	3.315	84	8.685	221	3.34	1.52
PAC-12x3x200	12.000	305	3.00	76	200	3.6	1752	796	3.240	82	8.76	223	3.35	1.52
PAC-12x3x225	12.000	305	3.00	76	225	4.0	1979	900	3.203	81	8.797	223	3.40	1.55
PAC-12x3x250	12.000	305	3.00	76	250	4.5	2128	967	3.751	95	8.249	210	4.43	2.01
PAC-12x3x275	12.000	305	3.00	76	275	4.9	2339	1063	3.496	89	8.504	216	4.02	1.83
PAC-12x3x300	12.000	305	3.00	76	300	5.4	2354	1070	4.155	106	7.845	199	5.15	2.34
PAC-12x3x350	12.000	305	3.00	76	350	6.2	2715	1234	4.242	108	7.758	197	5.51	2.50
PAC-12x3x400	12.000	305	3.00	76	400	7.1	3046	1385	4.384	111	7.616	193	5.53	2.51
PAC-12x3x450	12.000	305	3.00	76	450	8.0	3344	1520	4.569	116	7.431	189	6.48	2.94
PAC-12x3x500	12.000	305	3.00	76	500	8.9	3606	1639	4.789	122	7.211	183	7.08	3.22
<b>14" TALL</b>														
PAC-14x3x75	14.000	356	3.00	76	75	1.3	852	387	2.942	75	11.058	281	2.01	0.91
PAC-14x3x100	14.000	356	3.00	76	100	1.8	1074	488	3.256	83	10.744	273	2.84	1.29
PAC-14x3x125	14.000	356	3.00	76	125	2.2	1336	607	3.309	84	10.691	272	3.07	1.39
PAC-14x3x150	14.000	356	3.00	76	150	2.7	1472	669	4.189	106	9.811	249	4.37	1.99
PAC-14x3x175	14.000	356	3.00	76	175	3.1	1749	795	4.006	102	9.994	254	4.28	1.95
PAC-14x3x200	14.000	356	3.00	76	200	3.6	1932	878	4.338	110	9.662	245	4.91	2.23
PAC-14x3x225	14.000	356	3.00	76	225	4.0	2124	965	4.562	116	9.438	240	5.40	2.46
PAC-14x3x250	14.000	356	3.00	76	250	4.5	2372	1078	4.047	103	9.9535	253	5.47	2.49
PAC-14x3x275	14.000	356	3.00	76	275	4.9	2509	1140	4.877	124	9.123	232	6.20	2.82
PAC-14x3x300	14.000	356	3.00	76	300	5.4	2736	1244	4.879	124	9.121	232	6.35	2.89
PAC-14x3x350	14.000	356	3.00	76	350	6.2	3168	1440	4.950	126	9.05	230	6.73	3.06
PAC-14x3x400	14.000	356	3.00	76	400	7.1	3412	1551	5.470	139	8.53	217	7.94	3.61
PAC-14x3x450	14.000	356	3.00	76	450	8.0	3755	1707	5.656	144	8.344	212	8.55	3.89
PAC-14x3x650	14.000	356	3.00	76	650	11.6	4653	2115	6.891	175	7.109	181	7.16	3.25

# Suspension Spring Listings

## 3.0 ID COIL OVER

Part Number	Nominal Free Length		Nominal Inside Diameter		Spring Rate		Load @ Coil Bind		Coil Bind Height		Free Length to Coil Bind Travel		Spring Weight	
	(in)	(mm)	(in)	(mm)	(lbs/in)	(kg/mm)	(lbs)	(kg)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)
<b>14" TALL CONT.</b>														
PAC-14x3x500	14.000	356	3.00	76	500	8.9	4057	1844	5.887	150	8.113	206	9.26	4.21
PAC-14x3x550	14.000	356	3.00	76	550	9.8	4530	2059	5.763	146	8.237	209	9.24	4.20
<b>16" TALL</b>														
PAC-16x3x75	16.000	406	3.00	76	75	1.3	949	431	3.353	85	12.647	321	3.16	1.44
PAC-16x3x100	16.000	406	3.00	76	100	1.8	1237	562	3.631	92	12.369	314	3.28	1.49
PAC-16x3x125	16.000	406	3.00	76	125	2.2	1493	678	4.060	103	11.94	303	4.01	1.82
PAC-16x3x150	16.000	406	3.00	76	150	2.7	1772	805	4.189	106	11.811	300	4.37	1.99
PAC-16x3x175	16.000	406	3.00	76	175	3.1	1943	883	4.900	124	11.1	282	5.56	2.53
PAC-16x3x200	16.000	406	3.00	76	200	3.6	2092	951	5.538	141	10.462	266	6.74	3.06
PAC-16x3x225	16.000	406	3.00	76	225	4.0	2384	1084	5.403	137	10.597	269	6.73	3.06
PAC-16x3x250	16.000	406	3.00	76	250	4.5	2669	1213	5.323	135	10.677	271	6.78	3.08
PAC-16x3x300	16.000	406	3.00	76	300	5.4	2953	1342	6.156	156	9.844	250	8.58	3.90
PAC-16x3x350	16.000	406	3.00	76	350	6.2	3587	1631	5.751	146	10.249	260	8.18	3.72
PAC-16x3x400	16.000	406	3.00	76	400	7.1	3877	1762	6.308	160	9.692	246	9.54	4.34
PAC-16x3x450	16.000	406	3.00	76	450	8.0	4279	1945	6.491	165	9.509	242	10.22	4.64
PAC-16x3x500	16.000	406	3.00	76	500	8.9	4638	2108	6.725	171	9.275	236	11.00	5.00
PAC-16x3x575	16.000	406	3.00	76	575	10.3	5696	2589	6.150	156	9.85	250	10.15	4.61
PAC-16x3x600	16.000	406	3.00	76	600	10.7	5474	2488	6.876	175	9.124	232	11.89	5.40
PAC-16x3x650	16.000	406	3.00	76	650	11.6	5709	2595	7.217	183	8.783	223	12.93	5.88
PAC-16x3x700	16.000	406	3.00	76	700	12.5	6194	2816	7.151	182	8.849	225	14.54	6.61
PAC-16x3x800	16.000	406	3.00	76	800	14.3	6785	3084	7.519	191	8.481	215	14.44	6.56
<b>18" TALL</b>														
PAC-18x3x75	18.000	457	3.00	76	75	1.3	1068	485	3.764	96	14.236	362	3.20	1.46
PAC-18x3x100	18.000	457	3.00	76	100	1.8	1351	614	4.490	114	13.51	343	4.32	1.96
PAC-18x3x150	18.000	457	3.00	76	150	2.7	1941	882	5.060	129	12.94	329	5.58	2.54
PAC-18x3x200	18.000	457	3.00	76	200	3.6	2492	1133	5.538	141	12.462	317	6.74	3.06
PAC-18x3x250	18.000	457	3.00	76	250	4.5	2938	1335	6.249	159	11.751	298	8.34	3.79
PAC-18x3x300	18.000	457	3.00	76	300	5.4	3409	1550	6.637	169	11.363	289	9.45	4.29
PAC-18x3x350	18.000	457	3.00	76	350	6.2	3799	1727	7.146	182	10.854	276	10.71	4.87
PAC-18x3x400	18.000	457	3.00	76	400	7.1	4098	1863	7.756	197	10.244	260	12.48	5.67
PAC-18x3x450	18.000	457	3.00	76	450	8.0	4534	2061	7.925	201	10.075	256	13.22	6.01
PAC-18x3x500	18.000	457	3.00	76	500	8.9	4657	2117	8.686	221	9.314	237	15.30	6.95
PAC-18x3x550	18.000	457	3.00	76	550	9.8	4660	2118	9.527	242	8.473	215	17.68	8.04
PAC-18x3x600	18.000	457	3.00	76	600	10.7	5536	2516	8.773	223	9.227	234	16.28	7.40
PAC-18x3x650	18.000	457	3.00	76	650	11.6	5407	2458	9.681	246	8.319	211	18.90	8.59
PAC-18x3x700	18.000	457	3.00	76	700	12.5	6283	2856	9.025	229	8.975	228	17.90	8.14
PAC-18x3x750	18.000	457	3.00	76	750	13.4	6009	2731	9.988	254	8.012	204	20.47	9.31
PAC-18x3x800	18.000	457	3.00	76	800	14.3	6884	3129	9.395	239	8.605	219	19.26	8.75
<b>20" TALL</b>														
PAC-20x3x600	20.000	508	3.00	76	600	10.7	6765	3075	9.593	244	10.407	264	18.73	8.51
PAC-20x3x650	20.000	508	3.00	76	650	11.6	6764	3075	9.593	244	10.407	264	18.73	8.51
PAC-20x3x700	20.000	508	3.00	76	700	12.5	7745	3520	8.936	227	11.064	281	17.45	7.93

# CONVENTIONAL SPRINGS

## Pro-Series Conventional Front Springs

- Maximized for travel
- High stress designed for increased travel
- Solid safe (coil bind safe)
- Rate curve optimized
- Custom designs available
- Fit in rules package

## Sportsman Conventional Front Springs

- Designed to meet budget
- Improved load loss with superior material
- Increased travel over competition
- Light weight
- Traditional design

## Pro-Series Rear Springs

- Fits in new rules package
- Optimized travel
- Maximized weight savings
- Extreme design (not coil bind safe)
- Max load of 3,500 lbs

## Sportsman Conventional Rear Springs

- Designed to meet budget
- Improved load loss with superior material
- Increased travel over competition
- Light weight
- Traditional design



# PRO-SERIES CONVENTIONAL FRONT SPRINGS

Part Number	Freelength	Rate	Outside Diameter	Est. Travel	Weight
PAC-PF8.75x5.5x350	8.75"	350	5.5"	6.03"	4.21
PAC-PF8.75x5.5x375	8.75"	375	5.5"	5.96"	4.38
PAC-PF8.75x5.5x400	8.75"	400	5.5"	5.89"	4.57
PAC-PF8.75x5.5x425	8.75"	425	5.5"	5.81"	4.78
PAC-PF8.75x5.5x450	8.75"	450	5.5"	5.72"	5.01
PAC-PF8.75x5.5x475	8.75"	475	5.5"	5.77"	5.07
PAC-PF8.75x5.5x500	8.75"	500	5.5"	5.68"	5.32
PAC-PF8.75x5.5x200	9.5"	200	5.5"	6.94"	3.61
PAC-PF8.75x5.5x250	9.5"	250	5.5"	7"	3.56
PAC-PF8.75x5.5x300	9.5"	300	5.5"	6.73"	4.18
PAC-PF8.75x5.5x350	9.5"	350	5.5"	6.62"	4.49
PAC-PF8.75x5.5x400	9.5"	400	5.5"	6.48"	4.88
PAC-PF8.75x5.5x450	9.5"	450	5.5"	6.38"	5.25
PAC-PF8.75x5.5x500	9.5"	500	5.5"	6.26"	5.68
PAC-PF8.75x5.5x550	9.5"	550	5.5"	6.19"	6.06
PAC-PF8.75x5.5x600	9.5"	600	5.5"	5.65"	7.14
PAC-PF10.5x5.5x200	10.5"	200	5.5"	7.92"	3.73
PAC-PF10.5x5.5x250	10.5"	250	5.5"	7.91"	3.84
PAC-PF10.5x5.5x300	10.5"	300	5.5"	7.65"	4.49
PAC-PF10.5x5.5x350	10.5"	350	5.5"	7.46"	5.13
PAC-PF10.5x5.5x400	10.5"	400	5.5"	6.78"	6.48
PAC-PF10.5x5.5x450	10.5"	450	5.5"	6.59"	7.03
PAC-PF10.5x5.5x500	10.5"	500	5.5"	6.56"	7.41
PAC-PF10.5x5.5x550	10.5"	550	5.5"	6.41"	7.98
PAC-PF10.5x5.5x600	10.5"	600	5.5"	6.32"	8.18





# SPORTSMAN CONVENTIONAL FRONT SPRINGS

9-1/2" TALL

5 INCH  
O.D.  
Weight

Part Number	Freelength	Rate	Outside Diameter	Est. Travel	Weight
PAC-SF9.5x5x300	9.5"	300	5"	6.17"	4.79
PAC-SF9.5x5x350	9.5"	350	5"	6.04"	5.15
PAC-SF9.5x5x400	9.5"	400	5"	6.04"	5.4
PAC-SF9.5X5X425	9.5"	425	5"	5.94"	5.64
PAC-SF9.5x5x450	9.5"	450	5"	5.91"	5.57
PAC-SF9.5x5x475	9.5"	475	5"	5.8"	5.85
PAC-SF9.5x5x500	9.5"	500	5"	5.67"	6.15
PAC-SF9.5x5x525	9.5"	525	5"	5.73"	6.23
PAC-SF9.5x5x550	9.5"	550	5"	5.61"	6.56
PAC-SF9.5x5x575	9.5"	575	5"	5.57"	6.78
PAC-SF9.5x5x600	9.5"	600	5"	5.55"	6.71
PAC-SF9.5x5x625	9.5"	625	5"	5.45"	7.01
PAC-SF9.5x5x650	9.5"	650	5"	5.47"	6.9
PAC-SF9.5X5X700	9.5"	700	5"	5.42"	7.06
PAC-SF9.5x5x750	9.5"	750	5"	5.31"	7.61
PAC-SF9.5x5x800	9.5"	800	5"	4.64"	8.6
PAC-SF9.5x5x850	9.5"	850	5"	4.56"	8.86
PAC-SF9.5x5x900	9.5"	900	5"	4.47"	9.15
PAC-SF9.5x5x950	9.5"	950	5"	4.36"	9.46
PAC-SF9.5x5x1000	9.5"	1000	5"	4.38"	9.61
PAC-SF9.5X5X1350	9.5"	1350	5"	4.2"	10.26



# SPORTSMAN CONVENTIONAL FRONT SPRINGS

CONT.

9-1/2" TALL

5 1/2 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Est. Travel	Weight
PAC-SF9.5X5.5X300	300	9.5"	5.5"	6.56"	4.81
PAC-SF9.5X5.5X350	350	9.5"	5.5"	6.45"	5.13
PAC-SF9.5X5.5X400	400	9.5"	5.5"	5.86"	6.38
PAC-SF9.5X5.5X450	450	9.5"	5.5"	5.76"	6.8
PAC-SF9.5X5.5X500	500	9.5"	5.5"	5.55"	7.41
PAC-SF9.5X5.5X550	550	9.5"	5.5"	5.5"	7.85
PAC-SF9.5X5.5X600	600	9.5"	5.5"	5.32"	8.18
PAC-SF9.5X5.5X650	650	9.5"	5.5"	5.3"	8.29
PAC-SF9.5X5.5X700	700	9.5"	5.5"	5.28"	8.44
PAC-SF9.5X5.5X750	750	9.5"	5.5"	5.23"	8.62
PAC-SF9.5X5.5X800	800	9.5"	5.5"	5.18"	8.83
PAC-SF9.5X5.5X850	850	9.5"	5.5"	5.12"	9.06
PAC-SF9.5X5.5X900	900	9.5"	5.5"	5.05"	9.32
PAC-SF9.5X5.5X950	950	9.5"	5.5"	4.97"	9.61
PAC-SF9.5X5.5X1000	1000	9.5"	5.5"	4.88"	9.91
PAC-SF9.5X5.5X1050	1050	9.5"	5.5"	4.78"	10.24
PAC-SF9.5X5.5X1100	1100	9.5"	5.5"	4.68"	10.59
PAC-SF9.5X5.5X1150	1150	9.5"	5.5"	4.57"	10.96
PAC-SF9.5X5.5X1200	1200	9.5"	5.5"	4.69"	10.98
PAC-SF9.5X5.5X1300	1300	9.5"	5.5"	4.45"	11.8
PAC-SF9.5X5.5X1400	1400	9.5"	5.5"	4.47"	11.87

11" TALL

5 1/2 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Est. Travel	Weight
PAC-SF11X5.5X600	600	11"	5.5"	6.21"	9.38
PAC-SF11X5.5X700	700	11"	5.5"	5.93"	10.75
PAC-SF11X5.5X800	800	11"	5.5"	5.84"	11.18
PAC-SF11X5.5X900	900	11"	5.5"	5.71"	11.73
PAC-SF11X5.5X1000	1000	11"	5.5"	5.52"	12.41
PAC-SF11X5.5X1100	1100	11"	5.5"	5.31"	13.19
PAC-SF11X5.5X1200	1200	11"	5.5"	5.06"	14.08
PAC-SF11X5.5X1300	1300	11"	5.5"	5.11"	14.07
PAC-SF11X5.5X1400	1400	11"	5.5"	5.13"	14.11

# PRO-SERIES CONVENTIONAL REAR SPRINGS

Part Number	Free Length	ID	Rate	Max Load	Weight
PAC-NR10x3x500	10.25"	3.75"	500	3500	5.2
PAC-NR9x3x600	9.25"	3.75"	600	3500	4.5
PAC-NR9x3x700	9.25"	3.75"	700	3500	6.5
PAC-NR9x3x800	9.25"	3.5"	800	3500	6.3
PAC-NR9x3x900	9.25"	3.5"	900	3500	7.2
PAC-NR9x3x1000	9.25"	3.5"	1000	3500	6.6
PAC-NR9x3x1100	9.25"	3.5"	1100	3500	7.6
PAC-NR9x3x1200	9.25"	3.5"	1200	3500	7.1
PAC-NR9x3x1300	9.25"	3.5"	1300	3500	8.2
PAC-NR9x3x1400	9.25"	3.5"	1400	3500	7.7
PAC-NR9x3x1500	9.25"	3.5"	1500	3500	8.9
PAC-NR9x3x1600	9.25"	3.5"	1600	3500	8.4
PAC-NR9x3x1700	9.25"	3.25"	1700	3500	8.8
PAC-NR9x3x1800	9.25"	3.25"	1800	3500	8.3
PAC-NR9x3x1900	9.25"	3.25"	1900	3500	7.9
PAC-NR9x3x2000	9.25"	3.25"	2000	3500	7.6
PAC-NR9x3x2200	9.25"	3.25"	2200	3500	9.1
PAC-NR9x3x2400	9.25"	3.25"	2400	3500	8.4
PAC-NR9x3x2600	9.25"	3.25"	2600	3500	9.5
PAC-NR9x3x2800	9.25"	3.25"	2800	3500	10.6
PAC-NR9x3x3000	9.25"	3.25"	3000	3500	10
PAC-NR9x3x3500	9.25"	3.25"	3500	3500	10.4
PAC-NR9x3x4000	9.25"	3.01"	4000	3500	10.2
PAC-NR9x3x4500	9.25"	3.01"	4500	3500	10.9
PAC-NR9x3x5000	9.25"	3.01"	5000	3500	10



# SPORTSMAN CONVENTIONAL REAR SPRINGS

11" TALL

5 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Travel
PAC-SR11X5X100	100	11"	5"	8.67
PAC-SR11X5X125	125	11"	5"	8.43
PAC-SR11X5X150	150	11"	5"	8.16
PAC-SR11X5X175	175	11"	5"	8.05
PAC-SR11X5X200	200	11"	5"	7.91
PAC-SR11X5X225	225	11"	5"	7.84
PAC-SR11X5X250	250	11"	5"	7.28
PAC-SR11X5X275	275	11"	5"	7.15
PAC-SR11X5X300	300	11"	5"	7.57
PAC-SR11X5X325	325	11"	5"	7.14
PAC-SR11X5X350	350	11"	5"	6.96
PAC-SR11X5X375	375	11"	5"	6.96
PAC-SR11X5X400	400	11"	5"	6.77
PAC-SR11X5X425	425	11"	5"	6.66
PAC-SR11X5X450	450	11"	5"	6.54
PAC-SR11X5X475	475	11"	5"	6.65
PAC-SR11X5X500	500	11"	5"	6.51

13" TALL

5 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Travel
PAC-SR13X5X100	100	13"	5"	9.95
PAC-SR13X5X125	125	13"	5"	9.89
PAC-SR13X5X140	140	13"	5"	9.72
PAC-SR13X5X150	150	13"	5"	9.6
PAC-SR13X5X160	160	13"	5"	9.46
PAC-SR13X5X175	175	13"	5"	9.39
PAC-SR13X5X200	200	13"	5"	9.33
PAC-SR13X5X225	225	13"	5"	9.17
PAC-SR13X5X250	250	13"	5"	8.62
PAC-SR13X5X275	275	13"	5"	8.59
PAC-SR13X5X300	300	13"	5"	8.44
PAC-SR13X5X325	325	13"	5"	8.25
PAC-SR13X5X350	350	13"	5"	8.17
PAC-SR13X5X375	375	13"	5"	8.08
PAC-SR13X5X400	400	13"	5"	8.11
PAC-SR13X5X425	425	13"	5"	7.98
PAC-SR13X5X450	450	13"	5"	7.85

13" TALL

5 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Travel
PAC-SR13X5X475	475	13"	5"	7.71
PAC-SR13X5X500	500	13"	5"	7.63
PAC-SR13X5X525	525	13"	5"	7.54
PAC-SR13X5X550	550	13"	5"	7.45
PAC-SR13X5X575	575	13"	5"	7.37
PAC-SR13X5X600	600	13"	5"	6.89
PAC-SR13X5X625	625	13"	5"	6.68
PAC-SR13X5X650	650	13"	5"	6.83
PAC-SR13X5X675	675	13"	5"	6.61
PAC-SR13X5X700	700	13"	5"	6.38
PAC-SR13X5X725	725	13"	5"	6.38
PAC-SR13X5X750	750	13"	5"	6.37
PAC-SR13X5X775	775	13"	5"	6.32
PAC-SR13X5X800	800	13"	5"	6.29
PAC-SR13X5X825	825	13"	5"	6.24
PAC-SR13X5X850	850	13"	5"	6.2
PAC-SR13X5X875	875	13"	5"	6.14
PAC-SR13X5X900	900	13"	5"	6.1
PAC-SR13X5X925	925	13"	5"	6.03
PAC-SR13X5X950	950	13"	5"	5.97
PAC-SR13X5X975	975	13"	5"	5.9
PAC-SR13X5X1000	1000	13"	5"	6.05

16" TALL

5 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Travel
PAC-SR16X5X100	100	16"	5"	12.38
PAC-SR16X5X125	125	16"	5"	12.07
PAC-SR16X5X140	140	16"	5"	11.44
PAC-SR16X5X150	150	16"	5"	11.29
PAC-SR16X5X160	160	16"	5"	11.38
PAC-SR16X5X175	175	16"	5"	11.32
PAC-SR16X5X200	200	16"	5"	11.03
PAC-SR16X5X225	225	16"	5"	10.82
PAC-SR16X5X250	250	16"	5"	10.72
PAC-SR16X5X275	275	16"	5"	10.59
PAC-SR16X5X300	300	16"	5"	9.92

20" TALL

5 INCH  
O.D.

Part Number	Rate	Freelength	Outside Diameter	Travel
PAC-SR20X5X100	100	20"	5"	15.08
PAC-SR20X5X125	125	20"	5"	14.32
PAC-SR20X5X150	150	20"	5"	14.02

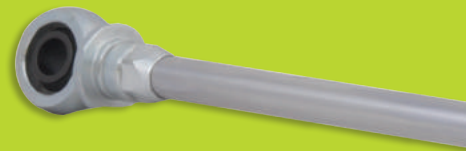
# SHOCKS

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PAC RACING HAS PARTNERED WITH PREMIER SHOCK MANUFACTURERS TO BRING YOU A COMPLETE ENGINEERED SUSPENSION SYSTEM

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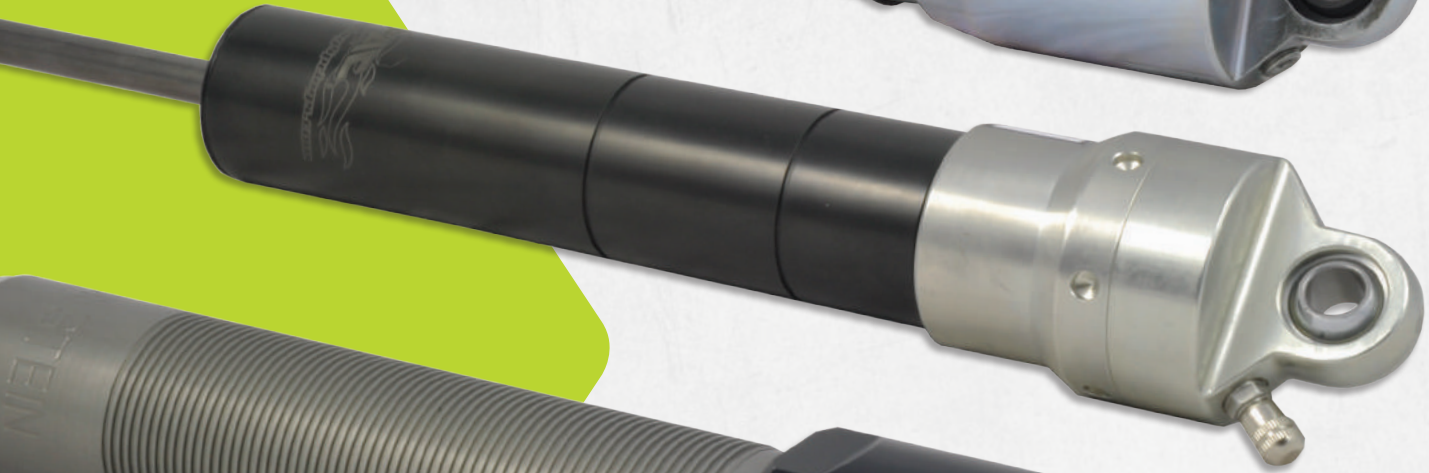
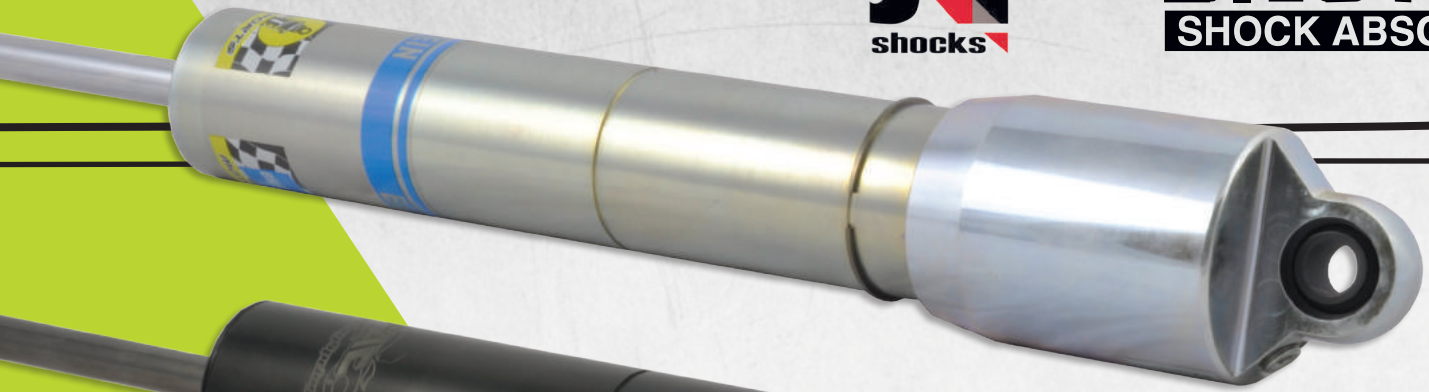
- With the introduction of our onsite tech support trailer OUR CUSTOMERS will have access to onsite shock dyno testing, spring rate curve testing, and shock service/repair.
- Make PAC Racing Springs your one stop supplier for your shock, springs, bump stops, and test services.
- Call for track days and tech support locations and dates to have your shocks serviced, dyno'd, or advice on setup.





# BILSTEIN

SHOCK ABSORBERS



# PAC RACING JRI SHOCKS

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Type</b>
PAC-200-7-125TP-2CR	Dirt Late Model	Double Adj. LF	Threaded aluminum
PAC-200-7-240-2CR	Dirt Late Model	Double Adj. RF	Threaded aluminum
PAC-200-9-134-2CR	Dirt Late Model	Double Adj. LR	Threaded aluminum
PAC-200-9-241-2CR	Dirt Late Model	Double Adj. RR	Threaded aluminum
PAC-200-9-324-XX	Dirt Late Model	Base valve LR front	Threaded aluminum
PAC-200-7-180-CX	Dirt Late Model	5th coil	Threaded aluminum
PAC-200-7-128-3CR	Asphalt Late Model	Triple Adjustable LF	Threaded aluminum
PAC-200-7-130-3CR	Asphalt Late Model	Triple Adjustable RF	Threaded aluminum
PAC-200-9-129-3CR	Asphalt Late Model	Triple Adjustable LR	Threaded aluminum
PAC-200-9-131-3CR	Asphalt Late Model	Triple Adjustable RR	Threaded aluminum
PAC-200-7-149-XX	Northeastern Modified	Multiple valving options	Threaded aluminum monotube
PAC-200-9-150-XX	Northeastern Modified	Multiple valving options	Threaded aluminum monotube
PAC-200-7-237-XX	IMCA Modified	NSV Multiple valving options	Steel monotube w/schrader valve
PAC-200-9-238-XX	IMCA Modified	NSV Multiple valving options	Steel monotube w/schrader valve
PAC-200-7-260-XX	UMP, USMTS, Open Modifieds	LF Standard	Steel monotube basevalve w/schrader valve
PAC-200-7-263-XX	UMP, USMTS, Open Modifieds	LF Slick	Steel monotube basevalve w/schrader valve
PAC-200-7-262-XX	UMP, USMTS, Open Modifieds	RF Standard	Steel monotube basevalve w/schrader valve
PAC-200-7-261-XX	UMP, USMTS, Open Modifieds	RF Slick	Steel monotube basevalve w/schrader valve
PAC-200-9-266-XX	UMP, USMTS, Open Modifieds	LR Lift Arm	Steel monotube basevalve w/schrader valve
PAC-200-9-267-XX	UMP, USMTS, Open Modifieds	LR Pullbar	Steel monotube basevalve w/schrader valve
PAC-200-9-264-XX	UMP, USMTS, Open Modifieds	RR Lift Arm	Steel monotube basevalve w/schrader valve
PAC-200-9-265-XX	UMP, USMTS, Open Modifieds	RR Pullbar	Steel monotube basevalve w/schrader valve
PAC-200-7-278-XX	UMP, USMTS, Open Modifieds	5th Coil	Steel monotube basevalve w/schrader valve
PAC-200-7-244-XX	UMP, USMTS, Open Modifieds	LF Standard	Steel monotube non basevalve w/schrader valve
PAC-200-7-247-XX	UMP, USMTS, Open Modifieds	LF Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-248-XX	UMP, USMTS, Open Modifieds	LF Super Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-246-XX	UMP, USMTS, Open Modifieds	RF Standard	Steel monotube non basevalve w/schrader valve
PAC-200-7-243-XX	UMP, USMTS, Open Modifieds	RF Slick	Steel monotube non basevalve w/schrader valve
PAC-200-7-245-XX	UMP, USMTS, Open Modifieds	RF Heavy Tie Down	Steel monotube non basevalve w/schrader valve
PAC-200-7-242-XX	UMP, USMTS, Open Modifieds	RF Tight Corner	Steel monotube non basevalve w/schrader valve





# PAC RACING JRI SHOCKS

CONT.

<b>Part Number</b>	<b>Application</b>	<b>Description</b>	<b>Shock Body Type</b>
PAC-200-9-249-XX	UMP, USMTS, Open Modifieds	LR Standard	Steel monotube non basevalve w/schrader valve
PAC-200-9-250-XX	UMP, USMTS, Open Modifieds	LR Slick	Steel monotube non basevalve w/schrader valve
PAC-200-9-251-XX	UMP, USMTS, Open Modifieds	LR Lift Arm	Steel monotube non basevalve w/schrader valve
PAC-200-9-252-XX	UMP, USMTS, Open Modifieds	RR Standard	Steel monotube non basevalve w/schrader valve
PAC-200-9-253-XX	UMP, USMTS, Open Modifieds	RR Slick	Steel monotube non basevalve w/schrader valve
PAC-200-9-255-XX	UMP, USMTS, Open Modifieds	RR Heavy	Steel monotube non basevalve w/schrader valve
PAC-200-9-254-XX	UMP, USMTS, Open Modifieds	RR Lift Arm	Steel monotube non basevalve w/schrader valve
PAC-200-5-198-XR	Dirt Midget	LF standard	Threaded aluminum monotube
PAC-200-5-199-XR	Dirt Midget	RF standard	Threaded aluminum monotube
PAC-200-5-200-XR	Dirt Midget	LR standard	Threaded aluminum monotube
PAC-200-5-201-XR	Dirt Midget	RR standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	LF standard	Threaded aluminum monotube
PAC-200-5-203-XR	Asphalt Midget	RF standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	LR standard	Threaded aluminum monotube
PAC-200-5-202-XR	Asphalt Midget	RR standard	Threaded aluminum monotube
PAC-200-6-210-XR	LF Non Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-211-XR	RF Non Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-212-XR	LR Non Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-6-213-XR	RR Non Wing Sprintcar	RR standard	Threaded aluminum monotube
PAC-200-6-214-XR	LF 360 Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-215-XR	RF 360 Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-216-XR	LR 360 Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-8-217-XR	RR 360 Wing Sprintcar	RR standard	Threaded aluminum monotube
PAC-200-6-218-XR	LF 410 Wing Sprintcar	LF standard	Threaded aluminum monotube
PAC-200-6-219-XR	RF 410 Wing Sprintcar	RF standard	Threaded aluminum monotube
PAC-200-8-220-XR	LR 410 Wing Sprintcar	LR standard	Threaded aluminum monotube
PAC-200-8-221-XR	RR 410 Wing Sprintcar	RR standard	Threaded aluminum monotube



<b>Spring Inside Dia</b>	<b>Stroke</b>	<b>Extended Length</b>	<b>Collapsed Length</b>	<b>Adjustable</b>	<b>Compression Adjustment "clicks"</b>	<b>Rebound Adjustment "clicks"</b>
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
NA	9"	24"	15"	Non	0	0
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	5"	17.5"	12.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	6"	19.5"	13.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12
2.5	8"	22.5"	14.5"	Rebound	0	12

# PAC RACING BILSTEIN SHOCKS

Part Number	Application	Description	Shock Body Type	Spring Inside Dia
PAC-200-7-SZ-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SZ-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-5-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-6-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-7-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-8-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SL-XX	Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-7-SLS-XX	Stock Car, Modifieds, Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SLS-XX	Stock Car, Modifieds, Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-SE7-6696	4 Bar Modifieds	Kit includes 10 SLS shocks	Steel monotube	NA
PAC-200-7-COB-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-9-SLM-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube	NA
PAC-200-5-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-6-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-7-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-8-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-9-SN-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, aluminum cap & schrader valve	NA
PAC-200-5-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-6-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-7-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-8-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-9-SNS-XX	4 Bar Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Steel monotube, steel cap & schrader valve	NA
PAC-200-6-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-7-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA

# BILSTEIN

## SHOCK ABSORBERS

Stroke	Extended Length	Collapsed Length	Adjustable	Compression Adjustment "clicks"	Rebound Adjustment "clicks"	Valving Type
7"	20"	13.14"	Non	0	0	Digressive
9"	23.44"	14.94"	Non	0	0	Digressive
5"	16.25"	11.25"	Non	0	0	Linear
6"	18.25"	12"	Non	0	0	Linear
7"	20"	13.14"	Non	0	0	Linear
8"	22.25"	14"	Non	0	0	Linear
9"	23.44"	14.94"	Non	0	0	Linear
7"	13.14"	13.14"	Non	0	0	Linear
9"	14.94"	14.94"	Non	0	0	Linear
7" & 9"	see above	see above	Non	0	0	Linear
7"	20"	13.14"	Non	0	0	Digressive
9"	23.44"	14.94"	Non	0	0	Linear
5"	16.32"	11.48"	Non	0	0	Linear or Digressive options
6"	18.13"	12.42"	Non	0	0	Linear or Digressive options
7"	20.08"	13.50"	Non	0	0	Linear or Digressive options
8"	22.07"	14.47"	Non	0	0	Linear or Digressive options
9"	23.44"	15.16"	Non	0	0	Linear or Digressive options
5"	16.32"	11.48"	Non	0	0	Linear or Digressive options
6"	18.13"	12.42"	Non	0	0	Linear or Digressive options
7"	20.08"	13.50"	Non	0	0	Linear or Digressive options
8"	22.07"	14.47"	Non	0	0	Linear or Digressive options
9"	23.44"	15.16"	Non	0	0	Linear or Digressive options
6"	19.31"	13.35"	Non	0	0	Linear or Digressive options
7"	20.16"	15.24"	Non	0	0	Linear or Digressive options

# PAC RACING BILSTEIN SHOCKS<sup>CONT.</sup>

Part Number	Application	Description	Shock Body Type	Spring Inside Dia
PAC-200-7.5-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-9-XVS-XX	4 Bar Modifieds & Late Models	Multiple Valving Options	Steel monotube w/ schrader valve	NA
PAC-200-6-ASB-XX	Sprintcars, Midgets, & Mini-Sprints	Multiple Valving Options	Threaded aluminum monotube	1.875"
PAC-200-7-ASB-XX	Sprintcars, Midgets, & Mini-Sprints	Multiple Valving Options	Threaded aluminum monotube	1.875"
PAC-200-4-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-5-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-6-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-7-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-8-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-9-ASN-XX	Modifieds, Late Models, & Sprintcars	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-7-BGT-XX	Super Late Models, Sprintcars, Dirt Late Models, Big Block Modifieds	Multiple Valving Options	Threaded aluminum monotube	2.5"
PAC-200-9-BGT-XX	Super Late Models, Sprintcars, Dirt Late Models, Big Block Modifieds	Multiple Valving Options	Threaded aluminum monotube	2.5"



# BILSTEIN

## SHOCK ABSORBERS

Stroke	Extended Length	Collapsed Length	Adjustable	Compression Adjustment "clicks"	Rebound Adjustment "clicks"	Valving Type
7.5"	22.78"	15.24"	Non	0	0	Linear or Digressive options
9"	23.76"	15.24"	Non	0	0	Linear or Digressive options
6"	17.32"	11.44"	Non	0	0	Linear or Digressive options
7"	20.08"	12.81"	Non	0	0	Linear or Digressive options
4"	14.23"	10.45"	Non	0	0	Linear or Digressive options
5"	16.25"	11.25"	Non	0	0	Linear or Digressive options
6"	18.37"	12.66"	Non	0	0	Linear or Digressive options
7"	20.23"	13.35"	Non	0	0	Linear or Digressive options
8"	22.26"	14.70"	Non	0	0	Linear or Digressive options
9"	23.60"	15.08"	Non	0	0	Linear or Digressive options
7"	21.75"	14.75"	Non	0	0	NA
9"	25.25"	16.75"	Non	0	0	NA



# ABOUT VALVE SPRINGS

Over the last decade PAC Racing Springs drive has been developing the best design, process, and manufacturing technology for valve springs. We have continued to develop cutting edge valve train products that exceed demands of racing and continuously strive for improvements.

100% USA MADE.

## “R” Series Valve Springs

## THE LATEST ADVANCEMENT

Launching in 2015 as the premier valve spring, with an approach introducing the latest in material technology combined with state of the art performance, processing, and design.

- “R” Series springs use USA Made spring alloy with inclusion advancements
- Reduction of nearly 40% in inclusion size and quantity-over traditional alloys
- Advanced “blueprinting” of springs ensure a consistent load range in batch
- Available “tip conditioning”
- Tight tolerance range - batch sorting by qualified technicians
- Fully documented and serialized

### 1300 SERIES

THE BENCH MARK IN SPRINT CAR, LATE MODEL, AND MODIFIED RACING

- Utilizing in house heat treating
- Nano-peening
- Super-finish polish
- Optimized for load loss and aggressive valve trains
- High lift abusive applications

### 1500 SERIES

-EXTREME ENDURANCE-  
PROCESSING FOR ROAD RACING AND  
SPEEDWAY ENDURANCE

- Fully nitrided
- Optimized for endurance and life
- Nano peened finish
- Super-finish polish
- Ideal for refined dynamics and valve control

### 1200 SERIES

DESIGNED FOR SPORTSMAN RACERS

- In house heat treating
- Pacaloy- PAC enhanced processing
- Budget minded
- Good performance for medium and abusive environments



**PAC RACING INTRODUCES**

# **“R” SERIES SPRINGS**

From decades of research and development comes the next level of performance and batch consistency. We have developed a 100% made in USA exclusive spring alloy that improves the inclusion size and content by nearly 40%. These advancements are designed for the pro engine builder who is looking for the next level of performance.

## **PROFESSIONAL OPTIONS:**

### **STANDARD “R” SERIES** ← OPTION 1

- Advanced material USA made
- Load sorted to 4% of spec L1 & L2
- Solid Sort to +/- 0.020 of nominal
- Certified batch signed by PAC Racing quality technician

### **“R” SERIES BLUE-PRINT OPTION** ← OPTION 2

\$100 ADDITIONAL

- Advanced material USA made
- Load sorted to 3% of spec L1 & L2
- Solid sort to +/- 0.010 of nominal (between H1 & H2)
- Spec sheet ID (spreadsheet) with loads for each spring in box (L1, L2, Solid, Rate)
- Certified batch signed by PAC Racing quality technician

### **“R” SERIES TIP CONDITION** ← OPTION 3

\$200 ADDITIONAL

- Tip condition
- Fully radius tips and ends for improved wear and performance
- Done in process to maintain shot peening effectiveness and performance

# "R" SERIES EXTREME ENDURANCE VALVE SPRINGS

From decades of research and development comes the next level of performance and batch consistency. We have developed a 100% made in USA exclusive spring alloy that improves the inclusion size and content by nearly 40%. These advancements are designed for the pro engine builder who is looking for the next level of performance.

Part Number	Spring Diameters			Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Comments	
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)					Open Load (Valve Open)
PAC-1326R	1.550	1.100	Yes	0.706	275 @ 2.000	805 @ 1.200	662	1.150	0.800	Sprint Car- Late Model
PAC-1341R	1.575	1.125	Yes	0.720	270 @ 2.050	766 @ 1.250	620	1.170	0.800	Late Model-Off Road Endurance
PAC-1373R	1.430	1.002	No	0.688	250 @ 2.100	855 @ 1.200	670	1.160	0.850	Sprint Car- High RPM- High lift Low Mass
PAC-1387R	1.600	1.150	Yes	0.744	285 @ 1.95	780 @ 1.200	660	1.150	0.750	Late Model- Off Road Endurance
PAC-1374R	1.510	1.086	No	0.762	180 @ 1.980	685 @ 1.180	631	1.110	0.850	Endurance- Paved Circle Track
PAC-1375R	1.409	0.995	No	0.700	150 @ 2.000	645 @ 1.150	582	1.110	0.850	Endurance- Paved Circle Track
PAC-1389R	1.464	1.050	No	0.754	250 @ 2.000	627 @ 1.250	502	1.160	0.750	Endurance- Paved Circle Track
PAC-1390R	1.474	1.050	No	0.754	250 @ 2.050	670 @ 1.200	525	1.195	0.800	Endurance- Paved Circle Track
PAC-1391R	1.536	1.100	Yes	0.694	275 @ 2.000	800 @ 1.200	654	1.160	0.800	Endurance- Paved Circle Track

## 700 SERIES STEEL RETAINERS

### PREMIUM COMPONENTS FOR "R" SERIES VALVE SPRINGS

700 Series Steel Retainers are made from "Space Plane" alloy. Literally this alloy is used on the most sophisticated defense air craft- This alloy was previously un-available to the public, has extra ordinary strength and toughness.

PAC Racing Combines this extra premium alloy with vacuum hardening processing, cryogenics, and our nano peening to add strength and maximize weight savings.

"X" Series Spring Seats Are Made from an extremely tough "tool steel" material that is harder and more robust than traditional 4140 or 8620 chrome moly steel. With nearly 20% improvement in hardness and 40% in strength use these as the absolute extreme in spring seats to reduce wear and breakage.

700 Series Retainers	Fits Spring PN	OD Dim "A"	ID of Outer Spring Dim "B"	ID of Inner Spring Dim "C"	Inner Step Thickness	Lock Angle	Weight (Grams)	Pull Thru Load	Matching Seats	Matching Step Seats
PAC-R761	PAC-1326R					Mini 8			PAC-S105X PAC-S106X	PAC-S139X
PAC-R758	PAC-1341R					Mini 8			PAC-S110X PAC-S127X***	PAC-S122X
PAC-R759	PAC-1373R					Mini 8			PAC-S137X PAC-S140X	
PAC-R767	PAC-1387R					Mini 8			PAC-S117X PAC-S118X	PAC-S124X
PAC-R768	PAC-1374R				Please call for more information	Mini 8		Please call for more information	PAC-S117X PAC-S118X	PAC-S124X
PAC-R769	PAC-1375R					Mini 8			PAC-S114X PAC-S115X	
PAC-R770	PAC-1389R					Mini 8			PAC-S110X PAC-S127X***	PAC-S122X
PAC-R771	PAC-1390R					Mini 8			PAC-S110X PAC-S127X***	PAC-S122X
PAC-R772	PAC-1391R					Mini 8			PAC-S105X PAC-S106X	

# SPECIFICATIONS: SPRING LOADS AND HEIGHTS

Part Number	PAC-1326R	PAC-1341R	PAC-1373R	PAC-1387R	PAC-1374R	PAC-1375R	PAC-1389R	PAC-1390R	PAC-1391R
Mass (g)	158	170	136	167	140	125	135	141	154
Outer Freq	29368	26129	30043	29852	28580	29026	26876	28458	28047
Inner Freq	28434	27420	32323	28387	32458	30604	26721	26721	32325
Coil Bind	1.150	1.150	1.160	1.149	1.100	1.100	1.160	1.195	1.160
2.550									
2.500							3	15	
2.450	4	40	20				27	40	16
2.400	15	67	49	2			53	66	35
2.350	46	98	82	24			78	92	54
2.300	76	128	116	54			103	119	78
2.250	109	158	149	87	20	11	128	145	111
2.200	142	189	183	120	41	34	153	171	144
2.150	176	219	216	153	73	63	178	197	177
2.100	209	250	250	186	104	92	203	224	209
2.050	242	280	283	219	136	121	228	250	242
2.000	275	310	317	252	167	150	253	276	275
1.950	308	341	350	285	199	179	279	302	308
1.900	341	371	384	318	230	208	304	329	341
1.850	374	401	417	351	262	237	329	355	373
1.800	407	432	451	384	294	266	354	381	406
1.750	441	462	484	417	325	296	379	407	439
1.700	474	493	518	450	357	325	409	434	472
1.650	507	523	551	483	388	354	429	460	505
1.600	540	553	585	516	420	383	454	486	537
1.550	573	584	618	549	451	412	479	512	570
1.500	606	614	652	582	483	441	504	539	603
1.450	639	644	685	615	515	470	530	565	636
1.400	672	675	719	648	546	499	555	591	669
1.350	706	705	752	681	578	529	580	617	702
1.300	739	736	786	714	609	558	605	644	734
1.250	772	766	819	747	641	587	630	670	767
1.200	805	796	853	780	672	616	655	696	800
1.150	838		887	813	704	645			
1.100									
1.050									
1.000									
0.950									
0.900									

Standard seats measure 0.060 thick

\*\* Suffix mean this seat comes in a 0.030 thickness

# ENDURANCE VALVE SPRINGS

## 1300 SERIES

The 1300 Series springs were designed to have the highest endurance and latest advancements in spring processing. PAC Racing continually improves the process to ensure the customer has the latest and highest endurance springs available. The 1300 Series comes with ID Chamfers, Nano-Peening, and are 100% load sorted to ensure they exceed our customers demands.

Part Number	Spring Diameters				Spring Loads						Recommended Matching Components				Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	Spring Rate	Max Coil Bind	Max Lift	400 & 500 Series Retainers	300 & 600 Series Retainers	Spring Seats	Spring Cups		
PAC-1325	1.550	1.100	No	0.788	250 @ 2.000	765 @ 1.200	644	1.150	0.800	PAC-R505 PAC-R405 PAC-R556	NA	PAC-S103 PAC-S104	PAC-C204	High rate dual spring for aggressive valvetrains.	
PAC-1326	1.550	1.100	Yes	0.706	275 @ 2.000	805 @ 1.200	662	1.150	0.800	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	PAC-C204	High rate dual spring with a damper for aggressive valvetrains.	
PAC-1340	1.500	1.085	No	0.790	250 @ 2.030	614 @ 1.250	467	1.180	0.780	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without damper for roller cam application	
PAC-1341	1.575	1.125	Yes	0.720	270 @ 2.050	766 @ 1.250	620	1.170	0.800	PAC-R515 PAC-R557	PAC-R315 PAC-R615 PAC-R658	PAC-S110 PAC-S127	PAC-C204	Dual Spring with Damper for Sprint Cars and Late Model Endurance Applications	
PAC-1342	1.574	1.150	No	0.826	250 @ 2.050	655 @ 1.250	506	1.200	0.800	PAC-R537 PAC-R538	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	
PAC-1344	1.570	1.120	No	0.780	190 @ 1.950	710 @ 1.250	743	1.035	0.800	PAC-R551	NA	PAC-S103 PAC-S104	PAC-C204	High Frequency High Lift Dual Spring for Roller Cam Applications	
PAC-1371	1.374	1.000	No	0.716	150 @ 1.950	455 @ 1.250	436	1.190	0.700	PAC-R517 PAC-R552	PAC-R317 PAC-R348	PAC-S114 PAC-S115	NA	Small diameter flat tappet spring for high RPM engines. Low mass and high frequency.	
PAC-1373	1.430	1.002	No	0.688	250 @ 2.100	855 @ 1.200	670	1.160	0.850	NA	PAC-R659	PAC-S137X	NA	Small Diameter Endurance Spring MUST USE SPECIAL RETAINER	
PAC-1374	1.536	1.100	Yes	0.694	275 @ 2.000	800 @ 1.200	654	1.160	0.800	PAC-R506 PAC-R541	PAC-R606 PAC-R641 PAC-R661	PAC-S105 PAC-S106	NA	Dual Spring with Damper for Sprint Cars and Late Model Endurance Applications	
PAC-1385	1.564	1.150	Yes	0.744	250 @ 2.000	670 @ 1.200	525	1.140	0.800	PAC-R514 PAC-R519	PAC-R614 PAC-R619	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift applications.	
PAC-1386	1.564	1.150	No	0.826	245 @ 2.000	655 @ 1.200	513	1.150	0.800	PAC-R537 PAC-R538	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	
PAC-1395	1.574	1.150	Yes	0.744	265 @ 2.000	705 @ 1.200	550	1.150	0.800	PAC-R514 PAC-R519	PAC-R614 PAC-R619	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift roller applications.	
PAC-1396	1.574	1.150	No	0.826	260 @ 2.000	690 @ 1.200	538	1.150	0.800	PAC-R537	NA	PAC-S130 PAC-S131	PAC-C204	Dual spring without a damper for high lift roller applications.	





# ENDURANCE VALVE SPRINGS

## 1500 SERIES

The 1500 Series springs were designed from our historical use in Circle Track. These are nitrided springs for use in the highest endurance applications. Nitriding allows for a durable surface and improved compressive stress. Additional Nano-Peening and ID and OD chamfering are performed to improve spring life and retainer fitment.

Part Number	Spring Diameters				Spring Loads		Recommended Matching Components						Comments	
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	Spring Rate	Max Coil Bind	Max Lift	400 & 500 Series Retainers	300 & 600 Series Retainers	Spring Seats		Spring Cups
PAC-1509	1.539	1.125	Yes	0.731	200 @ 2.000	550 @ 1.300	500	1.130	0.750	PAC-R515	NA	PAC-S117 PAC-S118	PAC-C204	High endurance nitrided spring for high lift roller applications.
PAC-1512	1.102	0.806	No	0.580	110 @ 1.470	300 @ 0.920	346	0.850	0.575	PAC-R439 PAC-R539		NA	NA	FMOD Ford Dual Nitrided Spring For high RPM applications
PAC-1529	1.284	0.900	No	0.630	180 @ 1.900	600 @ 1.150	560	1.085	0.750	PAC-R432 PAC-R532	PAC-R632	PAC-S128	NA	Small diameter lightweight spring for lightweight valvetrains.
PAC-1530	1.284	0.900	No	0.616	160 @ 2.000	580 @ 1.250	560	1.180	0.750	PAC-R432 PAC-R532	PAC-R632	PAC-S128	NA	Small diameter lightweight spring for lightweight valvetrains.
PAC-1541	1.510	1.086	No	0.790	230 @ 2.050	625 @ 1.250	494	1.185	0.800	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.
PAC-1561	1.514	1.100	No	0.804	250 @ 2.000	636 @ 1.200	483	1.160	0.800	PAC-R505 PAC-R405	NA	PAC-S119 PAC-S120	PAC-C202	High endurance nitrided spring for high lift aggressive applications.
PAC-1572	1.510	1.086	No	0.774	180 @ 1.980	650 @ 1.180	588	1.110	0.800	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without a damper for high lift roller applications.
PAC-1574	1.510	1.086	No	0.762	180 @ 1.980	685 @ 1.180	631	1.110	0.850	PAC-R553	NA	PAC-S103 PAC-S104	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.
PAC-1575	1.409	0.995	No	0.700	150 @ 2.000	645 @ 1.150	582	1.110	0.850	PAC-R552	NA	PAC-S114 PAC-S115	NA	High endurance Nitrided Spring for high lift aggressive applications.
PAC-1589	1.464	1.050	No	0.754	250 @ 2.000	627 @ 1.250	502	1.160	0.750	PAC-R508 PAC-R509	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C201	High endurance Nitrided Spring for high lift aggressive applications.
PAC-1590	1.474	1.050	No	0.754	250 @ 2.050	670 @ 1.200	525	1.195	0.800	PAC-R508 PAC-R509	PAC-R608 PAC-R609	PAC-S110 PAC-S126	PAC-C202	High endurance Nitrided Spring for high lift aggressive applications.



# CLASS AND SPECIALTY SPRINGS

Part Number	Spring Diameters				Spring Loads		Recommended Matching Components							Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	Spring Rate	Max Coil Bind	Max Lift	400 & 500 Series Retainers	300 & 600 Series Retainers	Spring Seats	Spring Cups	
PAC-1210X	1.245	0.891	NA	NA	87 @ 1.700	212 @ 1.270	290	1.150	0.430	NA	NA	NA	NA	GM 602 Crate motor "Cheater" Spring.
PAC-1212X	1.355	0.910	NA	NA	125 @ 1.750	315 @ 1.250	380	1.180	0.550	NA	NA	NA	NA	GM 604 Crate motor "Cheater" Spring. This spring meets the nominal specs but has variable rate
PAC-1216	1.260	0.906	Yes	0.876	115 @ 1.800	350 @ 1.300	470	1.048	0.500	NA	NA	NA	NA	Race Saver Spec'd Spring
PAC-1280X	1.282	0.860	1.077	0.655	92 @ 1.80	285 @ 1.300	386	1.181	0.5	NA	NA	NA	NA	GM 604 Crate motor "Blue Beehive" Spring. This spring meets the nominal class specs but has variable rate features that allow more RPM capability.

**PAC-1210X**



**PAC-1280X**



**PAC-1212X**





# SPECIFICATIONS: SPRING LOADS AND HEIGHTS

Part Number	PAC-1210X	PAC-1212X	PAC-1216	PAC-1280X
Mass (g)	65	99	Call	69
Freq (cpm)*	31853	30844	Call	34702
Coil Bind	1.150	1.170	1.048	1.181
2.500				
2.450				
2.400				
2.350				
2.300				
2.250				
2.200				
2.150				
2.100				
2.050		11		
2.000		30	21	15
1.950	14	49	45	34
1.900	29	68	68	53
1.850	43	87	92	73
1.800	58	106	115	92
1.750	72	125	139	111
1.700	87	144	162	131
1.650	102	163	186	150
1.600	116	182	209	169
1.550	131	201	233	189
1.500	145	220	256	208
1.450	160	239	280	227
1.400	174	258	303	246
1.350	189	277	327	266
1.300	203	296	350	285
1.250	218	315	374	304
1.200	232	334	397	324
1.150	247		421	
1.100			444	
1.050			468	
1.000				
0.950				
0.900				

# ENDURANCE VALVE SPRINGS

## 1200 SERIES

The 1200 Series Springs were developed for the sportsman racer looking for a quality but budget minded product. 1200 Series springs come with PAC Racing Proprietary heat treat process that will allow for outstanding load loss and durability.

Part Number	Spring Diameters				Spring Loads		Recommended Matching Components							Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	Spring Rate	Max Coil Bind	Max Lift	400 & 500 Series Retainers	300 & 600 Series Retainers	Spring Seats	Spring Cups	
PAC-1200	1.244	0.860	Yes	0.770	125 @ 1.750	350 @ 1.250	450	1.100	0.550	NA	PAC-R349 PAC-R649	NA	NA	Small diameter to fit stock pocket without machining. Single Spring with a Damper.
PAC-1201	1.260	0.860	Yes	0.770	140 @ 1.750	437 @ 1.200	540	1.115	0.550	NA	PAC-R349 PAC-R649	NA	NA	Small diameter to fit stock SBC pocket without machining. Single Spring with a Damper. High rate for aggressive cam.
PAC-1201X	1.260	0.860	Yes	0.770	150 @ 1.750	460 @ 1.200	540	1.115	0.550	NA	PAC-R349 PAC-R649	NA	NA	Additional RPM Processing to allow for Extreme Use and Endurance over Traditional PAC-1201 spring.
PAC-1202	1.244	0.860	No	0.624	160 @ 1.750	484 @ 1.150	540	1.100	0.575	NA	PAC-R334	PAC-S128	NA	Dual Spring for aggressive cams.
PAC-1203	1.260	0.860	No	0.624	145 @ 1.800	511 @ 1.200	610	1.115	0.650	NA	PAC-R334	PAC-S128	NA	Dual Spring for aggressive cams.
PAC-1227	1.539	1.125	Yes	0.731	200 @ 1.950	550 @ 1.250	500	1.130	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift flat tappet applications. General purpose spring that works well with many endurance applications.
PAC-1239	1.550	1.126	Yes	0.720	220 @ 2.050	625 @ 1.300	540	1.180	0.800	PAC-R515	PAC-R315 PAC-R615	PAC-S110 PAC-S126	PAC-C204	Dual spring with a damper for roller cam applications.
PAC-1240	1.500	1.085	No	0.790	250 @ 2.030	614 @ 1.250	467	1.180	0.780	PAC-R540	NA	PAC-S103 PAC-S104	PAC-C202	Dual spring without damper for roller cam applications.
PAC-1243	1.550	1.136	No	0.812	240 @ 1.900	625 @ 1.200	550	1.150	0.700	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring for roller applications.
PAC-1244	1.570	1.120	No	0.780	190 @ 1.950	710 @ 1.250	743	1.035	0.800	PAC-R551	NA	PAC-S103 PAC-S104	PAC-C204	High Frequency High Lift Dual Spring for Roller Cam applications.
PAC-1245	1.550	1.136	No	0.812	240 @ 2.000	608 @ 1.300	526	1.200	0.750	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring for roller cam applications.
PAC-1254	1.554	1.140	Yes	0.746	194 @ 1.950	499 @ 1.300	470	1.170	0.650	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for various applications including marine.
PAC-1289	1.550	1.136	No	0.812	230 @ 2.000	580 @ 1.300	500	1.210	0.750	PAC-R536	NA	PAC-S119 PAC-S120	PAC-C204	Dual spring without damper for roller cam applications.
PAC-1294	1.545	1.131	Yes	0.757	175 @ 1.900	442 @ 1.275	428	1.180	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for flat tappet applications.
PAC-1297	1.539	1.125	Yes	0.731	200 @ 2.000	550 @ 1.300	500	1.130	0.700	PAC-R515	PAC-R315 PAC-R615	PAC-S117 PAC-S118	PAC-C204	Dual spring with a damper for high lift flat tappet applications. General purpose spring that works well with many endurance applications.
PAC-1298	1.625	1.175	Yes	0.769	250 @ 2.000	648 @ 1.300	564	1.210	0.700	PAC-R507	NA	PAC-S107 PAC-S108	PAC-C205	Dual spring with a damper for high lift roller applications.
PAC-1299	1.625	1.175	Yes	0.769	250 @ 2.050	673 @ 1.300	564	1.210	0.750	PAC-R507	NA	PAC-S107 PAC-S108	PAC-C205	Dual spring with a damper for high lift roller applications.



# SPRING RETAINERS

PAC OFFERS A FULL LINE OF MATCHING RETAINERS, SEATS, AND CUPS FOR PAC VALVE SPRINGS. THEY ARE SPECIFICALLY MATCHED WITH RADII AND DIAMETERS TO OPTIMIZE THE PERFORMANCE OF THE VALVE-TRAIN.

## 300 SERIES

CHROME MOLY STEEL

300 Series retainers are made from 4140 chrome moly steel, primarily designed for smaller beehive springs. These retainers are heat treated, black oxide finished and processed to maintain high strength with lightweight designs.

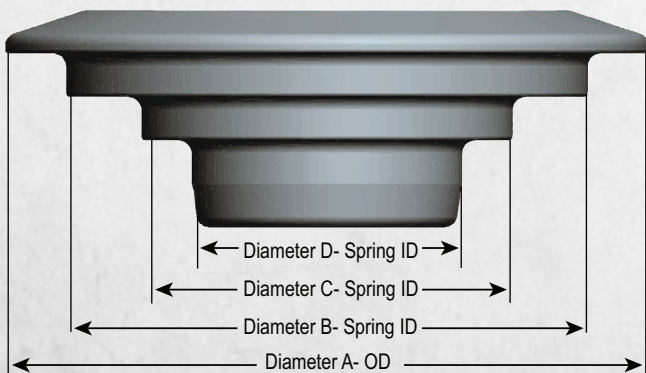
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *Other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>DUAL SPRING 300 SERIES</b>							
PAC-R315	1.475	1.110	0.710	N/A	STD 10°	26.3	Steel retainer for Marine applications
PAC-R317	1.325	0.990	0.700	N/A	STD 10°	17.0	Steel retainer for 1371
PAC-R334	1.200	0.850	0.600	N/A	7°	17.0	Steel retainer for 1202,1203
PAC-R348	1.360	0.985	0.690	N/A	mini 8°	15.1	Steel retainer for 1371 Spring
PAC-R349	1.200	0.775	N/A	N/A	STD 8°	18.8	Steel retainer for 1200-1201

## 400 SERIES

PAC-TUFF 64 TITANIUM

PAC-Tuff™ Retainers are made from the best 6AL-4V Titanium alloy and completely sonic tested to aerospace standards prior to being machined. These retainers are designed for standard to high durability use and are designed to be very robust.

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *Other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>DUAL SPRING 400 SERIES</b>							
PAC-R405	1.450	1.090	0.780	N/A	STD 10°	16.6	+0.050 Sportsman Drag Race/Circle Track
PAC-R432	1.200	0.890	0.600	N/A	Mini 8°	10.4	Titanium LS retainer for 1530,1335
PAC-R439	1.075	0.800	0.575	N/A	7°	7.8	Titanium Ford (FMOD) for 1512 spring



# 500 SERIES

## TI-17 TITANIUM

Titanium spring retainers made from Ti-17 alloy. This alloy has shown greater tensile properties over other titanium products with its high strength and deep hardening alloys. These retainers are micro polished for enhanced fatigue life and are laser engraved for part number and batch identification.

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *Other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>DUAL SPRING 500 SERIES</b>							
PAC-R505	1.400	1.090	0.780	N/A	STD 10°	15.0	Ti retainer for 1225,1325,1243,1561 Dual Springs
PAC-R506	1.400	1.090	0.695	N/A	STD 10°	14.4	Ti retainer for 1226,1326 Dual Springs
PAC-R507	1.475	1.165	0.760	N/A	STD 10°	16.5	Ti retainer for 1298, 1299 Dual springs
PAC-R508	1.365	1.040	0.715	N/A	STD 10°	12.9	Ti retainer for all 1.050 ID Dual Springs
PAC-R509	1.365	1.040	0.715	N/A	STD 8°	12.9	Ti retainer for all 1.050 ID Dual Springs
PAC-R514	1.475	1.140	0.735	N/A	STD 10°	14.8	Ti retainer for 1385,1395 Dual springs
PAC-R515	1.475	1.110	0.710	N/A	STD 10°	14.4	Ti retainer for 1227,1239,1254,1297,1509, Dual Springs
PAC-R517	1.325	0.990	0.700	N/A	STD 10°	11.8	Ti retainer for 1371 Dual Spring
PAC-R519	1.475	1.140	0.735	N/A	STD 8°	14.7	Ti retainer for 1385,1395 Dual springs
PAC-R532	1.200	0.890	0.600	N/A	Mini 8°	10.2	Ti retainer for 1530,1335 Dual springs
PAC-R536	1.450	1.125	0.800	N/A	STD 10°	15.9	Ti retainer for 1245,1289 Dual springs
PAC-R537	1.475	1.140	0.815	N/A	STD 8°	15.8	Ti retainer for 1342,1386,1396 Dual springs
PAC-R538	1.475	1.140	0.815	N/A	STD 10°	17.3	Ti retainer for 1342,1386,1396 Dual springs
PAC-R539							Ford FMOD retainer for PAC-1512 Spring
PAC-R540	1.400	1.080	0.770	N/A	STD 8°	14.1	Ti retainer for 1240,1340,1540 Dual spring
PAC-R541	1.400	1.090	0.695	N/A	STD 8°	13.2	Ti retainer for 1226, 1326,Dual Springs
PAC-R551	1.450	1.110	0.785	N/A	STD 8°	16.8	Titanium Retainer for 1244 Dual spring
PAC-R552	1.360	0.985	0.680	N/A	Mini 8°	13.1	Titanium Retainer for 1371,1575 Dual spring
PAC-R553	1.440	1.070	0.750	N/A	STD 8°	15.8	Titanium Retainer for 1574 Dual spring
PAC-R556	1.440	1.090	0.780	N/A	STD 8°	16.3	Ti retainer for 1225,1325,1243,1561 Dual Springs
PAC-R557	1.450	1.120	0.715	N/A	STD 8°	15.4	Ti retainer for 1341

# 600 SERIES

## TOOL STEEL

PACALOY® BILLET TOOL STEEL RETAINERS – These are the latest developments from PAC Racing Springs. These retainers feature ultra lightweight designs from valve spring type alloys. Sophisticated processing such as micropolishing and Nano Peen™ technology are used to enhance the retainer life. The high hardness of the steel has higher wear resistance properties.

Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *Other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>DUAL SPRING 600 SERIES</b>							
PAC-R606	1.400	1.090	0.695	N/A	STD 10°	16.6	Tool Steel retainer for 1226,1326 Dual Springs
PAC-R608	1.350	1.040	0.715	N/A	STD 10°	15.7	Tool Steel retainer for all 1.050 ID Dual Springs
PAC-R609	1.350	1.040	0.715	N/A	STD 8°	15.9	Tool Steel retainer for all 1.050 ID Dual Springs
PAC-R614	1.450	1.140	0.735	N/A	STD 10°	18.8	Tool Steel retainer for 1385,1395 Dual springs
PAC-R615	1.475	1.110	0.710	N/A	STD 10°	21.8	Tool Steel retainer for 1227,1239,1254,1297,1509, Duals
PAC-R619	1.450	1.140	0.735	N/A	STD 8°	17.8	Tool Steel retainer for 1385,1395 Dual springs
PAC-R632	1.250	0.890	0.600	N/A	mini 8°	Call	Tool Steel retainer for 1530,1335 Dual springs
PAC-R641	1.400	1.090	0.695	N/A	STD 8°	17.5	Tool Steel retainer for 1226, 1326,Dual Springs
PAC-R649	1.200	0.775	N/A	N/A	STD 8°	14.8	Tool Steel retainer 1200-1201 spring
PAC-R658	1.450	1.120	0.715	N/A	mini 8°	Call	Tool Steel Pro Series Race for 1341 spring (DLC Option)
PAC-R659	1.380	0.990	0.675	N/A	mini 8°	21.0	Tool Steel Pro Series Race for 1373 spring (DLC Option)
PAC-R661	1.430	1.095	0.695	N/A	mini 8°	22.0	Tool Steel Pro Series for 1326 spring (DLC Option)

# VALVE LOCKS

## LASH CAP RECESS LOCKS

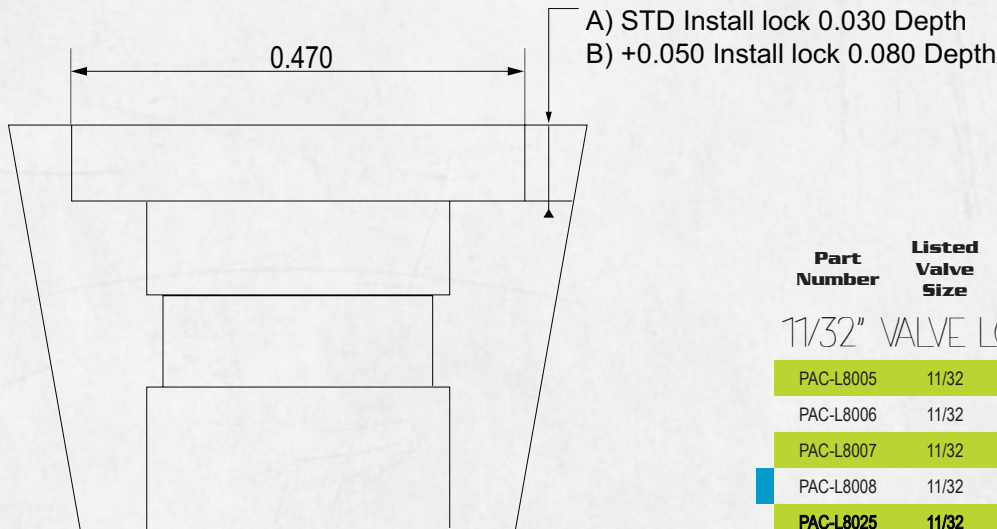
We have added several lock part numbers that feature a machined recess for lash caps. The available locks with these feature are highlighted blue.

TO ORDER USE:

**PAC-LR xxxx** instead of the standard Part Number **PAC-Lxxxx**

Reference:

- LR = Lash Recess
- L= STD Lock no Recess
- STD installed height has recess of 0.030
- +0.050 installed height has recess of 0.080 depth



Part Number	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
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### 1 1/32" VALVE LOCKS

PAC-L8005	11/32	STD 10	10°	Square	0.000	Titanium
PAC-L8006	11/32	STD 10	10°	Radius	0.000	Titanium
PAC-L8007	11/32	STD 10	10°	Square	+0.050	Titanium
PAC-L8008	11/32	STD 10	10°	Radius	+0.050	Titanium
<b>PAC-L8025</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>0.000</b>	<b>Steel</b>
PAC-L8026	11/32	STD 10	10°	Radius	0.000	Steel
<b>PAC-L8027</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>+0.050</b>	<b>Steel</b>
<b>PAC-L8028</b>	<b>11/32</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>+0.050</b>	<b>Steel</b>
PAC-L8015	11/32	STD 8	8°	Square	0.000	Titanium
PAC-L8016	11/32	STD 8	8°	Radius	0.000	Titanium
PAC-L8017	11/32	STD 8	8°	Square	+0.050	Titanium
PAC-L8018	11/32	STD 8	8°	Radius	+0.050	Titanium
PAC-L8119	11/32	Mini 8	8°	Radius	STD	Titanium
PAC-L8121	11/32	Mini 8	8°	Square	STD	Titanium
PAC-L8035	11/32	STD 8	8°	Square	0.000	Steel
PAC-L8036	11/32	STD 8	8°	Radius	0.000	Steel
PAC-L8037	11/32	STD 8	8°	Square	+0.050	Steel
PAC-L8038	11/32	STD 8	8°	Radius	+0.050	Steel
PAC-L8131	11/32	Mini 8	8°	Radius	STD	Steel
PAC-L8132	11/32	Mini 8	8°	Radius	+0.050	Steel
PAC-L8133	11/32	Mini 8	8°	Square	STD	Steel
PAC-L8134	11/32	Mini 8	8°	Square	+0.050	Steel
PAC-L8146	11/32	STD 7°	7°	Square	STD	Steel
PAC-L8147	11/32	STD 7°	7°	Square	+0.050	Steel
PAC-L8154	11/32	STD 7°	7°	Radius	STD	Steel
PAC-L8155	11/32	STD 7°	7°	Radius	+0.050	Steel

Part Number	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
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### 3/8" VALVE LOCKS

PAC-L8090	3/8	STD 10	10°	Square	STD	Titanium
PAC-L8091	3/8	STD 10	10°	Square	+0.050	Titanium
PAC-L8092	3/8	STD 10	10°	Square	STD	Steel
PAC-L8093	3/8	STD 10	10°	Square	+0.050	Steel
PAC-L8094	3/8	STD 8	8°	Square	STD	Titanium
PAC-L8095	3/8	STD 8	8°	Square	+0.050	Titanium
PAC-L8096	3/8	STD 8	8°	Square	STD	Steel
PAC-L8097	3/8	STD 8	8°	Square	+0.050	Steel
PAC-L8127	3/8	Mini 8	8°	Square	STD	Steel
PAC-L8128	3/8	Mini 8	8°	Square	+0.050	Steel

**AVAILABLE IN LASH CAP RECESS USE P/N PAC-LRxxxx**

Part Number	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
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## 5/16" VALVE LOCKS

PAC-L8045	5/16	STD 10	10°	Square	0.000	Titanium
PAC-L8046	5/16	STD 10	10°	Radius	0.000	Titanium
PAC-L8047	5/16	STD 10	10°	Square	+0.050	Titanium
PAC-L8048	5/16	STD 10	10°	Radius	+0.050	Titanium
<b>PAC-L8064</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>0.000</b>	<b>Steel</b>
<b>PAC-L8065</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>0.000</b>	<b>Steel</b>
<b>PAC-L8066</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Square</b>	<b>+0.050</b>	<b>Steel</b>
<b>PAC-L8067</b>	<b>5/16</b>	<b>STD 10</b>	<b>10°</b>	<b>Radius</b>	<b>+0.050</b>	<b>Steel</b>
PAC-L8055	5/16	STD 8	8°	Square	0.000	Titanium
PAC-L8056	5/16	STD 8	8°	Radius	0.000	Titanium
PAC-L8057	5/16	STD 8	8°	Square	+0.050	Titanium
PAC-L8058	5/16	STD 8	8°	Radius	+0.050	Titanium
PAC-L8123	5/16	Mini 8	8°	Radius	STD	Titanium
PAC-L8125	5/16	Mini 8	8°	Square	STD	Titanium
PAC-L8073	5/16	STD 8	8°	Square	0.000	Steel
PAC-L8074	5/16	STD 8	8°	Radius	0.000	Steel
PAC-L8075	5/16	STD 8	8°	Square	+0.050	Steel
PAC-L8076	5/16	STD 8	8°	Radius	+0.050	Steel
PAC-L8135	5/16	Mini 8	8°	Radius	STD	Steel
PAC-L8136	5/16	Mini 8	8°	Radius	+0.050	Steel
PAC-L8137	5/16	Mini 8	8°	Square	STD	Steel
PAC-L8138	5/16	Mini 8	8°	Square	+0.050	Steel
PAC-L8148	5/16	STD 7°	7°	Square	STD	Steel
PAC-L8149	5/16	STD 7°	7°	Square	+0.050	Steel
PAC-L8150	5/16	STD 7°	7°	Radius	STD	Steel
PAC-L8151	5/16	STD 7°	7°	Radius	+0.050	Steel

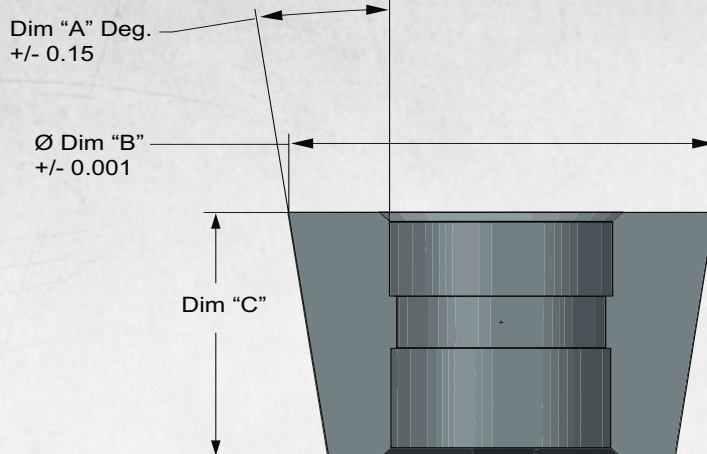
## 7MM VALVE LOCKS

PAC-L8078	7 mm	STD 10	10°	Radius	STD	Titanium
PAC-L8079	7mm	STD 10	10°	Radius	+0.050	Titanium
PAC-L8080	7mm	STD 10	10°	Radius	STD	Steel
PAC-L8081	7mm	STD 10	10°	Radius	+0.050	Steel
PAC-L8082	7mm	STD 8	8°	Radius	STD	Titanium
PAC-L8083	7mm	STD 8	8°	Radius	+0.050	Titanium
PAC-L8084	7mm	STD 8	8°	Radius	STD	Steel
PAC-L8085	7mm	STD 8	8°	Radius	+0.050	Steel
PAC-L8129	7mm	Mini 8	8°	Radius	STD	Titanium
PAC-L8130	7mm	Mini 8	8°	Radius	+0.050	Titanium
PAC-L8086	7mm	FMOD 7	7°	Triple Radius	STD	Steel OE

AVAILABLE IN LASH CAP RECESS USE P/N PAC-LRxxxx

## LS ENGINE VALVE LOCKS

Part Number	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
PAC-L8117	8mm	Mini 8	8°	Radius	STD	Titanium
PAC-L8118	8mm	Mini 8	8°	Radius	+0.050	Titanium
PAC-L8141	8mm	Mini 8	8°	Radius	STD	Steel
PAC-L8142	8mm	Mini 8	8°	Radius	+0.050	Steel
PAC-L8113	8mm	LS-1	7°	Radius	STD	Steel
PAC-L8114	8mm	LS-1	7°	Radius	+0.050	Steel
PAC-L8116	8mm	LS-1	7°	Radius	-0.050	Steel
PAC-L8152	8mm	STD 7	7°	Radius	STD	Steel
PAC-L8153	8mm	STD 7	7°	Radius	+0.050	Steel



## VALVE LOCK STANDARDS

Lock Type	Dim. A (Angle)	Dim. B (Cone Top)	Dim. C (Lock Height)
STD 10	10.00°	0.6100	0.400
STD 8	8.00°	0.6000	0.400
Mini 8	8.00°	0.5200	0.380
LS-1	7.00°	0.4700	0.300
STD 7°	7.00°	0.4950	0.360

## PAC-T950 LOCK AND RETAINER CONE IDENTIFICATION TOOL KIT

PAC Racing Springs has developed this tool for Racers and Engine builders to correctly identify lock angles and correct cones for the various locks and retainers. This tool has a combined lock standards guide and assorted lock standards to alleviate choosing the wrong locks with matching retainers.

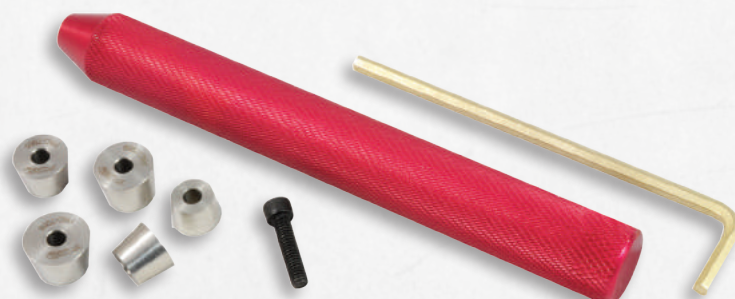
This tool simply works by choosing the lock standard cone (laser marked and identified) and placing it on the easy to grip handle and inserting into current or new retainers. Use this tool if you don't know what angle you need and alleviate lost part number headaches. This information will help identify the correct parts and allow PAC Racing Associates to get you the correct parts

The PAC-T950 Kit comes with the following parts:

- PAC-T951 Aluminum Knurled Anodized Handle
- PAC-T953 STD 7 Degree Street Lock Cone (LT-1)
- PAC-T954 STD 8 Degree Cone (Also known as Super 7)
- PAC-T955 Mini 8 Degree Cone (Top Lock Design)
- PAC-T956 STD 10 Degree Cone
- PAC-T958 LS Based 7 degree Cone
- PAC-T959 Top Fuel 7 degree Cone

Bolts to use with the handle

Allen Wrench to secure lock standards to handle

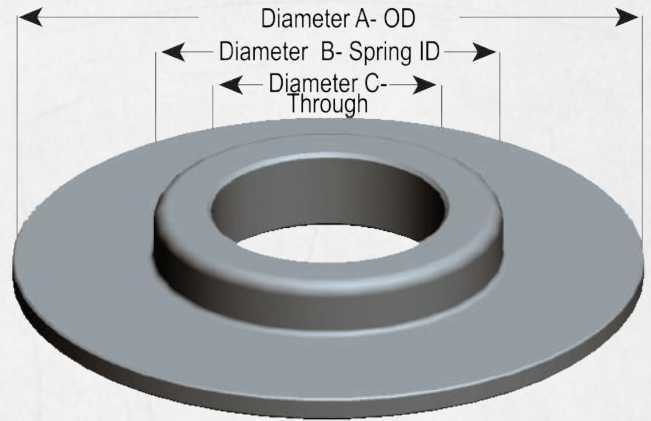


# SPRING SEATS

## CHROME MOLY SPRING SEATS

Part Number	Diameter A (in.)	Diameter B (in.)	Diameter C (in.)	Dim "E" Thickness
PAC-S103	1.550	0.770	0.575	0.060
PAC-S104	1.550	0.770	0.635	0.060
PAC-S105	1.550	0.700	0.575	0.060
PAC-S106	1.550	0.700	0.635	0.060
PAC-S107	1.625	0.760	0.635	0.060
PAC-S108	1.625	0.760	0.575	0.060
PAC-S110	1.500	0.715	0.570	0.060
PAC-S114	1.450	0.700	0.570	0.060
PAC-S115	1.450	0.700	0.630	0.060
PAC-S117	1.550	0.730	0.575	0.060
PAC-S118	1.550	0.730	0.630	0.060
PAC-S119	1.550	0.800	0.575	0.060
PAC-S120	1.550	0.800	0.630	0.060
PAC-S126	1.500	0.715	0.630	0.060
PAC-S127	1.500	0.715	0.630	0.030
PAC-S128	1.270	0.600	0.520	0.060
PAC-S130	1.550	0.820	0.575	0.060
PAC-S131	1.550	0.820	0.630	0.060
PAC-S137X	1.400	0.685	0.570	0.030

\*0.030 thick seats. These are a great way to get more installed height.  
 Tool steel seats also available, to order add a "-X" to the chrome moly seat part number.

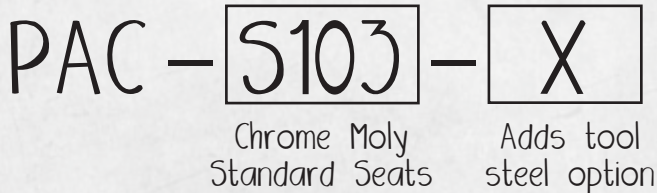


**Chrome Moly Spring Seat**



# X SERIES TOOL STEEL

## How to order:



From decades of research and development comes the next level of performance and batch consistency. We have developed a 100% made in USA exclusive spring alloy that improves the inclusion size and content by nearly 40%. These advancements are designed for the pro engine builder who is looking for the next level of performance.



# VALVETRAIN TOOLS

## DIGITAL GRAM SCALE

This small, inexpensive scale is extremely useful for weighing springs, retainers, locks or any of your valvetrain components. This scale is used regularly by PAC engineers.

- 1000 gram capacity
- Easy one-button calibration
- Stainless steel platform
- Backlit LCD display
- Powered by 2 AAA batteries (included)
- Auto-off timeout feature to save battery life



**PAC-T940**

## CHECKING SPRINGS

### PAC-T910

These lightweight springs are used for valvetrain mock-up 0.860 OD x 3.0 long.



These springs are easily compressed by hand for ease of valvetrain setup and checking.

## CALIBRATION SPRINGS



### PAC-T900

Specially designed springs for calibrating spring testers.

These springs come complete with data sheets showing various loads at heights to check the accuracy of spring testers.

## SPRING INSTALLED HEIGHT GAGES

- Stainless steel construction for extremely long life
- Non-magnetic to avoid pulling shims when using
- Increased accuracy and precision with finer pitch threads
- Several models to choose from



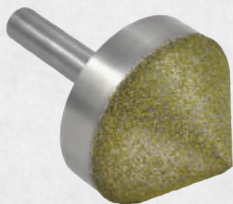
**PAC-T902**

**PAC-T901**

**PAC-T903**

**PAC-T904**

Part Number	Height Range	ID	Per Turn	Use	Color
PAC-T901	1.400 to 2.000	0.760	0.050	Beehive springs	Blue
PAC-T902	1.800 to 2.500	1.200	0.050	Pro Series & Drag Race	Red
PAC-T903	1.400 to 1.900	1.200	0.050	Engine Builders	Orange
PAC-T904	1.400 to 2.000	0.975	0.050	LS Dual Springs	Purple



## SPRING CHAMFER TOOL

### PAC-T920

Shank Diameter 3/8"

Outside Diameter 1.750"

Chamfer 100-200 springs before needing to be coated again.

## TAPE MEASURE

### PAC-T941



# PAC APPAREL

Show off your favorite springmakers with our exclusive PAC Racing wearables! We have T-shirts, long sleeved T-shirts, sweatshirts, hoodies and hats available in many sizes. Contact us for large apparel orders or custom screenprinting & embroidery questions. High quality, heavyweight cotton blends.



PAC Beanie  
One-size



PAC Flat Bill Hats  
Sizes S-3X

PAC Structured Hats  
Sizes S-3X



PAC T-Shirts & Long Sleeved Tees  
Sizes S-3X



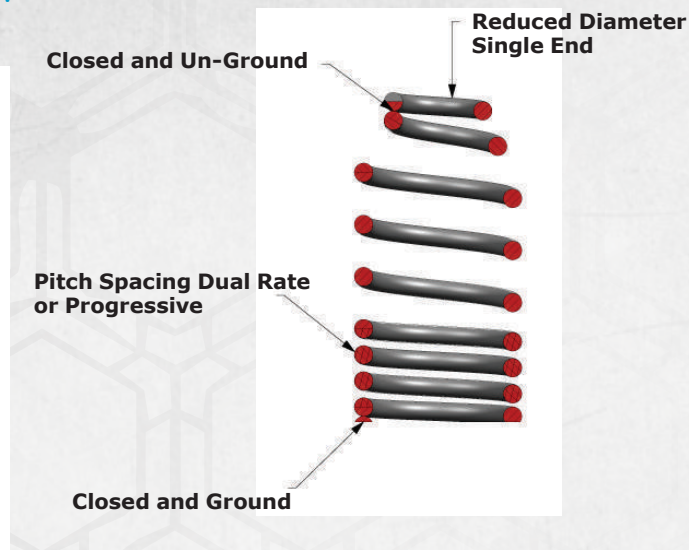
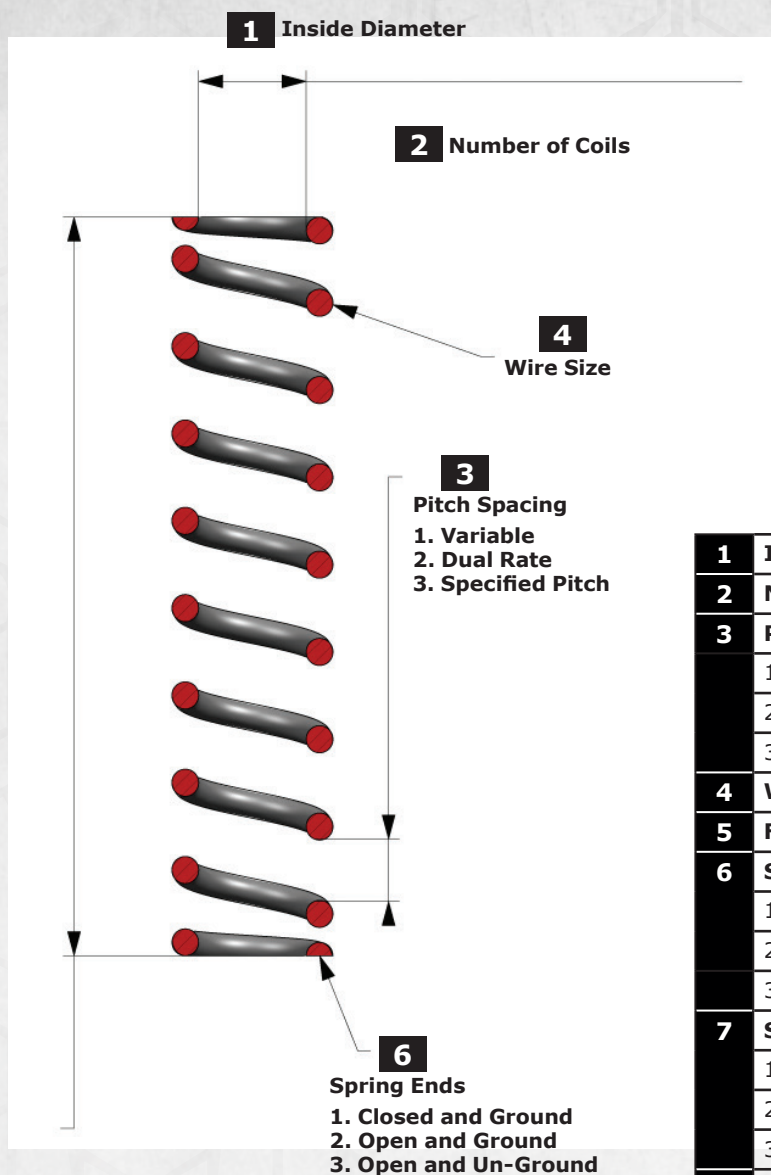
PAC Women's T-Shirts  
Sizes S-3X



Special Edition  
Limited Supply

# SUSPENSION SPRINGS

## CUSTOM SPRING DESIGN REQUEST FORM



<b>1</b>	<b>Inside Diameter</b>	
<b>2</b>	<b>Number of Coils</b>	
<b>3</b>	<b>Pitch Spacing</b> (Circle Applicable)	
	1. Progressive	
	2. Multiple Rate	
	3. Specified Rate	
<b>4</b>	<b>Wire Size</b>	
<b>5</b>	<b>Free Length</b>	
<b>6</b>	<b>Spring Ends</b> (Circle Applicable)	
	1. Closed and Ground	
	2. Open and Ground	
	3. Open and Un-Ground	
<b>7</b>	<b>Spring Type</b> (Circle Applicable)	
	1. Straight Cylindrical	
	2. Single End Reduced Dia.	
	3. Double End Reduced Dia.	
<b>8</b>	<b>Material Type</b> (Circle Applicable)	
	1. Standard Spring Steel	
	2. Super High Tensile Alloy	
	3. High Temperature	
	4. Titanium	
	5. Shaped Wire	
<b>9</b>	Bind Height	
<b>10</b>	Application	
<b>11</b>	Spring Rate	
<b>12</b>	Target Pricing	

Free Length

CONTACT NAME \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

ZIP CODE \_\_\_\_\_ COUNTRY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

FAX NUMBER \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

WEBSITE \_\_\_\_\_

Additional Notes or Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# VALVE SPRING CUSTOM DESIGN REQUEST FORM

# VALVE SPRINGS



NAME \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

COUNTRY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

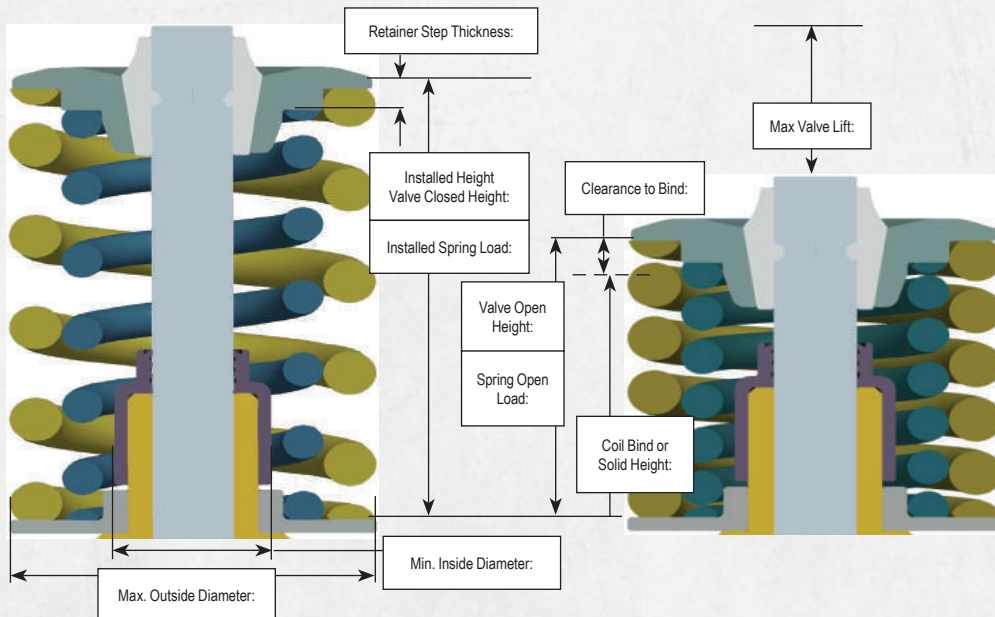
FAX NUMBER \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

WEBSITE \_\_\_\_\_

This is PAC's starting point to provide you the absolute best valve spring tailored completely to your engine application. Please fill this out as completely as possible. This information will be used by our engineering staff to design a spring that will provide a spring that will control the valve to the requested RPM while reducing operating stresses as much as possible. Please feel free to contact our staff for any assistance with this. All information provided will be held in the strictest confidence and will be completely proprietary to your company.

## BASIC SPRING LAYOUT



This diagram is very general but the basic load, height and operating envelopes can be defined for most engine configurations

Other Requirements	
Chamfering	
Identification	
Tip Conditioning	
Load Tolerance	
Solid Height Tolerance	

What is the application: (Street, Drag, Oval, etc.)? \_\_\_\_\_

What is the expected RPM Range? \_\_\_\_\_

What is the expected life of the spring: (Race, Season, Cycles, etc.)? \_\_\_\_\_

What type of springs is desired: (Single, Dual, Triple, Beehive, etc.)? \_\_\_\_\_

Does this spring need to fit an existing retainer or seat? \_\_\_\_\_

What is the current spring used for this application? \_\_\_\_\_

What are the problems / issues with the current springs used? \_\_\_\_\_

Any other comments: \_\_\_\_\_

### Valvetrain Information: (if not proprietary)

Engine / type \_\_\_\_\_ Rocker arm ratio \_\_\_\_\_

Cam lift / profile \* \_\_\_\_\_ Rocker arm mass / stiffness \_\_\_\_\_

Tappet mass \_\_\_\_\_ Retainer mass \_\_\_\_\_

Pushrod mass \_\_\_\_\_ Valve stem lock mass \_\_\_\_\_

\*We can accept many forms of lift / profile data – contact PAC Racing Springs for more detailed information.

## SWAY BAR CUSTOM DESIGN ORDER FORM

# SWAY BARS



We can create any sway bar specific for your application. Spline patterns, custom lengths, and larger/smaller diameters are all easily changed to your exact specifications.

NAME \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

COUNTRY \_\_\_\_\_

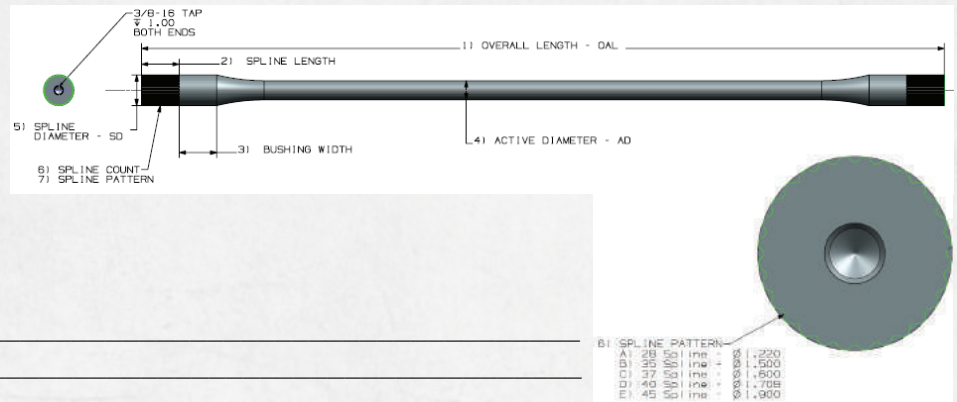
PHONE NUMBER \_\_\_\_\_

FAX NUMBER \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

WEBSITE \_\_\_\_\_

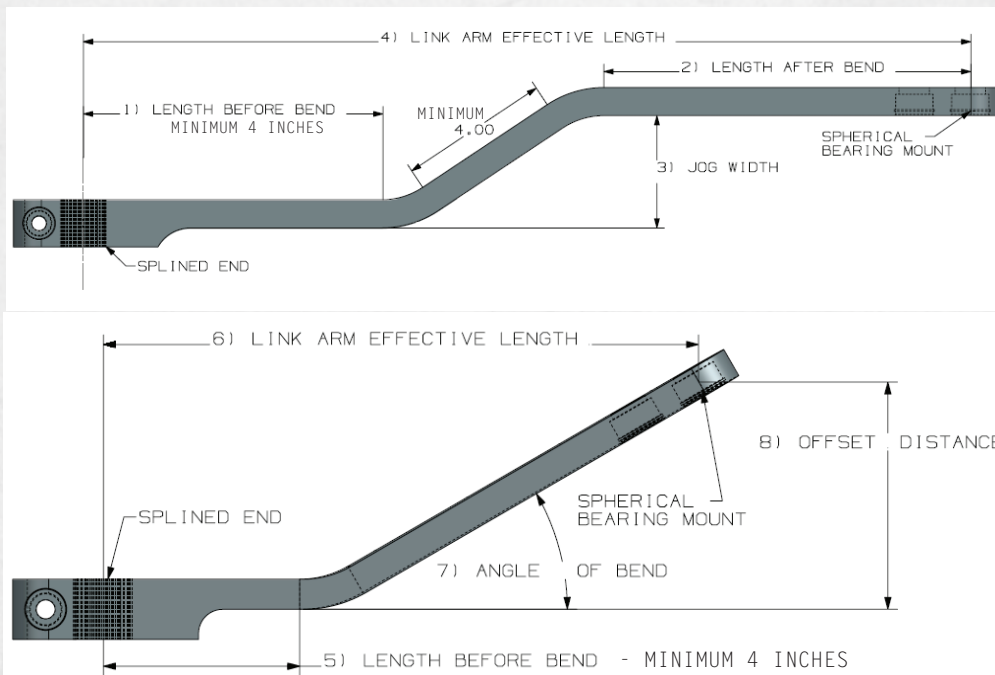
1	Overall Length	
2	Spline Length	
3	Bushing Width	
4	Active Diameter	
5	Spline Diameter	
6	Spline Pattern	



Additional Notes/ Comments: \_\_\_\_\_

## BENT LINK ARM CUSTOM ORDER FORM

We can bend any of our standard aluminum or steel link arms to your specifications. Please enter your application information, as we need to validate your sizing to ensure that materials are not overstressed.



### Your Application Information\*

Wheel Travel	
Radius Rod Length	
Sway Bar Active Diameter	
Sway Bar Material	
*Needed to determine forces experienced due to link arm lengths and suspension travel	

### For Jog in Link Arm (2 Bends)

1	Length Before Bend	
2	Length After Bend	
3	Jog Width	
4	Link Arm Effective Length	

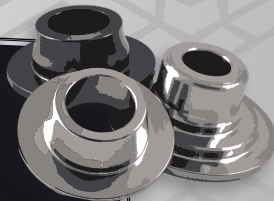
### For Single Bend In Link Arm

5	Length Before Bend	
6	Link Arm Effective Length	
7	Angle of Bend	
8	Offset Distance	

# Manufacturers of:

## VALVE TRAIN COMPONENTS

- Titanium Retainers
- Pacaloy® Steel Retainers
- Titanium & Steel Locks
- Spring Cups & Locators
- Custom Applications



## VALVE SPRINGS

- Drag Race
- Circle Track
- Marine
- Endurance
- Street & Strip
- RPM Beehives
- Custom Applications & Vintage



## SHOCKS

- Complete line-up for all markets
- Full Suspension system approach
- Made In the USA
- Un-Paralleled performance



## SUSPENSION SPRINGS

- Off-Road
- Drag Race
- Circle Track
- Coil Over Shock Springs
- Road Magnet Series - Lowering



## TOOLS & ENGINEERING

- Assembly Tools
- Fully Accredited Metallurgic Lab
- SpinTron® Engine Testing
- Rapid Prototype Capability
- Retail Kits & Specialized Packaging



## SWAY BARS

- Steel
- Titanium
- Link Arms
  - Aluminum
  - Steel
  - Fabricated
- Custom Designs



PAC Racing Springs are proudly made in the U.S.A.

PAC Racing Springs

 **PETERSON SPRING**  
MANUFACTURERS OF ENGINEERED METAL PRODUCTS

**PAC**



# SE ENGINE

catalog



## ABOUT

PAC Racing Springs is the Racing and Aftermarket Division of the Peterson Spring Company. With more than 10 divisions around the world, Peterson Spring is the largest privately held, family owned Spring Company in the USA.

## SERVICE AND COMMITMENT

We understand the demands of racing and provide a commitment to all of our customers to provide the best service possible. We continue to expand products, and offer expanded onsite technical services at various racing events. We believe these interactions allow us to provide the latest product advancements and respond to additional future requirements. Because we are the manufacturer we are able to design, build, and supply parts within days if needed.

## CUSTOM PRODUCTS

We believe in providing custom products for every product line. This philosophy is a premium option to allow our customers an enhanced product unique to the application. Private label programs are also available to many companies looking to better their own brand identity. We honor proprietary agreements and are dedicated to providing any aftermarket company a superior American made product at sustainable market pricing.

**100+**  
years of operation



FIND US IN  
THE MOTOR  
CAPITAL OF  
THE USA

**DETROIT**

We make  
springs.  
LOTS AND LOTS  
OF SPRINGS.



Ask us  
about our

**LS POWERED**  
**>>> PROJECT**  
**CONDOR**





# RPM SERIES

NEW FOR  
2015

PAC Racing Springs developed this new process using all the latest advancements from our circle track and drag racing successes. We have applied this new method to great designs that will allow for a performance increase that exceeds all demands. If you don't see your application with the RPM process, please contact us for available options.

## RPM Series Dual Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS023	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS024	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS025	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS026	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS027	LS Engine Kit	145 @ 1.800	385 @1.500	369	1.000	0.700	PAC-1204X, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS028	LS Engine Kit	155 @ 1.800	410 @1.500	392	1.000	0.700	PAC-1205X, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS029	LS9 Engine Kit	155 @ 1.815	528 @ 1.065	500	1.000	0.750	PAC-1209X, PAC-R450, PAC-S136, PAC-L8142 and premium seals
PAC-KS031	LS Engine Kit	145 @ 1.800	411 @1.500	409	1.000	0.700	PAC-1206X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS032	LS Engine Kit	155 @ 1.800	436 @1.500	433	1.000	0.700	PAC-1207X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS033	LS Engine Kit	160 @ 1.800	482 @1.100	460	1.000	0.750	PAC-1208X, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS034	LS Engine Kit	160 @ 1.800	510 @1.100	500	1.000	0.750	PAC-1209X, PAC-R435, PAC-S129, PAC-L8113 and economy seals

# RPM Series Beehive LS Engine Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS021	LS Engine Kit	140 @ 1.800	328 @ 1.175	318	1.140	0.600	PAC-1218X, PAC-R311, PAC-S111, PAC-L8113 and economy seals
PAC-KS022	LS Engine Kit	145 @ 1.800	358 @ 1.200	340	1.100	0.625	PAC-1219X, PAC-R311, PAC-S111, PAC-L8113 and economy seals

Aftermarket Cylinder Heads (with larger valve guides)							
PAC-KS035	LS Engine Kit	145 @ 1.800	411 @ 1.500	409	1.000	0.700	PAC-1206X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS036	LS Engine Kit	155 @ 1.800	436 @ 1.500	433	1.000	0.700	PAC-1207X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS037	LS Engine Kit	160 @ 1.800	482 @ 1.100	460	1.000	0.750	PAC-1208X, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS038	LS Engine Kit	160 @ 1.800	510 @ 1.100	500	1.000	0.750	PAC-1209X, PAC-R435, PAC-S135, PAC-L8113 and economy seals

Buying  
**SPRING KITS**  
 saves you  
**TIME & MONEY!**



# HOT ROD SERIES KITS

## Hotrod Series Dual LS Spring Kits

Our most economical kit

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS011	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R335, PAC-S129, OE locks and economy seals
PAC-KS012	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R335, PAC-S129, OE locks and economy seals
PAC-KS015	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS016	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R335, PAC-S129, PAC-L8113 and economy seals
PAC-KS017	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS018	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S129, PAC-L8113 and economy seals
PAC-KS019	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S129, PAC-L8113 and premium seals
PAC-KS020	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S129, PAC-L8113 and premium seals
<b>Aftermarket Cylinder Heads- with larger valve guides</b>							
PAC-KS006	LS Engine Kit	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-1904, PAC-R435, PAC-S135, PAC-L8113 and economy seals
PAC-KS007	LS Engine Kit	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-1905, PAC-R435, PAC-S135, PAC-L8113 and economy seals

## Hotrod Series Beehive LS Spring Kits

Kit Number	Application	Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Kit Contents
		Installed Height (Valve Closed)	Installed Height (Valve Open)				
PAC-KS013	LS Engine Kit	135 @ 1.800	348 @ 1.175	340	1.100	0.625	PAC-1219, PAC-R311, PAC-S111, PAC-L8113 and economy seals
PAC-KS014	LS Engine Kit	130 @ 1.800	318 @ 1.200	313	1.140	0.600	PAC-1218, PAC-R311, PAC-S111, PAC-L8113 and economy seals



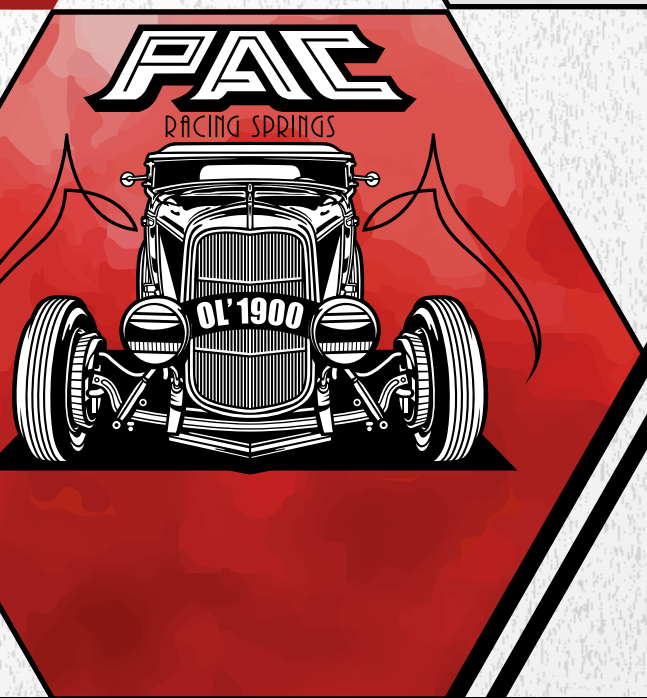
PAC-KS016



PAC-KS014



PAC-KS020



PAC-KS018

# VALVE SPRINGS

# DUALS

Part Number	Spring Diameters				Spring Loads			Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	OD Outer	ID Outer	Damper	ID Inner	Installed Height (Valve Closed)	Open Load (Valve Open)	Note *** is 0.030 thick								
							Titanium Retainers				Steel Retainers	Spring Seats	Spring Cups		
<b>RPM Series Dual Springs (Street, Strip and Mild Racing)</b>															
PAC-1204X	1.290	0.950	No	0.694	145 @ 1.800	385 @ 1.150	369	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1205X	1.304	0.950	No	0.694	155 @ 1.800	410 @ 1.150	392	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1206X	1.290	0.950	No	0.680	145 @ 1.800	411 @ 1.150	409	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1207X	1.304	0.950	No	0.680	155 @ 1.800	436 @ 1.150	433	1.000	0.700	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1208X	1.324	0.950	No	0.694	160 @ 1.800	482 @ 1.100	460	1.000	0.750	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1209X	1.324	0.950	No	0.680	160 @ 1.800	510 @ 1.100	500	1.000	0.750	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	RPM Series Dual LS Engine Spring	
PAC-1221X	1.300	0.895	No	0.655	160 @ 1.800	424 @ 1.150	408	1.080	0.650	PAC-R416 PAC-R516	PAC-R616	PAC-S121	NA	Ovate Wire Dual LS Spring	
PAC-1222X	1.280	0.925	No	0.655	180 @ 1.800	480 @ 1.100	425	1.055	0.700	PAC-R455	PAC-R355 PAC-R655	PAC-S121	NA	RPM Series Dual LS Engine Spring Aftermarket Cylinder Heads Upgrade Spring	
PAC-1236X	1.310	0.925	No	0.665	156 @ 1.800	495 @ 1.150	520	1.080	0.650	PAC-R455	PAC-R355 PAC-R655	PAC-S121	NA	RPM Series Dual LS Engine Spring Aftermarket Cylinder Heads Upgrade Spring	
<b>STD Duty Dual Springs</b>															
PAC-1904	1.290	0.950	N	0.694	150 @ 1.800	400 @ 1.125	370	1.010	0.625	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	LS Dual Spring	
PAC-1905	1.305	0.950	No	0.694	160 @ 1.800	425 @ 1.125	392	1.020	0.650	PAC-R435 PAC-R450 PAC-R550	PAC-R335 PAC-R635 PAC-R650	PAC-S129 PAC-S135 PAC-S136***	NA	LS Dual Spring	
PAC-1221	1.300	0.895	No	0.655	135 @ 1.800	400 @ 1.150	408	1.080	0.650	PAC-R416 PAC-R516	PAC-R616	PAC-S121	NA	Dual LS Spring made from Ovate Wire for Street Applications	
<b>Extreme Duty Dual Springs</b>															
PAC-1529	1.284	0.900	No	0.630	180 @ 1.900	600 @ 1.150	560	1.085	0.750	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High Performance Endurance LS Circle Track Spring This spring is a High Frequency High RPM capable Spring	
PAC-1530	1.284	0.900	No	0.616	160 @ 2.000	580 @ 1.250	560	1.180	0.750	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High Performance High Endurance LS Circle Track Spring This spring is a High Frequency High RPM capable Spring	
PAC-1335	1.300	0.900	No	0.616	250 @ 1.800	860 @ 1.050	813	0.985	0.800	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	This is a High Rate Dual LS Spring used For Drag Racing Solid Roller Cam Applications	
PAC-1237X	1.274	0.900	No	0.630	200 @ 1.800	585 @ 1.100	550	1.045	0.700	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High rate High Frequency Dual LS spring Used for Drag Racing, Street Strip Application	
PAC-1238X	1.274	0.900	No	0.630	250 @ 1.800	700 @ 1.050	600	0.985	0.750	PAC-R532 PAC-R432	PAC-R632	PAC-S128 PAC-S138	NA	High rate High Frequency Dual LS spring Used for Drag Racing	

\*\*\* 0.030 Thick Spring Seat



# VALVE SPRINGS

# BEEHIVE

Part Number	Spring Diameters				Spring Loads		Spring Rate	Max Coil Bind	Max Lift	Recommended Matching Components				Comments
	Large End		Small End		Installed Height (Valve Closed)	Open Load (Valve Open)				Titanium Retainers	Steel Retainers	Spring Seats	Spring Cups	
	OD	ID	OD	ID										
PAC-1215	1.290	0.885	1.055	0.650	105 @ 1.800	293 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	OEM type LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats and retainers.
PAC-1218	1.290	0.885	1.055	0.650	130 @ 1.800	318 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Performance LS1 ovate beehive valve spring for applications up to 0.600 lift. This is a drop-in spring that fits stock seats & retainers.
PAC-1219	1.307	0.885	1.072	0.650	135 @ 1.800	348 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	LS Ovate beehive spring that has increased loads, rates and frequencies for more aggressive cams. This remains a drop-in spring for stock parts but will handle increased lifts.
<b>RPM Series Beehives</b>														
PAC-1211X	1.290	0.906	1.034	0.650	130 @ 1.800	370 @ 1.175	385	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	NA	Round Wire Beehive
PAC-1218X	1.290	0.885	1.055	0.650	140 @ 1.800	328 @ 1.200	313	1.140	0.600	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1218 but with premium processing and higher loads to withstand the vigors of street and strip use.
PAC-1219X	1.307	0.885	1.072	0.650	145 @ 1.800	358 @ 1.175	340	1.100	0.625	PAC-R510 PAC-R511	PAC-R310 PAC-R311	PAC-S111	N/A	Same as the PAC-1219 but with premium processing and higher loads to withstand the vigors of street and strip use.

## WHY BEEHIVE?

PAC Racing was first to manufacture beehive valve springs. Our knowledge and expertise behind beehive springs comes from our core company where we manufacture millions of beehive springs for OE Car manufacturers.

**Reduced retainer weight and mass** over dual springs. The beehive design allows for optimizing the weight of the retainer. Lower mass improves RPM ability and dynamic stability.

PAC Racing developed shaped wire that optimizes the stress distribution more evenly. What does this mean to you? **Using the ovate wire improves durability and dynamic stability** which allows for a lower chance of failure when compared to round wire equivalent springs.

Variable frequency and Spring Rate- Ovate wire and beehive springs allow more space to improve the dynamic performance using rate and frequency changing technology. This **improves the springs ability to withstand higher RPM and dynamic surge** seen.



SPECIFICATIONS: SPRING LOADS AND HEIGHTS

PN	PAC-1215	PAC-1218	PAC-1219	PAC-1211X	PAC-1218X	PAC-1219X
Mass (g)	75	75	67	75	75	67
Outer Freq	29277	29277	31258	32952	29277	31258
Inner Freq	NA	NA	NA	NA	NA	NA
Coil Bind	1.140	1.140	1.100	1.100	1.140	1.100
2.300		4				
2.250		15				
2.200		22		9	15	9
2.150	14	40	16	26	30	26
2.100	27	53	33	43	46	43
2.050	40	66	50	60	62	60
2.000	53	79	67	77	77	77
1.950	66	92	84	94	93	94
1.900	79	105	101	111	109	111
1.850	92	118	118	128	124	128
1.800	106	131	135	145	140	145
1.750	119	145	152	162	156	162
1.700	132	158	169	179	171	179
1.650	145	172	186	196	187	196
1.600	159	187	203	213	203	213
1.550	174	202	220	230	218	230
1.500	189	218	237	247	234	247
1.450	206	234	254	264	250	264
1.400	222	251	271	281	265	281
1.350	239	267	288	298	281	298
1.300	257	283	305	315	297	315
1.250	275	300	322	332	312	332
1.200	294	318	339	349	328	349
1.150	313	337	356	366	344	366
1.100	456	354	373	383	359	383
1.050						
1.000						
0.950						



# TOOLS & ACCESSORIES

## LS On-Head Valve Spring Changers



P/N: PAC-T925

On-Head Spring Changer for  
LS Cathedral Port

P/N: PAC-T926

On-Head Spring Changer for  
LS Square Port



## LS Rocker Trunnion Upgrade Kit



P/N: PAC-KS030

Rocker Arm Trunnion Upgrade Kit



P/N: PAC-T915

Rocker Arm Trunnion Bearing Press Tool

## SPRING INSTALLED HEIGHT GAGES

- Stainless steel construction for extremely long life
- Non-magnetic to avoid pulling shims when using
- Increased accuracy and precision with finer pitch threads
- Several models to choose from



PAC-T902

PAC-T903

PAC-T901

PAC-T904

Part Number	Height Range	ID	per turn	Use	Color
PAC-T901	1.400 to 2.000	0.760	0.050	Beehive Springs	Blue
PAC-T902	1.800 to 2.500	1.200	0.050	Pro Series & Drag Race	Red
PAC-T903	1.400 to 1.900	1.200	0.050	Engine Builders	Orange
PAC-T904	1.400 to 2.000	0.975	0.050	LS Dual Springs	Purple

# VALVE TRAIN COMPONENTS

## LS Pushrods

Tie Bar  
LS Lifters



Push Rods



Warhawk  
Tie Bar



Direct  
Drop-ins



Part Number	Length 5/16 Inch OD	Type	OD	Wall Thickness
<b>5/16 Inch OD</b>				
PAC-PR200-LS	7.375	Straight- Stock	5/16	0.080
PAC-PR201-LS	7.400	Straight- Stock	5/16	0.080
PAC-PR202-LS	7.425	Straight- Stock	5/16	0.080
PAC-PR203-LS	7.450	Straight- Stock	5/16	0.080
PAC-PR204-LS	7.475	Straight- Stock	5/16	0.080
PAC-PR205-LS	7.500	Straight- Stock	5/16	0.080
PAC-PR206-LS	7.300	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR207-LS	7.350	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR208-LS	7.400	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR209-LS	7.450	0.210 Radius Heavy Wall	5/16	0.105
PAC-PR210-LS	7.500	0.210 Radius Heavy Wall	5/16	0.105
<b>3/8 Inch OD</b>				
PAC-PR224-LS	7.300	Straight- Stock	3/8	0.080
PAC-PR225-LS	7.350	Straight- Stock	3/8	0.080
PAC-PR211-LS	7.375	Straight- Stock	3/8	0.080
PAC-PR212-LS	7.400	Straight- Stock	3/8	0.080
PAC-PR213-LS	7.425	Straight- Stock	3/8	0.080
PAC-PR214-LS	7.450	Straight- Stock	3/8	0.080
PAC-PR215-LS	7.475	Straight- Stock	3/8	0.080
PAC-PR216-LS	7.500	Straight- Stock	3/8	0.080
PAC-PR217-LS	7.300	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR218-LS	7.350	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR219-LS	7.400	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR220-LS	7.425	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR221-LS	7.450	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR222-LS	7.475	0.210 Radius Heavy Wall	3/8	0.135
PAC-PR223-LS	7.500	0.210 Radius Heavy Wall	3/8	0.135

## LS Lifters

Part Number	T-Bar Style	Style	Type	OD	Application	Plunger travel STD or Limited	Restrictions	Comments
PAC-LFT101-LS	NA	Stock Lifter Tray	Hydraulic	0.842	LS Engine	STD Travel	NA	STD and Hi Lift Applications
PAC-LFT102-LS	NA	Stock Lifter Tray	Hydraulic	0.842	LS Engine	Limited Travel	NA	STD and Hi Lift Applications
PAC-LFT103-LS	Straight	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel	NA	Street Performance Lifter
PAC-LFT104-LS	Straight	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel	NA	Street Performance Lifter + Motown Block
PAC-LFT105-LS	Straight	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel	NA	Race + Motown Block - Most Popular
PAC-LFT106-LS	Straight	T-Bar Style	Hydraulic	0.842	LS Engine	Limited Travel	NA	Will Fit Motown Block
PAC-LFT107-LS	Angled	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel	NA	Will Fit Warhawk Block
PAC-LFT108-LS	Angled	T-Bar Style	Hydraulic	0.842	LS Engine	Limited Travel	NA	Will Fit Warhawk Block
PAC-LFT109-LS	Straight	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel	Do not use oil heavier than 5W30	Hi RPM on Center
PAC-LFT110-LS	Angled	T-Bar Style	Hydraulic	0.842	LS Engine	STD Travel		Hi RPM on Center will fit Warhawk Block
PAC-LFT111-LS	Straight	T-Bar Style	Hydraulic	0.903	LS Engine	STD Travel		Hi RPM on Center roller Pin oiling
PAC-LFT112-LS	Angled	T-Bar Style	Hydraulic	0.903	LS Engine	STD Travel		Hi RPM on Center roller Pin oiling fit Warhawk Block
PAC-LFT113-LS	NA	Stock Lifter Tray	Mechanical	0.842	LS Engine	NA	NA	STD and Hi Lift Applications
PAC-LFT114-LS	Straight	T-Bar Style	Mechanical	0.842	LS Engine	NA	NA	
PAC-LFT115-LS	Straight	T-Bar Style	Mechanical	0.842	LS Engine	NA	NA	Performance
PAC-LFT116-LS	Angled	T-Bar Style	Mechanical	0.842	LS Engine	NA	NA	Performance will fit Warhawk Block

# RETAINERS

## 300 SERIES Spring Retainers

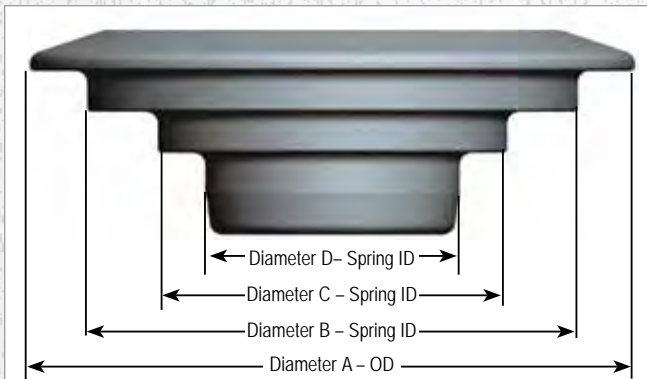
These retainers are made from 4140 chrome moly steel, primarily designed for smaller beehive springs. These retainers are heat treated, black oxide finished and processed to maintain high strength with lightweight designs.

300 Series Chrome Moly Steel							
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 300 Series</b>							
PAC-R310	1.035	0.640	N/A	N/A	STD 10	10.2	Retainer for 1215,1218,1219,1220 and other beehives
PAC-R311	1.035	0.640	N/A	N/A	LS (7°)	10.4	Steel Beehive LS Retainer for 1218 and more
PAC-R363	1.035	0.640	N/A	N/A	STD 7	12.8	Retainer for 1218, 1220 and others with STD 7 degree lock
<b>Dual Spring 300 Series</b>							
PAC-R316	1.235	0.880	0.640	N/A	LS (7°)	19.3	Steel LS retainer for 1221(X),1521
PAC-R335	1.300	0.940	0.680	N/A	LS (7°)	20.0	Steel retainer for LS RPM 1204X-1209X Series Duals
PAC-R355	1.225	0.920	0.650	N/A	LS (7°)	19.0	Steel retainer for 1222X LS spring

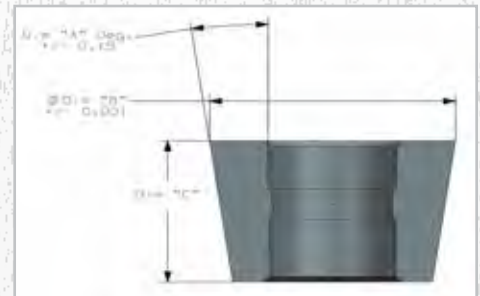
## 400 SERIES Spring Retainers

PAC-Tuff™ Retainers are made from the best 6AL-4V Titanium alloy and completely sonic tested to aerospace standards prior to being machined. These retainers are designed for standard to high durability use and are designed to be very robust.

400 Series PAC-TUFF 64 Titanium							
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Dual Spring 400 Series</b>							
PAC-R416	1.235	0.880	0.640	N/A	LS (7°)	10.9	Steel LS retainer for 1221(X),1521
PAC-R432	1.200	0.890	0.600	N/A	Mini 8	10.4	Titanium LS retainer for 1237X, 1238X, 1335, 1529 and 1530
PAC-R435	1.300	0.940	0.680	N/A	LS (7°)	11.1	Titanium retainer for LS RPM 1204X-1209X Series Duals
PAC-R450	1.240	0.940	0.685	N/A	Mini 8	11.7	Titanium retainer for LS RPM 1204X-1209X Series Duals (mini 8)
PAC-R455	1.225	0.920	0.650	N/A	LS (7°)	11.1	Titanium retainer for 1222X spring



VALVE LOCK STANDARDS			
Lock Type	Dim. A (Angle)	Dim. B (Cone Top)	Dim. C (Lock Height)
STD 10	10.00°	0.6100	0.400
STD 8	8.00°	0.6000	0.400
Mini 8	8.00°	0.5200	0.380
LS-1	7.00°	0.4700	0.300
STD 7°	7.00°	0.4950	0.360



# 500 SERIES Spring Retainers

Titanium spring retainers made from Ti-17 alloy. This alloy has shown greater tensile properties over other titanium products with its high strength and deep hardening alloys. These retainers are micropolished for enhanced fatigue life and are laser engraved for PN and batch identification.

500 Series Ti-17 Titanium							
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 500 Series</b>							
PAC-R511	0.990	0.640	N/A	N/A	LS (7°)	5.7	Titanium Beehive LS Retainer for 1218 and more
<b>Dual Spring 500 Series</b>							
PAC-R516	1.235	0.880	0.640	N/A	LS (7°)	7.7	Steel LS retainer for 1221(X),1521
PAC-R532	1.200	0.890	0.600	N/A	Mini 8	10.2	Titanium LS retainer for 1237X, 1238X, 1335, 1529 and 1530
PAC-R550	1.240	0.940	0.685	N/A	Mini 8	11.7	RPM Series Dual Springs (mini 8 Locks), 1204X-1209X Series Duals

# 600 SERIES Spring Retainers

PACALOY® BILLET TOOL STEEL RETAINERS - These are the latest developments from PAC Racing Springs. These retainers feature ultra lightweight designs from valve spring type alloys. Sophisticated processing such as micropolishing and Nano Peen™ technology are used to enhance the retainer life. The high hardness of the steel has greater wear resistance properties.

600 Series Tool Steel							
Part No.	Retainer Dimensions (in.)				Lock Angle (deg.)	Weight (grams)	Notes and Applications *other applications may apply call for tech support
	Diameter A	Diameter B	Diameter C	Diameter D			
<b>Beehive 600 Series</b> <i>Some require special spring seats for proper installation</i>							
PAC-R633	0.875	0.640	N/A	N/A	7	6.0	Ultra Light Weight Steel for LS Beehives (Racing Only)
PAC-R643	0.950	0.640	N/A	N/A	Mini 8	8.4	Ultra Light Weight Steel for LS Beehives (Racing Only)
<b>Dual Spring 600 Series</b> <i>Some require special spring seats for proper installation</i>							
PAC-R616	1.235	0.880	0.640	N/A	LS (7°)	12.6	Tool Steel retainer for LS Dual Springs, 1221(X)
PAC-R632	1.250	0.890	0.600	N/A	mini 8	Call	Tool Steel LS retainer for 1237X, 1238X, 1335, 1529 and 1530
PAC-R635	1.200	0.940	0.685	N/A	LS (7°)	13.4	Tool Steel retainer for LS RPM 1204X-1209X Series Duals
PAC-R650	1.250	0.940	0.685	N/A	mini 8	15.9	Tool Steel retainer for LS RPM 1204X-1209X Series Duals (Mini 8 Locks)
PAC-R655	1.225	0.920	0.650	N/A	LS (7°)	Call	Tool Steel retainer for 1222X spring



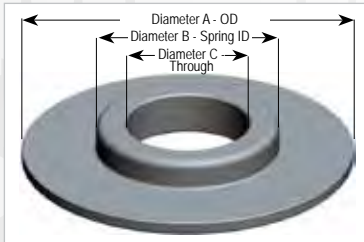
# SPRING SEATS

# VALVE LOCKS

## CHROME MOLY Spring SEATS (0.060 THICKNESS)

Part No.	Diameters (in.)			Dim "E" Thickness
	Diameter A (OD)	Diameter B (Spring ID)	Diameter C (ID)	
PAC-S111	1.270	0.870	0.570	0.060
PAC-S121	1.270	0.640	0.520	0.060
PAC-S128	1.270	0.600	0.520	0.060
PAC-S129	1.270	0.680	0.520	0.060
PAC-S135	1.270	0.680	0.570	0.060
PAC-S136	1.270	0.680	0.510**	0.030
PAC-S138	1.270	0.615	0.575	0.060

\*\*0.030 thick seats. These are a great way to get more installed height.  
Tool Steel Seats also available, to order add a "X" to the Chrome Moly Seat Part number.



Chrome Moly Spring Seat

Part No.	Listed Valve Size	Type	Lock Angle	Valve Groove Type	Installation Height	Material
PAC-L8117	8mm	Mini 8	8°	Radius	STD	Titanium
PAC-L8118	8mm	Mini 8	8°	Radius	+0.050	Titanium
PAC-L8141	8mm	Mini 8	8°	Radius	STD	Steel
PAC-L8142	8mm	Mini 8	8°	Radius	+0.050	Steel
PAC-L8113	8mm	LS-1	7°	Radius	STD	Steel
PAC-L8114	8mm	LS-1	7°	Radius	+0.050	Steel
PAC-L8116	8mm	LS-1	7°	Radius	-0.050	Steel
PAC-L8152	8mm	STD 7	7°	Radius	STD	Steel
PAC-L8153	8mm	STD 7	7°	Radius	+0.050	Steel
PAC-L8159	8mm	STD 10	STD 10°	Radius	STD	Steel
PAC-L8160	8mm	STD 10	STD 10°	Radius	+0.050	Steel

### VALVE LOCK STANDARDS

Lock Type	Dim. A (Angle)	Dim. B (Cone Top)	Dim. C (Lock Height)
STD 10	10.00°	0.6100	0.400
STD 8	8.00°	0.6000	0.400
Mini 8	8.00°	0.5200	0.380
LS-1	7.00°	0.4700	0.300
STD 7°	7.00°	0.4950	0.360



# SPRING TESTING EQUIPMENT

## Load Testers

Part No.	Load Capacity
PAC-T930	750
PAC-T935	1,500
PAC-T931	Accessory for use with both load testers. Use this for repeated testing and batch sorting multiple springs.
PAC-T936	Use this to accurately check and consistently measure solid heights and bind heights.

**PAC T935**  
(Load tester)  
with **PAC T931**  
installed



**PAC T931**  
Load tester accessory for repeated testing



**PAC T936**  
Solid height checker



# 2.5 ID SUSPENSION SPRINGS

Part Number	Nominal Free Length	Spring Rate		Coil Bind Height	
	(in)	(lbs/in)	(kg/mm)	(in)	(mm)
<b>4" Tall</b>					
PAC-4x2.5x400	4.000	400	7.1	1.395	35
PAC-4x2.5x500	4.000	500	8.9	1.422	36
<b>5" Tall</b>					
PAC-5x2.5x300	5.000	300	5.4	1.571	40
PAC-5x2.5x350	5.000	350	6.2	2.058	52
PAC-5x2.5x375	5.000	375	6.7	1.946	49
PAC-5x2.5x400	5.000	400	7.1	1.848	47
PAC-5x2.5x425	5.000	425	7.6	1.762	45
PAC-5x2.5x450	5.000	450	8.0	2.014	51
PAC-5x2.5x500	5.000	500	8.9	1.855	47
<b>6" Tall</b>					
PAC-6x2.5x50	6.000	50	0.9	1.062	27
PAC-6x2.5x100	6.000	100	1.8	1.300	33
PAC-6x2.5x150	6.000	150	2.7	1.553	39
PAC-6x2.5x200	6.000	200	3.6	1.747	44
PAC-6x2.5x250	6.000	250	4.5	1.813	46
PAC-6x2.5x300	6.000	300	5.4	1.920	49
PAC-6x2.5x350	6.000	350	6.2	2.058	52
PAC-6x2.5x400	6.000	400	7.1	2.223	56
PAC-6x2.5x450	6.000	450	8.0	2.207	56
PAC-6x2.5x500	6.000	500	8.9	2.209	56
PAC-6x2.5x550	6.000	550	9.8	2.649	67
PAC-6x2.5x600	6.000	600	10.7	2.381	60
PAC-6x2.5x650	6.000	650	11.6	2.457	62
PAC-6x2.5x700	6.000	700	12.5	2.466	63
<b>7" Tall</b>					
PAC-7x2.5x100	7.000	100	1.8	1.664	42
PAC-7x2.5x150	7.000	150	2.7	1.875	48
PAC-7x2.5x175	7.000	175	3.1	1.909	48
PAC-7x2.5x200	7.000	200	3.6	1.919	49
PAC-7x2.5x225	7.000	225	4.0	2.010	51
PAC-7x2.5x250	7.000	250	4.5	2.270	58
PAC-7x2.5x275	7.000	275	4.9	2.350	60
PAC-7x2.5x300	7.000	300	5.4	2.440	62
PAC-7x2.5x325	7.000	325	5.8	2.470	63
PAC-7x2.5x350	7.000	350	6.2	2.610	66
PAC-7x2.5x400	7.000	400	7.1	2.552	65
PAC-7x2.5x450	7.000	450	8.0	2.840	72
PAC-7x2.5x500	7.000	500	8.9	2.970	75
PAC-7x2.5x550	7.000	550	9.8	3.210	82
PAC-7x2.5x600	7.000	600	10.7	3.460	88
PAC-7x2.5x650	7.000	650	11.6	3.420	87
PAC-7x2.5x700	7.000	700	12.5	2.947	75
PAC-7x2.5x750	7.000	750	13.4	2.997	76

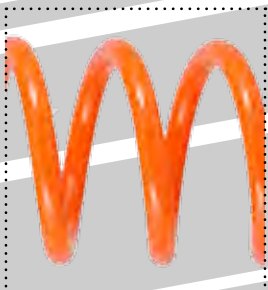
Part Number	Nominal Free Length	Spring Rate		Coil Bind Height	
	(in)	(lbs/in)	(kg/mm)	(in)	(mm)
<b>8" Tall</b>					
PAC-8x2.5x60	8.000	60	1.1	1.645	42
PAC-8x2.5x100	8.000	100	1.8	1.530	39
PAC-8x2.5x125	8.000	125	2.2	1.790	45
PAC-8x2.5x140	8.000	140	2.5	1.940	49
PAC-8x2.5x180	8.000	180	3.2	2.549	65
PAC-8x2.5x200	8.000	200	3.6	2.549	65
PAC-8x2.5x220	8.000	220	3.9	2.810	71
PAC-8x2.5x250	8.000	250	4.5	2.900	74
PAC-8x2.5x275	8.000	275	4.9	2.658	68
PAC-8x2.5x300	8.000	300	5.4	2.734	69
PAC-8x2.5x350	8.000	350	6.2	2.937	75
PAC-8x2.5x400	8.000	400	7.1	3.170	81
PAC-8x2.5x450	8.000	450	8.0	3.248	82
PAC-8x2.5x500	8.000	500	8.9	3.220	82
PAC-8x2.5x550	8.000	550	9.8	3.450	88
PAC-8x2.5x600	8.000	600	10.7	3.370	86
PAC-8x2.5x650	8.000	650	11.6	3.394	86
PAC-8x2.5x1100	8.000	1100	19.6	3.845	98
PAC-8x2.5x1200	8.000	1200	21.4	4.237	108
<b>9" Tall</b>					
PAC-9x2.5x60	9.000	60	1.1	1.650	42
PAC-9x2.5x100	9.000	100	1.8	2.155	55
PAC-9x2.5x140	9.000	140	2.5	2.342	59
PAC-9x2.5x180	9.000	180	3.2	2.010	51
PAC-9x2.5x220	9.000	220	3.9	2.980	76
PAC-9x2.5x300	9.000	300	5.4	3.174	81
PAC-9x2.5x350	9.000	350	6.2	3.425	87
PAC-9x2.5x400	9.000	400	7.1	3.428	87
PAC-9x2.5x450	9.000	450	8.0	3.572	91
PAC-9x2.5x550	9.000	550	9.8	3.620	92
PAC-9x2.5x650	9.000	650	11.6	3.371	86
<b>10" Tall</b>					
PAC-10x2.5x100	10.000	100	1.8	2.511	64
PAC-10x2.5x125	10.000	125	2.2	2.423	62
PAC-10x2.5x150	10.000	150	2.7	2.772	70
PAC-10x2.5x175	10.000	175	3.1	2.792	71
PAC-10x2.5x200	10.000	200	3.6	2.992	76
PAC-10x2.5x225	10.000	225	4.0	3.400	86
PAC-10x2.5x250	10.000	250	4.5	3.489	89
PAC-10x2.5x275	10.000	275	4.9	3.651	93
PAC-10x2.5x300	10.000	300	5.4	3.422	87
PAC-10x2.5x325	10.000	325	5.8	3.703	94
PAC-10x2.5x350	10.000	350	6.2	3.930	100
PAC-10x2.5x375	10.000	375	6.7	3.867	98
PAC-10x2.5x400	10.000	400	7.1	3.989	101
PAC-10x2.5x425	10.000	425	7.6	4.302	109
PAC-10x2.5x450	10.000	450	8.0	4.371	111

Part Number	Nominal Free Length	Spring Rate		Coil Bind Height	
	(in)	(lbs/in)	(kg/mm)	(in)	(mm)
<b>10" Tall (continued)</b>					
PAC-10x2.5x500	10.000	500	8.9	4.352	111
PAC-10x2.5x550	10.000	550	9.8	4.650	118
PAC-10x2.5x600	10.000	600	10.7	4.820	122
PAC-10x2.5x650	10.000	650	11.6	4.254	108
PAC-10x2.5x700	10.000	700	12.5	4.600	117
PAC-10x2.5x750	10.000	750	13.4	4.638	118
PAC-10x2.5x800	10.000	800	14.3	4.688	119
<b>12" Tall</b>					
PAC-12x2.5x60	12.000	60	1.07	3.36	85
PAC-12x2.5x70	12.000	70	1.25	2.93	74
PAC-12x2.5x80	12.000	80	1.4	3.037	77
PAC-12x2.5x90	12.000	90	1.6	3.098	79
PAC-12x2.5x100	12.000	100	1.8	3.103	79
PAC-12x2.5x110	12.000	110	2.0	3.220	82
PAC-12x2.5x120	12.000	120	2.1	3.201	81
PAC-12x2.5x125	12.000	125	2.2	3.245	82
PAC-12x2.5x130	12.000	130	2.3	3.385	86
PAC-12x2.5x140	12.000	140	2.5	3.245	82
PAC-12x2.5x150	12.000	150	2.7	3.415	87
PAC-12x2.5x165	12.000	165	2.9	3.755	95
PAC-12x2.5x175	12.000	175	3.1	3.755	95
PAC-12x2.5x185	12.000	185	3.3	3.604	92
PAC-12x2.5x200	12.000	200	3.6	3.674	93
PAC-12x2.5x225	12.000	225	4.0	4.124	105
PAC-12x2.5x250	12.000	250	4.5	4.193	106
PAC-12x2.5x275	12.000	275	4.9	4.057	103
PAC-12x2.5x300	12.000	300	5.4	4.490	114
PAC-12x2.5x325	12.000	325	5.8	4.293	109
PAC-12x2.5x350	12.000	350	6.2	4.344	110
PAC-12x2.5x375	12.000	375	6.7	4.560	116
PAC-12x2.5x400	12.000	400	7.1	4.467	113
PAC-12x2.5x425	12.000	425	7.6	4.473	114
PAC-12x2.5x450	12.000	450	8.0	4.698	119
PAC-12x2.5x475	12.000	475	8.5	4.553	116
PAC-12x2.5x500	12.000	500	8.9	4.664	118
PAC-12x2.5x525	12.000	525	9.4	5.165	131
PAC-12x2.5x550	12.000	550	9.8	5.331	135
PAC-12x2.5x575	12.000	575	10.3	5.506	140
PAC-12x2.5x600	12.000	600	10.7	5.294	134
PAC-12x2.5x625	12.000	625	11.2	5.478	139
PAC-12x2.5x650	12.000	650	11.6	5.284	134
PAC-12x2.5x675	12.000	675	12.1	5.476	139
PAC-12x2.5x700	12.000	700	12.5	5.674	144
PAC-12x2.5x750	12.000	750	13.4	5.699	145
PAC-12x2.5x800	12.000	800	14.3	6.129	156
PAC-12x2.5x900	12.000	900	16.1	6.248	159
PAC-12x2.5x1000	12.000	1000	17.9	6.816	173

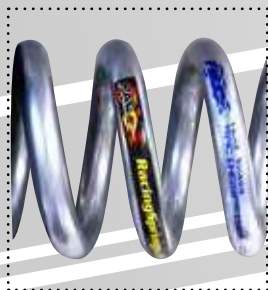
**COLOR OPTIONS**

# STREET CAR SHOCKS

Part Number	Application	Description
PAC-100-4-139-2CR	C5/C6 Corvette	Front - Double Adjustable
PAC-100-4-152-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware
PAC-100-4-151-XX	Coilover Conversion	Rear - Non Adjustable w/2.50" Spring Hardware
PAC-100-4-149-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware
PAC-100-4-148-XX	Coilover Conversion	Front - Non Adjustable w/2.50" Spring Hardware
PAC-100-4-185-2CR	Coilover Conversion	Front - Double Adj. Remote Reservoir w/2.50" Spring Hardware
PAC-100-4-173-2CR	Coilover Conversion	Rear - Double Adj. w/2.50" Spring Hardware
PAC-100-4-172-2CR	Coilover Conversion	Rear - Double Adj. Remote Reservoir w/2.50" Spring Hardware
PAC-100-4-142-CX	Coilover Conversion	Front - Single Adj. w/2.50" Spring Hardware
PAC-100-4-141-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware
PAC-100-6-155-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware
PAC-100-3.75-137-CR	C5/C6 Corvette	Rear - Double Adjustable
PAC-100-4.75-146-XX	Coilover Conversion	Rear - Non Adjustable w/2.50" Spring Hardware
PAC-100-4.75-182-2CR	Coilover Conversion	Rear - Double Adj. w/2.50" Spring Hardware
PAC-100-4.75-181-2CR	Coilover Conversion	Rear - Double Adj. Remote Reservoir w/2.50" Spring Hardware
PAC-100-4.75-145-CX	Coilover Conversion	Rear - Single Adj. w/2.50" Spring Hardware
PAC-100-5.5-200-2CR	5th Gen Camaro Platform	Double Adj Platform Including Springs and Mounting Hardware
PAC-100-6.5-201-2CX	S-197 Platform	Double Adj Platform Including Springs and Mounting Hardware



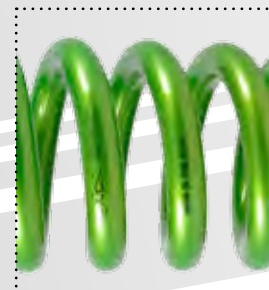
**ORANGE**



**SILVER**



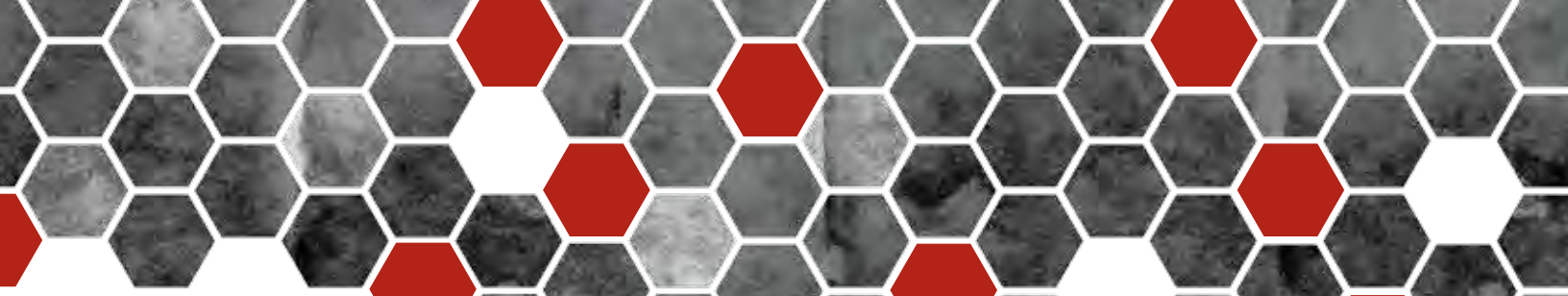
**BLACK**



**SPARKLE  
GREEN**



**BOMBER  
OR**



Shock Body Finish	Spring Inside DIA	Stroke	Extended Length (in)	Collapsed Length (in)	Compression Settings	Rebound Settings
Threaded	Call	4.0	17.375	13.375	30	12
Threaded	2.5	4.0	14.25	10.25	0	0
Threaded	2.5	4.0	14.25	10.25	0	0
Threaded	2.5	4.0	15.1	11.1	0	0
Threaded	2.5	4.0	15.1	11.1	0	0
Threaded	2.5	4.0	15.1	11.1	30	12
Threaded	2.5	4.0	15.1	11.1	30	12
Threaded	2.5	4.0	15.1	11.1	30	12
Threaded	2.5	4.0	15.1	11.1	50	0
Threaded	2.5	4.0	15.1	11.1	50	0
Threaded	2.5	6.0	19.625	13.625	50	0
Threaded	Call	3.8	17.5	13.75	30	12
Threaded	2.5	4.8	16.125	11.375	0	0
Threaded	2.5	4.8	16.125	11.375	30	12
Threaded	2.5	4.8	16.125	11.375	30	12
Threaded	2.5	4.8	16.125	11.375	50	0
Threaded	2.5	5.5/4	23.750/15.625	18.250/11.625	30	12
Threaded	2.5/2.25	6.50/6.25	25.30/20	18.80/13.750	30	0

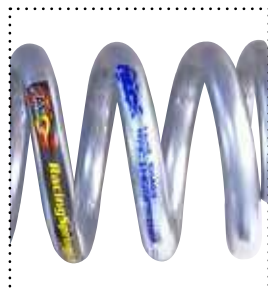
## SPRING POWDER COAT OPTIONS



**SPARKLE  
ORANGE**



**RUST BROWN**



**NEAR  
CHROME**



**RED**



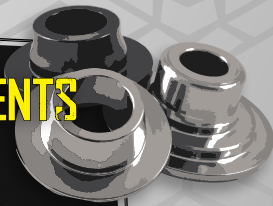
**BLUE**



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- Titanium Retainers
- Pacaloy® Steel Retainers
- Titanium & Steel Locks
- Spring Cups & Locators
- Custom Applications



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- Circle Track
- Marine
- Endurance
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- RPM Beehives
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- Full Suspension system approach
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- Circle Track
- Coil Over Shock Springs
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- Assembly Tools
- Fully Accredited Metallurgic Lab
- SpinTron® Engine Testing
- Rapid Prototype Capability
- Retail Kits & Specialized Packaging



## SWAY BARS

- Steel
- Titanium
- Link Arms
  - Aluminum
  - Steel
  - Fabricated
- Custom Designs



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PAC Racing Springs are proudly made in the U.S.A.