

Perma-Cool



Don't just cool it....Perma-Cool® it!



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Proud to represent the USA
with
American Made Products



Member of SEMA
for over 40 Years



Member of PWA
for more than 12 Years

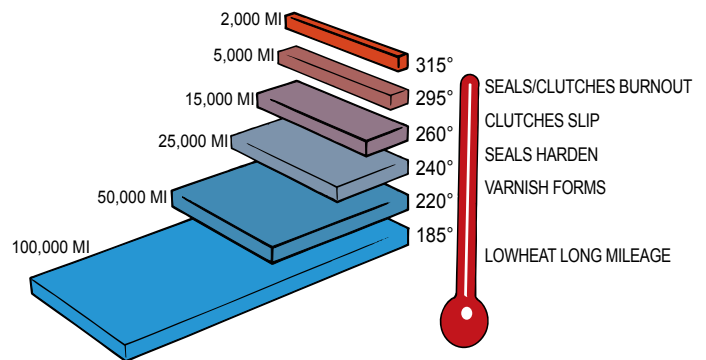
Why Transmission Fluid Coolers Are Necessary

Automatic transmissions generate large amounts of heat and are totally dependent on the transmission fluid for cooling. When the fluid temperature exceeds 200°F the fluid deteriorates rapidly, diminishing its ability to lubricate and cool critical valves, springs, seals and other internal components, leading to premature failure and costly repairs. Over 90% of all automatic transmission failures are caused by overheating. A 20° drop in fluid temperature can double the life of the transmission!

The inefficient factory cooler is located in the radiator's coolant holding tank. The hot transmission fluid is cooled by transferring its heat to the colder engine coolant that surrounds it. The minimal temperature difference between the two fluids under normal conditions causes little, if any, drop in the trans fluid temperature.

Perma-Cool® Transmission Coolers perform best when installed in conjunction with the factory cooler and mounted in front of the radiator. With cool fluid re-entering the transmission, the valves, springs and seals perform as intended, resulting in smoother operation, positive shifts, lower floorboard temperatures and extended life.

If you use your vehicle for towing, drive in stop-and-go traffic or carry heavy loads your transmission needs a Perma-Cool® Transmission Cooler. If you drive a recreational vehicle, a street machine with a high performance automatic transmission or a race car you also need a Perma-Cool® Transmission Cooler.



All Transmission Fluid Coolers:

- Extend the life of transmission and fluid
- Improve fuel efficiency and performance
- Helps prevent radiator boilover
- Compact design is perfect for limited space applications
- Hosebarbs, NPT or AN style fittings
- Lifetime Warranty for over 40 years

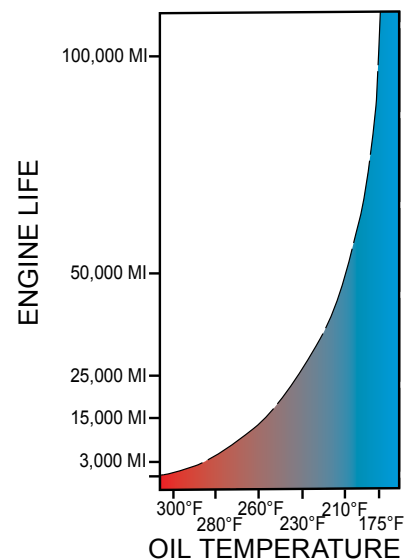
Why Engine Oil Coolers Are Necessary

Almost one third of the heat generated by the engine must be removed by the vehicle's two cooling systems. The top of the engine; the area around each cylinder in the engine block, the combustion chamber areas in the cylinder heads and the intake manifold dispel heat through the engine's radiator coolant system. The rest of the engine; the crankshaft, bearings, camshaft, lifters, connecting rods and pistons are only cooled by engine oil.

The ideal operating range for the engine is between 180°F and 200°F. While operating within this range, the oil works as a lubricant, coolant and cleansing agent for the engine. Modern engines generally run with radiator coolant temperatures between 200°F and 220°F with oil temperature ranges between 20°F to 75°F HOTTER. In other words, when the engine is performing flawlessly the engine oil is already over-heating! Oil that exceeds 220°F rapidly loses its ability to lubricate and cool causing accelerated fatigue and premature component failure.

Perma-Cool® Engine Oil Cooler coils are engineered for maximum cooling efficiency with no restriction in oil flow. Because different engines have varying oil flow requirements, Perma-Cool® rates Engine Oil Coolers by engine horsepower and oil flow rates. This results in cooler coil and engine oil flow rates that match closely.

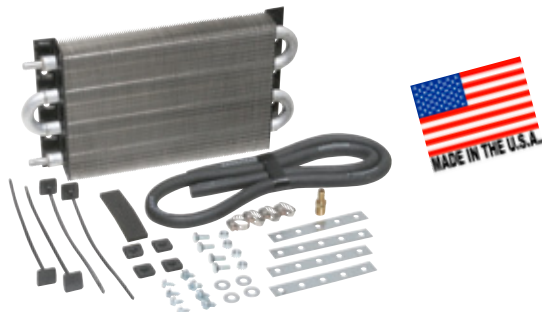
Perma-Cool® Engine Oil Coolers can reduce the oil temperature to between 180°F to 200°F and keep it there. Benefits are longer engine life, reduced heat load on engine and radiator, increased oil system capacity, lower under hood temperatures, and more. If you spend any time in stop and go traffic, do ANY kind of towing, drive in a hot climate or frequent use your air conditioning your engine NEEDS a Perma-Cool® Oil Cooler. If you have a recreational vehicle or any type of performance vehicle your engine demands a Perma-Cool® Oil Cooler.



All Engine Oil Coolers feature:

- Robust aluminum construction dissipates heat faster
- Aerospace epoxy used prevents corrosion and metal fatigue
- Machined aluminum hosebarbs for a strong secure hose connection
- Corrosion resistant raw or zinc plated mounting brackets
- Every cooler coil is pressure tested to 300 PSI
- Patented Turbulator™ extracts more heat from the oil
- Lifetime Warranty
- Flushable

Heavy Duty Transmission Coolers



Heavy Duty Trans Cooler Systems

1300 12,000 GVW

Recommended for compact and small cars.
Coil size: 1 1/2" x 3 1/2" x 15"

1301 17,000 GVW

Recommended for full size cars and light trucks.
Coil size: 1 1/2" x 7" x 15"

1305 21,000 GVW

Recommended for trucks with campers and motor homes up to 28 feet long. Coil size: 1 1/2" x 7" x 18"

1306 24,000 GVW

Recommended for 28 foot to 46 foot long motor homes with occasional light towing and trucks with 5th wheel trailers.
Coil size: 1 1/2" x 7" x 21"

1308 30,000 GVW

Recommended for 28 foot to 46 foot motor homes with frequent heavy towing. Coil size: 1 1/2" x 10 1/2" x 21"

Heavy Duty Transmission Coolers feature **oversized 5/8" tubes** with Turbulator™ cooling fins, 11/32" multi-barb fittings and durable mounting brackets for secure vehicle attachment. Systems include transmission oil hose, illustrated instructions and all necessary mounting hardware. Cooler coils are also available with optional 3/8" female pipe thread fittings (NPT) for use with braided steel lines (not available in systems).

Heavy Duty Coil Only

1310 12,000 GVW

Recommended for compact and small cars. Coil size: 1 1/2" x 3 1/2" x 15"
Cooler coil with 3/8" NPT fittings

1311 17,000 GVW

Recommended for full size cars and light trucks. Coil size: 1 1/2" x 7" x 15"
Cooler coil with 3/8" NPT fittings

1315 21,000 GVW

Recommended for trucks with campers and motor homes up to 28 feet long. Coil size: 1 1/2" x 7" x 18" **Cooler coil with 3/8" NPT fittings**

1316 24,000 GVW

Recommended for 28 foot to 46 foot long motor homes with occasional light towing and trucks with 5th wheel trailers Coil size: 1 1/2" x 7" x 21"
Cooler coil with 3/8" NPT fittings

1318 30,000 GVW

Recommended for 28 foot to 46 foot motor homes with frequent heavy towing. Coil size: 1 1/2" x 10 1/2" x 21" **Cooler coil with 3/8" NPT fittings**

13161 System 24,000 GVW

Recommended for Dodge Cummins® Coil size: 1 1/2" x 7" x 21"

Cooler coil with 3/8" NPT fittings, 1/2" hose included

13181 System 30,000 GVW

Recommended for Dodge Cummins® Coil size: 1 1/2" x 10 1/2" x 21"

Cooler coil with 3/8" NPT fittings, 1/2" hose included

107 Universal Trans Cooler Mount System

Contains fluid hose and all necessary hardware for an easy installation under vehicle.

Thin Line Transmission Coolers



Thin Line coolers feature **1/2" aluminum tubes**, Turbulator™ cooling fins, **11/32" multi-barb fittings** and plastic fin protectors. Systems include transmission fluid hose, illustrated instructions and all necessary mounting hardware. Cooler coils are also available with optional -6 AN Male fittings for use with braided steel lines (not available in systems).

Thin Line Trans Cooler Systems

1010 12,000 to 14,000 GVW

Recommended for compact and small cars.
Coil size: 3/4" x 5" x 12 1/2"

1011 14,000 to 16,000 GVW

Recommended for compact and small cars with occasional light towing. Coil size: 3/4" x 5" x 15 1/2"

1012 16,000 to 18,000 GVW

Recommended for medium and full size cars and light trucks with occasional light towing. Coil size: 3/4" x 7 1/2" x 12 1/2"

1013 18,000 to 20,000 GVW

Recommended for full size cars and trucks with regular towing and motor homes up to 28 feet long. Coil size; 3/4" x 7 1/2" x 15 1/2"

1014 22,000 to 24,000 GVW

Recommended for trucks with frequent heavy towing and 28 feet to 46 feet long motor homes. Coil size: 3/4" x 10" x 15 1/2"

1015 20,000 to 22,000 GVW

Recommended for trucks and mini-motor homes with medium towing. Coil size: 3/4" x 10" x 12 1/2"

Thin Line Trans Coil Only

1020 12,000 to 14,000 GVW

Recommended for compact and small cars. Coil size: 3/4" x 5" x 12 1/2"
Cooler coil with -6 AN Male fittings

1021 14,000 to 16,000 GVW

Recommended for compact and small cars with occasional light towing. Coil size: 3/4" x 5" x 15 1/2" **Cooler coil with -6 AN Male fittings**

1022 16,000 to 18,000 GVW

Recommended for medium and full size cars and light trucks with occasional light towing. Coil size: 3/4" x 7 1/2" x 12 1/2"

Cooler coil with -6 AN Male fittings

1023 18,000 to 20,000 GVW

Recommended for full size cars and trucks with regular towing and motor homes up to 28 feet long. Coil size: 3/4" x 7 1/2" x 15 1/2"

Cooler coil with -6 AN Male fittings

1024 22,000 to 24,000 GVW

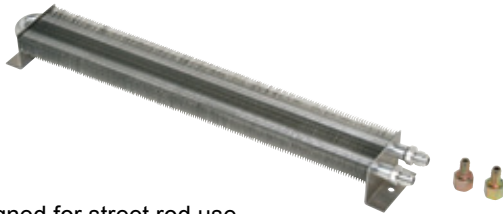
Recommended for trucks with frequent heavy towing and 28 feet to 46 feet long motor homes. Coil size: 3/4" x 10" x 15 1/2"

Cooler coil with -6 AN Male fittings

1025 20,000 to 22,000 GVW

Recommended for trucks and mini-motor homes with medium towing. Coil size: 3/4" x 10" x 12 1/2" **Cooler coil with -6 AN Male fittings**

Frame Rail Trans Coolers



- Designed for street rod use
- Mounts to frame near the transmission
- **Special AN to Hosebarb fittings (shown) for choice of hose or braided steel line**
- Compact design allows installation virtually anywhere
- 1/2" Tube, Flushable

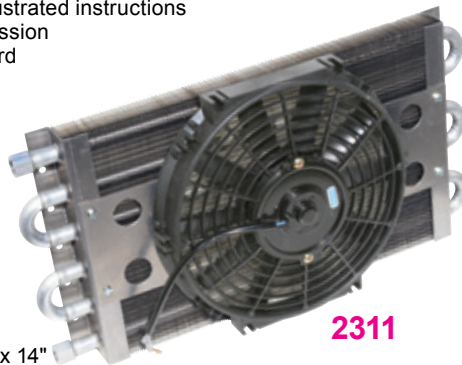
Coil with -6 AN Male Fittings **1000**
Coil Size: 1 1/2" x 2 1/2" x 15"

Coil with -6 AN Male Fittings **1006**
Coil Size: 1 1/2" x 2 1/2" x 18"

Coil with -6 AN Male Fittings **1004**
Coil Size: 1 1/2" x 2 1/2" x 24"

Maxi-Cool™ Six Pass

- Provides up to 95° drop in temperatures
- Optional electric fan module provides maximum cooling
- Easy installation with illustrated instructions
- Cools engine or transmission
- 3/8" NPT fittings standard
- 5/8" Tube, Flushable



Six Pass Cooler **2311**
Coil size: 1 1/2" x 10 1/2" x 14"

Six Pass/Electric Fan Module **12311**
With 10" electric fan module. Unit size: 4" x 10 1/2" x 14"
Electric Fan: 10 blade, 4.7 amp draw, 2350 CFM

Six Pass Cooler **2315**
Coil size: 1 1/2" x 10 1/2" x 18"

Six Pass/Electric Fan Module **12315**
With 10" electric fan module. Unit size: 4" x 10 1/2" x 18"
Electric Fan: 10 blade, 4.7 amp draw, 2350 CFM

Six Pass Cooler **2318**
Coil size: 1 1/2" x 10 1/2" x 21"

Six Pass/Electric Fan Module **12318**
With 10" electric fan module. Unit size: 4" x 10 1/2" x 21"
Electric Fan: 10 blade, 4.7 amp draw, 2350 CFM

Six Pass/Electric Fan Module System **13182**
With 10" electric fan module. Unit size: 4" x 10 1/2" x 21"
Electric Fan: 10 blade, 4.7 amp draw, 2350 CFM, with 1/2" hose
Universal Heavy Duty Diesel 30,000 GVW with 3/8" NPT Fittings

Engine Oil Cooler Mounting System **108**
System includes patented universal sandwich oil adapter with adapter bushings, 1/2" x 11' oil hose, cooler mounting brackets, brass fittings, hose clamps and mounting hardware. U.S. Patent 5,291,969

Use Part Number **18900 Inline Thermostat** to automatically control cooling fan, see page 5 for more information.

Heavy Duty Frame Rail Coolers



- Stand-off Mount provides 1 1/4" clearance between cooler coil and mounting surface
- Can be mounted horizontal or vertical
- 5/8" Tube, Flushable

Coil with 3/8" NPT fittings. **7312**
Coil size: 1 1/2" x 3 1/2" x 12" (Flush Mount)

Coil with 3/8" NPT fittings. **6315**
Coil size: 2 3/4" x 3 1/2" x 15"

Coil with 3/8" NPT fittings. **6318**
Coil size: 2 3/4" x 3 1/2" x 18"

Coil with 3/8" NPT fittings. **6321**
Coil size: 2 3/4" x 3 1/2" x 21"

Maxi-Cool™ Junior Coolers

- Provides optimum cooling in a compact design
- Available in 6 pass and 8 pass models

P/N 109 Heavy Duty Mounting System shown



Maxi-Cool™ Junior Coolers are engineered to provide continuous cooling for transmissions with extreme operating temperatures such as vehicles with high stall speed converters, trans brakes or racing transmissions. All coils feature Turbulator™ heat sink inserts in 1/2" aluminum tubes with 3/4" aluminum fins and are completely flushable. Ideal for Super Comp, Super Gas and bracket cars. Rugged metal mounting brackets make installation a snap. **Coils have -6 AN Male fittings and include -AN to Hosebarb fittings for your choice of plumbing:** standard or braided steel oil hose. Thermostatic fan switches or wiring systems sold separately.

6 Pass Cooler/Electric Fan Module **13211**
With 8" electric fan module, 2400 CFM
Unit Size: 3" x 7 1/2" x 12 1/2" **with -6 AN Male fittings**

6 Pass Cooler/Electric Fan Module **13215**
With 8" electric fan module, 2400 CFM
Unit Size: 3" x 7 1/2" x 15 1/2" **with -6 AN Male fittings**

8 Pass Cooler/Electric Fan Module **13511**
With 10" electric fan, 2350 CFM
Unit Size: 3" x 10" x 12 1/2" **with -6 AN Male fittings**

8 Pass Cooler/Electric Fan Module **13515**
With 10" electric fan, 2350 CFM
Unit Size: 3" x 10" x 15 1/2" **with -6 AN Male fittings**

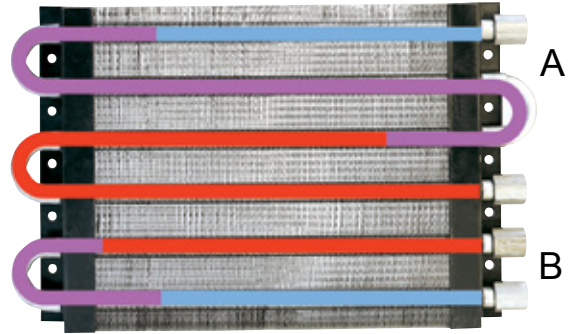
Transmission Cooler Mounting System **107**
System includes two 11/32" x 4' oil hoses, cooler mounting brackets, hose clamps and mounting hardware. Use for easy installation of Frame Rail and Heavy Duty Frame Rail Transmission Coolers. Use with any cooler featuring -6 AN Male fittings or 3/8" NPT fittings.

Use Part Number **18899 Inline Thermostat** to automatically control cooling fan, see page 5 for more information.

All Electric Fans REQUIRE a 15 Amp (Minimum) Fuse for start-up protection.

Maxi-Cool™ Dual Circuit Coolers

Cool two components at the same time in the space of one cooler. Maxi-Cool's™ robust all aluminum **5/8" tube** and 1 1/2" wide fin design also features our patented Turbulator™ for more efficient cooling than all other designs. Add the electric fan module for continuous cooling, especially important during high load conditions. Coils feature 3/8" NPT fittings for secure attachment of cooler lines. Limited life-time warranty, oil hose, fan control switch and installation components available separately. **Coils are flushable.**



A: Fluids such as; transmission, engine
B: Fluids such as; engine, power steering, differential, fuel

3311 Dual Circuit Cooler

Coil size: 1 1/2" x 10 1/2" x 14"

13311 Dual Circuit Cooler/Fan Module

With 10" electric fan module. Unit size: 3 3/4" x 10 1/2" x 14"
Electric Fan: 10 blade, 4.7 Amp draw, 2350 CFM



3315 Dual Circuit Cooler

Coil size: 1 1/2" x 10 1/2" x 18"

13315 Dual Circuit Cooler/Fan Module

With 10" electric fan module. Unit size: 4" x 10 1/2" x 18"
Electric Fan: 10 Blade, 4.7 amp draw, 2350 CFM

3318 Dual Circuit Cooler

Coil size: 1 1/2" x 10 1/2" x 21"

13318 Dual Circuit Cooler/Fan Module

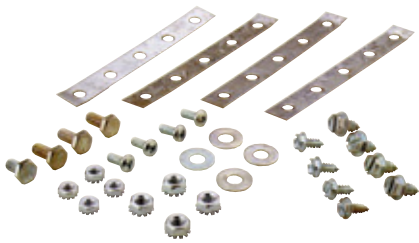
With 10" electric fan module. Unit size: 4" x 10 1/2" x 21"
Electric Fan: 10 blade, 4.7 amp draw, 2350 CFM



For a complete Dual Circuit cooler installation mounting systems #107 and #108 are required.

Use Part Number **18900 Inline Thermostat** to automatically control cooling fan, see page 5 for more information.

Cooler Mounting Systems



103 Metal Mounting System

Ideal for positive mounting. Contains four 5" long galvanized steel universal brackets and mounting hardware.

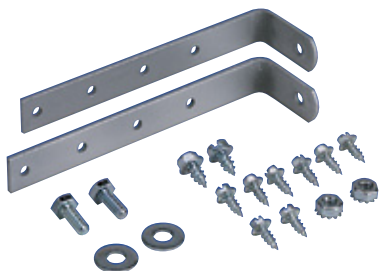
102 Transmission Cooler Remount System

Contains fluid hose and all necessary hardware for easy re-installation of all transmission fluid coolers.



107 Trans Cooler Mounting System

Contains fluid hose and all necessary hardware for easy installation of all coolers under vehicle. (For -6 AN & 3/8" NPT fittings)

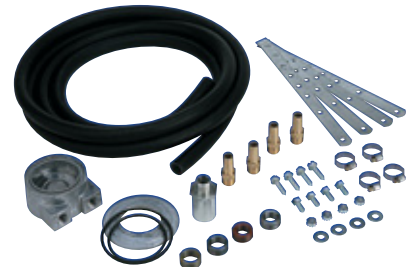


109 Heavy Duty Mounting System

Contains two 6" heavy duty zinc plated steel brackets and mounting hardware. Ideal for positive mounting. Allows for underchassis installation, (Thin Line Coils, etc.)

106 Engine Oil Cooler Remount System

Contains fluid hose and all necessary hardware for easy re-installation of all engine oil coolers.



108 Engine Cooler Mounting System

System includes patented universal sandwich oil adapter with adapter bushings, 1/2" x 11' oil hose, cooler mounting brackets, brass fittings, hose clamps and mounting hardware. U.S. Patent 5,291,969

19001



Electric Fan Wiring System

System includes 185°F automatic thermal switch, insulated wire, wire connectors, fuse block power taps, in-line fuse holder with fuse and installation instructions. Thermal switch installs on radiator hose. 15 Amp Max.

19005



Threaded Thermal Sensor System

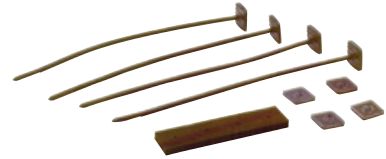
System includes 185°F 1/2" NPT threaded thermal sensor, 1/2" NPT glue bung, insulated wire, wire connectors, fuse block power taps, in-line fuse holder with fuse and installation instructions. Easy installation of sensor begins by screwing sensor into bung and then using epoxy to attach sensor assembly to transmission pan. No hole necessary! 15 Amp Max.

15106



Temperature Gauge System

Monitor engine oil or transmission fluid temperature with a dash mounted gauge. Complete system with gauge, under dash gauge mount, electric temperature sending unit, mounting hardware, wiring diagram and illustrated instructions.



Universal Mounting System

105

Nylon tie mounting kit. Four patented tie mounts with recessed non-scuff teeth and protective foam pads for easy tool free installation. U.S. Patent 4,617,702



Inline Thermoswitch -6 AN Style

18899

- Automatically activates 12V electric fan at 185°F, shuts off at 165° F, 15 Amp Maximum
- Eliminates separate 12V relay
- For Maxi-Cool™ Jr. coolers with -6 AN Male Fittings



Inline Thermoswitch 3/8" NPT Style

18900

- Automatically activates 12V electric fan at 185°F, shuts off at 165°F, 15 Amp Maximum
- Eliminates separate 12V relay, 15 Amp Maximum
- Features 3/8" NPT Female Fittings
- Many Performance Fittings available for easy and secure hose connections
- Supplied with 3/8" NPT nipple (not shown)

Transmission Fluid & Engine Oil Thermostats

When oil or fluid temperature exceeds 180°F the thermostatic valve closes, allowing 95% flow through the oil cooler. At temperatures below 180°F the valve is open, with 90% of the oil by-passing the cooler. The remaining 10% of the oil flows through the cooler, maintaining constant system pressure, preventing air pockets and eliminating cold oil shock. Flows up to 20 gallons per minute. Rated to 200 PSI. Thermostat mounting systems contains four brass fittings, four stainless steel hose clamps and two nylon tie mounts are sold separately.

- Prevents over cooling in cold climates
- For use with transmission coolers or engine coolers
- Automatically regulates oil or fluid temperature
- Provides quicker warm-ups to operating temperatures
- Improves powertrain efficiency and gas mileage
- Mounting Systems include four hose barb fittings, four stainless steel hose clamps and two nylon tie mounts (U.S. Patent 4,617,702)
- Ball burnish finish

Transmission Fluid Thermostat with 3/8" NPT Ports

1060

Mounting System for #1060 Thermostat

1160

3/8" NPT x 11/32" hose barb

Engine Oil Thermostat with 1/2" NPT Ports

1070

Mounting System for #1070 Thermostat

1170

1/2" NPT x 1/2" hose barb

Engine Oil Thermostat with -10 AN Ports

1071

Use with SAE and AN Fittings

Oil Thermostat complete with -6 AN Fittings

1072

Oil Thermostat complete with -8 AN Fittings

1073

Oil Thermostat complete with -10 AN Fittings

1074

Oil Thermostat complete with -12 AN Fittings

1075



Single Row Headered Competition Oil Coolers

**201****450 Horsepower**

Three pass coil flows 3-10 GPM. 1/2" NPT Fittings
Coil size: 1 1/2" x 6" x 18"

202**475 Horsepower**

Four pass coil flows 4-14 GPM. 1/2" NPT Fittings
Coil size: 1 1/2" x 8" x 18"

301**500 Horsepower**

Four pass coil flows 4-14 GPM. 1/2" NPT Fittings
Coil size: 1 1/2" x 8" x 21"

501**600 Horsepower**

Five pass coil flows 4-16 GPM. 1/2" NPT Fittings
Coil size: 1 1/2" x 9 1/2" x 21"

601**700 Horsepower**

Six pass coil flows 4-18 GPM. 3/4" NPT Fittings
Coil size: 1 1/2" x 11 1/2" x 21"

- Transfers maximum BTUs per volume oil flow
- Single row coolers provide optimum cooling in low airflow environments
- Extremely low flow resistance
- 100% pressure tested to 300 PSI
- Headered design yields highest flow rates
- Rugged silver solder construction withstands pressure spikes
- Lifetime warranty

Perma-Cool® manufactures a variety of Competition Cooler Coils for maximum performance in hostile environments normally associated with motorsports competition. Our headered style coolers feature 5/8" copper tubes with Turbulator™ fins, copper headers and aluminum cooling fins. The headered coolers provide the highest BTU transfer with the least amount of resistance to high volume flow. Single row coils provide optimum cooling in low air flow environments. 100% pressure tested to 300 PSI.

Aluminum Competition Oil Coolers

**212****85-300 Horsepower**

Four pass coil flows 3-10 GPM. 3/8" NPT Fittings
Coil size: 3" x 3 3/4" x 12"

315**250-450 Horsepower**

Six pass coil flows 3-14 GPM. 1/2" NPT Fittings
Coil size: 3" x 5 3/4" x 14"

415**400-500 Horsepower**

Eight pass coil flows 4-14 GPM. 1/2" NPT Fittings
Coil size: 3" x 7 1/4" x 14"

515**500-800 Horsepower**

Ten pass coil flows 5-16 GPM. 1/2" NPT Fittings
Coil size: 3" x 9" x 14"

615**850-1,000 Horsepower**

Twelve pass coil flows 5-18 GPM. 1/2" NPT Fittings
Coil size: 3" x 10 3/4" x 14"

- Lightweight all aluminum alloy construction
- Exclusive use of thermally cured aerospace epoxy during fabrication
- Turbulator™ fins maximize heat transfer from oil
- NPT fittings for secure connections to cooler
- Continuous loop double row design produce maximum heat rejection in low air flow situations
- Can be flushed and reused
- Ideal for all types of fluids
- Lifetime warranty

Our Aluminum Competition Cooler coils feature 5/8" aluminum tubes with Turbulator™ fins. Entry and exit ports are 1/2" NPT fittings for secure attachment of cooler lines. Using aluminum ensures maximum BTU transfer required in motorsports environments. All Aluminum Competition Oil Coolers are 100% tested to 300 PSI.



Engine Oil Cooler Systems

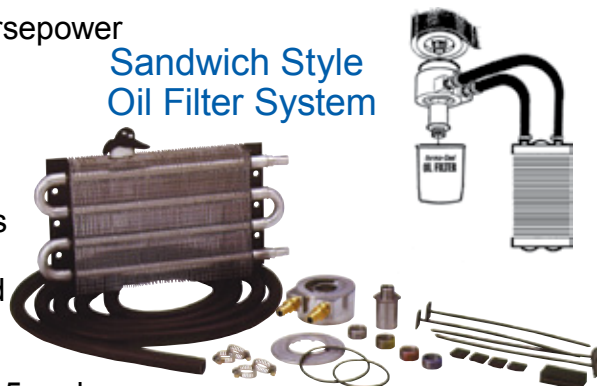
- Three cooler sizes fit engines up to 200, 300 and 500 horsepower
- Sandwich style systems are the easiest to install
- Increased engine life
- Lifetime Warranty



Remote Oil Filter Style System



Sandwich Style Oil Filter System



Engine Oil Cooler Systems fit engines with the following spin-on filter thread sizes: 3/4"-16, 13/16"-16, 1"-12, M18 x 1.5, M20 x 1.5 and M22 x1.5. Systems are available with our best selling sandwich style filter system which retains the factory oil filter location or a remote style filter system which relocates the oil filter to a more convenient location in the engine compartment. Both full flow systems use oil filters with 3/4"-16 thread such as Perma-Cool® 81008, Fram® PH8A or equivalent (oil filter not included). Systems include oil hose, illustrated instructions and all necessary mounting hardware. **All coils are flushable.**

U.S. Patents 4,617,702 & 5,291,969

For your sport compact car, check out Cool-Tek® engine oil cooler systems and applications

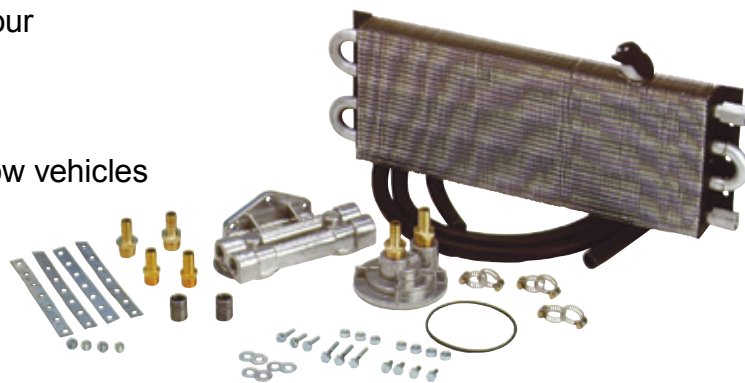
	Remote Systems	Sandwich Systems	Cooler Coils
Compact and Midsize cars	200 HORSEPOWER Coil size: 3/4" x 7 1/2" x 12 1/2" with 1/2" hosebarbs	69195	69189 691
Full size cars, Light duty trucks and Vans	300 HORSEPOWER Coil size: 1 1/2" x 7" x 14" with 1/2" hosebarbs	10195	10189 101
			Cooler coil only with 3/8" NPT fittings 671
Heavy duty Truck, Motorhomes, Drag Race and Off Road vehicles	500 HORSEPOWER Coil size: 1 1/2" x 7" x 21" with 3/8" NPT fittings	40195	40189 401

Specific fit models available, please call factory

Light Truck & SUV Diesel Engine Oil Cooler Systems

- Complete cooling and filtering systems for your truck or SUV's engine
- Increases the service life of your powertrain
- Reduces the chance of engine overheating
- Heavy Duty Systems available for full time tow vehicles

1 1/2" thick all aluminum cooler has oversized 5/8" tubes with Turbulator™ fins and 3/8" female pipe thread fittings. Remote style filter system relocates the oil filter to a more convenient area in the engine compartment. Oil filters not included. Systems include oil hose, illustrated instructions and all necessary mounting hardware. **Coils are flushable.** Coil size: 1 1/2" x 7" x 21"



- Engine Oil Cooler System** **40110**
1985 - 2003 Ford Navistar®, Powerstroke® Diesel 6.9L, 7.3L Use 3/4"-16 thread filter such as Perma-Cool® P/N 81008
- Engine Oil Cooler System** **40114**
1985 - 2013 Chevrolet and GMC Diesel 5.7L, 6.2L, 6.5L, 6.6L Use factory filter.
- Engine Oil Cooler System** **40156**
1989 - 2013 Dodge Cummins® Diesel 5.9L, 6.7L Use factory filter.
- Engine Oil Cooler System (Sandwich Style)** **40836**
1989 - 2013 Dodge Cummins® Diesel 5.9L, 6.7L Use factory filter.

Power Steering, Fuel & ATV Cooler Systems

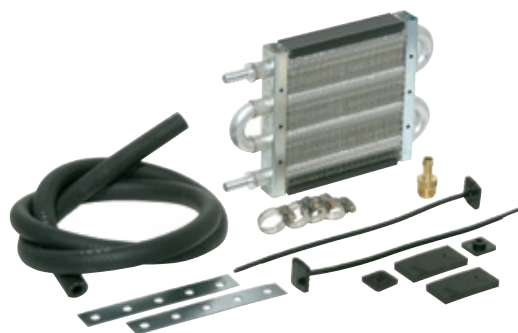
- Prevents premature power steering pump failure
- Ideal for circle track, off road, sprint car and road racing steering systems

- Applications include RVs and 4WD vehicles
- Cools fuel for better engine performance
- Lowers fuel density and prevents vapor lock
- Coils are flushable



997 Two Pass System

Coil size: 1 1/2" x 2 1/2" x 12"



1007 Four Pass System

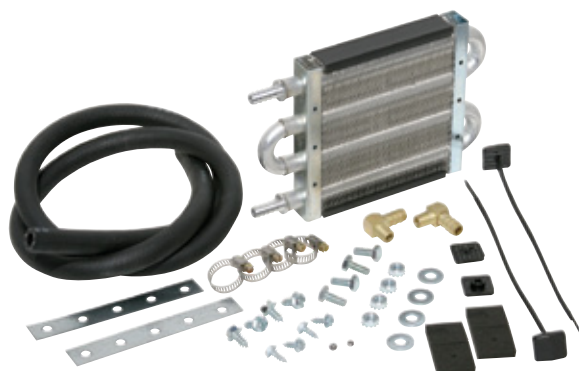
Coil size: 3/4" x 5" x 7 1/2"

System includes oil hose, illustrated instructions and all necessary mounting hardware



1001 Two Pass System

Coil size: 1 1/2" x 2 1/2" x 7 1/2"



1008 Universal ATV Oil Cooler System

System includes oil hose, illustrated instructions and all necessary mounting hardware

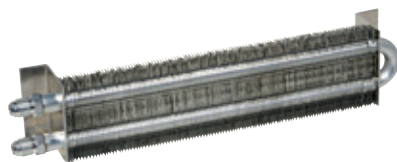


1200 Two Pass Heavy Duty System

Coil size: 1 1/2" x 3 1/2" x 12" 5/8" Tube

Heavy Duty Power Steering & Fuel Coolers

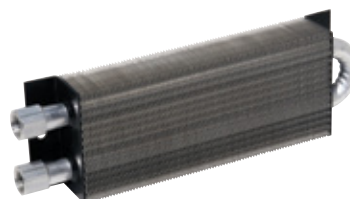
- Competition ready
- Use with street, strip and racing power steering systems
- Secure attachment with NPT fittings or -6 AN fittings
- Flushable



998 Two Pass Coil

Coil size: 1 1/2" x 2 1/2" x 12"

Competition coil with -6 AN Male fittings.



1210 Two Pass Heavy Duty Coil

Coil size: 1 1/2" x 3 1/2" x 12"

Cooler coil with 3/8" NPT fittings 5/8" Tube



1002 Two Pass Coil

Coil size: 1 1/2" x 2 1/2" x 7 1/2"

Competition coil with -6 AN Male fittings.



1009 Four Pass Coil

Coil size: 3/4" x 5" x 7 1/2"

Competition coil with -6 AN Male fittings.

Automatic Transmission Fluid Filter Systems

- Extends transmission life
- Surpasses manufacturer's filtration requirements
- Diesel applications use heavy duty system
- Fits all automatic transmissions
- Prevents transmission failure
- Increased fluid capacity
- Improved fuel efficiency
- New low profile filter mount design
- Easy installation in restricted mounting locations

Standard System 10678

System features cast aluminum filter mount, Perma-Cool® transmission fluid filter, high pressure/high temperature **11/32" transmission hose**, brass fittings, stainless steel hose clamps, mounting hardware and illustrated instructions. See page 21 for replacement hose and filters.



Heavy Duty System 10676

System features cast aluminum filter mount, Perma-Cool® transmission fluid filter, high temperature/high pressure **1/2" transmission hose**, brass fittings, stainless steel hose clamps, mounting hardware and illustrated instructions. See page 21 for replacement hose and filters.



Deluxe System 10677

System features cast aluminum filter mount, Perma-Cool® transmission fluid filter, high pressure/high temperature **11/32" transmission hose**, brass fittings, stainless steel hose clamps, mounting hardware and illustrated instructions, plus electric temperature gauge with mounting bracket, sending unit, electrical wire and hardware. See page 21 for replacement hose and filters.



Heavy Duty Deluxe System 10675

System features cast aluminum filter mount, Perma-Cool® transmission fluid filter, high pressure/high temperature **1/2" transmission hose**, brass fittings, stainless steel hose clamps, mounting hardware and illustrated instructions, plus electric temperature gauge with mounting bracket, sending unit, electrical wire and hardware. See page 21 for replacement hose and filters.



Engine Oil Filter Relocation Systems

- Available in single or dual remote oil filter mount
- Universal coverage, fits 90% of all automotive applications
- Moves filter to a convenient location
- Provides extra clearance for engine swaps
- Increases oil capacity

Universal Oil Filter Relocation Systems fit engines with the following spin-on oil filter thread sizes: 3/4"-16, 13/16"-16, 1"-12, M18 x 1.5, M20 x 1.5 and M22 x 1.5. Designed to use oil filters with 3/4"-16 thread, such as Perma-Cool® P/N 81008 or Fram® PH 8A or equivalent (oil filters not included).

Universal Single Filter System 10695



U.S. Patent 5,291,969

Custom Fit Single Filter Systems

(Engine Thread)

3/4"-16 Thread	10611
M18 x 1.5 Thread	10612
Chevy V8 56 & later (Canister)	10613
13/16"-16 Thread	10614
M20 x 1.5 Thread	10616
M22 x 1.5 Thread	10618
3/4"-16 Thread Spin-On (Ports Right & Left)	10691



Fast and easy oil changes are now possible thanks to our Universal Oil Filter Relocation System! The system contains an adapter to convert the stock filter landing on the engine block to an oil passage, your choice of a single or dual remote filter mount, eight feet of oil hose for custom fit lines, illustrated instructions and all necessary mounting hardware.

Universal Dual Filter System 10795



U.S. Patent 5,291,969

Custom Fit Dual Filter Systems

(Engine Thread)

1 1/2"-16 Thread (Ford Diesel)	10710
3/4"-16 Thread	10711
M18 x 1.5 Thread	10712
Chevy V8 56 & later (Canister)	10713
13/16"-16 Thread	10714
M20 x 1.5 Thread	10716
M22 x 1.5 Thread	10718
1"-16 Thread (Dodge Cummins w/ 3/4"-16 Thd. Filters)	10756
13/16"-16 Thread (Chevy/GMC diesel w/ OEM Filters)	10914
1"-16 Thread (Dodge Cummins w/ OEM Filters)	10956

Unless otherwise specified, **Single and Dual Custom Fit Systems** are designed to use oil filters with 3/4"-16 thread, such as Perma-Cool® P/N 81008 or Fram® PH 8A or equivalent (oil filters not included).

Fuel Filter/Water Separator Systems

- Adaptable to automotive, industrial and marine applications
- Use with all types of fuel
- Removes virtually all water
- Filters down to 2 microns
- New low profile filter mount for easy installation in restricted spaces
- Dual ports right & left offers multiple plumbing options

81074 Fuel Filter/Water Separator System

System features cast aluminum filter mount, Perma-Cool® 24,000 mile filter element, high temperature/high pressure flame retardant hose, brass fittings, stainless steel hose clamps, mounting hardware and illustrated instructions.



Use the Perma-Cool® Fuel Filter/Water Separator to ensure delivery of clean and water-free fuel to your engine. Whether you use diesel, biodiesel, gasoline, E85, methanol, ethanol or gasohol, the Perma-Cool® 24,000 mile filter element does the job. Fuel additives are no problem either. There are four Perma-Cool® fuel filter and water separator models to choose from. All models withstand up to 90 PSI line pressure. All are adaptable to automotive, industrial or marine applications. Replacement elements are sold separately. Please order Perma-Cool® P/N 81000. See page 21 for replacement filter elements.

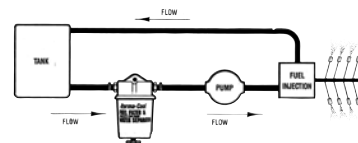
Street & High Performance Fuel Filter Systems

- Flows up to 5 GPM
- Dual inlets and outlets allows choice of flow direction
- Ideal for dual fuel pumps or dual carburetors

84794 Street Flow Filter Head

- **1/4" NPT port size**
- New low profile filter mount style
- Easy installation in restricted mounting locations
- Multiple plumbing options with dual ports right & left

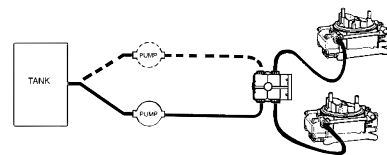
System features cast aluminum filter mount, Perma-Cool® 24,000 mile filter element, two pipe plugs.



Typical Applications

81794 High Performance Filter Head

- **1/2" NPT port size**
- System features cast aluminum filter mount, Perma-Cool® 24,000 mile filter element, two pipe plugs.

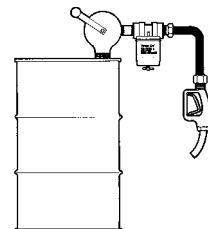


Typical Applications

88864 High Flow Filter Head

- Industrial or fleet use
- **3/4" NPT port size for high flow**
- Ideal for fuel transfer

System features cast aluminum filter mount, Perma-Cool® 24,000 mile filter element.



Typical Applications

COOL-TEK[®]

SPORT COMPACT PERFORMANCE PRODUCTS





Cool-Tek® Oil Filter Relocation System

P/N 70911 3/4"-16 Thread

P/N 70922 M18 x 1.5 Thread

P/N 70944 13/16"-16 Thread

P/N 70966 M20 x 1.5 Thread

P/N 70988 M22 x 1.5 Thread

- Dual ports right & left remote filter mount
- Easy installation in tight spaces
- Uses the **factory style oil filter**
- Additional ports for turbo oil or temperature/pressure sending unit.



Cool-Tek® P/N 71060

Thermostat System

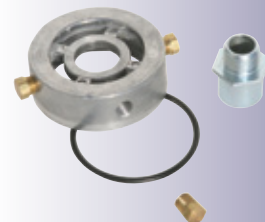
- Use with external oil cooler
- Prevents overcooling of engine or transmission
- Get up to operating temperatures quicker
- Helps maintain correct temperatures with cooler



Cool-Tek® P/N 71141 VTEC Head Conversion Alignment Pins

for early engine conversion.

These pins will allow perfect alignment of any B-series VTEC head on non-VTEC block. Includes illustrated instructions. Some minor modifications to the head gasket may be necessary for head alignment pins.



Cool-Tek® Turbo Oiler Sandwich Adapter

1/8" NPT Ports (3)

P/N 70161 3/4"-16 Thread

P/N 70166 M20 x 1.5 Thread

P/N 70168 M22 x 1.5 Thread

- Use ports for turbo oil supply, oil pressure and temperature sending units



Cool-Tek® P/N 71186 VTEC Head Conversion Kit for Early Engine

Conversion & Cooling Ports
with Optional Turbo Oiler
Cools engine and turbo

M20 x 1.5 Thread

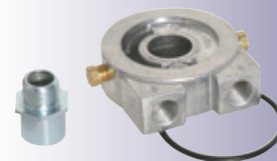
Use additional port for
temperature/pressure sending unit
Late model head gasket not included



Cool-Tek® P/N 71166 VTEC Head Conversion Kit Cools turbo

M20 x 1.5 Thread

Use additional ports for
temperature/pressure sending units
Late model head gasket not included



Cool-Tek® Engine Oil Cooler & Turbo Sandwich Supply

3/8" NPT Oil Cooler Ports (2)

1/8" NPT Turbo Oiler Ports (2)

P/N 70181 3/4"-16 Thread

P/N 70186 M20 x 1.5 Thread

P/N 70188 M22 x 1.5 Thread

- Use additional ports for oil temperature or pressure and turbo oil supply



Cool-Tek® P/N 71200
Transmission Cooler System

- Ideal for all automatic transmissions
- Extends service life
- Lifetime Warranty
- Improves fuel efficiency and performance
- Compact design for easy installation

Cool-Tek®
Your Import Performance Connection



- Cool-Tek® P/N 71001**
Universal Drifting
Power Steering Cooler System
- For aggressive driving styles
 - Ideal for road racing, drifting or high performance steering systems



Cool-Tek® Competition Coolers

Dual Row Four Pass

P/N 70212 3/8" NPT 3" x 3 3/4" x 12"

P/N 70215 3/8" NPT 3" x 3 3/4" x 15"

P/N 70218 3/8" NPT 3" x 3 3/4" x 18"

P/N 70221 3/8" NPT 3" x 3 3/4" x 21"

Cool-Tek® Oil Cooler Systems will reduce oil temperatures by as much as 40 degrees and increase oil capacity thereby extending the life of your engine. Includes

everything necessary for installation. Systems fit multiple vehicle applications. Refer to Cool-Tek® Application Guide to determine the correct system for your vehicle!



Cool-Tek® Standard Four Pass System

Coil Dimensions: 12 1/2"L x 5"W x 3/4"T
with 1/2" Hose Barb ends.

P/N 75581 3/4"-16 Thread
P/N 75586 M20 x 1.5 Thread
P/N 75588 M22 x 1.5 Thread
P/N 75081 xB Application



Cool-Tek® Heavy Duty Two Pass System

Coil Dimensions: 15"L x 3 1/2"W x 1 1/2"T
with 1/2" Hose Barb ends.

P/N 76281 3/4"-16 Thread
P/N 76282 M18 x 1.5 Thread
P/N 76286 M20 x 1.5 Thread
P/N 76288 M22 x 1.5 Thread
P/N 76212 WRX Application



Cool-Tek® Standard Six Pass System

Coil Dimensions: 12 1/2"L x 7 1/2"W x 3/4"T
with 1/2" Hose Barb ends.

P/N 76981 3/4"-16 Thread
P/N 76986 M20 x 1.5 Thread
P/N 76988 M22 x 1.5 Thread



Cool-Tek® Heavy Duty Four Pass System

Coil Dimensions: 15"L x 7"W x 1 1/2"T
with 1/2" Hose Barb ends.

P/N 71081 3/4"-16 Thread
P/N 71084 13/16"-16 Thread
P/N 71086 M20 x 1.5 Thread
P/N 71088 M22 x 1.5 Thread

Turbo-Flex® High Performance Flex Fans

- Improves gas mileage and engine performance
- Fans offered with black powder coated or chrome plated centers
- Perfect for applications requiring extra cooling such as vehicles with turbo or superchargers
- Ideal for full sized trucks and vehicles used for towing
- Available in standard or reverse rotation configurations
- Exclusive thick polished stainless steel blades on both styles

Turbo-Flex® Flex Fans pull additional air through the radiator at low rpms when the speed of the vehicle isn't enough to cool the engine's coolant system. At higher rpms, when the vehicle's speed forces ample air through the radiator, the fan blades flatten out, resulting in less power being used to spin the fan. Engine performance and gas mileage are improved.

Right Hand Rotation

- 85130** 13" Black
- 95130** 13" Chrome
- 85150** 15" Black
- 95150** 15" Chrome
- 85170** 17" Black
- 95170** 17" Chrome
- 85180** 18" Black
- 95180** 18" Chrome
- 85190** 19" Black
- 95190** 19" Chrome
- 85200** 20" Black
- 95200** 20" Chrome



Reverse Rotation



Left Hand Rotation

- 86150** 15" Black Reverse
- 96150** 15" Chrome Reverse
- 86170** 17" Black Reverse
- 96170** 17" Chrome Reverse
- 86180** 18" Black Reverse
- 96180** 18" Chrome Reverse
- 86190** 19" Black Reverse
- 96190** 19" Chrome Reverse
- 86200** 20" Black Reverse
- 96200** 20" Chrome Reverse

Fan Spacer Systems

Fan Spacer Systems

Die cast polished aluminum fan spacers with 5/8" male pilot and a variety of female pilot hole sizes. Comes with plated mounting hardware.

Spacer Length	Spacer Only No Bolts	Fine Bolts 5/16"-24 (NF) bolts	Coarse Bolts 5/16"-18 (NC) bolts
	P/N	P/N	P/N
1/2"	20050	21050	22050
1"	20100	21100	22100
1 1/2"	20150	21150	22150
2"	20200	21200	22200
2 1/4"	20225	21225	22225
2 1/2"	20250	21250	22250



All spacers have 5/8" (Male) and 5/8" / 3/4" (Female) Pilot (1/2" spacer, 5/8" pilot only)

Spacer Length	P/N	Thru Hole	Bolts
1/2"	22051	0.980"	1/4"-20
1/2"	23863	0.863"	M6 x 1.5
1"	23119	1.190"	M6 x 1.5
2"	23125	1.250"	M6 & M8 x 1.5
2"	23202	Toyota Taper	M6 & M8 x 1.5
2"	23118	Ford Thd On	M8 x 1.5
2"	23928	0.928"	M6 x 1.5
2"	23947	0.947"	M6 x 1.5
2 1/4"	23750	5/8" / 3/4"	M6 & M8 x 1.5

Universal Fan Spacer Systems

Die cast aluminum fan spacers with 5/8" male pilot and 3/4" female pilot hole. Comes with bushing to reduce 5/8" female pilot and 5/16" plated NC and NF mounting hardware.

- 24100** 1" Universal System
- 24150** 1 1/2" Universal System
- 24200** 2" Universal System
- 24225** 2 1/4" Universal System
- 24250** 2 1/2" Universal System

Turbo-Flex® Universal Flex Fans

- Narrow blade width and moderate pitch improves air flow with minimal horsepower loss
- Available with aluminum or stainless steel fan blades
- Aluminum fans available with blue or red anodized blades
- Fan centers offered with a black powder coated or chrome plated finish
- Specially formed blade tips minimize fan noise
- Two piece steel center hubs for positive blade attachment

Aluminum Flex Fans

All Aluminum Flex Fans Are **Right Hand** Rotation



17" Aluminum Fans

Blue Blades/Black Center	83171
Red Blades/Black Center	83172
Blue Blades/Chrome Center	93171
Red Blades/Chrome Center	93172

18" Aluminum Fans

Blue Blades/Black Center	83181
Red Blades/Black Center	83182
Blue Blades/Chrome Center	93181
Red Blades/Chrome Center	93182

Fan Clutch & Clutch Replacer

- Exclusive staggered fin design has 60% more surface area for maximum heat dissipation
- Non-thermal model offered



Non-Thermal 7 1/4" Diameter

25100

Clockwise or counter clockwise fan rotation

Fan Clutch Replacer

Replaces stock fan clutch when maximum airflow is necessary for additional cooling. For use with stock fan blades. Gas mileage will drop because fan blades spin constantly for full time cooling. NOT for use on high performance engines or engines that turn over 4200 RPM. Complete with mounting hardware and illustrated instructions.



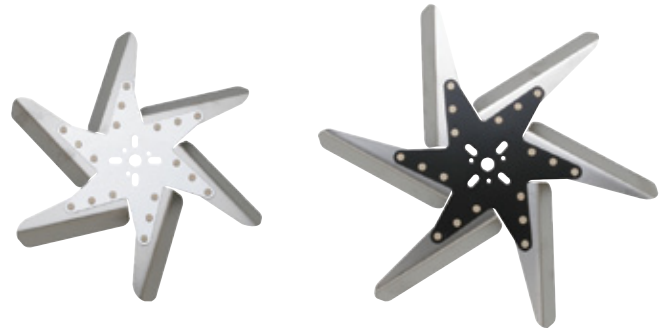
Fan Clutch Replacer

24750

For cars with 2 3/8" or 2 5/8" fan blade pilot holes.

Stainless Steel Flex Fans

All Flex Fans Are **Right Hand** Rotation



13" Black Center	84130
13" Chrome Center	94130
15" Black Center	84150
15" Chrome Center	94150
17" Black Center	84170
17" Black Center (Early Chevy 6 Cyl.)	84171
17" Black Center (Early Chevy 6 Cyl. w/spacer)	84270
17" Chrome Center	94170
18" Black Center	84180
18" Chrome Center	94180

Cool-Pack Radiator Cooling Systems



- Eliminates factory fan clutch, fan and shroud
- Increases horsepower and torque
- Provides efficient cooling
- Simple hand tool installation
- Improves fuel mileage
- Unrestricted air flow



19514 88-98 Chevy/GMC full size Pickup
92-03 Chevy, GMC SUVs
V8 with 17" x 34" radiator core

19515 88-98 Chevy/GMC full size Pickup
92-03 Chevy/GMC SUVs
V8 with 19" x 34" radiator core

19524 88-98 Chevy/GMC full size Pickup
92-03 Chevy/GMC SUVs
V8 with 17" x 28 1/2" radiator core

19513 81-87 Chevy/GMC full size Pickup
81-91 Chevy/GMC Suburban
V8 with 19" x 28 1/2" radiator core

19516 99-02 Chevy/GMC full size Pickup, SUVs
gas V8 (exc. 8.1 L) with 17" x 34" radiator core

19517 99-02 Chevy/GMC full size Pickup, SUVs
gas V8 (exc. 8.1L) with 17" x 28 1/2" radiator core

Cool-Pack features dual high-output electric fans powered by a 170°F to 210°F adjustable thermal sensor with a digital temperature probe accurate to within $\pm 1^\circ\text{F}$. The robust aluminum assembly incorporates laser cut fan openings, airflow enhancers and has a special SAE black powder coated finish that is impervious to acids, oils and fuels. Peak airflow is maximized with a special cross flow isolator, a Perma-Cool® exclusive. Cool-Pack uses factory mounting holes and requires no cutting, drilling or modifications. Models are available for most popular full size pickups and SUVs. Not recommended for heavy towing applications.

- 19503** 97-06 Jeep Wrangler Single Fan
19507 73-80 Chevy Pickup & SUV 6 & V8
19510 87-96 Ford full size Pickup, V8
19511 97-03 Ford F150, 4.6L & 5.4LV8
19512 99-06 Toyota Tundra & Sequoia, V8
19520 94-02 Dodge Ram Pickup, V6, V8
19522 04-12 Nissan Titan & Armada, V8
19526 05-09 Hummer H3 Single Fan

Note: To determine size of radiator measure only the section with fins. Side tanks or top and bottom tanks are not included in the core measurement.

High Performance Electric Fans

- Ideal for use as primary cooling fans
- Perfect for engine swaps
- Reversible "push/pull" for mounting on either side of the radiator

- Patented nylon mounting system included with each electric fan, (U.S. Patent 4,617,702)
- Wiring systems with automatic thermal switch sold separately

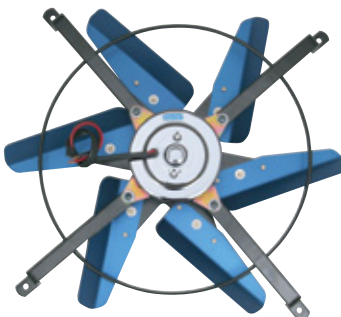
19112 **NEW!** **12" Electric Fan**
Mounting Area Req'd. 12 1/2" x 12 1/2" x 3 3/4"
RPM 2100, AMP Draw 10.0, 3300 CFM

19113 **13" Electric Fan**
Mounting Area Req'd. 14" x 14" x 3 3/4"
RPM 2050, AMP Draw 10.5, 3000 CFM

19114 **14" Electric Fan**
Mounting Area Req'd. 14" x 14" x 3 3/4"
RPM 1900, AMP Draw 11.0, 2950 CFM

19115 **16" Electric Fan**
Mounting Area Req'd. 16" x 16" x 3 3/4"
RPM 1800, AMP Draw 11.0, 2950 CFM

19117 **18" Electric Fan**
Mounting Area Req'd. 17 3/4" x 17 3/4" x 3 3/4"
RPM 1650, AMP Draw 10.5, 2900 CFM



Our High Performance Electric Fans are the most powerful electric fans available and are capable of moving almost twice the volume of air as competitive models. Features include low RPM, high torque-precision motors with dual ball bearing armature supports for longer life. All of these fans have lightweight aluminum blade assemblies. All High Performance Electric Fans feature an open steel fan housing, a Perma-Cool® exclusive, for unrestricted air flow.

All Electric Fans REQUIRE a 30 Amp Fuse for start-up protection.

Standard Electric Fans

- Perfect for use as auxiliary cooling fans
- Installs in minutes with hand tools
- Patented nylon mounting system included with each electric fan (U.S. Patent 4,617,702)
- NEW MORE POWERFUL motors
- Wiring systems with automatic thermal switch sold separately
- Higher CFM ratings with lower amp draw

All Electric Fans REQUIRE a 30 Amp Fuse for start-up protection.

Standard Straight Blade Electric Fans (Reversible)



7" Electric Fan **19127**

Mounting Area Req'd. 7 1/4" x 7" x 2 1/4"
AMP Draw 3.0, 2200 CFM

8" Electric Fan **19128**

Mounting Area Req'd. 8 1/4" x 8" x 2 1/4"
AMP Draw 4.0, 2400 CFM

9" Electric Fan **19129**

Mounting Area Req'd. 9" x 9 1/2" x 2 1/4"
AMP Draw 4.5, 2390 CFM



10" Electric Fan **19120**

Mounting Area Req'd. 11" x 10" x 2 1/4"
AMP Draw 4.7, 2350 CFM

12" Electric Fan **19122**

Mounting Area Req'd. 13 3/4" x 12 1/2" x 2 1/2"
AMP Draw 8.0, 2300 CFM

14" Electric Fan **19124**

Mounting Area Req'd. 15 1/2" x 14" x 3 3/4"
AMP Draw 9.8, 2450 CFM

16" Electric Fan **19126**

Mounting Area Req'd. 17" x 16" x 3 3/4"
AMP Draw 11.0, 2350 CFM

Standard Spiral Blade Electric Fans (Puller Only)

(Non-Reversible)



- Quiet and efficient for maximum cooling
- Wiring systems sold separately
- Sleek all black appearance
- Easy installation
- Low amp draw

10" Spiral Blade Fan **18120**

Mounting Area Req'd. 11 1/2" x 11" x 2 1/4"
AMP Draw 4.0, 1450 CFM

12" Spiral Blade Fan **18122**

Mounting Area Req'd. 12 1/2" x 12" x 2 1/2"
AMP Draw 6.5, 1650 CFM

14" Spiral Blade Fan **18124**

Mounting Area Req'd. 14 1/4" x 14" x 2 3/4"
AMP Draw 8.5, 1850 CFM



16" Spiral Blade Fan **18126**

Mounting Area Req'd. 16 1/2" x 15 3/4" x 2 3/4"
AMP Draw 8.0, 2300 CFM

Electric Fan Wiring Systems

Thermal Switch and Thermal Sensor Systems include all components for single fan installation 185°F automatic thermal switch, (two different styles) insulated wire, wire connectors, fuse block power taps, in-line fuse holder with 30 amp fuse, wiring diagrams for single and dual fan installations and illustrated instructions. Dual fans require a 30 Amp Relay, Part Number 18902, sold separately.

Wiring System

19001
185°F Thermal Switch with Tie Wrap Mount 15 A Max Rating



30/40 Amp A/C Relay

19002

30 amp air conditioning relay activates electric fan when air conditioning turned on.



185°F Thermal Switch

19003

185°F automatic thermal switch and tie. Mounts on radiator hose. 15 A Max Rating



Wiring System

19005
185° F Threaded Thermal Sensor with 1/2" Male NPT & Glue/Weld Bung

For easy installation of Threaded Thermal Sensor, #19005 screw sensor into glue/weld bung and epoxy assembly to engine or radiator tank. No hole necessary!

15 A Max Rating



30/40 Amp Dual Point Relay

19006

30/40 amp relay activates dual electric fans.



Wiring System

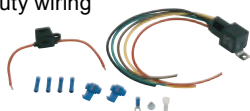
19007
185°F Threaded Thermal Sensor with 1/2" Male NPT

15 A Max Rating



Heavy Duty 60-Amp Wiring System

18902
Heavy-duty 60 amp relay and heavy duty wiring harness with 40 amp fuse for use with dual electric fan installations. Wiring diagram and illustrated instructions are included.



- Controls electric fans automatically
- Easy installation with illustrated instructions
- Adjustable Wiring Systems available
- 60 Amp relay handles extreme applications
- Wiring systems available for multiple fans

Adjustable Wiring Systems

Adjustable Wiring Systems include all of the components for single fan installation. 170°F-210°F adjustable thermal switch module with unique silicon chip temperature sensor that ensures accurate temperature readings to within ±1°F. Pre-wired module wiring harness, fuse block power taps, in-line fuse holder with 40 amp fuse, wiring diagrams for single and dual fan applications and illustrated instructions are included. Dual fans require an additional relay, part number 18902, sold separately. Maximum rating 21 Amps.

Adjustable Wiring System

18905
Probe Type Thermal Sensor
Probe type temperature sensor mounts between the radiator fins.



Adjustable Wiring System

18907
Threaded Thermal Sensor
Temperature sensor with 3/8" male pipe threads and 1/2" male pipe thread bushing.



Adjustable Controller Module w/Probe

21006
Probe type sensor mounts between the radiator fins. Dual Fan systems require an additional relay, sold separately.



Adjustable Controller Module, Thread-In

21276
Thread-In temperature sensor has 3/8" NPT (m). Includes 3/8" to 1/2" NPT bushing. Dual Fan systems require an additional relay, sold separately.



Inline Thermoswitch

Activates 12V electric fan without requiring additional 12V relay. Secure attachment with two different style of fittings. Fan starts at 185°F and shuts-off at 160°F. Easy two-wire hook-up. 15A max. rating

Inline Thermoswitch

18899

-6 AN Style (Male & Female)



Inline Thermoswitch

18900

3/8" NPT Style (Female)

Supplied with 3/8" Nipple (not shown)



Mounting Systems

Metal Mounting System

104
Contains four 10" galvanized steel universal mounting brackets and mounting hardware. Ideal for positive mounting.



Universal Mounting System

105
Nylon tie mounting system, four patented tie mounts with protective foam pads for easy tool free installation. U.S. Patent 4,617,702



Fan Mount Brackets

9103
Four mount brackets for standard electric fan. Uses built-in attachment points for easy installation.



Remote Oil Filter Mounts

- Available for single or dual filter applications
- Mount oil filter in a convenient location
- Polished Finish
- Made in U.S.A.



Single Filter Mounts



1/2" NPT ports up 3/4"-16 thread **1211**

1/2" NPT ports up 13/16"-16 thread **1213**

3/8" NPT ports up 3/4"-16 thread **1761**

1/4" NPT ports up 3/4"-16 thread **5011**



1/2" NPT ports left 3/4"-16 thread **1701**

3/8" NPT ports left 3/4"-16 thread **1721**



1/2" NPT ports right 3/4"-16 thread **1711**

3/8" NPT ports right 3/4"-16 thread **1731**

Super Filter Mounts



6630
With 3/4" NPT ports right and left
1 1/2"-12 thread

6730
With -12 SAE ports right and left
1 1/2"-12 thread
For Fram® HP6 Super Filter or equivalent

Block-Off Adapters



Use when omitting the oil filter. Routes oil from pump directly into oil galleries.

Universal Block-Off Adapter **1295**

Fits 3/4"-16, 13/16"-16, 1"-12, M18 x 1.5, M20 x 1.5 and M22 x 1.5 thread 2 1/2" and 3 1/8" O-Rings U.S. Patent 5,291,969

Block-Off Adapter **1201** 2 1/2" O-Ring included

Fits 3/4"-16 thread

Fits M18 x 1.5

Fits 13/16"-16

Fits 1" -12

Fits M20 x 1.5

Fits M22 x 1.5



Turbo Oiler Adapters

- 1/8" NPT Port
- Provides cool oil to turbocharger
- 1" thick aerospace aluminum diecast adapter
- 2 1/2" O-Ring included

Universal Turbo Oiler Adapter **169**

Fits 3/4"-16, 13/16"-16, M18 x 1.5, M20 x 1.5 and M22 x 1.5 thread 2 1/2" and 3 1/8" O-Rings included, 1 3/4" thick

Fits 3/4"-16 thread

Fits M18 x 1.5 thread

Fits 13/16"-16 thread

Fits M20 x 1.5 thread

Fits M22 x 1.5 thread



161

162

164

166

168

- Brass fittings and AN adapters sold separately

Four Port Filter Mounts



Dual ports provide more plumbing options when space is at a premium. Includes 2 pipe plugs.

1/2" NPT ports right and left 3/4"-16 thread **1791**

1/2" NPT ports right and left 13/16"-16 thread **1793**

1/2" NPT ports right and left 1"-14 thread **1794**

1/2" NPT ports right and left 1"-16 thread **1796**

1/4" NPT ports right and left 3/4"-16 thread **4791**

1/4" NPT ports right and left 1"-14 thread **4794**

All remote filter mounts with 3/4"-16 thread are designed to use Perma-Cool® filter P/N 81008, Fram® PH8A or equivalent. Remote filter mounts with 13/16"-16 thread designed to use filters with small or large O-Ring patterns such as Fram® PH11, PH 13 and PH 18; or Chevy 2 quart filter such as Fram® PH 373 or equivalent.

Dual Filter Mounts



1/2" NPT ports right and left 3/4"-16 thread **1221**

1/2" NPT ports right and left 13/16"-16 thread **1223**

1/2" NPT ports right and left 1"-16 thread **1226**

Bolt-On Adapters

- Performance accessories for specific applications
- GM canister filter conversions

Bolt-On Adapter **1113**

Converts GM canister on 1956 and later Chevy and GMC V8s for use with remote oil cooler and/or a remote oil filter. 1/2" NPT ports. O-Ring, gasket and bolts for early and late model applications included.



Bolt-On Adapter **1134**

Converts stock oil filter canister to 13/16"-16 spin-on filter with 3 1/8" O-Ring. O-Ring, gasket and bolts for early and late applications included.



Chevrolet Oil Filter Adapter **1135**

Replaces the factory oil filter mounting plate. Eliminates the oil filter bypass resulting in continuous filtration and cleaner oil. Includes all mounting hardware and installation instructions.



Chevy Oil Filter Bypass Relief Plug **14845**

Converts to full flow system by omitting low pressure relief valve Please note: one plug per package. Shown larger than actual part.



VW Bolt-On Block-Off Adapter **117**

Use when replacing factory oil cooler to reroute oil to remote oil cooler or filter. 3/8" NPT ports. Complete with special gasket. **For air cooled engines only.**



Sandwich Oil Adapters



181 Fits 3/4"-16 thread Designed to fit most Fords, Chryslers and Dodges 1" thick 3/8" NPT ports for use with 1/2" oil lines. 2 1/2" O-Ring included

182 Fits M18 x 1.5 thread. Designed to fit most GM V6s. 1" thick. 3/8" NPT ports for use with 1/2" oil lines. 2 1/2" O-Ring included.

184 Fits 13/16"-16 thread Designed to fit most early GM 4 and 6 cylinders and Cadillac, Oldsmobile and Pontiac V8s 1" thick 3/8" NPT Ports for use with 1/2" oil lines 2 1/2" and 3 1/8" O-Rings included U.S. Patent 4,335,688

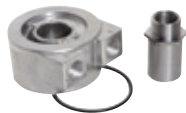
185 Fits 13/16"-16 thread Designed to fit most small and big block Chevy V8s with recessed filter landing 1 7/8" thick 3/8" NPT ports for use with 1/2" oil lines 3 1/8" O-Ring included

186 Fits M20 x 1.5 thread Designed to fit most early imports including Honda, Mazda and Mitsubishi 1" thick 3/8" NPT ports for use with 1/2" oil lines 2 1/2" and 3 1/8" O-Rings included U.S. Patent 4,335,688

1816 Fits M20 x 1.5 thread Obstructed fit. 1" thick. 3/8" NPT ports for use with 1/2" oil lines. 2 1/2" O-Ring included.

188 Fits M22 x 1.5 thread Designed to fit late model Ford V8s and some Hondas 1" thick 3/8" NPT ports for use with 1/2" oil lines 2 1/2" O-Ring included

1836 Fits 1"-16 thread Designed to fit Dodge Cummins® Diesel 1 5/8" thick 3/8" NPT ports for use with 1/2" oil lines 2 1/2" O-Ring included



- Add a remote oil cooler without relocating the oil filter
- Universal kit covers 90% of all automotive applications
- Made in U.S.A.



Typical Installation

Perma-Cool® Sandwich Adapters are installed between the oil filter landing on the engine block and the oil filter to route the oil to a remote oil cooler. They are die cast from aerospace quality aluminum and machine finished on our CNC production line. O-Rings and illustrated instructions included. Brass fittings and AN adapters sold separately.



189

Universal Sandwich Adapter

Fits 3/4"-16, 13/16"-16, 1"-12, M18 x 1.5, M20 x 1.5 and M22 x 1.5 thread 1 7/8" thick 3/8" NPT ports for use with 1/2" oil lines 2 1/2" and 3 1/8" O-Rings included U.S. Patent 5,291,969.

Spin-On Oil Adapters

Perma-Cool® Spin-On Adapters convert the oil filter landing on the engine block to an oil passage for use with a remote oil cooler and/or a remote oil filter. Adapters are die cast from aerospace quality aluminum and are machine finished on our CNC production line. O-Rings and illustrated instructions included. Brass fittings and AN adapters sold separately.

- Add a remote oil cooler and filter
- Made in U.S.A.



111 Fits 3/4"-16 thread 1/2"NPT ports 2 1/2" O-Ring included

112 Fits M18 x 1.5 thread 1/2" NPT ports 2 1/2" O-Ring included

114 Fits 13/16"-16 thread 1/2" NPT ports 2 1/2" and 3 1/8" O-Rings included U.S. Patent 4,278,275

115 Fits 1"-12 thread 1/2" NPT ports 2 1/2" and 3 1/8" O-Rings included U.S. Patent 4,278,275

116 Fits M20 x 1.5 thread 1/2" NPT ports 2 1/2" and 3 1/8" O-Rings included U.S. Patent 4,278,275

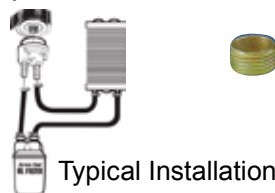
118 Fits M22 x 1.5 thread 1/2" NPT ports 2 1/2" O-Ring included

1116 Fits M20 x 1.5 thread 1/2" NPT ports 2 1/2" O-Ring included

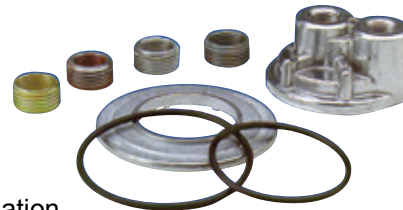
1156 Fits 1"-16 thread 1/2" NPT ports 2 1/2" and 3 1/8" O-Rings included for Dodge Cummins® 5.9L, 6.7L U.S. Patent 4,278,275

2840 Fits 1 1/2"-16 thread 1/2" NPT port 3 1/8" and 3 5/8" O-Rings included for Ford Navistar® Powerstroke® 6.9L, 7.3L U.S. Patent 4,278,275

- Universal system covers 90% of all automotive applications



Typical Installation



195

Universal Spin-On Adapter

Fits 3/4"-16, 13/16"-16, 1"-12, M18 x 1.5, M20 x 1.5, M22 x 1.5 thread sizes 3/8" NPT ports for use with 1/2" oil hose 2 1/2" and 3 1/8" O-Rings included U.S. Patent 5,291,969

Dual Port Oil Adapters

- **Fixed Port Orientation**
- 1/2" NPT ports right & left
- 2 1/2" O-Ring included

2791 Dual Port
3/4"-16 thread

2794 Dual Port
13/16"-16 thread

2796 Dual Port
M20 x 1.5 thread

2798 Dual Port
M22 x 1.5 thread

- **Adjustable Port Orientation**
- 1/2" NPT ports right & left
- 2 1/2" O-Ring included
- **New Style!**

3791 Dual Port
3/4"-16 thread

3794 Dual Port
13/16"-16 thread

3796 Dual Port
M20 x 1.5 thread

3798 Dual Port
M22 x 1.5 thread



Performance Fittings

Perma-Cool® performance fittings are made in the USA from brass or steel. Creative plumbing solutions are easy with our wide selection.

Straight Hose Barbs

3/8" NPT x 5/8" HB (2)	15140
1/4" NPT x 5/16" HB (2)	15141
1/8" NPT x 5/16" HB (2)	15147
1/8" NPT x 3/8" HB (2)	15148
1/4" NPT x 1/2" HB (2)	15149
1/4" NPT x 3/8" HB (2)	15150
3/8" NPT x 5/16" HB (2)	15151
3/8" NPT x 3/8" HB (2)	15152
3/8" NPT x 1/2" HB (2)	15153
1/2" NPT x 3/8" HB (2)	15155
1/2" NPT x 1/2" HB (2)	15156
3/8" SAE x 3/8" HB (1)	15175



Fittings

3/8" NPT x 1 1/4" L Nipple (1)	15176
3/8" NPT "T" Fitting	15177

NPT Plugs

1/8" NPT Plug (1)	15142
1/4" NPT Plug (1)	15143
3/8" NPT Plug (1)	15144
1/2" NPT Plug (1)	15145
3/4" NPT Plug (1)	15180



NPT Bushings

1/4" NPT x 1/8" NPT (Int.) Bushing (1)	15138	Aluminum Bushings and Plugs
3/8" NPT x 1/4" NPT (Int.) Bushing (1)	15139	-10 AN to 1/8" NPT (1) 15402
1/2" NPT x 1/8" NPT (Int.) Bushing (1)	15161	-12 AN to 1/8" NPT (1) 15422
1/2" NPT x 3/8" NPT (Int.) Bushing (2)	15162	-10 AN Plug (1) 15409
3/4" NPT x 1/2" NPT (Int.) Bushing (2)	15163	-12 AN Plug (1) 15429
3/8" NPT x 1/8" NPT (Int.) Bushing (1)	15164	

Bushings provide a variety of ways to install instrument sending units for engines, filter mounts and wherever else a reducer bushing is required.

90° Hose Barbs

1/8" NPT x 5/16" HB(2)	15166
1/8" NPT x 3/8" HB(2)	15167
1/2" NPT x 3/8" HB(2)	15168
1/2" NPT x 5/8" HB(1)	15169
1/4" NPT x 3/8" HB(2)	15170
1/4" NPT x 5/16" HB(2)	15171
3/8" NPT x 1/2" HB(2)	15172
3/8" NPT x 3/8" HB(2)	15173



45°/90° Adapters

3/8" NPT x 3/8" NPT (Int.) 90° (2)	15157
1/2" NPT x 1/2" NPT (Int.) 90° (2)	15158
3/8" NPT x 3/8" NPT (Int.) 45° (2)	15160



Trans Fittings

11/32" HB x 5/16" SAE (1)	15165
Ford Trans Adapter Kit	15179
11/32" HB x -6AN (Int.) (2)	15265



AN Style Fittings

Perma-Cool® has selected performance fittings that fit in tight places and allow creative plumbing for your special needs. Our AN style fittings feature a reduced hex for easy installation.



Pipe to Male 37°

	15246	1/4" to -6 AN Male
15306 -10 O-Ring Boss to -6 AN	15248	1/4" to -8 AN Male
15308 -10 O-Ring Boss to -8 AN	15266	3/8" to -6 AN Male
15300 -10 O-Ring Boss to -10 AN	15268	3/8" to -8 AN Male
15302 -10 O-Ring Boss to -12 AN	15260	3/8" to -10 AN Male
15320 -12 O-Ring Boss to -10 AN	15286	1/2" to -6 AN Male
15322 -12 O-Ring Boss to -12 AN	15288	1/2" to -8 AN Male
	15280	1/2" to -10 AN Male
	15282	1/2" to -12 AN Male
	15200	3/4" to -10 AN Male
	15202	3/4" to -12 AN Male



15199 Aluminum "Soft" Vise Jaws
Won't scratch or mar AN fittings during assembly. Jaws are magnetized for mounting on bench vise.

Fuel Filter/Water Separator

- Fuel Filter/Water Separator works with all types of fuel
- Petcock allows for easy, convenient draining of water
- Filters down to 2 microns

Fuel Filter/Water Separator **81000**
24,000 mile element 1"-14 thread, 6" long.



Oil & Fluid Filters

- Perma-Cool® Oil Filters are high performance oil filters
- Both filters work with engine oil or transmission fluid
- 12-14 Lb. relief valve ensures maximum filtration
- Ideal for racing applications



Oil Filter, 3 3/4" Dia. x 5 1/2" long 3/4"-16 Thread	81008
50,000 mile element on transmissions.	
Oil Filter, 3 1/4" Dia. x 3 1/4" long M20 x 1.5 Thread	81020
Oil Filter, 3 3/4" Dia. x 4 1/4" long 3/4"-16 Thread	81043

Oil Hose & Hose Clamps

Perma-Cool® has selected the best grade hose for use with our cooler systems. We provide a 300°F working temperature with a 250 PSI working rating and burst at 600+ PSI.

Replacement Oil Hose

	11/32" I.D. x 4'	130
	1/2" I.D. x 11 1/2'	132
	11/32" I.D. x 25'	133
	1/2" I.D. x 25'	138
	1/2" I.D. x 8'	139

Hose Clamps & Teflon Tape

#6 Stainless Steel Hose Clamps (4)	14006
#8 Stainless Steel Hose Clamps (4)	14008
1/2" wide x 310" long Teflon® Tape	15146

Service Components

	-10 Boss O-Ring (2)	121
	-12 Boss O-Ring (2)	122
	Gasket for #117	124
	2 1/2" O-Ring	125
	3 1/8" O-Ring	126
	Gasket and O-Ring for # 113 and #1134	127
	3 5/8" O-Ring	128
	3/4"-16 Filter Nipple x 1"	180
	13/16"-16 Filter Nipple x 1"	187

Radiator Accessories & Weld Bungs





6009 Aluminum Radiator Neck, **Imports** 1 1/4" (32mm)
6010 Aluminum Radiator Neck, **Standard** 1 5/8" (41mm)
Great for repairing aluminum radiators, fabricating surge tanks or remote fill tanks. The heavy wall stamping is furnace brazed then heat treated.





6085 Racing Radiator Cap
Patented plastic composite design features O-Ring neck seal. Prevents unnecessary wear on aluminum radiator necks. High pressure cap builds cylinder pressure, helping to seal head gaskets and preventing detonation. 22 to 26 PSI Rating. U.S. Patent 4,079,855 NOT FOR STREET USE!

Weld Bungs, Male 37°

6061-T6 Aluminum Alloy, Raw finish	
15669 -6 AN Bung	
15689 -8 AN Bung	
15609 -10 AN Bung	
15629 -12 AN Bung	

Both style weld bungs feature an exclusive flange design for welding onto thin tank material.

Weld Bungs, Female 0-Ring Port & NPT

6061-T6 Aluminum Alloy, Raw Finish	
15538 3/8" NPT	
15512 1/2" NPT	
15598 -8 AN	
15590 -10 AN	

Learn more about performance engine cooling we have.