

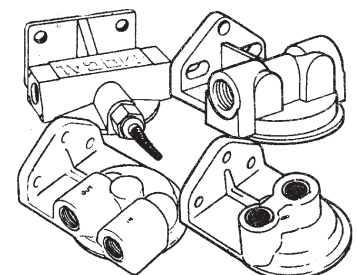
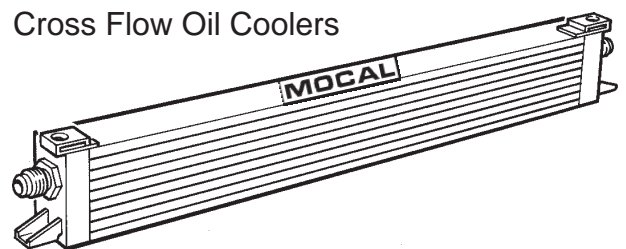
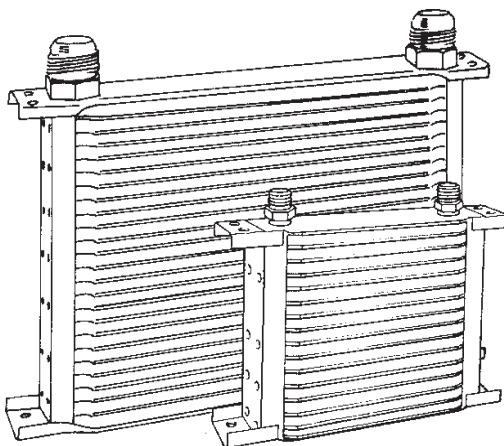
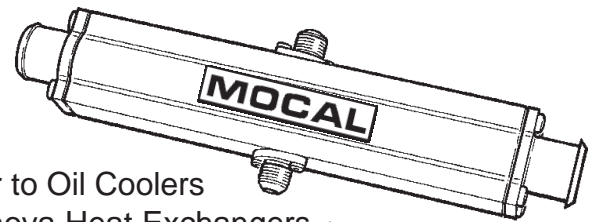
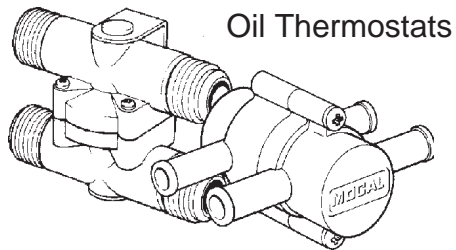
OIL COOLING GUIDE

PORSCHE

MOCAL

The Leading Edge In Oil Control

Porsche 911 / 930 Series ❖ Porsche 914-4 / 914-6 ❖ Porsche 924 / 928 / 944



Catalog Supplement

Terms of Business

Hours

Order desk hours are Monday through Friday 9:00 a.m. until 5:00 p.m. Eastern Time. Whenever possible orders received before 12:00 noon will be processed and shipped the same day. If anyone would like to visit our location we would like to request that you please make an appointment before dropping by. We enjoy seeing our customers, discussing their cars, and showing them our latest developments, however, some days or times of day are better for us to give the attention we like to offer.

Ordering Procedure

You may place an order by telephone, fax, or by mail. Ordering by telephone will connect you to a technical-sales advisor who will help with any questions, or make ordering recommendations, if you require. Knowing your 6 digit BAT customer number, catalog part numbers, quantities, and description of order items will help minimize any possible errors in processing your order. Telephone orders may be placed during business hours as listed above. Fax orders may be placed anytime day or night.

Payment

Payment may be made by Visa, Master Card, Money Order or Personal Check. Orders which have been paid for by Personal Check will be shipped only after the check has cleared (allow up to 14 days). Orders accompanied by Personal Checks that have been bank certified will be shipped with out delay. We have no objections to shipping on a COD basis if required, however, all COD's must be paid upon delivery with certified check or money order. When ordering by mail or fax by Visa or Master Card be sure to include your card number and expiration date. Residents of countries outside the United States must pre-pay for their goods in U.S. currency. All prices for goods shipped outside the continental United States are quoted FOB Sarasota, FL. All shipping/duty charges must be the responsibility of the consignee at rates applicable to that particular country.

Shipping

Unless otherwise stated all orders will be shipped by United Parcel Service (UPS) surface system. We can also ship by an express (overnight, 2 day or 3 day) service if required, check with us for details and additional charges. Items too large or heavy for UPS service will be shipped common carrier (truck) freight collect. Optional shipping services include Surface Mail, Air Mail, and Air Freight at current rates.

Back Orders

We dislike back orders as much as you do, and although we carry a huge inventory of merchandise it is inevitable that we will sometimes run out of certain items. In this case we will hold the order open and ship the back ordered item directly when the item becomes available. If an item looks like it will be on back order for longer than 4 weeks we will try and let you know the approximate time of delivery. You will then have the opportunity to re-confirm or cancel your order.

Special Orders

Some items that we offer are available as special orders. This includes custom variations on catalog items and race prepared parts. All special order items require a 50% deposit at the time the order is placed with the balance due at time of shipping. You will be advised at the time of your order if any item falls into this category.

Returns

All returns must be authorized by BAT with in 30 days of the invoice date and must be sent prepaid. Returns must have an authorized RGA number and be accompanied by a copy of the original invoice. A restocking charge of 20% may be assessed at our discretion depending on the reason for the return. Certain parts such as bearings, electrical items and piston rings or any part that has been modified or installed in any way are not returnable.

Warranties

All parts are covered only by the manufacturers warranties and/or guarantees. BAT Inc. can assume no responsibility or liability for use or application by the user. Claims for goods damaged in transit are the responsibility of the carrier. You should always examine the contents of your package and notify the carrier immediately if there is any sign damage.

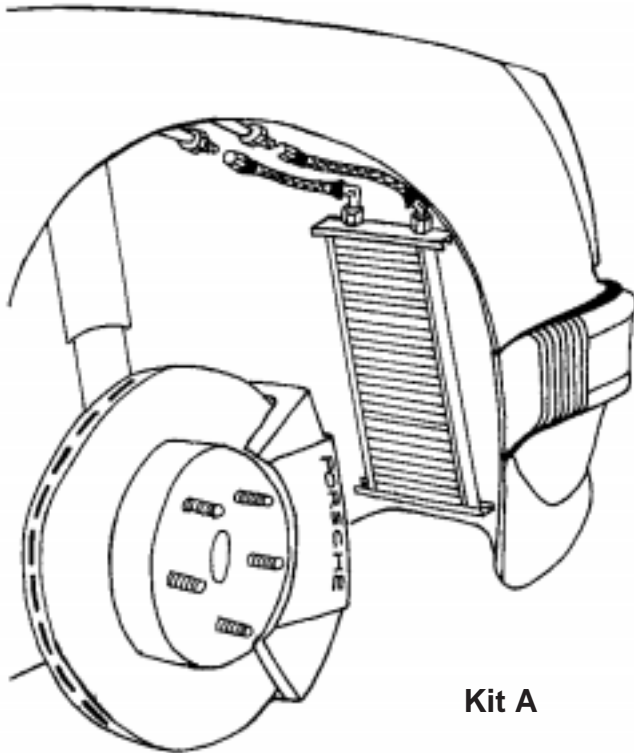
BAT Inc. / MOCAL USA
7630 Matoaka Rd.
Sarasota, FL. 34243
(941) 355-0005
fax (941) 355-4683

Prices and equipment subject to change without notice.

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Fender Mount Oil Cooler Installations For **PORSCHE 911/930 Series**



Kit A

Kit A

Includes the components needed to install a MOCAL 44 row 115 matrix oil cooler in cars with factory "hard line" plumbing. This kit is perfect for upgrading existing factory coolers to the more efficient MOCAL oil radiator.

Qt	Part	Description
1	A44A125	44 Row Oil Cooler
2	AF30AN12	Metric x AN Adaptor
2	FS-12	Straight -12AN Fitting
1	F45-12	45° -12AN Fitting
1	F90-12	90° -12AN Fitting
2	FC3-12	-12AN Stainless Hose

This kit includes stainless AQP oil hose and alloy aircraft fittings, assembly required.

Kit Price \$489.00

Options to Kit A:

Assembled R-6 Rubber hoses and fittings in place of Aeroquip hose & fittings as above

Kit Price \$449.00

Additional components required to mount A44A125 Mocal oil cooler in front spoiler applications

Kit Price \$575.00

Kit B- basic "loop" replacement kit

Includes the components to install a MOCAL 19 row 235 matrix (11"h x 6"w x 2"d) oil cooler in a factory "hard line" equipped car. This kit is especially good for replacing the factory "loop" oil device located in the front right fender, making it easy to upgrade to a MOCAL oil radiator at an economical price.

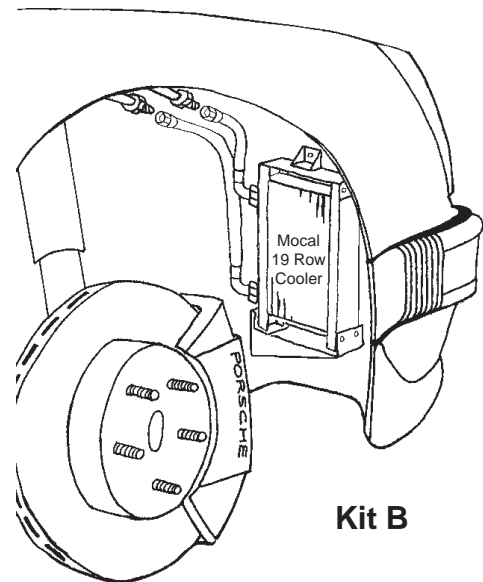
Qt	Part#	Description
1	A19A12	19 Row Oil Cooler 3/4 Fittings
2	239012	90° 3/4 Fitting
2	MS3012	30MM Straight Fitting
2	3.3ATRH3	3/4 Oil Hose

Oil hoses are pre-assembled with industrial fittings swaged into reinforced rubber hose. Custom brackets are supplied for easy installation.

Kit Price \$279.00

Kit B Plus: Substitute 30% larger 410 matrix (14"h x 6"w x 2"d) 19 row cooler.

Kit Price \$ 389.00



Kit B

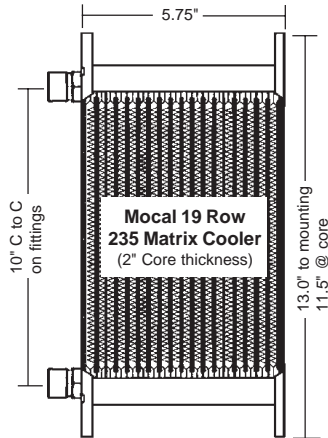
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FENDER MOUNT OIL COOLERS



MOCAL 19 Row 235 Matrix Cooler

All aluminum 19 pass core incorporating oil turbulators for maximum efficiency. Full size -12AN 3/4" inlet/outlet for unimpeded oil flow. This cooler is the basis of our popular fender mount "B" Kit offering radiator oil cooler performance at an entry level price.

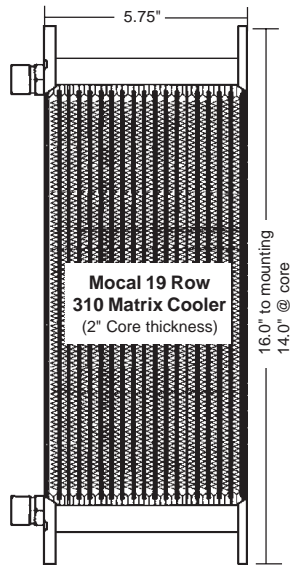
Popular Porsche Applications:

Front fender all 911 years (fittings sideways, as pictured) Our ("B" install kit) supplies assembled hoses and fittings to locate the 19 row cooler in place of the factory "loop" cooling device. The 6.5" fan kit can be added if desired.

Front spoiler (fittings top) Some aftermarket spoiler/bumpers have enough height for this option. *Measure before ordering - 8.5" height required to clear fittings.*

Rear engine cover on 914's (fittings forward). 25 row size is an optional up-grade. The 6.5" fan kit can be added to either size.

Rear brake ducts. The type of decor ducts commonly added to turbo style rear wheel houses. The 19 row cooler lends itself to being mounted (fittings inboard) behind one or both* rear ducts. **two 19 rows run in series are more than capable of cooling highly modified and or turbocharged engines.* This option is very popular on slope nose front ends where front end space is limited. The front cooler can actually be eliminated.



MOCAL 19 Row 310 Matrix Cooler

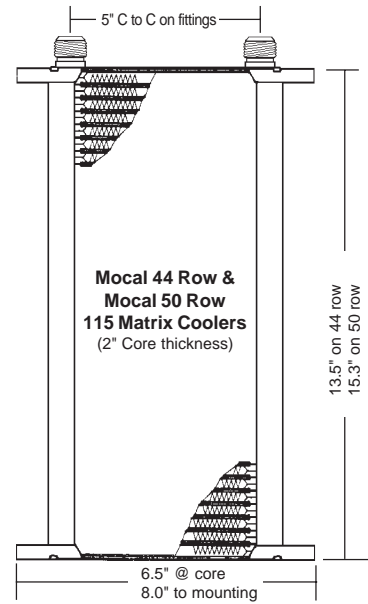
All aluminum 19 pass extended core incorporating oil turbulators for maximum efficiency. Full size -12AN 3/4" inlet/outlet for unimpeded oil flow. This (new for 1995) cooler is a stretched version of the standard 235 matrix 19 row cooler offering 30% more oil cooling capacity. It is an excellent choice when a margin of over-kill is desired or where hard duty is the norm. These coolers offer performance similar to our proven 44 and 50 row models at a more affordable price.

Popular Porsche Applications:

Front fender all 911 years (fittings sideways, as pictured) Our ("B" Plus install kit) supplies assembled hoses and fittings to locate the 19 row extended cooler in place of the factory "loop" cooling device. The 6.5" fan kit can be added if desired.

Front spoiler (fittings top) Some aftermarket spoiler/bumpers have enough height for this option. *Measure before ordering 8.5" height required to clear fittings.*

Rear engine covers on 911's without A/C. We have had a few customers install these coolers in "whale tail" engine covers under the grill, where the A/C condenser usually is located.



MOCAL 44 & 50 Row 115 Matrix Cooler

All aluminum 44 or 50 pass core incorporating oil turbulators for maximum efficiency. Full size -12AN 3/4" inlet/outlet for unimpeded oil flow. Outstanding performance and user friendly dimensions make these coolers are very popular in front fender and front spoiler applications.

Popular Porsche Applications:

Front fender all 911 years (fittings top, as pictured) The 44 and 50 row coolers are very close to the size, shape and layout of the factory Porsche radiator coolers used in 84 and newer 911 models. Our 6.5" cooling fan can be added if desired.

Front spoiler (fittings towards RH side) most aftermarket spoilers and spoiler/bumpers have plenty of room for either the 44 or 50 row core sizes turned sideways.

Rear engine covers on 911's without A/C. We have had a few customers install these coolers in "whale tail" engine covers under the grill, where the A/C condenser usually is located.



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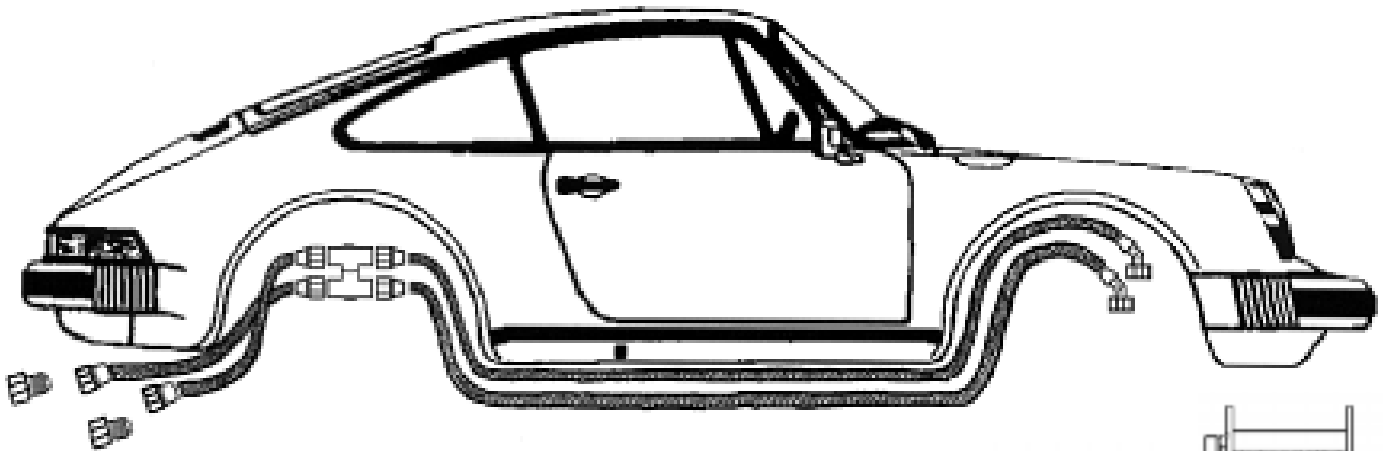
Installation kits providing pre-sized and assembled hoses with metric and Aeroquip fittings are available for most 911 models. Universal bracket material is supplied which can be used to assist in mounting the oil cooler in various locations and positions. For special applications we can provide bulk lengths of hose (stainless braid AQP or R6 textile) and fittings (aircraft type) for customer D.I.Y. assembly.

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COMPLETE OIL COOLING KITS*

*for cars without factory plumbing



Many pre. 1977 Porsche 911's are not equipped with factory oil plumbing (hard lines and thermostat). In this case fitting an oil cooler requires making a hose run from the rear to the front of the vehicle and back. We find the easiest and most cost effective method of plumbing is to duplicate the factory plumbing route using Aeroquip hose and fittings with a Mocal oil thermostat and oil cooler.

The various kits that we offer to accomplish this task include; one of a number of oil cooler options (some are suitable for both fender or front spoiler location), Mocal -12 AN Oil Thermostat with mounting bracket, 30 foot length of AQP -12 AN stainless braid 3/4" ID hose, 30mm metric to -12 AN adaptors for the oil tank and engine pipe, -12 AN alloy aircraft hose ends and assorted mounting accessories. The above components will allow for a fairly easy DIY installation that is both efficient and durable, that is why most racing cars oiling systems are also plumbed in this method. *This kit is supplied in bulk, meaning the hose lengths and hose ends are to be assembled and fitted by the customer. The larger AQP -16AN hose (1" I.D.) is available in Kits D,E,F at an additional cost- inquire for pricing.*

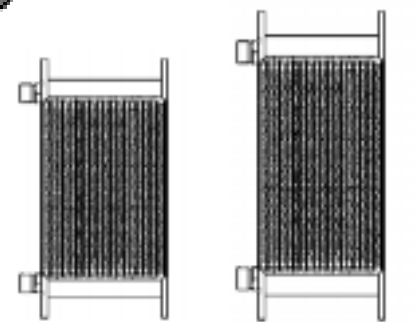
KIT C 19 Row Mocal Oil Cooler and the above listed plumbing components needed to install oil lines and Mocal Thermostat on non-factory oil line equipped 911's. *This kit is for front fender mounting only.* Kit Price \$665.00

KIT C+ 19 Row "extended" Mocal Oil Cooler and the above listed plumbing components needed to install oil lines and Mocal Thermostat on non-factory oil line equipped 911's. *This kit is suitable for front fender mounting only.* Kit Price \$ 775.00

KIT D 44 Row Mocal Oil Cooler and the above listed plumbing components needed to install oil lines and Mocal Thermostat on non-factory oil line equipped 911's. *This kit is suitable for both fender and front spoiler (when turned sideways) mounting, specify when ordering.* Kit Price \$799.00

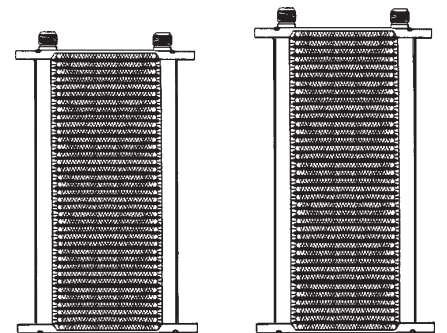
KIT E 50 Row Mocal Oil Cooler and the above listed plumbing components needed to install oil lines and Mocal Thermostat on non-factory oil line equipped 911's. *This kit is suitable for both fender and front spoiler (when turned sideways) mounting, specify when ordering.* Kit Price \$899.00

KIT F 70 Row Mocal Oil Cooler and the above listed plumbing components needed to install oil lines and Mocal Thermostat on non-factory oil line equipped 911's. *This kit is suitable for front spoiler mounting only.* Kit Price \$975.00



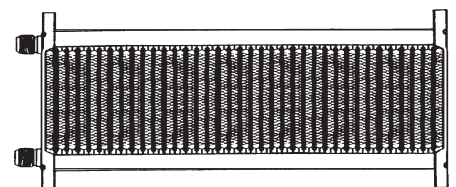
Kit C
19 Row Cooler
(11h x 6w x 2d)

Kit C+
19 Row Cooler
"Extended"
(14h x 6w x 2d)



Kit D
44 Row Cooler
(14h x 6.5w x 2d)
fender or spoiler

Kit E
50 Row Cooler
(16h x 6w x 2d)
fender or spoiler



Kit F
70 Row Cooler
(6.5h x 22w x 2d)
front spoiler mounting only

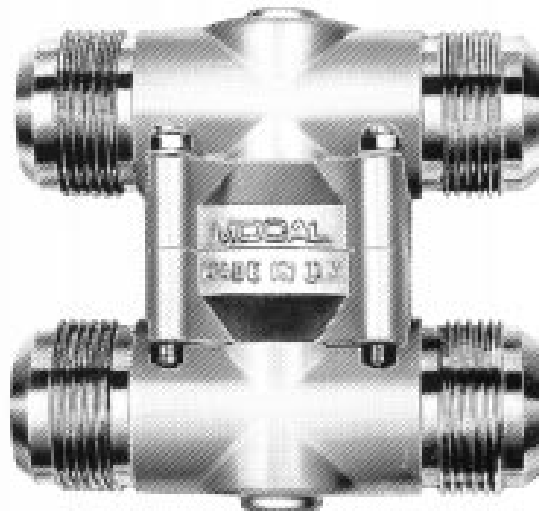
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All Porsche 911 series automobiles that incorporate oil cooling systems include an oil thermostat device. We could not agree more. That is why Mocal has become one of the largest aftermarket suppliers of oil thermostat devices in the world, making them the choice for anyone considering adding oil cooling equipment on cars not originally thermo equipped. Mocal Thermostats are available in all popular (-8AN, -10AN, -12AN, -16AN) sizes, the -12AN and -16AN sizes are most popular for 911/930 applications.

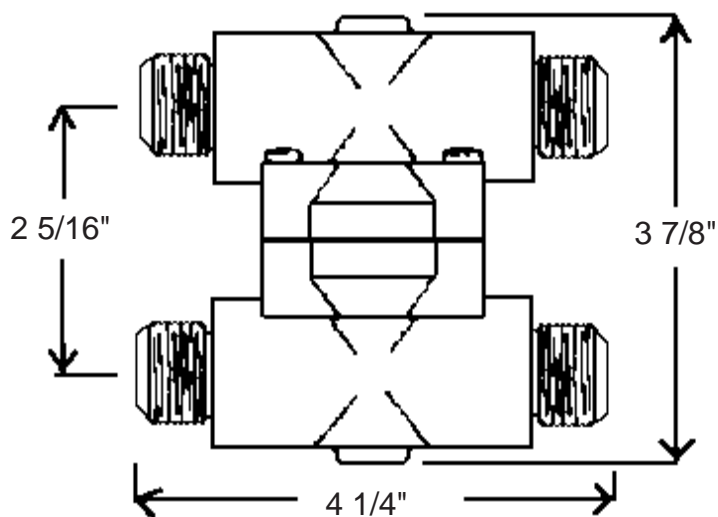
Mocal thermostats are designed to prevent the flow of engine oil through the oil cooler until the desired temperature is reached. Prolonged use of engines in conditions that oil cannot reach optimum working temperatures will cause sludge formation and crankcase oil dilution, leading to excessive wear especially in the cylinder bores. Thermostats combat this by regulating oil flow to accelerate warm up. This in turn reduces drag helping, to yield optimum engine efficiency and performance.

OIL THERMOSTATS



Specifications

- ◆ All aluminum CNC machined housing
- ◆ Aeroquip compatible male fittings
- ◆ Available in AN-8, AN-10, AN-12 and AN-16 fittings
- ◆ Factory set 180 degree operation
(optional temperatures ranges available)
- ◆ Includes mounting hardware
- ◆ Race proven design
(used by major racing teams world wide)



From
\$94.50



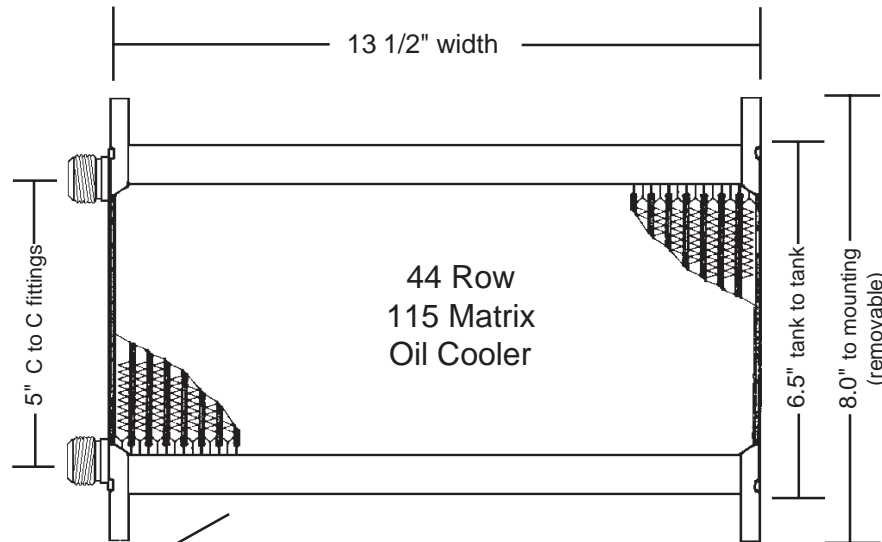
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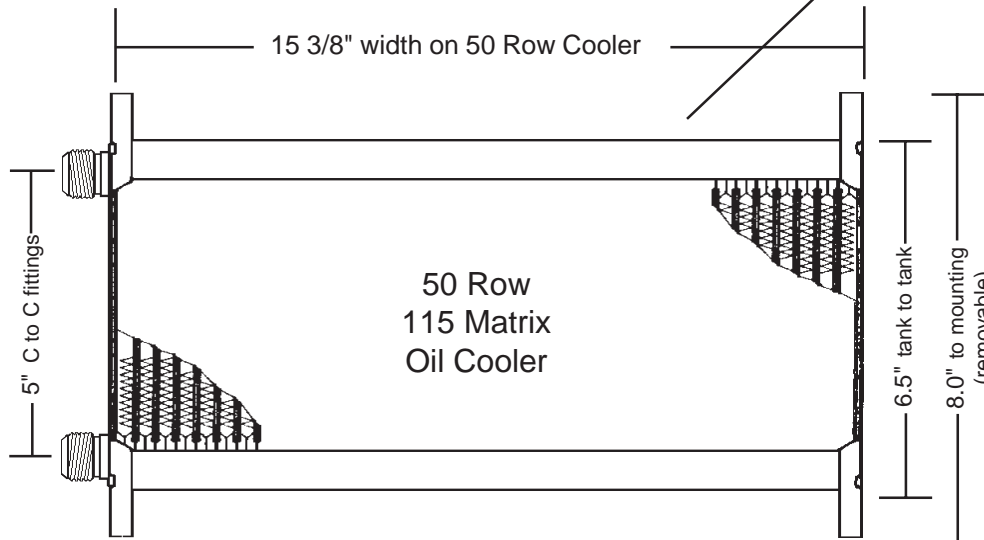
911/930 Front Spoiler Oil Coolers

44 Row
\$350.00



NOTE: 44 & 50 row coolers are 2" thick

50 Row
\$450.00



Another popular cooling option is to mount a Mocal 44, 50, and 70 row 115 matrix oil cooler sideways in a front spoiler. The 44 & 50 row coolers are the same core sizes that we commonly install upright in front fender applications, but when mounted in the spoiler they offer even better performance due to greater air flow. All 115 matrix coolers are available in either AN-12 or AN-16 fittings.



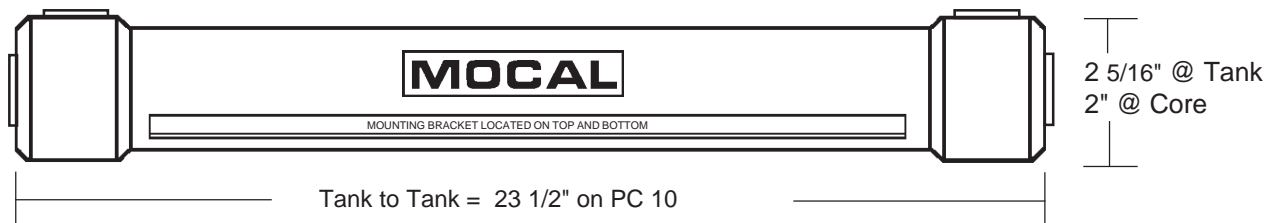
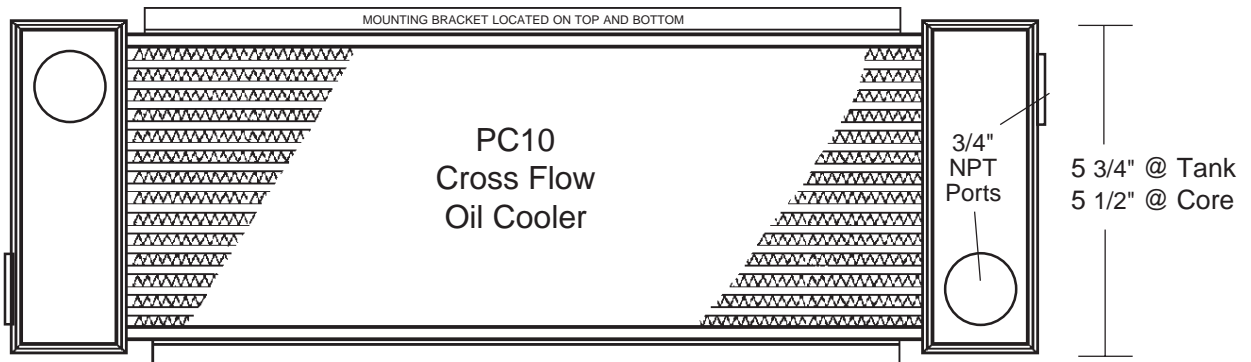
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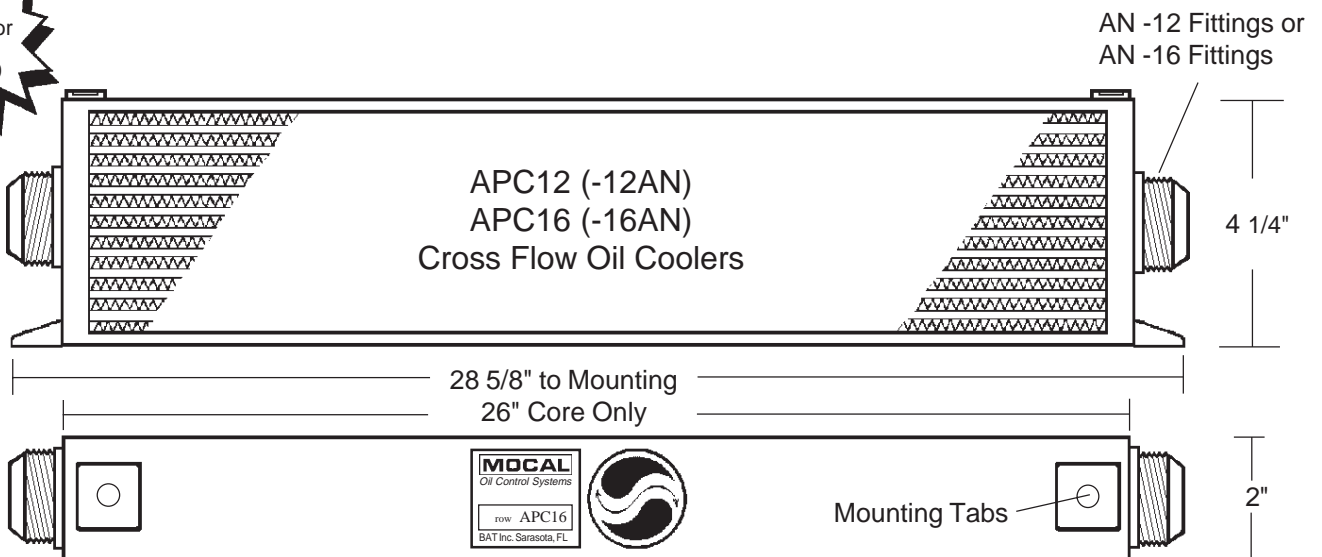
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911/930 Front Spoiler Oil Coolers

PC 10
\$495.00



Prices
APC 12 or
APC16
\$540.00



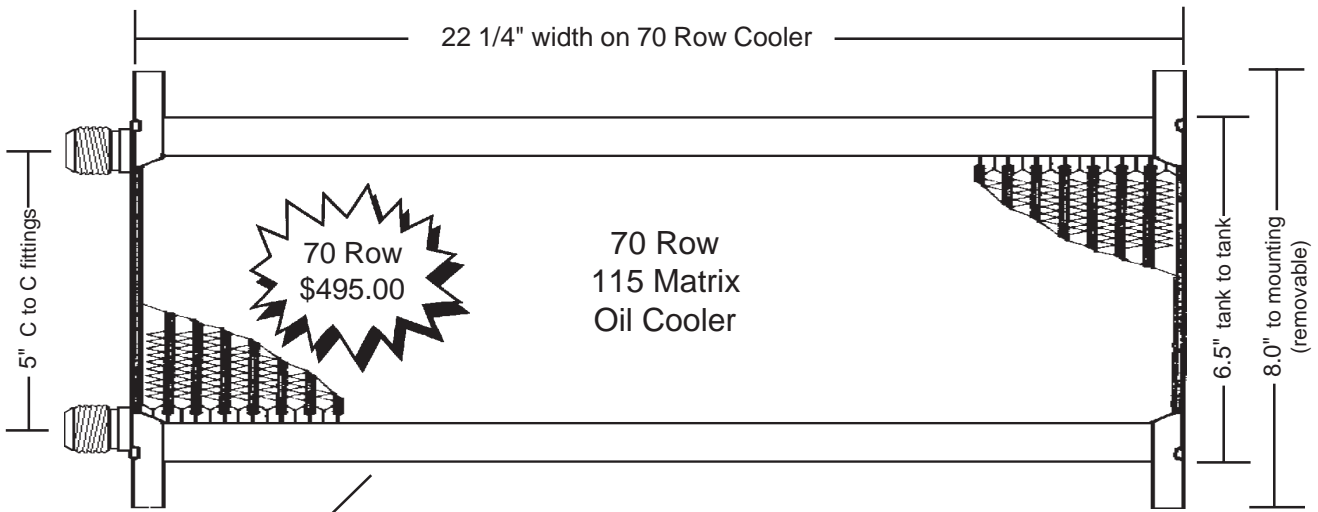
Fitting Porsche 911/930 and 914/6 front spoiler applications has never been easier with three separate cooler designs and five core sizes available. The competition series of coolers that we offer include the PC 5, PC10 and APC16. All are designed to handle the rigors of high performance, racing and turbo applications. The PC5 & 10 coolers are similar other than overall width (PC5 @ 13 1/4" and PC10 @ 23 1/2") . Both are cross flow high capacity coolers that incorporate "oil turbulators" that assist oil cooling by helping to de-aerate the oil passing through the cooler. Other features include 4 large diameter 3/4" inlet/outlet ports, a 3/4 NPT x -12 or -16 adaptor is fitted (one in each end) into either port (the remaining 2 ports are plugged or may be fitted with a temperature sender for use with a gauge). The rest of the plumbing can be handled with Aeroquip type -12 or -16 hose and fittings.

Another one of our popular front mount coolers is the APC12 or 16. These are quite similar in size to one of the "RUF" coolers, but with either AN-12 or -16 fittings rather than 30mm metric (for ease of plumbing here in the states) and will fit the "RUF" and many other front spoilers. As with the PC 5 & 10 the APC is a high efficiency cross flow design incorporating "oil turbulators". Unique double oil passages give the APC the highest performance rating for its size.

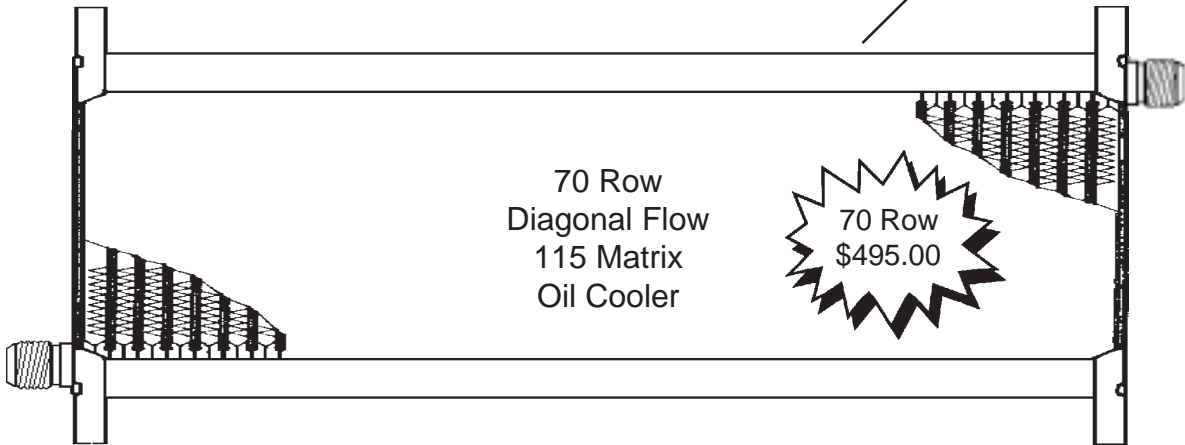
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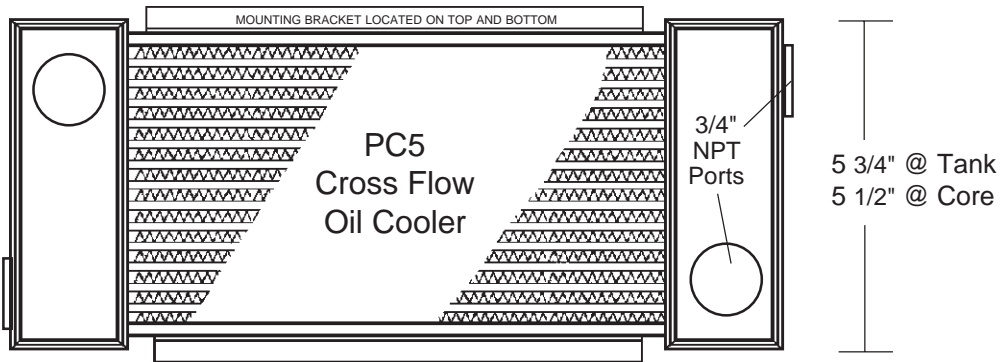
911/930 Front Spoiler Oil Coolers



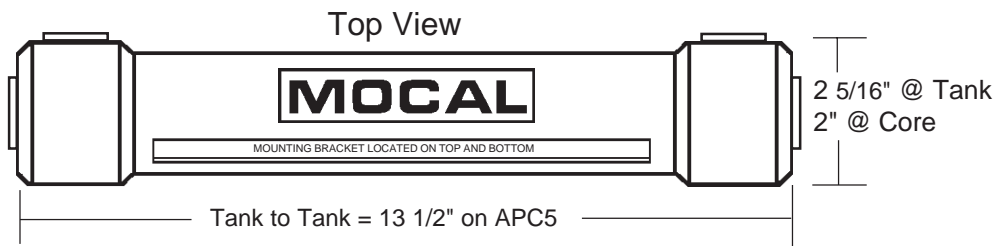
NOTE: 70 row coolers are 2" thick



PC 5 \$395.00



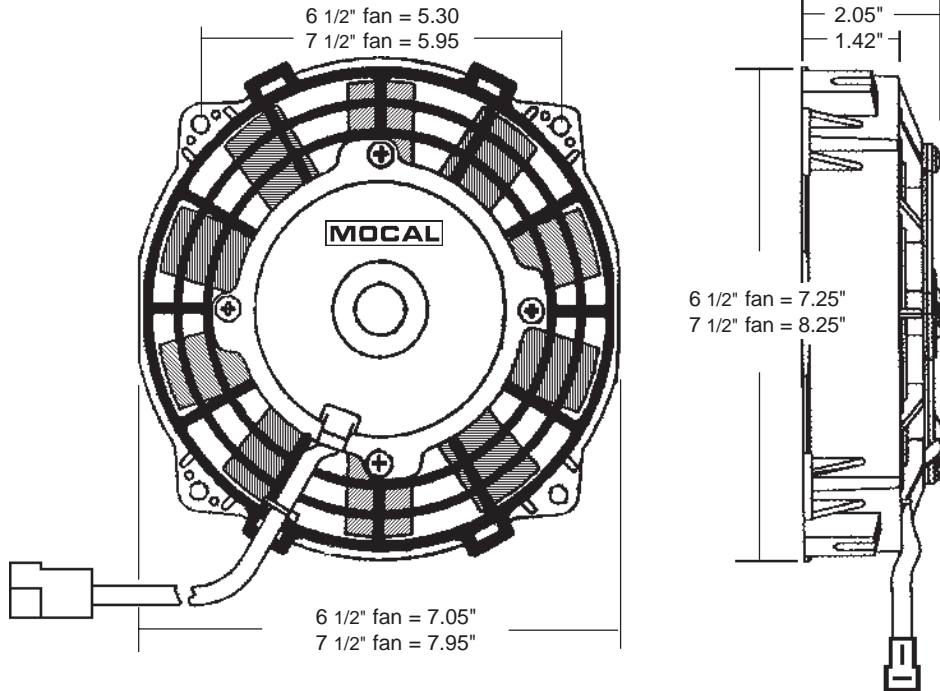
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ELECTRIC COOLING FANS



Electric Fan Features:

12 Volt DC
High Efficiency:
350 cfm Output on 6 1/2" Fan
450 cfm Output on 7 1/2" Fan
Low Noise Closed Motor
Fully Weatherized Construction
Lite Weight...under 2 lbs.



Other than employing a duct or scoop to plumb air to the oil cooler from a remote location, using an electric fan to increase air flow to the cooler is very helpful when the cooler it is mounted in a poor air flow location. We have two sizes (6 1/2" and 7 1/2" diameter) and pusher and puller models available. They can be easily mounted to most Mocal and other oil cooling devices. These electric fans are especially good for applications in very warm climates and or heavy traffic commuting.



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OIL COOLING ACCESSORIES

Electric Fans

Using an electric fan can be helpful to increase air flow through a cooler mounted in a poor air flow location. We have 3 sizes (5.5", 6.5" and 7.5" diameter) in pusher and puller models available. They can be easily mounted to Mocal and most other oil cooling devices. These electric fans are especially good for applications in very warm climates and or heavy traffic commuting. Add a fan on the A/C condenser for better HVAC performance too. (*specify push or pull blade when ordering*)

5.5" Electric Fan (6 x 4")	A5FAN	\$59.00
6.5" Electric Fan (7 x 2")	A6FAN	\$79.95
7.5" Electric Fan (8 x 2")	A7FAN	\$79.95



Electric Fan Mounting Kit

Nylon "zip tie" mounting kit includes four heavy duty tie mounts with protective foam pads for easy installation. Simply push ties through cooler core "fins", align with fan mounting holes, zip locks in place.

Fan Mounting Kit	ABKT1	\$7.95
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Electric Fan Wiring Kit w/Adjustable Thermo

This kit includes all necessary components for electric fan installation: adjustable thermal switch (160f - 210f degree) pre-wired sensor relay module, insulated wire & connectors, in-line fuse block w/30 amp fuse, power taps and wiring schematic/instructions.

Fan Wiring Kit	AFTR1	\$59.00
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Cooling Scoop for 1974-89 911's

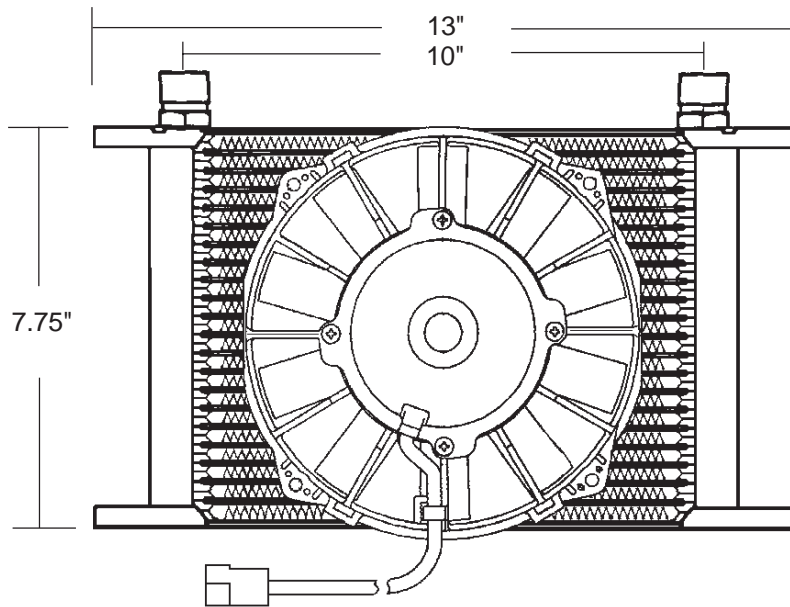
Oil cooler performance can be enhanced by supplying a greater quantity of fresh (cooler) air directly to the cooler. This handy cooling scoop dramatically increases air flow to the inner fender area maximizing oil cooler performance. Great for track events or warm climate street use. Installs in minutes with no modifications. Remove the side marker light and replace with air scoop using existing holes. Made from high quality composite materials and finished mat black to match the other rubber bumper components.

Oil Cooler Air Scoop	ACDP1	\$93.50
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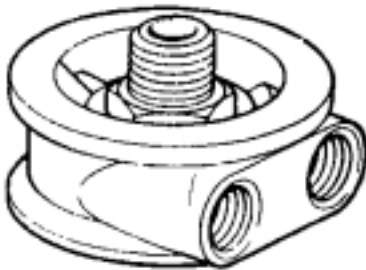
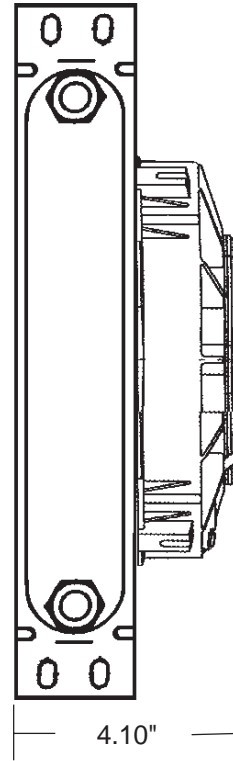
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Oil Cooling components for:
PORSCHE 914-4



Mocal 25 Row Oil Cooler
w/ 7.5 inch Cool-Pac Fan



Mocal SP1 or SP1T*
Sandwich Plate 3/4"-16 Thread
* SP1T has built in thermostat

The Mocal oil cooling kit for the Porsche 914-4 consists of a 25 row -10AN oil cooler & 7/12" cooling fan with with a SP1T thermostatic sandwich plate and -10AN AQP stainless hose and fittings. The cooler is mounted to the underside of the engine grille, the plastic rain pan can be removed or a hole the size of the cooler can be made in the center. The SP1T thermo. sandwich plate mounts between the oil filter and the filter mount allowing oil flow to the cooler after 180 degrees. We supply enough AQP stainless oil hose and aircraft fittings to link the sandwich plate to the oil cooler.

Complete Kit Price	\$449.00
Kit Without Thermo Plate	\$399.00
Kit Without Fan-Pac	\$370.00
Basic Kit (no fan, no thermo plate)	\$299.00



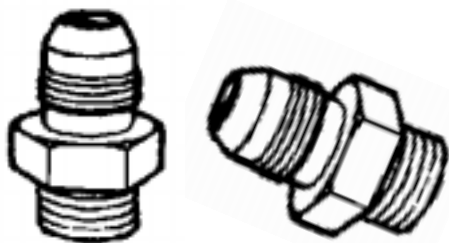
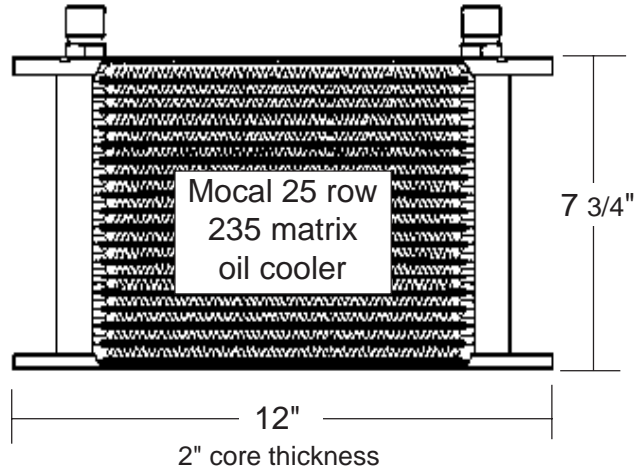
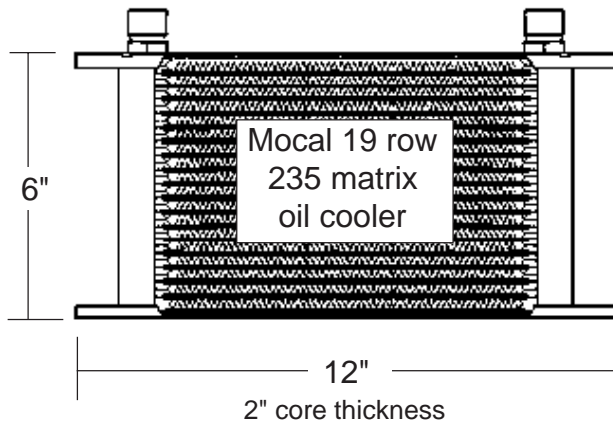
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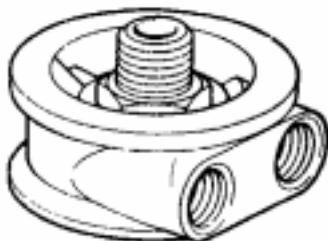
The Leading Edge In Oil Control

Oil Cooling components for:

PORSCHE 924/944/968



Metric fittings (22mm x -10AN or 22mm x -12AN) thread directly into filter housings on some models.



Mocal SP1 or SP1T*
Sandwich Plate 3/4"-16 Thread
fits 924 or 944 between filter & block
1/2" thread take-off for either
1/2 x -10AN or 1/2" x -12AN fittings
* SP1T has built in thermostat

Plumbing the **924** or **944** for oil cooling is fairly straight forward. On non turbo applications a thermostatic sandwich plate installs between the oil filter and engine block allowing oil take-off. Aeroquip hose and fittings are then used for the plumbing run to the cooler and back. We usually plumb these applications with -10AN (5/8" line size). A 16, 19, or 25 row Mocal cooler is installed in the front of the vehicle in a appropriate area. 944 turbo cars that have factory oil coolers can be upgraded to either a 19 or 25 row Mocal cooler in -10AN or -12AN line sizes. We supply the special metric fittings for the factory filter hosing to convert to -10AN or -12AN which will allow for easy plumbing with typical AN type hose and fittings. We can also supply the required installation components for plumbing Accusump oil accumulators on 924 and 944, 944 turbo cars. Call for oil cooling kit options and pricing.

For **944S2** and **968** we can rebuild or refit factory oil hoses. These unique hoses incorporate bolt-on manifolds at both the engine and cooler connections. A popular option is for us to refit the engine manifold with new hoses (length optional). On the cooler side we fit new -AN hose ends (size and angle optional). This conversion will allow connection to any aftermarket oil cooler. Pricing from \$89.00 call for quote.

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Metric Hose Fittings to AQP Hose Ends & Adaptors



BAT Inc. offers the most complete line of Metric to -AN hose ends and adaptors available. Aluminum hose ends attach easily to popular AQP hose and fit directly to common metric sizes found on most European automobiles. Plumbing for oil cooling, remote filters or replacement of factory hoses becomes simple and cost effective. **BAT** can also supply adaptors to convert from Metric to -AN so that more commonly available -AN hose and fittings can be used when plumbing with oil control components which are usually supplied in -AN sizes.

STRAIGHT HOSE END

FS-1206	M12x1.5 X -6AN
FS-1406	M14x1.5 X -6AN
FS-1606	M16x1.5 X -6AN
FS-1808	M18x1.5 X -8AN
FS-2210	M22x1.5 X -10AN
FS-2410	M24x1.5 X -10AN
FS-2612	M26x1.5 X -12AN
FS-3012	M30x1.5 X -12AN
FS-3016	M30x1.5 X -16AN

45 DEGREE HOSE END

F45-1206	M12x1.5 X -6AN
F45-1406	M14x1.5 X -6AN
F45-1606	M16x1.5 X -6AN
F45-1808	M18x1.5 X -8AN
F45-2210	M22x1.5 X -10AN
F45-2410	M24x1.5 X -10AN
F45-2612	M26x1.5 X -12AN
F45-3012	M30x1.5 X -12AN
F45-3016	M30x1.5 X -16AN

90 DEGREE HOSE END

F90-1206	M12x1.5 X -6AN
F90-1406	M14x1.5 X -6AN
F90-1606	M16x1.5 X -6AN
F90-1808	M18x1.5 X -8AN
F90-2210	M22x1.5 X -10AN
F90-2410	M24x1.5 X -10AN
F90-2612	M26x1.5 X -12AN
F90-3012	M30x1.5 X -12AN
F90-3016	M30x1.5 X -16AN

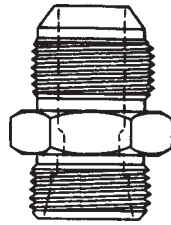
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Metric to -AN Union/Adaptors

Male Metric x Male AN (union)

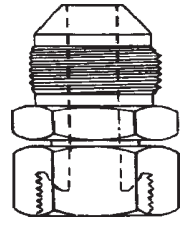
threads into female metric ports (usually in place of metric x metric union) converting to male -AN so that -AN hose end can be attached. Also for joining a female metric hose end to a female -AN hose end (possibly where one metric hose terminates and needs to be extended to a AN threaded device).



male x male

Female Metric x Male AN (adaptor)

threads over male metric fittings converting them to male -AN which will allow connection with a -AN female hose end.



female x male

MALE -AN X MALE METRIC (UNION) ALLOY

-3AN	X	M10x1.0 convex
-3AN	X	M10x1.25 convex
-3AN	X	M12x1.0 convex
-3AN	X	M12x1.5 convex
-4AN	X	M10x1.0 convex
-4AN	X	M12x1.0 convex
-4AN	X	M12x1.5 convex
-4AN	X	M12x1.5
-4AN	X	M14x1.5
-4AN	X	M16x1.5
-4AN	X	M18x1.5
-6AN	X	M10x1.0 flat
-6AN	X	M12x1.0
-6AN	X	M12x1.25
-6AN	X	M12x1.5 flat
-6AN	X	M14x1.5
-6AN	X	M16x1.5
-6AN	X	M18x1.5
-8AN	X	M14x1.5
-8AN	X	M16x1.5
-8AN	X	M18x1.5
-8AN	X	M22x1.5
-10AN	X	M16x1.5
-10AN	X	M18x1.5
-10AN	X	M20x1.5
-10AN	X	M22x1.5
-12AN	X	M16x1.5 flat
-12AN	X	M18x1.5
-12AN	X	M20x1.5
-12AN	X	M22x1.5
-12AN	X	M24x1.5
-12AN	X	M26x1.5
-12AN	X	M28x1.5
-12AN	X	M30x1.5
-16AN	X	M22x1.5
-16AN	X	M26x1.5
-16AN	X	M30x1.5

MALE -AN X MALE METRIC (UNION) STEEL

-3AN	X	M10x1.0 convex
-3AN	X	M10x1.25 convex
-4AN	X	M10x1.0 convex
-4AN	X	M12x1.0 convex
-6AN	X	M10x1.0
-6AN	X	M12x1.5
-6AN	X	M14x1.5
-6AN	X	M16x1.5
-6AN	X	M18x1.5
-6AN	X	M20x1.5
-8AN	X	M14x1.5
-8AN	X	M 16x1.5
-8AN	X	M 18x1.5
-10AN	X	M16x1.5
-10AN	X	M18x1.5
-16AN	X	M 26x1.5

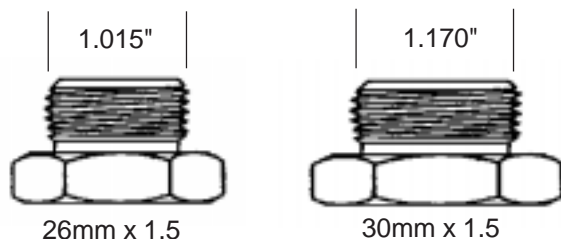
FEMALE METRIC to MALE -AN

M14x1.5	X	-6AN
M16x1.5	X	-6AN
M16x1.5	X	-8AN
M18x1.5	X	-8AN
M22x1.5	X	-10AN
M26x1.5	X	-12AN
M30x1.5	X	-12AN
M30x1.5	X	-16AN

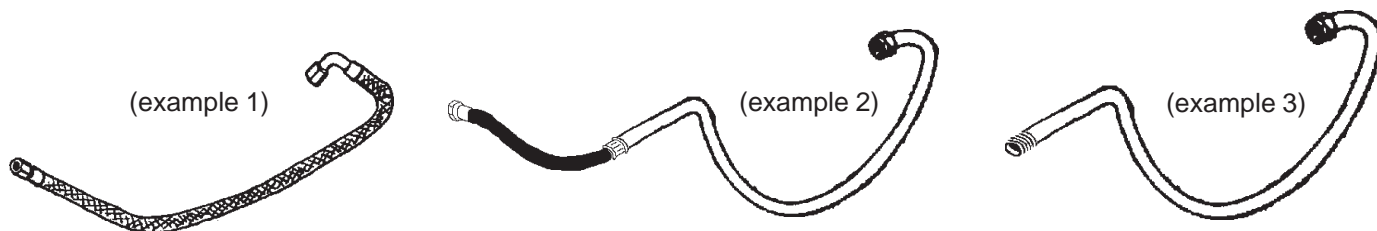


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Sarasota, FL. 34243
(941) 355-0005
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We have prepared this fitting identification guide to help in the selection of metric adaptors for plumbing 6 cylinder Porsche applications. As a rule cars built before 1970 use the smaller 26mm fitting sizes and cars later than 1974 use the larger 30mm type throughout. Cars built in the 1970 to 1974 range have been known to use either 26mm or 30mm or a bit of both sizes, making it is very important to make these visual inspections and take measurements. This would also apply to any car that has been involved in an engine swap or one with an unknown history.



For cars that were not factory oil cooling equipped, plumbing begins at the oil line that originally connected the oil pump to the tank and is one of a few different types described below. An all rubber "textile" hose (example 1) was used on pre 1970 cars, later cars changed to a metal tube running from the pump and under the flywheel with a flexible bit of rubber "textile" hose on the end connecting to the tank. On cars (1974 and up) the rubber hose section can be un-threaded from the steel line and the oil tank location (example 3). Cars built between 1970-73 the rubber section of hose is sometimes swagged permanently on the end of the metal tube running from the pump (example 2). Sorting out this engine pipe is the most complex part of the whole system. Once that is done the rest of the system should take shape, running forward through the thermostat and cooler finishing up back at the oil tank which will also be converted to a AN metric adaptor (see diagram A).

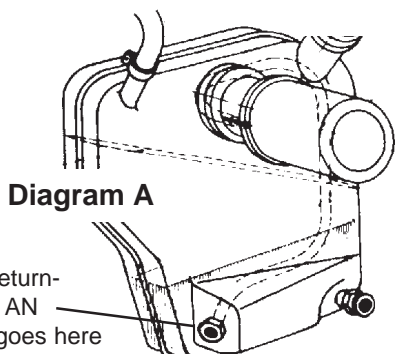


An all rubber "textile" hose (example 1) was used on pre 1970 cars. A 26mm male x -12AN male union is fitted to the end of the factory hose, then the hose is routed forward towards the location of the new oil thermostat. *An option to eliminate the original rubber hose is to back out the 22/26mm fitting from the engine case and replace it with a 22mm x -12AN male/male union.* Plumbing can now begin from either the redirected rubber hose or oil pump output with stainless -12AN hose and fittings to the thermostat (from engine) port.

On cars built between 1970-73 the rubber section of hose might be permanently "swagged" on the end of the metal tube running from the pump. In this case a 26 or 30mm male x -12AN male union is fitted to the end of the factory hose (depending on metric thread size), then the hose is routed forward towards the location of the new oil thermostat. If your oil pipe is threaded (as diagram 3) remove the rubber hose and fit the required 26 or 30mm female metric x male -12AN adaptor. Plumbing can now begin from either the redirected rubber hose or oil pipe with stainless -12AN hose and fittings to the thermostat (from engine) port.

The oil pipe used on 1974 and later cars is the larger 30mm thread size- with removable rubber hose section. Simply un-thread the rubber hose from the pipe and fit a 30mm female x -12AN male adaptor. Plumbing can now begin from the oil pipe with stainless -12AN hose and fittings to the thermostat (from engine) port. *On full race, turbo or high output engines a 30mm female x -16AN male adaptor can be fitted allowing the rest of the system to be plumbed in the larger -16AN hose and fitting size.*

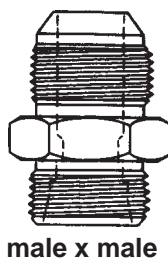
The oil tank is the final destination and last hose connection of the completed oil system. Oil tanks will be either 26 or 30mm metric and will require the proper female metric x male AN adaptor. 911's later than 1974 will use the larger 30mm size, anything earlier should be 26mm- check thread size to be sure.



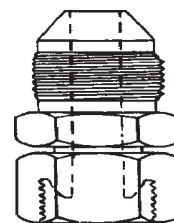
Factory 914-6 tanks are usually 26mm- any aftermarket oil tank should be checked for thread size, some are already in AN thread size. *Note: 30mm female x -16AN male fittings are available for systems being plumbed in the larger hose and fitting size.*

Male Metric x Male AN (union) threads into female metric ports (usually in place of metric x metric union) converting to male -AN so that -AN hose end can be attached. Also for joining a female metric hose end to a female -AN hose end (possibly where one metric hose terminates and needs to be extended to a AN threaded device).

Metric to -AN Union/Adaptors



male x male



female x male

Female Metric x Male AN (adaptor) threads over male metric fittings converting them to male -AN which will allow connection with a -AN female hose end.

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