

# ADRAD

# PERFORMANCE RADIATORS & COMPONENTS

Revised  
October 2009

# 2009



**Setrab**  
Oil Coolers

KOYORAD

**ADRAD**

**DAVIES,  
CRAIG**





Quality Certified

# *Certificate of Registration*

## **Adrad Pty Ltd**

51 Howards Road, BEVERLEY, SA, 5009, Australia  
231 Collier Road, BAYSWATER, WA, 6053, Australia  
11 Permarig Place, ROCKLEA, QLD, 4106, Australia

The above licensee has been assessed and registered by TQCS International Pty Ltd as having the capability to control the quality of goods or services provided in accordance with the conditions of the Licence Agreement at or from the addresses shown above, under a quality management system complying with the requirements of:

## **ISO 9001:2008**

The registration covers the manufacture and sale of automotive and industrial radiators, components and accessories. The Company has an authorised distributorship of original equipment (OE), aftermarket radiator products and air conditioning products (Adair).

Exclusions: 7.3 Design & Development

**Issue Date:** 27/1/2009  
**Expiry Date:** 19/9/2010

**Licence No:** AU602-QC  
**Original Certification:** 27/11/1998

**President**  
**TQCS International (Group) Pty Ltd**

**Accreditation Manager**  
**TQCS International Pty Ltd**  
For and on behalf of the  
TQCSI Certification Approval Panel

This certificate is valid as long as it is supported by an electronic copy at [www.tqcsi.com](http://www.tqcsi.com) and surveillance audits are satisfactorily completed.



TQCS INTERNATIONAL PTY LTD  
[www.tqcsi.com](http://www.tqcsi.com)



[www.jas-anz.com.au/register](http://www.jas-anz.com.au/register)



The background of the slide features a repeating pattern of the ADRAD logo. Each logo is a red, shield-like shape with a white border. Inside the shield, the word "ADRAD" is written in a bold, white, sans-serif font. Below "ADRAD", the text "AUSTRALIA'S RADIATOR SUPPLIER" is written in a smaller, white, sans-serif font. The logos are arranged in a staggered grid pattern across the entire slide.

## OUR MISSION

“ To have satisfied customers  
served by happy,  
competent employees  
working for a  
progressive company.”



# Contents Page

Page	
1	Adrad History
2-4	Adrad - Aluminium Cooling Cores
5-6	Adrad - Aluminium Assemblies
7	Koyo - History
8	Koyo - Range and Features
9	Koyo - Performance Assemblies
10	Koyo - Race Assemblies
10	Adrad - Hi-Performance Radiator Cores
11-13	Adrad - Performance Parts
14	Drain Plugs & Fittings
15	Adrad - Radiator Caps
16	Oil Cooler Tube
17	Water to Air Intercooling
18-23	Davies Craig Products
24-25	Transmission Oil Coolers - TC Range
26-27	Setrab - Oil Coolers
28	Stacked - Plate Oil Cooler
29	Glossary of Terms
30	Engineer to Order Form
31	Radiator Installation Procedure
32	Terms and Conditions of Sale
33	Warranty Policy
34	Notes



## Why you should “Ask for Adrad”



### ***Proudly Australian***

Adrad is a Proudly Australian owned company. We are recognised as a leader in our field of Automotive, Industrial & High Performance products.

### ***Quality***

As well as being the country's largest manufacturer and supplier of radiator components, Adrad is among the country's first Australian automotive components manufacturers and suppliers to be certified with accreditation to ISO9001-2008.

This accomplishment is achieved thanks to our stringent approach to Quality Assurance which involves thorough attention to detail for both the parts we manufacture and for those we source from our partner suppliers around the world.

### ***Range & Distribution***

Adrad's National Distribution network of 11 warehouses carries the largest range of radiator and air conditioning products, from components to complete assemblies. This means we are more likely to have the part you need in a location near to you.

### ***Experience***

Adrad's expertise spans from our 6 manufacturing factories right through to installation in the many workshops around Australia. Our vast product and application knowledge, together with a history that dates back to the 1950's, provides us with a comprehensive understanding of our customer's needs.

### ***Service & Support***

We stand behind all our products with a Nationwide Warranty for your peace of mind. Our friendly Customer Service staff are available 6 days a week to take care of your product and sales orders enquiries and arrange timely delivery - just a phone call or mouse-click away.

Adrad is dedicated to having satisfied customers, served by happy competent employees, working for a progressive company. We look forward to being of service to you.



## Alloy Intercooler & Oil Profiles

Offering two engineered extrusion profiles, ADRAD's unique designs allow the manufacture of high quality, high performance air to air Intercoolers, air to water Intercoolers and oil coolers.



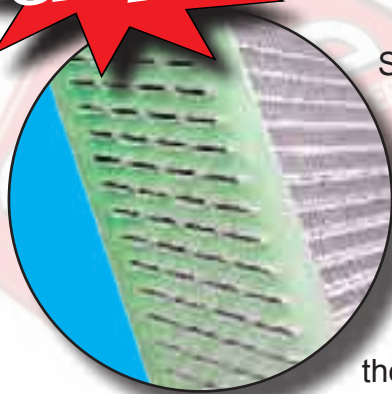
Two of the components featured (left) are fitted into the intake manifold of Harrop Engineering's GEN III intercooled supercharger kit.

A remote radiator cools water that runs through the profiled tubes to chill the supercharged air as it passes through the fins.

The component is "stepped" in construction to follow the contour of the intake manifold.

## Stepped Water Radiator Cores

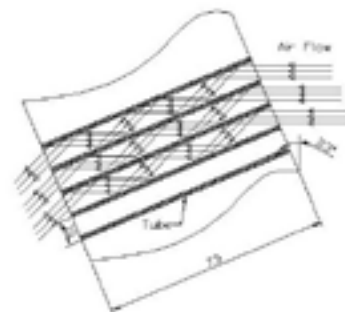
**Unique**



Stepped cores are designed for motorsport applications where radiators are required to be inclined.

By using a stepped core raked at an angle (up to 30 degrees) a clear passage of air still flows through the radiator.

Compared to inclining a standard core, where the air flow tends to deflect off the face causing an air side pressure drop and reducing efficiency. (Pictured right)



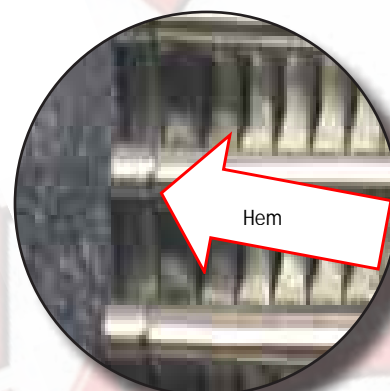
Radiator with 70mm core thickness  
Tube pitch 25mm

**Exclusive**

## ADRAD's Hemmed Fin - Attention to detail prolongs core life!

The folded hem on ADRAD's alloy fins stiffen the face of the core.

Standard on most alloy cores the double material thickness significantly reduces fin damage and allows the core to be worked in a variety of ways!





# ADRAD Aluminium Core Range

Core * Configuration	WATER	WATER	WATER	WATER	CAC	CAC	CAC	CAC	OIL	OIL
Tube Size	16mm	23.5mm	26mm	38mm	36mm	54.5mm	73mm	36mm	54.5mm	36mm
Rows										
1	17.5	25	27.5	40	36	54.5	73	36	54.5	36
2	36	54	56	-	73	109	147	73	110	73
3	54.5	-	-	-	108	-	-	-	-	-
4	73	-	-	-	-	-	-	-	-	-
5	90	-	-	-	-	-	-	-	-	-
FPI Range	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18	13 - 18
Fin Height	8mm	8mm	9mm	8mm	8mm	8mm	8mm	8mm	8mm	8mm
Tube Height	2mm	2mm	2mm	2mm	8mm	8mm	8mm	4.5mm	4.5mm	4.5mm
Pitch	10mm	10mm	11mm	10mm	16mm	16mm	16mm	12.5mm	12.5mm	12.5mm
Compressed Fin Available	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CAC and Oil Cores are available in combination variants.

ie. 54.5 + 36mm CAC tube = 91.5mm core thickness

ie. 54.5 + 73 mm CAC tube = 128.5mm core thickness

\* Custom configurations available. Some size restrictions and limitations apply.  
Please contact your local branch for details.





# Alloy Cooling Cores



Adrad is Australia's longest established manufacturer of Alloy Cooling Cores having begun manufacturing in Queensland in 1996.

Adrad is able to manufacture aluminium radiator, intercooler and oil cooler cores to suit a wide variety of applications. The high performance aluminium products Adrad manufactures have been tried and tested in the market place in some of the toughest conditions possible, everything from street use, drag cars, V8 Supercars, Rally, Speedway right through to snowmobiles in the USA and Canada.



Adrad offers an exclusive hemmed fin and a unique fin louvre design. These combined allow us to produce a product which is both strong and durable and offers superior performance.

Adrad specialises in custom made, and made to order (NPN) alloy cores and radiator assemblies. If you cannot find a listing for the complete radiator or core that you are looking for, all you need to do is to provide us with a hand drawing and we can spec up a unit to suit. Through our experienced design and fabrication team, we are able to build an alloy radiator, intercooler or oil cooler core to suit your exact requirement. With a variety of tube sizes, configurations and Fin density as listed on page 3 rarely would there be a core not suitable for your specific application.



Manufacturing lead time starts from 2-3 days for alloy cores whilst complete alloy units would normally take approx. 7 working days from the order confirmation to despatch.



All of our alloy cooling cores and assemblies are pressure tested and guaranteed leak free with warranties up to two years.







# Aluminium Assemblies

**ALL ALUMINIUM RADIATORS  
TO SUIT POPULAR  
PERFORMANCE VEHICLES.**

*Custom units can be made to order*



## CAC'S

CACFD045AC  
CACFD045C1

FALCON BA INTERCOOLER  
FALCON BA INTERCOOLER

## CHEVROLET

CHE904ACM CHEV `56-69 56MM  
CHE934ACM CHEV `34 56MM  
CHE919ACM CHEV `57 56MM  
CHE967ACM CHEV CAMARO `67-69 56MM  
CHE912ACM CHEV CAMARO `70-92 56MM

## CHRYSLER

CHR001ACM NEON `00-08 40MM  
CHR004ACM PT CRUISER `02 40MM  
CHR945ACM VALIANT VH `72 56MM

## DATSUN

DAT921ACM40 1600 40MM  
DAT951ACM 260Z

## FORD

FD9323ACM 1932  
FD9334ACM 1934  
FD9337ACM 1937  
FD9339ACM 1939  
FD914ACM 1948  
FD9325ACM BRONCO `85-92 56MM  
FD9204ACM ESCORT '79-'81 ALLOY RAD ASSY  
(56MM CORE)  
FD9210ACM85 F100-F350 `66-75 85MM  
FD9210ACM F100-F350 `66-'75 56MM  
FD035ACM FALCON AU 6 & 8cyl 56MM  
FD045ACM40 FALCON BA 40MM  
FD045ACM FALCON BA / BF ALUMINIUM ASSY  
FD9340ACM FALCON EA-ED 56MM  
FD001A2CM FALCON EF-EL 56MM  
FD9289ACM FALCON XA-XC CLEVELAND (302)  
56MM  
FD9207ACM FALCON XA-XC CLEVELAND W/AC  
(351)  
FD9207ACMP FALCON XD-XF CLEVELAND 56MM  
FD992ACM FALCON XT CLEVELAND 56MM  
FD9115ACM FALCON XW-XY 6cyl

## FORD Cont.

FD9149ACM6  
FD9149ACM8  
FD9343ACM  
FD9103ACM8  
FD9103ACM  
FD9328ACM6  
FD9328ACM8

## HOLDEN

HOL968ACM  
HOL969ACM  
HOL968ACM3  
HOL9109ACM  
HOL9114ACM1  
HOL9114ACM  
HOL001ACM  
HOL009ACM1  
HOL009ACM  
HOL009ACM4  
HOL045ACM  
HOL055ACM  
HOL908ACM  
HOL945ACM  
HOL912ACM2  
HOL912ACM3  
HOL954ACM2  
HOL954ACM3  
HOL911ACM  
HOL926ACM3  
HOL926ACM2  
HOL990ACM2  
HOL990ACM3

FALCON XW / XY ALLOY COMPLETE  
CLEVELAND

FALCON XW / XY ALLOY COMPLETE  
WINDSOR

LASER `87 KE

MUSTANG `64-66 56MM

MUSTANG `64-66 WINDSOR 56MM

MUSTANG `68-70 CLEVELAND 56MM

MUSTANG `68-70 WINDSOR 56MM

COMMODORE VB-VK 6cyl 56MM

COMMODORE VB-VK 8cyl 56MM

COMMODORE VB-VK CHEV 56MM

COMMODORE VL 6cyl 56MM

COMMODORE VL 6cyl ALLOY RAD  
ASSY

COMMODORE VN-VS V8 ALL  
ALLOY RAD ASSY

COMMODORE VP-VS 8cyl 56MM

COMMODORE VT V6/V8 56MM  
NO FILLER NECK

COMMODORE VT V6/V8 W FILLER

COMMODORE VX V6/V8

COMMODORE VY V8 56MM

COMMODORE VZ

EH 56MM

GEMINI `79-84 40MM

HG-HK 8cyl 56MM

HG-HK 8cyl CHEV 56MM

HQ-HZ / TORANA LH-LX HOLDEN  
V8 56MM CORE

HQ-HZ / TORANA LH-LX CHEV  
V8 56MM CORE

HR 56MM

TORANA LC-LJ 6cyl

TORANA LC-LJ V8

WB 8cyl HOLDEN 56MM

WB 8cyl CHEV 56MM

**Contact your local branch for a quote if your unit is not listed**

All Aluminum performance radiators are made for manual transmission applications only.  
Automatic transmission models will require an external transmission cooler.



# Aluminium Assemblies



## HONDA

HON013ACM	CIVIC '92-99 40MM
HON029ACM	INTEGRA 2001 40MM
HON016ACM	NSX 40MM

## HYUNDAI

HYU020ACMD	TERRACAN 2.9TD '05- MAN ALLOY RAD ASSY (40MM)
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## LANDROVER

ROV950ACM	LAND ROVER DEFENDER 300TDI
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## MAZDA

MAZ048ACM	323 '01 40MM
MAZ018ACM	323 '90-92 40MM
MAZ022ACM40	MX-5 '90-97 40MM
MAZ022ACM56	MX-5 '90-97 56MM
MAZ022ACM402	MX-5 '98-02 40MM
MAZ940ACM	RX-2,3,4,7 SERIES 1-3 56MM
MAZ992ACM40	RX-7 SERIES 4 40MM
MAZ992ACM56	RX-7 SERIES 4 56MM
MAZ992ACM562P	RX-7 SERIES 4 56MM 2 PASS
MAZ992ACM56WS	RX-7 SERIES 4 56MM W/SENSOR
MAZ010ACM40	RX-7 SERIES 5 '89-92 40MM
MAZ010ACM56	RX-7 SERIES 5 '89-92 56MM
MAZ025ACM40	RX-7 SERIES 6 '92- 40MM
MAZ025ACM56	RX-7 SERIES 6 '92- 56MM

## MITSUBISHI

MIT025ACM740	EVO 7, 8 40MM
MIT005ACM	EVO 3 40MM
MIT025ACM540	EVO 5-6 40MM
MIT025ACM556	EVO 5-6 56MM
MIT025ACM756	EVO 7-8 56MM

## MORRIS

MOR002ACM	MORRIS / MINI ALUMINIUM RACING
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## NISSAN

NIS026ACM40	300ZX TWIN TURBO 40MM
NIS026ACM56	300ZX TWIN TURBO 56MM
NIS070ACM	350Z 40MM
NIS973ACM	PATROL GQ PETROL 56MM
NIS973ACM3	PATROL GQ - CHEV ENGINE 56MM
NIS973ACMD	PATROL GQ DIESEL 56MM
NIS038ACM	PATROL GU PETROL 56MM
NIS038ACM2D	PATROL GU 4.2 TD 56MM
NIS930ACMD	PATROL MQ DIESEL 56MM
NIS930ACM	PATROL MQ PETROL 56MM
NIS057ACM	PATROL Y61 GUIII 4.2 PETROL ALLOY RAD ASSY (56MM CORE)
NIS057ACMD	PATROL Y61 GUIII 4.2 DIESEL ALLOY RAD ASSY (56MM CORE)
NIS110ACM	PULSAR 26MM
NIS004ACM56	SILVIA / 200SX S13 56MM
NIS031ACM	SILVIA / 200SX S13/S14 CA18 40MM

## NISSAN Cont.

NIS004ACM40	SILVIA / 200SX S13/S14 SR20 40MM
NIS037ACM40	SILVIA / 200SX S15 40MM
NIS037ACM56	SILVIA / 200SX S15 56MM
NIS003ACM40	SKYLINE R31 40MM
NIS003ACM56	SKYLINE R31 56MM
NIS025ACM40	SKYLINE R32 40MM
NIS025ACM56	SKYLINE R32 56MM
NIS039ACM40	SKYLINE R33 40MM
NIS039ACM56A	SKYLINE R33 56MM
NIS069ACM40	SKYLINE R34 40MM
NIS068ACM40S	SKYLINE R34 40MM SHORT
NIS068ACM56	SKYLINE R34 56MM

## PORSCHE

POR007ACMLR	911 LHS & RHS
POR002ACM	928 V8 AUTO TWIN COOLERS
POR006ACM	GT-3 CENTRE

## RANGE ROVER

ROV920ACM	RANGE ROVER '70-85
ROV950ACM	LAND ROVER DEFENDER 300TDI ALLOY RAD ASSY

## SPRINT CAR

SC001FDS	SPRINT CAR DOWN FLOW RAD
SC002FCS	SPRINT CAR CROSS FLOW RAD

## SUBARU

SUB012ACM	IMPREZA WRX MY99 40MM
SUB023ACM40	IMPREZA WRX MY01/02 40MM
SUB023ACM56	IMPREZA WRX MY01/02 56MM

## TOYOTA

TOY026ACM	HILUX DIESEL '98 56MM
TOY9244ACMP	LANDCRUISER FJ80R 89-90 5FE ENGINE 56MM ALLOY RAD ASSY
TOY031ACM	LANDCRUISER 100 SERIES 56MM
TOY9126ACM	LANDCRUISER HJ60 SERIES
TOY9140ACM	LANDCRUISER HJ75 4.0D 56MM
TOY9233ACM	LANDCRUISER HZJ75 4.2D 56MM
TOY9059ACM	LANDCRUISER HZJ79 TD 56MM
TOY022ACM	SOARER '02
TOY003ACM	SUPRA '86-92 56MM
TOY008ACM	SUPRA '93-98 56MM

## VAN DIEMEN

VD02ACM	VAN DIEMEN 2000-02 ALLY ASSY
VD94ACM	FORMULA FORD 2002 COMPLETE
	VAN DIEMEN RF94 (ALLY ASSY)

Contact your local branch  
for a quote  
if your unit is not listed



# Koyo - History



## History

Koyo are a world class Japanese radiator manufacturing company that specialises in cooling system components of the highest quality.

Koyo's unique strength is made possible by its total production system, which covers design and production of all types of radiator products.

Koyo's philosophy is "Contributing technology to create a higher standard". Koyo is leading the world in the automotive radiator aftermarket, a key component in the automotive industry.

Koyo, in its quest to be a global market leader through its heat exchange technologies, has a special emphasis on quality product that offers value for money whilst continually developing state of the art technology.

Koyo's head office is located in Japan, with an additional manufacturing facility in Indonesia housing 9,000m2 of space, producing 3,500 radiators per day which are exported to all corners of the globe.

Koyo radiators are also available in plastic tank with aluminum core. Koyo's Nocolok® brazing line keeps the highest quality standards, bringing you superior products you can rely on.



Koyo's Lightweight high performance radiators provide the key to maximum engine performance. Koyo's experience in developing superior performance radiator products is evident in their K-Sport performance radiator range. Their off the shelf radiators allow your car to perform to its maximum potential.

Koyo's exciting range of K-Sport is exclusively distributed in Australia and New Zealand by ADRAD Pty Ltd. Refer pages 8 - 10 of this catalogue.





# Koyo - Range and Features

Performance car enthusiasts strive to realise the full potential of a car's engine and handling. Each alteration reflects the owner's individual desires & preferences, ultimately creating a unique and progressively tuned-up work of art.

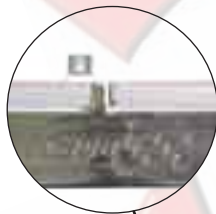
Nothing is left to chance, nor are compromises made when it comes to building the best. Only one thing determines the ability of your engine in the red zone - An off the shelf K-Sport radiator that allows your engine to perform at its fullest potential!

## **KOYO K-Sport features:**

- Specifically designed for high revving / high performance motors.
- Provide 20-30% more cooling than standard radiators.
- Ideal for turbo, supercharged engines & Nitrous Oxide. (NOS)
- Made from aircraft quality aluminium and Heli-arc welded.
- Cores are NOCOLOK® - brazed and use no epoxy.
- All radiators are fully polished to a mirror finish.
- Superior packaging to ensure safe shipment, fresh from the factory.

### **KOYO Mirror Finish**

All Aluminium surfaces are buffed before boxing to a mirror finish



### **O.E. Specification Mounting**

Fan mounts are situated to O.E. specification; allowing both stock and performance fans to be used.



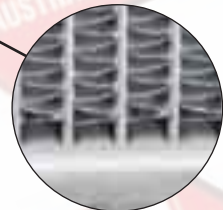
### **53mm or 36mm 2-Row Aluminium Core**

Two different core depths to cover all engine tuning levels



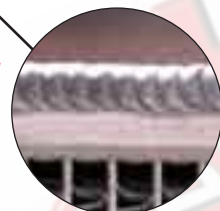
### **Nocolok® Brazing**

Tubes, Fins, Headers and Brackets are brazed in a state-of-the-art Nocolok® Furnace, bonding all components solidly together.



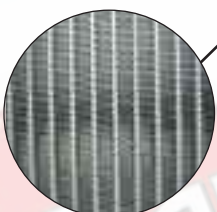
### **Hand-Crafted Heliarc Soldering**

Heliarc Soldering is the highest in industry standard for reinforcement along aluminium connections.



### **Tube and Fin Alignment**

Construction under strict quality control and solid boxing result in pristine tube and fin alignment.



NOCOLOK is a registered trademark of Solvay Fluor GmbH



# Performance Assemblies



Lightweight high performance radiators provide the key to maximum engine performance. Koyorad's experience in developing superior performance radiator products is proud to present K-Sport performance radiators, off the shelf or custom made.

Koyorad (Koyo) All-Aluminum racing radiators are made for manual transmission applications only. Automatic transmission models will require an external transmission cooler.

Due to the oversized construction of Koyorad (Koyo) All-Aluminum Racing Radiators, certain applications may fit tighter when used in different modification settings. Koyorad Racing Radiators are designed to meet OEM-Specific settings. Koyorad (Koyo) Racing Aluminum Radiators are all-core radiators.

The performance gain of Koyorad (Koyo) Racing Aluminum Radiators is 20%-30% more efficient cooling over stock radiators.

All Koyo aluminium radiators listed on this page are manufactured with the Hi-Performance 53mm core.

Professional installation is highly recommended.

## HONDA

HON0474AL	ACCORD `89-93
HON0464AL	ACCORD `93-97 2.2ltr.
HON0292AL	CIVIC EG / EH / EK `91-00
HON0300AL	CIVIC Si / Vti-R `91-00 1.6ltr
HON0376AL	INTEGRA (Denso Type) `93-99
HON0677AL	INTEGRA (Showa Type) `93-99
HON0474AL	PRELUDE `91-96
HON0822AL	PRELUDE VTI-R `91-96
HON0464AL	PRELUDE BB5 / BB6 `97-00
HON1226AL	S2000 `99-

## MAZDA

MAZ0245AL	MX5 NA 1.6/1.8ltr. `89-97
MAZ0650AL	MX5 NB 1.8ltr. `97-05
MAZ0642AL	RX7 SERIES 4/5 '86-92
MAZ0644AL	RX-7 SERIES 6 / 7 / 8 `92-02

## MITSUBISHI

MIT0561AL	LANCER EVOLUTION 1-2-3 `92-96
MIT0939AL	LANCER EVOLUTION 4-5-6 `96-01
MIT1610AL	LANCER EVOLUTION 7-8-9 `02-07

## NISSAN

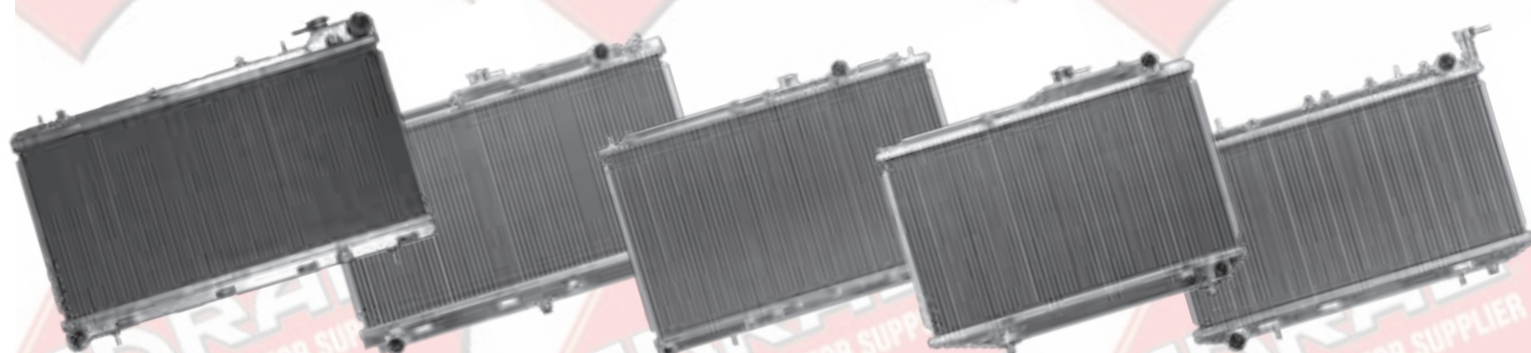
NIS0369AL	180SX 2.0ltr. `92-97
NIS0369AL	200SX S14 `94-00
NIS0243AL	300ZX 3.0ltr. TWIN TURBO `89-96
NIS0308AL	PULSAR N14 / N15 1.6ltr. `91-00
NIS0311AL	PULSAR N14 / N15 2.0ltr. `91-00
NIS0172AL	SILVIA S13 `88-91 1.8ltr.
NIS0252AL	SILVIA S13 `91-93 2.0ltr.
NIS0369AL	SILVIA S14 `93-00
NIS0214AL	SKYLINE R32 2.0/2.5ltr. `89-94
NIS0442AL	SKYLINE R33 `93-98 2.5ltr.
NIS0439AL	SKYLINE R34 `98-03

## SUBARU

SUB0302AL	LIBERTY 2.0ltr. TURBO `91-94
SUB0632AL	WRX IMPREZA `93-00
SUB1672AL	WRX IMPREZA 2.0ltr. `00-05

## TOYOTA

TOY0405AL	CELICA ST204/ST205 `94-99
TOY0929AL	MR2 SPYDER '00-05 K-SPORT RAD
TOY0681AL	SPRINTER AE86 `83-87
TOY0413AL	SUPRA JZA80 `93-02



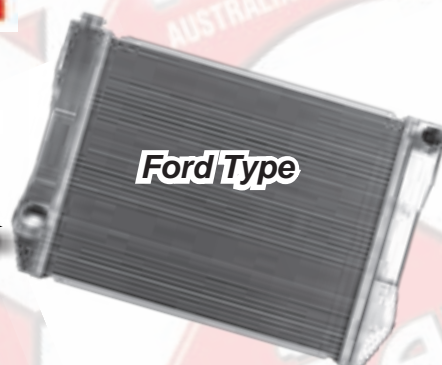


# Koyo - Race Assemblies

Premium quality imported Radiators  
providing excellent value!



**KOYORAD**



**HI-PERFORMANCE  
56MM CORE**

**RACE01CM**

RACE RAD 482X448X56 CHEV TYPE

**RACE05CM**

RACE RAD 482X448X56 FORD TYPE

**RACE02CM**

RACE RAD 533X448X56 CHEV TYPE

**RACE06CM**

RACE RAD 532X448X56 FORD TYPE

**RACE03CM**

RACE RAD 585X448X56 CHEV TYPE

**RACE07CM**

RACE RAD 582X448X56 FORD TYPE

**RACE04CM**

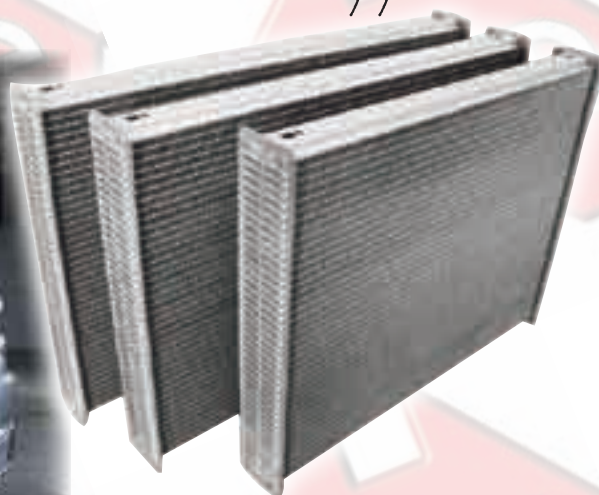
RACE RAD 656X448X56 CHEV TYPE

**RACE08CM**

RACE RAD 656X448X56 FORD TYPE

## Hi-Performance Radiator Cores

*Universal Application*



**HIPER001** - 572 x 466 x 56

**HIPER002** - 660 x 466 x 56

**HIPER003** - 698 x 466 x 56



# Performance Parts



## Braze Perfect

Aluminium Repair kit

BP1

- \* your complete solution for all aluminium repairs*
- \* Finished repair is stronger than the base metal*
- \* Brazing flux is non-corrosive after water rinse*
- \* You will get professional results all the time!*

## Aluminium Radiator Repair

Simply clean and heat until the Stic-Tite melts into the area that needs repair.

Note: This is **temporary only!**  
Take to radiator shop for permanent repair.



49 - STIC-TITE

## Aluminium Fittings

ADFDASH4	DASH 4 WELD ON FITTING
ADFDASH6	DASH 6 WELD ON FITTING
ADFDASH8	DASH 8 WELD ON FITTING
ADFDASH10	DASH 10 WELD ON FITTING
ADFDASH12	DASH 12 WELD ON FITTING
ADFDASH16	DASH 16 WELD ON FITTING

*All part no's.  
come as a  
10 PACK*



## Tubing

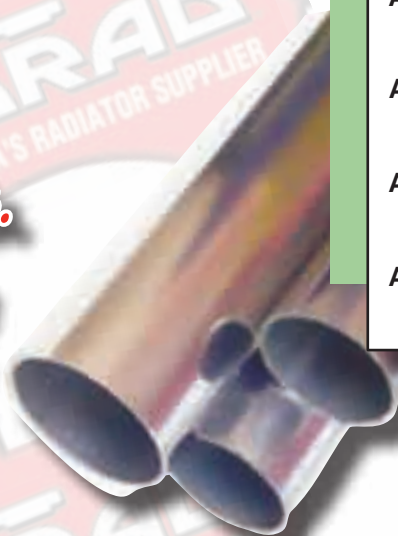
**AT20X16R** - ALUMINIUM TUBE  
20 x 1.6MM x 1 METRE

**AT25X16R** - ALUMINIUM TUBE  
25 x 1.6MM x 1 METRE

**AT35X16R** - ALUMINIUM TUBE  
20 x 1.6MM x 1 METRE

**AT38X16R** - ALUMINIUM TUBE  
38 x 1.6MM x 1 METRE

**AT44X16R** - ALUMINIUM TUBE  
44MM x 1.6MM x 1 METRE



## Alloy Donuts

**ALDONUT25** - ALUMINIUM DONUT 25MM HALF ONLY

**ALDONUT32** - ALUMINIUM DONUT 32MM HALF ONLY

**ALDONUT38** - ALUMINIUM DONUT 38MM HALF ONLY

**ALDONUT44** - ALUMINIUM DONUT 44MM HALF ONLY



## Aluminium Fittings

**AT35X50FITTING** - ALUMINIUM FITTING  
35MM x 50MM

**AT38X50FITTING** - ALUMINIUM FITTING  
38MM x 50MM

**AT44X50FITTING** - ALUMINIUM FITTING  
44MM x 50MM



# Performance Parts



**SHAPED TO PRESENT  
O.E. DESIGN**

## Pressed Aluminium Tanks

pt no. ALTANK1

pt no. ALTANK3

pt no. ALTANK9

pt no. ALTANK2

pt no. ALTANK7

pt no. ALTANK8

pt no. ALTANK4

**ALTANK1** HOLDEN COMMODORE 442 x 78

**ALTANK3** HOLDEN HQ 629 x 89

**ALTANK9** HOLDEN HQ 625 x 70

**ALTANK2** FORD FALCON XD 468 x 78

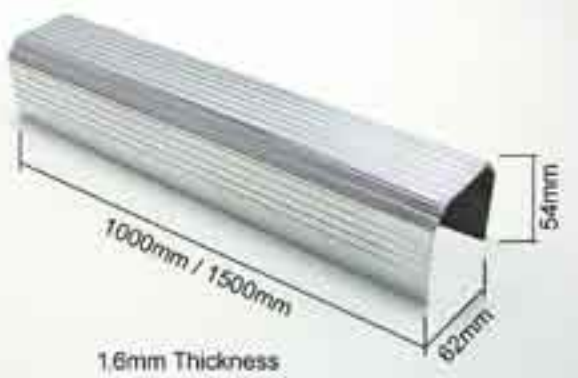
**ALTANK7** FORD FALCON XY GT - TOP 607 x 75

**ALTANK8** FORD FALCON XY GT - BOTTOM 607 x 74

**ALTANK4** SPRINT CAR 520 x 51

## Aluminium Tank Extrusion

**ALEX62X1000** 1.0MTR LENGTH WITH 62MM TANK EXTRUSION  
**ALEX62X1500** 1.5MTR LENGTH WITH 62MM TANK EXTRUSION  
**ALEX62END** 62MM END



## Radiator Filter Socks

*To suit Trucks and Tractors*

RS01	Radiator Sock / Filter (small) - 1 per pack
RS02	Radiator Sock / Filter (medium) - 1 per pack
RS03	Radiator Sock / Filter (large) - 1 per pack
RS04	Radiator Sock 4
RS05	Radiator Sock 6



## Alloy Filler Necks

**Billet offer's  
Strength and Durability**

**BILLET FN1  
TO SUIT FORD / GM**



**BILLET FN3  
TO SUIT TOYOTA**



**FN1AL  
FORD / GM  
PRESSED  
FILLER NECK**



**FN3AL  
JAP STYLE  
PRESSED  
FILLER NECK**



## Pressed Filler Necks

**Pressed units offer  
lightweight and affordability**

## Aluminium Tubing



ADMB125X180	ALUM MANDREL BEND 1.25" x 180°
ADMB125X45	ALUM MANDREL BEND 1.25" x 45°
ADMB125X90	ALUM MANDREL BEND 1.25" x 90°
ADMB15X180	ALUM MANDREL BEND 1.5" x 180°
ADMB15X45	ALUM MANDREL BEND 1.5" x 45°
ADMB2X45	ALUM MANDREL BEND 2.0" x 45°
ADMB2X90	ALUM MANDREL BEND 2.0" x 90°
ADMB25X180	ALUM MANDREL BEND 2.5" x 180°
ADMB25X45	ALUM MANDREL BEND 2.5" x 45°
ADMB25X90	ALUM MANDREL BEND 2.5" x 90°
ADMB275X45	ALUM MANDREL BEND 2.75" x 45°
ADMB275X90	ALUM MANDREL BEND 2.75" x 90°
ADMB3X45	ALUM MANDREL BEND 3.0" x 45°
ADMB3X90	ALUM MANDREL BEND 3.0" x 90°



**Customise  
your  
own fittings**



# Drain Plugs & Fittings



pt no. DPP001



pt no. DPP002



pt no. DPP003



pt no. DPP004



pt no. DPP005



pt no. DPP006



pt no. DPP007



pt no. DPP008



pt no. DPP009



pt no. DPP1



pt no. DPP11



pt no. DPP12



pt no. DPP14



pt no. DPP2



pt no. DPP3



pt no. DPP4



pt no. DPP5



pt no. DPP6



pt no. DPP9



pt no. 041CT



pt no. 0350

<b>DPP001</b>	DRAIN PLUG M14 X P2.0
<b>DPP002</b>	DRAIN PLUG M12 X P1.25
<b>DPP003</b>	DRAIN PLUG M10 X P1.25
<b>DPP004</b>	DRAIN PLUG M10 X P1.25
<b>DPP005</b>	DRAIN PLUG M14 X P1.25
<b>DPP006</b>	DRAIN PLUG M120 X P1.25
<b>DPP007</b>	DRAIN PLUG M12 X P1.25
<b>DPP008</b>	DRAIN PLUG M8 X P1.25
<b>DPP009</b>	DRAIN PLUG M12X1.25MM
<b>DPP1</b>	PLASTIC FITTING 50MM LENGTH
<b>DPP11</b>	PLASTIC FITTING 12.7MM X 14NPT
<b>DPP12</b>	PLASTIC FITTING 22MM LENGTH
<b>DPP14</b>	PLASTIC FITTING
<b>DPP2</b>	PLASTIC FITTING 40MM LENGTH 6MM THREAD
<b>DPP3</b>	PLASTIC FITTING 12MM X 1 1/4MM
<b>DPP4</b>	PLASTIC FITTING 25MM 14MM x 2MM
<b>DPP5</b>	PLASTIC FITTING 29MM M14 x P1.25
<b>DPP6</b>	PLASTIC FITTING 16MM 1/4" x 18NPS
<b>DPP9</b>	PLASTIC FITTING 17MM 10MM x 11/2MM
<b>041CT</b>	DRAIN PLUG 19MM 12MM DIA.
<b>0350</b>	DRAIN PLUG 25MM x M14



**Quality Constructed  
Radiator Caps**

RC1314PR	LEVER CAP 14psi / 41mm STD SIZE
RC1516PR	LEVER CAP 16psi / 41mm STD SIZE
RC22PR	LEVER CAP 22psi / 41mm STD SIZE
RC3109	RECOVERY CAP - ADRAD 13psi / 31mm JAP STYLE
RC3109B	RECOVERY CAP - ADRAD 13psi / 31mm ZINC PLATED JAP STYLE
RC3111	RECOVERY CAP - ADRAD 15psi / 31mm JAP STYLE
RC4109	RECOVERY CAP - ADRAD 13psi / 41mm STD STYLE
RC4111	RECOVERY CAP - ADRAD 16psi / 41mm STD STYLE
RC4111B	RECOVERY CAP - ADRAD 15-16psi / 41mm ZINC PLATED STD STYLE
RC4114	RECOVERY CAP - ADRAD 20psi / 41mm STD STYLE
RC7PR	LEVER CAP
RC90PR	LEVER CAP 13psi / 31mm MINI-JAP SIZE
RCBP10PR	LEVER CAP BRASS PIN 10psi / 41mm STD STYLE MININIG & SAFETY SUITABLE
RCBP13JAPPR	LEVER CAP BRASS PIN 13psi / 31mm JAP STYLE MININIG & SAFETY SUITABLE
RCBP13PR	LEVER CAP BRASS PIN 13psi / 41mm STD STYLE MININIG & SAFETY SUITABLE
RCBP16JAPPR	LEVER CAP BRASS PIN 16psi / 31mm JAP STYLE MININIG & SAFETY SUITABLE
RCBP16PR	LEVER CAP BRASS PIN 16psi / 41mm STD STYLE MININIG & SAFETY SUITABLE
RCBP7PR	LEVER CAP BRASS PIN 7psi / 41mm STD STYLE MININIG & SAFETY SUITABLE
RCT13PR	LEVER CAP BRASS PIN 13psi / 41mm STD TYPE MINING & SAFETY SUITABLE
RCT16PR	LEVER CAP BRASS PIN 16psi / 54mm STD TYPE MINING & SAFETY SUITABLE



pt no. RC3109



pt no. RC1516PR



pt no. RCBP13JAPPR



pt no. RC3111



pt no. RCBP10PR



pt no. RC22PR



pt no. RCT16PR



pt no. RC7PR



pt no. RCBP16PR



## For all Air to Fluid applications

ADRAD exclusive extruded oil cooler tube design is constructed in the same manner as the proven tough CAC tube currently in use.

Extrusion technology, coupled with controlled atmosphere brazed headers, provide a structure that can handle pressures far higher than normally required.

Static in-house positive oil pressure testing showed the core structure was able to withstand 500psi. In fact, the test had to be suspended at 550psi, when header / tank distortion fractured the tank weld.



**Super Strong!  
Tested up to  
500 PSI**

ADRAD are able to offer warranty on cores for use up to 100psi. For pressures above that threshold, other factors such as tank design and header plate overhang can be the root cause of potential failures. And as such, require experienced consumers to warrant their complete heat exchanger.

This profile has been specifically designed for oil-coolers and water to air intercoolers. The ratio of wall thickness vs. surface area vs. fluid volume provide exceptional performance for these applications.



**ADRAD's tough extruded tube construction under test**



**Close up of ADRAD's oil and air/water extrusion  
(available in 36mm & 54.5mm)**



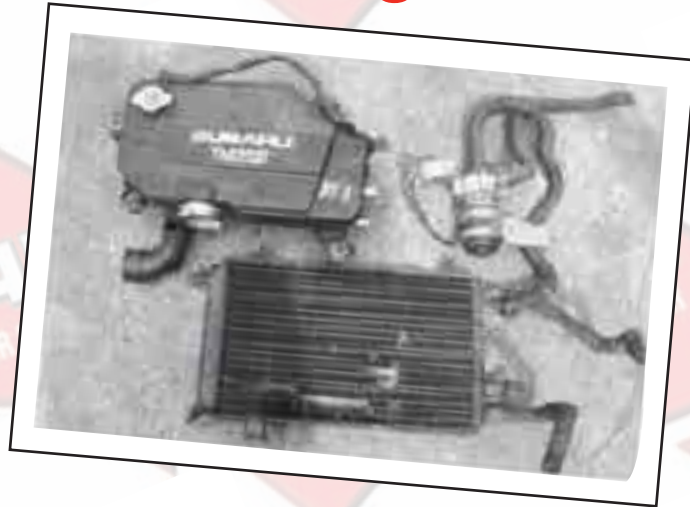
# Water to Air Intercooling

## Water to Air Intercooling

This method of intercooling is not quite as popular as the air to air method, primarily due to the higher initial costs.

A separate dedicated water circuit is required, comprising of a heat-exchanger, electric water pump, and a small radiator.

Water passes through the heat exchanger, picking up heat from the compressed charge air. The heated water is then pumped through a front mounted radiator, where it is cooled and returned to the heat exchanger.



Overview of components required for a water to air intercooler set-up

The specific heat capacity of a given volume of water is approximately 4 times that of the equivalent volume of air. Thus, the heat exchangers tend to be smaller than their air / air counterparts. This enables air/water heat exchangers to be mounted directly above the intake manifold, or in some cases even in the manifolds.

Smaller pipes are required to transfer the water to the radiator, which can be advantageous in congested engine bays.

Performance wise, the air/water intercooler can out-perform air/air intercoolers. Particularly under street conditions, where short periods of time on boost are followed by time off boost. Knowledge and experience may be required to set up an effective system with correctly sized components.

## Advantages of water to air Intercooling

Advantages of water to air Intercooling are:

- \* Short induction path
- \* Excellent for short power bursts (street use)
- \* Smaller and easier to package
- \* Less prone to damage



Typical top-mounted air/water intercooler



## Australian Owned, Australian Made!

### part no

<b>9001</b>	ELECTRIC BOOSTER PUMP
<b>8005</b>	ELECTRIC WATER PUMP
<b>8010</b>	ELECTRIC WATER PUMP CONTROLLER
<b>DCSLX10S</b>	FAN SHORT KIT
<b>DCSL14</b>	FULL FAN KIT
<b>DC31</b>	FULL FAN KIT 12v
<b>DCSL10</b>	FULL FAN KIT 12v
<b>DCSL8</b>	FULL FAN KIT 12v
<b>DCSL9</b>	FULL FAN KIT 12v
<b>DCSL12</b>	FULL FAN KIT 12v-130 WATT
<b>DCSL16</b>	FULL FAN KIT 12V COMMODORE / V8 MONARO

### part no.

<b>DCSL12LP</b>	SHORT FAN
<b>DCSL14S</b>	SHORT FAN KIT 12V
<b>DCSL16S</b>	SHORT FAN KIT 12v
<b>DCSL9S</b>	SHORT FAN KIT 12v
<b>DCSL12S</b>	SHORT FAN KIT 12V-130 WATT
<b>DCSL10S</b>	SHORT FAN KIT 12v-90 WATT

### ELECTRIC FANS

The introduction of front wheel drive and down sizing of vehicles, has led to the rapid growth of electric fans for engine cooling. An efficient and economical method of automotive cooling, electric fans are also the fastest growing segment within "Cooling System Products".

With multiple uses for primary and supplemental add-on cooling, electric fans are quickly becoming one of the most important cooling components on today's vehicles.

*As a primary cooling source electric fans provide:*

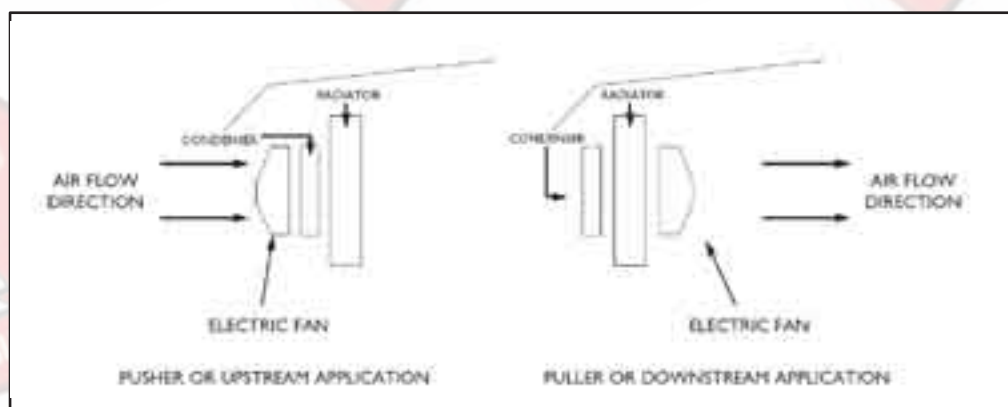
- Economical replacement for failed O.E. parts
- 5-10% increase in engine power and fuel saving when replacing fan clutch and fan assemblies
- Reversible blades for pusher (upstream) or puller (downstream) applications
- Compatibility with all electric fan controls
- Coverage for a wide variety of applications

Electric fans are an excellent solution for vehicles requiring additional air flow. As an add-on cooling source electric fans reduce the workload on the primary cooling fan. Additional air flow increases the operating efficiencies on applications from small to recreational vehicles.

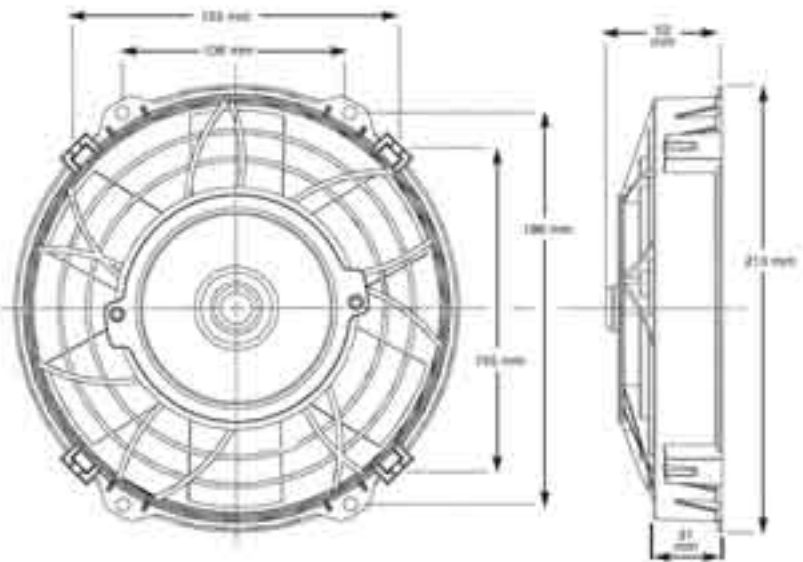
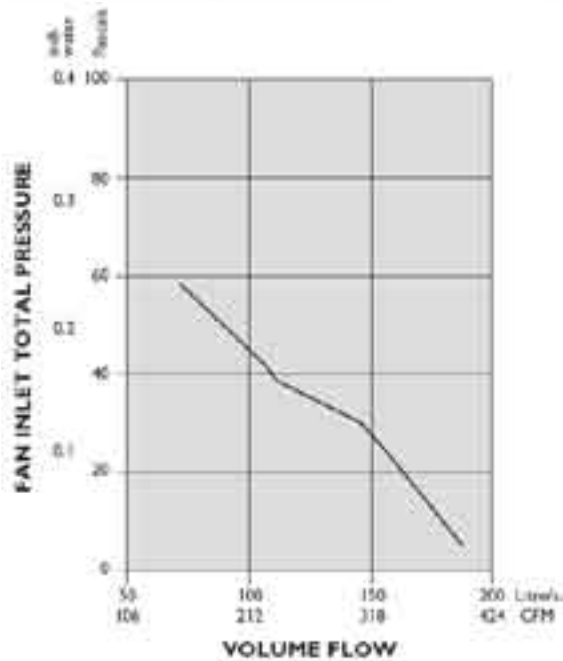
*As an add-on cooling source electric fans provide:*

- Constant air flow regardless of vehicle speed
- Increased air conditioning performance due to constant air flow across the condenser
- With the conversion from R12 to R-134A refrigerant there is a need for additional condenser cooling to ensure the overall improved efficiency of the cooling system
- Increased fuel economy

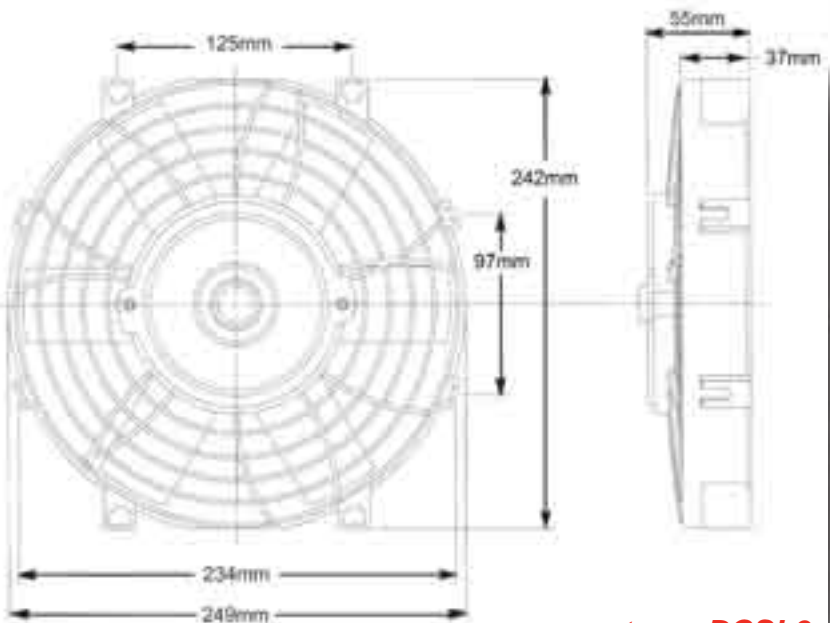
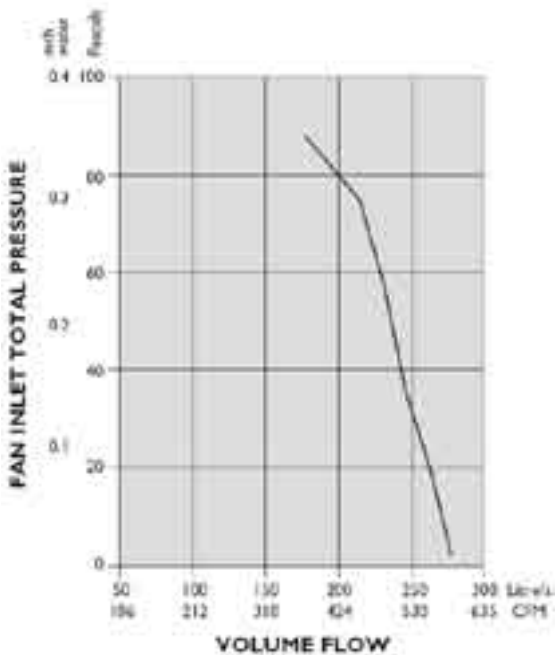
All of our electric fans kits are packaged complete with instructions and mounting hardware for quick and easy installation.





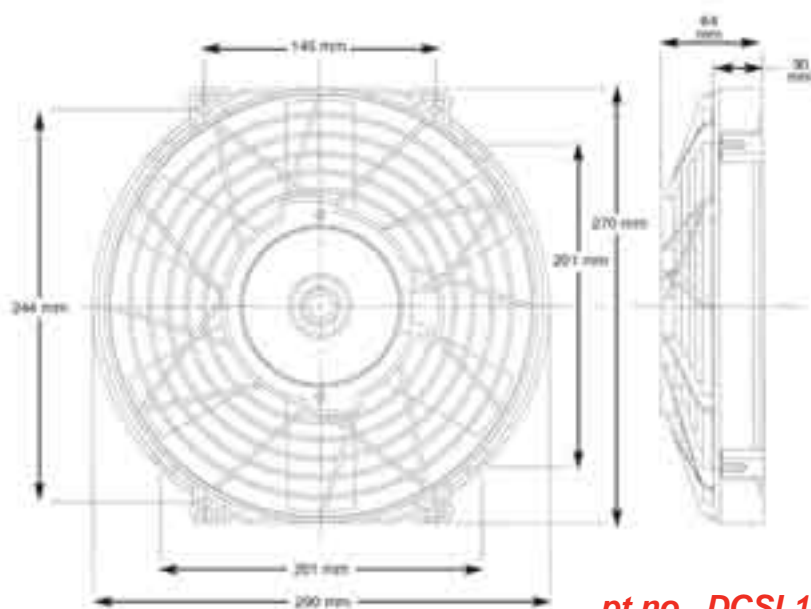
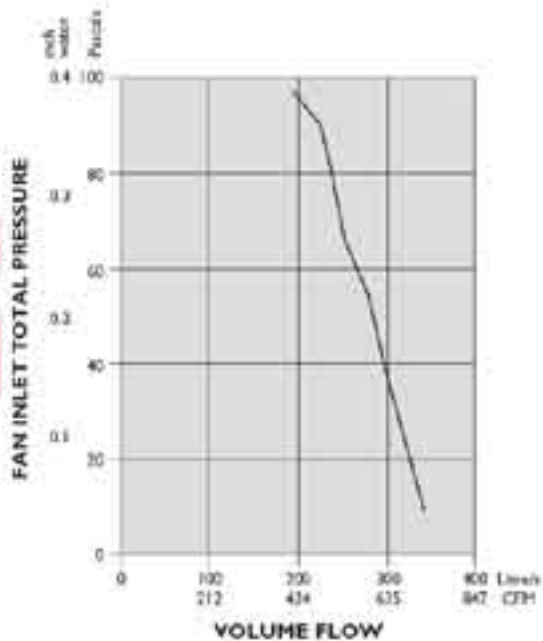


pt no. **DCSL8**

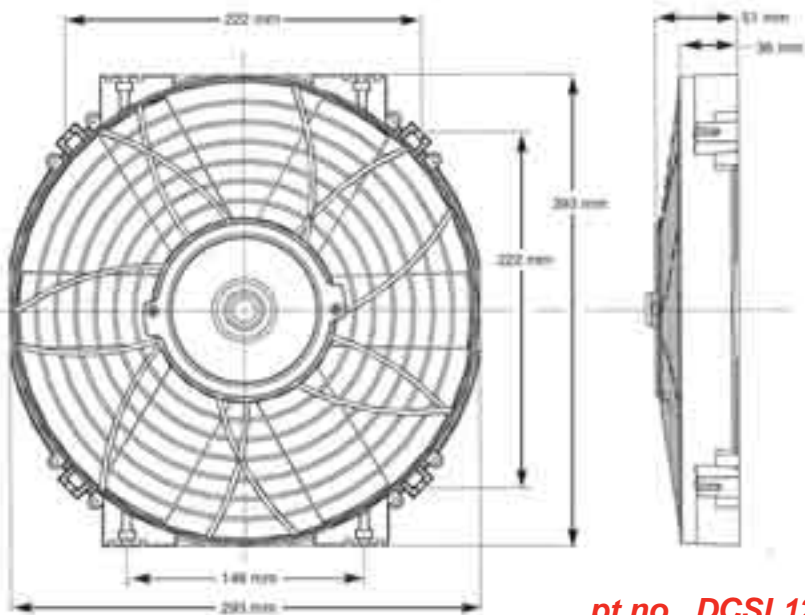
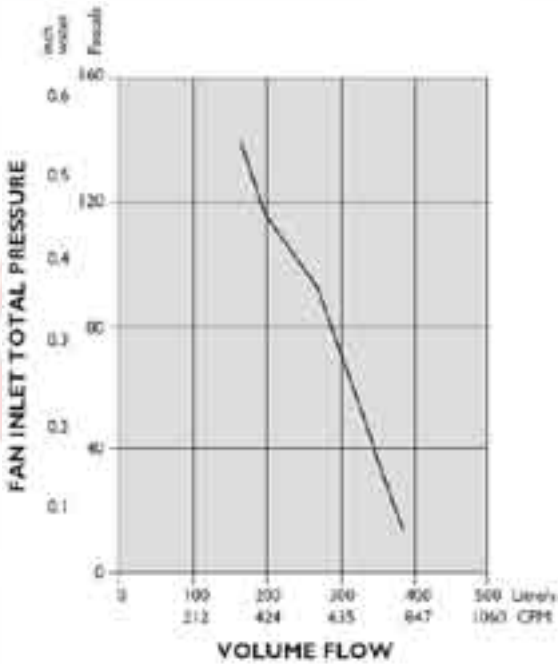


pt no. **DCSL9**



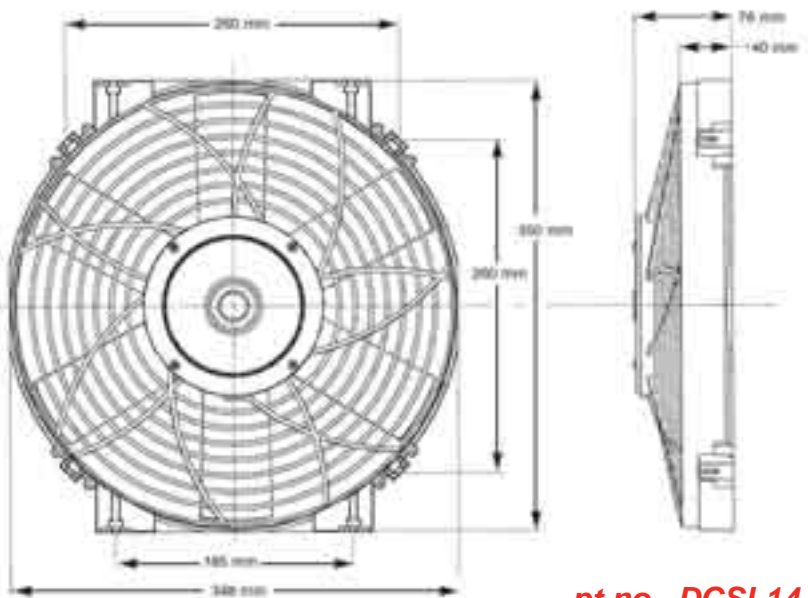
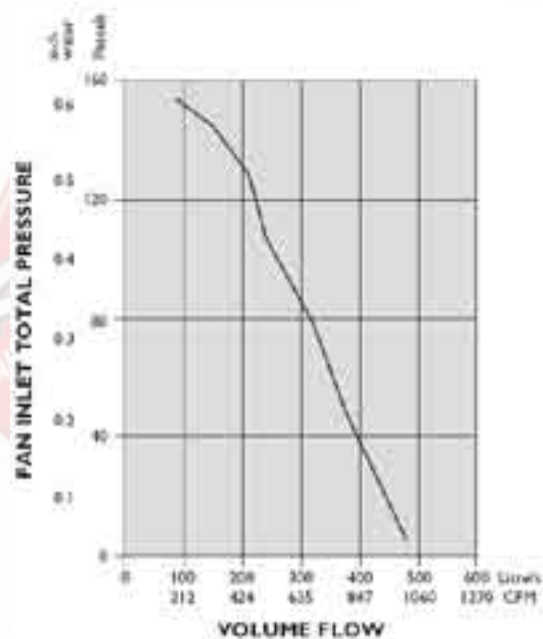


pt no. DCSL10

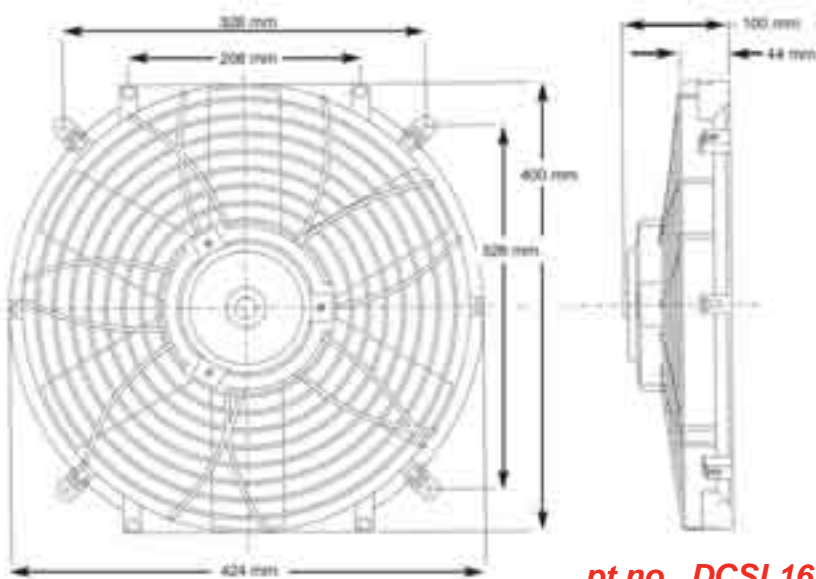
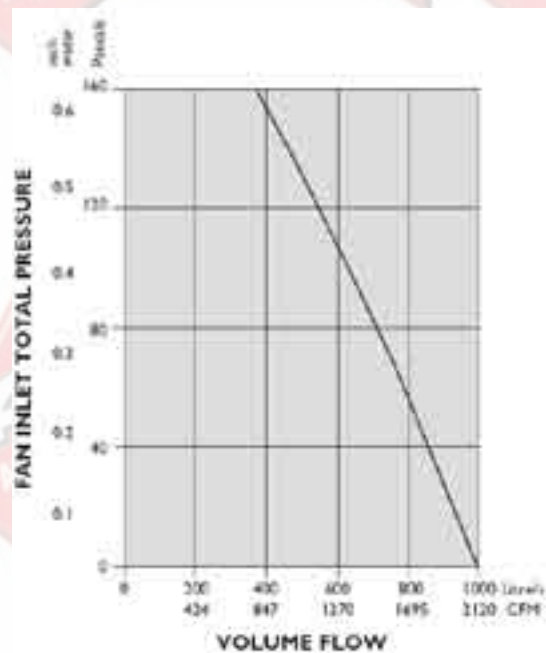


pt no. DCSL12





pt no. DCSL14



pt no. DCSL16



*The World's First universal fit automotive electric water pump!*

## Electric Water Pump

The EWP® is the most economical way to increase horsepower and save on fuel consumption while caring for your engine.

The standard EWP® 80 (80 litre per minute) for cars with engine capacity up to a 5.0ltr.

The revolutionary, Australian designed, EWP® pump is made from anti-corrosive, lightweight, glass filled nylon and is a performance accessory that improves engine cooling control and capacity while giving you more power and improved fuel economy - old mechanical belt driven, water pumps run directly off the motor and sap engine power, while EWP® is hard wired into your electrical system.

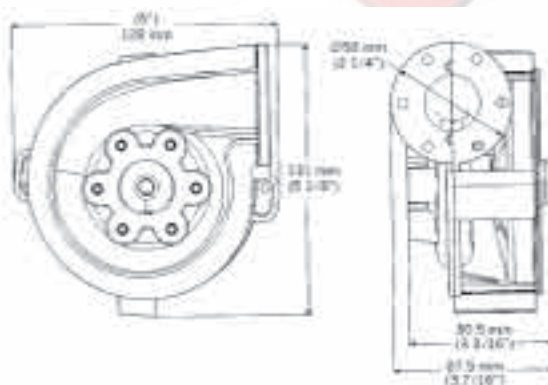


pt no. 8005

The EWP® is universal fit by mounting in the bottom or top radiator hose.

The kit comes with everything you need for easy installation including: easy to understand, Do-it-yourself instructions, multiple sized couplings to fit every hose size and electrical wiring.

- **Long Life**
- **Increased engine power**
- **Greater cooling capacity**
- **80 litres per minute**
- **Better fuel economy**



### Technical Specifications:

Operating Voltage	4V DC to 14.5V DC
Maximum Current	7.5A
Flowrate (Max.)	80 L/min, (1300 US gal/hr) at 13.5V DC
Operating Temperature	-20°C to 130°C (-5°F to 270°F)
Pump Design	Clockwise centrifugal with volute chamber
Motor Life	2000 hrs continuous at 80°C (180°F) and 12V DC
Pump weight	900 grams (2 lb)
Pump material	Nylon 66, 30% glass filled
Burst Pressure	350 kPa (50 psi) Minimum
Max. Radiator Cap Pressure	200 kPa (29 psi)
Fits Hose sizes	32 mm to 51 mm (1-1/4" to 2")



Introducing an all new **'Digital'** Electronic Controller for the electric water pump

## Electric Water Pump - Digital Controller



pt no. 8010

This latest generation "Digital" controller allows you to electronically set the target temperature and it adjusts the rate flow, hunting for and then locking onto, the temperature set. The actual coolant temperature and other operational information is displayed at all times to keep you informed and in control.

To overcome the effects of 'Heat Soak' the controller automatically continues to run the pump after ignition OFF for a period of 2 minutes or until the engine temperature is 5°C below the target temperature whichever occurs first.

- **Electronically controls electric water pump**
- **Cools engine after shut down**
- **"Smart" diagnostic capability**

## Booster Water Pump with **Performance!**

### Electric Booster Pump



pt no. 9001

The 12v Davies Craig Electric Booster Pump (EPB) with its high flow capacity and advanced design, makes it ideal for a range of applications.

- |          |              |
|----------|--------------|
| cars     | motorcycles  |
| off-road | boats        |
| 4WDS     | camping      |
| caravans | irrigation   |
| go-karts | motor sports |

#### **Quality Construction**

The EBP motor has no brushes to ever wear out and the pump is magnetically driven by the motor, which means that no shaft sealing is required. There is only one moving part, the impeller and it is floating in the coolant. The pump chamber is hermetically sealed for trouble free operation.



- **Brushless motor**
- **Magnetic drive - no shaft seal**
- **Long life - Heavy duty**
- **12 volt**



# Transmission Oil Coolers

## Did You Know ?

Heat is the major contributing factor in the premature failure of Automatic Transmissions.

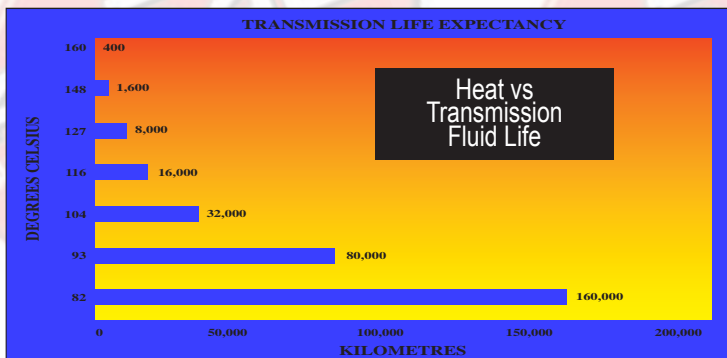
Towing or stop start city driving increases the operating temperatures of modern transmissions and reduces the effective life of the transmission fluid.

The heat generated causes the transmission fluid to oxidize and decrease the lubrication properties.

Today's sophisticated transmissions are very expensive to repair. The special design features in ADRAD's TC oil cooler cores allow the overall size to remain compact for easier fitment, while still retaining a superior heat-rejection rate. This is why this particular design is being utilised by some of today's leading car manufacturers!



Oil cooler kit



The plate and fin core design (below) features a dimpled, stacked plate construction that increases oil pressure drop, and louvered fins between the plates create maximum air flow through the core area. The top of each core also has a self-regulating low pressure drop feature, which allows a faster return of the oil until it has reached operating temperature, thereby reducing the drop experienced by 'Serpentine' type coolers.



*Install an External  
Transmission Oil Cooler  
Today!*

This will keep your transmission running within the specified heat range and can dramatically extend the life of the Automatic Transmission. ADRAD have an extensive range of coolers to suit most applications, so you'll be sure to find what you need!

*Do yourself a favour*

Always recommend the fitment of a quality Transmission Oil Cooler. Don't hesitate to contact ADRAD now and demand the best value cooler on the market today!



# Transmission Oil Coolers

PART NUMBER	APPLICATION	DIMENSIONS			FITTING HOSE BARB	PLATES
		H	W	Tk		
TC-682	Ford AU-BA Falcon	190	280	20	3/8"	36
TC-680	Ford EA-ED Falcon 4 speed 6/8cyl.	190	280	20	3/8"	36
TC-681	Ford EF-EL Falcon	155	102	20	3/8"	29
TC-679	Ford XD-EA 3 speed 6 & 8cyl	190	280	20	5/16"	36
TC-676	Holden Commodore VS II - VX 6cyl	165	280	38	3/8"	56
TC-683	Toyota Camry Large	184	280	20	3/8"	72
TC-677	Universal 6cyl	150	280	20	3/8"	17
TC-678	Universal 8cyl	197	280	20	3/8"	23
TC-684	Universal Kit Small	152	100	19	10MM	56
TC-685	Universal Small up to 2ltr.	100	283	20	8MM	18
TC-686	Universal Medium 2.0-4.0ltr.	145	280	20	8MM	27
TC-687	Universal Large over 4.0ltr.	188	280	20	10MM	36

**NOTE: All kits are supplied with fittings and hose**

## SELF REGULATING COOLER CORE

1. To control the amount ATF (Auto Transmission Fluid) bypassing the stacked plate core. The oil passes through a self-regulating orifice which monitors resistance to flow.

2. Controlled by viscosity, cooler, thicker ATF is returned directly to lube through two open bypass plates positioned above the stacked plate core.

3. As operating temperature increase, more ATF flow is directed through the core with its minimal flow resistance.

4. The result, a highly efficient oil cooler that protects against lube system failure and delivers optimal heat transfer as required.

Brazed aluminium, oil to air, transmission oil coolers have a burst pressure in excess of 400psi.

Each production core is tested at 200psi under water at the end of its production process.



### Fact:

Cooler Core efficiency can be increased by approximately 25% at speed by the fabrication and installation of a forward facing cowling to capture and force feed air through the core.



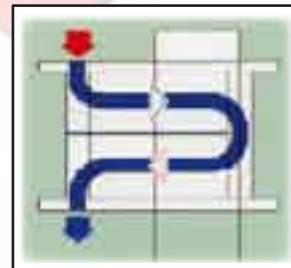
# Setrab - Oil Coolers



## The Setrab Advantage

### Multi-Pass Coolers

Multi-pass coolers demonstrate our ability to produce specialized coolers for specific needs. The multi-pass configuration in these high performance coolers ensure exposure of fluid to the maximum surface area of the cooler.



### Internal Turbulators

Specialized in-line turbulators increase performance by gently directing the oil's flow path to expose it to the maximum internal surface area of the cooler. The in-line design of these turbulators offer superior performance with very low oil pressure restriction across the cooler.

### Bonding Process

SETRAB oil coolers are brazed as complete units in computerized furnaces. The effect of such a technique ensures an internal and external surface area that is free of any barrier to heat transfer. Each cooler is then tested to withstand appropriate pressures, vibrations and pulsation. Here quality has top priority and this highly specialized process results in unmatched durability and performance.



### External Air Fins

Concentrated mini-louvered air fins deliver maximum heat transfer. Heat will dissipate more rapidly from sharp edges and the design of these fins guarantees superior performance potential.

### Adaptor System Fittings

Setrab Pro-line Oil Coolers are manufactured with specialized low-profile female ports. These ports are converted to AN4, AN6, AN8, AN10, or AN12 fittings appropriate for each application with the use of Setrab adapters.

These adapters are produced of the same material used by hose fitting manufactures, assuring a clean, hard, external sealing surface.



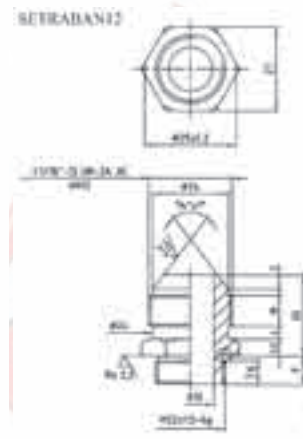
A seated O'ring base provides a positive internal seal to the cooler. Each fitting is internally radius machined to ensure the best oil flow characteristics.

### STD Standard Coolers

The Setrab STD oil cooler design is based on shallow aluminium dish plates brazed together to form tubes with internal in-line turbulators and external mini-louvered air fins. The STD is offered in the broadest range of sizes of any other high performance oil cooler available. This means there is a Setrab STD available for your most demanding application. STD coolers are designed for maximum working pressures to 150psi.

Lightweight, high performance, low pressure-drop, and durability have united in the STD to create the most demanded cooler by top teams and builders worldwide. The STD cooler is provided with specialized female ports to allow the use of high quality Setrab AN adaptors in sizes appropriate to the application.





PART NUMBER	DIMENSIONS				
	A	B	C	D	E
SETRAB107	163	53	122	190	210
SETRAB110	163	76	122	190	210
SETRAB113	163	100	122	190	210
SETRAB116	163	122	122	190	210
SETRAB119	163	146	122	190	210
SETRAB125	163	193	122	190	210
SETRAB150	163	389	122	190	210
SETRAB607	283	53	242	310	330
SETRAB610	283	76	242	310	330
SETRAB613	283	100	242	310	330
SETRAB616	283	122	242	310	330
SETRAB619	283	146	242	310	330
SETRAB625	283	193	242	310	330
SETRAB634	283	264	242	310	330
SETRAB640	283	310	242	310	330
SETRAB910	358	76	317	385	405
SETRAB915	358	115	317	385	405
SETRAB919	358	146	317	385	405
SETRAB925	358	193	317	385	405

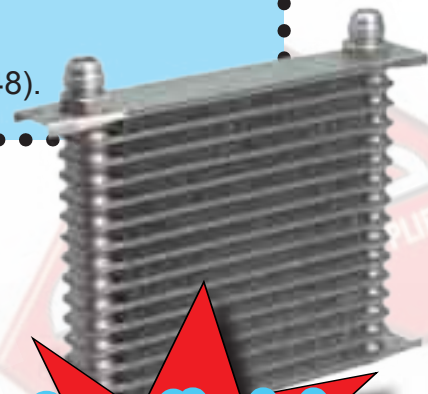
SETRABAN10	AN10 ADAPTER
SETRABAN12	AN12 ADAPTER



# Stacked-Plate Oil Cooler

Stacked-plate oil coolers or plate type oil-to-air coolers (POA) are compact, light weight, and especially economical for low flow rate applications. Higher flow rate is also allowed when the limit of oil pressure drop is not prohibited. POA is suitable for automotive application.

We offer two sizes: 32 mm core depth (d32) and 48 mm core depth (d48).



**Available  
Soon!**



## SPECIFICATIONS

RECOMMENDED OIL FLOW RATE (LITRE / MIN)			UP TO 25
MAXIMUM OPERATIONG PRESSURE (BAR)			10
DIMENSIONS (MM)			
DEPTH	CTR.	NUMBER OF PLATE	W
D32	125	3 TO 7	39 TO 98
	201	5 TO 18	60 TO 242
	226	7 TO 17	89 TO 238
	270		
	376	6 TO 22	84 TO 308
D48	230	13 TO 16	177 TO 219



**Air/ Air Intercooler** - Usually front mounted, an intercooler using ambient air to cool combustion air.

**Air/ Water Intercooler** - A heat exchanger using water to cool combustion air.

**Billet** - An item machined from a single solid piece of material.

**CAC** - Charge Air Cooler. Another name for Intercooler. A heat exchanger designed to cool the hot combustion air produced by a turbocharger or supercharger.

**Dimpled Tubes** - Tubes used for water cores that have dimpled faces, causing the water to turbulate, reducing lamina flow, increasing cooling performance.

**Donut** - A pressed aluminium ring. Two of these are welded together to provide a hollow donut shape, which can be cut to the required angle to produce a tight smooth pipe bend.

**FPI** - Fins Per Inch. The number of cooling fins per linear inch.

**Hem** - The turned over edge of fin, designed to improve strength and permit alternative designs.

**Louvre** - The small angled slits placed in a fin to improve heat exchange.

**Pressure drop** - The amount of pressure lost by the air passing through a heat exchanger. Undesirable in Intercoolers.





# Engineer to Order Form

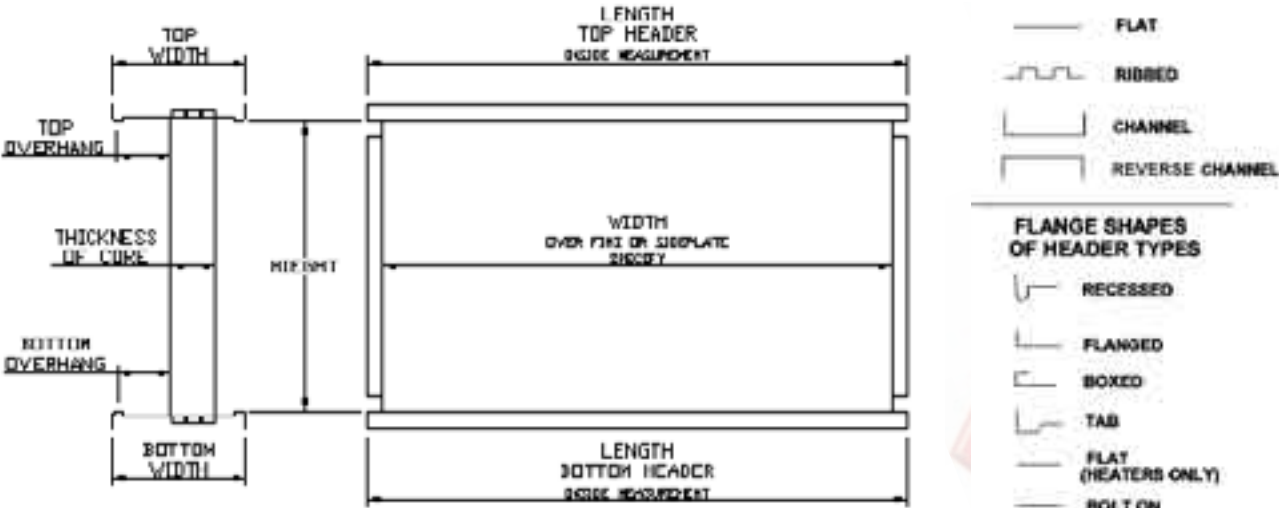
## Alloy NPN core order sheet

Repairer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

Details: \_\_\_\_\_

Special Instructions: \_\_\_\_\_



CORE SIZE					TUBE SIZE		FIN MATERIAL
HEIGHT	WIDTH	THICKNESS	FPI	CORE TYPE	TUBE PITCH	# OF TUBE/ROW	# OF ROWS

HEADER SIZE							
	LENGTH	WIDTH	TYPE	GAUGE	FLANGE	CORNERS	OVERHANG
TOP							
BOTTOM							

**ALLOY NPN GENERAL ORDERING INFORMATION**

- Core Height is always measured between the headers
- Flanged headers measured inside the turn up
- Please allow 2-3 working days
- No returns on made to measure cores

**BRANCH FAX NUMBERS**

S.A. 08 8347 7245	W.A. 08 9370 4600
VIC. 03 9372 6344	TAS. 03 6334 3959
QLD. 07 3272 7829	N.S.W. 02 9729 2503
GOLD COAST 07 5500 4911	NEWCASTLE 02 4964 4238
TOWNSVILLE 07 4725 1152	



# RADIATOR INSTALLATION PROCEDURE

Thank you for selecting a quality ADRAD radiator for your vehicle. The radiator has been manufactured to high quality standards and with correct installation, care and maintenance of the vehicle's cooling system, the radiator will provide your vehicle with trouble-free engine cooling.

## (PART A) INSTALLATION PROCEDURE FOR REPLACING THE RADIATOR STILL IN THE VEHICLE

1. Before removing the radiator, check the cooling system for stray current by:

1.1 Carefully removing the radiator or expansion tank cap & bring the vehicle up to operating temperature.

**(WARNING: EXERCISE EXTREME CAUTION WHEN REMOVING THE RADIATOR OR EXPANSION TANK CAP.)**

1.2 Switch on all electrical items and ensure that the brake lights and hazard lights are functioning correctly.

1.3 Use an analogue multimeter with a sensitivity of .05 volts or a stray current detector to check for the presence of electrical current by placing the negative lead on the battery negative post

and the positive lead directly into the coolant. Be sure not to touch the side of the filler neck or core of the radiator with the positive probe. Switch on all the vehicle's electrical systems one at a time, e.g. spotlights, radios, CBs, air conditioner, etc. Do this process first with the engine running and then repeat the process with the engine off.

1.4 A reading of more than .05 volts or a positive red light indicates damaging current is present in the cooling system.

1.5 If voltage (stray current) is detected, isolate the circuit by turning all electrical items off and switching each circuit ON individually. This procedure by process of elimination assists in identifying the source of the current.

## WARNING

**THE SOURCE OF THE STRAY CURRENT MUST BE ELIMINATED BEFORE THE RADIATOR INSTALLATION CAN CONTINUE. FAILURE TO CORRECT A STRAY CURRENT FAULT WILL VOID THE MANUFACTURER'S WARRANTY AND LEAD TO PREMATURE FAILURE OF THE RADIATOR. CONSULT A QUALIFIED AUTO ELECTRICIAN FOR ASSISTANCE IF YOU ARE UNABLE TO LOCATE AND FIX THE CAUSE OF THE STRAY CURRENT.**

2. On successful positive completion of the stray current test, completely drain the coolant from the system.

3. Thoroughly flush the cooling system, including the overflow reservoir and the heater system to remove all the old coolant, and any remaining residue or deposits. A power flush system is the most efficient method of removing all traces of the old coolant, loose particles or sediment.

4. Fill the system with water and treat using a quality alkaline cleaner, making sure that the vehicle's heater is turned on. Observe the instructions on the container. Run the vehicle to operating temperature.

5. Follow the vehicle manufacturer's recommendations for servicing of the cooling system, checking all components for wear.

6. Drain the water from the system and flush out with clean water. RINSE - RINSE - RINSE with clean water until you are convinced the system has been thoroughly flushed.

7. Remove the old radiator.

8. Install the new radiator assembly referring to the vehicle manufacturer's recommendations for any additional installation procedures.

9. Refill the system with clean water and check for stray current (refer to item 1).

10. Drain the water from the system.

11. Fill with the correct dosage of coolant/inhibitor, which complies with Australian Standard AS2108-97 (A) or the vehicle manufacturer's recommendation as a minimum standard. When mixing approved concentrated coolant/inhibitor, Distilled, Demineralised or Reverse Osmosis water must be used as recommended by the vehicle's manufacturer or the coolant/inhibitor's manufacturer. Ensure that the vehicle manufacturer's instructions for filling the cooling system are followed to ensure that air-locks are removed from the system and the vehicle has been run up to normal operating temperature, checking the coolant/inhibitor level and that all components are free from leaks.

**NEVER MIX COOLANTS / INHIBITORS, AS THE RESULTING MIXTURE MAY HAVE AN ADVERSE CHEMICAL REACTION WITHIN THE COOLING SYSTEM, LEADING TO PREMATURE FAILURE OF THE RADIATOR & IT WILL VOID THE WARRANTY**

## (PART B) INSTALLATION PROCEDURE FOR REPLACING THE RADIATOR NOT IN THE VEHICLE

1. Install the new radiator assembly referring to the vehicle manufacturer's recommendations for any additional installation procedures.

2. Fill the system with water and treat using a quality alkaline cleaner making sure that the vehicle's heater is turned on. Observe the instructions on the container. Run the vehicle to operating temperature.

3. Thoroughly flush the cooling system, including the overflow reservoir & the heater system to remove all of the old coolant, and any remaining residue or deposits. A power flush system is the most efficient method of removing all traces of the old coolant, loose particles or sediment. RINSE - RINSE - RINSE with clean water until you are convinced the system has been thoroughly flushed.

4. Following the vehicle manufacturer's recommendations for servicing of the cooling system, checking all components for wear.

5. Refill the system with clean water and perform the stray current procedure test detailed in the first section of the installation procedure. If the stray current test is negative, proceed with installation.

6. Drain the water from the system.

7. Fill with the correct dosage of coolant/inhibitor, which complies with Australian Standard AS2108-97 (A) or the vehicle manufacturer's recommendation as a minimum standard. When mixing approved concentrated coolant/inhibitor, Distilled, Demineralised or Reverse Osmosis water must be used as recommended by the vehicle's manufacturer or the coolant/inhibitor's manufacturer. Ensure that the vehicle manufacturer's instructions for filling the cooling system are followed to ensure that air-locks are removed from the system and the vehicle has been run up to normal operating temperature, checking the coolant/inhibitor level and that all components are free from leaks.

**IMPORTANT: ALWAYS CHECK FOR STRAY CURRENT POWER FLUSH AND CLEAN  
NEVER MIX COOLANTS OR INHIBITANTS**





# TERMS AND CONDITIONS OF SALE

## 1 DEFINITIONS

- 1.1 The "Buyer" means the Account Applicant or the person who buys or agrees to buy Goods from the Company.
- 1.2 The "Company" means ADRAD Pty Ltd.
- 1.3 "Conditions" means the terms and conditions of sale set out in this document and any special conditions agreed in writing by the Company.

## 2 PRICE OF THE GOODS

- 2.1 "Price of the Goods" shall be the Company's quoted price, or where no price has been quoted, in the Company's published price list current at the date of the dispatch of the order. All prices quoted are valid for 14 days only or until earlier acceptance by the Buyer, after which time the Company may alter them.
- 2.2 The Company reserves the right to change prices without prior notice.

## 3 TERMS OF PAYMENT

- 3.1 Subject to any special terms agreed to in writing between the Buyer and the Company, the Company shall be entitled to invoice the Buyer for the price of the Goods on or at the time of delivery.
- 3.2 If the Buyer and the Company have agreed to the Buyer to have a trading account, then the account must be paid within 30 days from the end of the previous trading month.
- 3.3 At the discretion of the Company, interest @ 24% per annum will be charged on any account not paid within 30 days from the end of the previous trading month.
- 3.4 The Company reserves the right to recover from the Buyer all costs and charges and expenses however incurred in collecting payment of any overdue account.
- 3.5 Discounts, of any type, apply to applicable items only. In order for a Customer to receive any discount for which they may be eligible, the Customer's account must be kept within our normal trading terms and a MINIMUM of \$1000 must be spent within the relevant Statement period.

## 4 TITLE TO GOODS

- 4.1 The legal and equitable title to and property of the Goods will not pass until the Buyer has paid all monies owed to the Company on any account whatsoever. Payment shall not be taken to occur until all cheques tendered in discharge of the sums owing to the Company have been presented and cleared in full.
- 4.2 The Company reserves the right to enter upon any premises for the purpose of repossessing the Goods and without prejudice to any other rights of recovery available.
- 4.3 Until the Buyer has paid all monies owed to the Company on any account whatsoever, the relationship of the Buyer to the Company shall be fiduciary in respect of the Goods and accordingly.
- 4.3.1 The Buyer shall store the Goods in such a way that they can be recognised as property of the Company.

## 5 DELIVERY OF GOODS

- 5.1 Any delivery times advised by the Company to the Buyer are estimates only, and the Company shall not be liable to the Buyer or any other parties for late delivery or non-delivery.
- 5.2 No delay in delivery or dispatch of the Goods shall relieve the Buyer of its obligations to accept or pay for the Goods.
- 5.3 The Company reserves the right to deliver by portion and delivery by portion shall not entitle the Buyer to repudiate the Contract.
- 5.4 Delivery will be taken to have occurred when the Goods are off-loaded at the Buyer's premises or (where Goods are collected from the Company) upon collection by the Buyer or his agent.

## 6 CANCELLATION & RETURNS

- 6.1 No order may be cancelled by the Buyer except with the consent in writing of the Company and on the condition that the Buyer will indemnify the Company against any losses resulting from such cancellation.
- 6.2 Goods made to order cannot be returned for credit.
- 6.3 If it is agreed that the Goods are to be returned:
  - 6.3.1 The Buyer must obtain from the Company authorisation to return goods before returning the Goods.
  - 6.3.2 The Buyer will only be eligible to return goods purchased within 30 days of supply date.
  - 6.3.3 The Buyer will be liable for the costs of returning the Goods and any costs of remedying Goods not returned in a saleable condition and in original packaging.
  - 6.3.4 The Company reserves the right to make a handling and restocking charge of 10% or \$20.00 whichever is greater on all Goods returned for credit. If the Goods are being returned under Warranty then no restocking fee will apply.

## 7 DEFAULT BY THE BUYER

- 7.1 If the Buyer makes default in any payment, commits any act of bankruptcy or enters into liquidation whether voluntary or involuntary, the Company may at its discretion suspend deliveries or cancel any Contract so far as it remains unperformed without prejudice to its rights there under.
- 7.2 The occurrence of any such default shall in no way prejudice the rights of the Company to recover any amount due for Goods previously supplied to the Buyer.

## 8 FORCE MAJEURE

- 8.1 In the event that the Company is prevented from carrying out its obligations under a contract for sale as a result of any cause beyond its control, such as but not limited to Acts of God, War, Strikes, Lock-outs, Flood and Failure of Third Parties to deliver goods, the Buyer shall be relieved of its obligations and liabilities under such contract for sale for as long as such fulfillment is prevented.

## 9 GENERAL

- 9.1 Any contract shall in all respects be construed and operate as an Australian contract, and in conformity with Australian law.
- 9.2 If any part of these terms and conditions that is not fundamental is found to be illegal or unenforceable, such finding will not affect the validity or enforceability of the remainder of these terms and conditions.



# ADRAD

## WARRANTY POLICY

- 1 ADRAD Pty Ltd warrants its products to be free from defects in materials and workmanship from the date of sale to the first retail purchaser. The Warranty only applies to the Parts supplied to the Customer and the Company shall not be liable to the Customer for any consequential, indirect or special loss, damage or injury of any kind whatsoever, including but not limited to removal and refitting of the Parts, towing, travel, accommodation, vehicle hire, loss of income and any loss connected to the supply of the Parts to the Customer. Proof of purchase must be maintained to validate the Warranty.
- 2 Subject to any Warranty, guarantee or condition imposed by law, the Company's liability for Parts supplied to the Customer is limited to making good any defects in the Parts by REPAIRING some or at the Company's option by replacement on, within a period not exceeding:
  - Two years for passenger type domestic vehicles and light commercial vehicles with a payload not exceeding 1 ton, and four-wheel drive vehicles used specifically in a domestic role
  - One year for trucks, buses, earth-moving equipment, industrial type products, taxis and courier vehicles and four-wheel drive vehicles, and passenger type vehicles used for commercial or non-private use
  - One year for charge air coolers, passenger type vehicle air-conditioning condensers, replacement tanks, oil coolers and other related radiator components
  - One year for heater cores and heater assemblies
- 3 A limited warranty (3 months free from defects in materials and workmanship from the date of sale) exists for parts:
  - Utilised in vehicles with known design faults where the original radiator or part has a history of premature failure
  - Utilised in vehicles involved in racing applications on or off road
- 4 ADRAD Pty Ltd warrants its products that:
  - The defects have risen solely from faulty materials and workmanship
  - The Parts have not been subject to misuse, negligence, interference or operating conditions in excess of those which such products were designed, for example: damaged as a result of a blower fan
  - The Parts have been handled or installed in accordance with any specific instructions given by the Company or otherwise in accordance with generally accepted professional radiator installation practices and the following installation procedures have been carried out:
    - Tested for stray current with a reading less than 0.05 volts
    - Machine power flushed (the radiator, engine and heater core)
    - Cleaned out with a quality alkaline cooling system cleaner observing the manufacturer's instructions on the container
    - Filled with a correct dosage of coolant/inhibitor, which complies with Australian Standard AS2108-97 (A) or the vehicle's manufacturer or the coolant/inhibitor manufacturer
    - When mixing approved coolant/inhibitor, Distilled, Demineralised or Reverse Osmosis water must be used as recommended by the vehicle's manufacturer or the coolant/inhibitor manufacturer's instructions
  - The vehicle manufacturer's instructions for filling the cooling system are followed to ensure that air-locks are removed from the system, and the vehicle has been run up to normal operating temperature, checking the coolant/inhibitor level and that all components are free from leaks.
  - The vehicle's cooling system has been maintained, (free from rust corrosion, sludge and foreign material) with the vehicle returned to an authorised radiator repair centre every 12 months or 25,000kms (whichever occurs first) to validate the radiator Warranty. Failure to service the radiator and cooling system at the required intervals will VOID the Warranty.
  - The correct pressure cap as specified by the vehicle's manufacturer is utilised and in good working condition. Failure to use the correct pressure cap will VOID the Warranty.

### ADRAD PTY LTD WARRANTY PROCEDURE

- 1 ADRAD Pty Ltd must be contacted for approval and an authorisation number will be given prior to any work done by a repairer. Only AUTHORISED claims will be paid.
- 2 All Parts submitted for Warranty or Return consideration must be returned with all the transportation costs prepaid and the authorisation number clearly identified on the returned product. Only AUTHORISED returns will be processed.
- 3 You will be required to give the following information when contacting your nearest ADRAD Branch for authorisation:
  - Details of the date the product was purchased and the invoice number
  - Details of the date the product was manufactured
  - The date of the manufacturer appears on the identification plate attached to the core
  - The date code works as follows: The last number refers to the year and the preceding numbers denote the month e.g. '60' means 6th Month of the year 2000
  - The nature of concern
  - Your estimate of the time and cost involved for Warranty repairs
- 4 Repairs will not be approved where the estimate of repairs exceeds the net cost of the product.
- 5 Your co-operation will ensure speedier processing of any Warranty or Return requests.

### IMPORTANT INFORMATION

The new range of organic-based coolants is not compatible with the Ethylene Glycol-based coolants. The care and maintenance of the vehicle's cooling system is essential to radiator life and the correct type of dosage of coolant/inhibitor is of critical importance and must not be neglected. NEVER mix coolants/inhibitors as the resulting mixture may have an adverse chemical reaction within the cooling system, leading to premature radiator system failure and hence, render the warranty VOID.



## National Head Office

26 - 50 Howards Road  
Beverley SA 5009

**T:** (08) 8243 9888

**F:** (08) 8347 7245

### Accounts & Administration

**T:** (08) 8243 9888

**TOLL FREE:** 1800 123 247

**F:** (08) 8345 3202

## South Australia & NT

26 - 50 Howards Road  
Beverley SA 5009

**T:** (08) 8243 9876

**F:** (08) 8347 7245

## New South Wales

### Sydney

70 Long Street  
Smithfield NSW 2164

**T:** (02) 9729 2502

**F:** (02) 9729 2503

### Newcastle

1 / 1 Kullara Close  
Beresfield NSW 2322

**T:** (02) 4964 4033

**F:** (02) 4964 4238

## Queensland

### Brisbane

11 Permarig Place  
Rocklea QLD 4106

**T:** (07) 3272 7688

**F:** (07) 3272 7829

### Gold Coast

3/98 Spencer Road  
Nerang QLD 4211

**T:** (07) 5500 4811

**F:** (07) 5500 4911

### Townsville

5 Vesuvius Street  
Garbutt QLD 4814

**T:** (07) 4775 6405

**F:** (07) 4725 1152

## Tasmania

2 Esk Street  
Launceston TAS 7250

**T:** (03) 6334 3744

**F:** (03) 6334 3959

## Western Australia

231 Collier Road  
Bayswater WA 6053

**T:** (08) 9473 4666

**F:** (08) 9370 4600

## Victoria

### Port Melbourne

5 Woolboard Road  
Port Melbourne VIC 3207

**T:** (03) 8698 2477

**F:** (03) 8698 2487

### Noble Park

40 Overseas Drive  
Noble Park VIC 3174

**T:** (03) 8698 2477

**F:** (03) 8698 2487



**TOLL FREE: 1800-882 043**

**WWW.ADRAD.COM.AU**