

## **Transmission Oil Coolers**

Because of the tremendous heat generated in an automatic transmission, an auxiliary transmission oil cooler is an economical way to help protect against costly transmission repairs.

Automatic transmission fluid (ATF) cools, lubricates and cleans internal transmission components. When transmission temperatures exceed 93°C (200°F), the ability of ATF to perform is greatly diminished.

Subsequently, the life span of the fluid, seals and moving parts are significantly reduced. Higher internal temperatures also increase the wear rate of the friction and clutch plates.

Davies, Craig transmission oil coolers can reduce the ATF's temperature by as much as 33°C (60°F). A reduction of just 11°C (20°F) can double the life of an automatic transmission, the fluid and all internal parts.

# Excessive transmission heat is caused by the following driving conditions:

- · Towing or carrying heavy loads
- 4WD & off-road
- · Stop-and-go traffic
- Hot driving conditions
- Driving in sand or snow
- · Motor Racing

### **Two types of Transmission Oil Coolers**



The Hydra-Cool transmission oil cooler is an effective and economical way to keep the transmission at its optimum operating temperature. High-efficiency turbulators in each tube direct the fluid for superior heat transfer.



Hydra-Cool's unique plate and fin design allows for effective cooling, yet requires 33% less space. The Hydra-Cool's compact design is perfect for applications where available mounting space is limited.

## Tube and Fin style

The Ultra-Cool finned-tube contemporary style oil cooler core is designed in the traditional and classical style heat exchange assembly.

These cores are proposed for installation to the earlier automatic transmissions produced and sold prior to 1990. Their simple design and surface area will assist

transmission operating smoothly.

1990. Their simple design and surface area will assist extract damaging heat from the transmission in order to keep the ATF at a manageable temperature and the

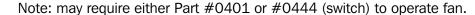
# **Power Steering Oil Cooler**

A power steering oil cooler removes destructive heat generated within a power steering system, especially in vehicles with large tyres such as performance vehicles, off-road vehicles and vehicles used for towing or carrying heavy loads. A reduction of just 11°C (20°F) can double the life of power steering, the fluid and all internal parts.



## **Transmission Oil Cooler Kits**

Enhance your automatic transmission cooling capabilities by installing either the 21-plate or 30-plate Hydra-Cool® Combo Kit coupled with either the 8" or 10" Slimline Thermatic Fan. Greater mounting flexibility with these combo packs enables you to further control and direct air flow through the Hydra-Cool® core. Plus, both Thermatic Fans are fully reversible offering reverse polarity and can be mounted to the core to operate in either 'push' or 'pull' mode.





## **Transmission Oil Cooler Selection**

#### **Universal Kits - Model Selection Guide**

			APPL	ICATION
Vehicle Type	Year of Manufacture	Engine Capacity	Medium Duty Part #	Heavy Duty Part #
		Up to 2.0 litre	401	403
Sedan / Wagon	Up to 1990*	2.0 - 4.0 litre	403	404
		4.0 litre and over	404	676 or 677
		Up to 2.0 litre	401	403
Commercial	Up to 1990*	2.0 - 4.0 litre	404	676 or 677
		4.0 litre and over	678 or 679 or 691 or 698	678 or 679 or 691 or 698
		Up to 2.0 litre	676	677
Sedan / Wagon	1990 to Present	2.0 - 4.0 litre	677	678 or 679 or 691 or 698
		4.0 litre and over	678 or 679 or 691 or 698	678 or 679 or 691 or 698
Light Commercial		Up to 2.0 litre	676	677 or 678
(12 Volt circuit,	1990 to Present	2.0 - 4.0 litre	677	678 or 679 or 691 or 698
Automatic Trans.)		4.0 litre and over	678 or 679 or 691 or 698	678 or 679 or 691 or 698
Light Commercial		Up to 2.0 litre	699 or 692	699 or 692
(24 Volt circuit,		2.0 - 4.0 litre	699 or 692	692
Automatic Trans.)		4.0 litre and over	692	692
		Up to 2.0 litre	676	677
V8s & 4WDs	1990 to Present	2.0 - 4.0 litre	678 or 679 or 691 or 698	678 or 679 or 691 or 698
		4.0 litre and over	678 or 679 or 691 or 698	678 or 679 or 691 or 698
Ford EA-ED	all models	6 cyl.	677	677
Ford EA-ED	all models	V8	678	678
GM-Holden	all models	6 cyl. & V8	Select Part # as above plus #1005	Select Part # as above plus #1005

<sup>\*</sup>Note: **Hydra-Cool** Transmission Coolers are suitable for all vehicles.

Ultra-Cool Transmission Coolers are only recommended for vehicles manufactured prior to 1990.

#1005 is an Adaptor Kit to suit 5/16" (8mm) inlet/outlet tube for GM transmissions

## **Power Steering Oil Cooler**

#### **Power Steering Selection Guide**

Vehicle Type	Part #
All vehicles with 3/8" (9.5mm) Inlet/Outlet tube	1009

Note: Parts #401, #403 & #404 kits can be installed as heavy-duty Power Steering Coolers.



#### **WARRANTY STATEMENT**

#### TRANSMISSION OIL COOLERS & POWER STEERING OIL COOLER

We hereby guarantee that for a period of two years from the date of purchase or 40,000km (whichever comes first) we shall carry out free of cost any repairs/replacements to the transmission oil cooler provided that such a fault is directly attributable to a defect in the workmanship or materials used in the manufacture of the transmission oil cooler. Labour and consequential costs excluded.



### **Hydra-Cool® Transmission Oil Cooler**

#### **Features:**

- 100% pressure tested at 150psi for quality assurance
- 33% more efficient than a comparable tube and fin design
- Pre-drilled mounting plates for easy installation
- · Five sizes available to fit a wider range of applications
- Internal turbulation for efficient heat transfer
- 3/8" (9.5 mm) push-on fittings for quick and easy installation.
- Comprehensive fitting instructions



Specific	ations	Overall		Core					
Part #	Thickness mm	Width mm	Height mm	Width mm	Height mm	Inlet/Outlet Size	Core Part #	No. of Plates	Heat Transfer Rate (BTU/hr)
676	20	281	141	281	112	3/8" (9.5 mm)	10856	12	11,987
677	20	281	180	281	152	3/8" (9.5 mm)	10859	17	13,394
678	20	281	213	281	184	3/8" (9.5 mm)	10853	21	13,934
623	20	281	229	247	200	3/8" (9.5 mm)	10861	23	13,937
679	20	281	300	281	265	3/8" (9.5 mm)	10854	30	15,710
1005	5/16" (8 mm	) Adaptor	Kit to suit	: GM trans	missions (	sold separately)			

## **Transmission Oil Coolers**

**Ultra-Cool®** 

#### **Ultra-Cool® Transmission Oil Coolers**

#### **Features:**

- · Ultrasonically soldered for reliability
- Can be used as heavy-duty Power Steering Cooler
- 100% pressure tested at 150psi for quality assurance
- High-efficiency turbulators in every tube for maximum heat dissipation
- 3/8" push-on fittings for quick and easy installation
- · Comprehensive fitting instructions



Specifica	ations	Overall		Core			
Part #	Thickness mm	Width mm	Height mm		Height mm	Inlet/Outlet Size	Heat Transfer Rate (BTU/hr)
401	20	319	127	224	127	3/8" (9.5 mm)	9,000
403	20	316	191	224	191	3/8" (9.5 mm)	10,800
404	20	403	191	310	191	3/8" (9.5 mm)	12,000
1005	1005 5/16" (8 mm) Adaptor Kit to suit GM transmissions (sold separately)						

### 30-plate Hydra-Cool® Transmission Oil Cooler/Fan Combo Kit

#### **Kit features:**

- 100% pressure tested at 150psi for quality assurance
- 33% more efficient than a comparable tube and fin design
- 10" Fan Kit
- 12 or 24 Volt model options
- Pre-drilled mounting plates for easy installation
- · Internal turbulation for efficient heat transfer
- 3/8" (9.5 mm) push-on fittings for easy installation.
- · Comprehensive fitting instructions



Specifi	cations	Overall		Core						
Part #	Volts	Thickness mm	Width mm	Height mm	Width mm	Height mm	Inlet/Outlet Size	Core Part #	No. of Plates	Heat Transfer Rate (BTU/hr)
691	12 V	70	281	300	281	265	3/8" (9.5 mm)	0854	30	15,710
692	24 V	70	281	300	281	265	3/8" (9.5 mm)	0854	30	15,710
1005	005 5/16" (8 mm) Adaptor Kit to suit GM transmissions (sold separately)									

### 21-plate Hydra-Cool® Transmission Oil Cooler/Fan Combo Kit

#### **Kit features:**

- 100% pressure tested at 150psi for quality assurance
- 33% more efficient than a comparable tube and fin design
- 8" Thermatic Fan
- 12 or 24 Volt model options
- Pre-drilled mounting plates for easy installation
- · Internal turbulation for efficient heat transfer
- 3/8" (9.5 mm) push-on fittings for easy installation.
- Comprehensive fitting instructions



Specific	Specifications OVERALL		L	CORE						
Part #	Volts	Thickness mm	Width mm	Height mm	Width mm	Height mm				Heat Transfer Rate (BTU/hr
698	12 V	72	281	141	281	184	3/8" (9.5 mm)	10853	21	13,934
699	24 V	72	281	141	281	184	3/8" (9.5 mm)	10853	21	13,934
1005	5/16" (8 mm) Adaptor Kit to suit GM transmissions (sold separately)									

## **Power Steering Oil Cooler**

### **Power Steering Oil Cooler**

When replacing a Power Steering Cooler, you will need to fit new nylon ties. Use only the Davies, Craig "Quick Fit Kit" - Part #0579 (refer "Accessories").

Note: Power Steering Transmission Coolers are suitable for all vehicles, please refer to Application chart.



Specifica	ations	Overall		Core			
Part #	Thickness mm	Width mm	Height mm	Width mm	Height mm	Application	Heat Transfer Rate (BTU/hr)
1009	19	226	64	148	64	Vehicles with 3/8" (9.5 mm) inlet and outlet	4,000

### **Accessories**

### 5/16" (8 mm) Adaptor Kit

Kit contains everything you need fit our Transmission Oil Cooler to a General Motors Automatic Transmissions.

Part #	Description			
1005	5/16" (8 mm) Adaptor Kit to suit GM Transmissions			

### **Quick Fit Kit**

When replacing a Transmission Oil Cooler or Power Steering Cooler, you will need to fit new nylon ties.

Part #	Description
0579	Quick Fit Kit suits Fans and core mounting.

## **Digital Thermatic® Fan Switch**

The Digital Thermatic® Fan Switch can sense air or coolant temperature to automatically activate the Thermatic® Fans at your set/targeted temperature when extra cooling is needed.

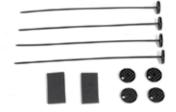
Part #	Voltage	Description
0444	12 & 24	Digital Thermatic® Fan Switch

## **Digital Gauge Thermatic® Fan/EWP Switch**

The Digital Gauge Thermatic® Fan/EWP Switch automatically activates single or twin fans at your set/targeted temperature when extra cooling is required. Can also detect transmission fluid temperature (use Part #0465).

Part #	Voltage	Description
0500	12 & 24	Digital Gauge Thermatic® Fan/EWP Switch









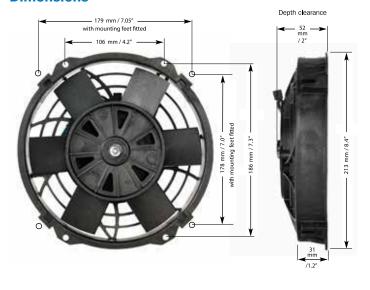
## 8" Thermatic Fan

#### 8" Thermatic Fan

Davies Craig Thermatic® Fan is suitable for condenser and radiator cooling.

All Davies Craig Thermatic® Fans are packaged with fan assembly (motor, fan blade, shroud) and mounting feet.

#### **Dimensions**



#### **Specifications**

Airflow: 400 CFM (ft3/min)

Maximum

Current: 5.0A (12 Volt) | 2.4A (24 Volt)

Weight: 0.88 kg (1.9 lb)

12 Volt	Part #	Description
12 VOIL	0135	8" Thermatic® Fan

24 Volt		Description
	0136	8" Thermatic® Fan

## **10" Slimline Thermatic Fan**

### 10" Slimeline Thermatic Fan

Davies Craig Thermatic® Fan is suitable for condenser and radiator cooling.

All Davies Craig Thermatic® Fans are packaged with fan assembly (motor, fan blade, shroud) and mounting feet.

#### **Specifications**

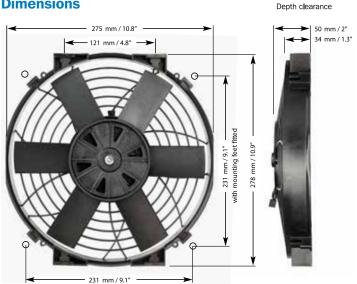
Airflow: 696 CFM (ft3/min)

Maximum

Current: 7.0A (12 Volt) | 3.5A (24 Volt)

1.13 kg (2.5 lb) Weight:

#### **Dimensions**



12 Volt	Part #	Description
	0147	10" Slimline Thermatic® Fan

24 Volt		Description
	0148	10" Slimline Thermatic® Fan

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