



GENERAL INSTRUCTIONS

MODELS DC31 & DC32

AIR COOLED HEAT EXCHANGERS



INSTALLATION

PORTING. Models DC31 and DC32 are rigged standard with horizontal porting. They may be supplied with vertical porting to special order. For all Models ports A and B are used for inlet and outlet ports. Alternatively, for Models DC31Y and DC32Y, Port C may be used instead of port B for the inlet or outlet. On Model DC32S, port C is 3/4" BSP for instrument or aux. use only. In all cases port A must be used in the installation for either inlet or outlet port.

PLUMBING. Use flexible rubber hoses for connection to the ports. The hose size should be the same size or greater than the port thread size. Solid steel pipes are not recommended as they may place external forces on the core element resulting in breakage. If hoses are long, support them as close to the ports as possible. Thread connections to the ports must be fully sealed. We recommend LOCTITE thread sealant to be used for this purpose. Should oil be permitted to leak from the port connections it will cover the core fins and result in the collection of dust/sludge in the core which reduces performance.

POSITIONING IN THE CIRCUIT. The cooler should always be positioned to receive return oil from the circuit. Do not install the cooler in the pressure circuit. Care should be taken to select a return line which passes flow at no greater flow rate than that recommended for the cooler. See recommended flow rates below. A pressure relieving device such as a check valve piped around the cooler, should always be included in the circuit layout. Under no circumstances should the cooler core be subjected to pressures in excess of 1375kPa (200PSI) without written authorization from the factory

OPERATING CONDITIONS. Under starting conditions in winter with very cold oil, the published pressure drop ratings may increase by up to 10 times. Maximum recommended operating pressure is 1375kPa (200PSI). All circuits which have a pressure generating capacity in excess of the above must be provided with a suitable pressure bypass system around the cooler core element. A check valve at least equal to the cooler port thread size is recommended. On Hydraulic circuits which are subject to "PRESSURE SPIKES" such as may be found in cylinder type circuits, a separate oil circuit is recommended to service the oil cooler. Some DYNACOOOL models are available fitted with rear mounted oil pump on the fan motor for use in the above application.

SITE LOCATION. Determine the usual direction of air flow at the site and face the cooling element towards that direction.

HYDRAULIC MOTOR DRIVEN FANS. Some models of DYNACOOOL Air/Oil coolers are supplied for fitting of Hydraulic fan motors. In cases where customers are to fit fans, care should be taken to ensure that the fans are fitted correctly and secured against displacement. Hydraulic Motors fitted as fan drives must be either equipped with internal checks or provided with external checks to insure that the fan is able to rotate freely after the oil flow has been shut off from the motor. Failure to provide such a device will cause the fan to be destroyed.

ELECTRIC MOTOR CONNECTIONS. Remove motor junction box, carefully check instructions on wiring which may be displayed inside or outside of junction box. Electric motors of various brands are used, some motors have star connections and others may be wired delta. After wiring has been completed start the motor and check for rotation of the fan. Rotation is clockwise when viewed from the motor or anticlockwise when viewed from cooling element. The fan should pull the cooling air through the cooling element and discharge it through the fan guard. All electrical wiring should be carried out by a licenced electrician.

MAINTENANCE

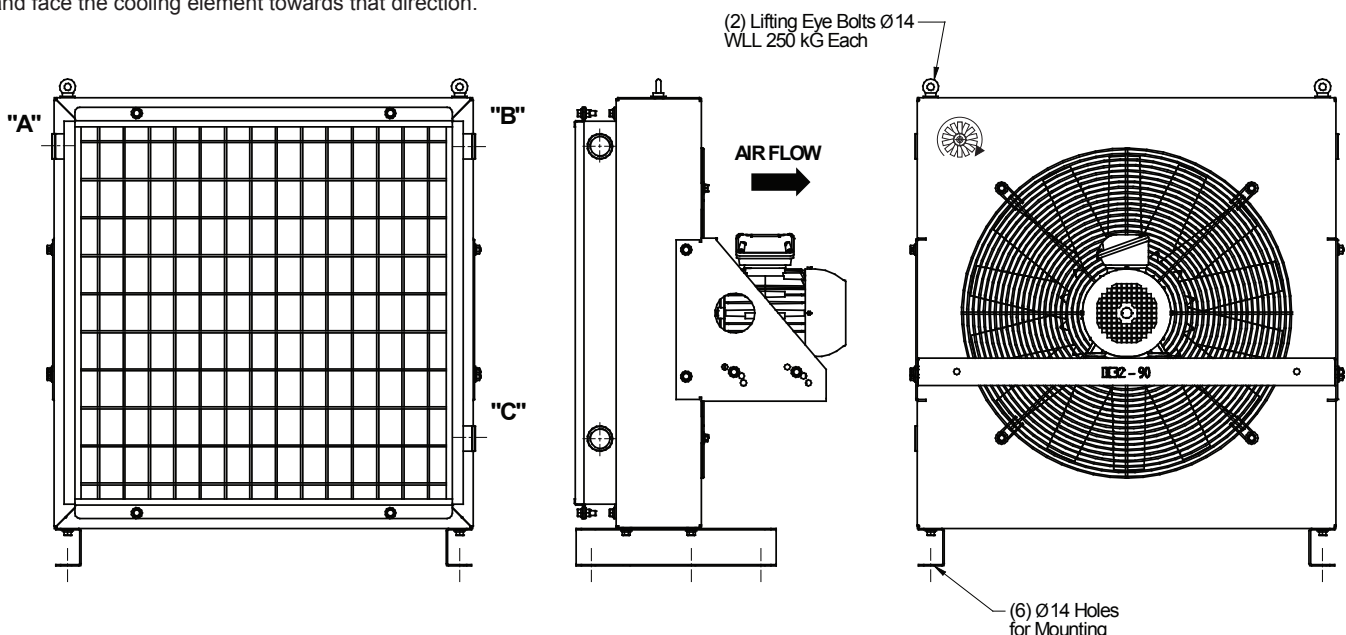
Continued efficient operation of the oil cooler is dependent on the heat transfer surface being kept clean. In dirty conditions the core element should be cleaned frequently to remove dust and dirt. Under extreme conditions of dust it is recommended that a rotation reversing switch be provided in the electrical circuit so that the fan may be reversed frequently to assist in dust blowout from the fins. Should the fins be blocked with oil saturated dirt use a petroleum based cleaning fluid followed by water sprayed from a medium pressure hose.

CAUTION. DO NOT USE CAUSTIC BASES FLUIDS FOR CLEANING, CORE ELEMENT IS ALUMINIUM.

	PORTS			FLOW
	A	B	C	RANGE
MODEL DC31Y	1 1/4"	1 1/4"	1 1/4"	240 l/m
MODEL DC32S	2"	2"	3/4"	400 l/m
MODEL DC32Y	1 1/4"	1 1/4"	1 1/4"	300 l/m

PORTS ARE BSPP TO ISO 228/1-G

USE BSP PARALLEL O-RING TYPE FITTINGS



ALL STD. MODELS OPERATE WITH INDUCED DRAFT FANS MAXIMUM OPERATING PRESSURE 1375kPa (200PSI)

DYNACOOOL PRODUCT MANUFACTURED IN AUSTRALIA

BY OEM DYNAMICS PTY LIMITED

Phone 02-6681 8800 - Fax 02-6681 8888

sales@oemdynamics.com.au



ABN 11 003 908 496
FORM DC28 03/16
PRINTED IN AUSTRALIA



ACCESSORIES

OPTIONAL EXTRA (AVAILABLE ON REQUEST) THERMOSTATIC CONTROL CIRCUIT

APPLICATION

The thermostatic control circuit is designed for use with 3 phase electric motors primarily switching the fan motor on heat exchangers, other uses include switching control of small pump units. The control circuit can be switched by any 240V thermostatic switch or other similar switching device.

FEATURES

The control switch on the junction box is a three position switch with ON OFF and AUTO positions. When switched to the AUTO position the electric motor is controlled by the switching signal from the external thermostatic switch (Supplied with kit units). The control circuit features high quality components, robust switch and contactor relay, and wafer type terminals mounted on DIN rail. The junction box has holes predrilled for cable glands and is supplied with 0.5 metres of pre wired cable for the electric motor.

SPECIFICATIONS

Junction Box

Electric Motor Supply

Voltage - 400/415 VAC 3 Ph
50/60Hz AC.

Max Current - 6 Amps

Contactor

Control Type 3 phase contactor.

Relay control coil - 240 VAC
- Current draw 125mA

Switched by normally open switch such as external thermostatic (Supplied with kit units).

Protection - IP55

Material - ABS

Thermostatic

Switch Rating -10A/250 Vac

Max Pressure - 80 bar

Max Diff Temp - 16 °C

Max Temp - 120 °C

Protection - IP65

Plug Connector- PG09, DIN 43650

Material

Body - Brass

Contacts - Silver Plated

Thread - 1/2" BSPP

INSTALLATION

The junction box must be installed by a licenced electrician. A full wiring diagram can be found on the inside of the cover of the junction box.

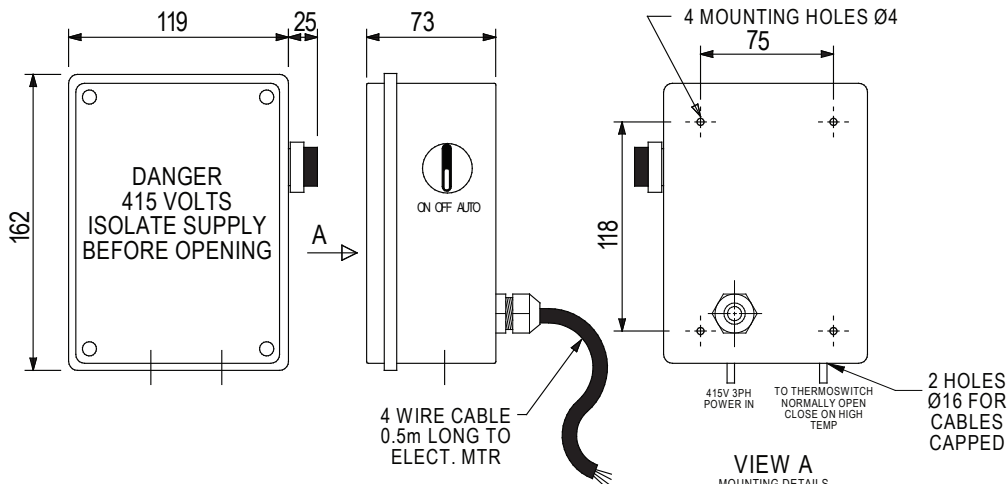
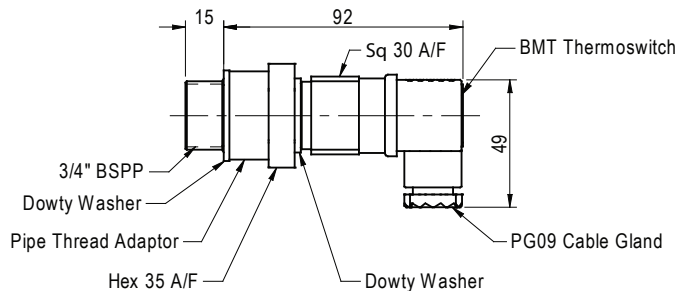


ORDERING CODES

Junction Box Kits

Includes the junction box, BMT thermostatic switch and pipe thread adaptor. (As shown in above picture)

Item Description	Part No	Setting
Kit JB, Switch & adptr	17/JB/BMT/45	45°C
Kit JB, Switch & adptr	17/JB/BMT/55	55°C
Kit JB, Switch & adptr	17/JB/BMT/65	65°C



DYNACOOOL PRODUCT MANUFACTURED IN AUSTRALIA
BY OEM DYNAMICS PTY LIMITED
Phone 02-6681 8800 - Fax 02-6681 8888
sales@oemdynamics.com.au