

INDUSTRIAL COOLERS

OK Series - AC Motor Drive

Air Cooled Oil Coolers



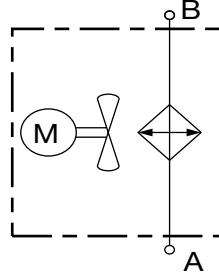
Features

The OK Series cooler design uses an axial fan assembly which draws air through the cooler. This offers excellent cooling capacity.

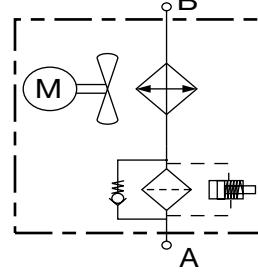
- Up to 200 HP cooling capacity
- Highly efficient and rugged bar-and plate style heat exchangers
- Externally mounted heat exchangers for easy maintenance and cleaning
- Modular pump and filter options for a plug and play fluid conditioning system
- Available with HYDAC LPF and FLND series filters
- Accessories include: Thermostats (adjustable and fixed), Integrated Thermostatic bypass valves and pressure bypass valves.
- Packaged systems with pump flows ranging from 8.45 gpm to 47.5 gpm

Hydraulic Symbol

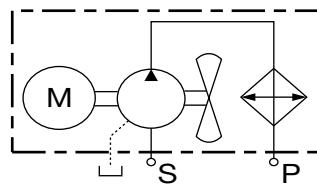
OK Sizes 3 - 7



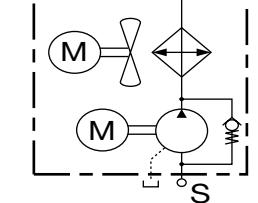
OKF Sizes 3 - 11



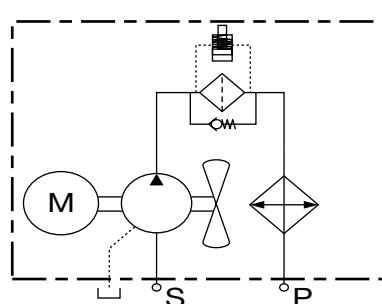
OKA Sizes 4 - 6



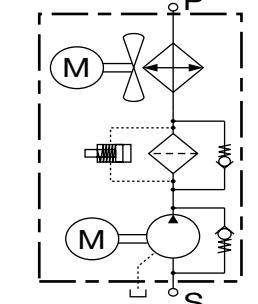
OKA Size 7 - 11



OKAF Sizes 4 - 6



OKAF Size 7 - 11



Applications



Gearboxes



Industrial



Elevators



Power Generation



Pulp & Paper



Railways



Shipbuilding



Steel / Heavy Industry

General

Materials	Housing: Welded Steel Heat Exchanger: Aluminum Heavy Duty Bar and Plate Fan: Plastic Motor: TEFC, NEMA or IEC frame (varies by cooler size) Pump: Screw
Mounting Orientation	Horizontal, motor shaft
Maximum Pressure	230 psi (16 Bar)
Fluids	Mineral oil to DIN 51524 Part 1 and 2
Ambient Temperature	50° – 104°F (10° – 40°C) (Contact factory for other fluid usages)
Maximum Oil Viscosity	w/o pump: 2000 cSt w/ pump: 180 cSt
Maximum Oil Temperature	w/o pump: 266°F (130°C) w/ pump: 176°F (80°C)
Standard Air Flow Direction	Air pulled across heat exchanger

*Note: Sizes OKA-4-6 do not include relief valve. Pressures higher than 90 psi (measured at pump outlet) will result in motor overload conditions.
Size OKA-7 comes with a 145 psi relief valve built into the pump.

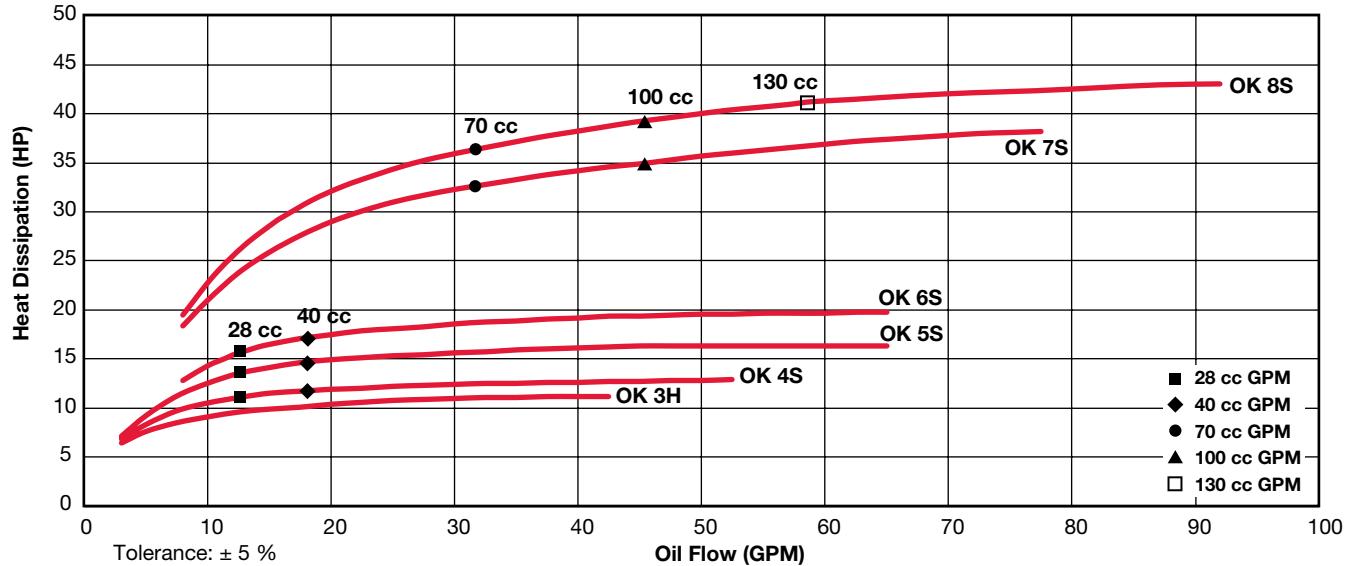
Model Code

Model	OK	4S	3.6	B	28	LPF280	3	B	IBP	2	TS120
Model	OK = Basic Cooler OKF = Cooler with Filter (Sizes 3-11 only) OKA = Cooler with Pump (Sizes 4-11 only) OKAF = Cooler with Pump & Filter (Sizes 4-11 only)										
Size	3H, 4S, 5S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 14S (Note: H = 3600 RPM, S = 1800 RPM)										
Modification Number (latest version supplied)											
Motor Voltage	B = 230/460 Volts, 3ph X = No Motor										
Pump	(omit) = No Pump 28 = 28 ccm/rev, L=8.4 gpm, S=12.75 gpm (sizes 4S, 5S, 6S only) 40 = 40 ccm/rev, L=12 gpm, S=18.1 gpm (sizes 4S, 5S, 6S only) 70 = 70 ccm/rev, S=31.7 gpm (sizes 7-11 only) 100 = 100 ccm/rev, S=45.3 gpm (sizes 7-11 only) 130 = 130 ccm/rev, S=58.9 gpm (sizes 8-11 only)										
Filter Type	(omit) = No Filter LPF160 = Cartridge Filter 43 rated gpm LPF240 = Cartridge Filter 63 rated gpm LPF280 = Cartridge Filter 73 rated gpm FLND250 = Duplex Filter 66 rated gpm (sizes 4-9 only) FLND400 = Duplex Filter 105 rated gpm (size 7-11 only)										
Micron Rating	(omit) = No Filter 10 = 10 micron, Absolute										
Filter Indicator	(omit) = No Filter B = Visual D24 = 24 VDC Lamp/Switch (LPF + FLND filters only)										
Accessories	(omit) = None IBT = Internal Temperature Bypass Valve IBP = Internal Pressure Bypass Valve										
Opening Temperature (IBT Only)	45 = Opens 113°F (45°C) Closes at 131°F (55°C) 50 = Opens 130°F (50°C) Closes at 150°F (65°C) 60 = Opens 140°F (60°C) Closes at 158°F (70°C)										
Opening Pressure (IBT & IBP)	2 = 2 bar (29 psi) 3 = 3 bar (45 psi) 4 = 4 bar (58 psi) (IBP only)										
Temperature Switch	TS-120 = Inline Temperature Switch, Fixed 120°F TS-140 = Inline Temperature Switch, Fixed 140°F AITR = Inline thermostat adjustable 32°F to 200°F										
	(not applicable with OKA or OKAF models 4-6)										

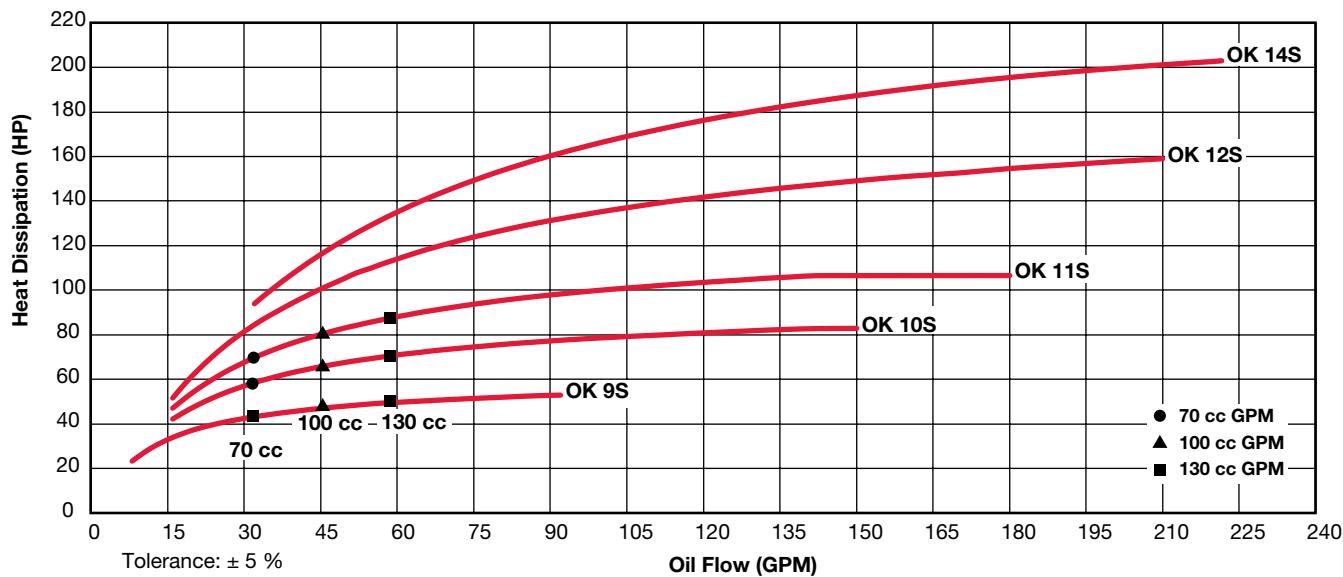
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Heat Dissipation @ $\Delta T = 40^{\circ}\text{F}$

Sizes 3-8



Sizes 9-14

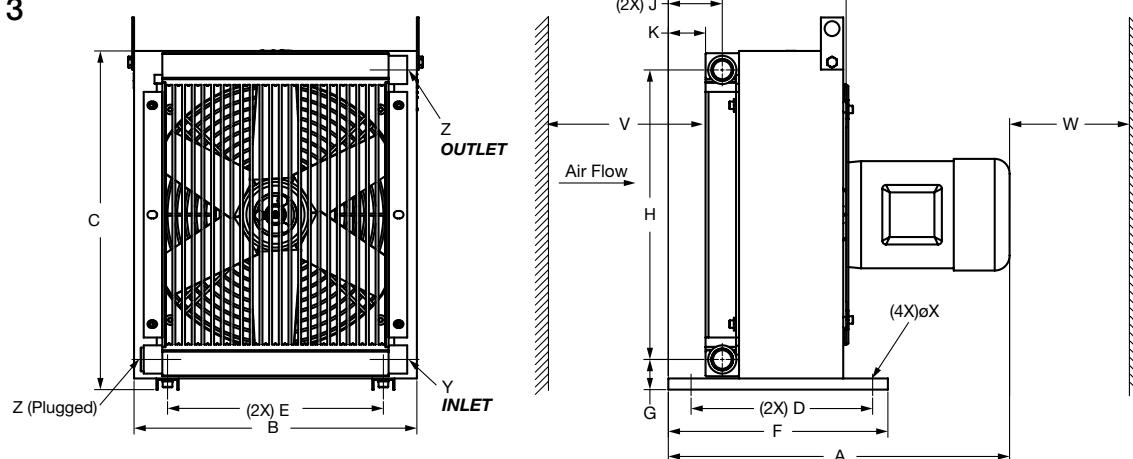


Dependent on the oil flow rate and the temperature difference (ΔT) between oil inlet and air inlet.

Note: The values are measured at $\Delta T = 40^\circ\text{F}$ (22°C). For smaller ΔT values, the heat dissipation can change. Please reference page E1 or contact your local HYDAC distributor for further consultation.

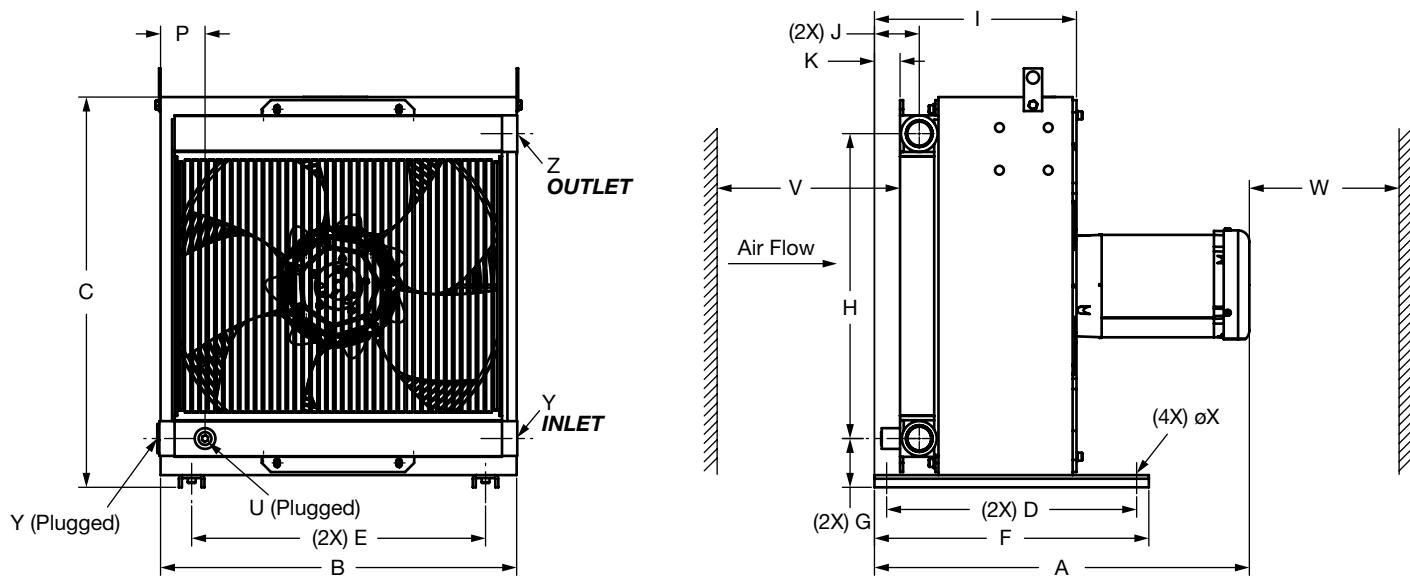
Dimensions

OK Size 3



Size	A	B	C	D	E	F	G	H	I	J	K	V	W	X	Y	Z
OK3H	17.46	14.96	17.91	10.04	11.42	11.61	1.59	15.31	8.66	2.26	1.38	11.81	31.5	0.35	SAE-12	SAE-12

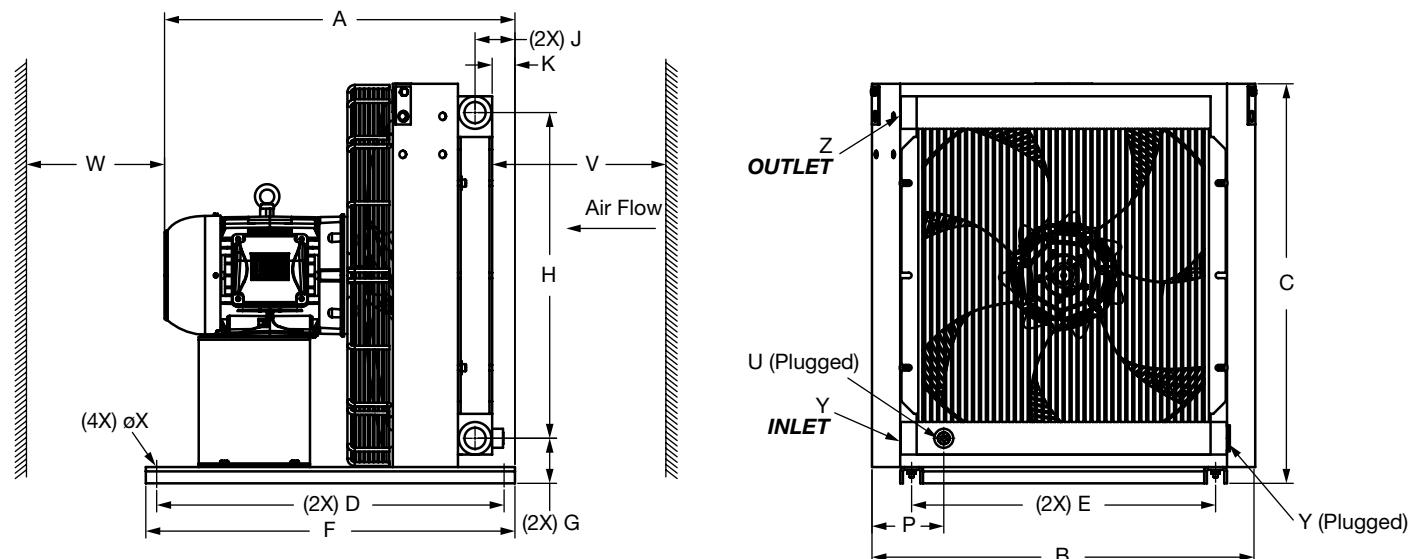
Dimensions OK Size 4 - 6



Size	A	B	C	D	E	F	G	H	I	J	K	P	U	V	W	X	Y	Z
OK4S	23.15	19.09	20.47	16.14	16.73	17.72	2.13	17.28	11.86	4.07	2.83	-	-	15.75	47.24	ø0.35 x 0.78 slot	SAE-16	SAE-16
OK5S	23.55	21.34	22.13	16.14	18.98	17.72	2.81	17.28	12.26	3.68	2.44	-	-	19.69	59.06	ø0.35 x 0.78 slot	SAE-16	SAE-16
OK6S	24.34	22.99	25.20	16.14	18.98	17.72	3.15	19.69	13.05	2.89	1.65	2.89	1/2" NPT	23.62	70.87	ø0.35 x 0.78 slot	SAE-20	SAE-20

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches.

Dimensions OK Size 7



A	B	C	D	E	F	G	H	J	K	P	U	V	W	X	Y	Z
25.70	27.80	28.98	25.20	22.05	26.77	3.27	23.62	2.89	1.65	5.21	1/2" NPT	23.62	47.24	ø0.35 x 0.78 Slot	SAE-20	SAE-20