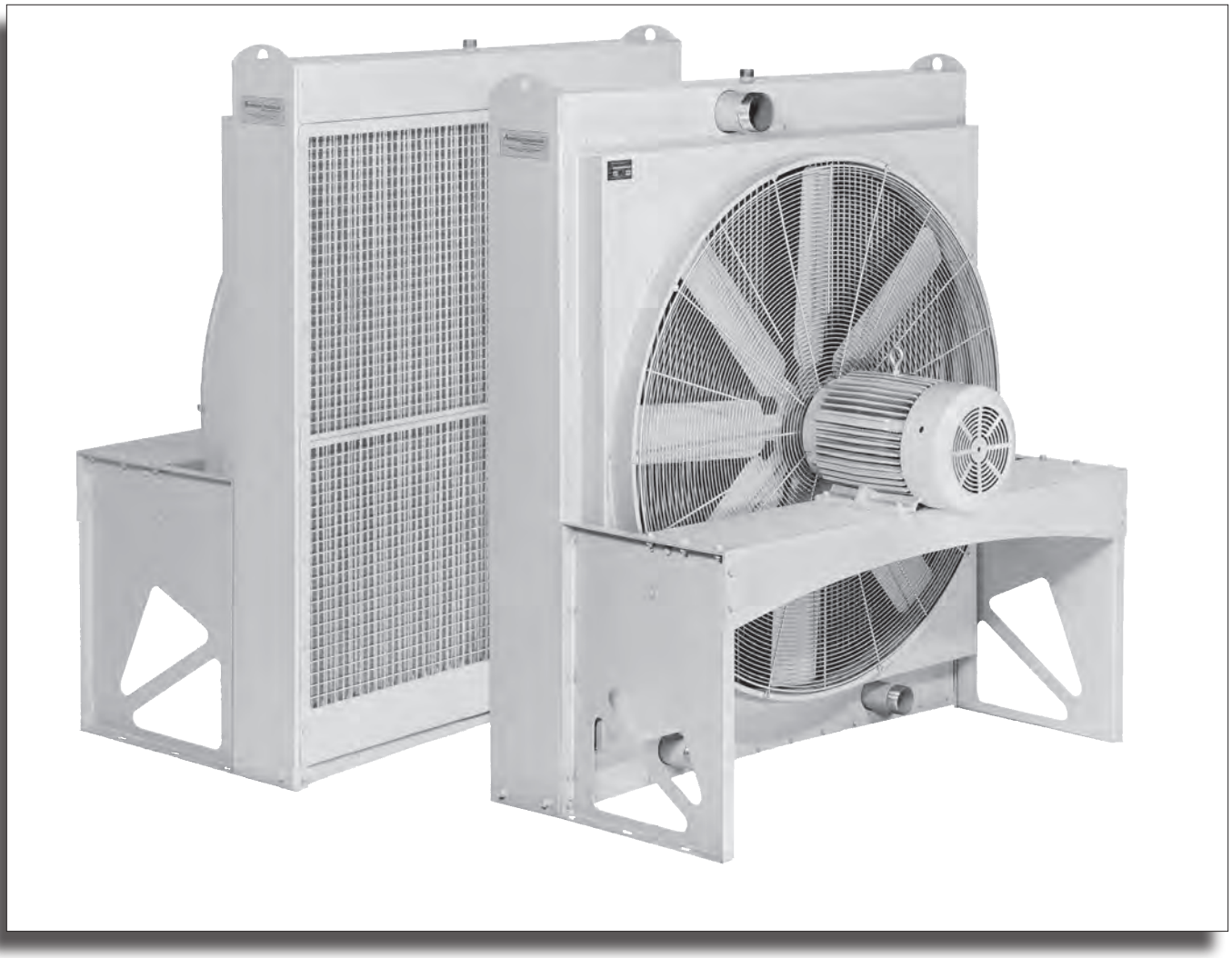
American Industrial
Heat Transfer Inc.

Manufacturer of Quality Heat Exchangers

AOCS SERIES

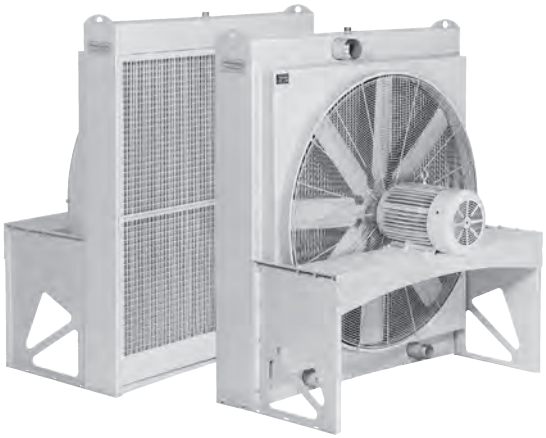


AIR COOLED

LIQUID COOLERS

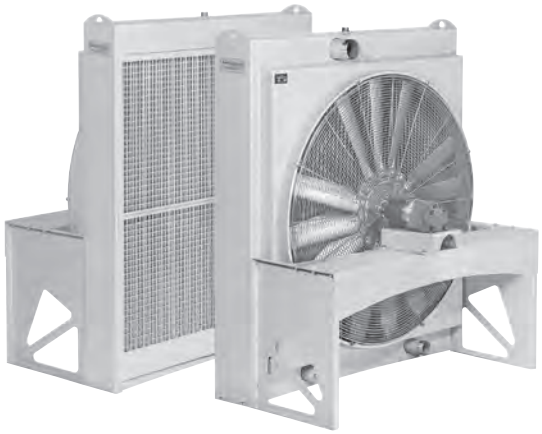
- Severe duty construction with OSHA guard.
- Serviceable Core®.
- Thermal capacity to 1,400 hp (1,043 Kw).
- Operating temperature of 300°F at 200 PSI.
- Electric, hydraulic, or external drive.
- Optional: built-in bypass valve.
- Can be customized to fit any applications.
- Computer generated data sheet available for any application
- Field changeable drive from electric to hydraulic.
- Cools: Fluid power systems, rock crushers, conveyors, shredders, lubrication equipment for paper machinery, gear drives, offshore drilling equipment, etc.

AOCS *overview*



AOCS Series *WITH ELECTRIC DRIVE*

Severe duty air-cooled oil coolers, super capacity, rolled tube industrial series heat exchangers with direct electric drive cooling fan, OSHA guard, and heavy duty front screen. Rated operating temperature of 300ºF at 300 PSIG. Standard flow rates from 10 to 600 GPM. NPT, ANSI flange, or SAE code 61 four bolt flange port connections. Optional built-in bypass relief valve 30 PSI or 65 PSI. Can be modified to meet your requirements. Suitable for most hydraulic oils, lubrications oils, synthetic compressor oils, ethylene glycol, and many other fluids compatible with listed material.



AOCS Series *WITH HYDRAULIC DRIVE*

Severe duty air-cooled oil coolers, super capacity, rolled tube industrial series heat exchangers with direct hydraulic drive cooling fan, OSHA guard, and heavy duty front screen. Rated operating temperature of 300ºF at 300 PSIG. Standard flow rates from 10 to 600 GPM. NPT, ANSI flange, or SAE code 61 four bolt flange port connections. Optional built-in bypass relief valve 30 PSI or 65 PSI. Can be modified to meet your requirements. Suitable for most hydraulic oils, lubrications oils, synthetic compressor oils, ethylene glycol, and many other fluids compatible with listed material.

AOCS Series

Durable design offered in eleven sizes available from stock for fast delivery.

AOCS Series

HORIZONTAL
IN ASME CODE AND
CERTIFIED
(SEE PAGE 204-205)

HIGH PERFORMANCE TURBULATOR

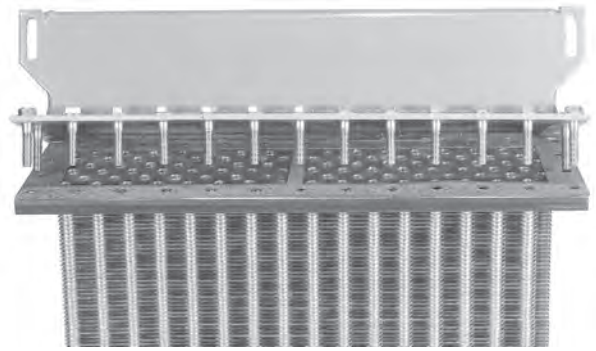
Exclusive American Industrial Turbulators installed in every flow tube, increase heat transfer by more than 100%.

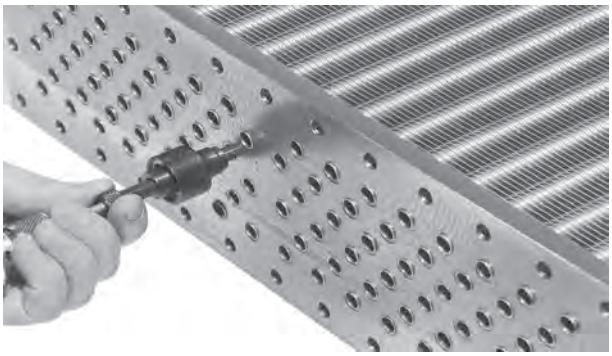
American Industrial Turbulators eliminate the laminar flow condition normally associated with other smooth tube heat exchangers. High viscosity hydraulic and lubricating oils are easily cooled by this new state of the art turbulator.

SERVICEABLE CORE ®

Core covers disassemble for easy access and cleaning. Repairable design for applications that required limited down time. Roller expanded tube to tube-sheet joint.

100% mechanical bond, no braze or solder joint to fatigue fail, corrode, crack, etc.. No rubber grommets to replace. Positive gasket seal is field replaceable for field maintenance or repair.





SUPERIOR COOLING FINS

Copper tubes are mechanically bonded to highly efficient aluminum cooling fins. Die-formed fin collars provide a durable precision fit for maximum heat transfer.

Custom fin design forces air to become turbulent and carry heat away more efficiently than old flat fin designs.

CONSTRUCTION MATERIALS & RATINGS

Standard Construction Materials		Optional Construction Materials	Standard Unit Ratings	
Tubes	Copper	316L Stainless Steel, 90/10 Cu.Ni, Carbon Steel	Operating Pressure	300 psig
Fins	Aluminum	Copper		
Turbulators	Steel	Brass, Stainless Steel	Operating Temperature	300 °F
Tube sheet	Steel	316L Stainless Steel		
Manifold cover	Steel	316L Stainless Steel	Altitude	0-3200 ft.
Connection pipes	Steel	316L Stainless Steel	For higher pressure and temperature consult factory	
Cabinet & frame	Steel	Galvanized Steel, 316L Stainless Steel,		
Fan Blade	Aluminum Hub / Non-sparking, Nylon Composite Blades	–		
Fan Guard	Zinc Plated Steel	Stainless Steel		
Gasket	Hypalon Composite	Viton, Nitrile, Composites		

AOCS Series *selection*

Sizing
The performance curves provided are for petroleum oil at 63 ssu viscosity. However, fluids with characteristics other than the above mentioned may be used by applying a correction factor.

Heat Load
If the heat load is unknown, a horsepower value can be calculated by first determining the systems total potential. For a basic hydraulic system, it is helpful to know whether the system is open loop (with a large reservoir) or closed loop (normally on mobile equipment, with a very small reservoir). System potentials may be calculated quickly by using one of the two methods below.

There are some system parameters that will be required to properly accomplish the sizing calculations. Without system parameters it is difficult to determine the optimal heat exchanger size. Normally many of the system parameters can be found on hydraulic schematics or on tags located on the actual equipment. Following are some basic parameters that you should try to acquire before attempting the sizing calculations. However, it is not necessary to have every parameter listed below.

- Main system flow rate (gpm) & operating pressure (psi).
- Electric motor HP driving hydraulic pump (if more than one add up the Hp for all).
- Desired temperature (°F).
- Fluid type (SAE 10, 20, 30, etc....).
- Ambient air temperature (warmest day).
- Desired fan drive (hydraulic, electric, 12-24V DC, etc...).
- BTU's or HP to be cooled (normally given for lubrication systems).
- Maximum pressure drop allowed through the heat exchanger.
- Space available for heat exchanger (LxWxH).

Method 1
Normally used for open loop circuits. Multiply the main hydraulic systems Electric Motor Name plate Horsepower by a heat removal factor (normally 30-50%).

Example: 50 HP motor x 0.3 = 15 HP heat load

Method 2
Normally used when the HP input potential is unknown or for mobile applications where diesel engines operate the entire system. Multiply system pressure by the flow rate of the main system divided by 1714 equals system potential (HP). Multiply the system HP by a heat removal factor (Normally 25-35%). Note: In some closed loop systems only a portion of the total system flow is directed through the heat exchanger, this may affect the cooler selection process substantially. You may contact our factory for additional technical assistance.

Example: $\frac{(2000 \text{ psi} \times 30 \text{ gpm})}{1714} = [35 \text{ HP} \times .25] = 8.75 \text{ HP heat load}$

Determining Fs value
To determine the proper size heat exchanger for your application, use the following equation to first determine the (Fs) factor.

$$Fs = \frac{\{ \text{heat load (HP)} \times 2545 \times Cv \}}{\{ \text{°F (oil leaving - air entering)} \}}$$

Example:
Heat load = 50 HP
Cv = 1.14 (SAE 20) determined from chart. [Located on page 4.]
Desired operating temperature = 120 ºF
Ambient air temp. = 100 ºF

$$Fs = \frac{\{ 50 \times 2545 \times 1.14 \}}{\{ 120 \text{ °F} - 100 \text{ °F} \}} = 7254$$

Selection
To select a model, locate the flow rate (GPM) at the bottom of the flow vs Fs graph. Proceed upward until the GPM flow rate intersects with the calculated Fs. The curve closest above the intersection point will meet these conditions.

Example: Fs = 7254 = Model = AOCS - 1505 - *
GPM = 40
PASSES = 2

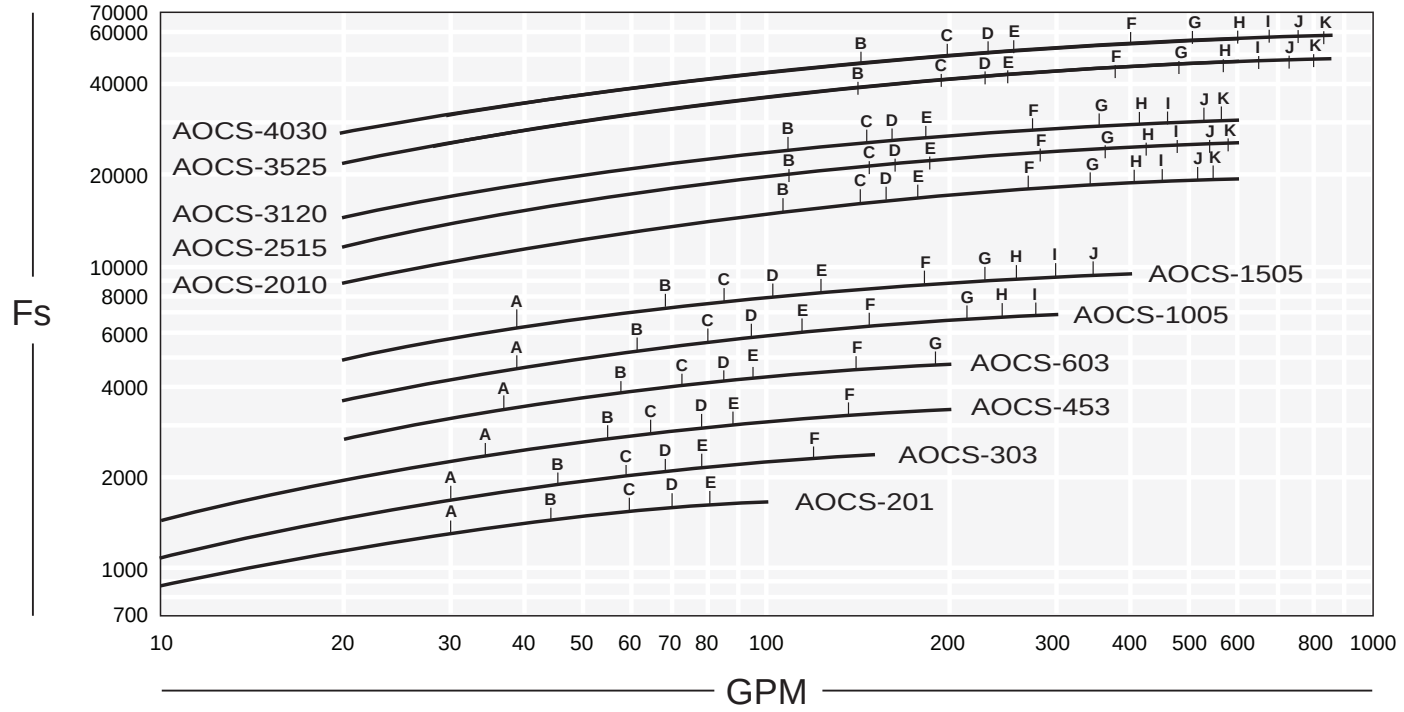
Pressure differentials
Determine the oil pressure drop from the curves as indicated. For viscosities other than 63 ssu, multiply the actual indicated pressure drop for your GPM flow by the value shown in the pressure differential curve for your viscosity value.

Example: AOCS-1505 @ 40 gpm & 63 ssu -2 pass curve-
Indicated pressure drop 5 psi (Approx)
{ 5 psi x 2.8Cp (for SAE-20 oil) } = 14.0 corrected psi

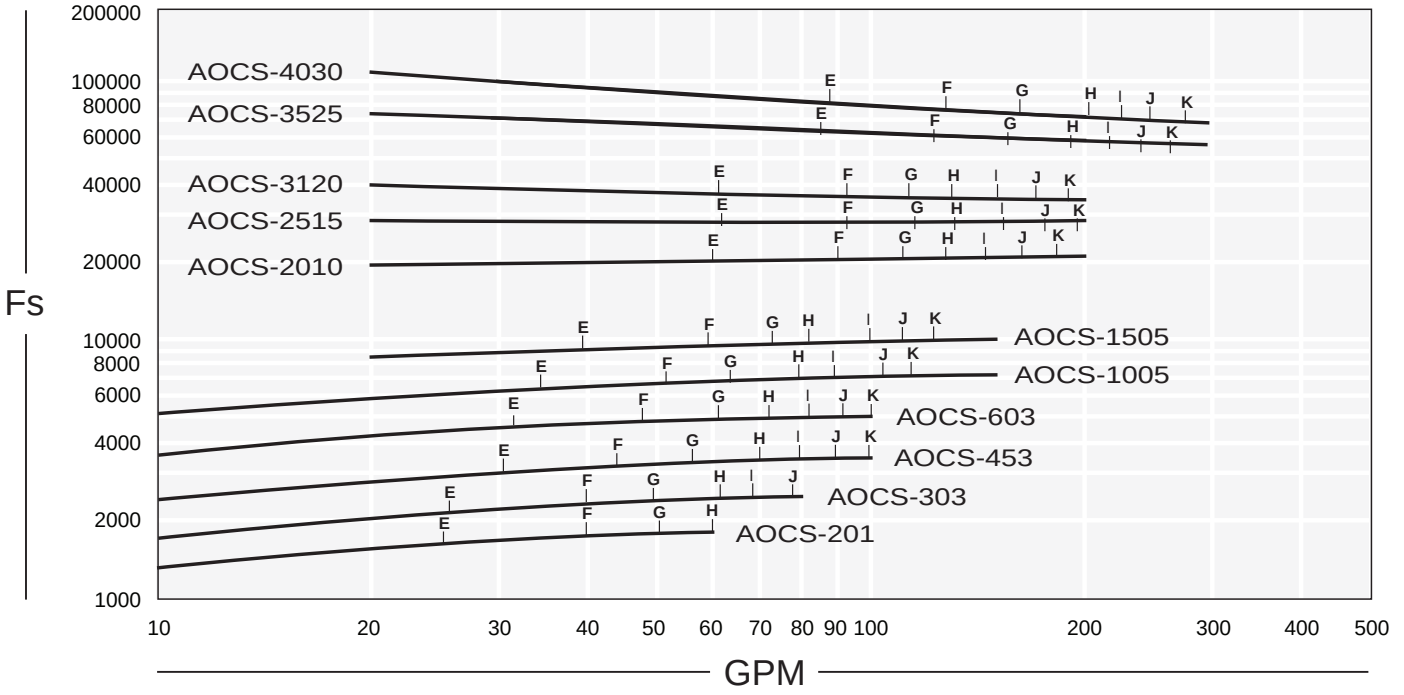
Average Liquid Temperature	Cv VISCOSITY CORRECTION FACTORS																
	SAE 5	SAE 10	SAE 20	SAE 30	SAE 40	ISO 22	ISO 32	ISO 46	ISO 68	ISO 100	ISO 150	ISO 220	ISO 320	MIL-L-7808	POLYGLYCOL	PHOSPHATE ESTER	50% ETHYLENE GLYCOL & WATER
100	1.11	1.15	1.25	1.38	1.45	1.08	1.14	1.18	1.26	1.37	1.43	1.56	1.84	1.19	0.92	0.83	0.85
110	1.09	1.12	1.20	1.32	1.40	1.06	1.13	1.16	1.25	1.31	1.39	1.48	1.67	1.14	0.89	0.80	0.84
120	1.06	1.10	1.17	1.27	1.35	1.04	1.11	1.14	1.20	1.27	1.35	1.40	1.53	1.09	0.88	0.79	0.84
130	1.04	1.08	1.13	1.24	1.29	1.03	1.09	1.13	1.17	1.24	1.30	1.34	1.44	1.05	0.85	0.77	0.83
140	1.03	1.05	1.11	1.19	1.25	1.02	1.08	1.10	1.16	1.20	1.26	1.30	1.39	1.03	0.84	0.76	0.82
150	1.01	1.04	1.09	1.16	1.22	1.02	1.06	1.09	1.13	1.17	1.22	1.27	1.33	1.01	0.83	0.74	0.82
200	0.98	0.99	1.01	1.04	1.07	0.98	0.99	1.00	1.01	1.02	1.08	1.09	1.14	0.98	0.79	0.71	0.80
250	0.95	0.96	0.97	0.98	0.99	0.95	0.96	0.96	0.96	0.97	0.99	1.01	1.02	0.97	0.76	0.69	0.79

Average Liquid Temperature	Cp PRESSURE DROP CORRECTION FACTORS																
	SAE 5	SAE 10	SAE 20	SAE 30	SAE 40	ISO 22	ISO 32	ISO 46	ISO 68	ISO 100	ISO 150	ISO 220	ISO 320	MIL-L-7808	POLYGLYCOL	PHOSPHATE ESTER	50% ETHYLENE GLYCOL & WATER
100	2.00	2.40	4.40	6.40	8.80	1.07	1.53	1.82	2.54	4.19	6.44	9.38	13.56	1.26	3.00	3.50	0.730
110	1.70	2.10	3.60	5.10	6.70	1.04	1.45	1.72	2.35	3.73	5.70	8.33	11.63	1.20	2.40	2.90	0.720
120	1.50	1.80	3.00	4.20	5.60	1.02	1.38	1.60	2.15	3.26	4.91	7.23	9.73	1.14	2.10	2.50	0.709
130	1.40	1.60	2.60	3.40	4.50	0.99	1.30	1.49	1.94	2.80	4.14	6.19	7.80	1.08	1.90	2.20	0.698
140	1.30	1.50	2.23	2.90	3.70	0.97	1.23	1.38	1.75	2.38	3.47	5.20	6.11	1.03	1.90	2.00	0.686
150	1.20	1.30	1.90	2.50	3.10	0.95	1.17	1.30	1.61	2.04	2.90	4.35	4.77	0.98	1.70	1.90	0.676
200	0.93	0.96	1.20	1.40	1.60	0.89	0.99	1.08	1.18	1.33	1.59	1.74	1.95	0.90	1.20	1.30	0.635
250	0.81	0.82	0.92	0.97	1.05	0.85	0.93	0.96	1.03	1.11	1.21	1.22	1.23	0.83	1.00	1.05	0.556

ONE PASS



TWO PASS

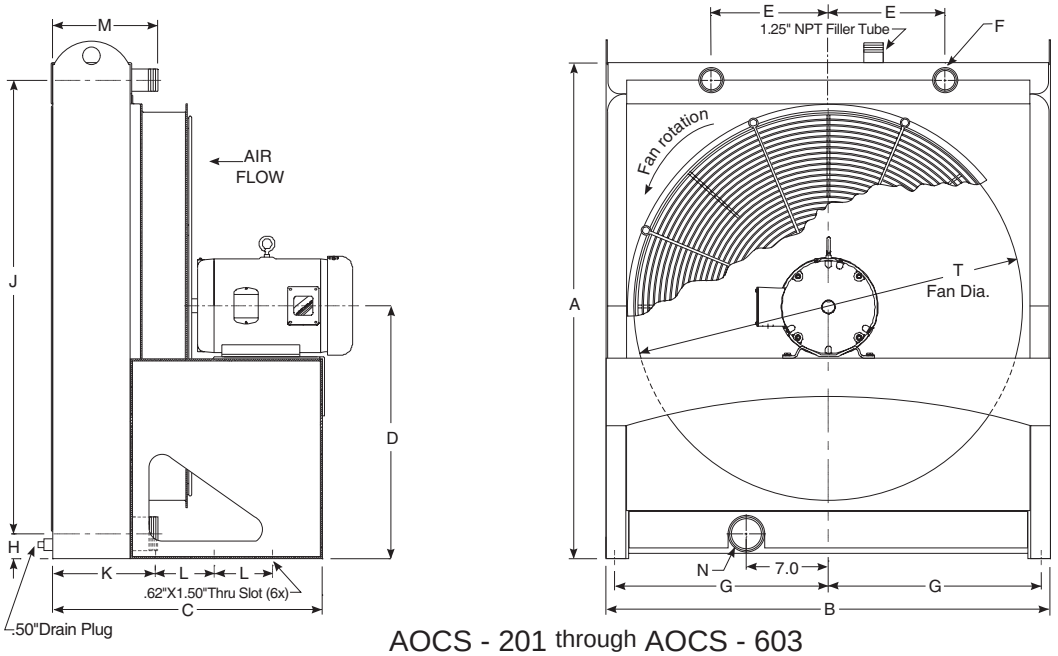


PERFORMANCE CALCULATION	OIL PRESSURE DROP (PSI) CODE
$F_s = \frac{\text{Horsepower to be removed (HP)} \times 2545 \times Cv}{^{\circ}F \text{ (Oil Leaving*} - \text{Ambient Air Entering)}} = \frac{BTU}{hr\ ^{\circ}F}$	B = 2 PSI E = 5 PSI H = 20 PSI K = 35 PSI C = 3 PSI F = 10 PSI I = 25 PSI D = 4 PSI G = 15 PSI J = 30 PSI

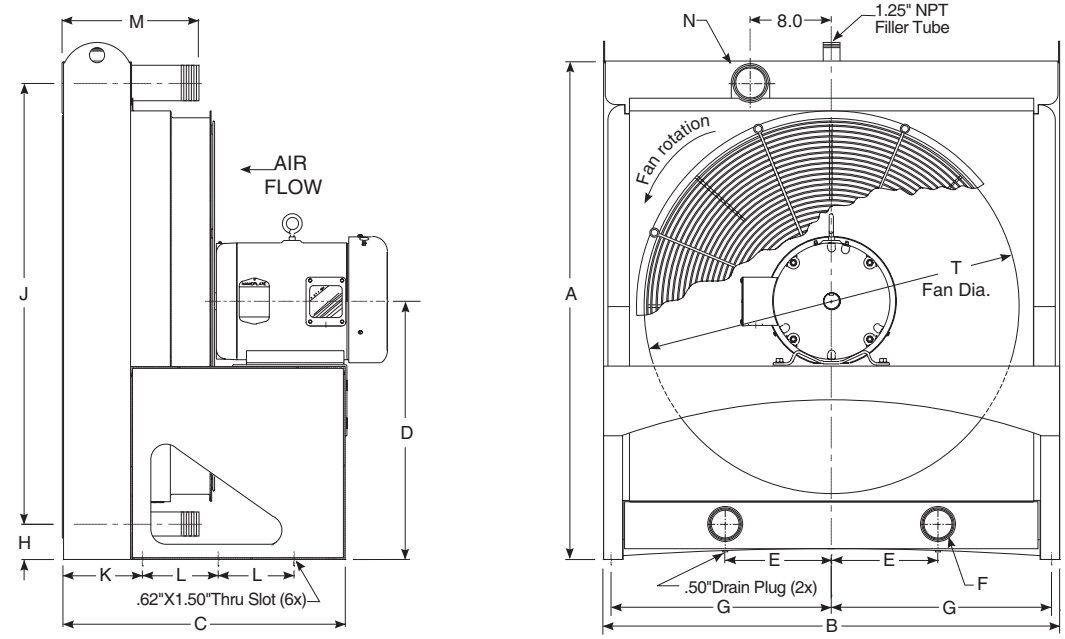
*Represents desired fluid leaving the cooler.

Note: When a model selection has been made, record whether the selection was from the one pass curve or the Two Pass curve so that the unit can be properly plumbed. Incorrect installation can seriously affect the performance.

AOCS Series *dimensions with electric drive*



AOCS - 201 through AOCS - 603



AOCS - 1005 through AOCS - 4030

(F and N*) are SAE code 61 four bolt flanges*

DIMENSIONS (inches)																
Model	A	B	C	D	E	F NPT	F* SAE	G	H	J	K	L	M	N NPT	N* SAE	T
AOCS-201 - ✱	27.13	23.50	20.56	13.63	6.00	1.25	1.25	11.00	1.38	24.50	7.38	5.00	9.00	1.50	1.50	18.00
AOCS-303 - ✱	32.38	27.50	21.94	16.38	7.00	1.25	1.25	13.00	1.88	29.00	7.38	5.00	9.00	2.00	2.00	22.00
AOCS-453 - ✱	36.38	33.00	23.06	18.50	8.00	1.50	1.50	15.75	1.88	33.00	8.81	5.00	9.00	2.00	2.00	28.00
AOCS-603 - ✱	42.38	38.00	23.06	21.62	10.00	1.50	1.50	18.25	2.13	38.75	8.81	5.00	9.00	2.50	2.50	32.00
AOCS-1005- ✱	49.00	45.00	24.88	25.00	10.50	2.00	2.00	21.75	3.50	43.50	7.81	7.50	13.50	3.00	3.00	36.00
AOCS-1505- ✱	56.00	53.00	24.88	28.50	12.50	2.00	2.00	25.75	3.50	50.50	7.69	7.00	13.50	3.00	3.00	42.00
AOCS-2010- ✱	65.00	59.50	32.13	33.00	15.00	3.00	3.00	29.00	4.50	58.00	11.06	7.50	15.50	4.00	4.00	48.00
AOCS-2515- ✱	73.25	67.25	34.78	37.00	16.00	3.00	3.00	32.87	4.50	66.00	11.06	7.50	15.50	4.00	4.00	54.00
AOCS-3120- ✱	79.25	69.50	34.78	40.00	17.00	3.00	3.00	34.00	4.50	72.00	11.06	7.50	15.50	4.00	4.00	60.00
AOCS-3525- ✱	85.50	74.00	40.00	43.00	18.00	3.00	3.00	37.00	4.50	78.00	13.00	7.50	18.00	4.00	4.00	60.00
AOCS-4030- ✱	91.50	80.00	40.00	46.00	20.00	3.00	3.00	40.00	4.50	84.00	13.00	7.50	18.00	4.00	4.00	60.00

✱*Represents the options for motor drive.*

ELECTRIC MOTOR DATA

Model	Horse Power	Phase	Hz	Volts	RPM	NEMA Frame	Type	Full Load Amperes	Service Factor	Thermal Overload
AOCS-201-3	1	3	60	208-230/460	1800	143T	TEFC	2.9/1.5	1.15	NO
AOCS-201-5	1	3	60	575	1800	143T	TEFC	1.13	1.25	NO
AOCS-303-3	3	3	60	208-230/460	1800	182T	TEFC	7.6/3.8	1.15	NO
AOCS-303-5	3	3	60	575	1800	182T	TEFC	3.05	1.15	NO
AOCS-453,603-3	3	3	60	208-230/460	1200	213T	TEFC	8.3/4.2	1.15	NO
AOCS-453,603-5	3	3	60	575	1200	213T	TEFC	3.34	1.15	NO
AOCS-1005,1505-3	5	3	60	208-230/460	1200	215T	TEFC	13.5/6.7	1.15	NO
AOCS-1005,1505-5	5	3	60	575	1200	215T	TEFC	5.39	1.15	NO
AOCS-2010-3	10	3	60	208-230/460	1200	256T	TEFC	27.6/13.8	1.15	NO
AOCS-2010-5	10	3	60	575	1200	256T	TEFC	11.0	1.15	NO
AOCS-2515-3	15	3	60	208-230/460	1200	284T	TEFC	35.8/17.9	1.25	NO
AOCS-2515-5	15	3	60	575	1200	284T	TEFC	14.3	1.25	NO
AOCS-3120-3	20	3	60	208-230/460	1200	286T	TEFC	48.4/24.2	1.25	NO
AOCS-3120-5	20	3	60	575	1200	286T	TEFC	19.4	1.25	NO
AOCS-3525-3	25	3	60	208-230/460	1200	324T	TEFC	60.8/30.4	1.25	NO
AOCS-3525-5	25	3	60	575	1200	324T	TEFC	24.3	1.25	NO
AOCS-4030-3	30	3	60	208-230/460	1200	326T	TEFC	71.6/35.8	1.25	NO
AOCS-4030-5	30	3	60	575	1200	326T	TEFC	28.6	1.25	NO

NOTE: All of the AOCS Series are available in 50hz upon request as a special

ELECTRIC MOTOR NOTES:

1) All motors are NEMA, high efficiency
2) All standard direct drive models are supplied with TEFC electric motor for continuous duty at 104ºF (40ºC).
3) The above motor electrical ratings are an approximate guide and may vary slightly between motor manufactures. Consult motor ratings listed directly on motor data plate prior to installation and operation
4) High altitude, high temperature, severe duty, crusher duty, chemical, IEC, Canadian Standards Association, and Underwriters Laboratory recognized motors are available upon request.
5) American industrial Heat Transfer, Inc. reserves the right to enact changes to motor brand, type, and ratings regarding horsepower, RPM, FLA, and Service factor for standard products without notice. All specified customer requirements will be honored without change or as directed.
6) Fan rotation is clockwise facing the motor shaft.
7) For lubrication information refer to manufactures maintenance instructions.
8) **Abbreviation Index**

TEFC ..... Totally Enclosed, Fan Cooled

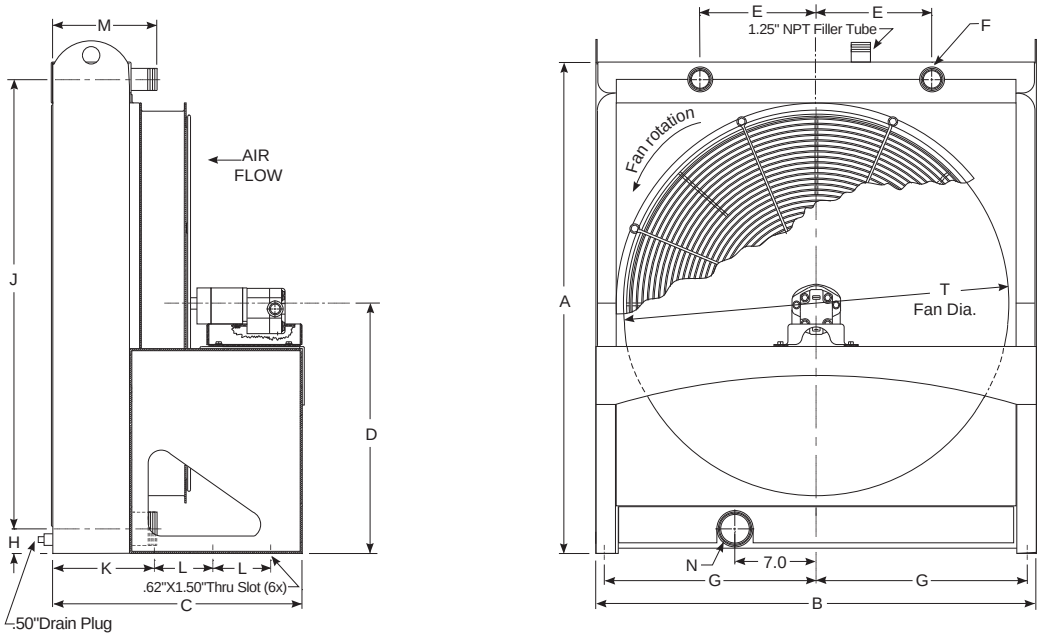
X-PROOF ..... Explosion Proof

CLASS I,DIV.1, GROUP D or CLASS II,DIV.2, GROUP F & G EXPLOSION PROOF MOTOR DATA

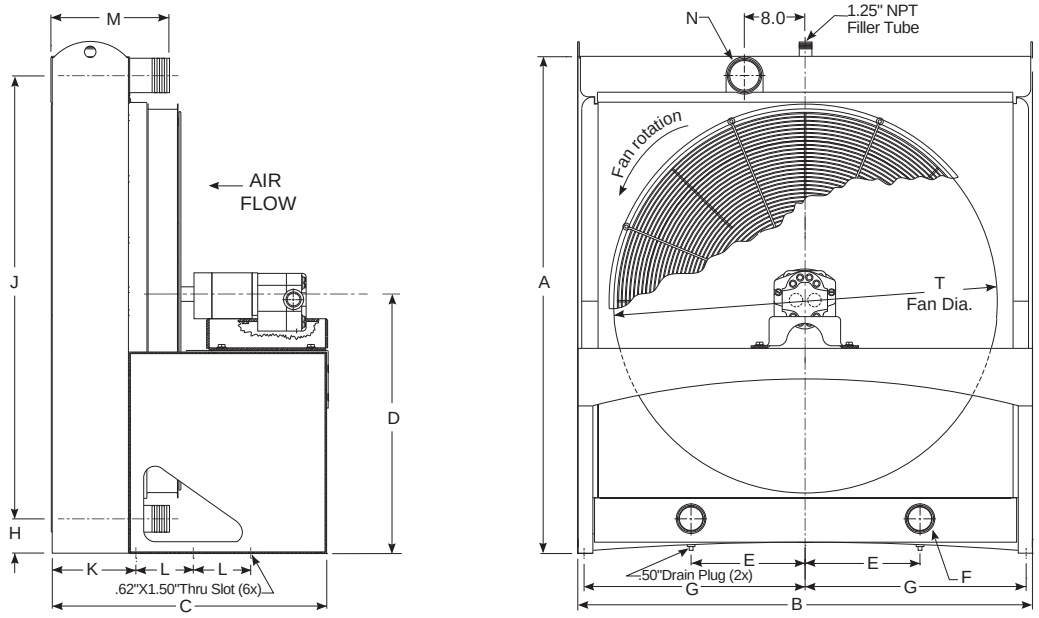
Model	Horse Power	Phase	Hz	Volts	RPM	NEMA Frame	Enclosure Type	Full Load Amperes	Service Factor	Thermal Overload
AOCS-201-3EXP	1	3	60	208-230/460	1800	143T	EPFC	2.8/1.4	1.15	YES
AOCS-303-3EXP	3	3	60	208-230/460	1800	182T	EPFC	7.8/3.9	1.15	YES
AOCS-453,603-3EXP	3	3	60	208-230/460	1200	213T	EPFC	8.8/4.4	1.15	YES
AOCS-1005,1505-3EXP	5	3	60	208-230/460	1200	215T	EPFC	13.6/6.8	1.15	YES
AOCS-2010-3EXP	10	3	60	208-230/460	1200	256T	EPFC	26.6/13.3	1.15	YES
AOCS-2515-3EXP	15	3	60	208-230/460	1200	284T	EPFC	35.0/17.5	1.15	YES
AOCS-3120-3EXP	20	3	60	208-230/460	1200	286T	EPFC	48.4/24.2	1.15	YES
AOCS-3525-3EXP	25	3	60	208-230/460	1200	324T	EPFC	60.8/30.4	1.15	YES
AOCS-4030-3EXP	30	3	60	208-230/460	1200	326T	EPFC	73.4/36.7	1.15	YES

NOTE: All of the AOCS Series explosion proof motors are available in 50hz upon request as a special

AOCS Series *dimensions with hydraulic drive*



AOCS - 201 through AOCS - 603



AOCS - 1005 through AOCS - 4030

(F and N*) are SAE code 61 four bolt flanges*

DIMENSIONS (inches)																
Model	A	B	C	D	E	F NPT	F* SAE	G	H	J	K	L	M	N NPT	N* SAE	T
AOCS-201 - 9	27.13	23.50	20.56	13.63	6.00	1.25	1.25	11.00	1.38	24.50	7.38	5.00	9.00	1.50	1.50	18.00
AOCS-303 - 9	32.38	27.50	21.94	16.38	7.00	1.25	1.25	13.00	1.88	29.00	7.38	5.00	9.00	2.00	2.00	22.00
AOCS-453 - 9	36.38	33.00	23.06	18.50	8.00	1.50	1.50	15.75	1.88	33.00	8.81	5.00	9.00	2.00	2.00	28.00
AOCS-603 - 9	42.38	38.00	23.06	21.62	10.00	1.50	1.50	18.25	2.13	38.75	8.81	5.00	9.00	2.50	2.50	32.00
AOCS-1005- 9	49.00	45.00	24.88	25.00	10.50	2.00	2.00	21.75	3.50	43.50	7.81	7.50	13.50	3.00	3.00	36.00
AOCS-1505- 9	56.00	53.00	24.88	28.50	12.50	2.00	2.00	25.75	3.50	50.50	7.69	7.00	13.50	3.00	3.00	42.00
AOCS-2010- 9	65.00	59.50	32.13	33.00	15.00	3.00	3.00	29.00	4.50	58.00	11.06	7.50	15.50	4.00	4.00	48.00
AOCS-2515- 9	73.25	67.25	34.78	37.00	16.00	3.00	3.00	32.87	4.50	66.00	11.06	7.50	15.50	4.00	4.00	54.00
AOCS-3120- 9	79.25	69.50	34.78	40.00	17.00	3.00	3.00	33.25	4.50	72.00	11.06	9.00	15.50	4.00	4.00	60.00
AOCS-3525- 9	85.50	74.00	40.00	43.00	18.00	3.00	3.00	37.00	4.50	78.00	13.00	9.00	18.00	4.00	4.00	60.00
AOCS-4030- 9	91.50	80.00	40.00	46.00	20.00	3.00	3.00	40.00	4.50	84.00	13.00	9.00	18.00	4.00	4.00	60.00

HYDRAULIC MOTOR DATA

Model	Motor RPM	Displacement in³/Rev	Required Flow		Oper. pressure start / run PSIG	Case Drain	SAE Size	Side Port SAE O-Ring	Max. Continuous Pressure PSIG
			GPM	LPM					
AOCS-201- 9	1725	0.68	6.0	22.7	400 / 290	Ext.	A	#12; 1-1/16-12	3000
AOCS-303- 9	1725	0.68	6.0	22.7	1400 / 860	Ext.	A	#12; 1-1/16-12	3000
AOCS-453- 9	1160	1.00	5.9	22.3	1300 / 870	Ext.	A	#12; 1-1/16-12	3000
AOCS-603- 9	1160	1.00	5.9	22.3	1300 / 870	Ext.	A	#12; 1-1/16-12	3000
AOCS-1005- 9	1160	1.45	8.5	32.2	1500 / 1000	Ext.	A	#12; 1-1/16-12	3000
AOCS-1505- 9	1160	1.45	8.5	32.2	1500 / 1000	Ext.	A	#12; 1-1/16-12	3000
AOCS-2010- 9	1160	2.32	13.7	51.9	1750 / 1250	Ext.	B	#16; 1-5/16-12	3000
AOCS-2515- 9	1160	3.30	19.5	73.8	2000 / 1350	Ext.	B	#16; 1-5/16-12	3000
AOCS-3120- 9	1160	3.30	19.5	73.8	2500 / 1800	Ext.	B	#16; 1-5/16-12	3000
AOCS-3525- 9	1160	3.80	22.5	85.0	2500 / 1900	Ext.	B	#16; 1-5/16-12	3000
AOCS-4030- 9	1160	5.30	26.6	100.7	3000 / 2200	Ext.	B	#16; 1-5/16-12	3000

Note:
Maximum degree of fluid contamination; Class 18/15 according to ISO 4406. Therefore, we recommend a filter with a retention rate of B 20 >. For longer life, we recommend class 17/14, achievable with a filter B10 > -100.

HYDRAULIC MOTOR NOTES:

1) Standard units are supplied with a bi-directional hydraulic gear motor for the fan drive. The gear motor requires an external case drain be used during operation. The external case drain should be connected directly to hydraulic reservoir or a return line with not greater than 10PSIG back pressure. (NOTE: *Failure to properly connect and use the external case drain during motor operation could result in motor failure and external leakage of hydraulic fluid.*
2) Hydraulic motor flow requirements are provided with an efficiency rating of approximately 85%. Pressure requirements are calculated theoretical minimum operating requirements.
3) Hydraulic motor load adapters are provided to bridge and align the space between the hydraulic motor and the fan. Load adapters require periodic maintenance lubrication (see accompanying information).
4) Maximum degree of fluid contamination, class 18/15 according to ISO 4406. Therefore, it is recommended to use a filter with retention rating of B20>. For longer life, it is recommended to use class 17/14 achievable with filter B10>-100.
5) A shaft coupling bushing is used on some models to join the fan drive shaft to the fan. All fans, either hub style or bushing connection, should be checked and retightened after the first 100 hours of operation.
6) Fan rotation is clockwise when facing the motor shaft.
7) Optional displacement motors available upon request.
8) American industrial reserves the right to enact changes to hydraulic motor, brand, type, ratings, port sizes, or any additional non-specified attribute for standard products without notice. All specific requirements will be honored without change pending availability.

Example of a model:

AOCS - 1505 - 3 - S - R65 - 2P - ____ - ____

- **Model**
- **Size**
- **Drive Type**
  - N = no motor
  - 3 = 3/60/230-460
  - 3EXP = Explosion Proof 3/60/230-460
  - 5 = 3/60/575
  - 9 = Hydraulic Mtr.
- **Connections**
  - blank = NPT
  - S = SAE 4 Bolt Flange
  - A = ANSI 150#RF Flange
- **Bypass**
  - R30 = 30psi
  - R65 = 65psi
- **Number of Passes**
  - 1P = 1 pass
  - 2P = 2 pass
- **Tubing**
  - Blank = Copper
  - U = 90/10 Cu Ni
  - C = Carbon Steel
  - SS = Stainless Steel
- **Coating**
  - G = Galvanize (cabinet)
  - T = Heresite (core)
  - X = Epoxy (cabinet)
  - Blank = Enamel (standard)
  - STS = Stainless Steel (cabinet)

COMMON DATA

Model	Air Flow		Sound Level dB(A) @ 13ft	Liquid Volume		Weight Electric		Weight Hydraulic		Serviceable Core™
	CFM	m³/s		gal.	cm³	lb	kg	lb	kg	
AOCS-201 - ✱	3000	1.41	77	1.7	6435	200	91	185	84	Yes
AOCS-303 - ✱	4380	2.07	82	3.8	14383	310	141	260	118	Yes
AOCS-453 - ✱	5920	2.79	78	4.8	18168	490	222	410	186	Yes
AOCS-603 - ✱	8750	4.13	80	6.1	23089	580	263	490	222	Yes
AOCS-1005- ✱	12650	5.97	84	7.7	29145	690	313	575	261	Yes
AOCS-1505- ✱	16150	7.65	87	10.4	39364	910	413	1025	465	Yes
AOCS-2010- ✱	23350	11.73	92	22.8	86298	1280	580	1062	482	Yes
AOCS-2515- ✱	32000	15.00	95	27.5	104088	1610	730	1320	598	Yes
AOCS-3120- ✱	39000	18.40	99	31.9	120742	1810	821	1483	673	Yes
AOCS-3525- ✱	46000	21.71	99	47.0	177895	1980	898	1622	736	Yes
AOCS-4030- ✱	54000	25.48	99	47.0	185466	2150	975	1762	799	Yes

NOTES: a) ✱ Represents the options for motor drive.
b) To estimate the sound level at distances other than 13 feet (4 meters) from the cooler, add 6 db for each halving of distance, or substract 6 db for each doubling of the distance.