

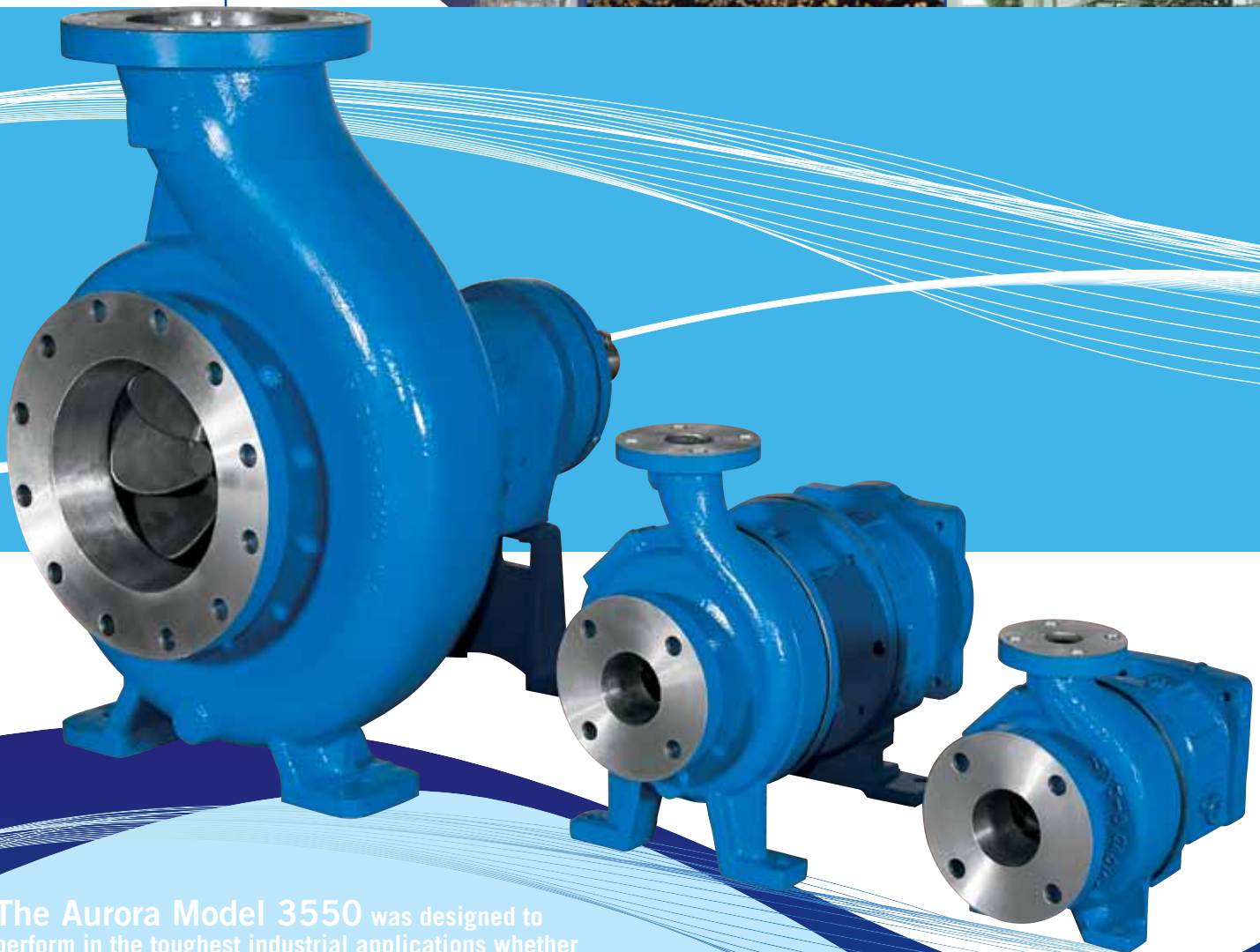


AURORA®
Pentair

3500 Series

Model 3550 ASME/ANSI B73.1M

Industrial Process Pumps



The Aurora Model 3550 was designed to perform in the toughest industrial applications whether in the chemical, petro-chemical, mining, pulp and paper, consumer products or general industry.

*If you are considering an ANSI pump for a **motralec** application, look to Aurora Model 3550.*

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www.motralec.com

Model 3550

Aurora Model 3550 S, M/L, XL

- Capacities to 4200 G.P.M. (954 m³/hr)
- Heads to 725 Feet (221 Meters)
- Temperatures to 650°F (343°C)
- Pressures to 375 PSIG (4998 kPa)

Model 3550-S 5 ASME/ANSI Pumps

Model 3550-M/L 14 ASME/ANSI Pumps

Model 3550-XL 5 ASME/ANSI Pumps

The Aurora Model 3550-S, M/L, and XL were developed with the standard features required to withstand the most difficult applications and maximize mean-time-between-failures (MTBF).



3550-XL

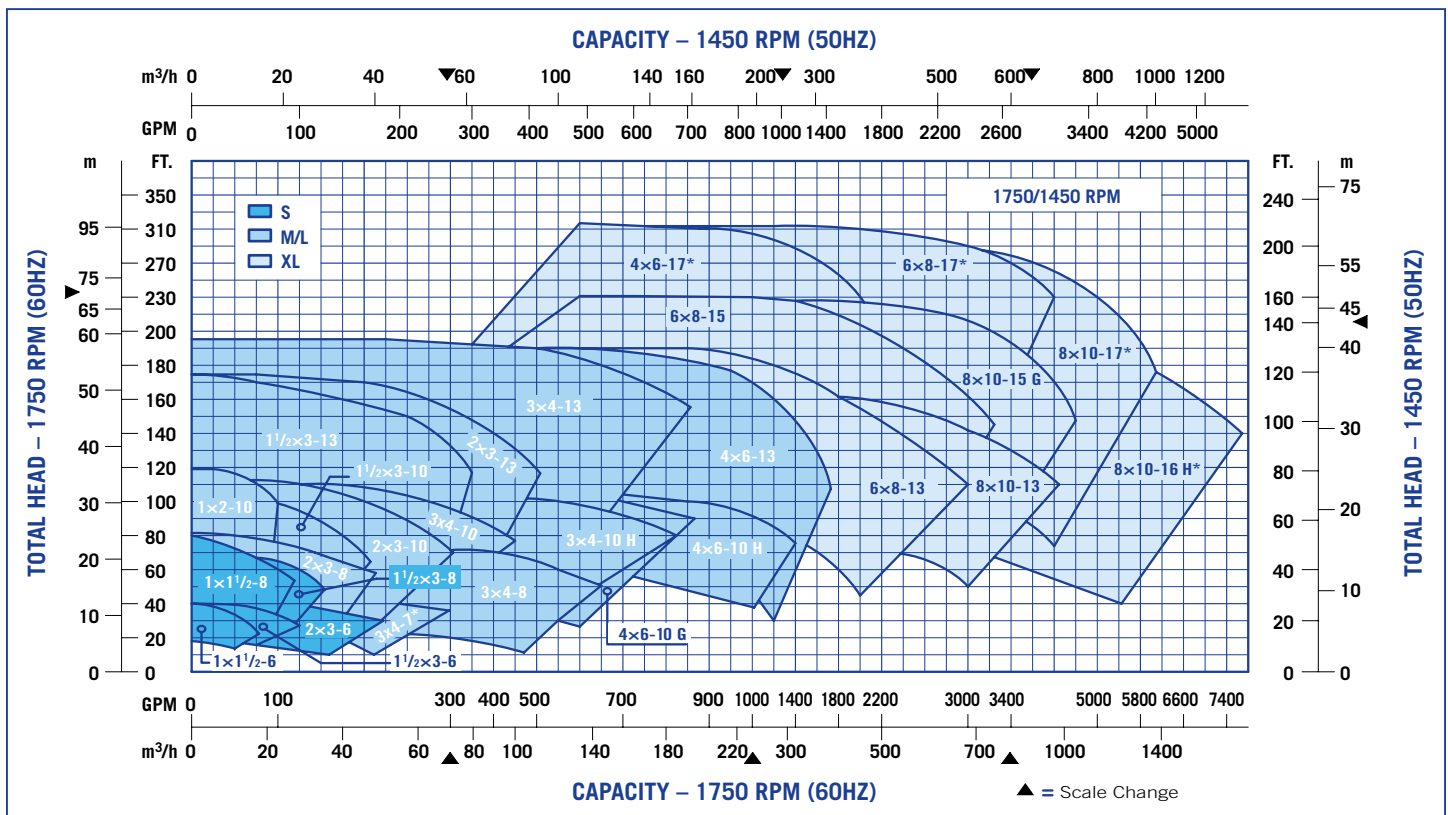
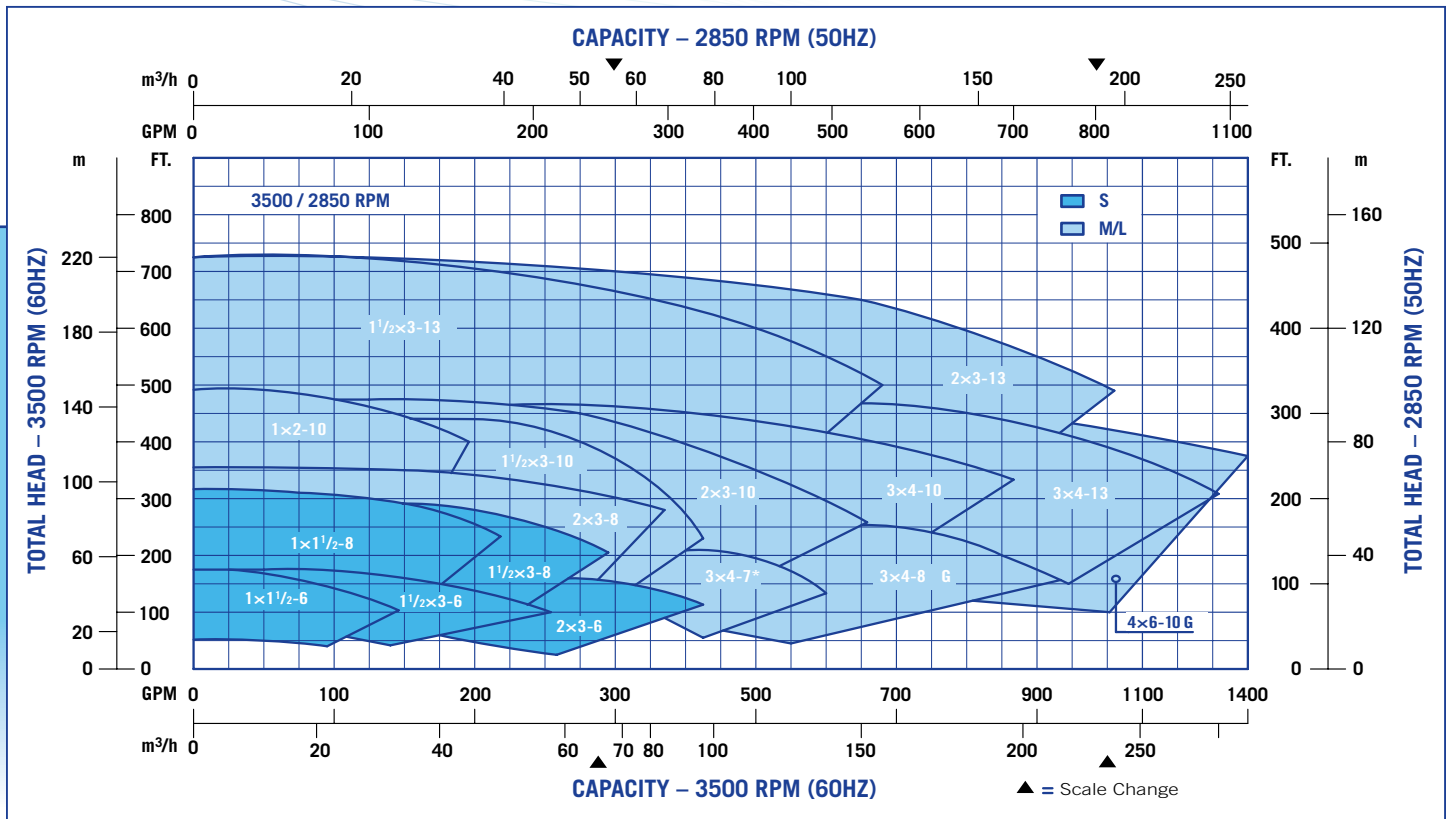


3550-S



3550-M/L

Model 3550 Pump Performance



*Denotes pumps that are in the developmental stage.

Model 3550

Features

The Model 3550 power and wet ends were developed with the standard features required to withstand the most difficult applications and maximize mean-time-between-failures (MTBF).

Labyrinth Oil Seals

- Prevents external contaminants
- Lower oil temperature

Dramatically improves bearing life

Lubrication Flexibility

- Oil Flooded
- Oil Mist
- Greased

Maximum lubrication options

Oversized Shaft

- Shaft deflection less than .002 in. per ANSI B73.1M
- Decreased Vibration

Significantly increases both seal and bearing life

Heavy Duty Bearing

- Designed for maximum hydraulic loads
- Optional Duplex (40°/40° angular contact) thrust bearings

Bearings can perform under the toughest conditions

External Impeller Adjustment

- Optimizes energy consumption
- Reduces repairs
- Simple external adjustments

Long-term energy and repair savings

Large Capacity Oil Sump

- Cooler oil temperature
- Better heat transfer

Increased bearing life

Large Sight Glass

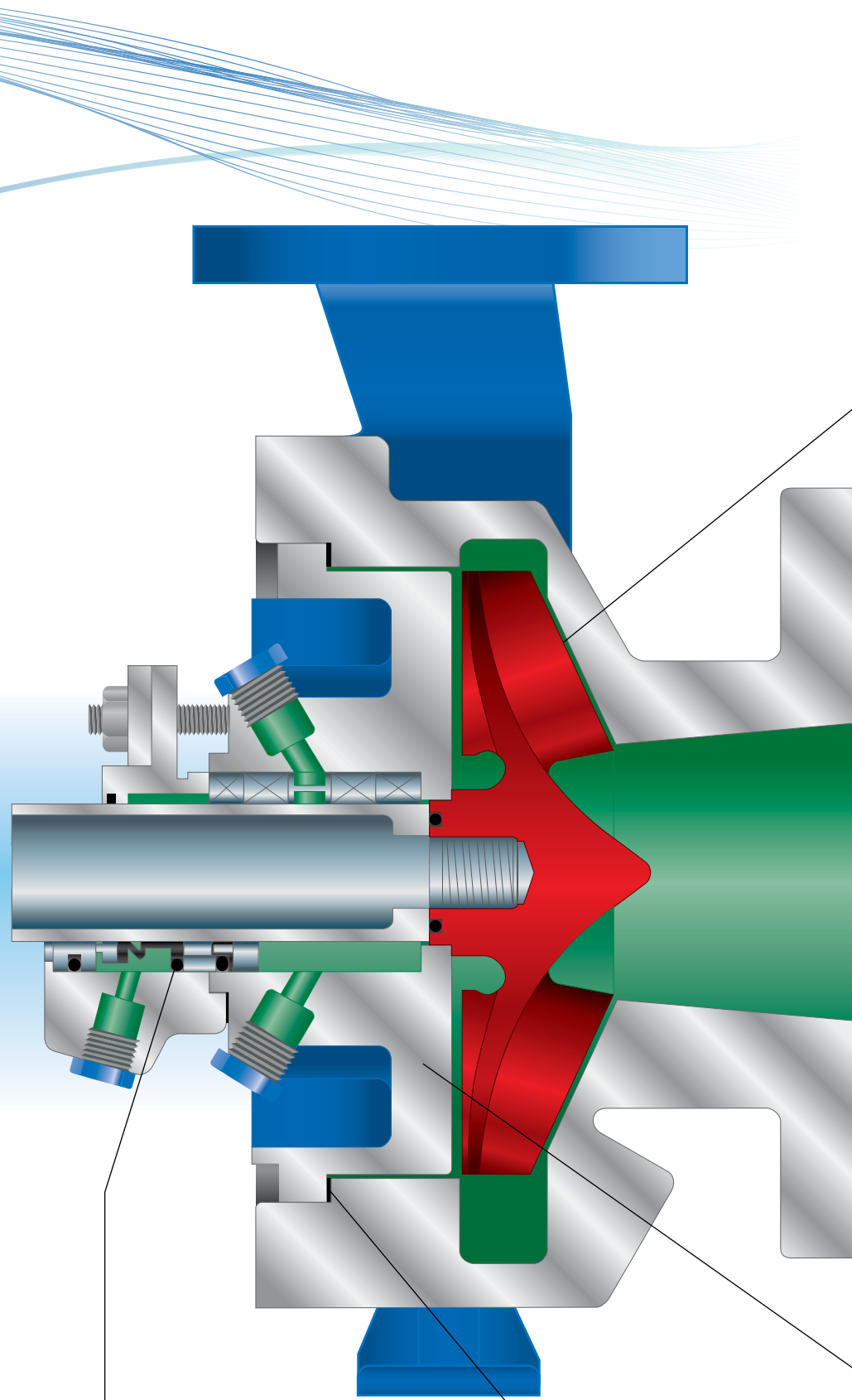
- Assures proper oil levels
- Allows monitoring of oil condition

Helps increase bearing life

Magnetic Drain Plug

- Removes magnetic particles

Increases bearing life



Fully Open Impeller

- Back pump-out vanes
- Reduced radial/thrust loads
- Lower seal chamber pressure
- Double the wear area of a closed impeller

Designed for the toughest applications including solids handling, stringy materials, abrasives and corrosives.

Heavy Duty Casing

- Class 150 flanges with Class 300 casing wall thickness
- Self-venting
- Back Pull-out design
- Integral cast feet
- Serrated flange surfaces
- Standard Class 150 FF and optional Class 150 RF, 300 FF/RF

Designed for increased reliability, ease of maintenance and maximum life

Sealing Options

- Packing
- Conventional Single/Double
- Cartridge Single/Double

Sealing options to accommodate most any fluid and temperature combinations

Positive Sealing

- Fully confined gasket
- Protects alignment fit

Provides ease of maintenance and increased safety

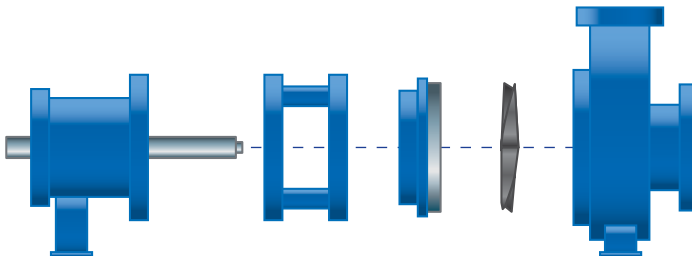
Engineered Seal Chambers

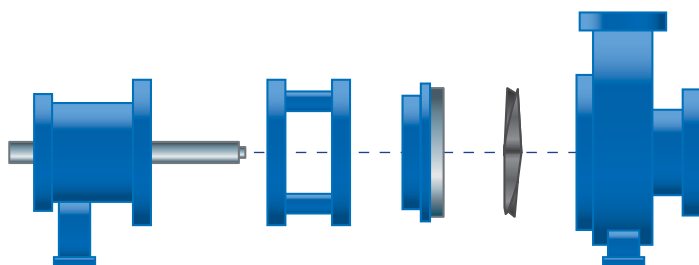
- Standard Bore
- Large Bore
- Taper Bore

Designed to provide optimum seal environment

Model 3550 Modular/Dimensional Interchangeability

POWER END	ADAPTER	SEAL CHAMBER	IMPELLER	CASING	SIZE	POWER END	ADAPTER	SEAL CHAMBER	IMPELLER	CASING	SIZE
MODEL S 1-3/8" SHAFT DIA. – MAX BHP-40 HP						MODEL L 2-1/8" SHAFT DIA. – MAX BHP-200 HP					
					1 x 1.5 - 6 AA						1 x 2 - 10 A05
					1.5 x 3 - 6 AB						1.5 x 3 - 10 A50
					2 x 3 - 6 AC						2 x 3 - 10 A60
					1 x 1.5 - 8 AA						3 x 4 - 10 A70
					1.5 x 3 - 8 AB						3 x 4 - 10H A40
MODEL M 1-3/4" SHAFT DIA. – MAX BHP-122 HP						MODEL XL 2-1/2" SHAFT DIA. – MAX BHP-250 HP					
					3 x 4 - 7* A70						6 x 8 - 13 A90
					2 x 3 - 8 A60						8 x 10 - 13 A100
					3 x 4 - 8 A70						6 x 8 - 15 A110
					3 x 4 - 8G A70						8 x 10 - 15 A120
					1 x 2 - 10 A05						8 x 10 - 15G A120
					1.5 x 3 - 10 A50						
					2 x 3 - 10 A60						
					3 x 4 - 10 A70						
					3 x 4 - 10H A40						
					4 x 6 - 10 A80						
					4 x 6 - 10H A80						
					1.5 x 3 - 13 A20						
					2 x 3 - 13 A30						
					3 x 4 - 13 A40						
					4 x 6 - 13 A80						





Model 3550 Parts & Material Composition

Item Number	Req' d Per Pump	Part Name	All Steel	All 316SS	All Alloy 20	All CD4MCu	All Titanium	B & C
100	1	Casing	Steel	316SS	Alloy 20	CD4MCu	Titanium	B&C
101	1	Impeller	Steel	316SS	Alloy 20	CD4MCu	Titanium	B&C
105	1	Lantern Ring	Glass Filled Teflon*					
106	1	Packing	Teflon* Impregnated Fibers					
107	1	Packing Gland	316SS		Alloy 20		Titanium	B&C
108	1	Frame Adapter	Ductile Iron					
112	1	Outboard (Thrust) Bearing	Double Row Angular Contact**					
122	1	Shaft – Less Sleeve (Optional)	316SS					
122	1	Shaft – With Sleeve	SAE4140					316SS
126	1	Shaft Sleeve	316SS	316SS	Alloy 20	316SS	Titanium	B&C
134	1	Bearing Housing	Cast Iron					
136	1	Lock Nut / Lock Washer	Steel					
168	1	Inboard (Radial) Bearing	Single Row Deep Groove					
184	1	Stuffing Box	Steel	316SS	Alloy 20	CD4MCu	Titanium	B&C
228	1	Frame	Cast Iron (Ductile for Small Frame)					
241	1	Frame Foot	Cast Iron					
250	1	Gland	316SS		Alloy 20			
319	1	Sight Oil Gauge	316SS					
332A	1	Labyrinth Oil Seal (Outboard)	Bronze (Optional Carbon Filled Teflon)					
333A	1	Labyrinth Oil Seal (Inboard)	Bronze (Optional Carbon Filled Teflon)					
351	1	Casing Gasket	Aramid Fiber with EPDM Rubber					
353	4	Gland Stud	316SS					
355	4	Gland Nut	304SS					
357K	2	Hex Nut	304SS					
358A	1	Casing Drain Plug (Optional)	Steel	316SS	Alloy 20	316SS	Titanium	B&C
360	1	Gasket, Frame-to-Adapter	Vellumoid					
360A	1	Gasket, Bearing End Cover	Vellumoid (XL Only)					
370	3	Bearing Housing Hex Bolt	Steel					
418	3	Casing Jack Screw	Steel					
469B	2	Dowel Pin	Steel					
496	1	Bearing Housing O-Ring	Buna Rubber					
496A	1	Impeller O-Ring	Glass Filled TFE					

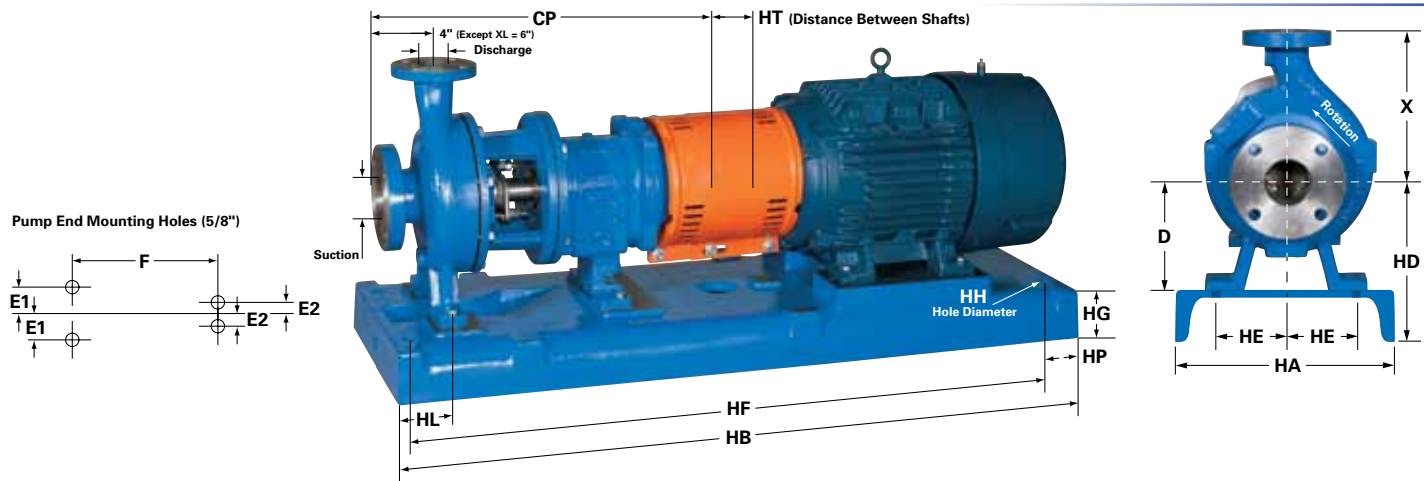
*E.I. Dupont Registered Trademark

**NOTE: L Power End features Duplex Angular Contact.

Model	S	M	L	XL
Volute	single			
Nominal Case Thickness (inches)	3/8	1/2 (4 x 6 - 13A80 = 5/8)	5/8	3/4
Corrosive Allowance @ Maximum	1/8			
Working Pressure	Limits set by ANSI B16.5			
Maximum Working PSIG	See Pressure/Temperature charts			
Hydro Test PSIG @ 100°F	150% of working pressure at 100°F (38°C)			
Maximum Liquid Temperature (°F)	350°F without cooling / 650°F with cooling			
Shaft Diameter	At Coupling (inches)	7/8	1 1/8	1 1/4
	Sleeve Diameter Under Seal (inches)	1 3/8	1 3/4	2 1/8
	Under Impeller (inches)	3/4	1	1 1/4
	Under Sleeve (inches)	1 1/8	1 1/2	2
	Overhang (inches)	6 1/8	8 3/8	9 3/8

Model	S	M	L	XL
Bearings	Radial	SKF 6207	SKF 6309	SKF 6311
	Thrust	SKF 5306 A/C3	SKF 5309 A/C3	SKF 5310 BECBM
	Bearing Span	4 1/8	6 3/8	6 7/8
Mechanical Seal Size (inches)		1 3/8	1 3/4	2 1/8
Stuffing Box – Standard Bore	I.D. (inches)	2	2 1/2	2 7/8
	Depth (inches)	2 1/8	2 5/8	3
	Distance End of Box to Nearest Obstruction	2 1/2	2 13/16	2 15/16
Stuffing Box – Large Bore	I.D. (inches)	2 7/8	3 1/2	3 7/8
	Depth (inches)	2 7/8	2 5/8	3
	Distance End of Box to Nearest Obstruction	2 3/16	2 13/16	2.85
Lantern Ring Width (inches)		7/16	5/8	3/4

Model 3550 Pump Dimensions



	Pump Size & Designation	ANSI Designation	Discharge	Suction	D	X	CP	E1	E2	F	Impeller Eye (square inches)	Maximum Diameter Solids
S	1 x 1½ - 6	AA	1	1½	5¼	6½	17½	3	0	7¼	3.1	1½/32
	1½ x 3 - 6	AB	1½	3	5¼	6½	17½	3	0	7¼	7.1	7/16
	2 x 3 - 6	AC	2	3	5¼	6½	17½	3	0	7¼	6.5	3/8
	1 x 1½ - 8	AA	1	1½	5¼	6½	17½	3	0	7¼	3.5	1½/32
	1½ x 3 - 8	AB	1½	3	5¼	6½	17½	3	0	7¼	4.4	7/16
M	2 x 3 - 8	A60	2	3	8¼	9½	23½	4⅞	3⅝	12½	5.4	½
	3 x 4 - 8	A70	3	4	8¼	11	23½	4⅞	3⅝	12½	12.5	1⅞
	3 x 4 - 8G	A70	3	4	8¼	11	23½	4⅞	3⅝	12½	11	1½/16
M or L	1 x 2 - 10	A05	1	2	8¼	8½	23½	4⅞	3⅝	12½	4.9	7/16
	1½ x 3 - 10	A50	1½	3	8¼	8½	23½	4⅞	3⅝	12½	6.5	7/32
	2 x 3 - 10	A60	2	3	8¼	9½	23½	4⅞	3⅝	12½	3.1	3/8
	3 x 4 - 10	A70	3	4	8¼	11	23½	4⅞	3⅝	12½	12.5	5/8
	3 x 4 - 10H	A40	3	4	10	12½	23½	4⅞	3⅝	12½	17.5	5/8
	4 x 6 - 10G	A80	4	6	10	13½	23½	4⅞	3⅝	12½	25.9	1
	4 x 6 - 10H	A80	4	6	10	13½	23½	4⅞	3⅝	12½	27.1	1
	1½ x 3 - 13	A20	1½	3	10	10½	23½	4⅞	3⅝	12½	4.9	7/32
	2 x 3 - 13	A30	2	3	10	11½	23½	4⅞	3⅝	12½	3.1	3/8
	3 x 4 - 13	A40	3	4	10	12½	23½	4⅞	3⅝	12½	14.2	5/8
	4 x 6 - 13	A80	4	6	10	13½	23½	4⅞	3⅝	12½	28	1
XL	6 x 8 - 13	A90	6	8	14½	16	33⅜	8	4½	18¾	45.5	1½/16
	8 x 10 - 13	A100	8	10	14½	18	33⅜	8	4½	18¾	56.7	1
	6 x 8 - 15	A110	6	8	14½	18	33⅜	8	4½	18¾	50	13/16
	8 x 10 - 15	A120	8	10	14½	19	33⅜	8	4½	18¾	74.6	1⅞
	8 x 10 - 15G	A120	8	10	14½	19	33⅜	8	4½	18¾	63	1⅞

	Maximum NEMA Frame	Baseplate Number	HA	HB	HT Minimum	D-8.25 HD	D-10 HD	HD	HE	HF	HG Maximum	HH	HL	HP
S	184T	139	12	39	3.5	9	N/A	N/A	4.5	36½	3¾	0.75	4.5	1¼
	256T	148	15	48	3.5	10½	N/A	N/A	6	45½	4¾	0.75	4.5	1¼
	326TS	153	18	53	3.5	12¾	N/A	N/A	7.5	50½	4¾	0.75	4.5	1¼
M or L	184T	245	12	45	3.5	12	13¾	N/A	4.5	42½	3¾	0.75	4.5	1¼
	215T	252	15	52	3.5	12¾	14⅞	N/A	6	49½	4¾	0.75	4.5	1¼
	286T	258	18	58	3.5	13	14¾	N/A	7.5	55½	4¾	1	4.5	1¼
	365T	264	18	64	3.5	13¾	14¾	N/A	7.5	61½	4¾	1	4.5	1¼
	405TS	268	24	68	3.5	14¾	14¾	N/A	9.5	65½	4¾	1	4.5	1¼
	449TS	280	24	80	3.5	15¾	15¾	N/A	9.5	77½	4¾	1	4.5	1¼
XL	286T	368	24	68	5	N/A	N/A	19¼	9.5	65½	4¾	1	6.5	1¼
	405T	380	24	80	5	N/A	N/A	19¼	9.5	77½	4¾	1	6.5	1¼
	449T	398	24	98	5	N/A	N/A	19¼	9.5	95½	4¾	1	6.5	1¼

3500 Series

Model 3550 Options

The Aurora Model 3550 has a broad range of engineered options and upgrades that will support a variety of process requirements and meet most any fluid processing application.

Drivers

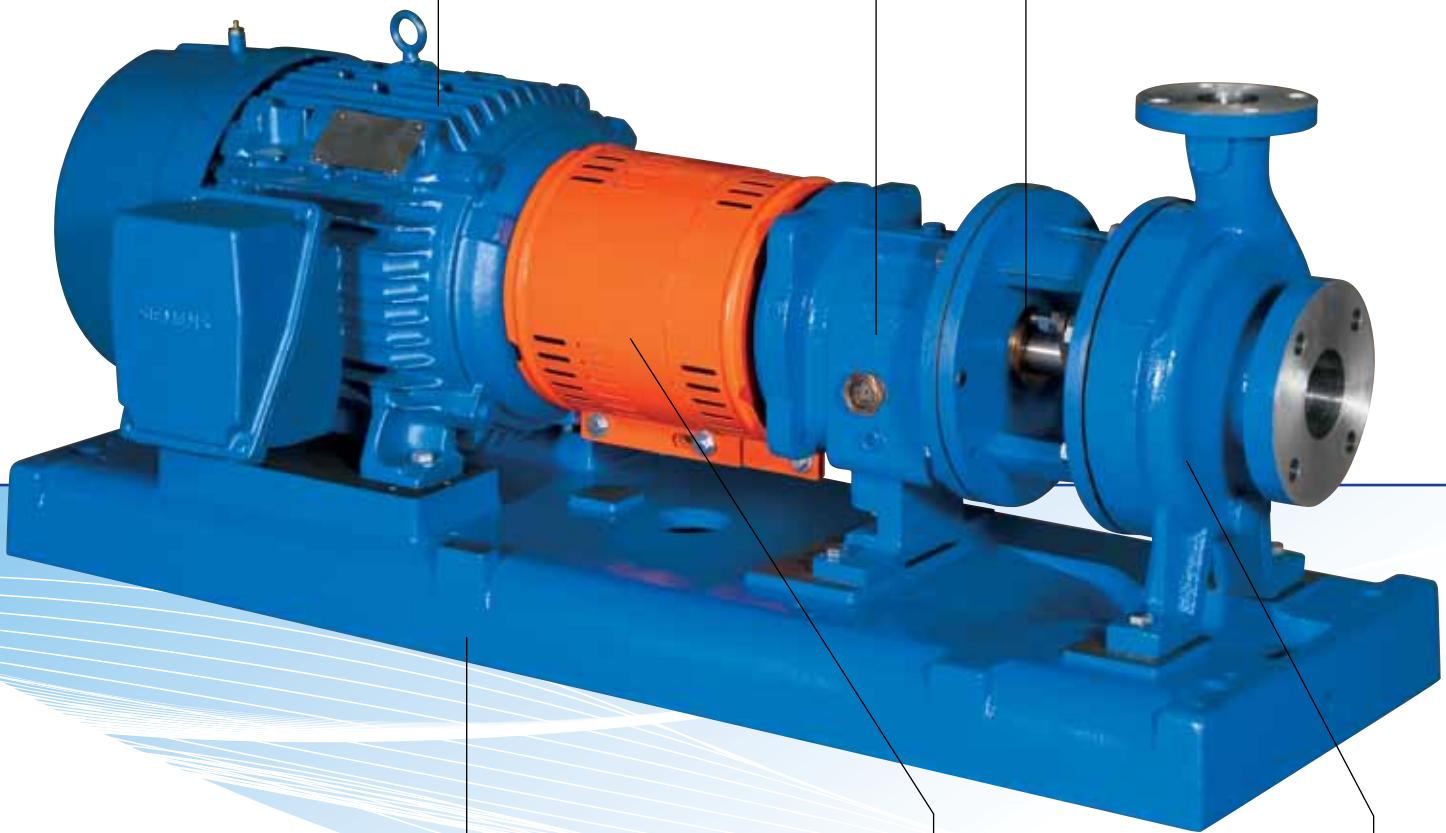
- Electric Motors
ODP / TEFC / XP
- Variable Frequency Drives

Oil Temperature Control

- Bearing Frame Cooling Coil

Seal Flush / Cooling

- Most ASME/ANSI B73.1M seal
flush and cooling plans available



Mounting Baseplates

- Fabricated Steel per
ASME/ANSI B73.1M
- Cast Iron in compliance with PIP
- Heavy-duty epoxy resin based
polymer composite to
ASME/ANSI B73.1M

Couplings and Guards

- OSHA approved coupling guards
- Various coupling options

Process Temperature Control

- Jacketed Casings
- Jacketed Seal Chamber

The AURORA family of pumps has the right pump for your industrial application

Regenerative Turbine | Condensate
Boiler Feed | End Suction
Split Case | Sump
ASME/ANSI



Product Performance Ranges		Maximum Capacity Range*	
PUMP CATEGORY	Flow – GPM/M ³ /hr. (meters cubed/hr.)	Head – ft./m.	Temp. – °F/°C
ASME/ANSI	4200 / 953.4	725 / 220.9	-100–650 / -73–343
Regenerative Turbine	50–150 / 11.4–34.1	700–1,200 / 213–366	212–500 / 100–260
Condensate	150–180 / 34.1–40.9	170–270 / 52–82	190–200 / 88–93
Boiler Feed	100 / 22.7	575 / 175	210 / 99
End Suction	140–4,500 / 31.8–1,022.1	55–790 / 17–41	225–300 / 107–149
Split Case	400–15,000 / 90.8–3,406.9	500–1,000 / 152–305	275–300 / 135–149
Sump	100–1,200 / 22.7–272.5	40–180 / 12–55	180 / 82

* Capacity range indicates multiple series in one pump category. See product sheets for complete specifications.

Since its founding in 1919, Aurora has become a leading supplier devoted to manufacturing a wide variety of pumps and systems for an ever-expanding variety of markets and applications. Prime examples of our industrial applications include process water supply, spray booth, cooling water supply, transfer and recirculation pumping equipment.

Aurora's commitment to excellence goes beyond the product line, as we're dedicated to keeping customers up-to-date on the latest developments in flow technology. From Aurora's broad selection of pumps and related products, Aurora's design engineering programs assist with selecting the best pumps and systems along with providing pump drawings and specifications. These programs save valuable time in the selection and evaluation of pumps and systems.

Contact your authorized Pentair Industrial Pumps distributor for more information on our entire industrial pump offering.

NOTE: Aurora Pump reserves the right to make revisions to its products and their specifications, and to this bulletin and related information, without notice.



motralec

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