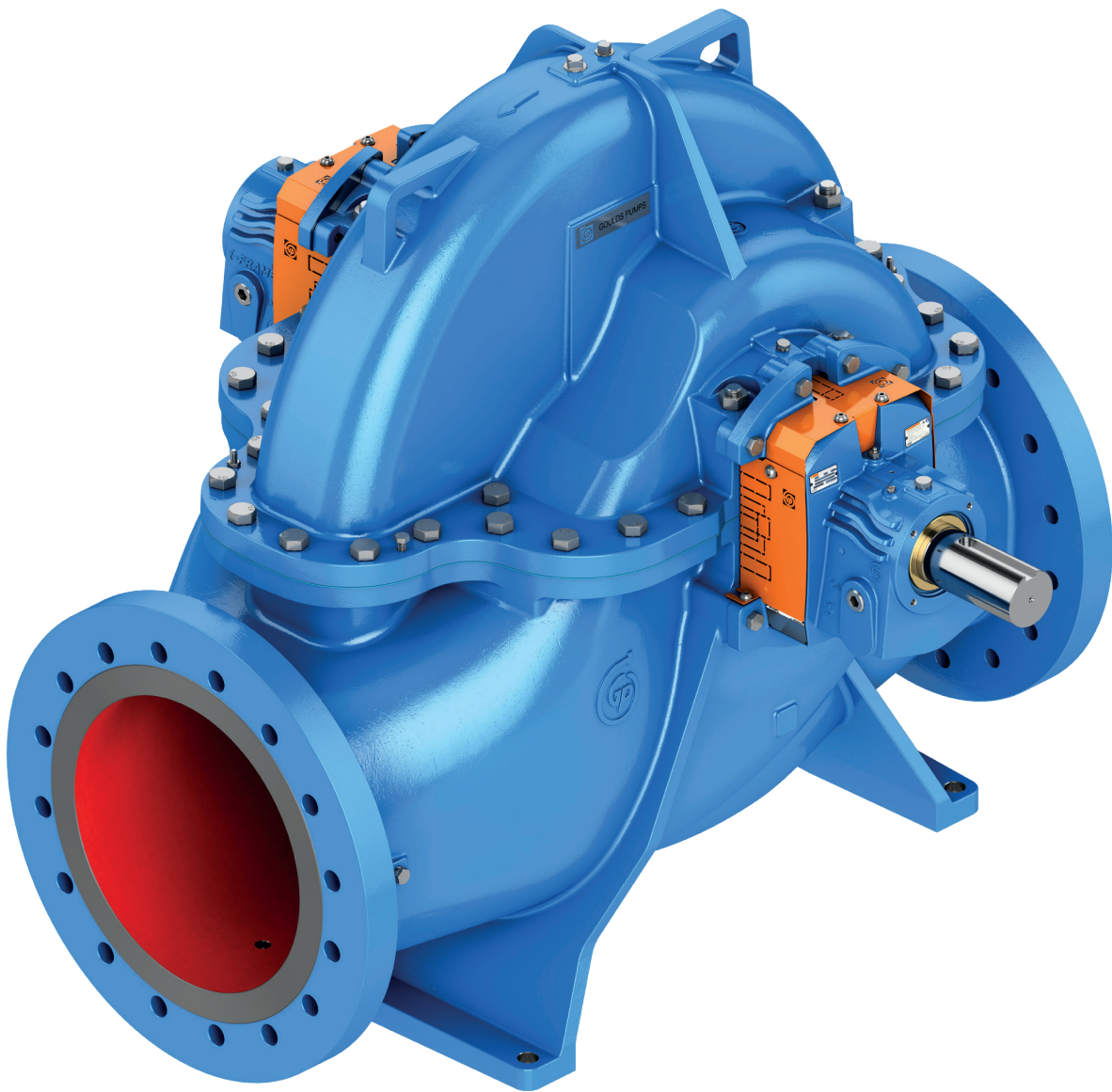


3430

Large Capacity, Single Stage, Double Suction Pump



3430

Double Suction Pumps Designed for a Wide Range of Industrial, Municipal, Marine, and Power Generation Services.

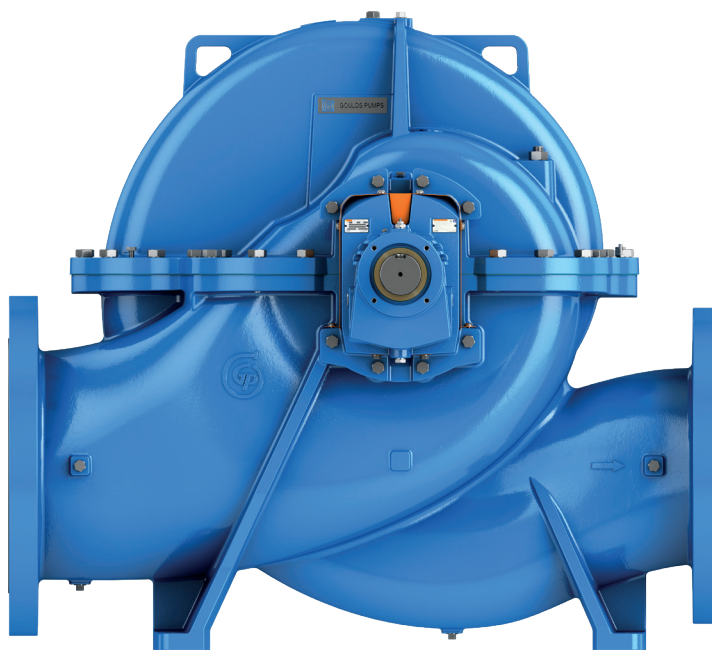
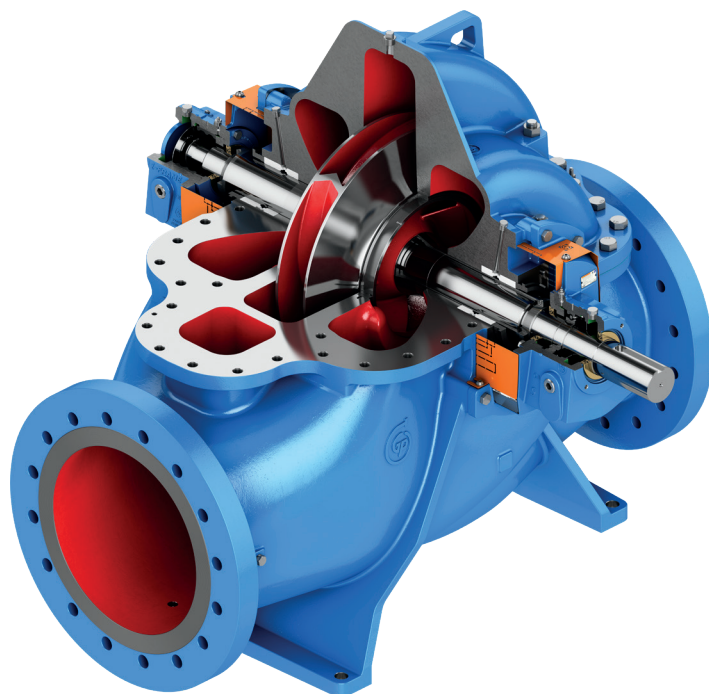
- Capacities to 65,000 GPM (14,763 m³/hr)
- Heads to 745 ft (227 m)
- Temps to 350° F (177° C)
- Working Pressures to 520 psi (3585 kPa)

Design Features

- **Double Suction / Dual Volute** - Design assures axial and radial balance for long life, low maintenance.
- **Horizontally Split Casing** - Suction and discharge nozzles in lower half casing for ease of inspection/maintenance.
- **Wear Rings** - Easily replaceable wear rings protect against impeller and casing wear.
- **Sealing Flexibility** - Choice of a wide range of mechanical seals or packing to suit your application.
- **Installation Versatility** – Imperial (ASME) or Metric (DIN) configurations, horizontal or vertical mounting, clockwise or counterclockwise rotation

Services

- **Process** - Quench Water, Stripper Bottoms, Reboiler Circulation, Cooling Tower
- **Pulp & Paper** - Primary and Secondary Cleaner, Filtrate, Mill Water Supply, Shower, Fan Pump
- **Primary Metals** - Cooling Water, Quench and Leaching
- **Municipal** - High Lift, Low Lift, Wash Water, Wastewater, Raw Water, Booster, Filter Backwash
- **Utilities** – Cooling Tower, Component Cooling, Service Water
- **Marine** - Bilge and Ballast, Cargo, Cooling Water, Fire Pump



Bearing Housing Features

Improved Serviceability

Large seal access openings provide generous space to service the mechanical seal and easy replacement of split seals without removing the bearing housing.

i-FRAME®

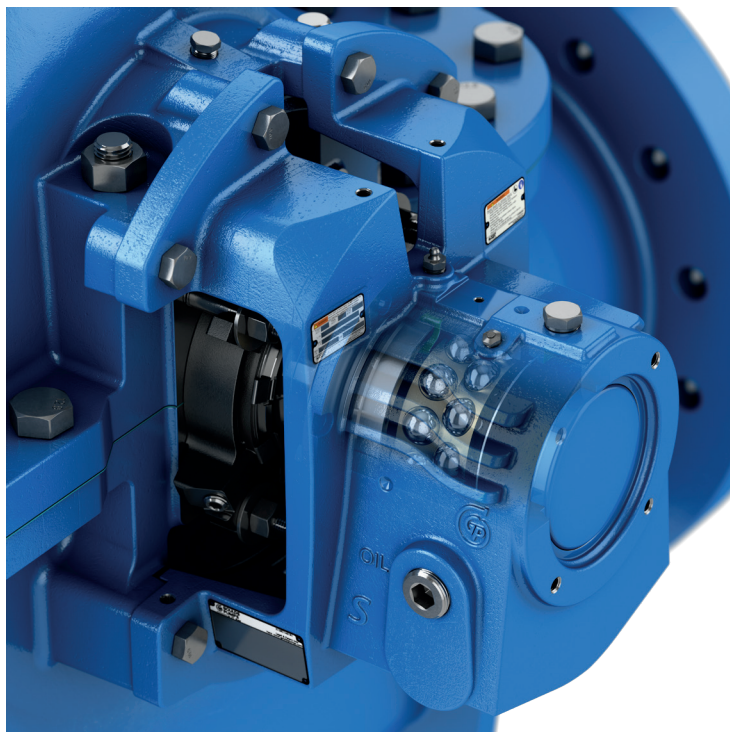
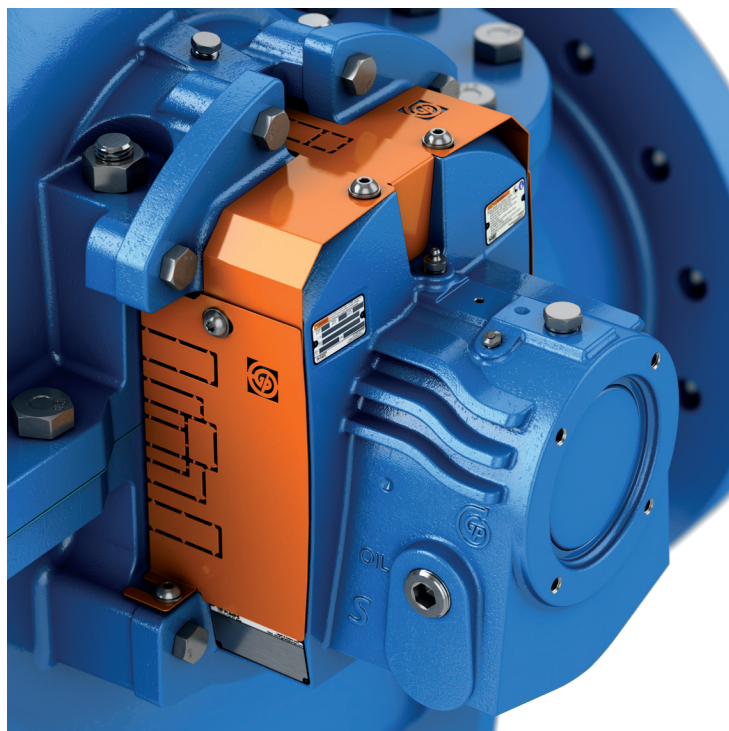
New bearing housing design with a 360-degree mounting for easy alignment and maximum strength. Includes integrally casted cooling fins for better heat dissipation.

Shaft Guards

Protection from rotating parts and easily accommodates common seal gland ports and piping configurations with preconfigured removeable tabs.

Configurations for Every Scenario

Lubrication options including grease, flood oil, ring oil, purge oil mist, and pure oil mist. Cooling options are available for high temperature services.



Grease Lubrication (Standard)

Easy Serviceability

Grease lube pumps feature an optimized grease zerk location with unobstructed access.

Grease Pressure Relief

The grease pressure relief is engineered to ensure the optimal grease amount is achieved with visual inspection and no need to remove drain plug.

Grease Containment

Specially designed retaining plate to keep grease from filling the whole bearing housing cavity. This reduces the overall grease volume while keeping critical bearing surfaces lubricated.

Bearing Housing Features

Flood Oil Lubrication (S/M Only, Optional)

Field convertible with no new machining required.

Increased Bearing Life

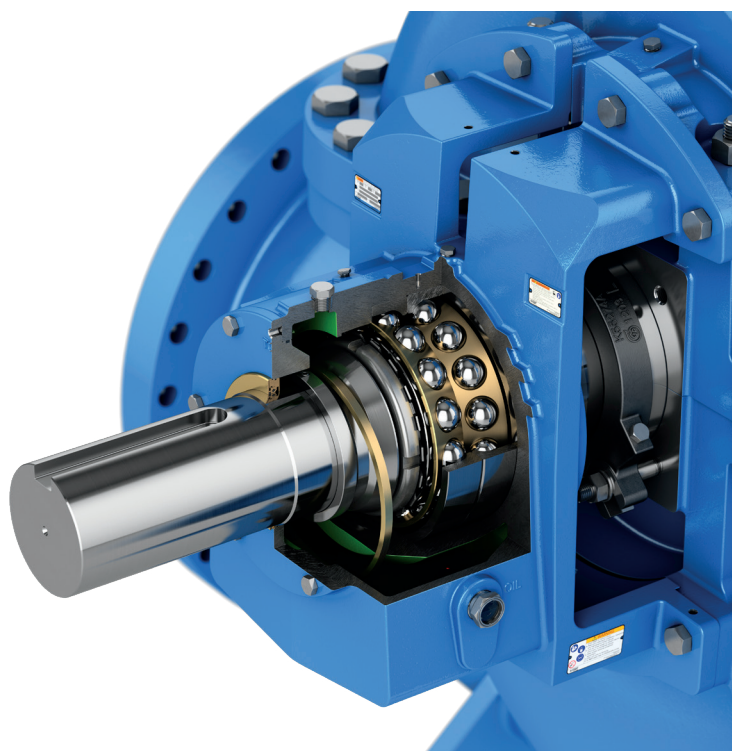
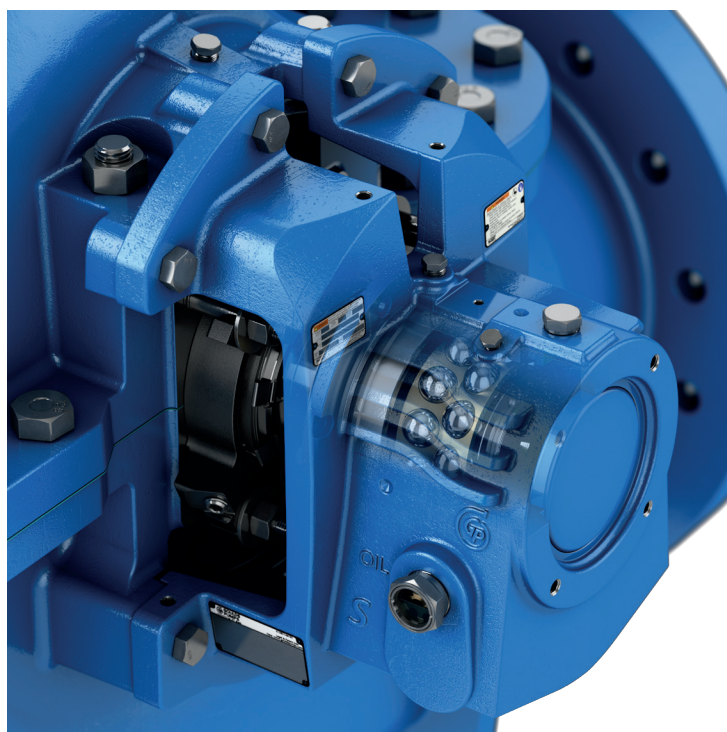
Integrated cooling fins and increased oil sump capacity for optimal bearing cooling.

Easy Visibility

Oil sight glass standard for easy indication of proper oil level. Also available with optional oiler (not shown).

Improved Serviceability

Drain plug location allows for easy access even with the coupling guard installed.



Ring Oil Lubrication (L/XL Only, Optional)

Effective and dependable lubrication method with only one moving part.

Easy Accessibility

Removable end cover with built in ring retainer provides easy access and eliminates possibility of ring becoming dislodged.

Auto Alignment

Ring Slinger/Guide keeps ring perfectly aligned on the shaft.

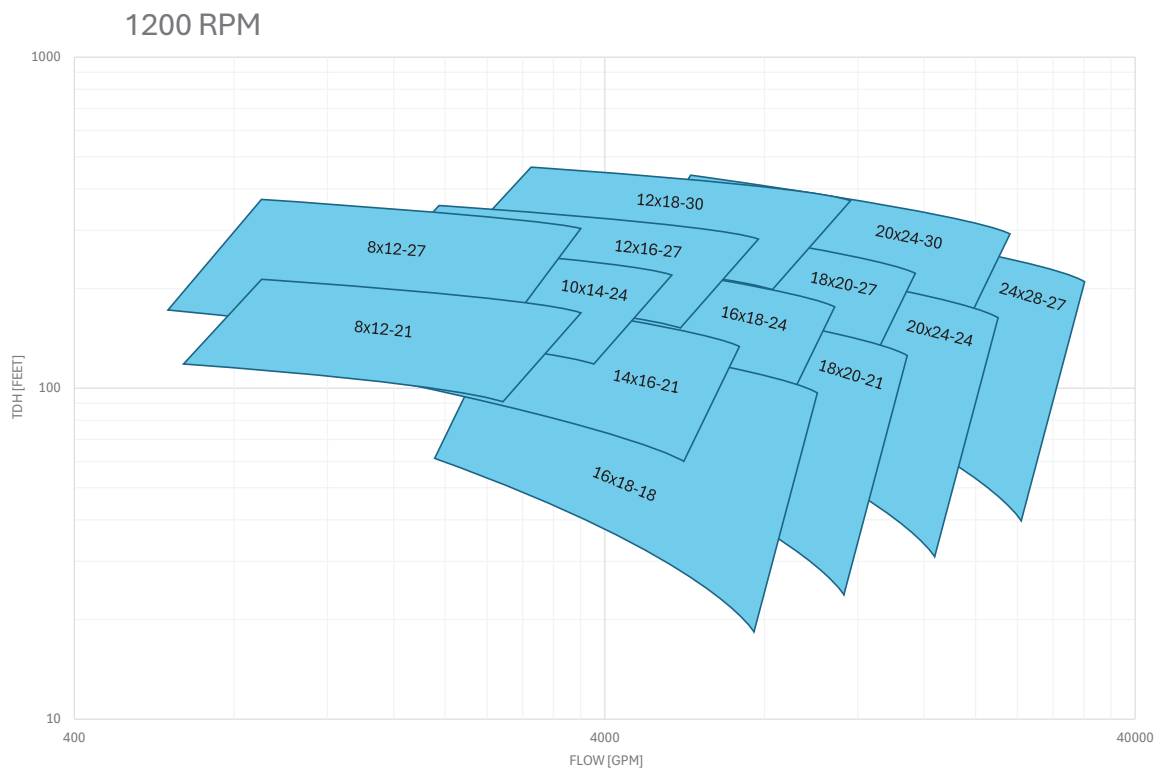
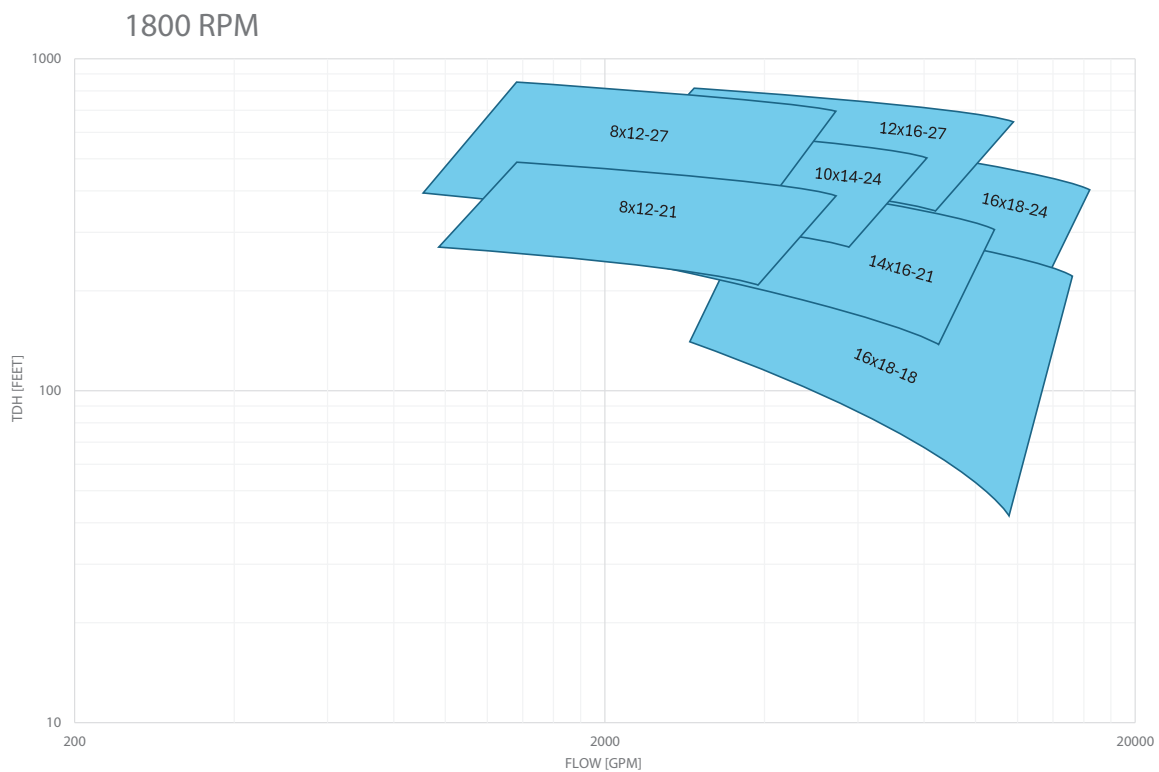
Increased Bearing Lubrication

Cast in trough to concentrate and redistribute oil into critical bearing locations.

Note: Purge oil and Pure oil mist also available as an option.

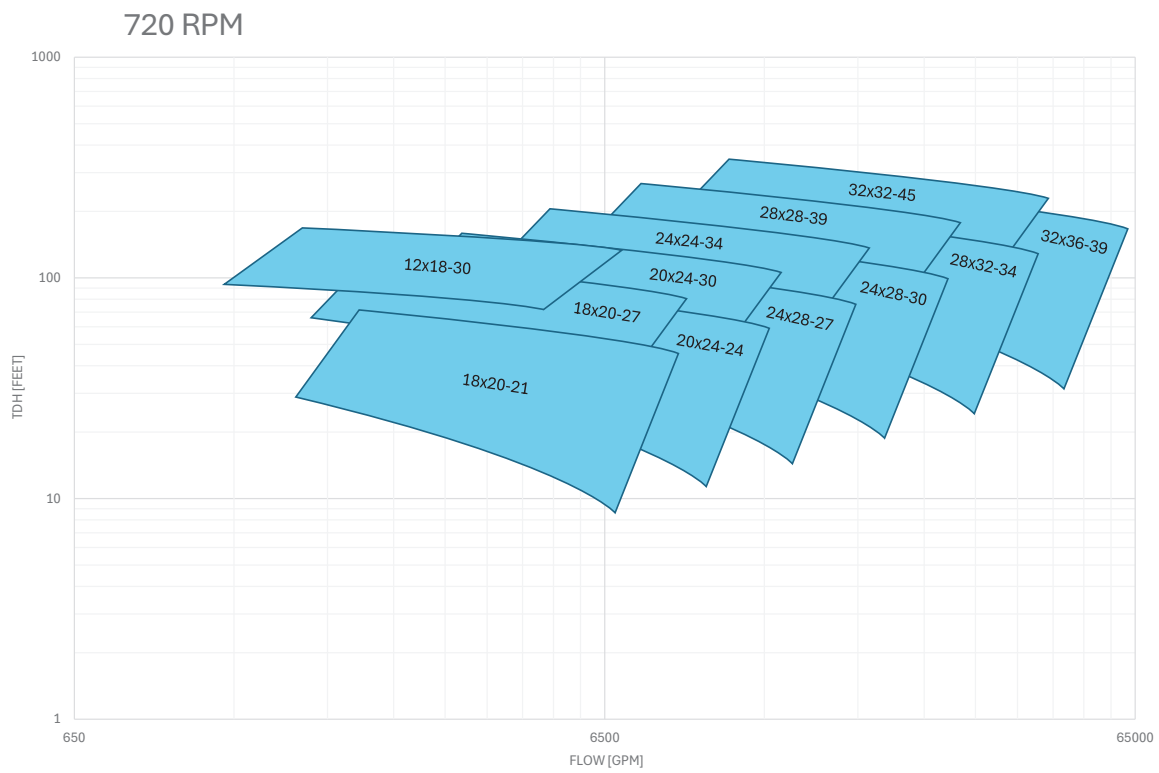
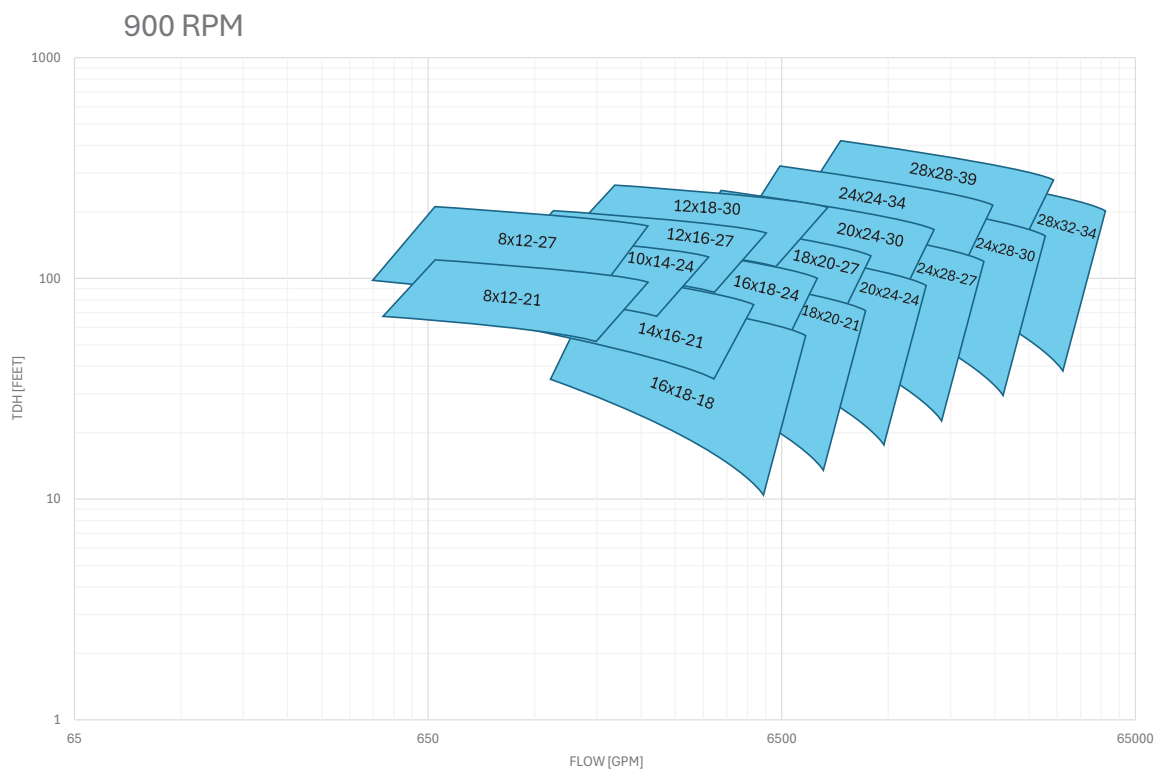
Hydraulic Coverage

60Hz



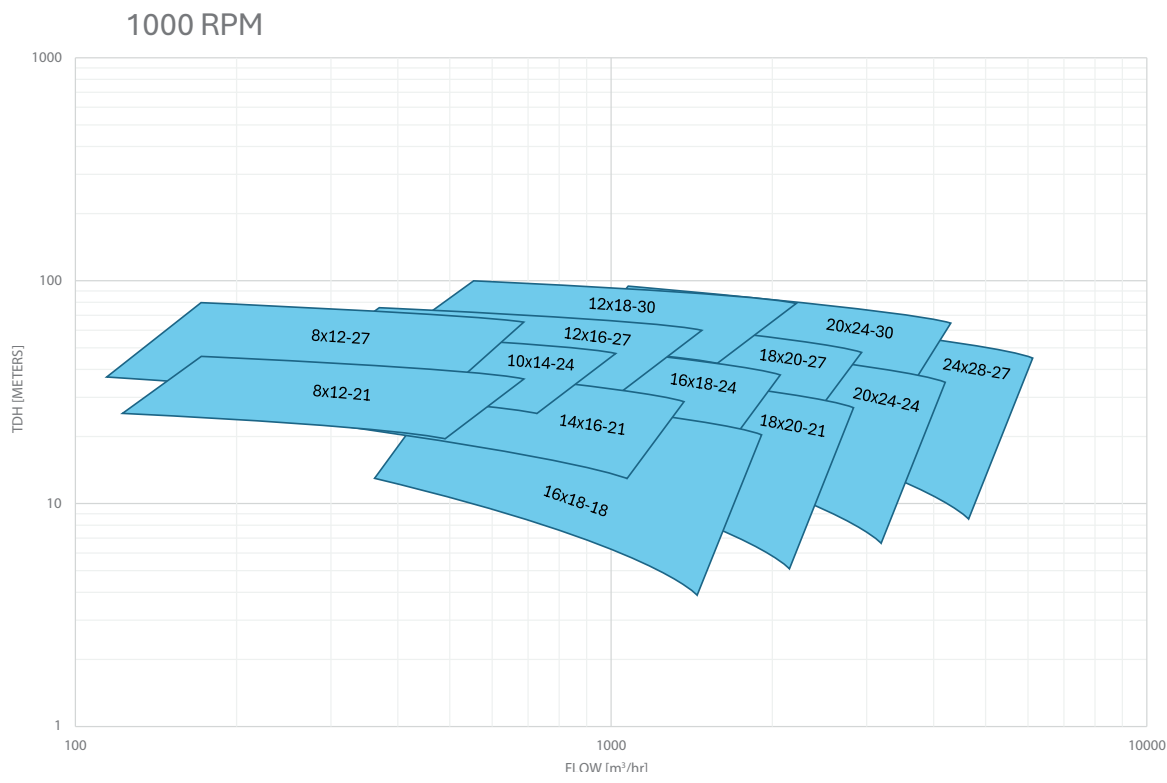
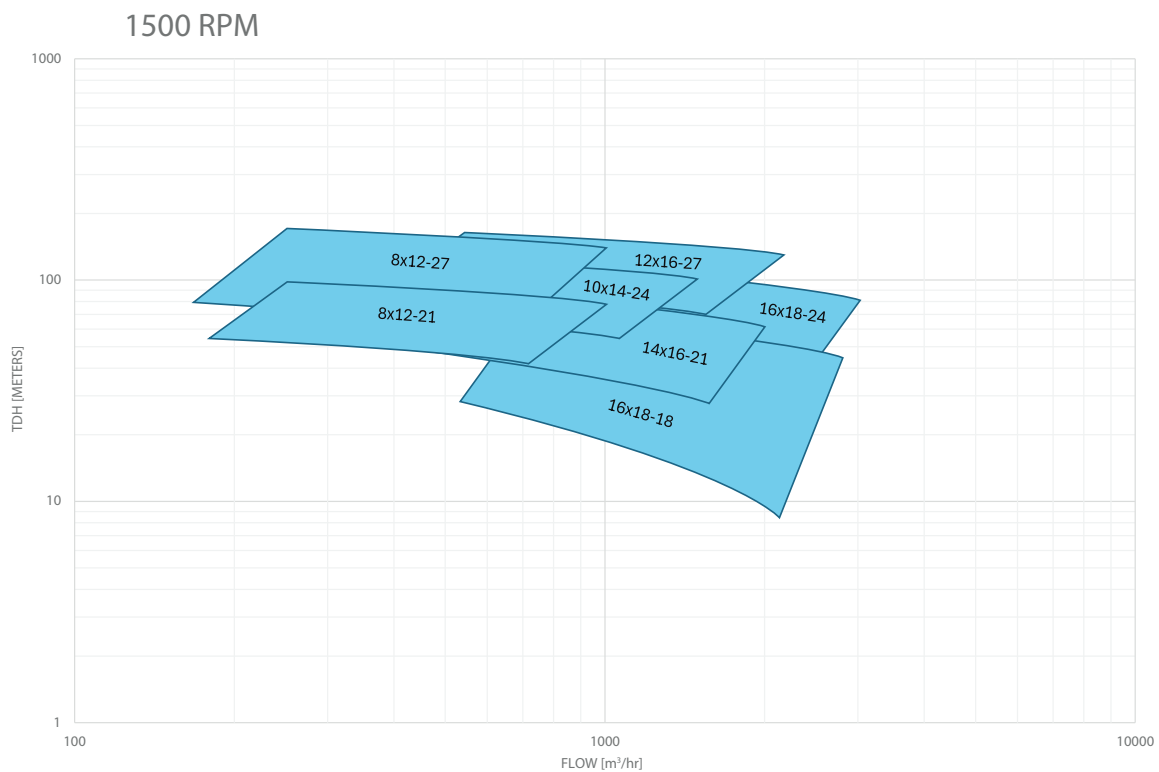
Hydraulic Coverage

60Hz



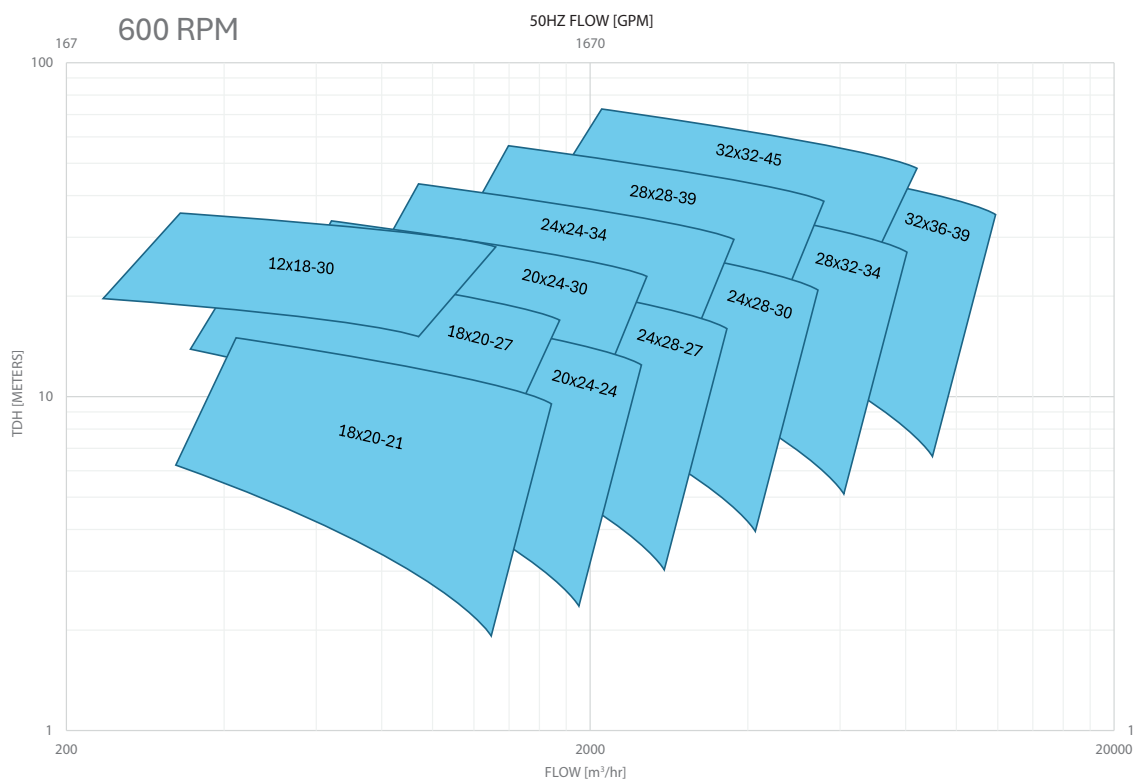
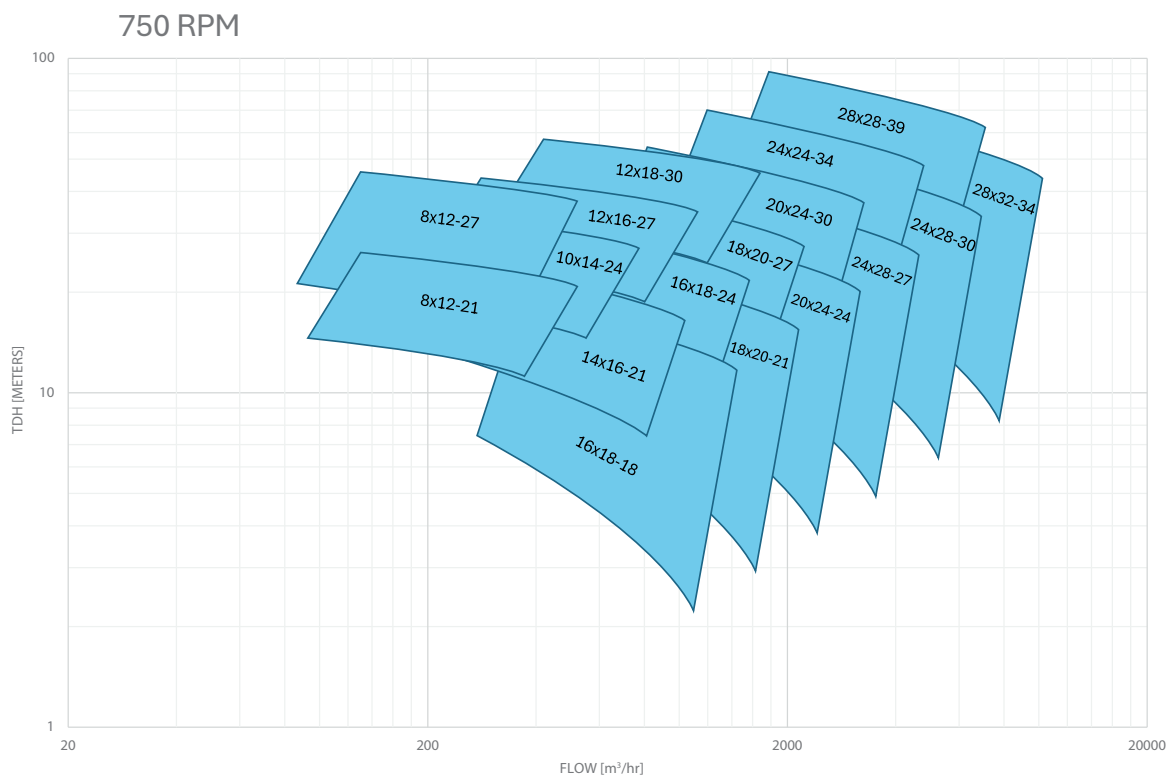
Hydraulic Coverage

50Hz



Hydraulic Coverage

50Hz



3430

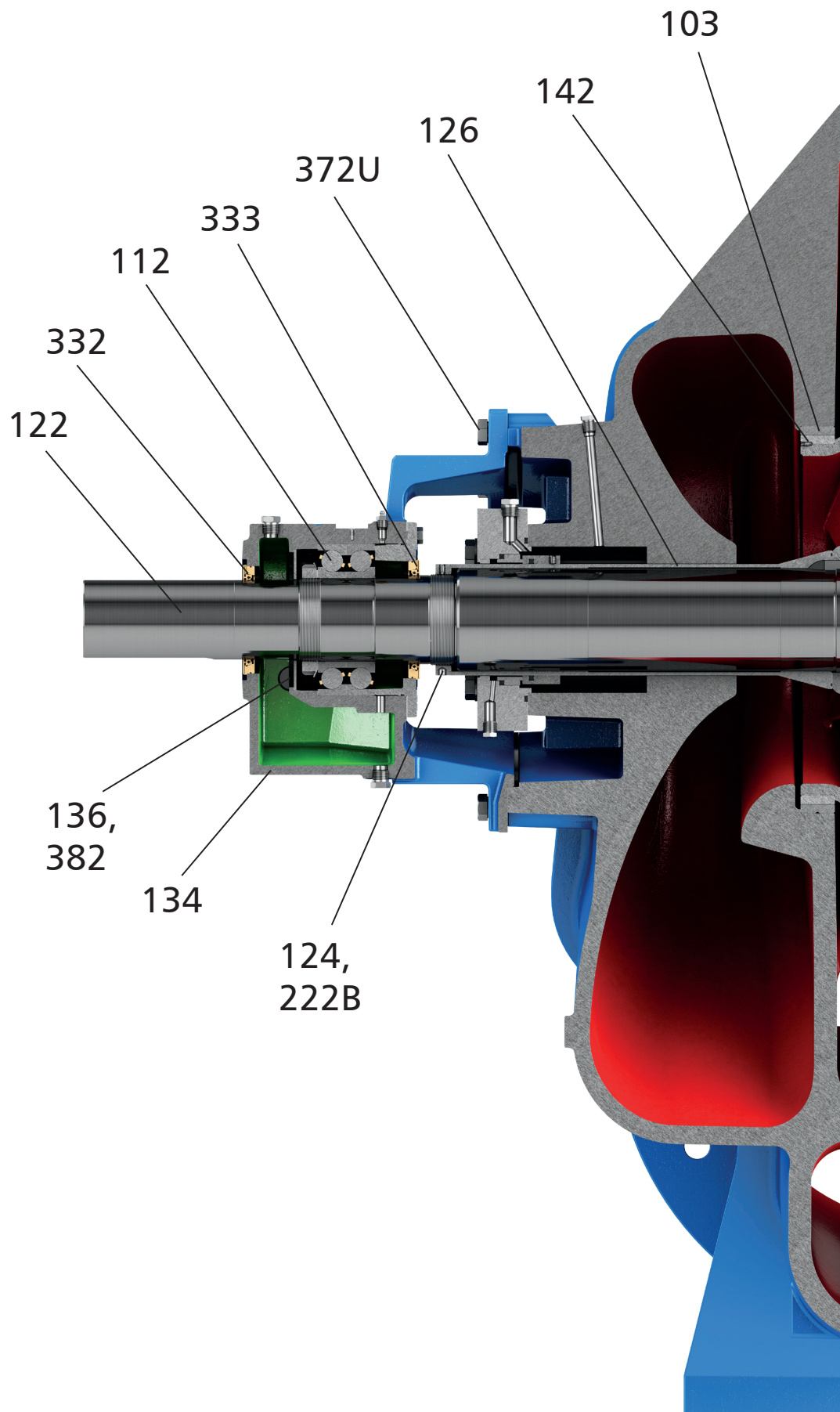
Parts List and Materials of Construction

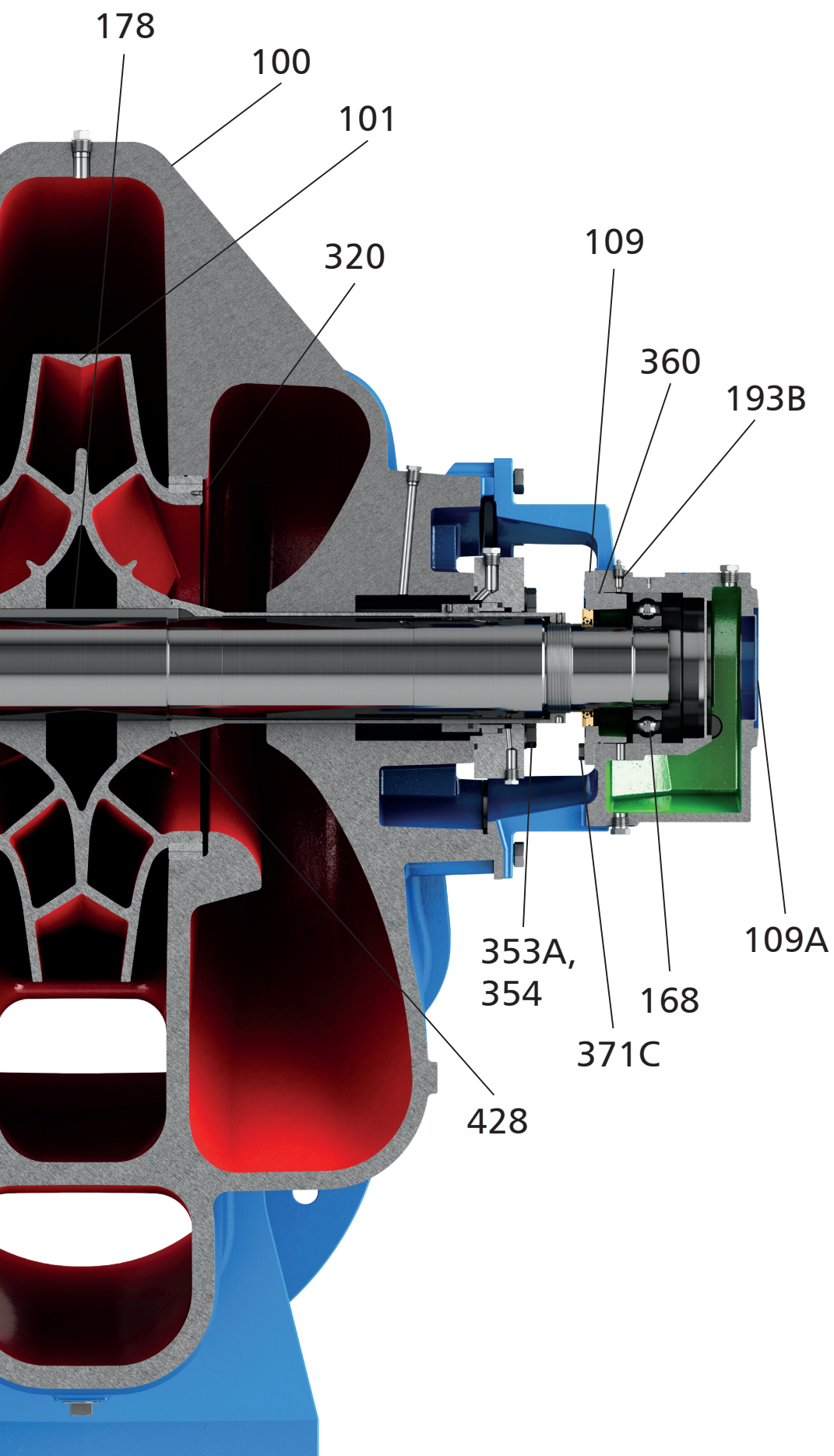
Item No.	Part Name	Materials Description
100	Casing	Ductile Iron
101	Impeller	316SS
103	Wear Ring, Casing	Nitronic 60
105	Lantern Ring (not illustrated)	Glass Filled PTFE
106	Packing, Stuffing Box (not illustrated)	Graphited, non-asbestos
107	Gland, Half (Packing) (not illustrated)	316SS
109	Cover, End - Brg Housing	Cast Iron
109A	Soft Plug, Non-Drive End Hsg.	Steel
112	Bearing, Ball (Thrust)	Steel
113	Fitting, Grease Relief	Steel
113E	Window, Sight (not illustrated)	Steel
113G	Bushing, Hex (not illustrated)	Steel
122	Shaft	420SS
124	Nut, Sleeve	Nitronic 60
126	Sleeve, Shaft (Mechanical Seal)	316SS
	Sleeve, Coated Shaft (Packing)	Hard-faced 316SS
134	Housing, Bearing	Cast Iron
136	Locknut, Thrust Bearing	Steel
142	Wear Ring, Impeller	316SS
168	Bearing, Ball (Radial)	Steel
178	Key, Impeller	316SS
210	Plug, Quench/Drain (not illustrated)	316SS
222B	Screw, Set - Locking Ring	Stainless Steel
222N	Screw, Set - Oil Ring Sleeve (not illustrated)	Stainless Steel
248	Sleeve - Oil Ring (not illustrated)	Steel
251	Oiler, Constant Level w/ Viewport (not illustrated)	Steel
320	Screw, Set - Impeller Ring	Stainless Steel
323	Oil Ring (not illustrated)	Bronze
332	Labyrinth Seal Outboard	Bronze/Viton
333	Labyrinth Seal Inboard	Bronze/Viton
351D	Gasket, Parting - Discharge (not illustrated)	Fiber gasket with nitrile binder
351S	Gasket, Parting - Suction (not illustrated)	Fiber gasket with nitrile binder
353A	Screw, HHC - Gland	Stainless Steel
354	Washer, Plain - Gland	Stainless Steel
360	O-Ring, Housing to Cover	Buna-N
361	Snap Ring, Bearing (not illustrated, S Group only)	Steel
371C	Screw, HHC - End Cover	Steel
372U	Screw, HHC - Hsg to Casing	Steel
382	Lockwasher, Thrust Bearing	Steel
390C	Shim, Thrust End Cover	Paper Shim
400	Key, Coupling (not illustrated)	Steel
418	Screw, HHC (Case Jacking) (not illustrated)	Steel
426	Screw, HHC Parting (not illustrated)	Steel
428	O-Ring, Sleeve to Impeller	Buna-N
443T	Spacer, Bearing - Radial (not illustrated, S Group only)	Steel
445A	Pin, Anti-Rotation (not illustrated)	Stainless Steel

Baseplate:

Robust fabricated steel baseplates ensure maximum rigidity. Engineered with drip rim and tight tolerances for reliable long term operation. Standard features include lifting lugs with both traverse and longitudinal adjusters for easy installation.

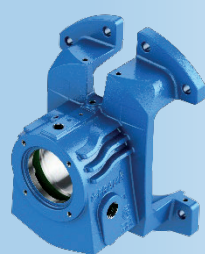
Sectional View





3430 Interchangeability

S Group

		Casing	Impeller w/ Rings	Shafts, Locking Nuts & Sleeves	Bearing Housing*	
SA	8X12-21					
SA	14X16-21					
SA	10X14-24					
SB	16X18-24					
SB	8X12-27					
SB	18X20-27					
SC	16X18-18					
SD	18X20-21					

M Group

MA	12X16-27				
MB	12X18-30				
MB	20X24-30				
MC	20X24-24				

*S Group; SA - Radial Bearing, Labyrinth Seals and Bearing Spacer are not the same as SB-SD.

*M Group; MC Inboard Labyrinth Seals are not the same as MA-MB.

**L
Group**

		Casing	Impeller w/ Rings	Shafts, Locking Nuts & Sleeves	Bearing Housing
LA	24X24-34				
LB	24X28-27				
LB	28X28-39				
LC	24x28-30				
LE	28x32-34				
--	32x36-39				
--	32x32-45				

3430 Single Stage Double Suction Pumps

Standard Design Features for Wide Range of Heavy Duty Industrial, Municipal & Process Services

RENEWABLE WEAR RINGS

Standard wear rings for both the casing and impeller permit easy maintenance and proper running clearances. Casing wear rings are locked in lower half with anti-rotation pins to prevent rotation and are standard in Nitronic 60. Impeller wear rings are held into position with axial set screws.

DOUBLE SUCTION IMPELLER

Standard 316SS impeller provides excellent corrosion resistance, high efficiency, and minimal axial thrust.

DOUBLE ROW THRUST BEARING

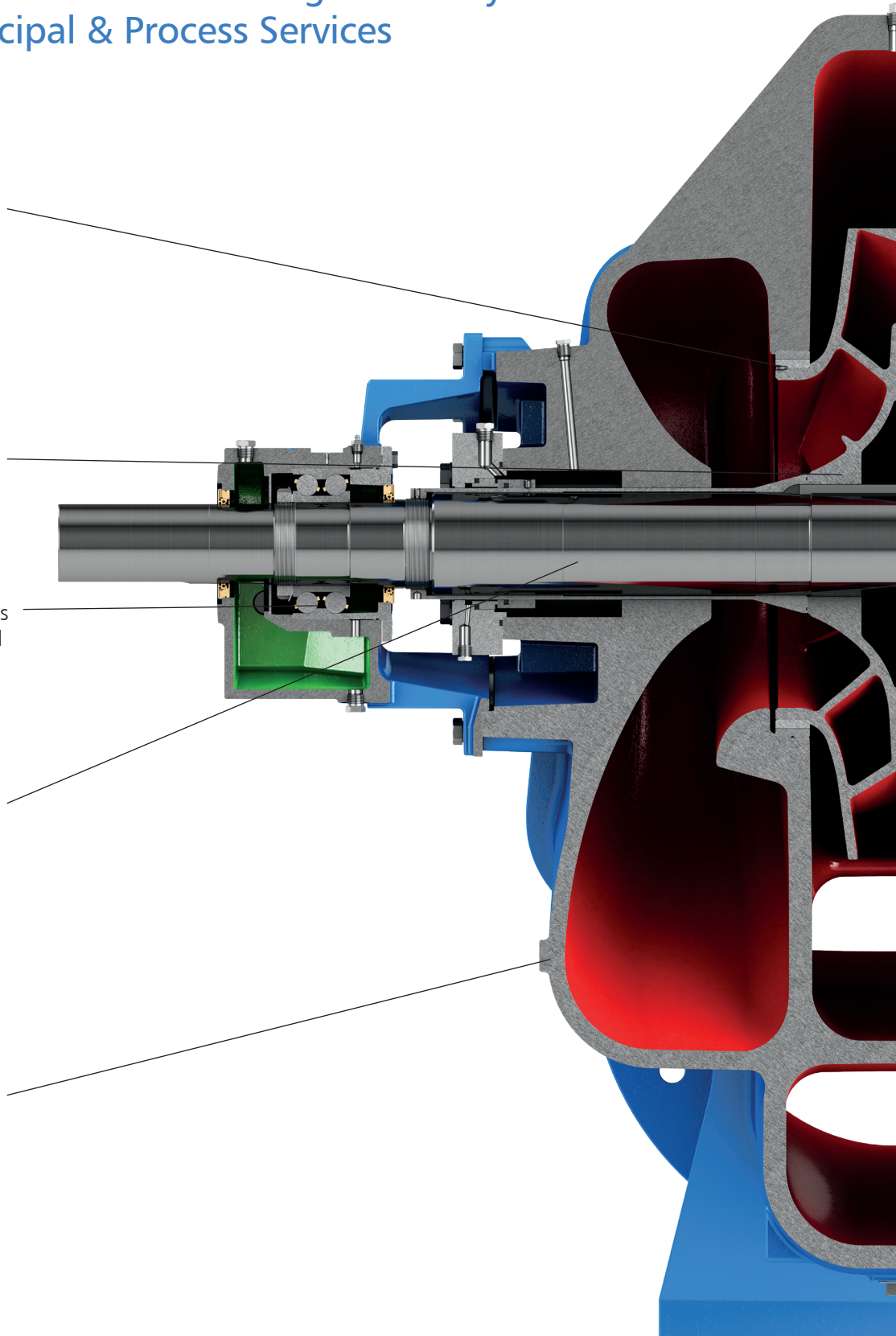
Designed to handle higher radial loads to reduce wear and extend the overall lifespan.

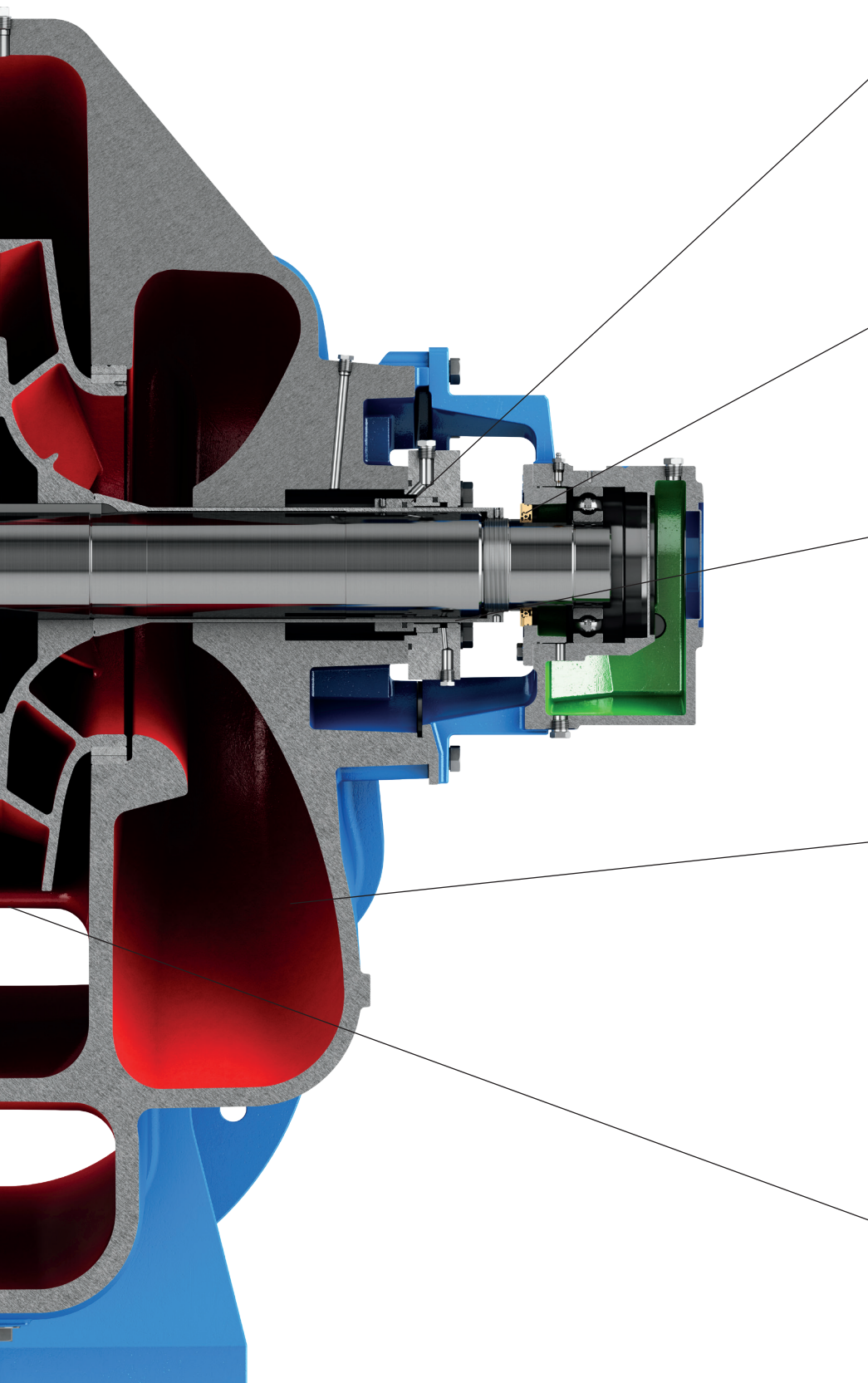
HEAVY DUTY DRY SHAFT

Designed at the smallest possible span for minimum deflection at maximum load, with replaceable shaft sleeves sealed against the impeller.

HEAVY DUTY CASING

Rugged standard ductile iron design to resist external forces and vibration. Casing wall designed to withstand high working pressures with minimum distortion. Casing flanges are available in ASME 150# or 300# raised face and DIN1092-2 PN16 or PN40 (PN25 where PN40 is unavailable) available as options.





SEALING

Large openings for access to the seal, allowing for easy maintenance and inspection. Mechanical seals are standard, with a wide variety of options for maximum sealing including cartridge and split seals. Packing is an additional option.

LABYRINTH BEARING PROTECTION

Labyrinth isolators are standard on all sizes. Ideal for eliminating contaminants and providing long life with no shaft wear or heat generation.

SHAFT SLEEVES

Replaceable sleeves held in position by locking sleeve nuts located outside the stuffing box area. Key driven at the impeller end.

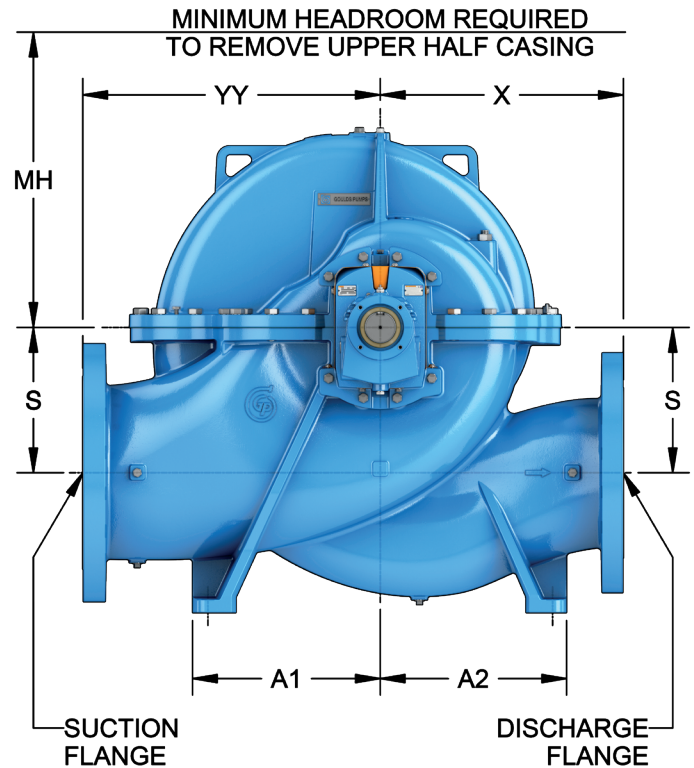
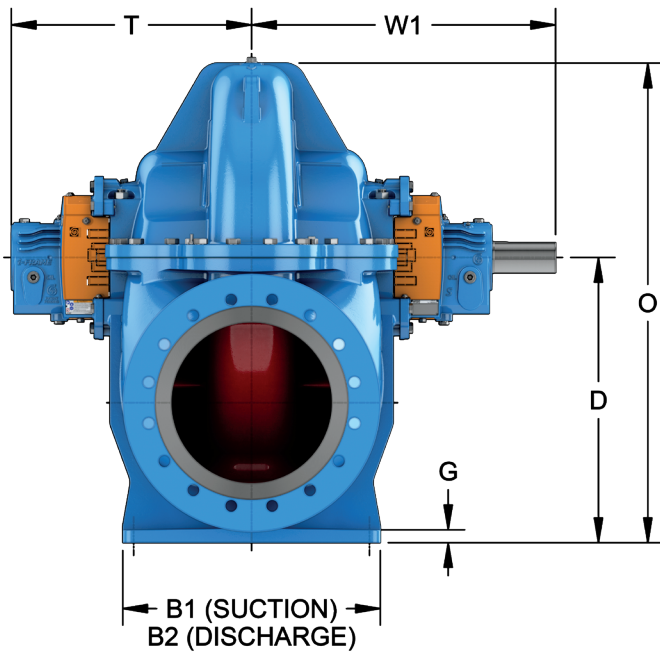
LARGE INLET AREAS

Reduce NPSH requirement and assure smooth flow to impeller eye for efficient and quiet operation.

BALANCED DESIGN

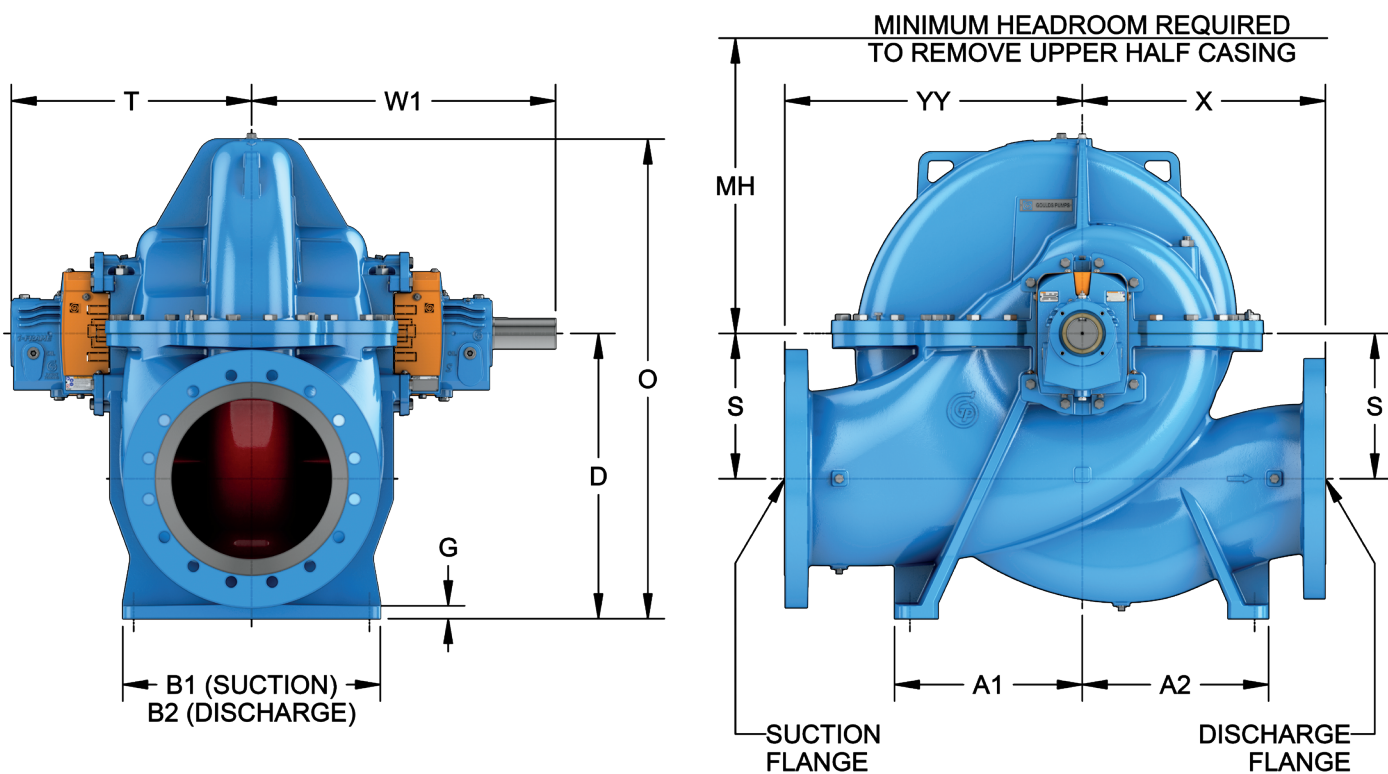
Dual volute casing design equalizes radial forces and lessens radial reaction of shaft and bearings ensuring smooth, vibration-free performance. Ideal when pumps must periodically operate at capacities above or below design capacity or during intermittent high head conditions. Combined with the double suction impeller for axial balance, the 3430 is designed for long life and low maintenance.

Dimensions



Dimensions Determined by Pump															
Frame	Size	W1	T	D	O	X	YY	S	MH	A1	A2	B1	B2	G	Weight
SA	8x12-21	788.0 (31.02)	612.2 (24.10)	575.0 (22.64)	945.0 (37.21)	500.0 (19.69)	610.0 (24.02)	300.0 (11.81)	690.0 (27.17)	450.0 (11.72)	385.0 (15.18)	550.0 (21.65)	400.0 (15.75)	30.0 (1.18)	1095 (2412)
	10x14-24			655.0 (25.79)	1065.0 (41.93)	565.0 (22.24)	685.0 (26.97)	340.0 (13.39)	765.0 (30.12)		450.0 (11.72)				1277 (2813)
	14x16-21			700.0 (27.56)	1155.0 (45.47)	590.0 (23.23)	690.0 (27.17)	350.0 (13.78)	775.0 (30.51)						1401 (3087)
SB	8x12-27	838.0 (32.99)	662.2 (26.07)	700.0 (27.56)	1115.0 (43.90)	816.0 (32.13)	860.0 (33.86)	425.0 (16.73)	810.0 (31.89)	480.0 (18.89)	480.0 (18.89)	570.0 (22.44)	420.0 (16.53)	50.0 (1.97)	1658 (3653)
	16x18-24			785.0 (30.91)	1320.0 (51.97)	670.0 (26.38)	820.0 (32.28)	400.0 (15.75)	890.0 (35.04)	505.0 (19.88)	505.0 (19.88)	710.0 (27.95)	485.0 (19.09)	35.0 (1.38)	2099 (4625)
	18x20-27			865.0 (34.06)	1448.0 (57.01)	790.0 (31.10)	885.0 (34.84)	450.0 (17.72)	980.0 (38.58)	595.0 (23.43)	595.0 (23.43)	775.0 (30.51)	540.0 (21.26)		2464 (5430)
SC	16x18-18	888.0 (34.96)	712.2 (28.04)	765.0 (30.12)	1243.0 (48.94)	610.0 (24.02)	760.0 (29.92)	385.1 (15.16)	760.0 (29.92)	455.0 (17.91)	455.0 (17.91)	710.0 (27.95)	480.0 (18.90)	50.0 (1.97)	1825 (4022)
SD	18x20-21	918.0 (36.14)	742.2 (29.22)	855.0 (33.66)	1400.0 (55.12)	690.0 (27.17)	875.0 (34.35)	440.0 (17.32)	865.0 (34.06)	515.0 (20.28)	515.0 (20.28)	775.0 (30.51)	550.0 (21.65)		2400 (5289)
MA	12x16-27	995.0 (39.17)	794.3 (31.27)	745.0 (29.33)	1230.0 (48.43)	640.0 (25.20)	810.0 (31.89)	390.0 (15.35)	880.0 (34.65)	480 (18.90)	480 (18.90)	660.0 (25.98)	420.0 (16.54)	50.0 (1.97)	2313 (5100)
MB	12x18-30	1055.0 (41.54)	855.3 (33.67)	825.0 (32.48)	1370.0 (53.94)	725.0 (28.54)	900.0 (35.43)	445.0 (17.52)	980.0 (38.58)	555 (21.85)	555 (21.85)	710.0 (27.95)			2474 (5454)
	20x24-30			1000.0 (39.37)	1665.0 (65.55)	863.5 (34.00)	1014.0 (39.92)	517.7 (20.38)	1100.0 (43.31)	650 (25.59)	650 (25.59)	915.0 (36.02)	600.0 (23.62)		4083 (9002)
MC	20x24-24	1110.0 (43.70)	908.9 (35.78)	1620.0 (63.78)	790.0 (31.10)	970.0 (38.19)	500.0 (19.69)	975.0 (38.39)							

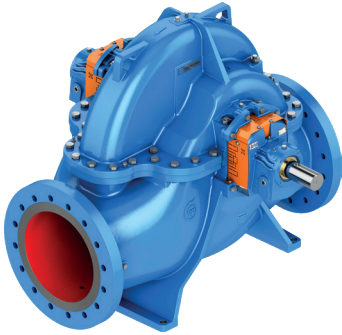
Unit convention: mm, kg (in, lb)



Dimensions Determined by Pump															
Frame	Size	W1	T	D	O	X	YY	S	MH	A1	A2	B1	B2	G	Weight
LA	24x24-34	1251.0 (49.25)	977.0 (38.46)	1115.0 (43.90)	1860.0 (73.23)	1000.0 (39.37)	1230.0 (48.43)	590.0 (23.23)	1230.0 (48.43)	750.0 (29.53)	750.0 (29.53)	915.0 (36.02)	735.0 (28.94)	65.0 (2.56)	5532.6 (12197)
LB	24x28-27	1317.0 (51.85)	1043.0 (41.06)	1100.0 (43.31)	1812.0 (71.34)	930.0 (36.61)	1100.0 (43.31)	570.0 (22.44)	1105.0 (43.50)	700.0 (27.56)	700.0 (27.56)	930.0 (36.61)	780.0 (30.71)		5381.2 (11864)
	28x28-39			1300.0 (51.18)	2163.0 (85.16)	1260.0 (49.61)	1440.0 (56.69)	670.0 (26.38)	1410.0 (55.51)	985.0 (38.78)	985.0 (38.78)	1035.0 (40.75)	830.0 (32.68)		8122.8 (17908)
LC	24x28-30	1390.0 (54.72)	1116.0 (43.94)	1220.0 (48.03)	2020.0 (79.53)	1025.0 (40.35)	1275.0 (25.59)	650.0 (25.59)	1235.0 (48.62)	770.0 (30.31)	770.0 (30.31)	930.0 (36.61)	740.0 (29.13)		7067.1 (15580)
LE	28x32-34	1498.0 (58.98)	1224.0 (48.19)	1400.0 (55.12)	2310.0 (90.94)	1170.0 (46.06)	1680.0 (66.14)	725.0 (28.54)	1395.0 (54.92)	880.0 (34.65)	880.0 (34.65)	1060.0 (41.73)	910.0 (35.83)	80.0 (3.15)	9885.7 (21794)
XL	32x36-39	1564.0 (61.57)	1295.0 (50.98)	1550.0 (61.02)	2590.0 (101.97)	1375.0 (54.13)	1900.0 (74.80)	845.0 (33.27)	1590.0 (62.60)	1150.0 (45.28)	1150.0 (45.28)	1300.0 (51.18)	1065.0 (41.93)		13172.3 (29040)
	32x32-45	1355.0 (53.35)	1079.0 (42.48)	1450.0 (57.09)	2435.0 (95.87)	1450.0 (57.09)	1550.0 (61.02)	760.0 (29.92)	1610.0 (63.39)	1090.0 (42.91)	1090.0 (42.91)	1150.0 (45.28)	915.0 (36.02)		10756.6 (23714)

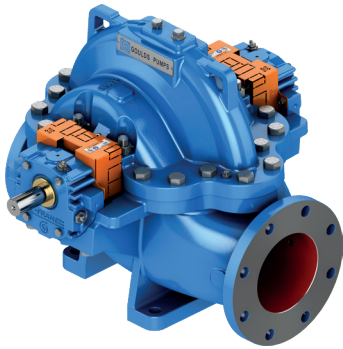
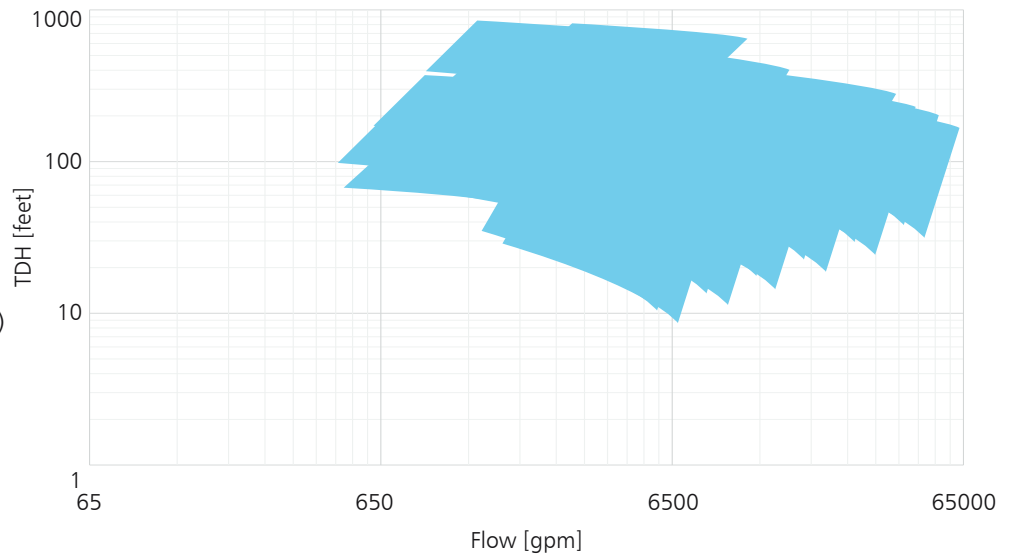
Unit convention: mm, kg (in, lb)

Complete Double Suction Range



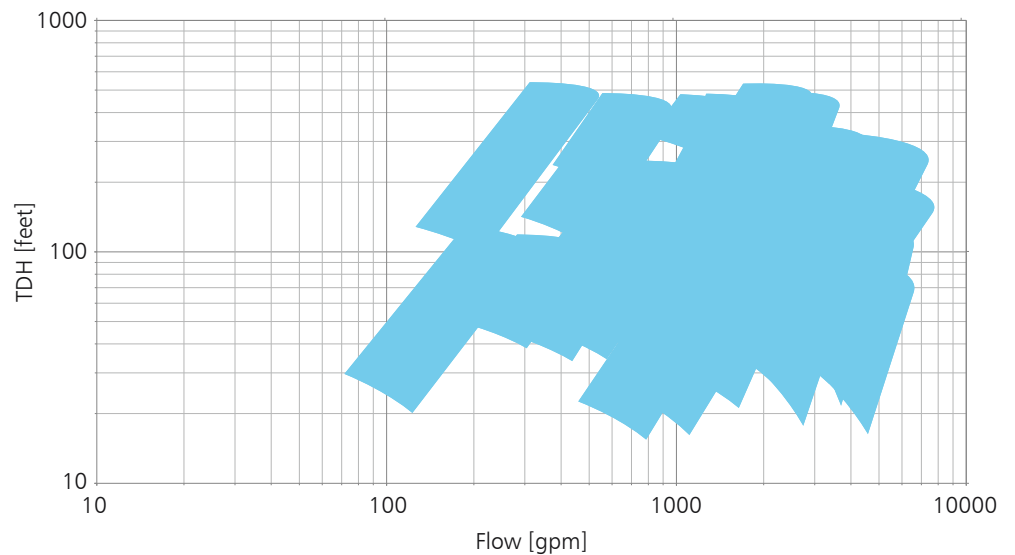
Model 3430

- Capacities to 65,000 GPM (14,763 m³/h)
- Heads to 745 Ft. TDH (227 m)
- Temperatures to 350° F (177° C)
- Working Press. to 520 PSI (3585 kPa)

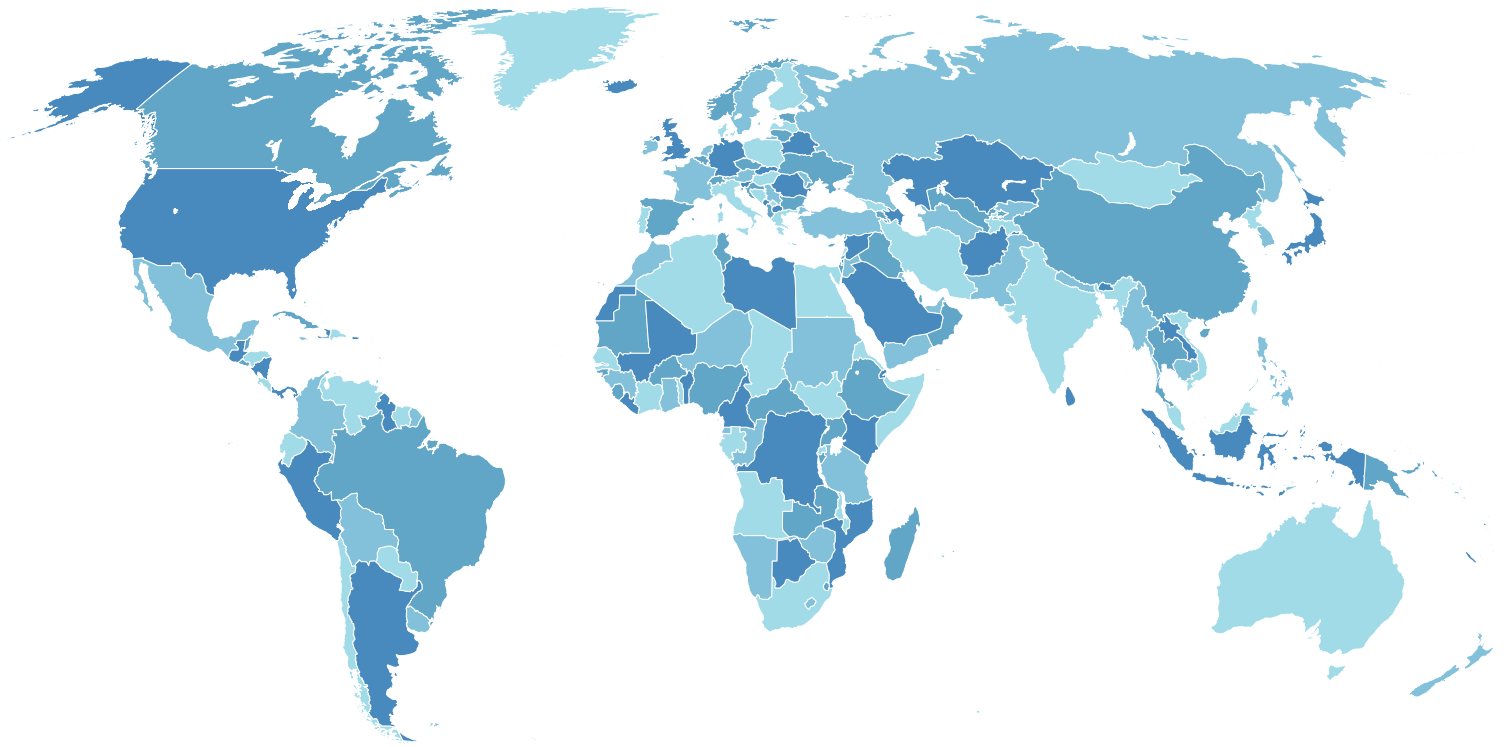


Model 3410

- Capacities to 8,000 GPM (1817 m³/h)
- Heads to 570 Ft. TDH (174 m)
- Temperatures to 350° F (177° C)
- Working Press. to 250 PSI (1724 kPa)



Notes



Visit www.ittproservices.com & www.gouldspumps.com to
find nearest service, sales, and manufacturing locations



— An ITT Brand

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Seneca Falls, NY 13148

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www.gouldspumps.com

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