



Series 1531 Pumps

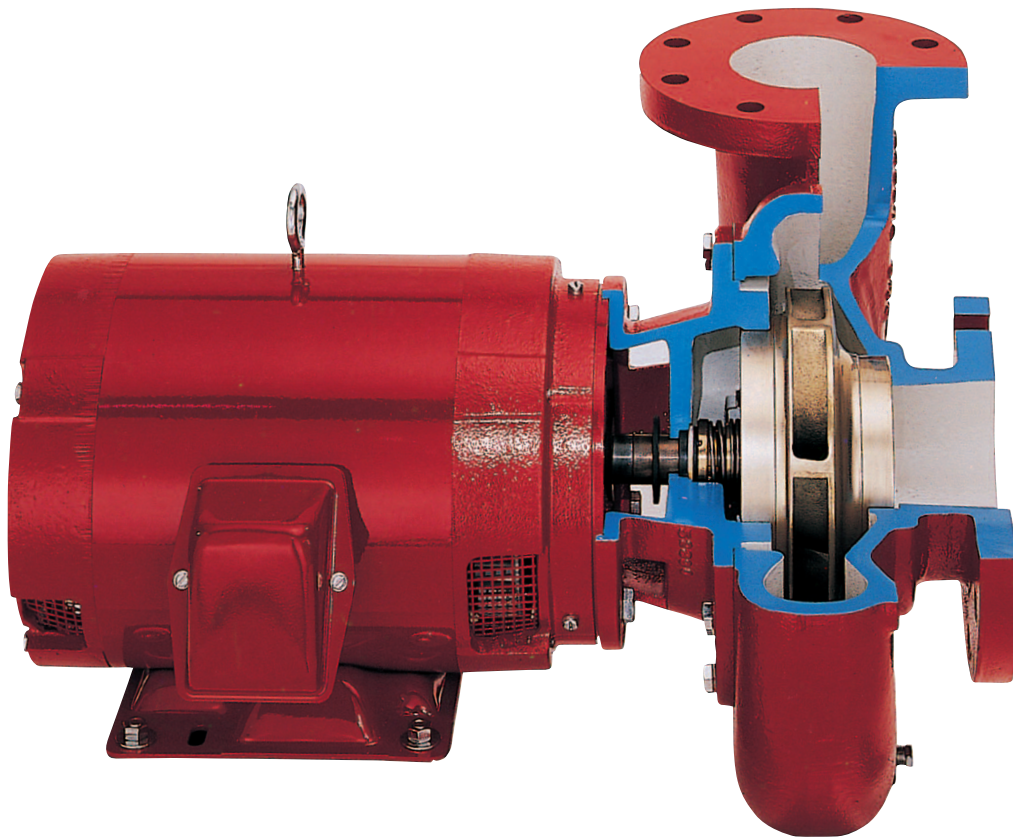
THE INDUSTRY STANDARD IN END SUCTION PUMP DESIGN

B-305G



Bell & Gossett
a xylem brand

Series 1531 Close - Coupled Pumps



Standard Design Features

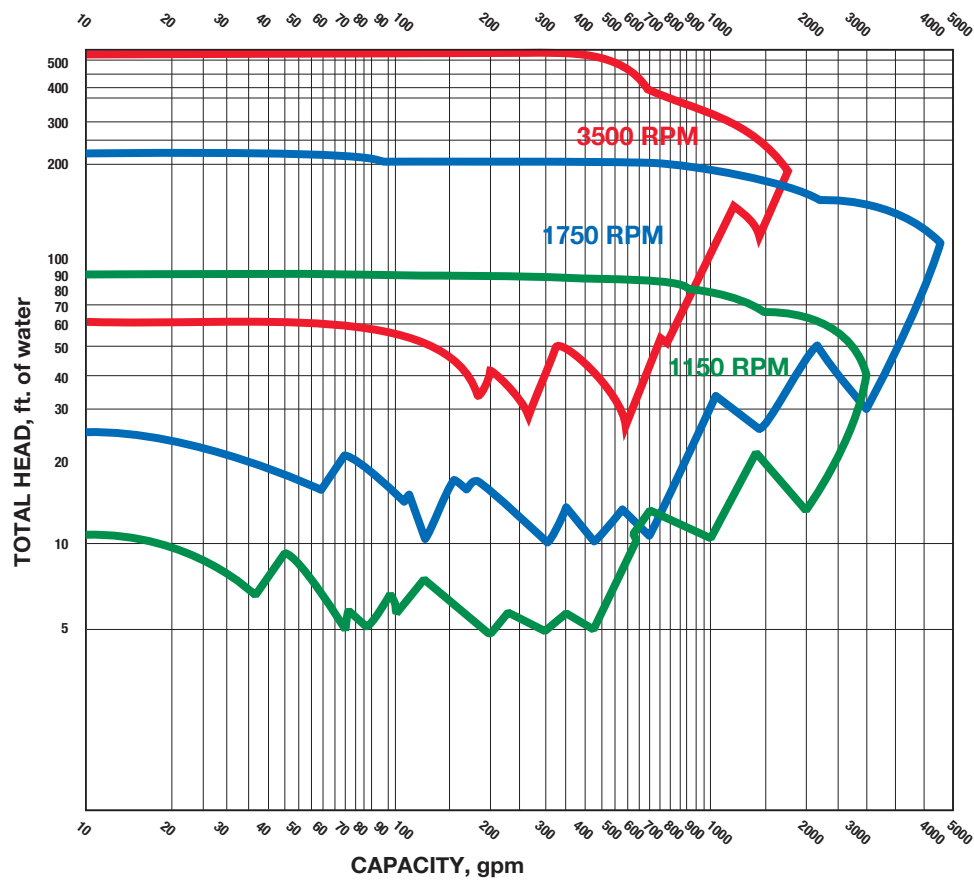
1. **Self-flushing mechanical seals** ensure maximum seal face lubrication, heat dissipation and debris removal without vulnerable, external flush tubing. As much as 25 percent of the total pump flow continuously flushes the seal faces.
2. **Back pull-out** design allows one service tech ease of maintenance.
3. **Aluminum bronze shaft sleeve** construction is standard. Special sealing between the sleeve and shaft prevents corrosion of the shaft by the pumped fluid.
4. **Enclosed, balanced impeller** for quiet, vibration free performance. Impellers are precision fitted to the shaft and positively locked with a shaft key.
5. **Heavy duty cast iron volute** construction for 175 PSI working pressure.
6. **Jacking bolts** provide ease of volute disassembly.
7. **Gauge tappings** on the suction and discharge flanges along with volute vent and drain tappings are standard.
8. **Hydrostatic testing** of each pump is standard.

Optional Equipment

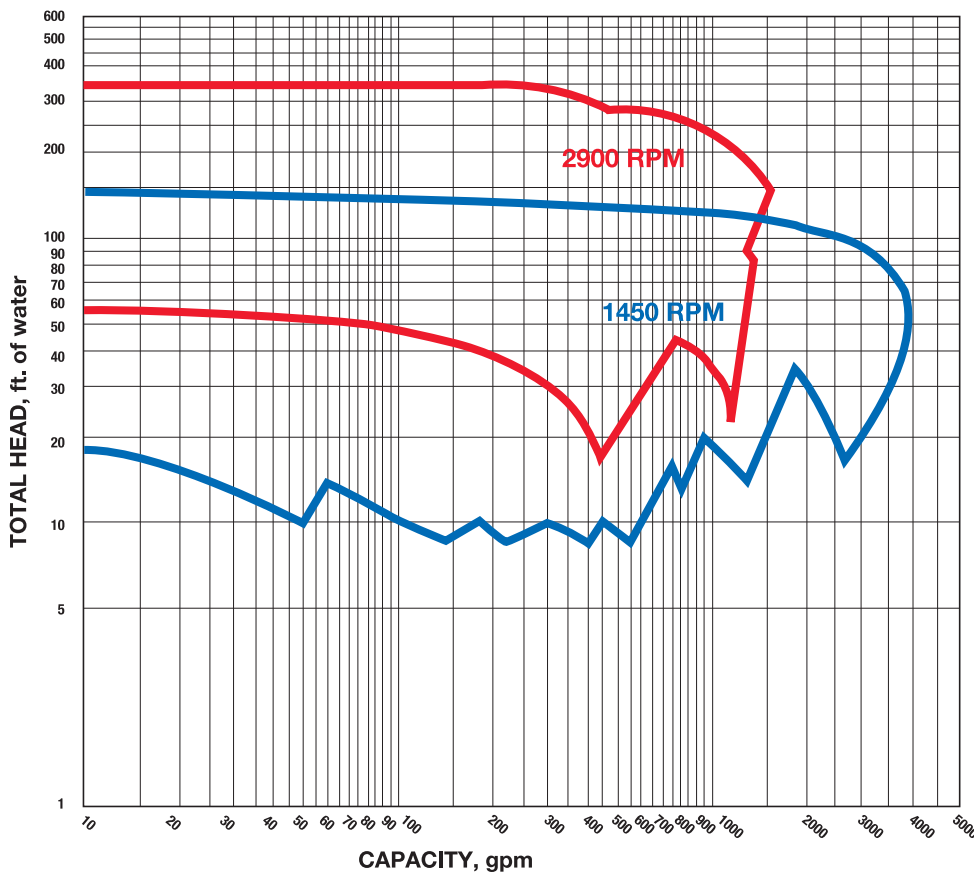
- All iron construction
- Vertical mounting
- Footed volute
- Bronze casing wear ring
- Mechanical seal construction

Series 1531 Selection Charts

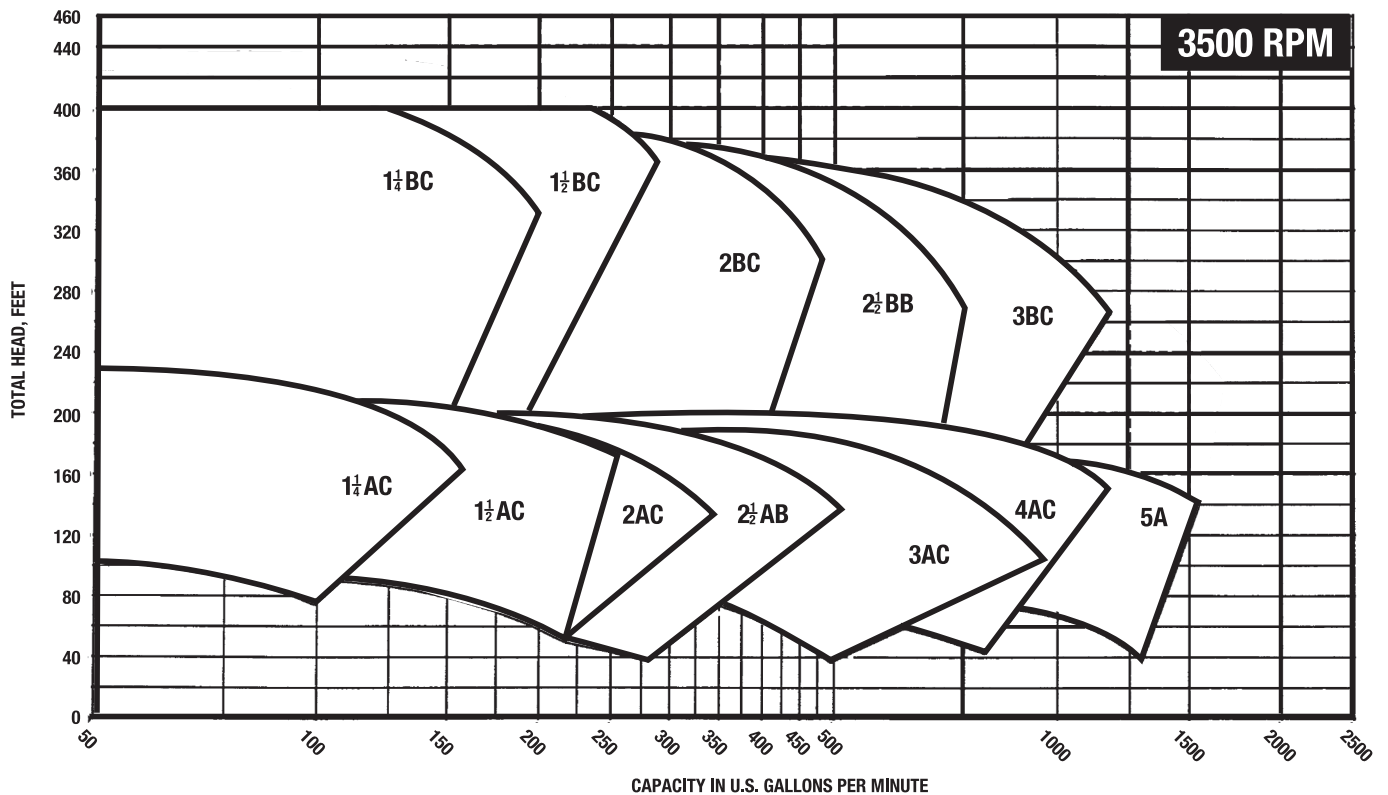
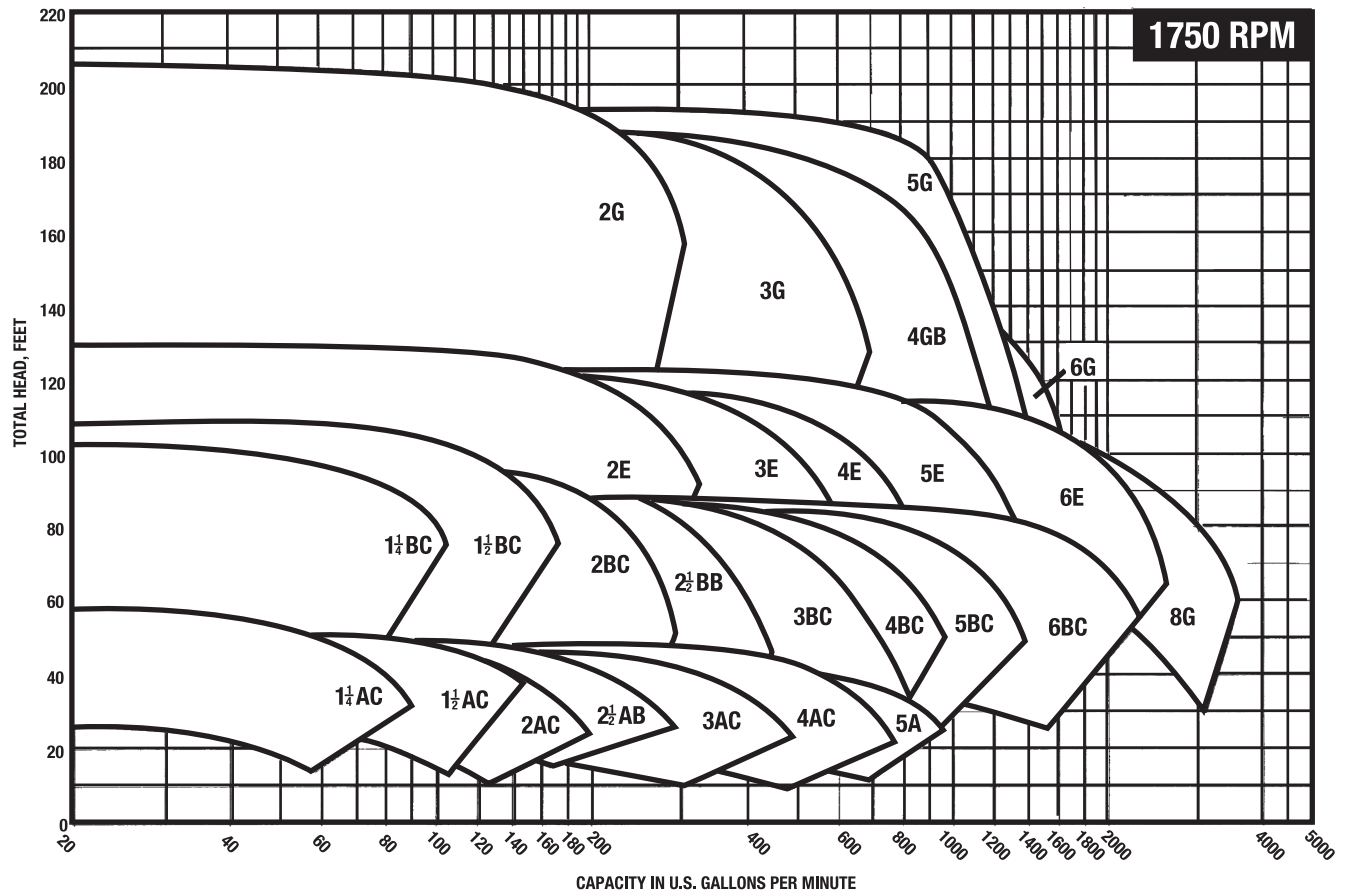
60 Hz



50 Hz



Series 1531 Performance Curves



Series 1531 Dimensions

Standard working pressure 175 PSI (12 BAR). Flanges drilled and faced per 125# ANSI Standards*.

SIZE OF PUMP AND DISCHARGE	SUCTION	PUMP DIMENSIONS FIGURE 1 - INCHES (MM)					
		DD	X	Z	AB (MAX) ¹	A (MAX) ¹	CP (MAX) ¹
1 1/4 AC (NPT)	1 1/2 NPT	4 3/4 (121)	5 (127)	4 1/2 (114)	10 3/4 (273)	10 1/2 (267)	25 1/2 (648)
1 1/2 AC (NPT)	2 NPT	5 (127)	6 (152)	4 5/8 (117)	10 3/4 (273)	12 1/2 (318)	32 1/4 (819)
2 AC	2 1/2	5 1/2 (140)	6 1/2 (165)	4 3/4 (121)	10 3/4 (273)	12 1/2 (318)	34 1/2 (876)
2 1/2 AB	3	5 13/16 (148)	6 (152)	4 11/16 (119)	10 3/4 (273)	12 1/2 (318)	35 1/4 (895)
3 AC	4	6 1/4 (159)	6 (152)	5 (127)	12 5/8 (321)	14 (356)	36 1/8 (918)
4 AC	5	6 7/8 (175)	7 1/2 (191)	5 3/4 (146)	15 1/8 (384)	16 (406)	40 5/8 (1032)
5 A	6	7 7/8 (200)	8 1/2 (216)	6 1/4 (159)	15 1/8 (384)	16 (406)	42 (1067)
1 1/4 BC (NPT)	1 1/2 NPT	6 1/8 (156)	8 (203)	5 1/2 (140)	12 5/8 (321)	14 (356)	35 1/8 (892)
1 1/2 BC (NPT)	2 NPT	6 1/4 (159)	6 1/2 (165)	5 3/4 (146)	15 1/8 (384)	16 (406)	36 3/8 (924)
2 BC	2 1/2	6 1/8 (156)	7 (178)	5 7/8 (149)	15 1/8 (384)	16 (406)	39 (991)
2 1/2 BB	3	7 1/4 (184)	6 3/4 (171)	6 (152)	15 1/8 (384)	16 (406)	39 1/8 (994)
3 BC	4	7 (178)	7 1/2 (191)	6 1/8 (156)	15 1/8 (384)	16 (406)	40 (1016)
4 BC	5	8 5/8 (219)	8 (203)	7 (178)	10 3/4 (273)	12 1/2 (318)	36 3/8 (924)
5 BC	6	9 1/2 (241)	10 (254)	7 1/2 (191)	12 5/8 (321)	14 (356)	37 1/8 (943)
6 BC	8	10 3/8 (264)	10 1/2 (267)	8 1/4 (210)	15 1/8 (384)	16 (406)	43 1/2 (1105)
2 E	3	7 5/8 (194)	8 (203)	6 1/2 (165)	10 3/4 (273)	12 1/2 (318)	39 1/4 (997)
3 E	4	8 1/2 (216)	9 1/2 (241)	7 3/8 (187)	10 3/4 (273)	12 1/2 (318)	35 1/2 (902)
4 E	5	9 1/4 (235)	9 3/4 (248)	7 1/4 (184)	12 5/8 (321)	14 (356)	35 (889)
5 E	6	9 5/8 (244)	10 1/2 (267)	7 15/16 (202)	15 1/8 (384)	16 (406)	38 (965)
6 E	8	10 7/8 (276)	11 (279)	8 15/32 (215)	15 1/8 (384)	16 (406)	40 5/8 (1032)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

¹Varies with motor manufacturer.

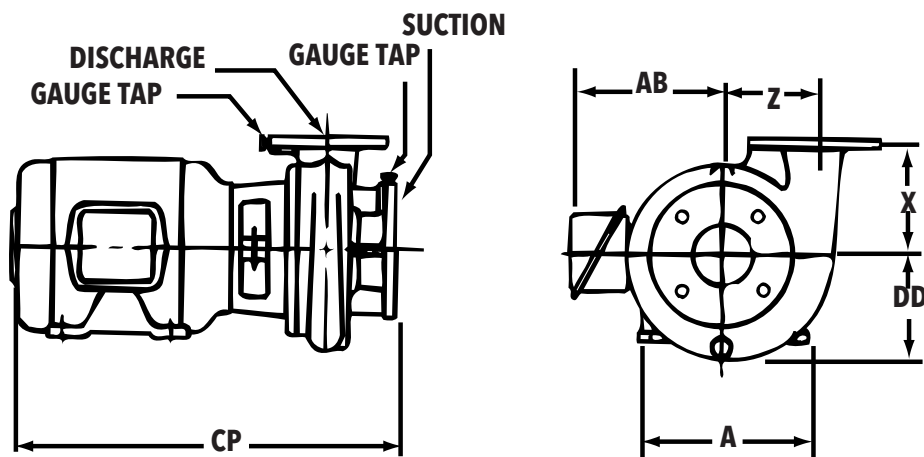


FIGURE 1

Series 1531 Dimensions

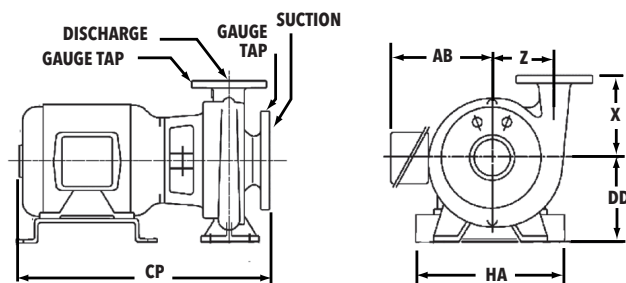


FIGURE 2

SIZE OF PUMP AND DISCHARGE	SUCTION	PUMP DIMENSIONS FIGURE 2 - INCHES (MM)					
		DD	X	Z	AB (MAX) ¹	HA (MAX) ¹	CP (MAX) ¹
2G	3	10 (254)	9 (229)	7 ¹ / ₄ (184)	11 ¹ / ₂ (292)	14 (356)	31 ⁷ / ₈ (810)
3G	4	10 (254)	9 ¹ / ₂ (241)	8 (203)	14 ⁵ / ₈ (371)	15 ³ / ₄ (400)	34 ¹ / ₁₆ (865)
4GB	5	11 (279)	10 (254)	8 ⁹ / ₁₆ (217)	14 ⁵ / ₈ (371)	15 ³ / ₄ (400)	36 ¹ / ₁₆ (916)
5G	6	12 (305)	13 (330)	9 (229)	14 ⁵ / ₈ (371)	22 ¹ / ₂ (571)	36 ⁵ / ₁₆ (922)
6G	8	12 (305)	14 (357)	9 ⁵ / ₁₆ (236)	14 ⁵ / ₈ (371)	22 ¹ / ₂ (571)	37 ¹ / ₁₆ (941)
8G**	10*	14 ³ / ₈ (365)	17 ⁵ / ₁₆ (440)	0	15 ⁷ / ₈ (403)	27 ¹ / ₂ (698)	40 ²⁷ / ₆₄ (1026)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

¹Varies with motor manufacturer.

*8G suction flange drilled and tapped per ANSI B16.1 standard.

**8G is Stuffing Box Configuration only.

Consult Publication B-360 "Performance Curves" for required horsepower.

Series 1531 Construction features and options

STANDARD

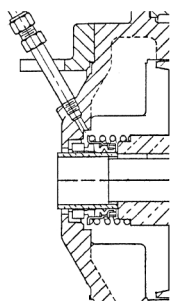
Cast Iron Volute
Alloy Steel Shaft
Bronze Shaft Sleeve
Internal Flushed Seal

Buna/Carbon-
Ceramic Seal

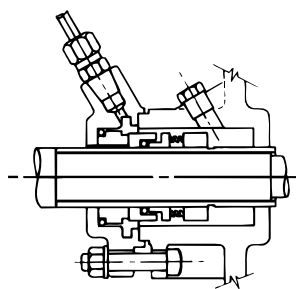
OPTIONAL

All Iron Construction
Bronze Casing Wear Ring
Stainless Steel Shaft Sleeve
Bypass Flush Line
Stuffing Box Configuration

(Standard Configuration only)
EPR/Tungsten Carbide-Carbon Seal
EPR/Silicone Carbide-Silicone Carbide Seal
Stuffing Box Configuration
EPR/Tungsten Carbide-Carbon Seal



**1531-F OPTION
BYPASS FLUSH LINE
INTERNALLY FLUSHED SEAL**



**1531-S OPTION
FLUSH SINGLE SEAL
STUFFING BOX CONSTRUCTION**

SEAL SELECTION GUIDE

STANDARD CONFIGURATION

Buna/Carbon-Ceramic - PH Limitations 7-9; Temperature Range -20 to +225°F

EPR/Tungsten Carbide-Carbon - PH Limitations 7-11; Temperature Range -20 to +250°F

EPR/Silicone Carbide-Silicone Carbide - PH Limitations 7-12.5; Temperature Range -20 to +250°F

Recommended for use on closed or open systems which are relatively free of dirt and/or other abrasive particles.

STUFFING BOX CONFIGURATION

Flushed Single Seal

EPR/Tungsten Carbide-Carbon - PH Limitations 7-11; Temperature Range -20 to +300°F†

Recommended for use on closed or open systems which may contain a high concentration of abrasives. An external flush is required.

Flushed Double Seal

EPR/Carbon-Ceramic - PH Limitations 7-9; Temperature Range 0 to +250°F

Recommended for use on closed or open systems which may contain a high concentration of abrasives. An external flush is required.

Packing

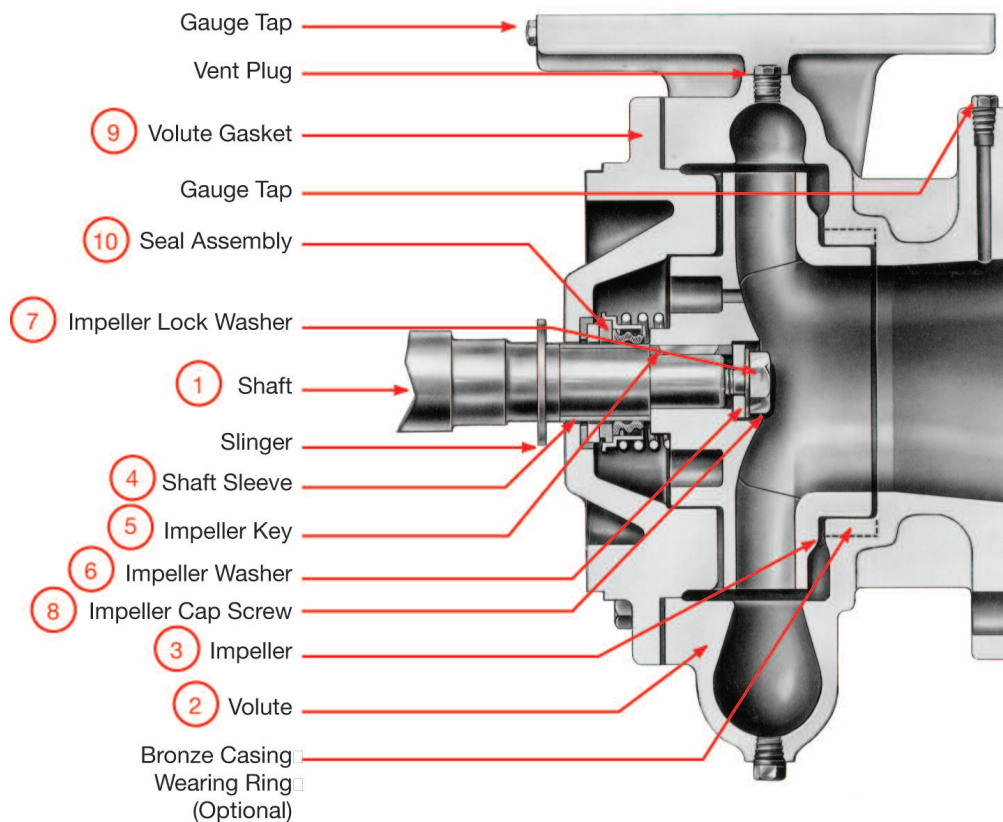
Braided Graphite PTFE-PH Limitations 7-9; Temperature Range 0 to +250°F

Recommended for use on closed or open systems which require a large amount of makeup water, as well as systems which are subjected to widely varying chemical conditions and solids buildup.

† For operating temperatures above 250°F a cooled flush is required and is recommended for temperatures above 225°F for optimum seal life. On closed systems cooling is accomplished by inserting a small heat exchanger in the flush line to cool the seal flushing fluid.

Flush-line Filters and Sediment Separators are available on special request.

Series 1531 Construction features and options



DESCRIPTION	BRONZE FITTED PUMP	ALL IRON PUMP*
1 Shaft 2 Volute 3 Impeller 4 Shaft Sleeve 5 Impeller Key 6 Impeller Washer 7 Impeller Lock Washer 8 Impeller Cap Screw 9 Volute Gasket 10 Seal Assemblies	Steel SAE 1144 Cast Iron ASTM #A159 Cast Bronze ASTM #B854 Aluminum Bronze ASTM #B111 #304 Stainless Steel 1531 - Brass #304 Stainless Steel #304 Stainless Steel Cellulose Fiber	Steel SAE 1144 Cast Iron ASTM #A159 Cast Iron ASTM #159 #304 Stainless Steel ASTM #A312 #304 Stainless Steel Stainless Steel #304 Stainless Steel #304 Stainless Steel Cellulose Fiber
Standard Seal Bellows Faces Metal Parts Spring	Buna N Carbon-Ceramic Brass Stainless Steel	Buna N Carbon-Ceramic Stainless Steel Stainless Steel
For Stuffing Box 10A Flushed Single O-Rings Faces Metal Parts Spring 10B Flushed Double O-Rings Faces Metal Parts Spring Packed Packing Gland Lantern Ring	EPR Carbon-Tungsten Carbide Stainless Steel Stainless Steel EPR Carbon-Ceramic Stainless Steel Stainless Steel Graphited Braided Yarn Bronze Filled TFE	EPR Carbon-Tungsten Carbide Stainless Steel Stainless Steel EPR Carbon-Ceramic Stainless Steel Stainless Steel Graphited Braided Yarn Cast Iron Filled TFE

*All Iron Construction NOT available in G sizes.



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