



Axially Split Case Pumps



A-C Pump



ITT Industries
Engineered for life

A-C SPL

Standard Design Features for a Wide Range of Heavy Duty

STUFFING BOX

Packing is *standard* on the A-C products. A wide variety of mechanical seals, including cartridge and split type, are also available to suit the application.

POSITIVE LIQUID SEALING

Shaft is positively sealed from pumpage between impeller and sleeves as well as between sleeves and sleeve nuts *standard* on all A-C splitcase pumps.

RENEWABLE IMPELLER WEAR RINGS

Positively locked on impeller hubs permit easy renewal of running clearance and protect impeller hubs from wear. *Standard* on 9800 series. Optional on 8100 and 9100 series.

LABYRINTH BEARING PROTECTION

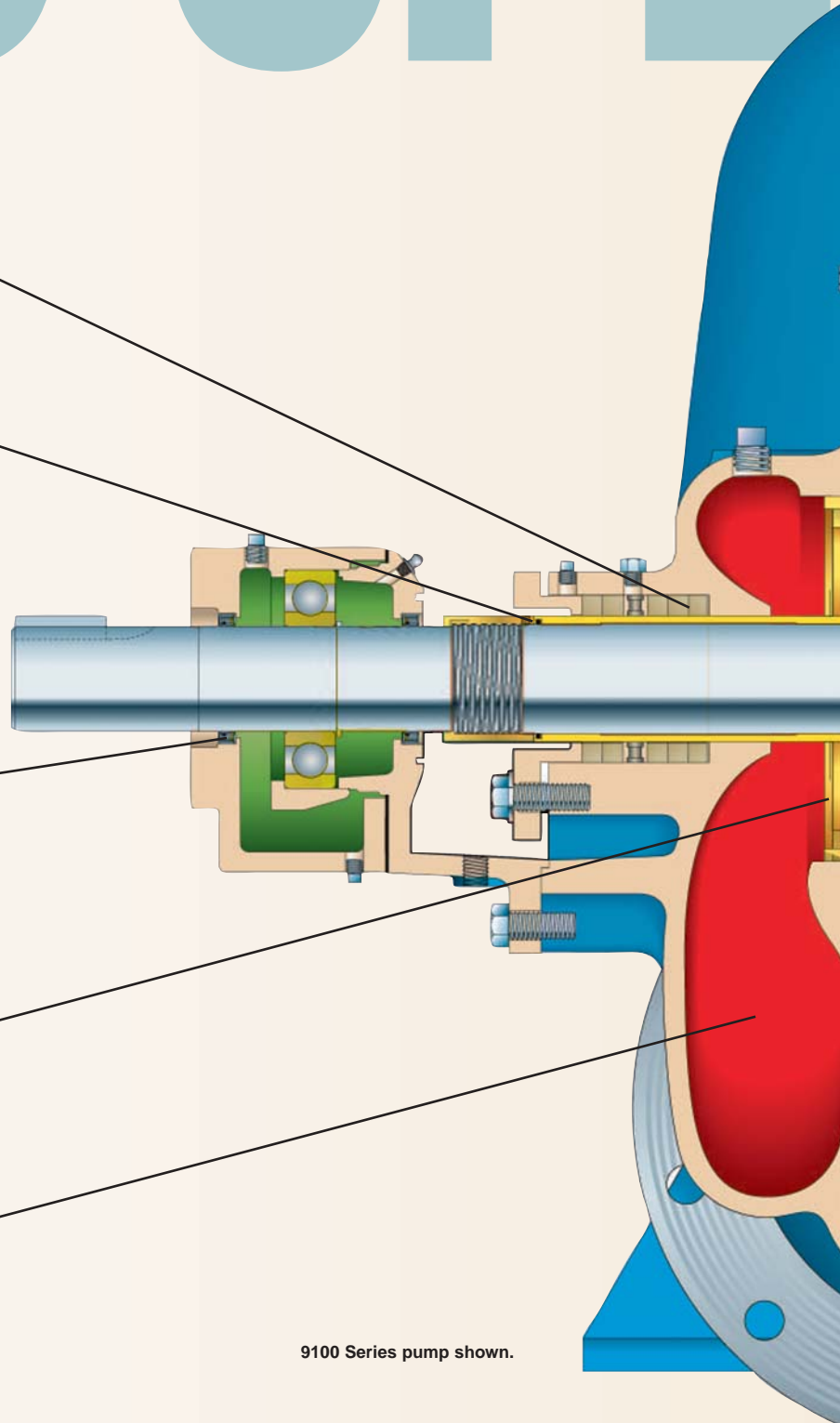
Standard on all A-C splitcase pumps (except 8100 series). Significantly reduces the chance for bearing contamination and greatly improves mean time between failure.

DOUBLE SUCTION IMPELLER

Minimizes axial thrust for longer bearing life. Polished waterways and fully machined exterior surfaces assure highly efficient performance. Dynamically balanced as standard for smooth operation.

LARGE INLET AREAS

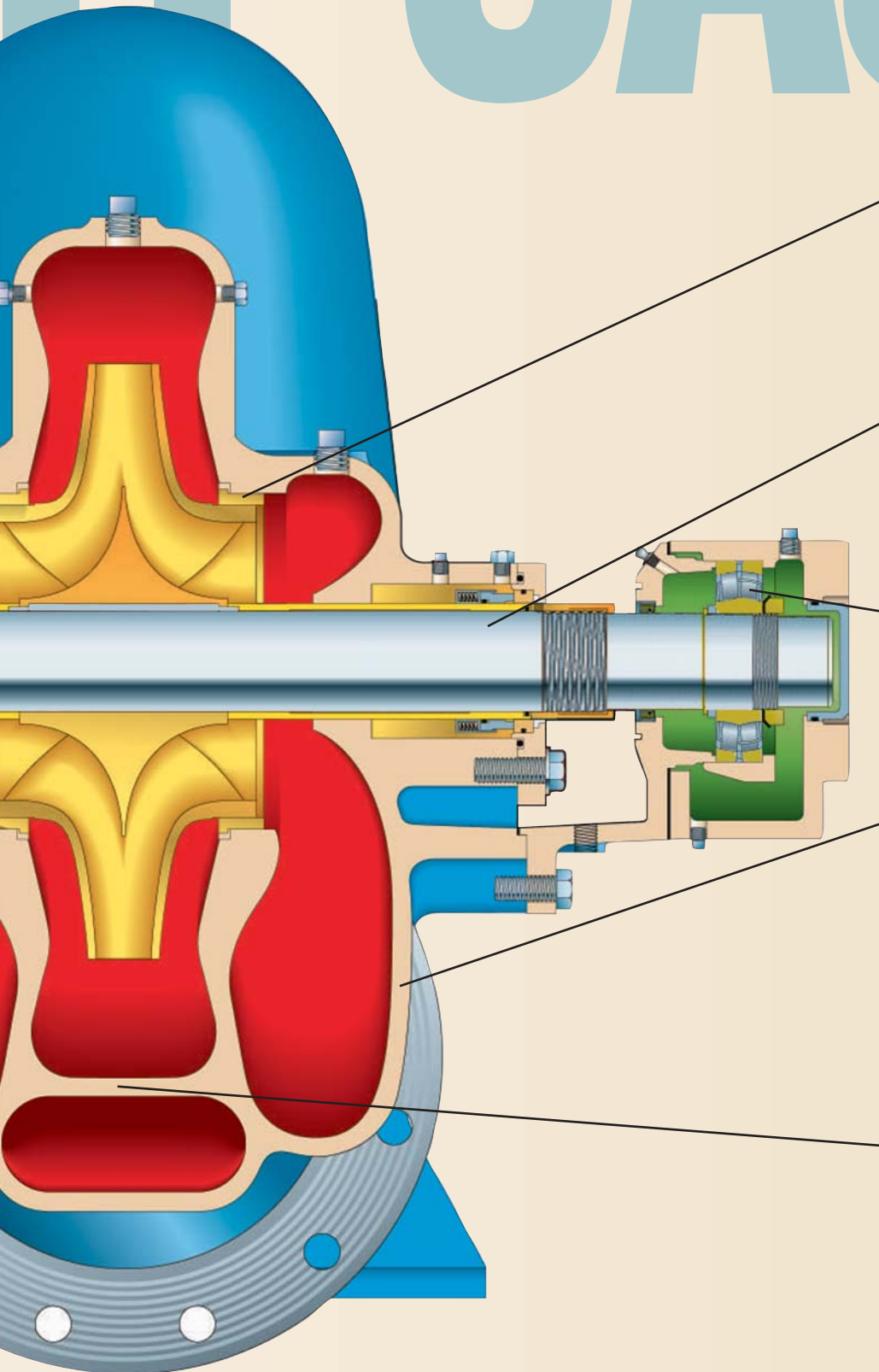
Reduce NPSH requirements and assure smooth, quiet flow to the impeller.



9100 Series pump shown.

Industrial, Municipal, and Process Services

A-C CASE



RENEWABLE CASING WEAR RINGS

Eliminate casing wear and permit easy maintenance of proper running clearances for maximum efficiency operation. Positively locked in place in the lower casing half to prevent rotation during pump operation.

HEAVY DUTY SHAFTS

Designed for minimum deflection in the toughest services means excellent shaft seal and bearing life. Renewable shaft sleeves are available in a variety of materials (including hardened metals) to protect shaft from pumpage.

DOUBLE ROW THRUST BEARING

Double row thrust bearing for high axial thrust capability is *standard* on all A-C splitcase pumps. Locked on shaft in bearing housing positively positions rotating element and easily carries any residual axial thrust.

HEAVY DUTY CASINGS

Rugged foot-mounted design to resist external forces and vibration. Casings designed to withstand high working pressures with minimum distortion and are 100% hydrostatically tested per Hydraulic Institute standards. Suction and discharge connections are in the lower half casing, allowing removal of upper half casing for inspection or removal of complete rotating element without disturbing piping or driver. (Bottom suction casings available on some 9800 sizes.)

BALANCED DESIGN

Dual volute casing design (not available on all sizes). Ideal when pumps must periodically operate at capacities above or below design capacity or at interrupted high head. Combined with double suction impeller for axial balance, the A-C splitcase pumps are designed for high reliability and low maintenance.

Designing and Manufacturing Dependable Centrifugal Pumps for Over 125 Years.



9800 Series pumping drinking water through a distribution network in the Western United States.



All 316 stainless steel 9100 series pumps on a solvent extraction application at a large copper mine.

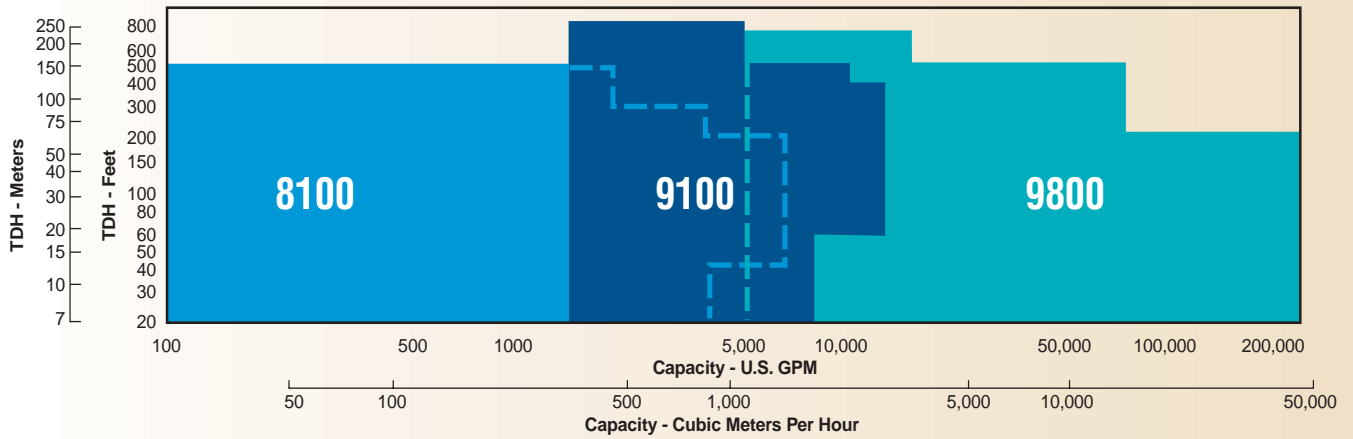


A-C split case pumps have many applications in the power generation market.



Split case pump in service at an electric utility plant in the Bahamas.

The Most Complete Line of Axially Split Case Pumps In The Industry



8100 Series



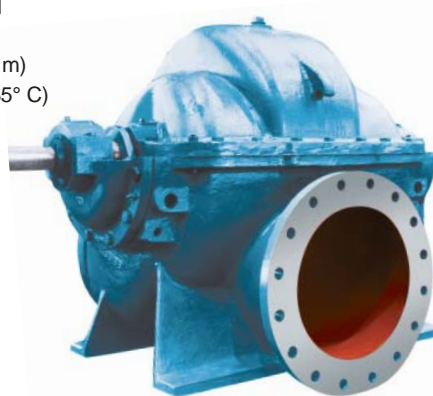
Capacities to 6,000 GPM (1363 m³/h)
 Heads to 570 Ft. TDH (174 m)
 Temperatures to 250° F (120° C)
 Working Press. to 400 PSI
 (2758 kPa)

9100 Series



Capacities to 12,000 GPM
 (2725 m³/h)
 Heads to 850 Ft. TDH (259 m)
 Temperatures to 250° F (120° C)
 Working Press. to 400 PSI
 (2758 kPa)

9800 Series

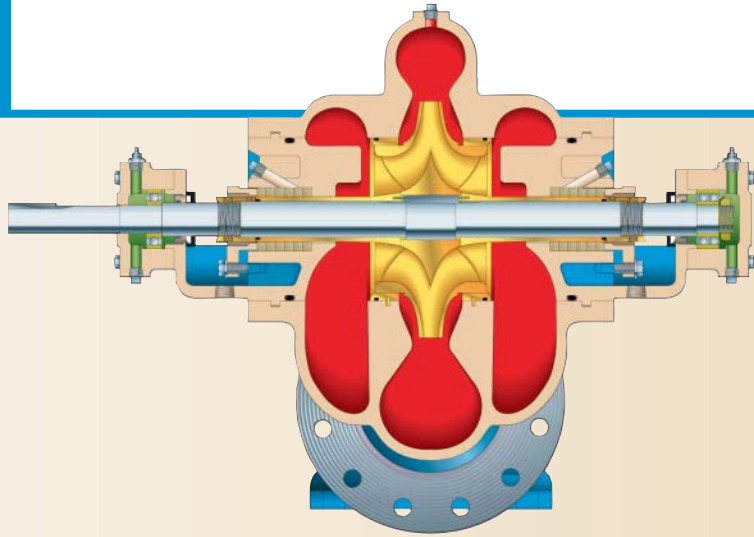


Capacities to 225,000 GPM
 (51,098 m³/h)
 Heads to 800 Ft. TDH (244 m)
 Temperatures to 275° F (135° C)
 Working Press. to 250 PSI
 (1724 kPa)

8100 Series

Features

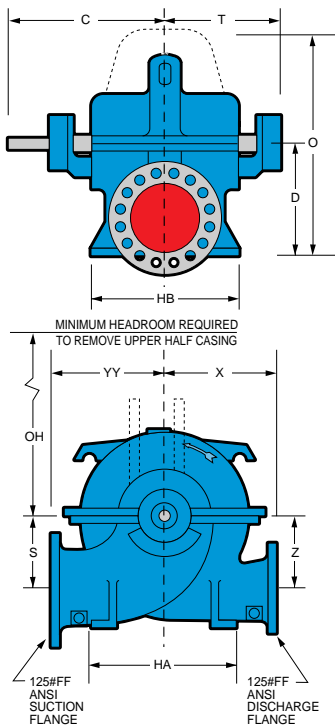
- Horizontal or vertical mounting
- Grease lubricated bearings protected by lip seals and deflectors
- Packing or standard component mechanical seals available



Materials of Construction

Part Description	Bronze Fitted	All Iron
Casing		Cast Iron
Impeller	Bronze	Cast Iron
Lantern Ring		Teflon
Packing		Graphite Impregnated Yarn
Packing Gland	Bronze	Cast Iron
Stuffing Box		Cast Iron
Shaft		Carbon Steel
Shaft Sleeve Nut	Bronze	Cast Iron
Shaft Sleeve	Bronze	Cast Iron
Casing Wear Ring	Bronze	Cast Iron
Bearing Housing		Cast Iron
Impeller Wear Ring (optional)	Bronze	Cast Iron
Bearings		Steel (Anti-Friction)

Dimensions



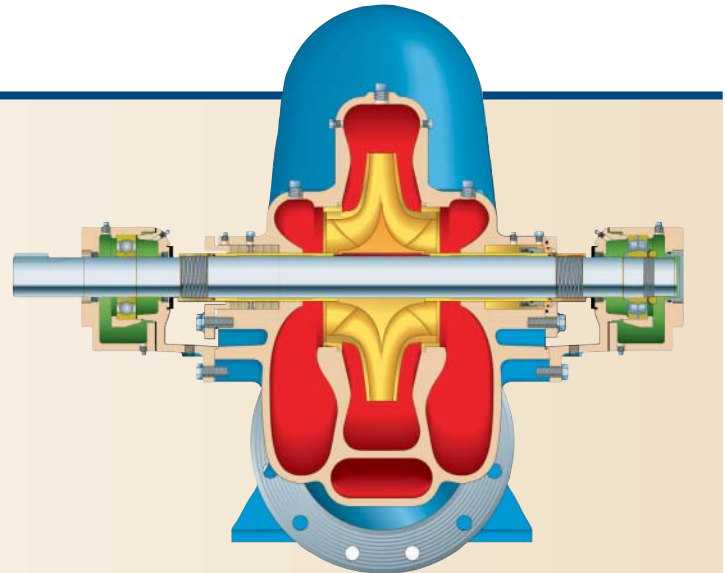
Frame Group	Pump Size	C	T	D	O	OH	S & Z	X	YY	HA	HB	Wt. Lbs (kg)
F20-A	3x2x11S/L	16.0 (406)	12.3 (311)	8.0 (203)	14.8 (376)	12.3 (312)	5.5 (140)	9.0 (229)	10.0 (254)	10.0 (254)	13.0 (330)	320 (145)
F20-C/G/H	4x6x9	17.3 (438)	12.8 (325)	11.0 (279)	18.7 (475)	12.6 (320)	7.0 (178)	11.5 (292)	12.0 (305)	13.5 (343)	15.0 (381)	445 (202)
	6x4x12S/M/L/XL	17.5 (445)	13.3 (337)	12.0 (305)	21.2 (538)	16.1 (409)	7.8 (197)	11.5 (292)	13.0 (330)	15.0 (381)	15.0 (381)	510 (231)
	6x4x14S/L	17.5 (445)	13.3 (337)	12.0 (305)	21.6 (549)	16.5 (420)	7.8 (197)	11.5 (292)	13.0 (330)	15.0 (381)	15.0 (381)	525 (238)
	6x6x9	17.3 (438)	12.8 (325)	11.0 (279)	19.2 (487)	13.1 (332)	7.0 (178)	11.5 (292)	13.0 (330)	13.5 (343)	15.0 (381)	480 (218)
	8x6x9	17.5 (445)	13.3 (337)	12.0 (305)	20.6 (524)	13.5 (343)	7.5 (191)	13.0 (330)	14.0 (356)	15.0 (381)	15.0 (381)	500 (227)
	8x6x12S/L/XL	17.5 (445)	13.3 (337)	14.0 (356)	23.6 (599)	16.3 (414)	9.0 (229)	14.0 (356)	14.0 (356)	15.0 (381)	15.0 (381)	640 (290)
F20-B/I	6x4x10S/M/L/XL	18.5 (470)	14.6 (371)	11.0 (279)	18.9 (480)	13.9 (353)	6.5 (165)	11.5 (292)	13.0 (330)	15.0 (381)	15.0 (381)	505 (229)
	6x4x11	18.5 (470)	14.6 (371)	11.0 (279)	19.6 (497)	14.4 (365)	7.4 (187)	11.5 (292)	13.0 (330)	15.0 (381)	15.0 (381)	540 (245)
	8x6x10	18.5 (470)	14.6 (371)	14.0 (356)	22.9 (581)	13.9 (353)	7.8 (197)	11.5 (292)	15.0 (381)	15.0 (381)	15.0 (381)	540 (245)
	8x6x12M	18.5 (470)	14.6 (371)	14.0 (356)	23.6 (599)	16.0 (406)	9.0 (229)	14.0 (356)	14.0 (356)	15.0 (381)	15.0 (381)	655 (297)
F20-D	8x6x13	21.3 (540)	15.6 (397)	12.8 (324)	22.2 (563)	16.0 (405)	8.0 (203)	13.0 (330)	15.5 (394)	16.3 (413)	18.5 (470)	675 (306)
	8x6x17M/L	21.3 (540)	15.6 (397)	14.0 (356)	25.8 (654)	20.3 (514)	9.0 (229)	14.0 (356)	16.0 (406)	16.3 (413)	18.5 (470)	755 (342)
	8x6x18	21.3 (540)	15.6 (397)	14.0 (356)	25.8 (654)	20.4 (517)	9.0 (229)	14.0 (356)	16.0 (406)	16.3 (413)	18.5 (470)	735 (333)
	8x8x12	21.3 (540)	15.6 (397)	12.8 (324)	24.5 (622)	18.2 (461)	8.0 (203)	14.0 (356)	16.5 (419)	16.3 (413)	18.5 (470)	725 (329)
F20-E/F	8x8x17	22.6 (573)	17.0 (432)	14.5 (368)	28.0 (711)	22.4 (568)	9.5 (241)	15.0 (381)	16.5 (419)	18.0 (457)	20.0 (508)	895 (406)
	10x8x12S/L	22.6 (573)	17.0 (432)	14.3 (362)	26.3 (667)	18.4 (467)	8.5 (216)	14.0 (356)	17.0 (432)	18.0 (457)	20.0 (508)	970 (440)
	10x8x17S/L	22.6 (573)	17.0 (432)	16.0 (406)	30.3 (770)	23.2 (588)	10.0 (254)	16.0 (406)	18.0 (457)	18.0 (457)	20.0 (508)	1030 (467)
	10x8x20S/L	22.6 (573)	17.0 (432)	20.0 (508)	42.3 (1073)	32.4 (822)	14.0 (356)	18.0 (457)	20.0 (508)	20.0 (508)	22.0 (559)	1410 (640)
	10x10x12	24.1 (611)	18.5 (470)	14.8 (375)	25.9 (659)	17.6 (447)	9.0 (229)	16.0 (406)	18.0 (457)	18.0 (457)	22.0 (559)	1040 (472)
	12x10x12M/XL	24.1 (611)	18.5 (470)	16.8 (425)	28.3 (718)	18.3 (464)	10.0 (254)	16.0 (406)	19.0 (483)	18.0 (457)	22.0 (559)	1040 (472)
	12x10x14	22.6 (573)	17.0 (432)	18.0 (457)	32.9 (837)	21.9 (557)	11.0 (279)	18.0 (457)	20.0 (508)	18.0 (457)	20.0 (508)	1150 (522)
	12x10x17	22.6 (573)	17.0 (432)	18.0 (457)	32.9 (837)	23.7 (602)	11.0 (279)	18.0 (457)	20.0 (508)	18.0 (457)	20.0 (508)	1160 (526)
	12x10x18	22.6 (573)	17.0 (432)	18.0 (457)	32.9 (837)	23.9 (608)	11.0 (279)	18.0 (457)	20.0 (508)	18.0 (457)	20.0 (508)	1095 (497)

All dimensions are in inches (mm) and are not to be used for construction or installation purposes. Standard rotation is right hand (CW). Optional rotation is left hand (CCW).

9100 Series

Features

- Horizontal and vertical mounting
- Grease or ring oil lubricated bearings
- INPRO VBX labyrinth bearing isolators standard
- High pressure casings available
- Dual volute casings standard on all sizes
- Packing or mechanical seals available, (including cartridge and split type seals)
- Alloy constructions not shown below are also available



Materials of Construction

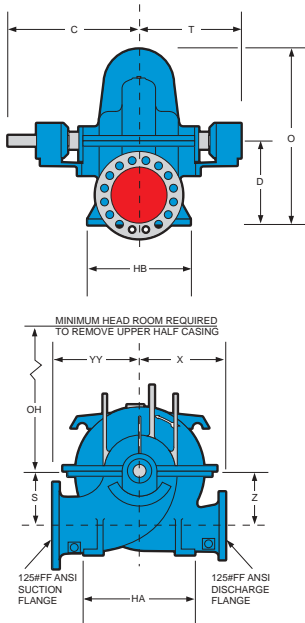
Part Description	Bronze Fitted	All Iron	316 SS Fitted	All 316 SS
Casing		Cast Iron ¹		316 SS
Impeller	Bronze	Cast Iron	316 SS	
Lantern Ring		Teflon		
Packing		Graphite Impregnated Yarn		
Packing Gland	Bronze	Cast Iron	316 SS	
Mechanical Seal Gland		Cast Iron		316 SS
Shaft		Carbon Steel ²		
Shaft Sleeve Nut	Bronze	Cast Iron		Nitronic 60
Shaft Sleeve ³	Bronze	Cast Iron	316 SS	
Casing Wear Ring ³	Bronze	Cast Iron		Nitronic 60
Bearing Housing		Cast Iron		
Impeller Wear Ring (optional) ³	Bronze	Cast Iron	316 SS	
Bearings		Steel (Anti-Friction)		

¹ Size 12x8x27 casing material is ductile iron as standard.

² Shaft material will be 17-4 PH for certain size & speed combinations.

³ Also available in hardened/hard metal coated materials.

Dimensions



Frame Group	Pump Size	C	T	D	O	OH	S & Z	X	YY	HA	HB	Weight Lbs. (kg)
F21-D	10x6x22				37.9 (962)	30.4 (772)		19 (483)	20			1545 (701)
	12x8x21	28.3 (718)	21.8 (552)	19 (483)		30.8 (782)	12 (305)			24 (610)	18 (457)	1905 (864)
	12x8x22M				38.9 (988)	30.4 (772)		21 (533)	21 (533)			1920 (871)
	12x8x22L					31.4 (798)						1930 (875)
F21-E	12x8x27				43.9 (1115)	36.4 (924)	14.2 (360)	23 (584)	24 (610)			2940 (1334)
	14x10x20S			21 (533)								2000 (907)
	14x10x20L	30.5 (775)	23.8 (603)		42.8 (1086)	31.7 (804)	13 (330)	19 (483)	21 (533)	24 (610)	24 (610)	2050 (930)
	16x12x23			23 (584)	48.9 (1242)	37.4 (949)		25 (635)	25 (635)			2600 (1179)
	16x14x17			23.5 (597)	46.3 (1181)	31.8 (806)	14 (356)	18 (457)	24 (610)			2860 (1297)
F21-F	18x14x23	31.6 (802)	24.8 (629)	24 (610)	47.6 (1210)	35.1 (892)	14 (356)	27 (686)	27 (686)	27 (711)	26 (660)	2940 (1334)
	18x14x28			26 (660)	56.8 (1441)	44.7 (1135)	16 (406)	28 (711)	28 (711)			3255 (1476)

Sizes 10x6x22, 12x8x21, 12x8x22M, 12x8x22L are furnished with 250# FF discharge flange as standard.

Size 12x8x27 is furnished with 250# FF suction and discharge flange as standard.

All dimensions in inches (mm) and are not to be used for construction or installation purposes.

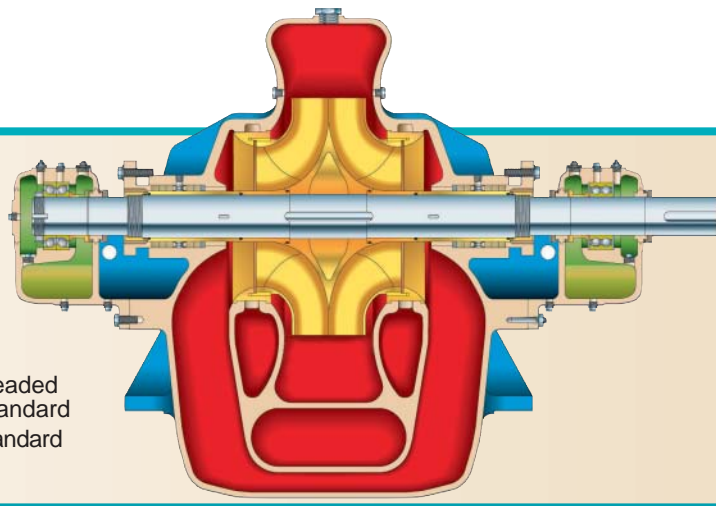
Standard rotation is right hand (CW). Optional rotation is left hand (CCW).

Steel casings will have 150#RF or 300#RF flanges.

9800 Series

Features

- Sleeve bearings available
- Grease or ring oil lubricated bearings
- Packing or mechanical seals available (including cartridge and split type seals)
- Dual volute casings standard on some sizes
- Bottom suction available on some sizes
- Vertical mounting available on some sizes
- Alloy constructions not shown below are also available
- Shaft sleeve nuts threaded against rotation as standard
- Impeller wear rings standard

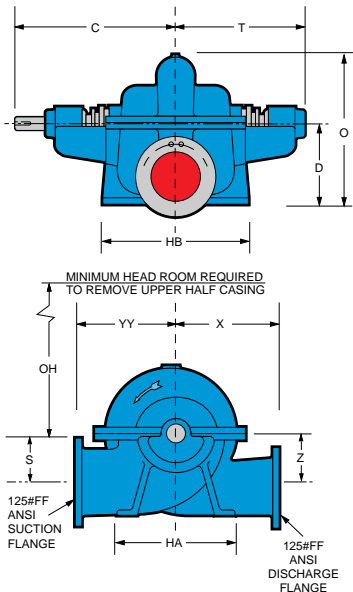


Materials of Construction

Part Description	Bronze Fitted	All Iron	316 SS Fitted	All 316 SS
Casing		Cast Iron		316 SS
Impeller	Bronze	Cast Iron	316 SS	
Lantern Ring		Teflon		
Packing		Graphite Impregnated Yarn		
Packing Gland	Bronze	Cast Iron	316 SS	
Mechanical Seal Gland		Cast Iron		316 SS
Shaft		Carbon Steel		
Shaft Sleeve Nut	Bronze	Cast Iron	316 SS	
Shaft Sleeve ¹	Bronze	Cast Iron	316 SS	
Casing Wear Ring ¹	Bronze	Cast Iron	316 SS	
Bearing Housings		Cast Iron		
Impeller Wear Ring ¹	Bronze	Cast Iron	316 SS	
Bearings		Steel (Anti-Friction)		

¹ Also available in hardened/hard metal coated materials.

Dimensions



Pump Size	C	T	D	O	OH	S	Z	X	YY	HA	HB	Weight Lbs. (kg)
16x12WSJD	39.0 (991)	49.0 (1245)	7.0 (178)	23.0 (584)	29.5 (749)	19.0 (483)	19.0 (483)	36.0 (914)	34.0 (864)	31.0 (787)	44.0 (1118)	5900 (2676)
18X12 WSID*	42.0 (1067)	35.0 (889)	29.0 (737)	54.0 (1372)	42.3 (1073)	22.5 (572)	24.0 (610)	30.0 (762)	38.0 (965)	51.0 (1295)	44.0 (1118)	6600 (2994)
18X16 WSE*	33.0 (838)	31.0 (787)	23.0 (584)	38.0 (965)	23.9 (606)	13.0 (330)	14.0 (356)	17.0 (432)	24.0 (610)	24.0 (610)	38.0 (965)	3000 (1361)
18X16 WSHD*	40.0 (1016)	36.0 (914)	29.0 (737)	52.0 (1321)	36.7 (931)	23.0 (584)	22.0 (559)	34.0 (864)	35.0 (889)	51.0 (1295)	42.0 (1067)	5000 (2268)
20X16WSFH	45.0 (1143)	35.5 (902)	28.0 (711)	49.0 (1245)	33.5 (851)	17.0 (432)	19.5 (495)	24.0 (610)	30.0 (762)	30.0 (762)	42.0 (1067)	4600 (2087)
20X18 WLS*	39.0 (991)	32.0 (813)	26.0 (660)	47.0 (1194)	33.3 (845)	18.0 (457)	19.0 (483)	21.0 (533)	32.0 (813)	35.0 (889)	51.0 (1295)	4380 (1987)
20X20 WSB	36.0 (914)	31.0 (787)	29.0 (737)	47.0 (1194)	26.5 (673)	18.0 (457)	18.0 (457)	18.0 (457)	29.0 (737)	31.0 (787)	40.0 (1016)	3480 (1579)
24X16 WSFD	40.0 (1016)	33.0 (838)	20.0 (508)	41.0 (1041)	33.5 (851)	20.0 (508)	20.0 (508)	22.0 (559)	34.0 (864)	36.0 (914)	42.0 (1067)	5700 (2585)
24X16 WSID*	49.0 (1245)	41.0 (1041)	32.0 (813)	59.5 (1511)	46.5 (1181)	26.0 (660)	26.0 (660)	48.0 (1219)	42.0 (1067)	53.0 (1346)	60.0 (1270)	11,000 (4990)
24X18 WSG*	45.0 (1143)	38.0 (965)	24.0 (610)	48.0 (1219)	40.5 (1029)	24.0 (610)	21.0 (533)	36.0 (914)	39.0 (991)	56.0 (1422)	50.0 (1270)	6980 (3166)
24X20 WSB	40.0 (1016)	38.0 (965)	34.0 (864)	55.0 (1397)	30.7 (780)	21.0 (533)	21.0 (533)	25.0 (635)	33.0 (838)	40.0 (1016)	46.0 (1168)	5500 (2495)
24X20 WSDD	34.0 (864)	28.0 (711)	20.0 (508)	40.0 (1016)	29.6 (752)	20.0 (508)	20.0 (508)	20.0 (508)	42.0 (1067)	38.0 (965)	48.0 (1219)	5100 (2313)
24X24 WSD*	40.0 (1016)	36.0 (914)	35.0 (889)	56.0 (1422)	33.8 (857)	21.0 (533)	21.0 (533)	26.0 (660)	35.0 (889)	40.0 (1016)	54.0 (1372)	6650 (3016)
30x20 WSFD	44.0 (1118)	36.0 (914)	23.0 (584)	48.0 (1219)	39.0 (991)	23.0 (584)	23.0 (584)	27.0 (686)	40.0 (1016)	42.0 (1067)	48.0 (1219)	6750 (3062)
30x20 WSG*	51.0 (1295)	40.0 (1016)	30.3 (768)	56.0 (1422)	43.0 (1092)	22.5 (572)	22.5 (572)	34.3 (870)	42.0 (1067)	44.0 (1118)	60.0 (1524)	12,200 (5534)
30X20 WSGL*	52.0 (1321)	41.0 (1041)	34.0 (864)	64.0 (1626)	49.5 (1257)	26.3 (667)	26.3 (667)	33.0 (838)	46.0 (1168)	44.0 (1118)	60.0 (1524)	13,500 (6123)
30x24 WLS*	51.0 (1295)	55.0 (1397)	31.0 (787)	59.0 (1499)	43.4 (1102)	19.0 (483)	22.0 (559)	30.0 (762)	45.0 (1143)	52.0 (1321)	56.0 (1422)	9500 (4309)
36X24 WSGD*	62.0 (1575)	49.0 (1245)	34.0 (864)	68.0 (1727)	54.0 (1372)	29.0 (737)	29.0 (737)	63.0 (1600)	50.0 (1270)	72.0 (1829)	65.0 (1651)	17,500 (7938)
36x24 WSHD-A*	58.0 (1473)	56.0 (1422)	40.0 (1016)	82.0 (2083)	66.0 (1676)	40.0 (1016)	39.0 (991)	46.0 (1168)	66.0 (1676)	92.0 (2337)	66.0 (1676)	26,200 (11,884)
36x30 WLS*	56.0 (1422)	49.0 (1245)	36.0 (914)	66.0 (1676)	47.5 (1207)	24.0 (610)	27.0 (686)	33.0 (838)	51.0 (1295)	57.0 (1448)	78.0 (1981)	13,000 (5897)
36x30 WLSH*	62.0 (1575)	50.0 (1270)	36.0 (914)	66.0 (1676)	47.5 (1207)	24.0 (610)	27.0 (686)	33.0 (838)	51.0 (1295)	57.0 (1448)	78.0 (1981)	15,000 (6804)
36x30 WSE	58.0 (1473)	49.0 (1245)	48.0 (1219)	79.0 (2007)	49.3 (1251)	27.0 (686)	30.0 (762)	38.0 (965)	50.0 (1270)	51.0 (1295)	72.0 (1829)	18,500 (8391)
42x30 WSF	72.0 (1829)	61.0 (1549)	48.0 (1219)	86.0 (2184)	60.5 (1537)	31.0 (787)	36.0 (914)	84.0 (2134)	54.0 (1372)	75.0 (1905)	96.0 (2438)	22,500 (10,206)
42x30 WSGD*	66.0 (1676)	63.0 (1600)	42.0 (1067)	81.0 (2057)	63.0 (1600)	38.0 (965)	38.0 (965)	50.0 (1270)	72.0 (1829)	90.0 (2286)	79.0 (2007)	24,400 (11,068)
42x30 WSID*	69.0 (1753)	67.0 (1702)	54.0 (1372)	106.0 (2692)	87.5 (2223)	51.0 (1295)	51.0 (1295)	78.0 (1981)	84.0 (2134)	126.0 (3200)	84.0 (2134)	34,200 (15,513)
42x36 WLS*	62.0 (1575)	51.0 (1295)	45.0 (1143)	81.0 (2057)	55.5 (1410)	29.0 (737)	30.0 (762)	39.0 (991)	57.0 (1448)	69.0 (1753)	92.0 (2337)	23,300 (10,569)
48x42 WLS*	69.0 (1753)	58.0 (1473)	54.0 (1372)	97.0 (2464)	67.4 (1711)	33.0 (838)	37.0 (940)	48.0 (1219)	69.0 (1753)	76.0 (1930)	102.0 (2591)	34,000 (15,422)
54x48 WSE	83.0 (2108)	72.0 (1829)	60.0 (1524)	113.0 (2870)	82.2 (2088)	44.0 (1118)	44.0 (1118)	45.0 (1143)	84.0 (2134)	95.0 (2413)	124.0 (3150)	44,000 (19,958)
54x48 WSDD	69.0 (1753)	60.0 (1524)	45.0 (1143)	90.0 (2286)	76.8 (1951)	45.0 (1143)	45.0 (1143)	50.0 (1270)	86.0 (2184)	102.0 (2591)	88.0 (2235)	50,400 (22,861)
54" to 78" Suction	CONSULT FACTORY											

All dimensions in inches (mm) and are not to be used for construction or installation purposes. Standard rotation is right hand (CW). Optional rotation is left hand (CCW). Side suction casing illustrated. Asterisks indicate sizes available with bottom suction casing. Steel casings will have 150#RF flanges.

A-C Pump



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