



Bulletin B-516B

Bell & Gossett



Series HSCS Pumps – Technical Bulletin

Table of Contents

Useful Pump Formulas	2
Pump Engineering Data	3-4
Exploded View	5
Mechanical Seal Data	6
Material of Construction (Standard)	7
Material of Construction (Optional – Packing)	8-9
Typical Specifications	10-11

Useful Pump Formulas

$$\begin{aligned} \text{Pressure (PSI)} &= \frac{\text{Head (Feet)} \times \text{Specific Gravity}}{2.31} \\ \text{Head (Feet)} &= \frac{\text{Pressure (PSI)} \times 2.31}{\text{Specific Gravity}} \\ \text{Vacuum (Inches of Mercury)} &= \frac{\text{Dynamic Suction Lift (Feet)} \times .883}{\text{Specific Gravity}} \\ \text{Horsepower (Brake)} &= \frac{\text{GPM} \times \text{Head (Feet)} \times \text{Specific Gravity}}{3960 \times \text{Pump Efficiency}} \\ \text{Horsepower (Water)} &= \frac{\text{GPM} \times \text{Head (Feet)} \times \text{Specific Gravity}}{3960} \\ \text{Efficiency (Pump)} &= \frac{\text{Horsepower (Water)}}{\text{Horsepower (Brake)}} \times 100 \text{ Per Cent} \\ \text{NPSH (Available)} &= \text{Positive Factors} - \text{Negative Factors} \end{aligned}$$

Affinity Laws: Effect of change of speed or impeller diameter on centrifugal pumps.

	GPM Capacity	Ft. Head	BHP
Impeller Diameter Change	$Q_2 = \frac{D_2}{D_1} Q_1$	$H_2 = \left(\frac{D_2}{D_1}\right)^2 H_1$	$P_2 = \left(\frac{D_2}{D_1}\right)^3 P_1$
Speed Change	$Q_2 = \frac{RPM_2}{RPM_1} Q_1$	$H_2 = \left(\frac{RPM_2}{RPM_1}\right)^2 H_1$	$P_2 = \left(\frac{RPM_2}{RPM_1}\right)^3 P_1$

Where Q = GPM, H = Head, P = BHP, D = Impeller Dia., RPM = Pump Speed

Engineering Data

Series HSCS Large Split Case Pumps

SINGLE STAGE – DOUBLE SUCTION

Pump Size	6x10x22	8x12x22M	8x12x22L	8x12x27
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CASING DATA

All Dimensions in Inches (mm)

125# FF Std ASA Flanges	Max. Suction Pressure PSIG (bar)	75 (5)	75 (5)	75 (5)	Not Available
	Max. Working Pressure PSIG (bar)	300 (21)	300 (21)	300 (21)	
	Max. Hydrostatic Test Pressure PSIG (bar)	450 (31)	450 (31)	450 (31)	
	Casing Material	Cast Iron	Cast Iron	Cast Iron	
250# FF ASA Flanges	Max. Suction Pressure PSIG (bar)	200 (14)	200 (14)	200 (14)	200 (14)
	Max. Working Pressure PSIG (bar)	400 (27)	400 (27)	400 (27)	400 (27)
	Max. Hydrostatic Test Pressure PSIG (bar)	600 (41)	600 (41)	600 (41)	600 (41)
	Casing Material	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
	Casing Wall Thickness	.625 (16)	.625 (16)	.625 (16)	.625 (16)

STUFF BOX DATA

All Dimensions in Inches (mm)

Bore	5.125 (130)	5.125 (130)	5.125 (130)	5.125 (130)
Depth	4.812 (122)	4.812 (122)	4.812 (122)	4.812 (122)
Seal Cage Width	.75 (19)	.75 (19)	.75 (19)	.75 (19)
Packing No. Rings/Size Sq. With Seal Cage	6/.625	6/.625	6/.625	6/.625
Shaft Sleeve O.D.	3.875 (98)	3.875 (98)	3.875 (98)	3.875 (98)
Mechanical Seal Size Type 8-1	3.875 (98)	3.875 (98)	3.875 (98)	3.875 (98)
Mechanical Seal Size (Type 8B1)	{ Major Dia. Minor Dia.	4.125 (105)	4.125 (105)	4.125 (105)
		3.875 (98)	3.875 (98)	3.875 (98)

IMPELLER DESIGN DATA

All Dimensions in Inches (mm)

No. of Vanes	6	5	6	6
Inlet Area (Sq. Inches)	59	68	80	82.4
Inlet Velocity per 100 GPM (Ft/Sec)	.54	.47	.40	.37
Maximum Diameter	22.0 (559)	21.0 (533)	23.0 (584)	27.0 (686)
Minimum Diameter	12.0 (305)	12.0 (305)	12.0 (305)	20.0 (508)
Maximum Sphere	1.3 (33)	1.4 (36)	1.6 (41)	1.5 (38)
VR ² for Maximum Diameter (Lbs-Ft ²)	55.5	52	58.5	18.5
Wear Ring Clearance — Diam. BRZ Impellers	.016-.019	.016-.019	.016-.019	.016-.019

SHAFT AND BEARING DATA

All Dimensions in Inches (mm)

At Coupling	3.125 (79)	3.125 (79)	3.125 (79)	3.125 (79)
Thru Impeller and Sleeves	3.311 (84)	3.311 (84)	3.311 (84)	3.311 (84)
Shaft Span	Bearing to Bearing Centerline	35.8 (909)	35.8 (909)	35.8 (909)
Ball Bearings	Inboard	6316	6316	6316
	Outboard	21316	21316	21316
Frame Designation	F21-D4	F21-D4	F21-D4	F21-E4

Flange dimensions are in accordance with ANSI A21.10, AWWA C110 and ANSI B16.1 Class 125.

Flange dimensions in accordance with ANSI B16.1 Class 250 except flanges are flat faced ie. FF

The hydrostatic test will be in accordance with the latest edition of the Hydraulic Institute Standards, test will be maintained for a minimum of 5 minutes.

6x10x22 and 8x12x22 are standard with 125 PSI ASA FF suction and 250 PSI ASA FF discharge flanges.

Balanced mechanical seals have a major and a minor diameter as listed.

8x12x27 is standard with 250 PSI ASA FF suction and discharge flanges.

Engineering Data

Series HSCS Large Split Case Pumps

SINGLE STAGE – DOUBLE SUCTION

Pump Size	10x14x20	10x14x20L	12x16x23	14x16x17	14x18x23	14x18x28
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CASING DATA

All Dimensions in Inches (mm)

125# FF Std ASA Flanges	Max. Suction Pressure PSIG (bar)	75 (5)	75 (5)	75 (5)	75 (5)	75 (5)	75 (5)
	Max. Working Pressure PSIG (bar)	175 (12)	175 (12)	175 (12)	175 (12)	175 (12)	175 (12)
	Max. Hydrostatic Test Pressure PSIG (bar)	262 (18)	262 (18)	262 (18)	262 (18)	262 (18)	262 (18)
	Casing Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
250# FF ASA Flanges	Max. Suction Pressure PSIG (bar)	200 (14)	200 (14)	200 (14)	200 (14)	200 (14)	200 (14)
	Max. Working Pressure PSIG (bar)	300 (21)	300 (21)	300 (21)	300 (21)	300 (21)	300 (21)
	Max. Hydrostatic Test Pressure PSIG (bar)	450 (31)	450 (31)	450 (31)	450 (31)	450 (31)	450 (31)
	Casing Material	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
Casing Wall Thickness		.625 (16)	.625 (16)	.625 (16)	.625 (16)	.625 (16)	.625 (16)

STUFF BOX DATA

All Dimensions in Inches (mm)

Bore	5.125 (130)	5.125 (130)	5.125 (130)	5.125 (130)	5.125 (130)	5.125 (130)
Depth	4.812 (122)	4.812 (122)	4.812 (122)	4.812 (122)	4.812 (122)	4.812 (122)
Seal Cage Width	.75 (19)	.75 (19)	.75 (19)	.75 (19)	.75 (19)	.75 (19)
Packing No. Rings/Size Sq. With Seal Cage	6/.625	6/.625	6/.625	6/.625	6/.625	6/.625
Shaft Sleeve O.D.	3.875 (98)	3.875 (98)	3.875 (98)	3.875 (98)	4.625 (117)	4.625 (117)
Mechanical Seal Size Type 8-1	3.875 (98)	3.875 (98)	3.875 (98)	3.875 (98)	4.625 (117)	4.625 (117)
Mechanical Seal Size (Type 8B1)	Major Dia. Minor Dia.	4.125 (105)	4.125 (105)	4.125 (105)	4.125 (105)	4.75 (121)
		3.875 (98)	3.875 (98)	3.875 (98)	3.875 (98)	4.50 (114)

IMPELLER DESIGN DATA

All Dimensions in Inches (mm)

No. of Vanes	6	5	6	6	6	6
Inlet Area (Sq. Inches)	112	128	150	171	212	196
Inlet Velocity per 100 GPM (Ft/Sec)	.29	.25	.21	.19	.15	.16
Maximum Diameter	19.8 (503)	19.8 (503)	23.0 (584)	17.5 (445)	23.0 (584)	27.9 (709)
Minimum Diameter	9.4 (239)	14.0 (356)	13.0 (330)	11.0 (279)	14.0 (356)	14.0 (356)
Maximum Sphere	1.63 (41)	1.56 (40)	1.63 (42)	1.2 (30)	2.1 (53)	1.3 (33)
WR ² for Maximum Diameter (Lbs-Ft ²)	46.6	52.0	108.9	45.5	120.1	253.8
Wear Ring Clearance — Diam. BRZ Impellers	.016-.019	.016-.019	.016-.019	.016-.019	.016-.019	.016-.019
	(.40-.48)	(.40-.48)	(.40-.48)	(.40-.48)	(.40-.48)	(.40-.48)

SHAFT AND BEARING DATA

All Dimensions in Inches (mm)

At Coupling	3.125 (79)	3.125 (79)	3.125 (79)	3.125 (79)	3.125 (79)	3.125 (79)
Thru Impeller and Sleeves	3.311 (84)	3.311 (84)	3.311 (84)	3.311 (84)	4.061 (103)	4.061 (103)
Shaft Span	Bearing to Bearing Centerline					
	40.5 (1029)	40.5 (1029)	40.5 (1029)	40.5 (1029)	41.375 (1050)	41.375 (1050)
Ball Bearings	Inboard	6316	6316	6316	6316	6316
	Outboard	21316	21316	21316	21316	21316
Frame Designation	F21-E4	F21-E4	F21-E4	F21-E4	F21-F4	F21-F4

Flange dimensions are in accordance with ANSI A21.10, AWWA C110 and ANSI B16.1 Class 125.

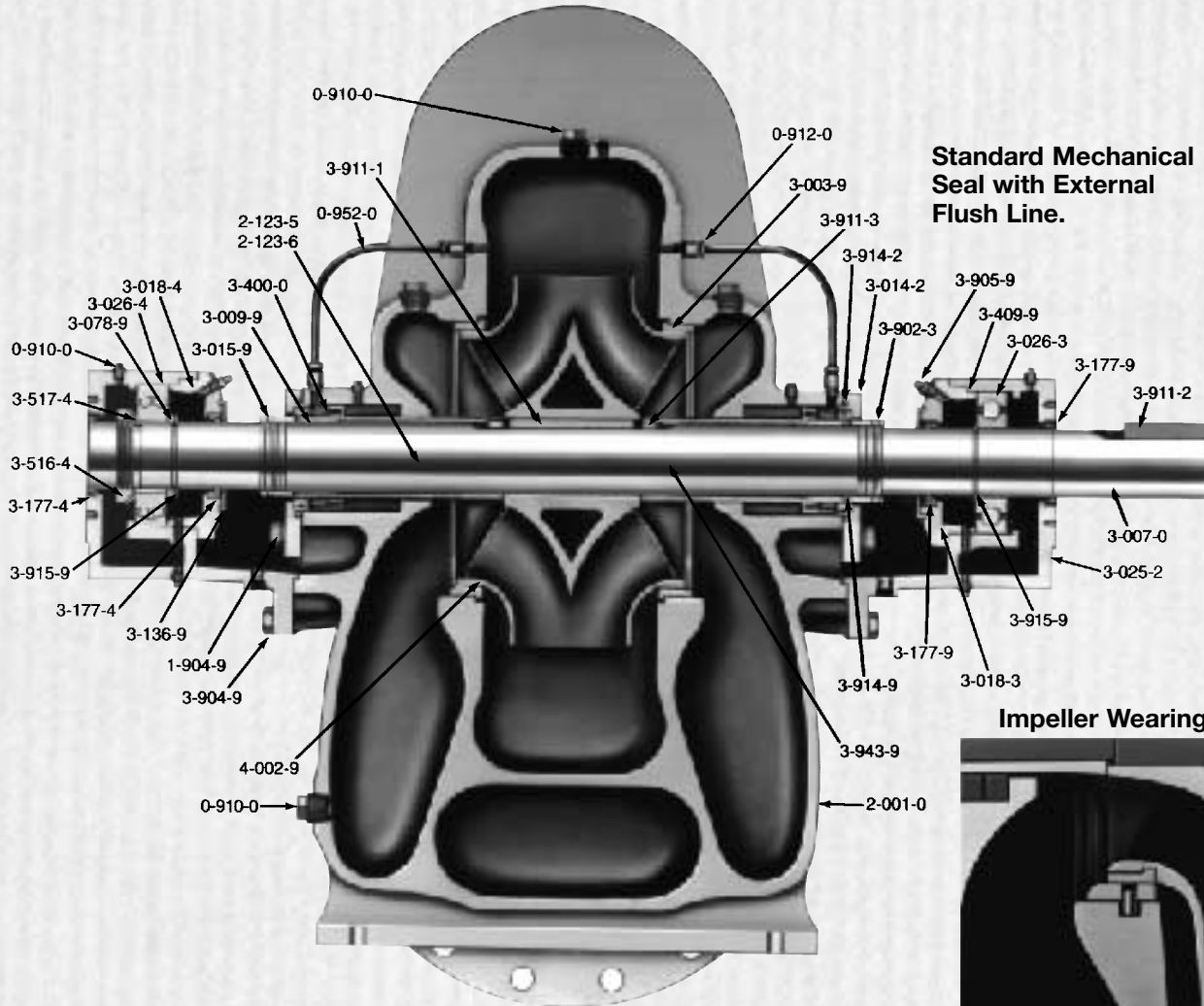
Flange dimensions in accordance with ANSI B16.1 Class 250 except flanges are flat faced.

The hydrostatic test will be in accordance with the latest edition of the Hydraulic Institute Standards, test will be maintained for a minimum of 5 minutes.

Balanced mechanical seals have a major and a minor diameter as listed.

Engineering Data Series HSCS Large Split Case Pumps

MECHANICAL SEALS MOUNTED ON SLEEVE



Standard Mechanical Seal with External Flush Line.

Impeller Wearing Rings



Impeller rings can be added – Optional Extra

Series HSCS Mechanical Seal Recommendation Chart

Description/Materials	PSIG (bar) Working Pressure Sleeve Diameter		Degree F. (C)	PPM
	3.88	4.625		
Unbalanced Viton Carbon Ceramic	130 (9)	90 (6)	-20 to 220° (-25° to 105°)	250
Balanced Viton Carbon Ceramic	375 (26)	300 (21)	-20 to 220° (-25° to 105°)	250

Chart above shows the recommended upper limits for water applications of suction pressure (PSIG/bar), Temperature (Degree F/C), and Chromates (PPM). Other limiting factors, such as casings and bearings must be taken into account with the higher pressures and temperatures.

Construction Materials

Series HSCS Large Split Case Pumps

MECHANICAL SEAL ON SLEEVE

Catalog No.	Part Name	Material Options	
		Cast Iron, Bronze Fitted	Special
0-910-0	Pipe Plugs (Casing, Bearing Hsgs)	Steel	
0-912-0	Male Connectors	Brass	
0-952-0	Flush Line	Copper	
1-904-9	Bolts (Gland)	Stainless Steel (AISI 304)	
2-001-0	Casing	Cast Iron (ASTM A48 Class 35)	
2-123-5	Casing Joint Gasket (Suction)	Paper (Vellomoid 505)	
2-123-6	Casing Joint Gasket (Discharge)	Paper (Vellomoid 505)	
2-904-1	Bolts (Casing)	Steel (Grade 8)	
3-400-0	Mechanical Seal	Viton / Carbon / Ni-Resist	
3-014-2	Glands (Mechanical Seal)	Cast Iron (ASTM A48 Class 25A)	
3-003-9	Casing Rings	Bronze (ASTM B584 Alloy 932)	
3-007-0	Shaft	Steel (SAE 1045)	
3-009-9	Shaft Sleeves	Bronze (ASTM B584 Alloy 932)	
3-015-9	Shaft Sleeve Nuts	Bronze (ASTM B594 Alloy 932)	
3-018-3	Bearing Housing Cover (Inboard)	Cast Iron (ASTM A48 Class 25A)	
3-018-4	Bearing Housing Cover (Outboard)	Cast Iron (ASTM A48 Class 25A)	
3-025-2	Bearing Housings	Cast Iron (ASTM A48 Class 25A)	
3-026-3	Bearing (Inboard)	Steel	
3-026-4	Bearing (Outboard)	Steel	
3-078-9	Thrust Washer (Outboard)	Steel	
3-136-9	Deflectors	Rubber (Buna "N")	
3-177-4	Lip Seal (Outboard Bearing)	Rubber (Buna "N")	
3-177-9	Lip Seals (Bearing)	Rubber (Buna "N")	
3-409-9	Gaskets (Bearing Housing Covers)	Paper (Vellomoid 505)	
3-516-4	Locknut (Bearing)	Steel	
3-517-4	Lockwasher (Bearing)	Steel	
3-902-9	Set Screws	304SS	
3-904-9	Bolts (Bearing Covers)	Steel	
3-905-9	Grease Fittings	Steel	
3-911-1	Key (Impeller)	Steel	
3-911-2	Key (Coupling)	Steel	
3-911-3	Keys (Shaft Sleeves)	Steel	
3-914-2	O-Ring (Gland)	Rubber (Buna "N")	
3-914-9	O-Rings (Shaft Sleeves)	Rubber (Buna "N")	
3-915-9	Snap Rings	Steel	
3-943-9	Spirol Pins (Casing Rings)	304SS	
4-002-9	Impeller	Bronze (ASTM B584 Alloy 875)	

OPTIONAL COMPONENTS

4-004-9	Impeller Rings	Bronze (CDA 925)	
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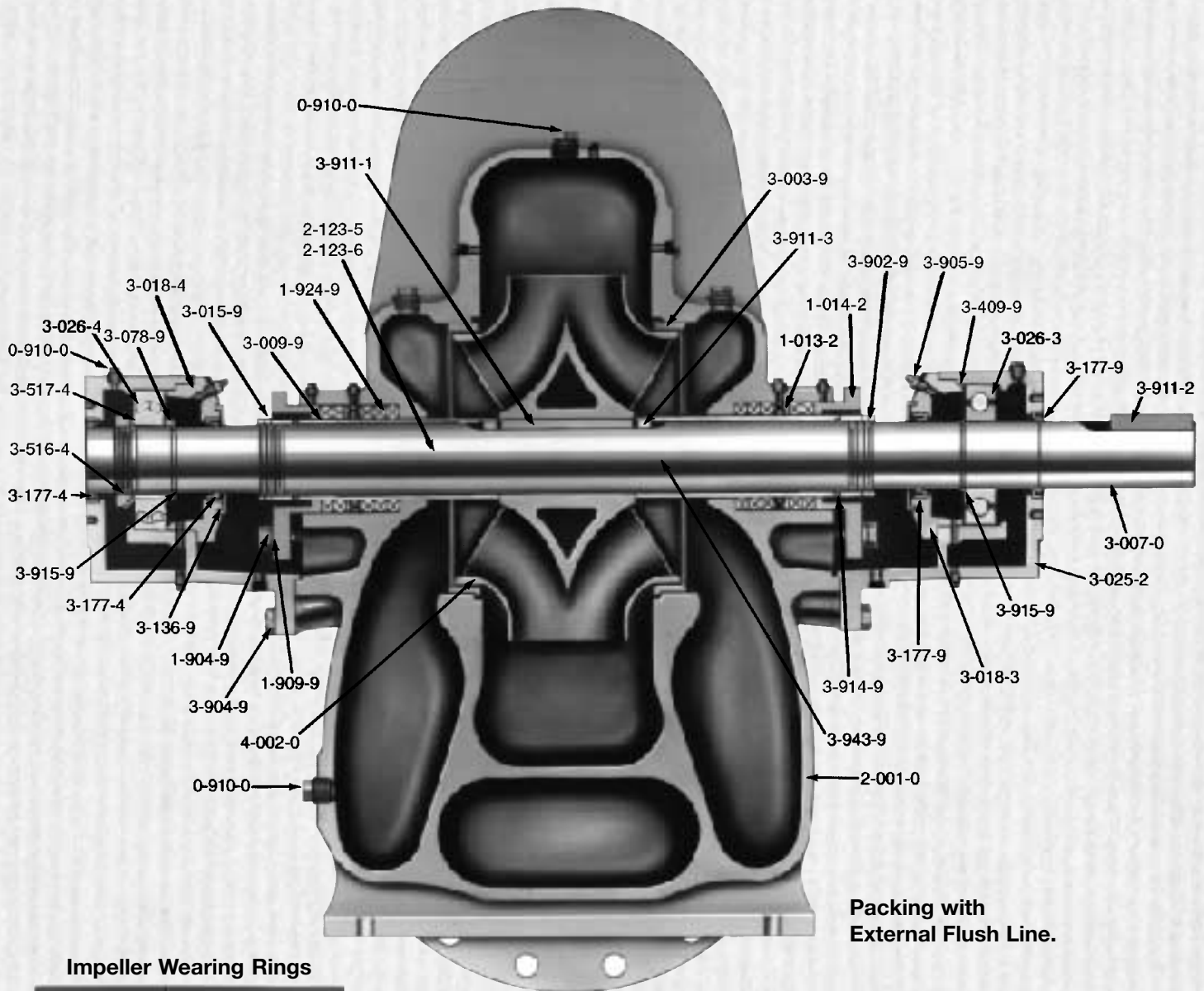
Shaft material is 17-4 PH condition H1150 on 8x12x27.

For 300 and 400 psi working pressures, casing material is Ductile Iron (ASTM A536, Grade 65-45-12).

Type 8 or equal.

Engineering Data Series HSCS Large Split Case Pumps

PACKING ON SLEEVE



Impeller Wearing Rings



Impeller rings can be added if required.

Construction Materials

Series HSCS Large Split Case Pumps

PACKING ON SLEEVE

Catalog No.	Part Name	Material Options	
		Cast Iron, Bronze Fitted	Special
0-910-0	Pipe Plugs (Casing, Bearing Hsgs)	Steel	
0-912-0	Male Connectors	Brass	
0-952-0	Flush Line	Copper	
1-013-2	Seal Cages	Glass filled Teflon	
1-014-2	Packing Glands	Bronze (ASTM B584 Alloy 932)	
1-904-9	Bolts (Gland)	Stainless Steel (AISI 304)	
1-909-9	Washers (Gland Bolts)	Steel	
1-924-9	Packing (Rings)	Graphited Acrylic Yarn	
2-001-0	Casing	Cast Iron (ASTM A48 Class 35)	
2-123-5	Casing Joint Gasket (Suction)	Paper (Vellomoid 505)	
2-123-6	Casing Joint Gasket (Discharge)	Paper (Vellomoid 505)	
2-904-1	Bolts (Casing)	Steel (Grade 8)	
2-916-9	Dowel Pins (Casing)	Steel	
3-003-9	Casing Rings	Bronze (ASTM B584 Alloy 932)	
3-007-0	Shaft	Steel (SAE 1045)	
3-009-9	Shaft Sleeves	Bronze (ASTM B584 Alloy 932)	
3-015-9	Shaft Sleeve Nuts	Bronze (ASTM B594 Alloy 932)	
3-018-3	Bearing Housing Cover (Inboard)	Cast Iron (ASTM A48 Class 25A)	
3-018-4	Bearing Housing Cover (Outboard)	Cast Iron (ASTM A48 Class 25A)	
3-025-2	Bearing Housings	Cast Iron (ASTM A48 Class 25A)	
3-026-3	Bearing (Inboard)	Steel	
3-026-4	Bearing (Outboard)	Steel	
3-078-9	Thrust Washer (Outboard)	Steel	
3-136-9	Deflectors	Rubber (Buna "N")	
3-177-4	Lip Seal (Outboard Bearing)	Rubber (Buna "N")	
3-177-9	Lip Seals (Bearing)	Rubber (Buna "N")	
3-409-9	Gaskets (Bearing Housing Covers)	Paper (Vellomoid 505)	
3-516-4	Locknut	Steel	
3-517-4	Lockwasher	Steel	
3-902-9	Set Screws	304SS	
3-904-9	Bolts (Bearing Covers)	Steel	
3-905-9	Grease Fittings	Steel	
3-911-1	Key (Impeller)	Steel	
3-911-2	Key (Coupling)	Steel	
3-911-3	Keys (Shaft Sleeves)	Steel	
3-914-9	O-Rings (Shaft Sleeves)	Rubber (Buna "N")	
3-915-9	Snap Rings	Steel	
3-943-9	Spirol Pins (Casing Rings)	304SS	
4-002-0	Impeller	Bronze (ASTM B584 Alloy 875)	

OPTIONAL COMPONENTS

4-004-9	Impeller Rings	Bronze (CDA 925)	
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Shaft material is 17-4 PH condition H1150 on 8x12x27.

For 300 and 400 psi working pressures, casing material is Ductile Iron (ASTM A536, Grade 65-45-12).

Typical Specifications for Series HSCS Large Horizontal Split Case Pumps

To prepare specifications follow the instructions in right hand column concerning choices set out in parenthesis.

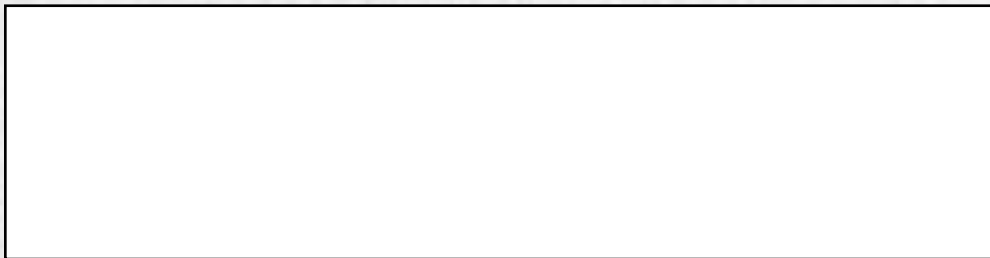
Specifications	Instructions For Use
<p>1.0 OPERATING CONDITIONS: Capacity _____ U.S. Gallons per minute Head (_____ Ft. Total Head) (_____ psig) Speed _____ rpm Suction Pressure (_____ Ft. Head) (Positive) (Lift) (_____ psig) Liquid to be Handled _____ Specific Gravity _____ Viscosity (_____) Temperature of Liquid at Inlet _____ °F</p>	<p><i>Fill in all applicable blanks. If head given in psig, the specific gravity blank must be filled in. Cross out (Positive) or (Lift). Viscosity necessary if not pumping water.</i></p>
<p>2A PUMP CONSTRUCTION: The contractor shall furnish and install in location shown on the plans an ITT Bell & Gossett Pump double-suction, double-volute, single-stage HSCS Series centrifugal pump size _____. Construction shall be cast iron bronze-fitted, equipped with mechanical seal bearing directly on bronze sleeve. (Refer to Factory for special fitted construction.)</p>	<p><i>Use this if you only want a short form specification. For more detailed specifications skip to following paragraphs and omit this one.</i></p>
<p>2B PUMP CONSTRUCTION:</p> <p>2.1 Casing shall be closed-grained Cast Iron or Ductile Iron for higher pressures and shall be of axially-split double-volute design with suction and discharge flanges and mounting feet cast integral with the lower half casing. Tapped and plugged holes shall be provided for priming, vent, drain and gauge connections. Upper half casing shall be removable without disturbing suction or discharge piping.</p>	<p><i>8x12x27 have 250#FF Suct. and Disch. flange. 6x10x22 and 8x12x22 have 125# Suct. and 250# Disch. flanges as standard. All other models are std. with 125# flanges.</i></p>
<p>2.1.1 Casing Connections: Flanges shall be of (125#) (250#) ASA Standard. Suction and Discharge shall be on a common centerline in both the horizontal and vertical planes.</p>	
<p>2.2 Impeller shall be of the enclosed double-suction type made of bronze, and statically and hydraulically balanced. The impeller shall be keyed to the shaft and positioned axially by the shaft sleeves. Hub shall have sufficient metal thickness to allow machining for installation of impeller rings.</p>	
<p>2.3 Shaft shall be made of SAE-1045 steel of ample size to operate under load with a minimum deflection. (8x12x27 & 12x16x23 at 1800 RPM will have 17-4 PH steel shaft.)</p>	
<p>2.3.1 Shaft Sleeves shall be made of (bronze) (420 hardened stainless steel) and shall protect the shaft from wear and from contact with the pumped liquid.</p>	<p><i>Cross out one.</i></p>
<p>2.4 Stuffing Box shall consist of at least six (6) rings of die formed, graphite acrylic yarn asbestos packing, a bronze lantern ring, and a split type bronze gland to permit easy removal and access to packing. Ample space shall be provided for repacking the stuffing box. Arrangement shall provide for field or factory conversion to mechanical seals instead of packing, without requiring machine work.</p>	<p>Note: <i>This is optional construction.</i></p>
<p>2.4.1 Mechanical Seals shall be mounted on a corrosion-resistant shaft sleeve, and located with respect to the casing so that seal lubrication liquid is directed immediately over the seal. Seals shall be Type 8 or equal, with <i>Ceramic</i> stationary faces, carbon rotating faces, stainless steel springs and <i>Viton</i> bellows. Arrangement shall assure that seal leakage cannot enter the bearings.</p>	
<p>2.4.2 Piping shall be supplied to provide seal or packing lubrication. Sealing from an external source shall be possible.</p>	

Typical Specifications for Series HSCS Large Horizontal Split Case Pumps

Specifications	Instructions For Use
<p>2.5 Casing Rings shall be made of bronze and shall be installed with an anti-rotation device.</p>	
<p>2.6 Impeller Rings made of bronze shall be mounted on the impeller hubs to provide for renewable clearances.</p>	<p><i>Include this paragraph only if impeller rings are required.</i></p>
<p>IF LIQUID CONTAINS SOLIDS TO THE EXTENT THAT SPECIAL CONSIDERATION FOR THE WEAR RING CLEARANCES IS NECESSARY, SUBSTITUTE THIS PARAGRAPH FOR THE STANDARD CASING AND IMPELLER RING SPECS.</p>	
<p>2.7 Bearings shall be (grease lubricated) ball type. The inboard or coupling end bearing shall be a single row ball bearing. The outboard bearing shall be selected to carry radial and thrust loads and be secured with a lock nut to prevent migration.</p>	
<p>2.8 Bearing Housings shall be bolted to the end of the lower half casing and shall assure positive alignment of the rotating element. The housings shall provide a fit for the inboard bearing that allows freedom for thermal expansion while the outboard bearing shall be clamped in place to take all thrust loads and keep the rotating element in its proper axial locations.</p>	
<p>3.0 BASEPLATE, COUPLING AND GUARD</p>	
<p>3.1 Baseplate shall be sufficiently rigid to support the pump and driver and shall be formed steel with drip lip along the two sides, tapped drain connections located on the pump end, and the ends raised above the top surface. Final alignment of pump and driver shall be made after grouting and installation, and shall be approved by customer prior to operation.</p>	
<p>3.2 Coupling shall be of all metal gear type. (Limited end float required with sleeve bearing motors.)</p>	
<p>3.3 Coupling Guard: Coupling guard shall be all metal.</p>	
<p>4.0 ROTATION: Pump shall have (Right Hand) (Left Hand) rotation when viewed from pump end.</p>	<p><i>Cross out one.</i></p>
<p>5.0 MOTOR DRIVER shall be selected in accordance with the pump's non-overloading performance characteristics. Motor horsepower rating shall be chosen in keeping with the pump's possible peak horsepower requirements which shall occur at approximately the pump's best point of efficiency. In sizing the motor (its service factor of 15% may be utilized) (maximum brake horsepower may not exceed the motor's nominal nameplate rating) (the S.F. may be utilized to the extent of _____% of nominal rating).</p>	<p><i>Cross out two. If the latter is used be specific as to usable portion of Service Factor.</i></p>
<p>5.1 Motor shall be mounted with pump on baseplate at pump manufacturer's plant and shipped as one unit.</p>	
<p>6.0 PUMP VIBRATION LIMITS shall conform to Hydraulic Institute ANSI/HI 1.1-1.5 – 1994, section 1.4.6.1.1 for recommended acceptable unfiltered field vibration limits (as measured per H.I. 1.4.6.5.2, figure 1.107) for pumps with rolling contact bearings.</p>	
<p>7.0 MISCELLANEOUS:</p>	
<p>7.1 Nameplates and other data plate shall be stainless steel, suitably secured to the pump.</p>	

The above are suggested specification paragraphs. Variations to and expansions of the above specifications will be dependent on individual jobs and materials of construction.

**FOR MORE INFORMATION, CONSULT YOUR LOCAL
ITT BELL & GOSSETT REPRESENTATIVE**



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INTL.
Bell & Gossett / Export Dept.
8200 N. Austin Avenue
Morton Grove, IL 60053
Phone: (847) 966-3700
Facsimile: (847) 966-8366
<http://www.bellgossett.com>

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