

8G

Series 1510

Centrifugal Pumps – Base Mounted

TYPICAL SPECIFICATION FOR FLEXIBLE COUPLED END-SUCTION PUMPS

Furnish and install pumps with capacities as shown on plans. Pumps shall be base-mounted, single stage, end suction design.

Pump volute shall be made of ductile iron with integrally cast pedestal support. The impeller shall be cast bronze, enclosed type, statically and hydraulically balanced. Impeller shall be keyed to the shaft and secured by a hex head impeller nut and washer.

Pumps shall be provided with a single inside unbalanced mechanical shaft seal for leakless operation. A suitable arrangement shall be provided to furnish a portion of the pumped liquid to lubricate and cool the seal faces.

Pump shall be rated for a minimum of 175 psi working pressure. Casings shall be provided with tapped and plugged holes for priming, vent, and drain.

Pump bearing housing shall have heavy duty regreasable ball bearings.

Baseplate shall be channel steel, sufficiently rigid to support the pump and driving motor.

A flexible-type coupler, capable of absorbing torsional vibration, shall be employed between the pump and motor, and it shall be equipped with a suitable coupling guard as required. Contractor to level and grout each unit according to manufacturer's instructions.

The motor shall be NEMA specifications and shall be the size, voltage and enclosure called for on the plans. Pump and motor shall be factory aligned, and shall be realigned by contractor after installation.

Each pump shall be factory tested. It shall then be thoroughly cleaned and painted with at least one coat of high grade machinery enamel prior to shipment.

Each pump shall be checked by the contractor and regulated for proper differential pressure, voltage and amperage draw. This data shall be noted on a permanent tag or label and fastened to the pump for owner's reference. Pump series shall be "Series 1510" as manufactured by ITT Bell & Gossett.

CAST IRON CASING DESIGN DATA

125# Std. ANSI B16.1 Class 30 Iron	Max. Suction Press PSI	75 (5.2 bar)
	Max. Work Press PSI	175 (12 bar)
	Max Hydro Test Press PSI	262 (18 bar)
Flange Bolting (No.) & Size	Suction	(12) .88-9
	Discharge	(8) .75-10
	Stuff Box	(8) .62-11
Wall Thickness		.44 (11.18)
Distance To Casing Lip		7.25 (184.15)

STUFFING BOX DATA

Bore	3.000 (76.20)
Depth	2.12 (53.85)
Seal Cage Width	.38 (9.65)
Shaft Sleeve O.D.	2.000 (50.80)
A-Tap for Seal Cage NPT	.38 (9.65)
B-Tap for Mech. Seal NPT	.38 (9.65)
Mech. Seal Size (Crane Type 21 or Equal)	2.000 (50.80)

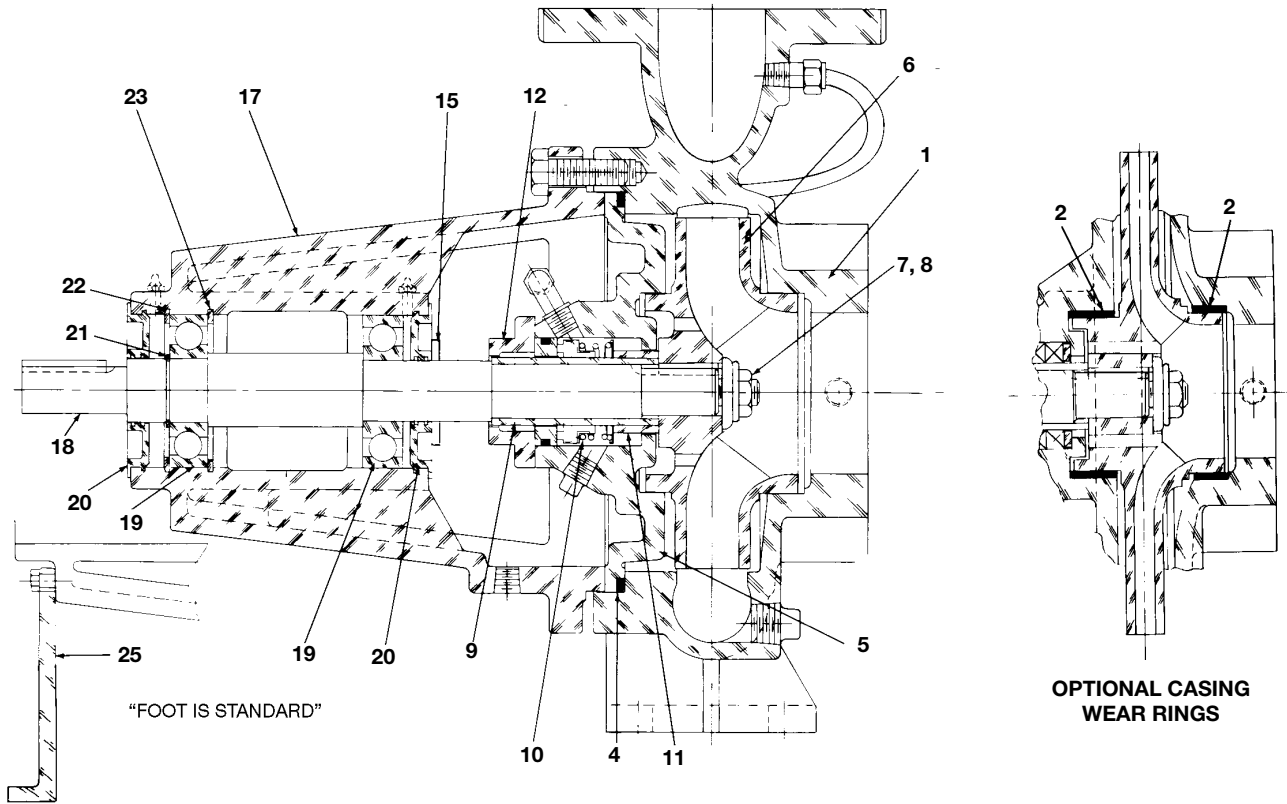
IMPELLER DESIGN DATA

No. of Vanes	6
Inlet Area in ² (cm ²)	50.27 (324.3)
Inlet Velocity per 100 GPM (Ft./Sec) (M/Sec)	64 (19.5)
Maximum Diam.	13.03 (331)
Minimum Diam.	8.07 (205)
Maximum Sphere	1.00 (25.4)
Wear Ring Clearance-Dia. (Optional)	.010-.014 (.025-.036)

All dimensions in inches (mm).

SHAFT AND BEARING DATA

Under Sleeve	1.750 (44.45)	
At Coupling	1.625 (41.275)	
Thru Impeller	1.625 (41.275)	
Imp. Overhang		
Inb. Brg. ϕ to Imp. ϕ	10.40 (264.16)	
Shaft Span		
Bearing to Bearing ϕ	10.40 (264.16)	
Ball Bearings	Inboard	6309
	Outboard	6309



8G - SERIES 1510 PUMPS

ITEM NUMBER	PART NAME	STANDARD CAST IRON BRONZE FITTED	OPTIONAL ALL CAST IRON
9	Shaft Sleeve	Bronze (ASTM B584-932)	410 St. St (ASTM A296 CA-15)
15	Water Slinger		Synthetic Rubber
11	Spacer Sleeve		Steel (ASTM A-519)
25	Support Foot		Steel (AISI 1020)
	Grease Fittings		Steel
1	Volute		Ductile Iron
5	Volute Coverplate		Ductile Iron
4	Volute "O" Ring		Synthetic Rubber
6	Impeller	Bronze (ASTM B584-875)	Cast Iron (ASTM A48 CL.25A)
7, 8	Impeller Nut & Washer		Plated Steel
18	Shaft		Steel (AISI 1045)
20	Bearing Cap		Synthetic Rubber
20	Bearing Cap		Synthetic Rubber
19	Ball Bearings (Inboard)		Steel
19	Ball Bearings (Outboard)		Steel
23	Snap Ring (Brg. Hsg. Inbd.)		Steel (SAE 1075)
22	Snap Ring (Brg. Hsg. Outb.)		Steel (SAE 1075)
17	Frame		Cast Iron (ASTM A48 CL.25A)
21	Snap Ring. Shaft		Steel (SAE 1075)
12	Gland (one piece)		Alum.-Copper-Zinc Alloy
10	Mechanical Seal		Carbon, Ni-Resist, Stainless Steel
NA	Bolts		Steel
NA	Pipe Plugs		Steel
OPTIONS			
2	Volute Wear Ring		Bronze (ASTM B584-932)
2	Coverplate Wear Ring		Bronze (ASTM B584-932)

For further information, contact ITT Bell & Gossett, 8200 N. Austin Avenue, Morton Grove, IL 60053, Phone: (847) 966-3700 – Facsimile (847) 966-9052.