HORIZONTAL SPLIT CASE SINGLE STAGE DOUBLE SUCTION
Type BT

Typical Specifications

1. **General:** The pump(s) shall be of the single stage, double suction, horizontal split case design; split on the horizontal axis and shall be bronze fitted construction. Suction and discharge connections shall be located on opposite sides of the lower casing, allowing removal of the rotating element without disturbing the system piping connections. The pump(s) shall be a Peerless BT design.

   The pump(s) are to be designed for a capacity of _____GPM at a total head of_____ feet, at an efficiency of_____% of design condition.

2. **Casing:** The pump casing material shall be a minimum of class 30 cast iron. Water passageways shall be smooth to permit maximum efficiency. Casing shall be hydro-statically tested at 150% of the maximum working pressure under which the pump could operate at design speed. The suction flange shall be drilled 125 lb. ANSI. The discharge flange shall be drilled 125 lb. ANSI.

2. **Casing Rings**
   Bronze renewable casing rings shall be furnished, doweled and shouldered In the casing. Ring dowels shall be located In slots on the split surface of the lower casing.

3. **Impeller:** The impeller shall be of one piece cast bronze, double suction type. The impeller shall be balanced, keyed to the shaft and fixed in an axial position by retaining rings. The Impeller skirt shall be grooved and fit with close tolerances to the casing ring to permit a minimum of re-circulation between the impeller and the casing ring for maximum efficiency.

4. **Stuffing Boxes:**
   Mechanical Seal - Sealing of the pump liquid cavity shall be with a face type mechanical seal with Ni-resist stationary seat, carbon sealing washer, Buna rubber flexible members, stainless steel metal parts and spring. Seal to be rated for 225° F .(107° C.) @ 150 psi (10-34 bar) maximum. ☐ Optional flush piping shall be supplied.

5. **Shaft:** The shaft shall be stainless steel, adequately sized for the loads transmitted and designed to permit either clockwise or counter-clockwise pump assembly.

6. **Bearings:** Bearings shall be single row, deep groove ball bearing cartridge type Bearings shall be grease lubricated. Bearings shall be designed for an average life of 100,000 hours.

7. **Base:** The pump and driver shall be mounted on a common steel base (☐ with optional drip rim). Pump and driver shall be aligned and bolted In place prior to factory shipment. Final alignment must be performed at the job site In accordance with the standards of the Hydraulic Institute and the pump Installation, operation and maintenance instructions. Base shall be grouted to eliminate vibration.

8. **Coupling:** A (T. B. Woods Sureflex®) (Falk Series 1000T) flexible coupling shall be provided between the pump and driver. A coupling guard shall be furnished over the coupling for protection.

HORIZONTAL SPLIT CASE PUMPS SINGLE STAGE DOUBLE SUCTION
Type BT

Peerless Pump Company
Indianapolis, IN 46207-7026

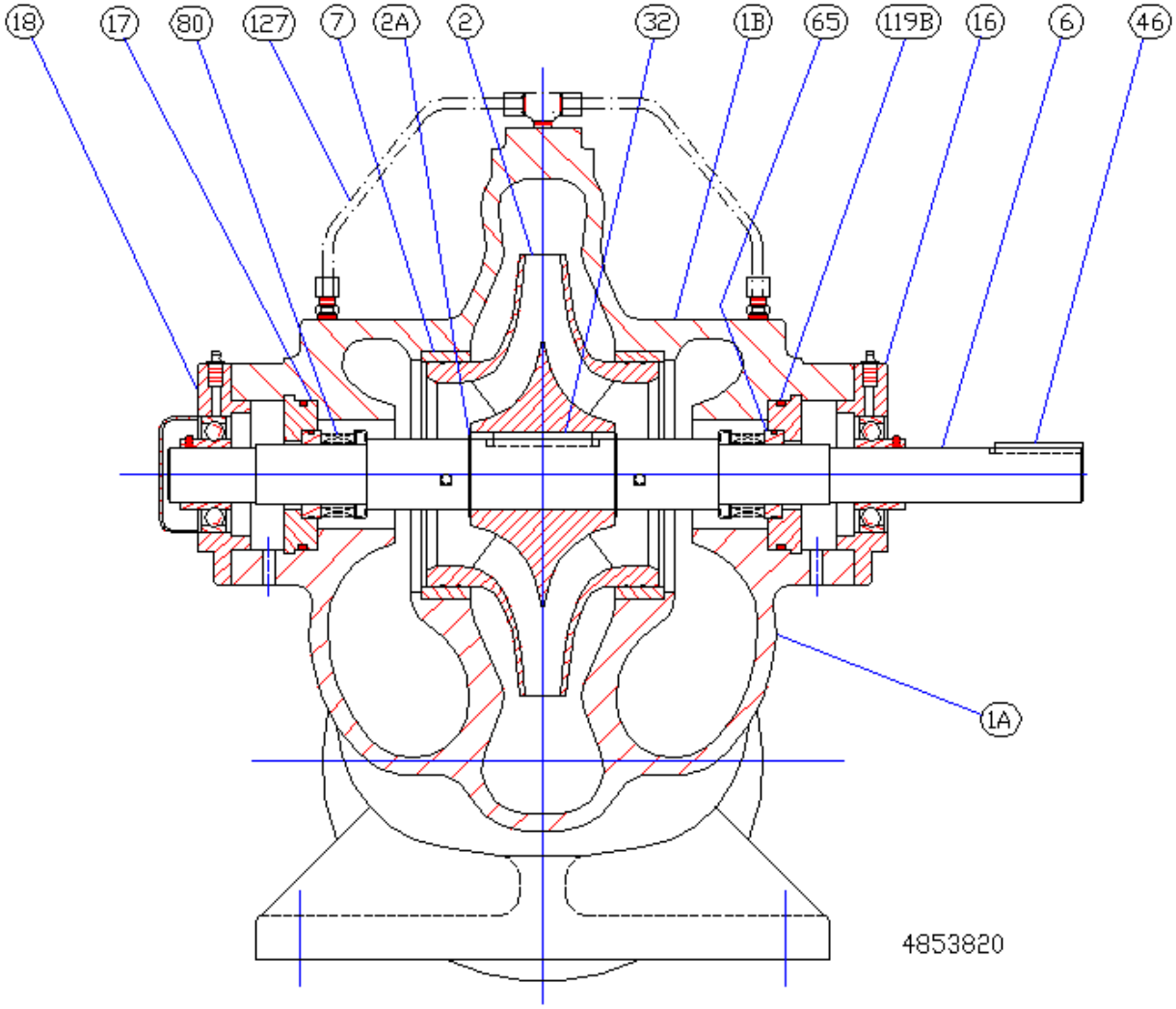
Pump Data

Pump Size & Type	Nom. Casing Thick. Inches	Corros. Allow. Inches	Max. Pump Speed Rpm	No. of Imp. Vanes	Prime. or Csg. Vent Conn. NPT Size	Suct. and Disch. Gauge Taps	Disch. Drain NPT Size	Suct. Drain NPT Size	Shaft Diameter Through (Inches)		Cut-water Dia. In.	WR^2 Lb-Ft^2 Wet. Imp.	Min. Imp. Dia. In.	Distance Between Bearing Centers
									Impeller	Coupling.				
2BT11 ①	.44	.12	1800	4	1/2	1/4	1/2	1/2	1.375	1.000	11.00	1.3	7.00	14.88
3BT9	.38	.12	1800	6	1/2	1/4	1/2	1/2	1.625	1.250	9.56	1.2	6.13	14.75
3BT9G	.38	.12	1800	6	1/2	1/4	1/2	1/2	1.625	1.250	9.56	1.3	6.25	14.75
4BT10	.40	.12	1800	6	1/2	1/4	1/2	1/2	1.625	1.250	10.38	1.7	7.00	14.75
4BT10G	.40	.12	1800	6	1/2	1/4	1/2	1/2	1.625	1.250	10.38	1.2	6.13	14.75
4BT11	.38	.12	1800	8	1/2	1/4	1/2	1/2	1.375	1.000	11.91	1.8	7.62	14.88
4BT11G	.38	.12	1800	6	1/2	1/4	1/2	1/2	1.375	1.000	11.91	2.0	7.62	14.88
4BT12 ②	.50	.12	1800	7	1/2	1/4	1/2	1/2	1.625	1.250	12.58	2.4	8.50	14.75
6BT11	.38	.12	1800	5	1/2	1/4	1/2	1/2	1.375	1.000	11.29	2.1	7.00	14.88
6BT14	.56	.12	1800	8	1/2	1/4	1/2	1/2	1.750	1.500	15.66	5.0	10.00	18.00
6BT14G	.56	.12	1800	8	1/2	1/4	1/2	1/2	1.750	1.500	15.66	4.7	10.00	18.00
8BT12	.44	.12	1800	5	1/2	1/4	1/2	1/2	1.750	1.500	13.10	3.3	③ 8.00	18.00
8BT15	.56	.12	1800	7	1	1/4	1/2	1/2	2.125	1.750	16.38	8.8	③ 10.25	18.75
8BT15G	.56	.12	1800	8	1	1/4	1/2	1/2	2.125	1.750	16.38	8.4	③ 10.25	18.75
10BT12	.56	.12	1800	8	1	1/4	1/2	1/2	2.125	1.750	12.74	7.4	③ 9.00	21.50
10BT14A ②	.62	.12	1800	8	1	1/4	1/2	1/2	2.500	2.125	15.08	16.0	③ 10.00	25.25
10BT14J ②	.62	.12	1800	8	1	1/4	1/2	1/2	2.500	2.125	15.08	16.6	③ 10.00	25.25

Maximum Suction Pressure Psi All Pumps	150
Maximum Working Pressure Psi @ 0 to 150° F All Pumps	175
Maximum Working Pressure Psi @ 165° F All Pumps	171
Maximum Working Pressure Psi @ 175° F All Pumps	168
Maximum Working Pressure Psi @ 200° F All Pumps	162
Maximum Working Pressure Psi @ 225° F All Pumps	157

① Single Suction Design ② Double Volute Casing ③ Average Diameter

Mechanical Seal Type
Cross Sectional Drawing



BRONZE FITTED BT PUMP STANDARD MATERIALS OF CONSTRUCTION

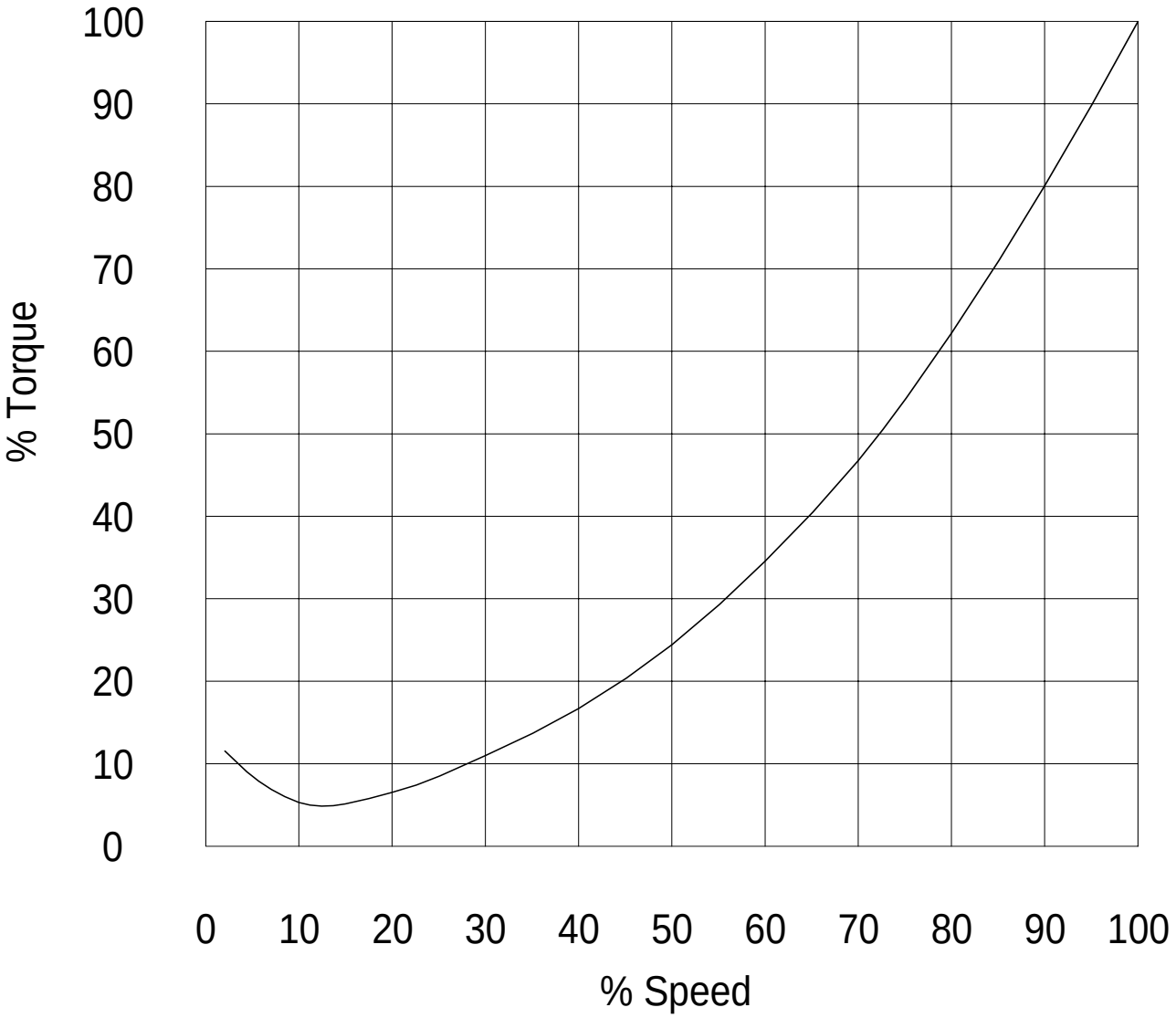
Item No.	Description	Material	Item No.	Description	Material
1A, 1B	Upper & Lower Casings	Cl. 30 Cast Iron	18	Outboard Cartridge Ball Bearing	Steel Assembly
2	Impeller	Bronze	32	Impeller Key	Steel
2A	Impeller Retaining Ring	18-8 Stn. Steel	46	Coupling Key	Steel
6	Shaft	416 Stn. Steel	65	Mechanical Seal Seat	Ni-Resist with Buna Rubber O Ring 225°F. Maximum
7	Casing Ring	Bronze	80	Mechanical Seal Rotary	Stainless Steel Metal Parts, Carbon Washer, Buna Rubber Flexible Members 225°F. Maximum
16	Inboard Cartridge Ball Bearing	Steel Assembly	73A	Casing Gasket (Not Shown)	Vegetable Fiber
17	Seal Gland	18-8 Stn. Steel	119B	Seal Gland O Ring	Buna Rubber
			127	Seal Flush Piping-Optional	Copper/Brass

Subject to change without notice

HORIZONTAL SPLIT CASE PUMPS
SINGLE STAGE DOUBLE SUCTION
Type BT

Peerless Pump Company
Indianapolis, IN 46207-7026

Speed - Torque Curve



Information required to use speed-torque curve

1 - 100% of Torque = _____Ft.-lbs @_____Gpm_____Total Head Feet

2 - 100% of Speed = Rpm (true running speed)

To determine 100% of torque in Ft.-Lbs., use the following equation:

$$\textbf{100\% torque (Ft.-Lbs)} = \frac{\textbf{BHP} \text{ ①} \times \textbf{5250}}{\textbf{RPM (true running speed)}}$$

① For open valve starting - use BHP at design point
For closed valve starting - use BHP at shut-off point

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