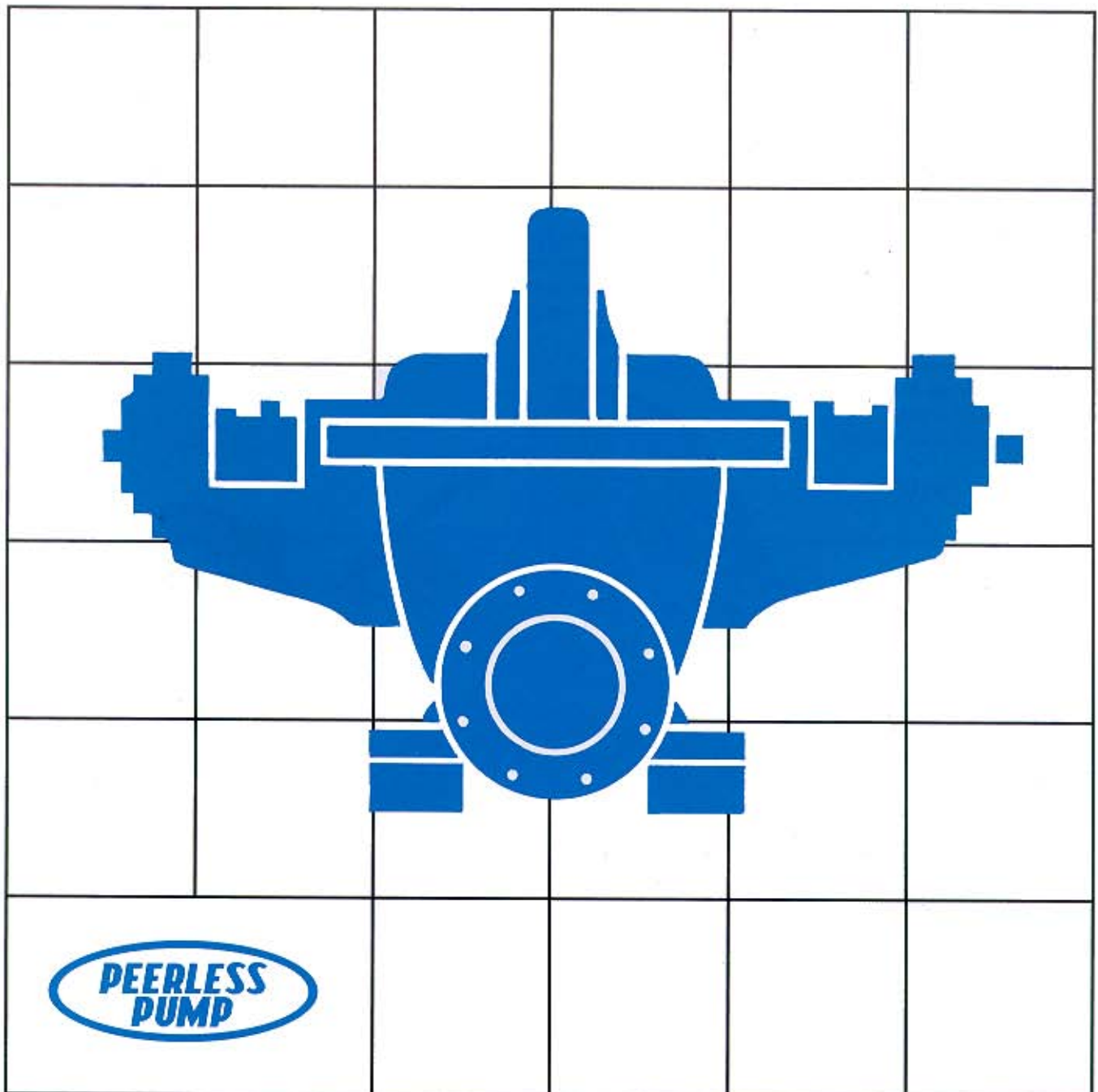


# Peerless Pump Company

HORIZONTAL SINGLE STAGE  
SPLIT-CASE PUMPS

TYPE A



# Construction Features of Peerless Horizontal Centrifugal Split Case Pumps: Type A

**CASE CONSTRUCTION.** The pump case is of the horizontal split-case type, with the split at the center line of the pump shaft. This enables the entire rotating element to be removed from the pump case without disturbing coupling alignment or piping connections. The faces between the upper and lower case halves are accurately machined and provided with a suitable gasket. Regularly made of close-grained cast iron, cases may also be obtained in bronze, ductile iron, or other alloys.

**IMPELLERS.** Enclosed type double suction impellers are carefully machined, hand-finished inside, and accurately balanced for smooth operation. Impellers are keyed to the shaft for positive driving. The material for standard impeller construction is bronze. Other materials such as cast iron, stainless steel, or other alloys can be furnished.

**CASE WEAR RINGS.** The pump case is fitted with bronze wear rings pinned in place and shouldered against a seat in the case to provide sealing against leakage between the ring and the case. Most pump models are fitted with single step, angle type rings contoured at the entrance to allow free flow of liquid into the eye of the impeller. Materials other than bronze can be furnished.

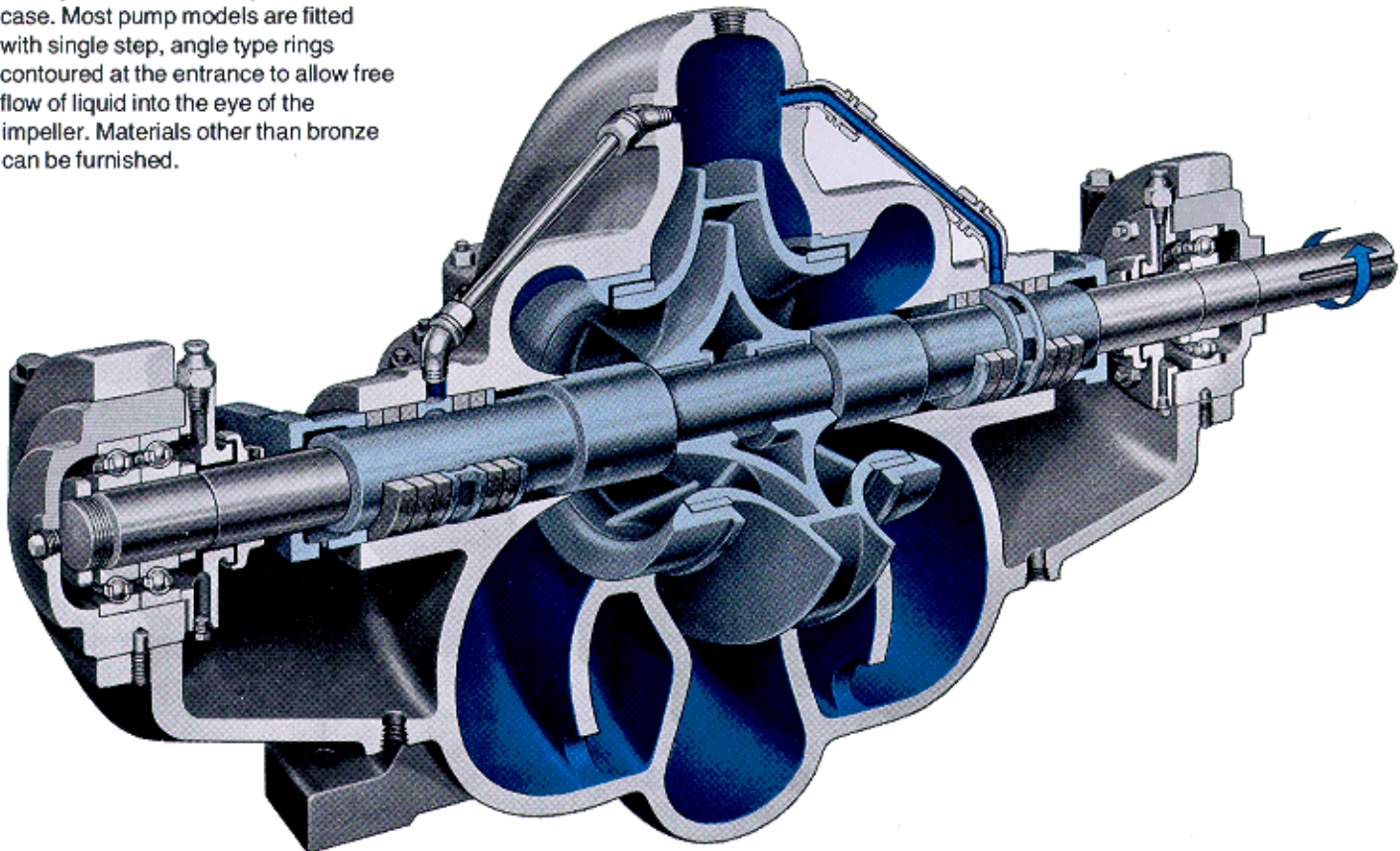
**IMPELLER WEAR RINGS.** Bronze impeller wear rings, furnished as standard construction, are securely fastened to the impeller and machined to close tolerances to permit minimum recirculation of pumped liquid. Materials other than bronze can be furnished.

**STUFFING BOXES** are designed to utilize five or more rings of graphited, braided packing with a lantern ring. A bronze stuffing box bushing is placed in the bottom of each box to prevent corrosion and sticking; split bronze glands are provided which allow easy disassembly for packing replacement. Water seal piping is provided between the discharge volute in the upper half of the pump case and the lantern rings in the stuffing boxes. Stuffing boxes can be fitted with mechanical seals.

**SHAFT.** The pump shaft is precision made of high tensile carbon steel and is threaded to allow for impeller adjustment. Pump shaft can also be furnished in stainless steel material.

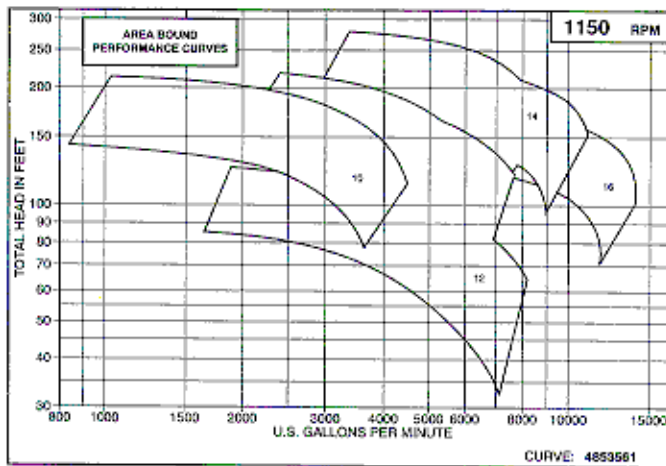
**SHAFT SLEEVES.** Protection against shaft wear is provided by shaft sleeves. Sleeve construction used in Type A pumps include straight sleeves keyed to the shaft utilizing separate sleeve nuts threaded on the shaft external to stuffing boxes. Sleeve nuts are secured to the shaft with set screws. Bronze shaft sleeves are standard construction; alternate materials can be furnished

**BEARINGS.** Type A pumps are constructed with ball bearings sized for a minimum of 20,000 hours B10 life which is equivalent to 100,000 hours average bearing life. Inboard bearings are single row radial ball bearings. Outboard bearings are duplex angular contact ball bearings. Grease lubrication is a standard; oil lubricated water cooled bearings can be furnished on most models. Bearing housings are mounted in split saddle bearing seats which are cast and bored integrally with the case providing permanent alignment.

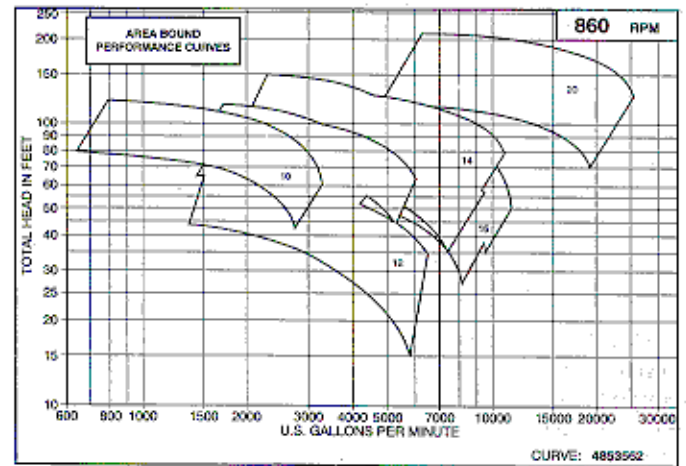


# Performance

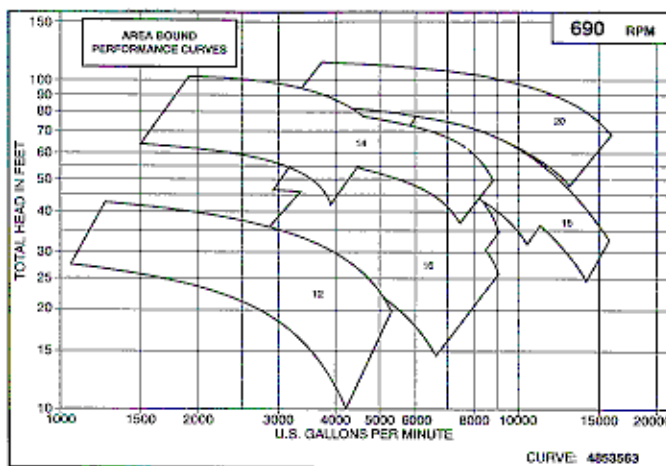
## 1150 RPM



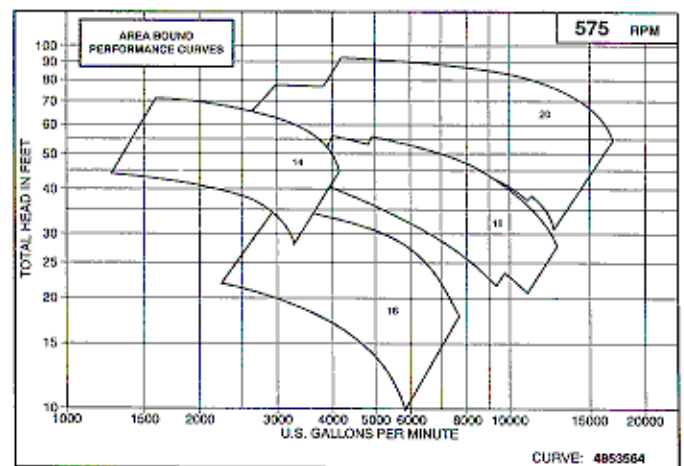
## 860 RPM



## 690 RPM



## 575 RPM



Numbers in curves denote pump discharge size in inches.

# Design Details of Double Suction Pumps

## General Characteristics

**SIZES**—Double suction 10" through 24" discharge.

**CAPACITIES**—Up to 25,000 gpm.

**HEADS**—Up to 280 feet.

**TEMPERATURES**—Handle liquids up to 250°F.

**DRIVES**—Direct-connected electric motor, diesel, natural gas, gasoline engine; steam turbine; and variable speed drives.

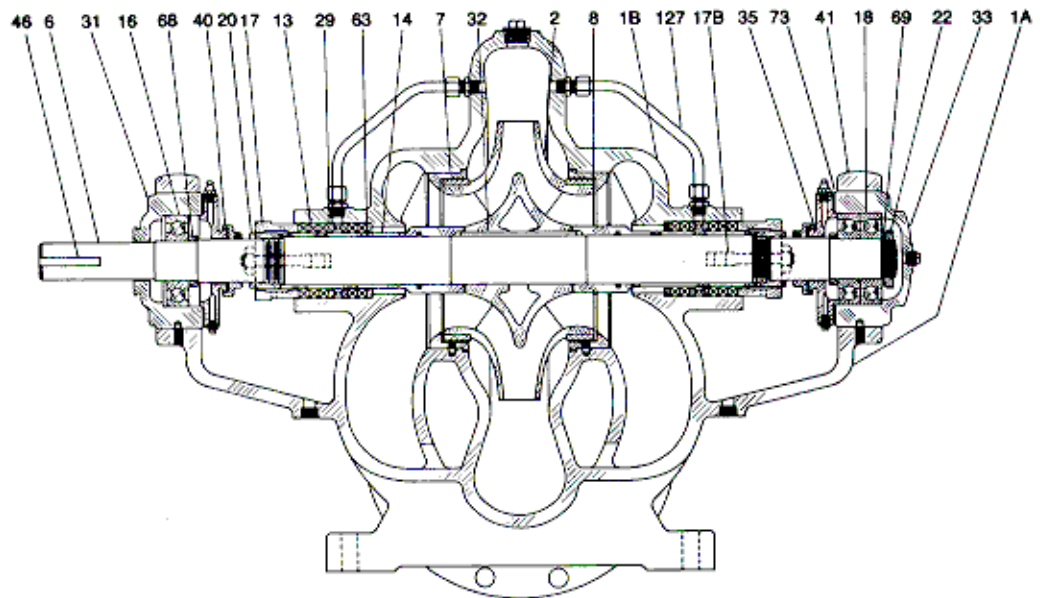
Peerless has a successful history of over 70 years in manufacturing pumps for moving liquids in almost every kind of industrial, commercial, municipal and agricultural application. Peerless Type A pumps can be applied to a variety of pumping jobs handling water and other liquids even when there is a modest amount of non-abrasive solids in suspension.

Peerless Pumps are designed for interchangeability, long life, and sustained efficiency with minimum downtime for maintenance and repair. Bearing seats are cast and bored integrally with the pump case, assuring permanent alignment. All parts are machined to gage in an interchangeable parts system and inspected in each phase of manufacturing.

Peerless Type A pumps can be fully tested in the hydraulic laboratory, which can simulate most field conditions under which the pump will operate.

## Horizontal Suction Pumps

Sleeve Nut Construction



## Parts List

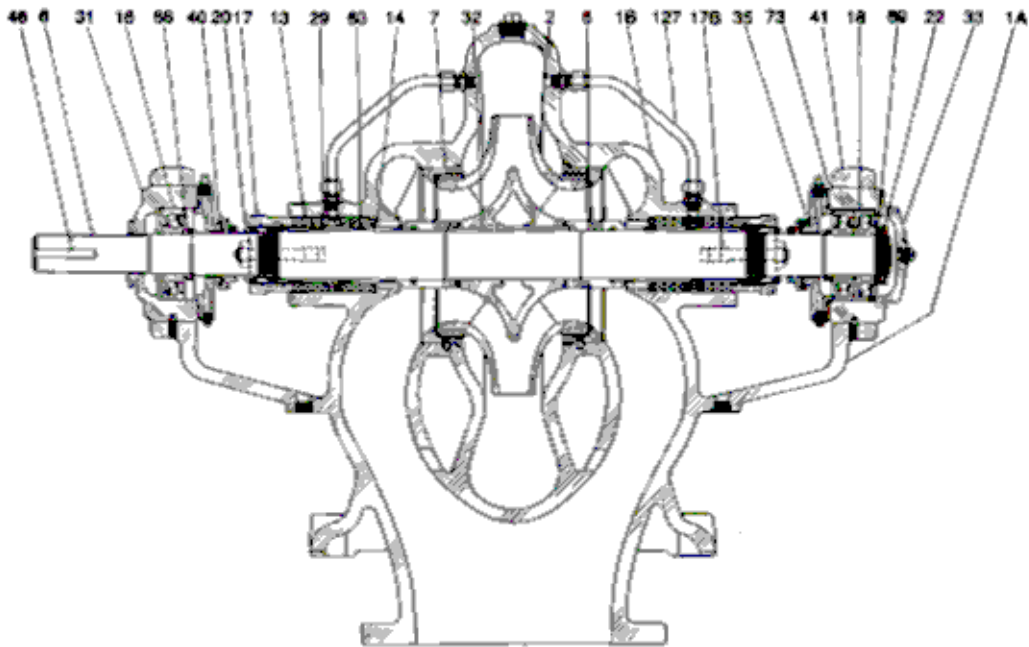
1A Casing, lower  
1B Casing, upper  
2 Impeller  
6 Shaft  
7 Ring, Casing  
8 Ring, Impeller  
13 Packing  
14 Sleeve, Shaft  
16 Bearing, Inboard  
17 Gland  
17B Bolt, Gland

18 Bearing, Outboard  
20 Nut, Shaft Sleeve  
22 Nut, Bearing Lock  
29 Ring, Lantern  
31 Housing, Bearing, Inboard  
32 Key, Impeller  
33 Housing, Bearing, Outboard  
35 Cover, Bearing  
40 Deflector, Water  
41 Cap, Bearing  
46 Key, Coupling

63 Bushing, Stuffing Box  
68 Collar, Shaft  
69 Washer, Bearing Lock  
73 Gasket, Bearing Cover  
107 Shield, Retaining, Oil  
125 Oiler, Constant Level  
127 Piping, Seal

## Bottom Suction Pumps

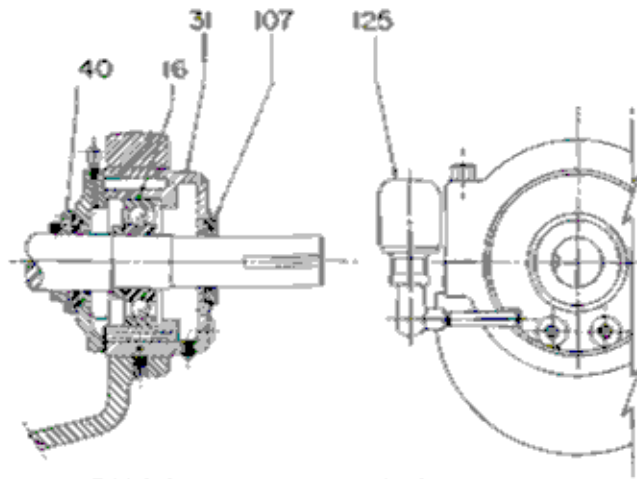
Sleeve Nut Construction



## Parts List

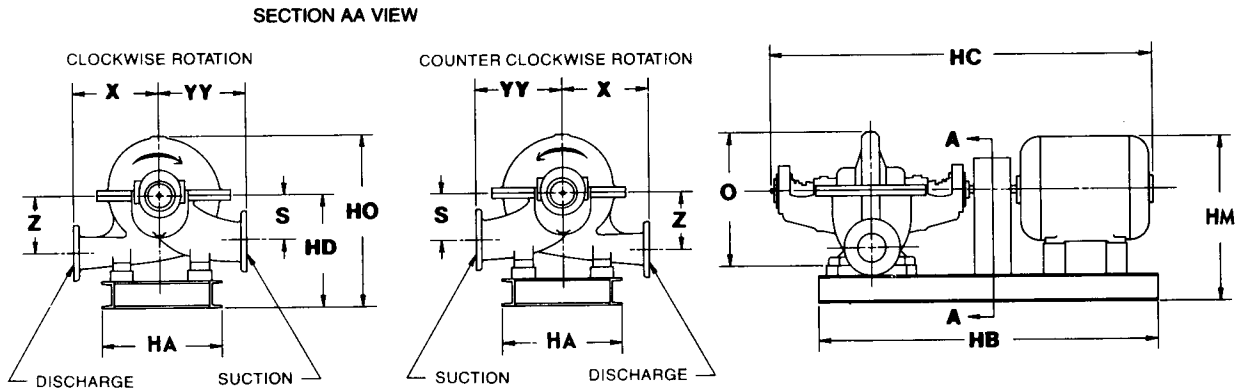
1A Casing, lower	18 Bearing, Outboard	63 Bushing, Stuffing Box
1B Casing, upper	20 Nut, Shaft Sleeve	68 Collar, Shaft
2 Impeller	22 Nut, Bearing Lock	69 Washer, Bearing Lock
6 Shaft	29 Ring, Lantern	73 Gasket, Bearing Cover
7 Ring, Casing	31 Housing, Bearing, Inboard	107 Shield, Retaining, Oil
8 Ring, Impeller	32 Key, Impeller	125 Oiler, Constant Level
13 Packing	33 Housing, Bearing, Outboard	127 Piping, Seal
14 Sleeve, Shaft	35 Cover, Bearing	
16 Bearing, Inboard	40 Deflector, Water	
17 Gland	41 Cap, Bearing	
17B Bolt, Gland	46 Key, Coupling	

## Oil Lubricated Bearings



Oil lubricated bearings can be furnished on most models of Peerless Type A pumps.

# Type A Horizontally Split Case Pumps



**DIMENSIONS — TYPE A-SINGLE STAGE PUMPS**

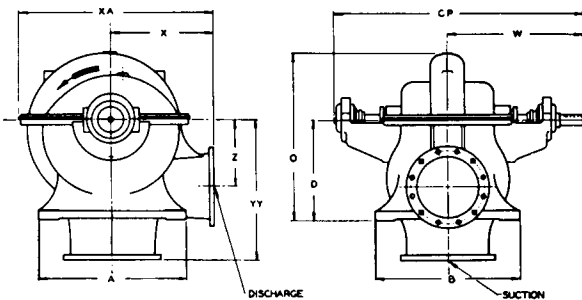
◀ **Double Volute**

(1) Dimensions vary greatly with motor type and manufacturer. Refer to factory for complete unit dimensions.

\* STD with 250 cast discharge.  
Drilled 125 or 250.

SIZE (1)	125# ANSI FLANGES		O	S	X	YY	Z
	SUC	DIS					
10A22-B	12	10	37%	13	28	25	15
◀12A16-D	14	12	33%	12	19	26	13½
12AX19-B	14	12	35%	12	28	24	13½
◀12A20-B	14	12	39%	14½	22	27	15½
12A22-B	14	12	40%	14	30	28	16
14A20-B	16	14	40%	15	22	29	16
14A22-B	18	14	44½	16	24	28	17
14A24-B	16	14	44½	16	36	30	17
16A18-B	18	16	40%	15	23	26	15
16A20-B	18	16	43%	16	24	30	16
18A22-B	20	18	57½	18	30	33	18
◀20AX25-B	24	20	54	20½	30	34	20½
◀20A28	24	20	58½	20½	32	40	22½
24A28-B	30	24	63%	24	36	42	24

**TYPE A BOTTOM SUCTION PUMPS DIMENSIONAL DATA**



SIZE PUMP	125 # ANSI FLANGES		A	B	CP	D	O	W	X	XA	YY	Z
	SUCTION	DISCHARGE										
10A20-B◀	12	10	34½	23¼	54%	20	34½	29%	27½	45%	26	14½
12A20-B◀	14	12	30	42	65%	24	39%	36	22	42%	36	15½
16A18-B	18	16	39	36	69%	26	40%	37½	24	45	34½	15
18A22-B	20	18	42	52	73½	24	41½	39%	30	54%	42	18
24A28-B	30	24	48	58	89½	37	59%	49	36	56%	54	24



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