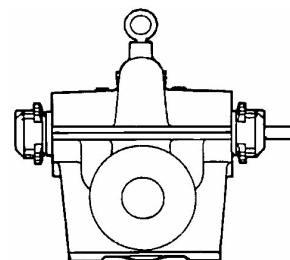




PRODUCT BULLETIN MODEL HD DOUBLE SUCTION



Applications

American-Marsh Model HD Double Suction pumps are used in a variety of industries. These rugged and efficient centrifugal pumps are designed for long life and low operational costs. Each model has a removable rotating assembly that can be serviced without disturbing the driver or piping. Models are available in a packed or mechanically sealed orientation for use in demanding applications.

Material Specifications

PART	CONSTRUCTION			
	BRONZE FITTED	IRON FITTED	NI-RESIST FITTED	316SS FITTED
Casing	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Impeller	Bronze	Cast Iron	Ni-Resist	316 Stainless Steel
Shaft Sleeve	Bronze	Bronze	316 Stainless Steel	316 Stainless Steel
Stuffing Box	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Shaft	420 Stainless Steel	420 Stainless Steel	420 Stainless Steel	410 Stainless Steel
Case Wear Ring	Bronze	Cast Iron	Ni-Resist	316 Stainless Steel
Bolts, Studs & Nuts	Steel	Steel	Steel	Steel
Packing	Graphite Braid	Graphite Braid	Graphite Braid	Graphite Braid
Mechanical Seal	Carbon/Si-C/Buna	Carbon/Si-C/Buna	Carbon/Si-C/Buna	Carbon/Si-C/Buna

MODEL HD SPECIFICATIONS

Casing: The casing is of high tensile cast iron or other specified material. It is of the volute type with double suction, split on the horizontal centerline with the suction and discharge nozzles cast integral with the lower half. Removal of the upper casing gives complete access to the interior of the pump without disturbing piping connections or pump alignment. The casing utilizes *Thru-Bore* lineboring technology simplifying the machining operation and allows the advantage of using only a few modular rotating assemblies. The *Thru-Bore* feature allows for the complete removal and replacement of the stuffing boxes without replacing the casing.

Impeller: The impeller is of the double suction, enclosed, non-overloading type. It is made of bronze, or other specified material, machined and polished all over and dynamically and hydraulically balanced. The impeller is keyed to the shaft and secured by locknuts. It is adjustable for position.

Case Wear Rings: Case wear rings are made of bronze or other specified material. They are designed with a large wearing surface with the diameter at wearing surface reduced to a minimum, and are firmly secured in the casing by dowel pins.

Shaft: The shaft is of 420 stainless steel, ground and polished to a smooth surface. It is designed for extra stiffness to avoid all critical speeds in operation, and is threaded for bearing and impeller lock nuts. The portion of the shaft that is exposed to the pumped fluid is covered

with renewable bronze shaft sleeves screwed on against the impeller with right and left hand threads which cannot work loose during operation. Shaft sleeves have external o-rings, in lieu of internal o-rings, to stop leakage of product.

Stuffing Boxes/Seal Chambers: The stuffing boxes/seal chambers are extra deep, being designed for packing and lantern ring or mechanical seals. Under each stuffing box is a drip pocket with tapped drain outlet. The stuffing boxes/seal chambers are completely removable and replaceable.

Bearings: Both the inboard and outboard ball bearings are of the single row, deep groove type, precision grade, with cartridge mounting, permitting the removal of the shaft without exposing or disturbing the bearing assembly. They are of extra large capacity for both radial and thrust loads. The outboard bearing is confined rigidly in the bearing housing to take end thrust, while the inboard bearing is set with sufficient clearance to allow for shaft expansion. Each bearing is designed for grease lubrication and is provided with a water slinger to prevent leakage from the stuffing box into the bearing. A zerk fitting is furnished for each bearing. Each bearing housing is sealed from water leakage by the use of a lip seal.

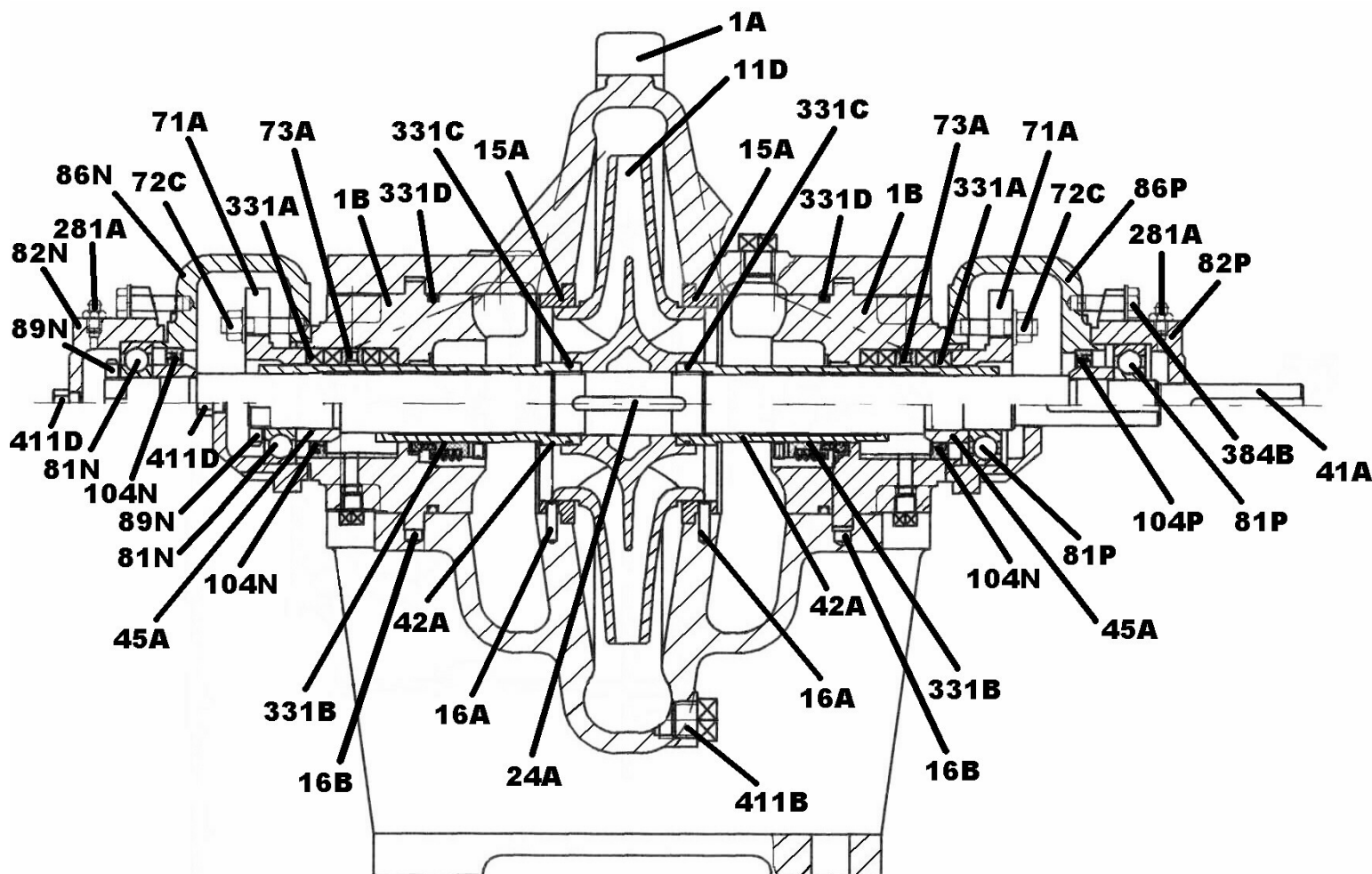
Both bearings can be removed and replaced without removing the rotating assembly from the pump, greatly simplifying the repair process.

INDUSTRIAL
Process, Petrochemical,
Leachate Recovery

COMMERCIAL
HVAC, Booster, Condensate Return,
Supply Water, Reverse Osmosis

MUNICIPAL
Quench Water, Filtration, Transfer,
Filter Backwash, Supply Water

PRODUCT BULLETIN
MODEL HD DOUBLE SUCTION



HD Sectional Drawing

Item Number	Item Description	Num. Req.
1A	Casing, Complete	1
1B	Stuffing Box	2
11D	Impeller	1
15A	Case Wear Ring	2
16A	Dowel Pin	2
16B	Dowel Pin	2
24A	Impeller Key	1
41A	Shaft	1
42A	Shaft Sleeve	2
45A	Bearing Adapter	2
71A	Gland Assembly, Complete	2
72C	Hinge Bolt	4
73A	Lantern Ring	2
81N	Outboard Bearing, Thrust	1
81P	Inboard Bearing, Radial	1
82N	Bearing Housing, Outboard	1
82P	Bearing Housing, Inboard	1

* Not shown in sectional.

Recommended spare parts are in **BOLD**.

Item Number	Item Description	Num. Req.
86N	Bearing Arm, Outboard	1
86P	Bearing Arm, Inboard	1
89N	Locknut, Outboard	1
104N	Lip Seal, Outboard	1
104P	Lip Seal, Inboard	1
281A	Zerk Fitting	2
331A	Packing	1 Set
331B	Mechanical Seal	2
331C	Shaft Sleeve O-Ring	2
331D	Stuffing Box O-Ring	2
353A*	Case Gasket	1
381B*	Casing Capscrew	Varies
384B	Bearing Housing Capscrews	8
411A	Plug, Vent	1
411B	Plug, Drain	1
411D	Plug, Bearing Housing	1