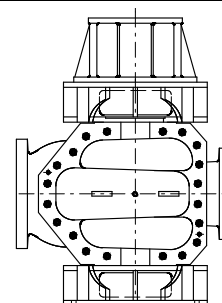




## PRODUCT BULLETIN MODEL V-HD DOUBLE SUCTION

### Vertical Heavy Duty Spit Case

American-Marsh Model V-HD Vertical 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. All models feature a fully casted pump and motor base.



### Material Specifications

PART	CONSTRUCTION		
	BRONZE FITTED	IRON FITTED	316SS FITTED
Casing	Cast Iron	Cast Iron	Cast Iron
Impeller	Bronze	Cast Iron	316 Stainless Steel
Shaft Sleeve	Bronze	Bronze	316 Stainless Steel
Stuffing Box	Cast Iron	Cast Iron	Cast Iron
Shaft	420 Stainless Steel	420 Stainless Steel	410 Stainless Steel
Case Wear Ring	Bronze	Cast Iron	316 Stainless Steel
Packing	Graphite Braid	Graphite Braid	Graphite Braid
Mechanical Seal	Carbon/Si-C/Buna	Carbon/Si-C/Buna	Carbon/Si-C/Buna

### MODEL V-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. Suction and discharge nozzles are casted of 250 psi dimensions and all models feature a 250 psi case working pressure. 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:** The inboard ball bearing is of the double row, deep groove type, precision grade, with cartridge mounting. It is of extra large capacity for both radial and thrust loads and is confined rigidly in the bearing housing to take end thrust. This bearing is sized to maintain a minimum of 50,000 hour bearing life. This 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 bearing lubrication. The bearing housing is sealed from water leakage by the use of an oil lip seal.

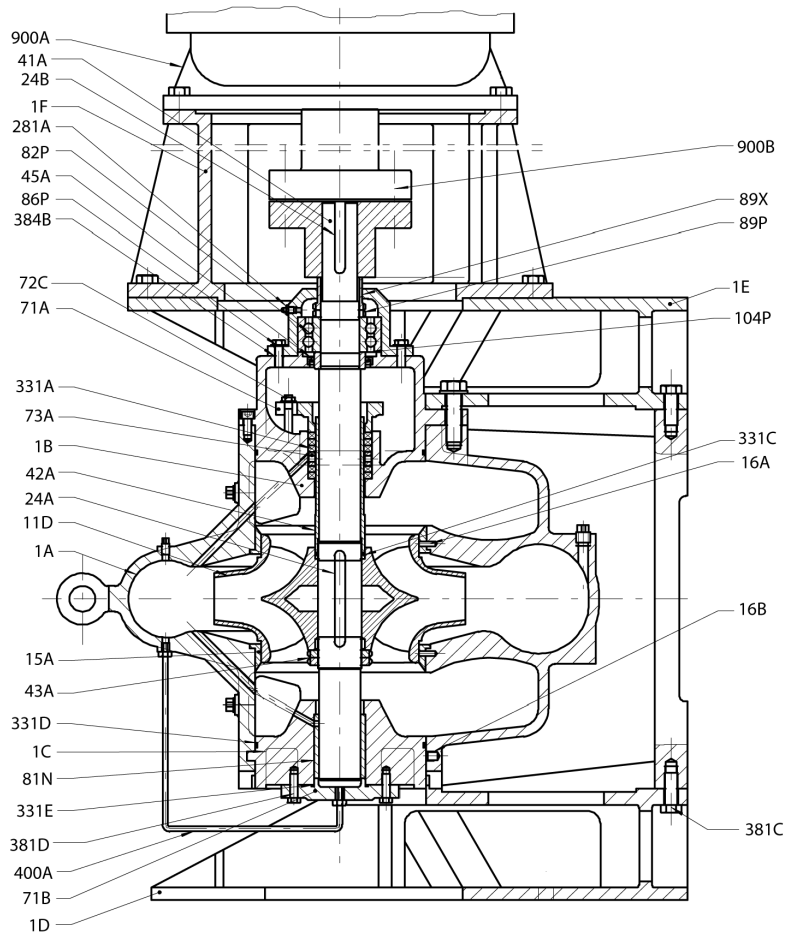
The outboard roller bearing has been replaced by a heavy duty, product lubricated, fluted bronze bearing. This design removes the roller bearing from this location and eliminates any chance of moisture contamination to a roller bearing usually installed in this location.

INDUSTRIAL  
Process, Petrochemical

COMMERCIAL  
HVAC, Booster,  
Supply Water, Reverse Osmosis

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

PRODUCT BULLETIN  
MODEL V-HD DOUBLE SUCTION



**V-HD Sectional Drawing**

Item Number	Item Description	Num. Req.
1A	Casing, Complete	1
1B	Stuffing Box, Inboard	1
1C	Stuffing Box, Outboard	1
1D	Casing Bottom Base	1
1E	Casing Top Base	1
1F	Motor Bracket	1
11D	Impeller	1
15A	Case Wear Ring	2
16A	Dowel Pin	2
16B	Dowel Pin	2
24A	Impeller Key	1
24B	Coupling Key	1
41A	Shaft	1
42A	Shaft Sleeve	1
43A	Shaft Sleeve Locknut	2
45A	Bearing Adapter	2
71A	Gland Assembly, Complete, Inboard	1
71B	Gland Plate, Outboard	1
72C	Gland Stub	4
73A	Lantern Ring	2
81P	Inboard Bearing, Radial/Thrust	1
81N	Outboard Bearing, Radial	1
82P	Bearing Housing, Inboard	1

Item Number	Item Description	Num. Req.
86N	Bearing Housing Cap	1
86P	Bearing Housing, Inboard	1
89P	Locknut, Inboard	1
89X	Locknut, Inboard	1
104P	Lip Seal, Inboard	1
281A	Zerk Fitting	2
331A	Packing	1 Set
331B	Mechanical Seal (Optional)	1
331C	Shaft Sleeve O-Ring	1
331D	Stuffing Box O-Ring	2
331E	Gland Plate Gasket, Outboard	1
353A*	Case Gasket	1
384B	Bearing Housing Capscrews	8
381B*	Casing Capscrew	Varies
381C	Capscrew, Base	Varies
381D	Capscrew, Gland Plate	Varies
400A	External Flush Line	1
411A	Plug, Vent	1
411B	Plug, Drain	1
411D	Plug, Bearing Housing	1
900A	Motor	1
900B	Motor Coupling	1

\* Not shown in sectional.

Recommended spare parts are in **BOLD**.