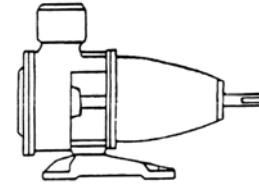




PRODUCT BULLETIN MODEL VF REGENERATIVE TURBINE

The newly re-designed American-Marsh model VF regenerative turbine pumps will handle ANY non-viscous, non-abrasive fluid – QUIETLY, EFFICIENTLY, & ECONOMICALLY. Especially suited for many installations because internal parts can be removed without breaking any pipe connections or disturbing alignment. Suction and discharge can be rotated to four different positions. This style of pump can also handle fluid with entrained gas of up to 20%. The newly redesigned pump now features renewable and replaceable channel rings and seal chamber.



Material Specifications

PART	CONSTRUCTION		
	BRONZE FITTED	IRON FITTED	316SS FITTED
Casing	Cast Iron	Cast Iron	Cast Iron
Casing Cover	Cast Iron	Cast Iron	Cast Iron
Impeller	Bronze	Bronze	316 Stainless Steel
Channel Rings	Bronze	Cast Iron	316 Stainless Steel
Shaft	420 Stainless Steel	420 Stainless Steel	316 Stainless Steel
Power Frame	Cast Iron	Cast Iron	Cast Iron
Bearing Cap	Cast Iron	Cast Iron	Cast Iron
Mechanical Seal	Carbon/Ceramic/Buna	Carbon/Ceramic/Buna	Carbon/Ceramic/Buna

MODEL VF SPECIFICATIONS

Casing: The casing is of high tensile cast iron, or other specified material, accurately and carefully machined for maximum efficiency. Inlet and outlet connections are cast integral with the casing. Necessary openings are provided for venting and draining. The casing features a removeable cover that will allow complete access to the internal components of the pump. This will allow the inspection and/or replacement of the channel rings, the impeller, the seal chamber and the mechanical seal. All of these components can be inspected and/or replaced without disturbing suction or discharge piping and without tearing apart the power frame.

Impeller: The impeller is of cast bronze or other specified material, machined all over with radial vanes accurately milled on both sides of the periphery. Impellers are hydraulically balanced as fluid enters from two equal ports at the suction giving equal flow to both sides of the impeller, thus eliminating end thrust. The impeller has all surfaces machined and is perfectly balanced.

Channel Rings: The new VF design features a floating impeller with replaceable and renewable channel rings. The impeller, due to its hydraulically balanced design, floats in the center of the channel ring cavity. As the channel rings wear and factory tolerances open up, the channel rings can be replaced and factory new performance can be accomplished.

Stuffing Box: The seal chamber is of the FMI type, tapered and casted of bronze or other specified material. A standard Carbon vs. Ceramic mechanical seal is supplied standard. The seal chamber is so designed that it can be completely removed and replaced without replacing other parts. Also, the front side of the seal chamber has the channel ring incorporated for replacement of factory running tolerances.

Shaft: The shaft is of 420 stainless steel and of ample proportions to safely transmit the maximum power and to avoid critical speeds over the entire operational speed range.

Power Frame: The power frame is of cast iron designed so that it is not in contact with the pumped fluid. The power frame now incorporates permanently lubricated ball bearings eliminating the need for re-greasing in the field.

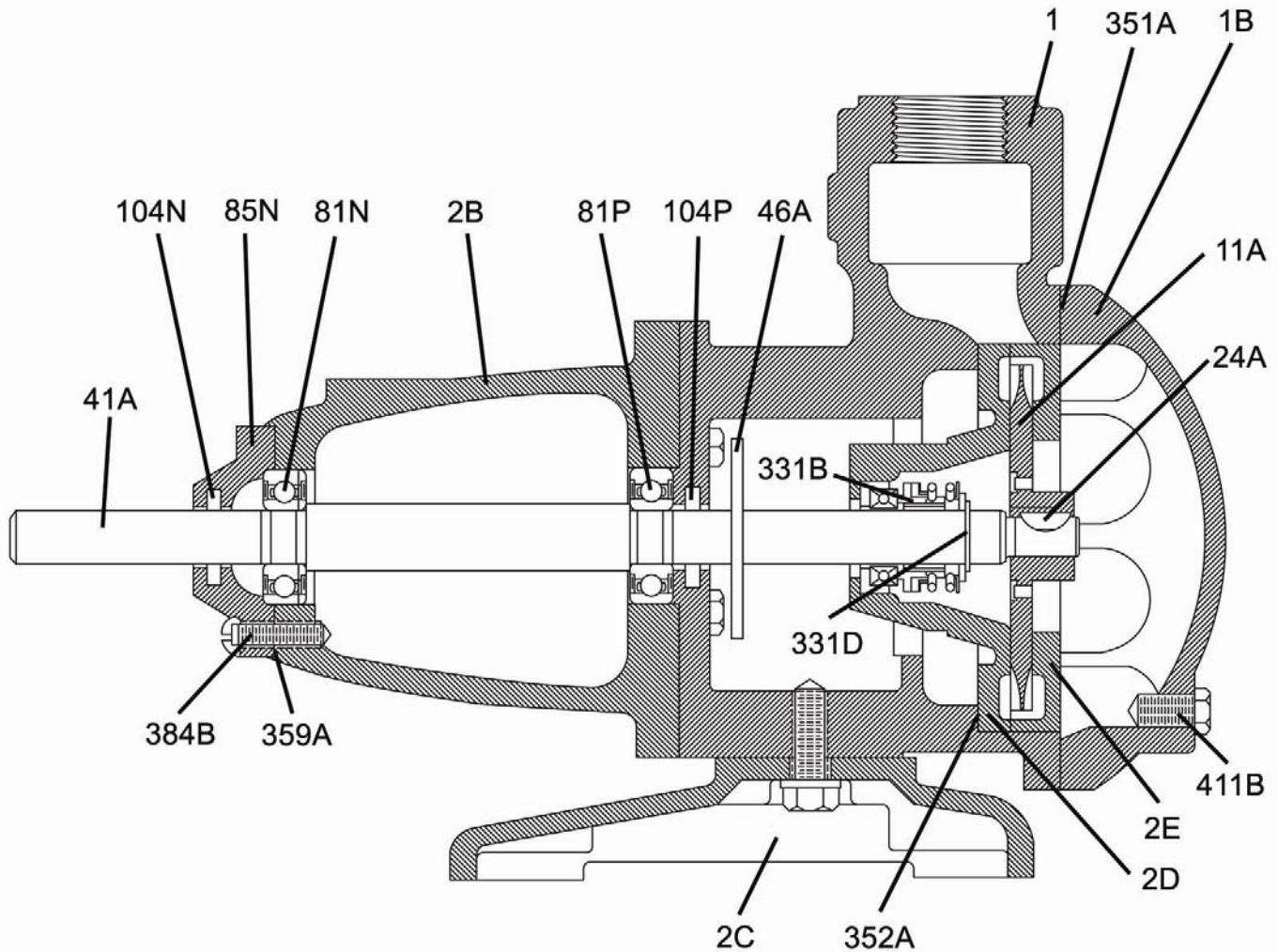
Ball Bearings: The ball bearings are sealed, grease lubricated and of ample size to rigidly support the shaft. The single row inboard bearing carries radial loads and is free to move in either direction. The outboard bearing is of the deep groove, single row type to carry either radial loads or unbalanced thrust loads.

INDUSTRIAL
Process, Petrochemical,
Chemical Injection

COMMERCIAL
HVAC, Booster, Boiler Feed,
Condensate Return, Seal Flush

MUNICIPAL
High Pressure, Chemical Feed

PRODUCT BULLETIN
MODEL VF REGENERATIVE
TURBINE



VF Sectional Drawing

Item Number	Item Description	Num. Req.
1A	Casing	1
1B	Casing Cover	1
2B	Power Frame	1
2C	Foot, Power Frame	1
2D	Rear Cover/Channel Ring	1
2E	Front Channel Ring	1
11A	Impeller	1
24A	Impeller Key	1
41A	Shaft	1
46A	Water Slinger	1
81N	Outboard Bearing, Thrust	1
81P	Inboard Bearing, Radial	1

Item Number	Item Description	Num. Req.
85N	Outboard Bearing Cap	1
104N	Outboard Seal	1
104P	Inboard Seal	1
125A	Coupling Key	1
331B	Mechanical Seal	1
331D	Mechanical Seal Locking Collar	1
351A	Casing Cover Gasket	1
352A	Rear Cover Gasket	1
359A	Bearing Housing Gasket	1
384B	Bearing Cap Capscrew	1
411B	Plug, Drain	1

*Not shown in sectional.

Recommended spare parts are in BOLD.