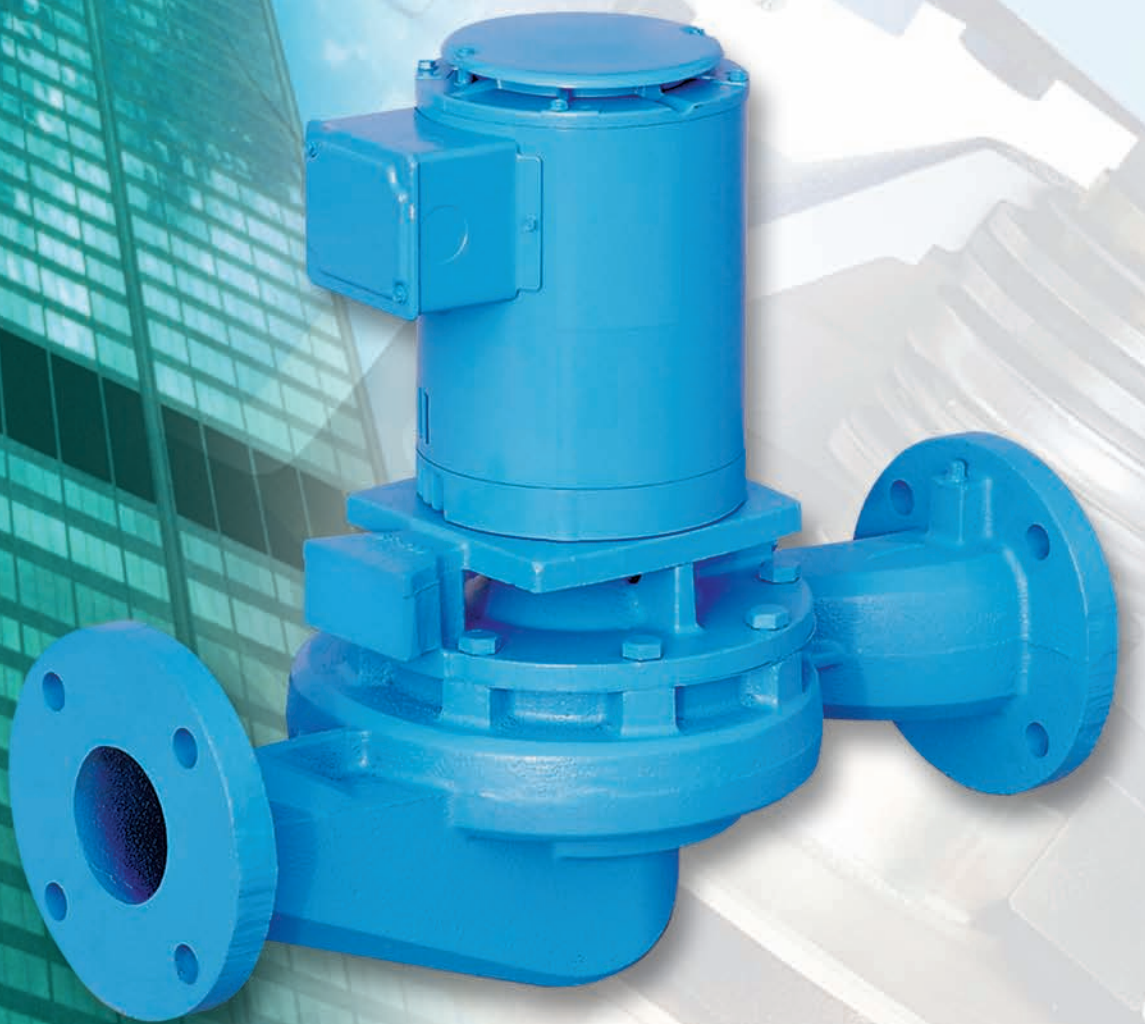
TV2g Series
Vertical In-Line Pumps

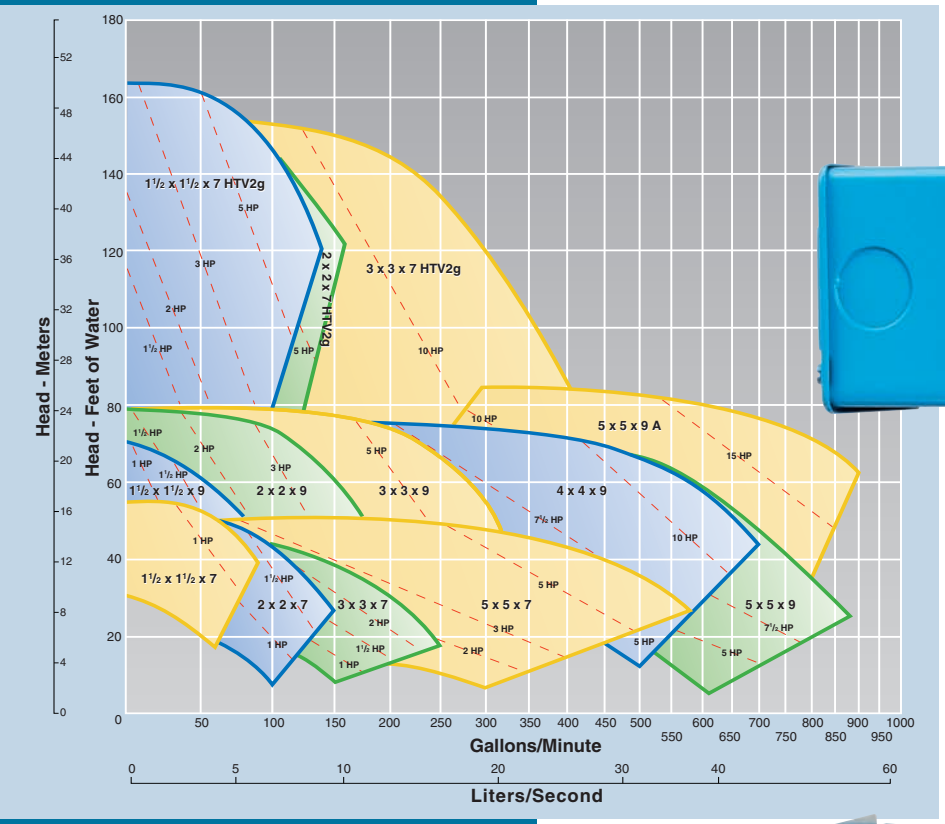
Thrush
Company, Inc.



Close Coupled In-Line Pump

Quick Selection

Composite Performance Curves for TV2g and HTV2g Series

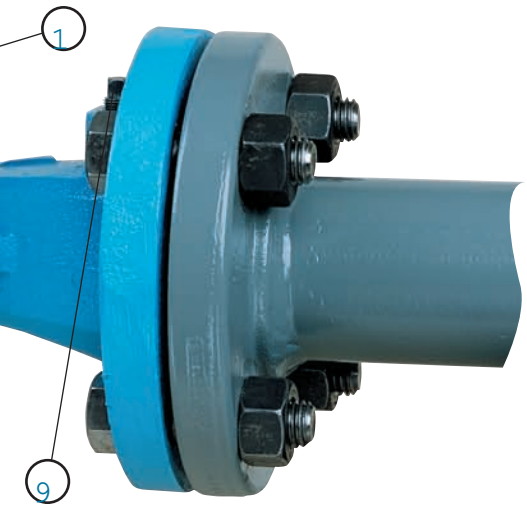


In-line mounting saves space, materials and installation time.

Thrush TV2g series pumps are designed to mount in the pipe line to reduce space, materials, and installation time. Center line suction and discharge keep weight evenly balanced and distributed upon the piping. An inlet diffuser section, designed as a part of the pump casing, allows the suction connection to be the same size as the discharge connection, simplifying installation of the pump into the piped system. No flexible connections to compensate for pipe misalignment are necessary since the pump is not permanently connected to anything but the pipe and is free to "move" with the expansion and contraction of the piped system.

Thrush TV2g Features

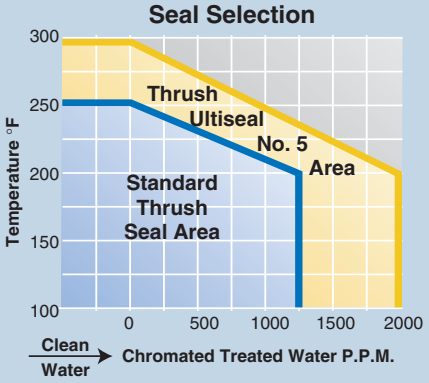
1. The JM shaft motor, which is standard on the Thrush TV2g close coupled in-line pump, is the result of a joint NEMA-Hydraulic Institute Standard on motors to be used on close coupled pumps. The JM shaft motors are more readily available, give quieter operation and longer seal life.
2. Long-life mechanical seal is supplied with EPT elastomers, 303 stainless steel metal parts, carbon rotating washer, and Ni-Resist stationary seat. It is pre-assembled on a bronze shaft sleeve (cartridge seal assembly) to ensure correct mechanical seal positioning and easy servicing.
3. Shaft wear and corrosion are prevented by a slip-fitted pinlocked, bronze shaft sleeve seal assembly extending through the seal box.



4. Elastomer gaskets seal both the shaft sleeve and impeller capscrew to prevent shaft corrosion and isolate shaft from pumped liquid.
5. Improved bracket design incorporates a diverging seal chamber that creates a vortex action to stimulate seal chamber circulation. This eliminates air and foreign particle build-up and carries off frictional heat from seal faces. An internal flush line increases recirculation in seal chamber, provides manual venting, and, if required, can be adapted to an external flush line. This design eliminates the need for strainers, filters, or cyclone separators, since the pumping action does the job.
6. Back pullout design allows for maintenance work without disturbing piping.
7. Impellers are hydraulically and dynamically balanced and designed at maximum diameters of 85% of cut water radius to insure quiet and efficient operation.
8. Improved casing designed for hydraulically quiet performance and for 125 pound ASA drilling.
9. Suction and discharge gauge tappings located for ease of access.
10. Adequate drain and vent tappings.

SPECIAL SEALS FOR HIGH TEMPERATURE APPLICATIONS

The above picture illustrates the bronze shaft sleeve cartridge seal assembly (pre-assembled). The pre-assembled shaft sleeve seal assures proper seal placement. It also saves time and eliminates seal damage when servicing the pump.



Mechanical seals on the Thrush TV2g are constructed with a high temperature carbon Ni-Resist seat, EPT elastomer bellows and gaskets, and stainless steel metal parts. These materials are standard and ensure long-life application for pumping temperatures as high as 250°F. Standard Thrush seals provide long leak-proof life in water with chromate concentration up to 1,250 parts per million. The optional Thrush Ultiseal No. 5, featuring a tungsten-carbide seat, extends applications to pumping temperatures of 300°F and chromate concentrations to 2,000 parts per million.

TV2g Series Vertical In-Line Pumps

Engineer's Specifications

TV2g Series

The contractor shall furnish and install as shown on prints. Thrush Model TV2g, close-coupled, centrifugal pump, standard fitted. TV2g is 1800 RPM. HTV2g is 3600 RPM.

Pumps shall have:

STANDARD

- JM shaft motor
- Bronze fitted
- Suction and discharge gauge tappings
- Single seal, carbon and Ni-Resist seal with EPT elastomer bellows with stainless steel parts
- Internal flush line
- Back pull-out design
- Cartridge seal assembly with bronze shaft sleeve and Ni-Resist seat
- Maximum working pressure - 175 PSI
- Hydrostatic test pressure - 265 PSI
- Close coupled design

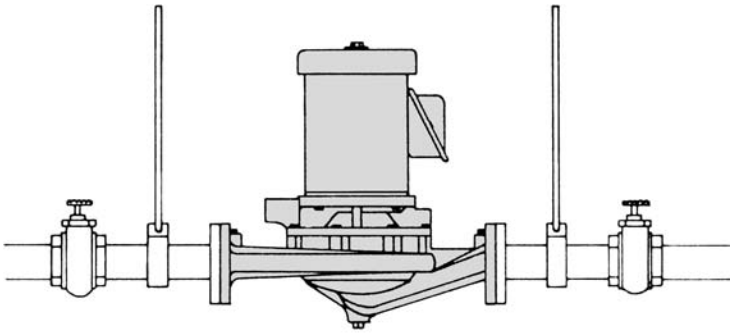
OPTIONAL

- Ceramic seal with EPT elastomers
- Hi-temperature Ultiseal No. 5 - carbon with tungsten carbide seat - 300° with stainless steel parts
- Stainless steel shaft sleeve
- Casing wear rings - bronze
- Bracket wear rings - bronze
- 300 PSI working pressure*

Pump(s) shall perform at:

_____Ft. Hd
_____G.P.M.
_____H.P.
_____Voltage
_____Fluid
_____Temp.

* 1½" x 1½" x 7" and 2" x 2" x 7" only



THRUSH TV2G IN-LINE PIPING

Materials of Construction

Pump Parts	Standard Bronze Fitted	Optional
Casing	Cast Iron G-3000	Ductile Iron A536 65-45-12*
Casing Wear Rings	Bronze Alloy ASTM-B-30	
Impeller	Bronze C87500	
Motor Shaft (Close Coupled)	Steel C 1137 (JM Style)	
Shaft Sleeve	Brass Alloy 360	Stainless Steel 316
Bracket	Cast Iron G-3000	
Lubrication	Grease	
Mechanical Seal Type	#21 250° Ni-Resist	Ceramic, Silicon Carbide or Ultiseal
Casing Flanges	125 ASA Drilling	300 ANSI B16 Drilling*

* 1½" x 1½" x 7" and 2" x 2" x 7" only

Distributed By:

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