



Read *Installation, Operation & Maintenance manual* for full instructions, prior to installation.
Installers should review & understand pump & seal configuration drawings & connections

Bearing Lubrication Requirements

Model	Qty	RPM / Pumping Temperature	ISO VG
VIT-500	0.78 qt	Up to 1800 rpm or Up to 350°F	46
VIT-500	0.78 qt	Above 1800 rpm or Above 350°F	68
VIT-1000	1.0 qt	Up to 1800 rpm or Up to 350°F	46
VIT-1000	1.0 qt	Above 1800 rpm or Above 350°F	68

**** Note: Pumps are shipped with No oil installed. ****

Fill frame to centerline of sight glass when pump is not operating; DO NOT install constant level oilers, vents, or breathers.

Bearing Lubricants:

Exxon Teresstic ISO VG 46 / 68
Mobil DTE ISO VG46 / VG68
Sunoco Sunvis 946 / 968
Royal Purple Synfilm VG46 / VG68
Conoco Syncon VG46 / VG68
Kluberoil 4 - UH1-68N only (Food Grade)
Or similar with rust, foam & oxidation inhibitors.
Contact factory for mechanical seal lubricants.

Pump Installation

Volutes with adjustable legs do not require shimming. Use the adjustable legs to align pump suction to piping.

Volutes with fixed feet should be shimmed as needed to align to pipe, or relocate piping to match pump flange.

Do not force piping into place to match pump. Flange bolts should "drop-in" without forcing pipe.

For long coupled pumps, shim rear foot of bearing frame to properly level pump.

Motor Installation; Rotation Check; Coupling

Long Coupled Pumps: Shim & align motor with dial indicator or laser alignment tool. Align to within 0.002" parallel F.I.M. and 0.0005"/in. angular F.I.M. For application above 350°F pumping temperature, recheck alignment after two hours continuous operation at normal operating temperature.

C- Flange Mounted Motors up to 286TC (40hp-250hp): Motors may be hung from c-flange. Use adjustable legs on C- Frame adapter for leveling, no coupling alignment required.

C-Flange Mounted Motors 324TC-449TC (40hp-240hp): Motors are mounted to baseplate and shimmed for leveling, no coupling required.

Always check motor rotation with coupling disengaged, do not "bump" motor with coupling engaged.

Mechanical Seal Connections, Seal Lubrication, Cooling Water

Refer to the specific drawings, diagrams, and instructions for this application for piping requirements for mechanical seal support systems, cooling water or steam requirements. air/N₂/CO₂ pressure etc, as applicable.

Connections with a temporary plastic plug, or any open threaded connections are an indication of a customer connection point for lubrication, cooling, etc. Consult engineering drawings for details.

Do not plug seal leakage drain port under bearing frame below mechanical seal location, unless a seal leakage monitoring or containment system, VOC capture system, or frame pressurization system is to be installed

Power Frame Upgrades

Use same gasket thickness as supplied with original pump.

Impeller spacer bushing & O-ring is usually shipped in separate box. Be sure to install before mounting impeller.

For non-ANSI pumps, it may be necessary to drill additional holes on baseplate for frame support foot. Adjust coupling bore & length or relocate motor as needed.

For open style impellers, confirm impeller clearance between vanes and volute; Method 1-feeler gauge through pump suction. Method 2 -install power frame with no gasket, measure gap between back cover & volute; install gasket & measure gap again, the impeller clearance will be the difference between the two measurements.

Adjust impeller clearance, increase or decrease casing gasket thickness or adjust length of impeller spacer bushing.

When re-installing a used impeller, or trimming & installing new impeller, dynamically balance (two plane) the impeller to ISO G6.3 or better. Check old impellers for excessive wear or damage.

Bearings

VIT-500	Coupling End	SKF 6209 ZC3	1
	Impeller End	SKF 7210 BECBM	2
VIT-1000	Coupling End	SKF 6312 C3	1
	Impeller End	SKF 7313 BECBM	2

Use only exact replacement, do not substitute!

Shaft Diameter / Key at Coupling

VIT-500	1.125"	1/4" x 1/4"	Sliding Fit
VIT-1000	2.125"	1/2" x 1/2"	Sliding Fit

For installation questions, contact Service-Tel: 678-324-4481 or
www.enviopumpandseal.com