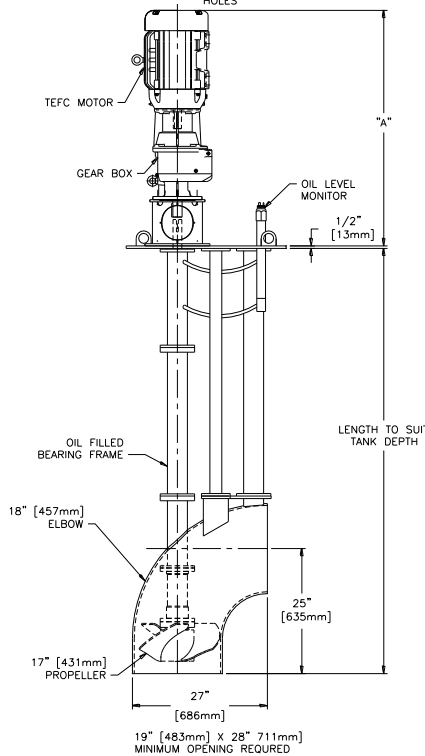
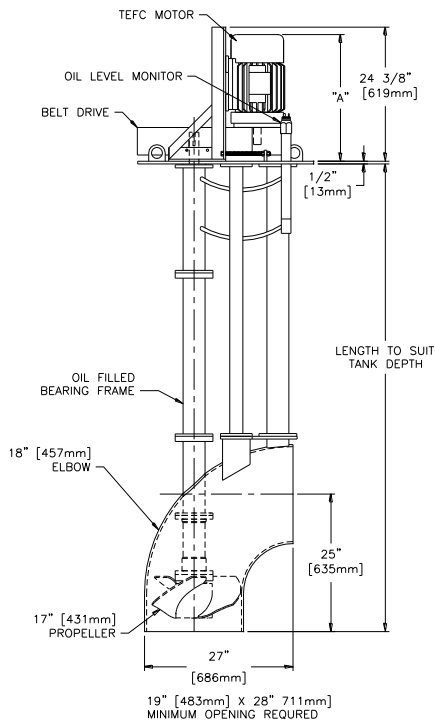
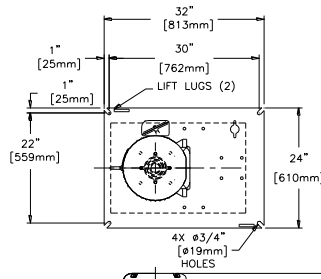
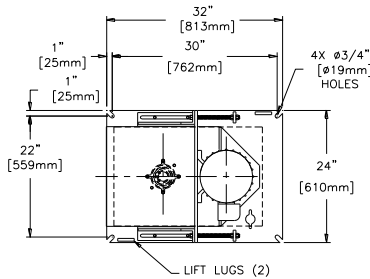


Turbo Mixer

Materials of Construction:

- Casing:** Carbon Steel
- Propeller:**..... Alloy steel, heat treated to minimum Rockwell C 60.
- Upper Cutter:** Cast alloy steel, heat treated to minimum Rockwell C 60.
- Mechanical Seal:** Cartridge type with silicon carbide (or tungsten carbide) faces.
- Thrust Bearings:**..... Back-to-back angular contact ball type.
- Radial Bearings:** Ball type.
- Shaft:** Heat treated alloy steel.
- Lubrication:**..... ISO Grade. 46 oil.
- Mounting Plate:**..... Carbon steel.
- Paint:** Epoxy.



Power	A Dimension	
	Belt Drive	Gear Box
5.5 KW	556 mm	990 mm
7.5 KW	556 mm	990 mm
11 KW	656 mm	1222 mm
15 KW	656 mm	1222 mm
18.5 KW	743 mm	1365 mm
22 KW	743 mm	*908 mm
(*22 KW GEAR MOTOR DRIVEN)		

DRAWINGS AND DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION PURPOSES. CONTACT VAUGHAN FOR CERTIFIED CONSTRUCTION PRINTS.

SEE SECOND PAGE FOR FLOWS AND DRIVES



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 For all current patents, see <http://www.chopperpumps.com/patents.htm>

**MADE IN THE
 USA**

SPECIFICATIONS – VERTICAL WET WELL TURBO MIXER

Drive	KW	Motor RPM	Mixer RPM	Prop Dia.	Flow (m ³ /hr.)
Belt Drive	5.5	1460	384	431 mm	1,351
	7.5	1460	406	431 mm	1,430
	11	1460	477	431 mm	1,686
	15	1460	505	431 mm	1,794
	18.5	1460	569	431 mm	2,010
	22	1460	599	431 mm	2,117
Gear Box	5.5	1460	383	431 mm	1,351
	7.5	1460	418	431 mm	1,476
	11	1460	478	431 mm	1,692
	15	1460	533	431 mm	1,885
	18.5	1460	546	431 mm	1,930
	22	1460	617	431 mm	2,180

- A. **Casing:** 457 mm diameter carbon steel. Includes adjustable tool steel tip cutter.
- B. **Propeller:** Cast alloy steel heat treated to minimum Rockwell C 60 hardness. Blades are axial flow design with large radius tips along leading edges. Propeller dynamically balanced.
- C. **Upper Cutter:** Shall be threaded into the bearing housing behind the propeller, designed to cut against the propeller hub, reducing and removing stringy materials from the mechanical seal area. Upper cutter shall be cast alloy steel heat treated to minimum Rockwell C 60. The upper cutter teeth are positioned as closely as possible to the center of shaft rotation to minimize cutting torque and nuisance motor tripping. The ratio of upper cutter cutting diameter to shaft diameter in the upper cutter area of the mixer shall be 3.0 or less.
- D. **Shafting:** Shall be heat treated alloy steel. Upper shaft extension shall be turned, ground and polished. The shaft column shall be minimum 100 mm O.D. precision steel tubing welded to steel flanges and machined with piloted bearing fits for concentricity of all components. All support column tubes shall be leak tested. Distance between shaft bearings shall not exceed critical speed dimensions.
- E. **Shaft Ball Bearings:** Shall be oil bath lubricated by ISO Grade 46 oil, with the exception of the top bearing, which shall be grease packed. The bearings shall have a minimum L-10 life rated 100,000 hours. Shaft thrust shall be taken up by two back-to-back mounted single row angular contact ball bearings, which bear against a machined shoulder on one side and the seal sleeve on the other side. Overhang from the centerline of the lower thrust bearing to the seal faces shall be a maximum of 43 mm, with a mechanical seal to isolate the bearings from the pumped media.
- F. **Mechanical Seal:** The mechanical seal shall be located immediately behind the propeller hub to maximize the flushing available from the propeller vanes. The seal shall be a cartridge-type mechanical seal with Viton O-rings and silicon carbide (or tungsten carbide) faces. This cartridge seal shall be pre-assembled and pre-tested so that no seal settings or adjustments are required from the installer. Any springs used to push the seal faces together must be shielded from the fluid to be pumped. The cartridge shall also include a 17-4PH, heat-treated seal sleeve and a ductile cast iron seal gland.
- G. **Automatic Oil Level Monitor:** Shall be located above the mounting plate and be fitted with an internal oil level switch to monitor oil level and shut off the motor in event of low oil level.
- H. **Mounting Plate:** Shall be fabricated carbon steel, 13 mm minimum thickness, and shall include lifting lugs.
- I. **Gear Box with Motor Requirements:**
- **Shaft Coupling:** Shall be T.B. Woods Sureflex elastomeric type with a minimum 1.5 service factor based on the drive rated horsepower, and shall be protected with a guard meeting OSHA requirements.
 - **Motor Stool:** Shall be a fabricated carbon steel weldment machined with piloted fits to positively align the gear box and pump shafts, with no adjustments.
 - **Gear Box:** shall be a helical inline type vertically mounted to the motor stool
 - **Motor Requirements:** Drive motor shall be __ KW, 1460 RPM, __ volts, 3 phase, 50 hertz, 1.15 service factor, TEFC enclosure. The motor shall be sized for non-overloading conditions.
- J. **Belt Drive Requirements:**
- **Belt Drive:** includes adjustable motor mount, safety guard, belts and sheaves for ____ Mixer RPM
 - **Motor Requirements:** Drive motor shall be __ KW, 1460 RPM, __ volts, 3 phase, 50 hertz, 1.15 service factor, TEFC enclosure. The motor shall be sized for non-overloading conditions.
- K. **Stainless Steel Nameplate:** Shall be attached to the mixer giving the manufacturer's pertinent data.
- L. **Surface Preparation:** Degreased and coated with 5-8 MDFT epoxy (except motor).
- M. **OPTIONAL ADDER Surface Preparation:** SSPC-SP6 commercial sandblast (except motor), primed with 5-8 MDFT epoxy primer and finish coated with 5-8 MDFT epoxy (except motor).