GENERAL PUMPS

Vertical Turbine Pumps 60 Hz

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GT

VERTICAL TURBINE

DESCRIPTION

Pumps are of single or multistage, consisting of bowl assembly, column assembly and driving unit assembly. Variety of models are available to operate at 50Hz and 60 Hz.

Bowl

The bowl diffuser casing is made of Cast Iron grade FG 260 as per IS 210. It consist of diffuser vane integrally cast in the bowl casing.

Impeller

Impeller are of either mixed or radial flow design made of Bronze or Stainless steel 410. They are of enclosed type & dynamically balanced to grade IS 6.3 of ISO 1940.

Suction bell with Strainer

The Suction bell has been designed for minimum inflow losses. It is made of Cast Iron grade FG 260 as per IS 210. Heavy Duty suction strainer is provided to prevent any large object of getting sucked in to the pump.

Shaft

The shaft is of robust construction & is made of AISI 410.

Line Shaft Coupling

Couplings are rigid coupling with extra long threads & provided with means for tightening at site

Column pipe

Column pipes are fabricated from carbon steel pipes and welded with end flanges. A spider housing with rubber journal bearing is provided in between the flanges of column pipes to provide support to the shaft during operation. The function of column pipes is also to carry the pumping water from bowl assembly to discharge head.

Discharge head/Discharge tee

The Discharge head is made of Cast Iron or fabricated Steel. It functions as a discharge tee also to facilitate the water flow from column pipe. It is mounted on the floor at ground level and it supports the column pipe as well as bowl assembly which is suspended in to the water source. It is provided with a stuffing box for gland packing.

Motor stool

Motor stool are of rigid construction made of fabricated steel to ensure vibration-free operation of pumpset. The Motor stool also houses the coupling of pump shaft to either the motor shaft or right angle gear head for diesel engine pump. A safety guard is provided on the discharge head to prevent any injury.

Coupling

A heavy duty rigid coupling specially designed and manufactured for turbine pump application is provided.

Non-reverse ratchet

To prevent reverse rotation of pump due to back flow of the water in case of its tripping, for Diesel Engine driven pump.

Direction of rotation

Anticlockwise when viewed from driving end.

Drive

Electric motor with solid shaft is a standard arrangement.
A hollow shaft motor can be provided on request.
Diesel driven pump will be provided with right angle gear head.

High efficiency and low submergence

Hydraulic design is being updated with our continuous R & D efforts to meet requirements of high efficiency and low submergence, taking care of other parameters, such as high reliability and optimum system design.

RANGE

- ❒ Delivery Size up to 14 Inch.
- ❒ Capacity up to 1000 m³/hr.
- ❒ Head up to 600 meters.

IMPELLER TYPE

- ❒ Mixed Flow
- ❒ Radial Flow

APPLICATIONS

- ❒ Irrigation
- ❒ Water Supply
- ❒ Circulating Water for Thermal and Nuclear Power Plants
- ❒ Fire Fighting
- ❒ Flood Control
- ❒ Storm water
- ❒ Sump service

FEATURES

- ❒ All pumps are hydrostatic & performance tested before dispatch.
- ❒ The bowl assembly is of bolted construction for allowing easy dis-assembly.
- ❒ The pump column pipe is provided in section not longer then 3 mtrs. This facilitates easy assembly & dis-assembly on site.
- ❒ The Cast Iron & Steel Component of pump are CED coated for rust protection.
- ❒ Sealing arrangement : Packing with Flushing.
- ❒ Pre-engineering standard components.
- ❒ Space saver design : requires minimum floor space.
- ❒ Open line shaft : water-lubricated bowl and line-shaft bearings.
- ❒ Stuffing Box (Gland) - (Cast Iron) to press the packing gland into the seal area through bolts.
- ❒ Discharge gauge connection.
- ❒ Complete in-house fabrication capabilities.
- ❒ Drivers : Electric Motor drive or Diesel Engine drive.
- ❒ Excellent mechanical and hydraulic design characteristics for efficient performance.

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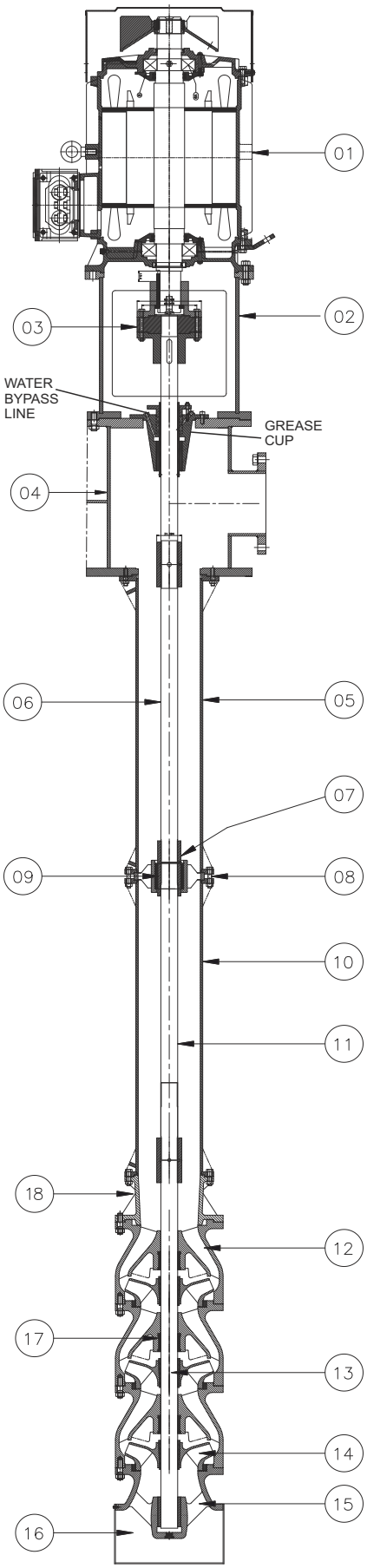
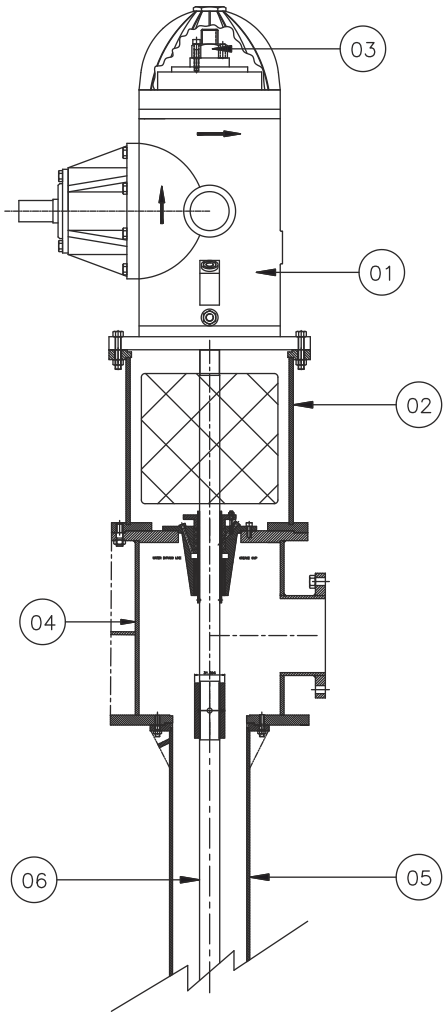
Motor Driven



Engine Driven Gear Head



SR.NO.	PART NAME	MATERIAL
1	ELECTRICAL MOTOR (Motor Driven)	-
	GEAR HEAD (Engine Driven Gear Head)	-
2	MOTOR BRACKET	MS(FABRICATED)
3	ADJUSTABLE COUPLING (Motor Driven)	AISI 410
	ADJUSTABLE HEX NUT (Engine Driven Gear Head)	AISI 410
4	DISCHARGE HEAD BODY	MS(FABRICATED)
5	TOP COLUMN PIPE	MS(FABRICATED)
6	TOP LINE SHAFT	AISI 410
7	COUPLING	AISI 410
8	SPIDER	CAST IRON
9	BUSH	RUBBER / BRONZE
10	COLUMN PIPE	MS(FABRICATED)
11	LINE SHAFT	AISI 410
12	BOWL	CAST IRON
13	PUMP SHAFT	AISI 410
14	IMPELLER	LTB 2 or SS 410
15	SUCTION CASE	CAST IRON
16	STRAINER CASE	C.I./M.S.
17	BUSH FOR BOWL	LTB4
18	DISCHARGE CASE	C.I.

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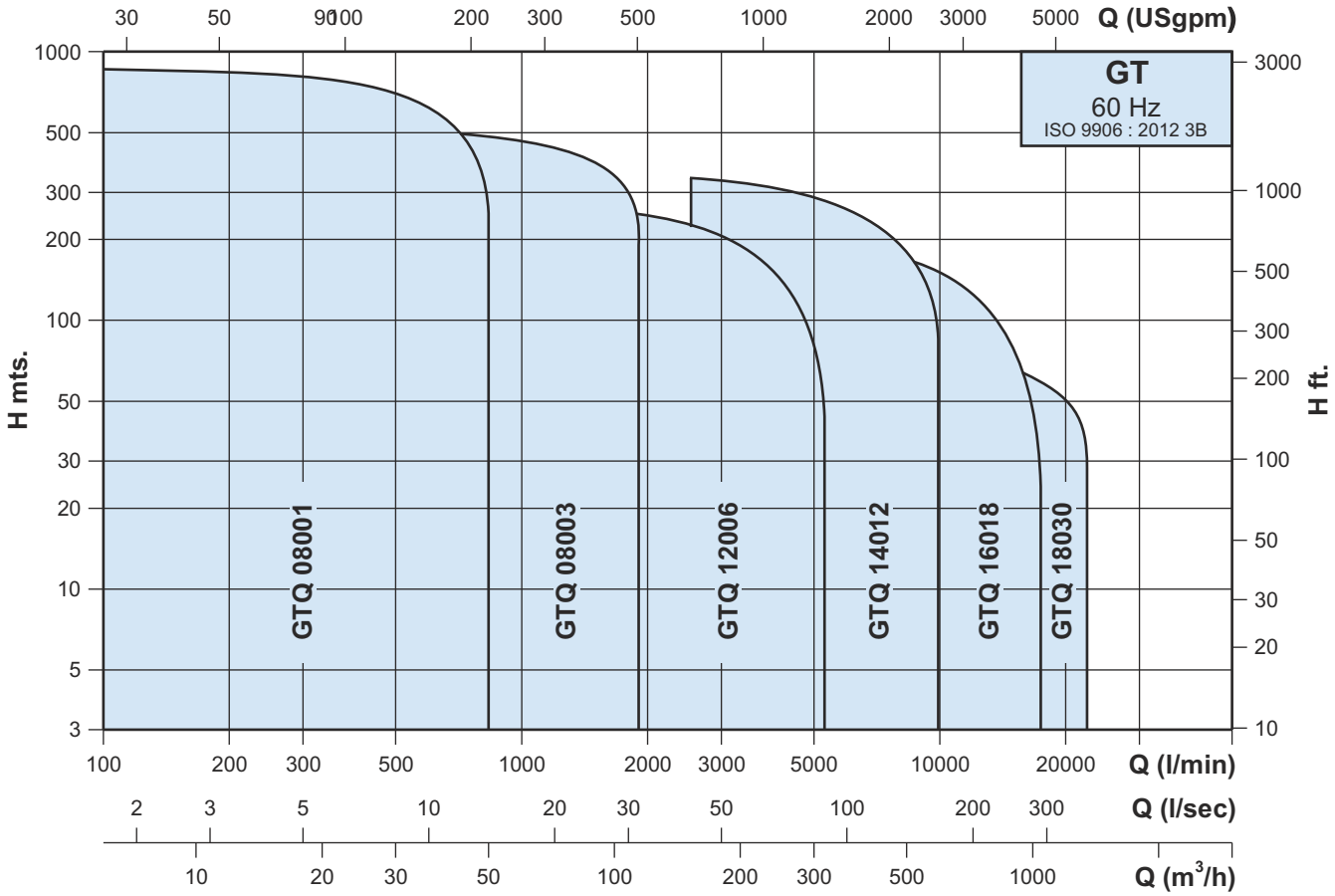
PERFORMANCE CURVES



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