



Vertical High Pressure
Centrifugal Pumps

Applications

The major application of WKT pumps is the condensate extraction from the steam turbines however, the same can also be used for handling of cold or hot water.

Design

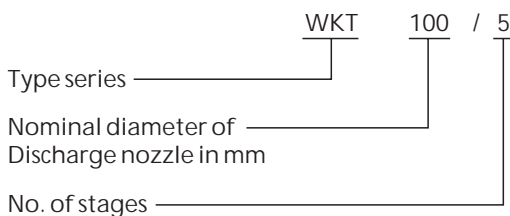
Vertical, radially split, ring section pump with radial single entry impellers, multistage. The stages are sealed off against each other by O-rings and clamped together by tie rods.

The top flange of the barrel rests on the foundation, on which the distributor casing is bolted and from this, the pump portion with column piping is suspended.

The suction and discharge nozzles are always horizontal and inline.

WKB : Without barrel execution, available on request.

Designation



Operating Data

- Pump Sizes : DN 40 to DN 150
- Capacities : Q upto 111 l/s (400 m³/h)
- Total heads : H upto 500 m
- Speeds : n upto 3600 rpm
- Operating pressure : p and temperature t
- Cast iron : p upto 40 kg/cm²
t upto 180°C
- Carbon steel : p upto 50 kg/cm²
t upto 200°C
- Chrome steel : p upto 50 kg/cm²
t upto 200°C

Materials

Part Description	Materials
Distributor casing	IS 2062, IS 2002, ASTM A 516 Gr. 70
Suction casing	CI, WCB, CA6NM, CF8M
Discharge casing	WCB, CA6NM, CF8M
Stage casing	CI, WCB, CA6NM, CF8M
Diffuser suction	CA6NM, CF8M
Diffuser	CI, LG2, CA6NM, CF8M
Pump/Intermediate/ Drive shaft	C 45, AISI 410
Impeller suction	CA6NM, CF8M
Impeller	CI, LG2, CA6NM, CF8M
Wearing ring	CI, Bz15, NICI, CrHARD 400, CF8M
Spacer sleeve	CI, Bz15, NICI, AISI410, AISI316
Column pipe	IS 2062 / IS 2002 + A 106 Gr.B
Tie Rod	C45, EN24, AISI316

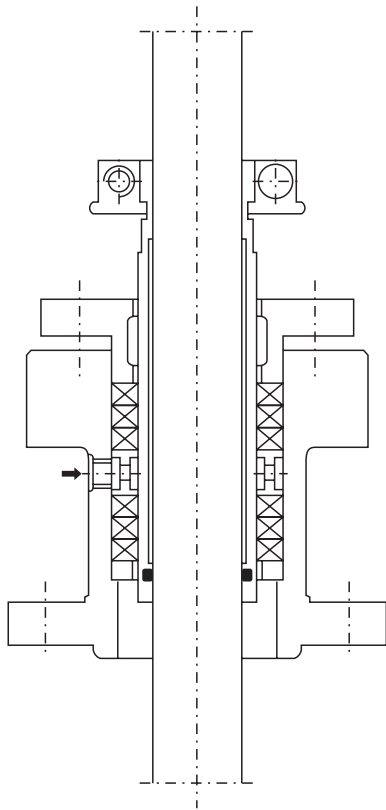


Fig. A Stuff. box arrangement VSM for temperature up to 105°C and end pressure up to 25 kg/cm²

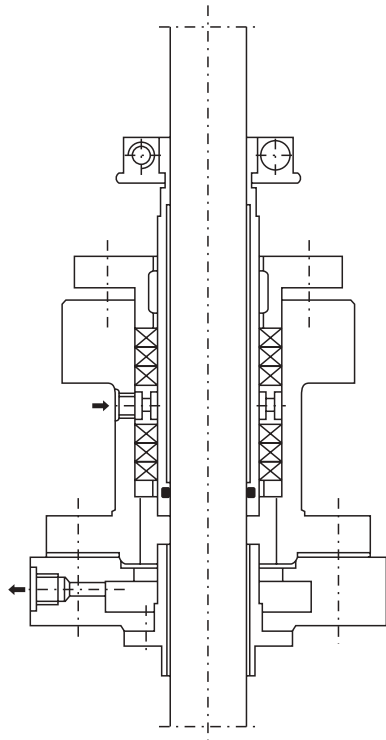


Fig. B Stuff. box arrangement VSM-E for temperature up to 105°C and end pressure more than 25 kg/cm²

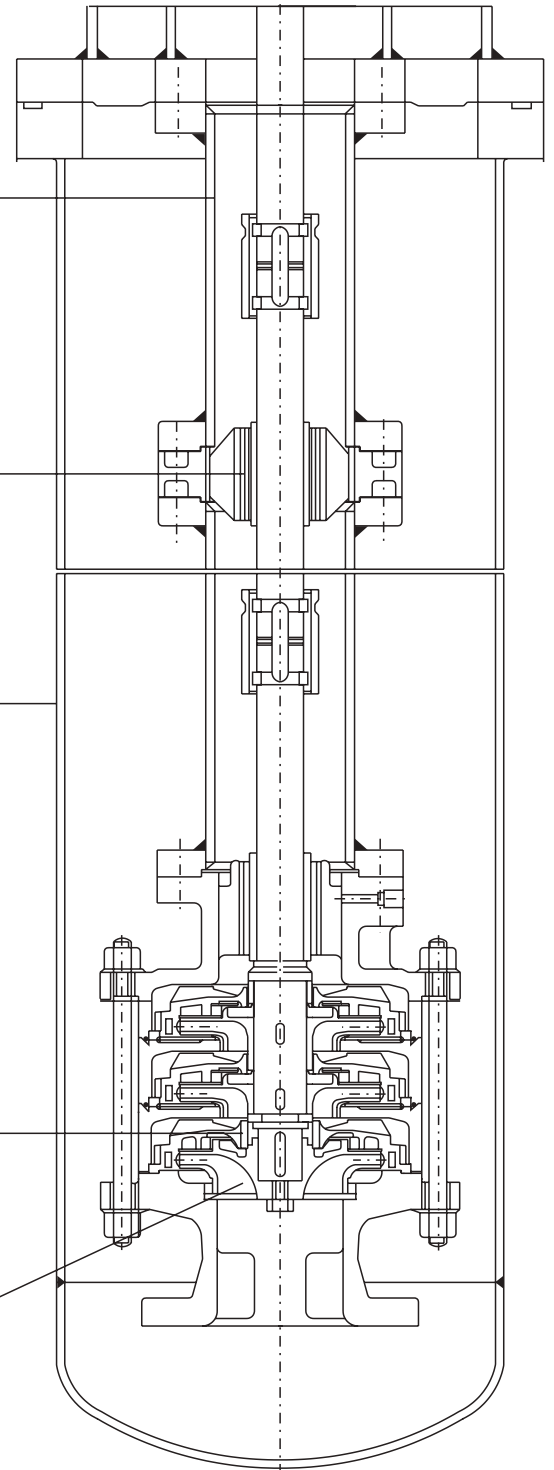
Various combinations of column pipes to meet exacting requirements

Journal bearing of graphite to support pumpshaft lubricated by pumping medium

Barrels available in various length to suit NPSH requirements

Radial carbon bearings on rear side of suction impeller to eliminate dry running

Specially designed suction impeller to reduce NPSH requirement / ensuring freedom from cavitation



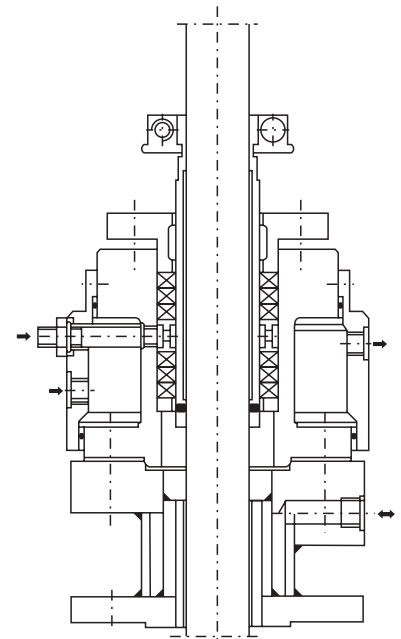
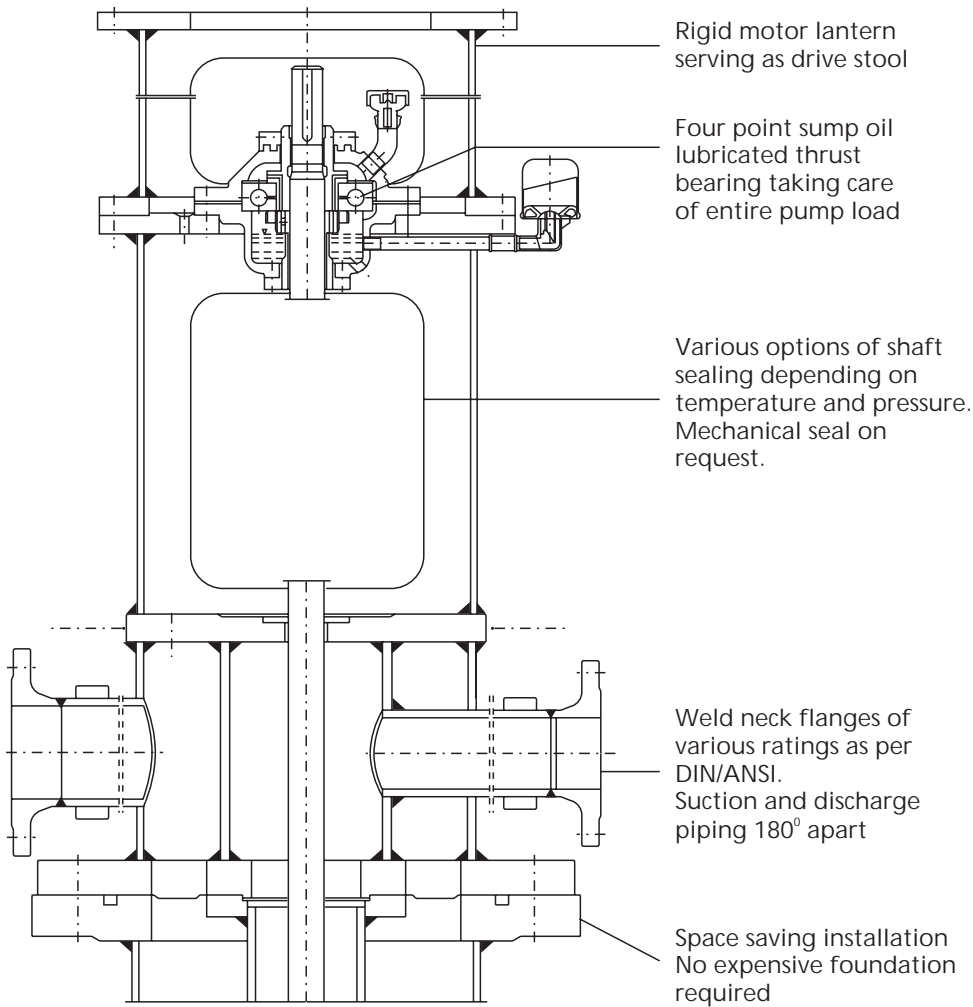


Fig. C Stuff. box arrangement VSM-K for temperature more than 105°C and end pressure up to 25 kg/cm²

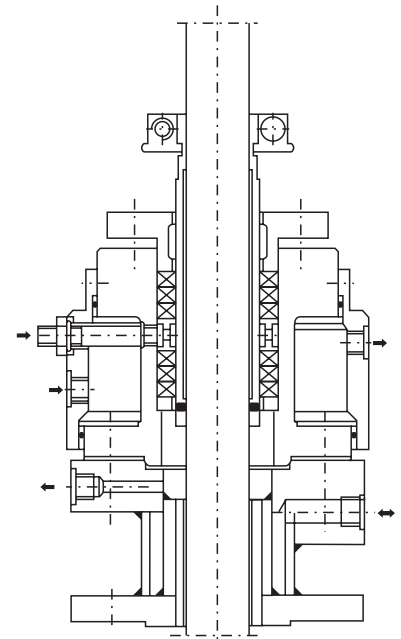
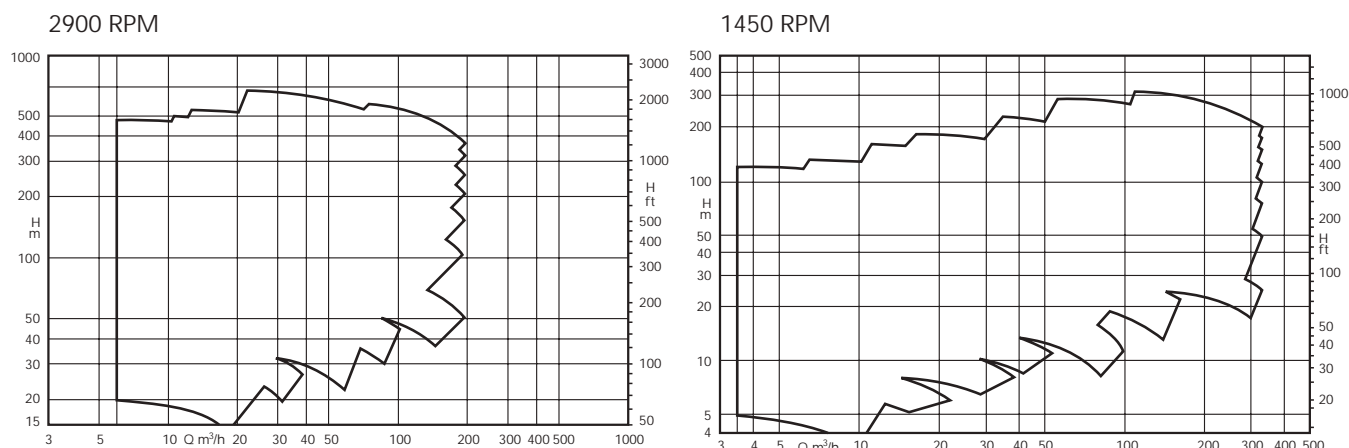


Fig. D Stuff. box arrangement VSM-KE for temperature more than 105°C and end pressure more than 25 kg/cm²

Section Chart (50 Hz)



Manufactured in technical collaboration with KSB Aktiengesellschaft., Germany by :

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