

Proven Performance for Better Pumping Solutions



HYDRO PROKAV PUMPS (INDIA) PVT. LTD.,

(BKG Group Company)

HEAD OFFICE & WORKS

S.F. No. 170/2 & 170/3, Private Industrial Estate, Sidco, Coimbatore - 641 021
Tamilnadu, INDIA. Phone : +91 422 3242220, 2679624, 4301900 | Telefax : +91 422 267 9476
E-mail: hydroprokav@vsnl.net URL : www.hppumps.com

TRIPLE SCREW PUMPS

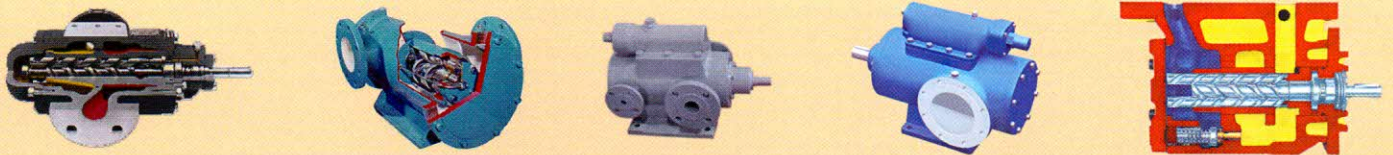
THE FUNCTION

Hydro Prokav Three screw pumps employ just three screw elements – one power screw and two idler screws running in the three precision bores in the housing or liner. The screws are so profiled that they form a liquid tight seal between the thread. As the screws rotate, pocket/cavities are formed where liquid gets trapped and conveyed from one end of the screws to the other end – similar to the action of the piston pump with infinite stroke. Thus results in a smooth, pulsation free flow with extremely low noise and vibration levels, almost impossible to be achieved by any other design of Positive displacement or other types.

The power rotor does not drive the idlers as commonly believed. The hydraulic forces acting on the screw flanks turns the idlers torquelessly thus reduce the friction. Thus idler simply roll over the root diameter of main screws and float freely in casing/liner bores. Large surface areas on idlers dia. reduce the unit pressure, centralize the power rotor and absorb the radial loads. A balance piston integrally machined on power rotor takes care of axial thrusts.

While in operation, the screws are in hydrodynamics balance on film lubrication and do not require any additional bearings. The one ball bearing often used is only for axial positioning of rotor and safer operation of mechanical seals. Small rotor dimensions enable the pump to be operated at high speeds directly coupled 3000 or 3600 RPM motors or other prime movers. Such unique design and features had demonstrated excellent reliability with pumps in operation continuously non – stop for decades together with out replacement of any components or maintenance on clean fluids.

Lubrication Duty: Pressure Lubrication and cooling of bearings for Turbo machinery, Gear boxes, Bearing Lubrication of Coal Mills, ID/FD Fans, Diesel Engines, Steel Rolling Mills, Air pre-heater guide bearings, Compressors.



PUMP SERIES

KTS - Series Triple Screw Pump

General Pump with Cast Iron construction.
Maximum flow 250 M³/Hr
Maximum Pressure : 160 Kg/cm²
Maximum Temperature : 120°C
Maximum Viscosity : 750 CST
Mounting : Horizontal Mounting.
Certain Models are available in Vertical Mounting

KTS N – Series Triple Screw Pump

Maximum flow 150 M³/Hr
Maximum Pressure : 40 Kg/cm²
Maximum Temperature : 150°C & 350°C for Heat Jacket
Maximum Viscosity : 750 CST
Mounting : Horizontal Mounting & Vertical Mounting
Special Design for API 676 CONFIRMITY

SALIENT FEATURES

- High reliability
- Long Service Life
- Negligible Maintenance
- High efficiency
- Self Priming
- Smooth Pulsation Free Flow
- Low Noise and Vibration
- High Speed Capability
- Insensitive to viscosities
- High Pressure Capability
- Axial flow – No churning, Chewing or shearing
- Excellent suction capability
- Fast, Easy replacement of Parts
- Mounting configurations to fit any spaces limitation :-
Horizontal, Vertical, Close – Coupled, Sump
- Hydraulic balancing of forces eliminates need for any bearings
- In – Line Construction enables simplified piping arrangement.
- ANSI or DIN flange

KTS HC – Series Triple Screw Pump – For Bitumen & Asphalt Handling

Special Pump with Heat Jacket Arrangement
Maximum flow 250 M³/Hr
Maximum Pressure : 10 Kg/cm²
(Certain models upto 15 Kg/cm²)
Maximum Temperature : 350°C
Maximum Viscosity : 3550 CST
Mounting : Horizontal Mounting

KTS M – Series Triple Screw Pump

Maximum flow 410 M³/Hr
Maximum Pressure : 100 Kg/cm²
Maximum Temperature : 150°C & 350°C for Heat Jacket
Maximum Viscosity : 750 CST
Mounting : Horizontal Mounting & Vertical Mounting
Special design for API 676 CONFIRMITY

MATERIAL OF CONSTRUCTION

CASING : Cast Iron, Cast Steel, Cast Stainless Steel
LINER : Cast Iron, Cast Stainless Steel
SCREWS : Alloy Steel, Nitried Steel & Stainless Steel

USER INDUSTRIES

- Cement Industry
- Power Stations
- Petro Chemical Refineries
- Oil Depots
- Ship Building Industry
- Rayon, Staple Fibres
- Steel Industries
- Fertilizer Industries
- Paper Mills
- Food Processing Industries
- Breweries