

ENGINE DRIVEN DEWATERING PUMPS

AUTO PRIMING PUMPS

EDP - VP - 4x4



INTRODUCTION

SPS EDP-VP - 4x4 ranges of fully automatic self-priming centrifugal Pump design which is highly dependable pumps suitable for Well point system or Sump pumping and an ideal solution for transporting or raising water with abrasive solids in suspension. These pumps are coupled to Engine and mounted on a skid with trailer for easy mobility and are provided with Vacuum pump to facilitate auto self-priming. Both Air and Water cooled Engines can be supplied as a complete unit.

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DESIGN ADVANTAGES

- The vacuum pump makes it possible for the unit to prime "dry" (without first having to fill the pump casing with liquid) and can handle considerable quantities of air, allowing the priming of the well point system and maintaining it under vacuum, or draining an excavation thoroughly.
- The EDP-VP - 4x4 pump system consists of a centrifugal pump and a vacuum chamber, which enables air to be separated from the liquid and be sucked by a vacuum pump making automatic priming possible.
- Additionally, providing the semi-open impeller, the EDP-VP - 4x4 is also suitable for pumping liquids with solids in suspension.
- Working pressures up to 16 bar also available. Centerline discharge assures that the casing is self-venting.
- A vacuum chamber closely joined to the liquid pump casing, forms a chamber where air or entrained gases can separate from the liquid and is drawn into a vacuum pump.
- Pumps are available with side or overhead valve & engines from various manufacturers.
- An electric start option is available on many models.

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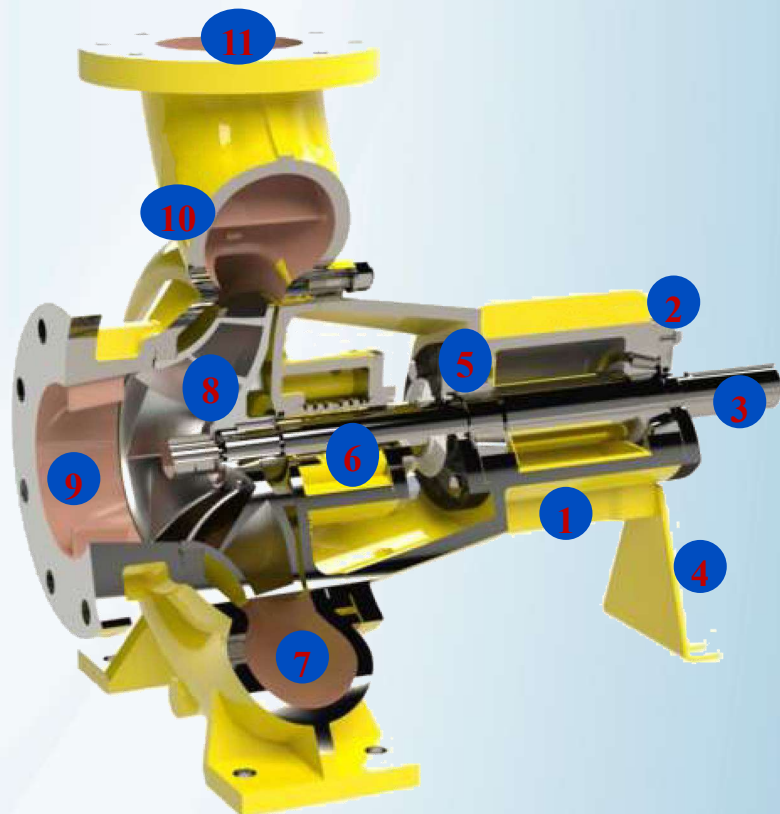
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DESIGN FEATURES

- The EDP-VP - 4x4 offers many features and benefits that improve performance, increase reliability and reduce maintenance time and cost. They can work with water that is clean or dirty as well as handle trash and fibrous materials. Features such as semi-open impellers and abrasion resistant pump castings, this range have excellent solids handling capability. Some key features as follows.

- 1) Heavy duty power frame with re-greaseable bearing better heat dissipation
- 2) Engine Drive / Standard motors provide low noise level pump operation.
- 3) Stainless Steel shaft Designed for minimum deflection.
- 4) Back pull out Design allows servicing of pump without disturbing suction and discharge pipelines.
- 5) Re-greaseable SKF bearings
- 6) Mechanical seal has carbon against ceramic face for optimum hot water performance.
- 7) Factory Hydro test guarantees casing & seal integrity.
- 8) Dynamically balanced impeller keyed to shaft extension and secured by a cap screw and washer. Gaskets are used to prevent leakage to shaft end.
- 9) Suction splitter on some 4" and all 5" and larger suction to eliminate pre-rotation.
- 10) Double volute discharge on some 8" and all 12" and larger discharge to reduce bearing loads.
Note: Single Volute also available
- 11) Ductile Iron casing long life with higher working pressures.



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EDP-VP - 4X4APPLICATIONS

- ♦ *Construction quarries*
- ♦ *Mines and tunnel dewatering*
- ♦ *Heavy Sludge & Slurry*
- ♦ *Jetting*
- ♦ *Ground excavation*
- ♦ *Tunneling construction*
- ♦ *Sewage Networks*
- ♦ *Pipelines*
- ♦ *Strom water runoff*
- ♦ *Flood water dewatering*
- ♦ *Municipal applications*
- ♦ *Solid laden liquid*
- ♦ *Stream diversions*
- ♦ *II Drainage and dewatering*
- ♦ *Dam Drainage*
- ♦ *Bridges*
- ♦ *Marine*
- ♦ *Strom water runoff*

STANDARD MATERIAL OF CONSTRUCTION

- ♦ Impeller : SS 304 / SS 316 / CD4MCuN / Bronze
- ♦ Casing : CI / WCB / SS 304 / SS 316 / CD4MCUN
- ♦ Bearing Housing : CI
- ♦ Shaft : SS 304 / SS 316
- ♦ Shaft Sleeve : SS 304 / SS 316
- ♦ Wear Ring : SS 304 / SS 316 / Bronze
- ♦ Mechanical Seal : Double - Silicon/ Tungsten Carbide
- ♦ Bearing Lubrication : Grease
- ♦ Skid / Fuel Tank : MS

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TECHNICAL DETAILS

Engine Power Rating HP / Kw	25 / 18.64
Head Range Upto in meter	45
Discharge Upto in M ³ /hr.	475
Solid Handling Capacity in mm	12
Suction Size x Delivery Size in mm	100 x 100
Flange Standard	DIN ND 16
Operating Speed in RPM	2000
Operating Pressure in Bar (Max.)	16
Fluid Temperature Max. in °C	60
Fuel Tank Capacity in Ltr.	120
Hydro Static Test Pressure in Bar	6.75



CLOSED IMPELLER

PERFORMANCE GRAPH

