



# MUD series

Centrifugal Mud Pump

Centrifugal Slurry Pump



**VERSA® PUMP**

# MUD series

## Introduction

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MUD series pumps are designed and engineered to provide long lasting, low maintenance service in drilling fluid or industrial slurry applications. These heavyduty pumps have been field tested, and meet the most exacting standards for rugged and demanding applications.

MUD series pumps performance gives them the edge in drilling and industrial operations due to: high volume, high temperature experience, pumping highly abrasive, high viscosity, and corrosive fluids.

These pumps assure long life, outstanding performance, and ease of maintenance with overall economy and are currently in operation offshore around the world and also on land based rigs world wide.

### DRILLING APPLICATIONS



- MUD MIXING AND SHEARING OPERATIONS
- DESANDING AND DESILTING
- DEGASSING
- SUPERCHARGING
- CENTRIFUGAL FEED
- MUD COOLING TOWERS
- WASHDOWN
- CHEMICAL, REFINERY, INDUSTRIAL, CONSTRUCTION AND AGRICULTURAL APPLICATIONS



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## Features

- The MUD series a concentric casing design coupled with wide vane impellers, MUD series exhibit reduced wear and increased pump life. Extended pump life reduces maintenance costs and, more importantly, decreases downtime and service requirements. Concentric casings eliminate vibration, turbulence and aeration caused by the cutwater point in conventional volute pumps. Turbulence and aeration generate eddies that cause excessive wear when handling abrasive fluids. Concentric casings also reduce the high bearing load and shaft deflection present in other designs, even at near shutoff flows.
- The MUD series impeller design has wider vanes at the tip that decrease the velocity of the fluid exiting the impeller. This eliminates the abrasive jetting effect that is present with narrow impellers. The distance between the impeller tip and the casing is greater resulting in an increased re-circulation area. Lower velocity rates and increased re-circulation areas allow the exiting fluid to blend with the re-circulating fluid which reduces turbulence and wear. Most models are available with a semi-open impeller that greatly reduces the amount of solids in the stuffing box and mechanical seal area which extends the life of these parts. The entrance shape of the impeller vanes is more tangential to the circumference of the suction creating a smoother flow pattern. Smooth flow patterns are crucial when handling abrasive fluids.
- In addition to the superior fluid end features, MUD series pumps are equipped with a heavy-duty shaft bearing assembly. The shaft is much larger in diameter than conventional pump shafts for heavy-duty performance, minimum deflection and increased operating life of the seal or packing. With a 2-1/2" diameter at the seal area and 3" diameter between the bearings, these pumps can be direct connected or belt driven. Advanced front and rear bearing design reduces both radial and thrust loads.

## Performance Range :

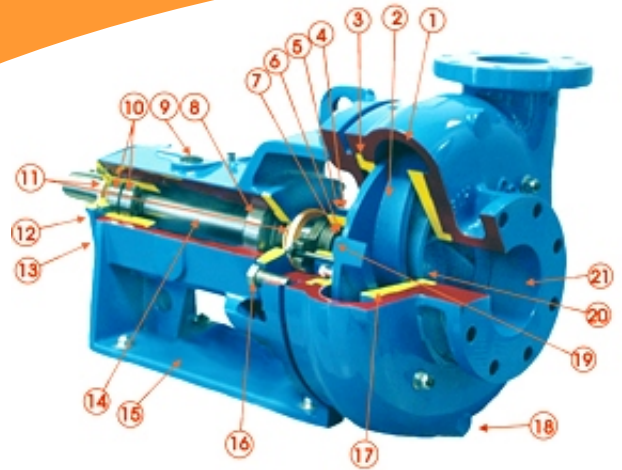
Capacity : Up to 4000 US Gpm

T. Head : Up to 550 Ft

Speed : Up to 3500 Rpm

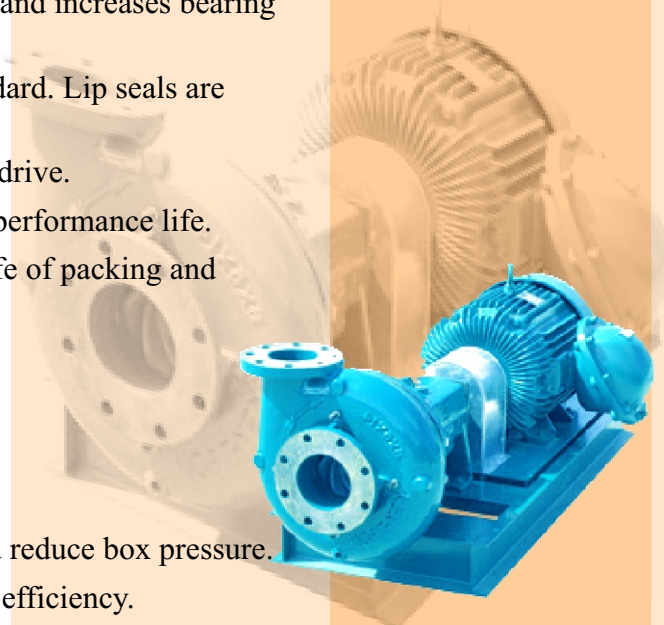


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## Section Drawing

- 1 Thick, strong, concentric casing with replaceable casing wear pad provides extended life over conventional volute designs. The concentric design minimizes turbulence and abrasive wear. The wear pad allows the casing to be repaired at a lower cost than replacing the entire casing.
- 2 Wide semi-open impeller creates lower axial thrust for improved bearing life. The semi-open design reduces the concentration of solids behind the impeller, extending the life of the mechanical seal or packing and stuffing box.
- 3 Casing gasket recessed for protection.
- 4 Replaceable stuffing box cover with dual stuffing box bolts
- 5 Optional stuffing-boxes available for single and double mechanical seal applications. These stuffing boxes can be configured for flush lines.
- 6 Long-life no-adjustment mechanical seal available for near zero leakage.
- 7 Replaceable shaft sleeve prevents shaft wear.
- 8 Single row roller bearings for increased bearing life.
- 9 Oil lubrication for bearings available upon request and recommended for pump speeds in excess of 2400 RPM.
- 10 Duplex angular contact bearings eliminate shaft end play and increase bearing and seal life.
- 11 Labyrinth seals for maximum bearing protection are standard. Lip seals are recommended for oil-lubricated pumps.
- 12 Optional flanged bearing housing available for hydraulic drive.
- 13 External adjustment of impeller clearance extends pump performance life.
- 14 Large supreme-duty shaft reduces deflection for longer life of packing and mechanical seals
- 15 Solid base offers rigidity and strength
- 16 Casing jack bolts simplify casing removal
- 17 Replaceable casing wear pad.
- 18 Easy accessible front access drain.
- 19 Back vanes reduce collection of solids at stuffing box and reduce box pressure.
- 20 Smooth impeller eye for minimum turbulence and higher efficiency.
- 21 Full pipe diameter entrance for minimum turbulence and maximum efficiency.



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