

▶ XPB Slurry Pump

Principle

Driven by motor, the pump body and inlet line are filled with liquid before starting the pump. With high-speed rotation, the impeller drives the liquid between the vanes to rotate together. Due to the effect of centrifugal force, the liquid is thrown to the outer edge of impeller from the impeller center with kinetic energy increased. After the liquid entering the pump shell, as the flow channel in the volute type pump shell is gradually enlarged, the liquid velocity is decreased gradually, which makes part of the kinetic energy transform into static energy, therefore the liquid with high pressure is discharged along the outlet. At the same time, the impeller center forms a certain vacuum for that the liquid is thrown out. The pressure on liquid level is higher than that of impeller center, so the liquid in suction pipe will flow into the pump under the action of pressure difference. With the constant rotation of impeller, the liquid is sucked and extruded continuously.



Features

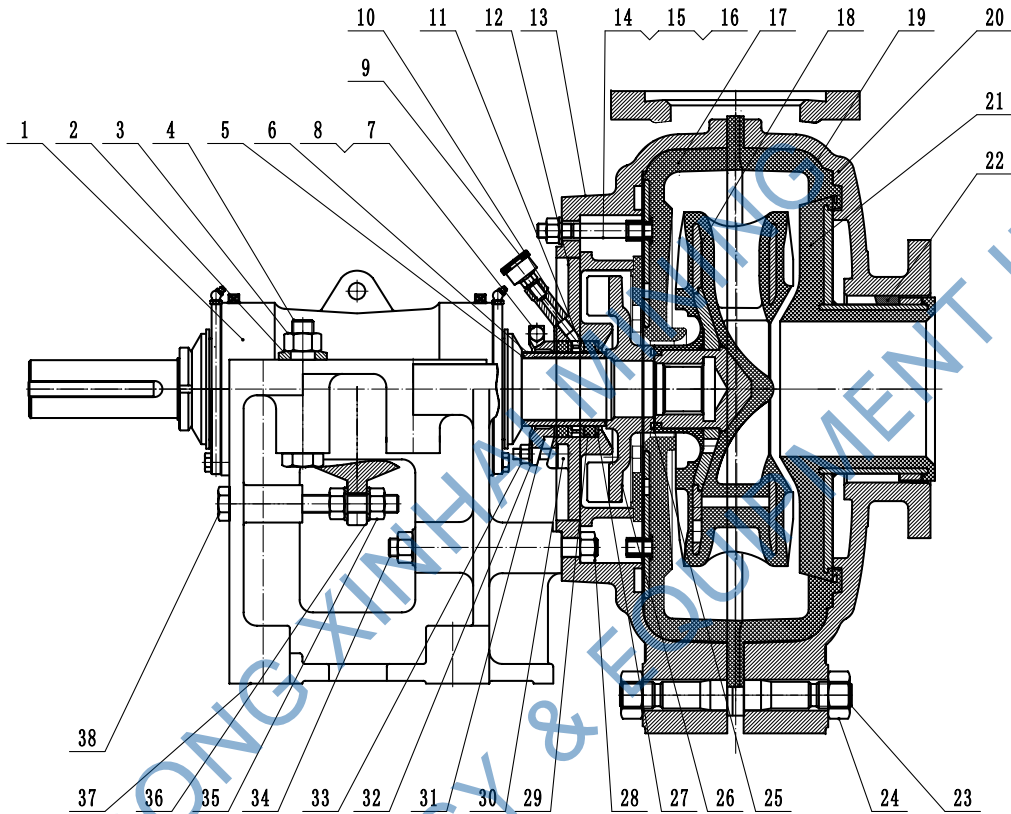
The design is based on liquid-solid two-phase flow theory, and the head can reach 118 m; Reasonable design of internal structure avoids the interference of pulp impact; no congestion ensures. It can be applied in a variety of working conditions.
Alloy wear-resistant material is used for impeller with large diameter and low speed.
Changeable elastic body or clad lining.

Application

It is used for slurry delivery with strong corrosion and high concentration in metallurgical, mining, coal, power, and building materials industrial departments. This type pump can also be used for multistage-series.

Technical Parameters

Size Range (Outlet)	Flow	Head
50 mm~350 mm	Max. 3798 m ³ /h	Max. 118 m, Average 60 m



■ Structure Drawing of XPB Slurry Pump

© Notes: 1. Bearing assembly

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|---------------------------------------|---|-------------------------|--|
| 5. Hydropneumatic O rubber seal ring | 6. Shaft sleeve | 3. 1 hexagon nut | 4. High-strength big hexagon head bolt for steel structure |
| 9. A screw oil cup | 10. Oil cup base | 7. Hexagon head bolt | 8. 1 hexagon nut |
| 13. Pump body | 14. A double-screw bolt | 11. Water seal ring | 12. Pressure relief cap |
| 17. Pump sheath | 18. Impeller | 15. Flat washer | 16. Hexagon nut |
| 21. Front back plate | 22. Pump cover wedge | 19. Pump cover sheath | 20. Pump cover |
| 25. Hydropneumatic O rubber seal ring | 26. Vice impeller | 23. Pump bolt | 24. 1 hexagon nut |
| 29. Packing | 30. Packing gland square head bolt | 27. Packing seat | 28. 1 hexagon nut |
| 33. 1 hexagon nut | 34. Pump bolt | 31. Strip packing gland | 32. Flat washer |
| 37. Bracket | 38. High-strength big hexagon head bolt for steel structure | 35. 1 hexagon nut | 36. Flat washer |