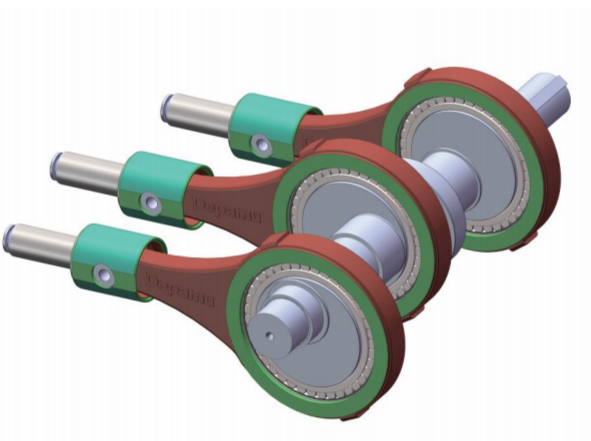


► Low-speed High-load Connecting Rod

Connecting rod and main shaft adopts connection via a roller bearing, featuring a small friction coefficient and low heat emission compared with bushing connection. Besides, for bushing under sliding friction, oil film can't be formed under low-speed pump operation and normal operation is impossible even under active lubricating by high-pressure lubricating oil; for bearing under rolling friction, low-speed pump operation has no adverse impact on lubricating effect. Bearing connection can fully meet hose pump requirement of low-speed operation and high bearing capacity.



► Application

Wide application to industries like petrochemical, coal chemical, lithium battery, new material, mining, metallurgy, energy, environmental protection, pharmacy, etc., especially suitable for delivery of highly viscous fluids with particles.



► Reference



Project in Ningbo,
Zhejiang Province

Project in Baling,
Hunan Province

Project in Shaoxing,
Zhejiang Province

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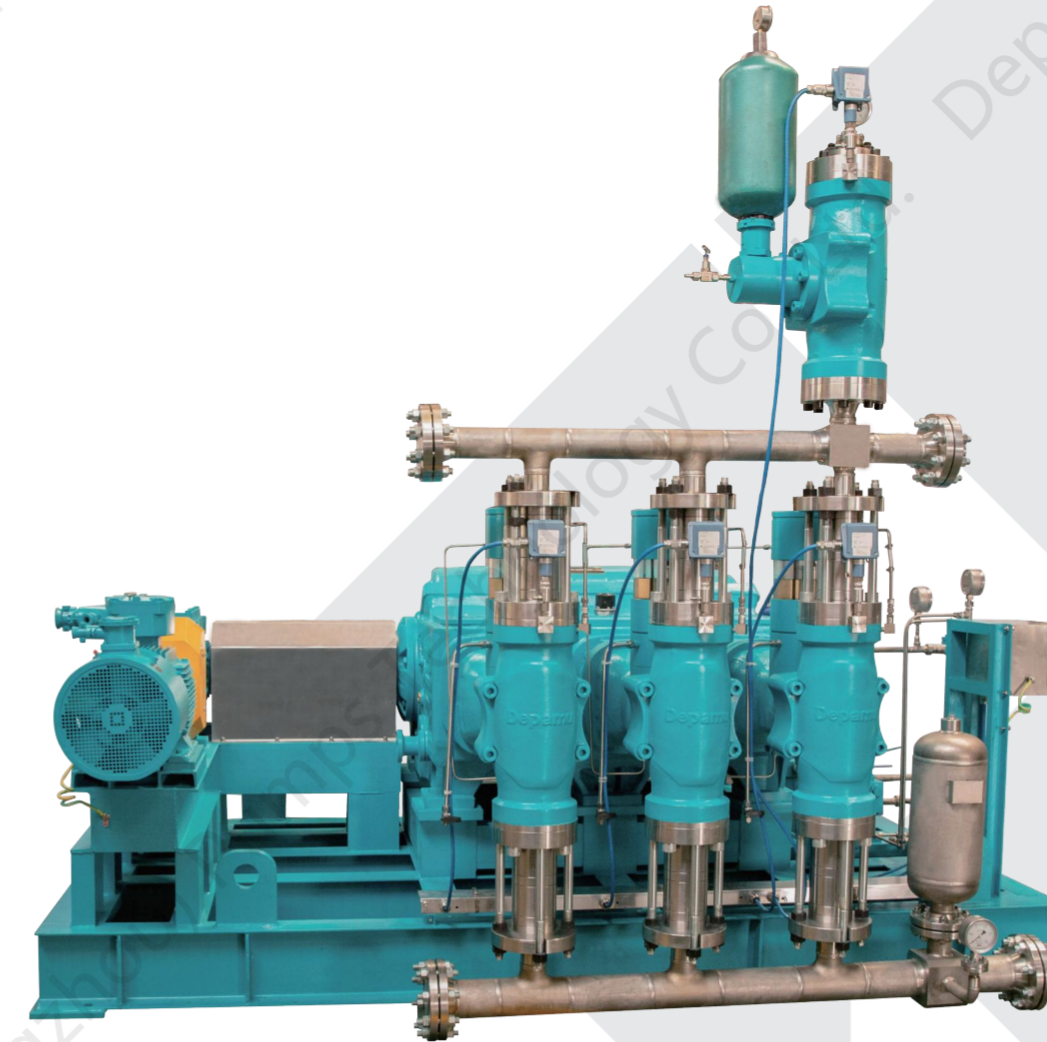
400-809-6100
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The Major Equipment (1st Set)
Product Underwritten by Ping An Insurance

Pacesetter of Fluid Equipment in the World
Depamu
德帕姆

High Pressure Process Hose Pump

Special Transfer Pump for Coal Water Slurry



Depamu (Hangzhou) Pumps Technology Co., Ltd.

Enterprise Profile



Depamu (Hangzhou) Pumps Technology Co., Ltd., established in 2003 and located in Hangzhou Qiantang District, is a high-tech enterprise specialized in R & D, production and sales of main products including high pressure process hose pumps, metering pumps (plunger/diaphragm), high-pressure reciprocating pumps (plunger/diaphragm), electric diaphragm pumps, pneumatic diaphragm pumps, dosing packages, water-steam sampling equipment, supercritical fluid equipment, water treatment equipment, etc. Conilowa, a high-end brand owned by Depamu, mainly produces screw pumps (one/two/three-screw), lobe pumps (metal/rubber), gear pumps emulsifying pumps, etc. Dallep (Hangzhou) Fluid Control Technology Co., Ltd., a subsidiary of Depamu, mainly produces centrifugal pumps.

Through introduction of advanced technologies from Germany, Depamu has been devoted to research and development of fluid transfer equipment since establishment and has successfully obtained over 100 technical patents through continuous technological innovation. The company has passed API, CE and ISO (9001/14001/45001) certifications; at the same time, it serves as a drafter of pump industry standards. The company has been awarded the National Key "Little Giant" Honor for Specialized, Sophisticated, Distinctive and Innovative SMEs and its high pressure process hose pumps have been identified as the Major Equipment (1st Set) Product underwritten by Ping An Insurance.

Enterprise Qualification Certificates



Certificate of National
High-tech Enterprise (P. R. C.)



China Pump Testing Center



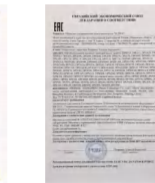
Certificate of the Major Equipment
(1st Set) Product in Zhejiang Province



National Key "Little Giant"
Honor for Specialized, Sophisticated,
Distinctive and Innovative SMEs of the P. R. C.



API Certificate



EAC Certificate



CE Certificate



"Qualified Supplier of
CNC" Certificate



Production License for Special
Equipment-Industrial
Pipe Installation (GC2)



Production License for
Special Equipment-Stationary
Pressure Vessel, Medium-pressure
and Low-pressure Vessel



Production License for
Special Equipment-Component
Combination Device

Product Introduction

Depamu high pressure process hose pumps for domestic initiative, unique star products in the field of coal water slurry transfer designed as per API 674, feature no leaking, steady delivery and a long service life based on 6 patents for invention and over 20 patents for utility model, and can stably operate for a long period under a solid content within 80%, a pressure within 34.5MPa and a temperature within 120°C.

Pumps are suitable for application to slurry service with a high solid content, large particle size and easy precipitation such as coal water slurry, ore pulp, kitchen waste disposal, etc.

Operating Principle

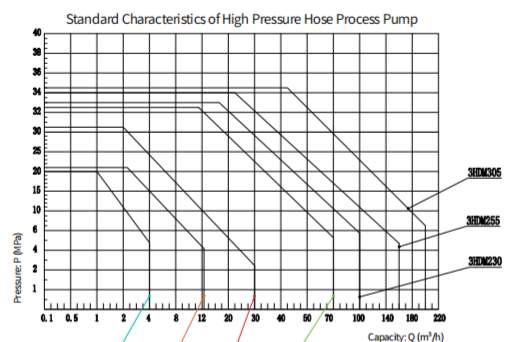
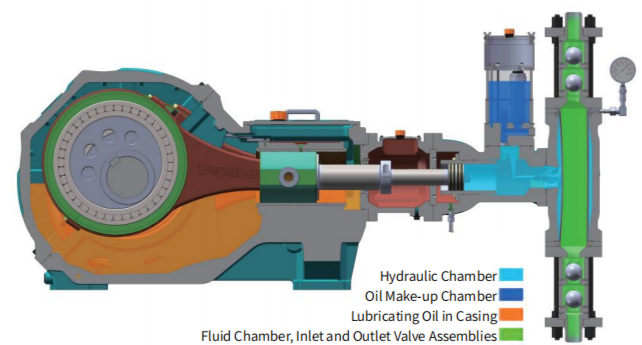
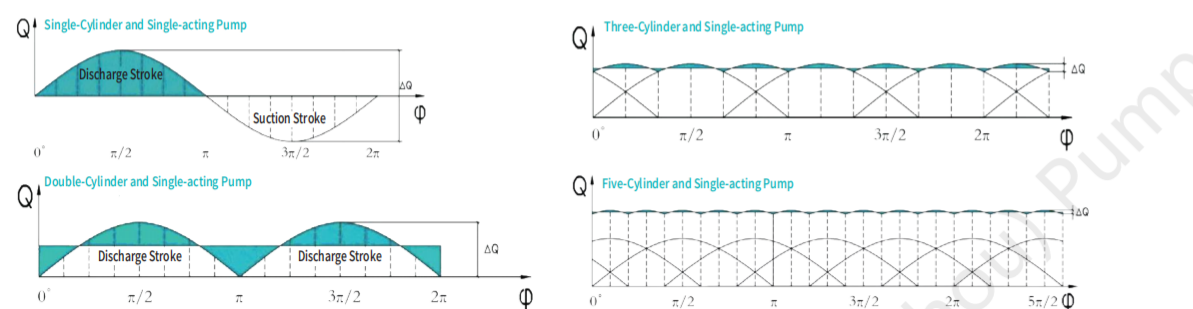
The driver drives the crankshaft after speed reduction and torque increase in the reducing mechanism, the crank connecting rod mechanism converts rotary motion of crankshaft to reciprocating motion of piston, which pushes hydraulic oil in hydraulic chamber.

Hydraulic oil transmits piston thrust force and volumetric change, acting on hose diaphragm. Hose diaphragm is subject to cyclical squeezing under force transmitted by hydraulic oil, leading to cyclical compression and relaxation of internal fluid chamber in hose diaphragm, thus producing volumetric change. Continuous fluid delivery is realized under combined action of inlet and outlet check valve assemblies.

Technical Data

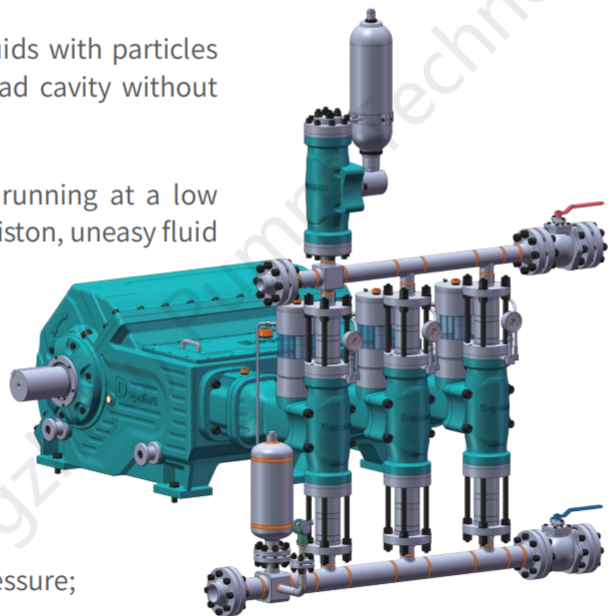
- Capacity: 1-450m³
- Temperature: ≤120 °C
- Pressure: 0-34.5 MPa
- Solid Content of Fluid: ≤80%

Reciprocating Pump Performance Curve



Product Features

- Especially suitable for delivery of highly viscous fluids with particles based on direct-through wetted end and pump head cavity without any untouched part;
- Roller bearing used in connecting rod, allowable running at a low speed (rated speed < 60 r/min), low linear speed of piston, uneasy fluid cavitation;
- Avoided contact of fluid with pump head under separation by hose diaphragm, no wearing and no leaking;
- Modular design and inlet and outlet valve jacket design, which facilitate maintenance;
- Large capacity, low pulsation and high discharge pressure;
- Easy detection of operation status with hose diaphragm rupture alarm function.



Technical Advantages

- Automatic draining control system realizes fast equipment draining and oil make-up, rendering convenient and time-saving operation.
- A diaphragm rupture alarm device is provided, allowing real-time monitoring of hose diaphragm operation status during delivery of hazardous fluid, ensuring absolutely secure delivery without any leaking.
- A hydraulic chamber in an optimized hydraulic oil flow structure based on the fluid emulation technique ensures even and steady act of hydraulic oil on hose diaphragm and effective protection of hose diaphragm.
- A high pressure process hose pump equipped with special-purpose hose and bladder accumulator avoids fluid contact with bladder, is suitable for delivery of fluid with a solid content up to 80%, guarantees steady capacity, low pulsation and a long service life.
- A forced lubrication system in the power end ensures long-term stable operation of equipment at a very low speed.



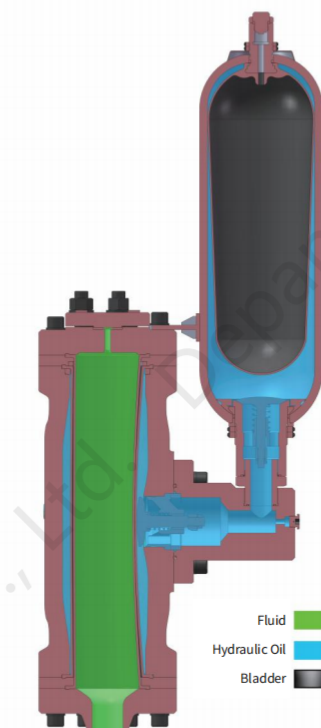
- Mutual linkage of hose diaphragm-limit valve-compensation valve-internal safety and vent valve realizes automatic real-time oil make-up, intelligent venting and automatic over-pressure relief during operation, and ensures continuous unmanned stable operation of equipment.
- A fluid chamber in a direct-through structure without any untouched part involving particle sediment can easily deliver fluid with easy precipitation, causing nearly no wear of hose diaphragm under normal operation, thus greatly prolonging hose diaphragm service life and equipment operation cycle.

Patented Combined Hose-bladder Pulsation Damper

Discharge pipeline of a hose pump can be equipped with a combined hose-bladder pulsation damper, specially developed for transport of fluid with particles, high solid content and high viscosity. The unique construction of the damper can separate fluid with bladder and other structures of the damper, ensuring long-term stable operation of the damper.

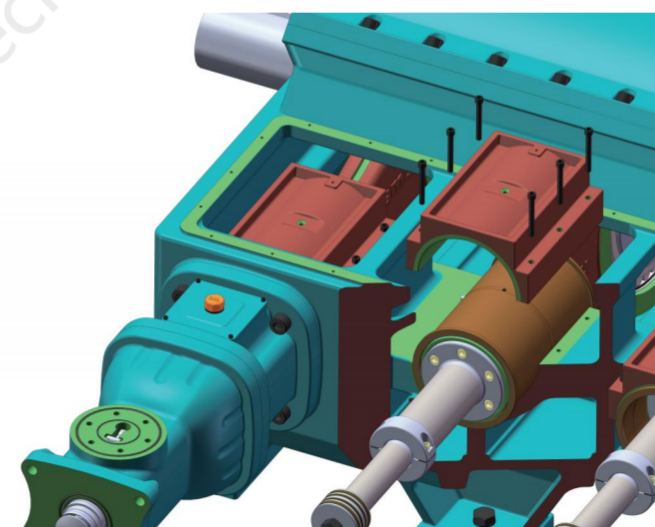
Wetted parts of a combined pulsation damper has a construction same with that of pump head for a hose pump, separating fluid with other structures of the damper. Direct-through hose construction ensures no fluid deposition or precipitation and guarantees permanently stable effect of pulsation suppression.

Fluid discharge pipeline pulsation is transmitted via hose diaphragm and hydraulic oil to bladder pulsation damper for absorption, thus realizing suppression of discharge pipeline capacity pulsation. The bladder pulsation damper keeps operating in hydraulic oil, makes no contact with fluid, and can stably operate for a long term without wearing or leaking.



Lined Crosshead Slideway

Crosshead slideway is designed in lined structure. Lining is made of material with a small friction coefficient and good corrosion resistance, rendering a long service life and low heat generation. Compared with integral slideway directly machined from casing, lined structure renders better serviceability. When slideway requires maintenance due to wearing for all reasons during long-term operation, lined crosshead slideway allows replacement of a new lining through simple dismantling and mounting for rapid production resuming.



Valve Body System

- Quick-release check valve assembly allows easy replacement without removal of pipeline or pump head.
- Double-check-valve assemblies for inlet and outlet, avoids accidental obstruction by large-size particles in fluid during operation under single valve assembly, causing capacity fluctuation.
- Check valve with a buffer structure. Soft buffer pad fitted at valve seat can reduce impact of valve ball drop and efficiently reduce noise.
- Check valve with secondary seal. In addition to hard seal formed by contact of valve seat and valve ball, contact of buffer pad and valve ball forms secondary seal, which can effectively reduce wearing and erosion of valve ball and valve seat, and prolong service life of check valve assembly.



Hydraulic Oil Control System

Oil drain, air make-up and pressure relief system fitted inside a hose pump, matching with all controlling components, can realize automatic intelligent control of hydraulic oil in hydraulic chamber, maintain its constant level, ensure a stable discharge capacity during long-term pump operation.

