

Hydraulic gear pump catalogue

First, Product Overview

[Hydraulic Gear Pumps](#) are widely used in construction machinery, agricultural machinery, industrial equipment and new energy vehicles, etc. The hydraulic gear pumps realize oil transfer through gear meshing and are characterized by simple structure, strong self-priming ability and low cost. They are widely used in the fields of construction machinery, agricultural machinery, industrial equipment and new energy vehicles, etc. They can be divided into several series according to the requirements of displacement, pressure and speed.

Second, the main models and specifications of [hydraulic gear pumps](#) are categorized as follows:

Models and specifications by displacement

1. Small Gear Pump Series

0.5 series: Displacement range $0.19\sim 2\text{cm}^3/\text{rev}$, suitable for precision instruments and small equipment.

Series 1: Displacement range $0.8\sim 8\text{cm}^3/\text{rev}$, suitable for logistics handling vehicles, automobile lifters.

1.2 Series: Displacement range $0.8\sim 12\text{cm}^3/\text{rev}$, suitable for hydraulic system, automobile tailboard.

1.25 series: displacement range $1.4\sim 13.8\text{cm}^3/\text{rev}$, suitable for general hydraulic system.

1.3 Series: Displacement range $1.88\sim 9.68\text{cm}^3/\text{rev}$, suitable for wood splitter and other specialized equipment.

1.5 series: Displacement range $2\sim 12\text{cm}^3/\text{rev}$, suitable for hydraulic system and power generation system.

2. Medium gear pump series

2 series: displacement range $3\sim 30\text{cm}^3/\text{rev}$, suitable for agricultural machinery, construction machinery, aerial work trucks.

2.1D series (low noise): displacement range $7\sim 20\text{cm}^3/\text{rev}$, applicable to electric forklift, new energy vehicles.

2.5D series (low noise): displacement range $23\sim 40\text{cm}^3/\text{rev}$, applicable to internal combustion forklift.

2.5 Series: Displacement range $10\sim 45\text{cm}^3/\text{rev}$, applicable to internal combustion forklift, hydraulic system.

2.6 Series: Displacement range $6\sim 44\text{cm}^3/\text{rev}$, applicable to engineering machinery, agricultural machinery.

3. Large gear pump series

3 series: displacement range $20\sim 71\text{cm}^3/\text{rev}$, applicable to construction machinery, sanitation vehicles.

3.5 Series: Displacement range $21.1\sim 105.4\text{cm}^3/\text{rev}$, applicable to large hydraulic system.

Series 4: Displacement range $33.1\sim 98.8\text{cm}^3/\text{rev}$, suitable for energy extraction equipment, special vehicles.

Third, key design features

1. Sealing structure

Double “8” type sleeve dynamic sealing device, positioning pin hole precise assembly, reduce leakage.

Front cover inner ceramic plate end sealing, with arc groove to form a three-stage pressure cushion.

2. Coaxiality guarantee

Slide seat - fine adjustment seat two-stage adjustment mechanism, ball damping system to ensure the stability of operation.

The coaxiality of both ends of the coupling sleeve is $\leq 0.05\text{mm}$, which reduces vibration and noise.

3. Wear-resistant and lubrication

Axial clearance compensation adopts floating bushings to mesh with helical gears, and the clearance is controlled at $0.02\sim 0.06\text{mm}$.

Built-in DU self-lubricating bearings, and the oil circulation channel is equipped with a diversion groove, which prolongs the service life.

4. Safety Protection

Discharge chamber safety valve assembly, pressure limitation range $16\sim 32\text{MPa}$.

Emergency hand pump design, maintain flow output during power failure.

Fourth, Typical Application Scenarios

Construction Machinery: Loader, excavator hydraulic system (stable flow $15\sim 20\text{L/s}$, pressure $8\sim 25\text{MPa}$).

Industrial equipment: injection molding machine, die-casting machine, machine tool lubrication system.

Agricultural machinery: tractor, harvester hydraulic drive.

New energy vehicles: electric forklift, aerial work platform lifting system.

Special fields: ship helm, steel mill metallurgical equipment, energy mining hydraulic system.

Hydraulic motor pump catalog

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