

Product Introduction

Integral Steering Unit



- Built-in valve for steering system(Inlet check valve, Relief valve, Suction & Shock Valve)
- Valve block mountable : Priority valve, Flow divider valve
- Displacement : $40\sim740\text{cm}^3/\text{rev}$
- Rated flow : $8\sim45\text{L}/\text{min}$
- Max pressure : $175\text{kgf}/\text{cm}^2(17.2\text{MPa})$



Rear Port Steering Unit



- Rear and Ports(available with integrated fittings of the ORFS type)
- Integrated steering column
- Easy mounting
- Small and lightweight
- Displacement : $32\sim100\text{cm}^3/\text{rev}$
- Rated flow : $8\sim20\text{L}/\text{min}$
- Max pressure : $140\text{kgf}/\text{cm}^2(13.7\text{MPa})$



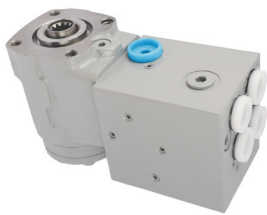
Mini Steering Unit



- Small and lightweight
- Used in small vehicles such as garden tractors, sweepers, small tractors., etc.
- Valve block can be available
- Displacement : $31\sim80\text{cm}^3/\text{rev}$
- Rated flow : $8\sim16\text{L}/\text{min}$
- Max pressure : $140\text{kgf}/\text{cm}^2(13.7\text{MPa})$



Auto Steering



- Manual operation and proportional control valve integrated(valve detachable)
- Priority valve integrated(Load sensing type)
- EF Flow available
- Safety shut-off valve integrated
- Displacement : $50\sim250\text{cm}^3/\text{rev}$
- Rated flow : $28\text{L}/\text{min}$
- Max pressure : $210\text{kgf}/\text{cm}^2(20.6\text{MPa})$



Torque Generator



- Hydraulic and mechanical steering system
- Used in small vehicles such as rice-transplanters, lawn mowers, RTV, sweepers
- Converts the oil supplied from the pump into mechanical energy
- Displacement : $80\sim100\text{cm}^3/\text{rev}$
- Rated flow : $9.5\sim15.1\text{L}/\text{min}$
- Max pressure : $70\text{kgf}/\text{cm}^2(6.9\text{MPa})$



Product Introduction

Flow Amplifier



- Used for wheel loaders, articulated dump trucks, tractors., etc.
- Amplifiers the flow supplied from power steering unit by 4 to 10 times
- Low pressure loss at high flow rates
- Max steering pressure : 210kgf/cm²(20.6MPa)
- Rated flow : 160~400L/min
- Total displacement of steering system : 480~4,000cm³/rev



Priority Valve



- Used in load sensing system
- Give priority to EF with out steering and to CF with steering
- Rated flow : 40, 80, 120, 160, 230L/min
- In-line mounting type, direct mounting type
- Dynamic signal, static signal



Gerotor Motor



- Gerotor set provide small volume, high efficiency and long life
- Shaft seal can bear high pressure
- Advanced construction design, high power and low weight
- Displacement : 36~500cm³/rev
- Max speed : 150~1,650rpm
- Max torque : 96~680N.m



Geroler Motor



- Geroler set guarantee low pressure at start-up, provide smooth, reliable operation and high efficiency
- Shaft seal can bear high pressure
- Various shaft option
- Displacement : 36~382cm³/rev
- Max speed : 190~1,220rpm
- Max torque : 105~680N.m



Fan Gear Motor



- Bear heavy load by bearings
- Wide range of shaft, flange and port connections is available
- Built in valve : Pressure relief valve, revers valves, anti-cavitation valve(for fan drives)
- Displacement : 19, 31cm³/rev
- Rated pressure : 210kgf/cm²
- Max speed : 3,000rpm



Product Introduction

SIP Gear Pump



- Aluminum gravity casting body
- Long, quiet operation even under extreme operating conditions
- Wide selection of shaft and flange
- Optional priority valve available

- Displacement : 11.9~32cm³/rev
- Speed : 600~2,700rpm
- Rated pressure : 250kgf/cm²



SEP Gear Pump



- Cast iron material body
- Long, quiet operation under extreme operating conditions
- Wide selection of shaft and flange

- Displacement : 11.9~32cm³/rev
- Speed : 600~2,700rpm
- Rated pressure : 250kgf/cm²



SMP Gear Pump

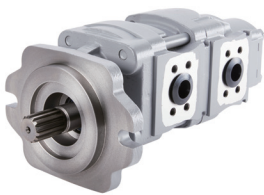


- Extruded aluminum body
- Long, quiet operation under extreme operating conditions
- Wide selection of shaft and flange

- Displacement : 4~28cm³/rev
- Speed : 600~3,000rpm (2,500rpm for bigger than 22cm³/rev)
- Rated pressure : 210kgf/cm² (180kgf/cm² for bigger than 22cm³/rev)



SHP Gear Pump



- Cast iron body
- Long, quiet operation under extreme operating conditions
- Wide selection of shaft and flange

- Displacement : 35~60cm³/rev
- Speed : 500~3,000rpm
- Rated pressure : 250kgf/cm²



LNP Low-Noise Gear Pump



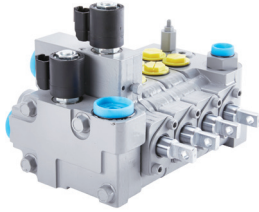
- Extruded aluminum body
- Wide range of use by high pressure and efficiency
- Low noise by reducing gear backlash

- Displacement : 14, 16.5, 19.6cm³/rev
- Speed : 500~3,000rpm
- Rated pressure : 210kgf/cm²
- Noise : Under 75dB(A) at 210kgf/cm²



Product Introduction

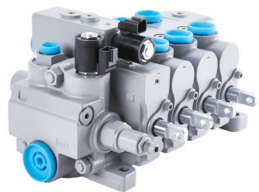
Control Valve for Small Forklift



- Suitable for 2~3ton forklift
 - Consists of two-four section blocks
 - Operation of lifting, tilting and auxiliary functions of forklifts
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- Nominal flow rate : 95L/min
 - Main relief valve : 210kgf/cm²
 - Auxiliary relief valve : 165kgf/cm²



Control Valve for Medium Forklift



- Suitable for 3.5~4.5ton forklift
 - Consists of two-five section blocks
 - Operation of lifting, tilting and auxiliary functions of forklifts
-
- Nominal flow rate : 110L/min
 - Main relief valve : 240kgf/cm²
 - Auxiliary relief valve : 150kgf/cm²



Control Valve for Large Forklift



- Suitable for 5~8ton forklift
 - Consists of two-five section blocks
 - Operation of lifting, tilting and auxiliary functions of forklifts
-
- Nominal flow rate : 160L/min
 - Main relief valve : 188kgf/cm²
 - Auxiliary relief valve : 153kgf/cm²



Control Valve for Wheel Loader



- Suitable for Wheel loaders
 - Consists of two-three section blocks
 - Operating bucket cylinder and boom cylinder of wheel loader
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- Nominal flow rate : 180L/min
 - Main relief valve : 210kgf/cm²
 - Auxiliary relief valve : 240kgf/cm²



Proportional Control Valve

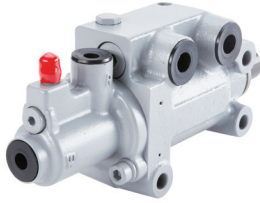


- Spool control by electric signal
 - Quick response and energy saving through load reduction
 - Integral relief valve, Shock Valve, etc
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- Max flow rate : 150L/min
 - Main relief valve : 250kgf/cm²
 - Nominal voltage : DC 12V



Product Introduction

Brake Master Cylinder



- Suitable for systems require big brake force on small operation force
- Adjustable flow rate by built-in flow control valve

- Inlet flow : 3~4.5L/min
- Brake work force : 145kgf at 83kgf/cm²(stroke : 11.3mm)
- Boosting ratio : approximately



Transmission Control Valve

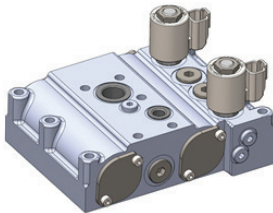


- Valve to control the transmission of forklift
- Operation by solenoid valve
- Inching valve and accumulator valve are for shock protection efficient control

- 2~5.5ton Forklift
- Relief pressure : 8~15kgf/cm²
- Electricity of solenoid valve : DC12V, DC24V
- Direction : [F, R], [F1, R1, F2, R2]



PTO Shuttle Valve

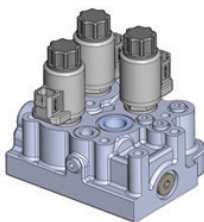


- PTO Shuttle valve improves the capacity of agricultural vehicles by converting the powertrain driving power to the work machine

- Main pressure : 10~22kgf/cm²
- Solenoid valve : 12~24VDC
- Connector : Leadwire / Duetsch / Etc



PSV Shuttle Valve



- PSV Shuttle valve controls the transmission of agricultural machinery and forklifts and controls the gear shift by using a proportional control valve

- Main pressure : 10~22kgf/cm²
- Solenoid valve : 12~24VDC
- Connector : Leadwire / Duetsch / Etc



Dual Flow Divider



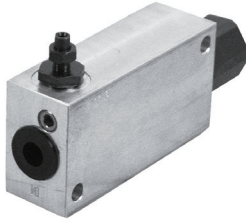
- Flow control valve and priority valve are combined into one
- Function : BF(Brake Master Cylinder / CF(Steering Unit) / EF(Main Control Valve)

- Nominal flow : 180L/min
- Main relief valve : 210kgf/cm²
- Auxiliary relief valve : 240kgf/cm²



Product Introduction

Flow Divider



- Adjustable orifice allows adjustment of required flow
 - Transporting constant flow to the regulated port regardless of the pressure and the flow of input fluid
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- Max system pressure : 210kgf/cm²
 - Controlled flow : 1~15L/min



Cushion Valve



- Minimizes impact at the stroke end of cylinder
 - Used for large equipment such as wheel loaders
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- Max system pressure : 210kgf/cm²
 - Pilot valve relief pressure : 15kgf/cm²



Flow Control Valve



- Pressure-compensation flow control valve
 - Transporting constant oil to the regulated port regardless of the pressure and the flow of input fluid
-
- Max system pressure : 210kgf/cm²
 - Max flow : 118L/min
 - Controlled flow : 11~33L/min
 - Relief valve pressure : 70~175kgf/cm²



Other Valve



- Flow Regulator**
- Stable operation of cylinder descent
 - Regulating flow : 20~180L/min
 - Working pressure : 6~210kgf/cm²



- By-pass Valve**
- Maintain constant pressure in requested flow
 - Cracking pressure : 1.5~4.5kgf/cm²
 - Flow rate : 105~145L/min



Other Valve



- Safety Valve**
- Valve prevents over flow
 - Max pressure : 350kgf/cm²
 - Closing flow : 5~330L/min



- Solenoid Valve**
- Cartridge type on-off valve
 - Flow rate : 5L/min(at 15kgf/cm²)
 - Internal leakage : 10cm³/min(at 27.5kgf/cm²)

