Gerotor Hydraulic Motor Options

Gerotor motors are available in the "G3 Hydraulic Pedestal" or the HySpeed Pedestal (excludes the HydraSub). All gerotor motors have a patented case drain option that is plugged and can be used by removing the plug and connecting to the open port. Flow control option is pressure compensated and available for right hand rotation only (cannot be applied to left hand pumps or HydraSub).

The flow control will allow 10 gpm of oil flow maximum to be bypassed.

When to select a HySpeed drive.

1. Unusually high oil pressure/oil flow required and/or very low pump flow rate.
2. Bi-rotational is not required.
3. Flow control (open center) is not required.

MP Gerotor Series

Feature	Pedestal	HySpeed	HydraSub
Bi-rotational	Y	N	Ynr
Case Drain**	Y	Y	Y
Flow Control	Optional*	Optional	NA
Pressure Relief Valve	Optional*	Optional	N
Cast Iron Construction	Y	Y	Y
Single Shaft Design	Y	Y	Y
Seal (double/single)	D	S	D
Ports SAE	Y	Y	Y
Displacements Offered	4	4	4
Pump/motor rotation	R/L*	RH	LH
Seal rating PSI	200	100	100
Pressure Diff. Max PSI	2000	2500	2500

* Flow control and Pressure relief valve are available for RH only

**Motors are normally supplied with the case drain plugged

Motor Selection

Hydraulic System Types

There are three types of hydraulic systems: Open Center-OC, Closed Center pressure compensated-CCpc, and Closed Center load sensing CCls. The hydraulic motor selection must match the system to be compatible.

Open Center OC Identified by oil flowrate

This hydraulic system is made for a constant oil flow at a specific amount. The hydraulic motor must match the oil flow rate. If it does not match some of the oil must be bypassed around the motor by using a motor with a flow control. The best motor selection is to use the largest displacement as possible. This will minimize the oil that is bypassed and operated most efficiently. All OC systems must have motors with a flow control or have motors sized exactly to match the flow rate. Wherever possible use the largest motor displacement possible. A motor with a flow control may bypass up to 10 gpm of oil.

Closed Center – pressure compensated CCpc Identified by oil pressure
This hydraulic system is made for delivering constant oil pressure. The hydraulic motor must be sized to match the system pressure. If the system pressure is higher than any motor performance curve offering an orifice must be used prior to the motor to reduce the pressure to the motor. The orifice is not available thru MP Pumps. This system is the most difficult to regulate for a centrifugal pump load where several orifices may need to be tested to achieve the correct size.
Select the smallest motor displacement possible. A motor with a flow control should not be used.

Closed Center – load sensing CCls Identified by oil pressure and load sense
This system senses load and when the load is reduced the flow will be reduced to maintain a set pressure. The initial set-up fixes the hydraulic pressure to match the motor requirements where an orifice and a flow control is not needed. The motor should be sized close to the system pressure but the flow will be limited as well making the motor displacement selection not as critical.