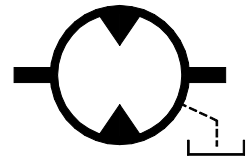




radial piston hydraulic motors

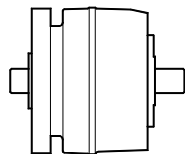
**GMD  
SERIES**

DOUBLE SHAFT MOTORS  
SUITABLE FOR TANDEM MOUNT  
5 PISTONS  
SINGLE DISPLACEMENT



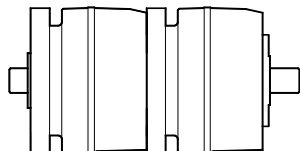
The GMD-series motors, with their high performance characteristics and double output shaft configuration, are ideal for applications such as **axle drives**, **winch drives** and **tandem motor applications** such as **multi-speed drive units**, **flow divider units**.

A GMD-series motor can be mounted to another GMD-series motor or to other SAI motors with single output shaft.



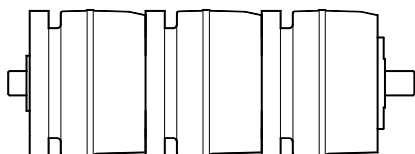
#### **SINGLE MOTOR**

- AXLE DRIVES
- DUAL WINCHES



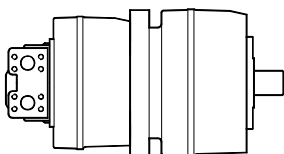
#### **TANDEM MOTOR**

- *THREE-SPEED DRIVE UNITS*
- *VEHICLE TRANSMISSIONS*
- *WINCHES*
- *PLASTIC INJECTION MACHINERY*
- *AUGERS*

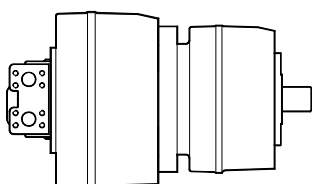


#### **TWO OR MORE MOTORS**

- *MULTI-SPEED DRIVE UNITS*
- *FLOW DIVIDERS*

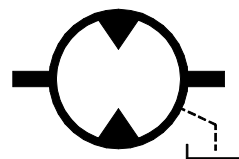


#### **GMD SERIES MOTORS CAN ALSO BE COMBINED WITH OTHER SINGLE SHAFT MOTORS:**



*GREATER FLEXIBILITY IN CHOICE OF  
DISPLACEMENTS IN ORDER TO ACHIEVE THE  
DESIRED DRIVE RATIOS -  
MAX:MIN RATIO UP TO 10:1*

DOUBLE SHAFT MOTORS  
SUITABLE FOR TANDEM MOUNT  
5 PISTONS  
SINGLE DISPLACEMENT



### MULTI-SPEED TANDEM-MOTOR DRIVE UNITS:

A three-speed drive unit can be achieved by combining two motors that have different displacements.

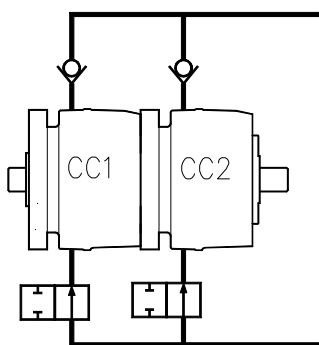
The larger displacement motor (CC1) is typically twice the displacement of the smaller motor (CC2), but any number of different combinations are possible in function of the drive displacements that required.

- Maximum displacement (CC<sub>max</sub>) is obtained with both motors operating in parallel.
- Intermediate displacement (CC<sub>int</sub>) is obtained with only the larger motor operating normally, the smaller motor is made to operate in freewheeling.
- Minimum displacement (CC<sub>min</sub>) is obtained with the smaller motor operating normally and the larger motor operating in freewheeling.

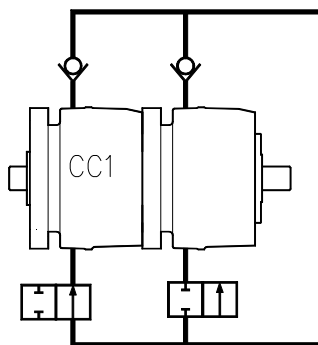
The efficiency losses of the motor when operating in free-wheeling are very low (torque absorption is approx. equivalent to 4 bar pressure). This means that even when operating at minimum displacement the efficiency of the unit remains high.

This makes it possible for example to achieve Max:Min displacement ratio of 10:1.

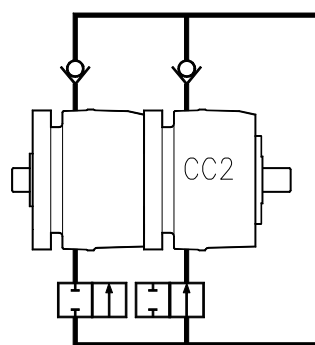
*Maximum displacement*  
 $CC_{max} = CC1 + CC2.$



*Intermediate displacement*  
 $CC_{int} = CC1.$



*Minimum displacement*  
 $CC_{min} = CC2.$



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