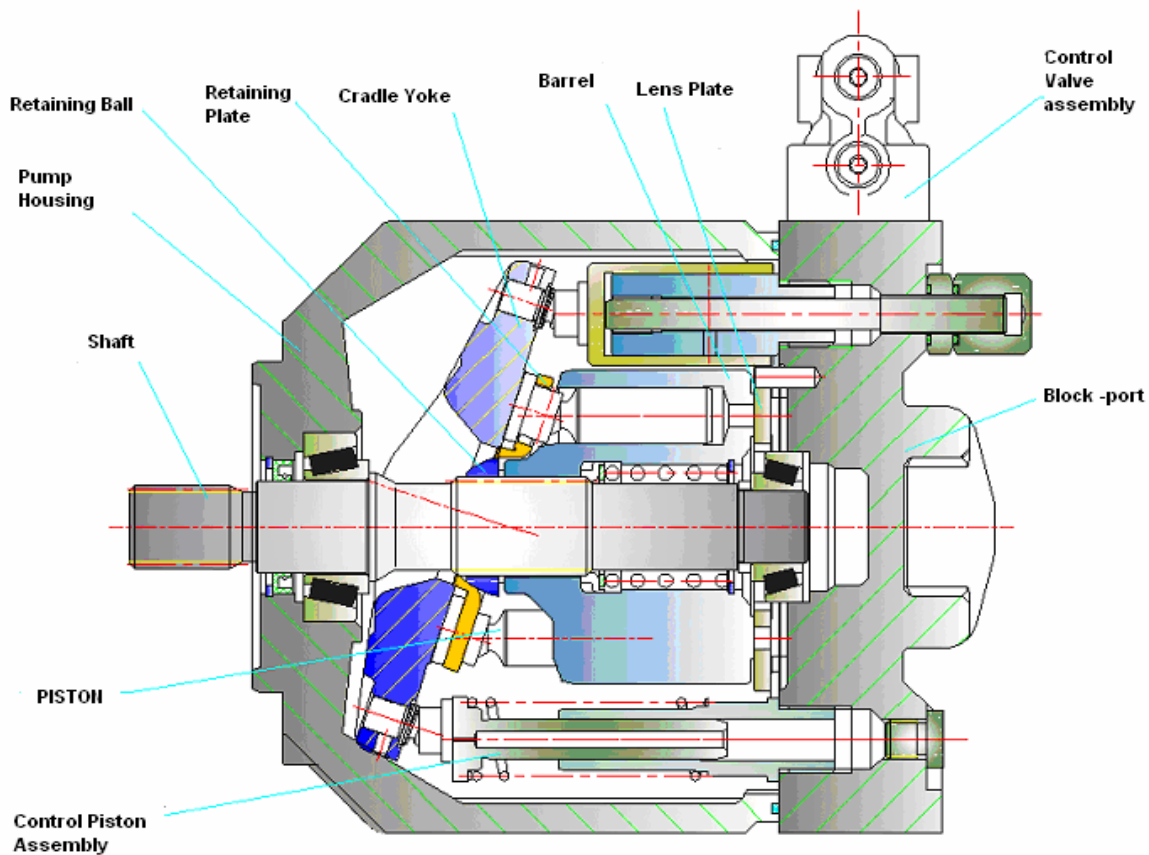




## Technical Data

| Sizes                                                               |                             | 18       | 28        | 45        | 71         | 100        | 140       |
|---------------------------------------------------------------------|-----------------------------|----------|-----------|-----------|------------|------------|-----------|
| Displacement $V_{gmx}$                                              | $\text{in}^3 (\text{cm}^3)$ | 1.10(18) | 1.71(28)  | 2.75 (45) | 4.33 (71)  | 6.1 (100)  | 8.54(140) |
| Max speed                                                           | $n_{\max}$ rpm              | 3300     | 3000      | 2600      | 2200       | 2000       | 1800      |
| Max. flow<br>gpm (l/min)                                            | $n_{\max}$                  | 16(59.4) | 22 (84)   | 31 (117)  | 41 (156)   | 53 (200)   | 67 (252)  |
|                                                                     | 1800rpm                     | 7.2 (32) | 13.3 (59) | 21.4 (81) | 33.8 (128) | 47.6 (150) | 67 (252)  |
| Power $P_{\max}$<br>$\Delta p=4000$ psi<br>(280bar)                 | $n_{\max}$ hp(kw)           | 36.6(28) | 51 (39)   | 72 (55)   | 96 (73)    | 124 (93)   | 156 (118) |
|                                                                     | 1800rpm hp(kw)              | 19 (15)  | 31 (24)   | 50 (38)   | 79 (69)    | 111 (84)   | 156 (118) |
| Max Torque $T_{\max}$ ft-lb (Nm)<br>( $\Delta p=4000$ psi (280bar)) |                             | 58 (80)  | 91 (125)  | 146 (200) | 230 (316)  | 324 (445)  | 453 (623) |
| Weight lbs (kg)                                                     |                             | 26.5(12) | 33 (15)   | 46 (21)   | 73 (33)    | 99 (45)    | 132 (60)  |

## Parameter calculation

$$\text{Flow } q_v = \frac{V_g \cdot n \cdot \eta_v}{231} \quad [\text{gpm}] \quad q_v = \frac{V_g \cdot n \cdot \eta_v}{1000} \quad [\text{L/min}]$$

$$\text{Drive Torque } T = \frac{V_g \cdot \Delta p}{24 \cdot \pi \cdot \eta_{mh}} \quad [\text{lb-ft}] \quad T = \frac{V_g \cdot \Delta p}{20 \cdot \pi \cdot \eta_{mh}} \quad [\text{Nm}]$$

$$\text{Drive Power } P = \frac{q_v \cdot \Delta p}{1714 \cdot \eta_t} \quad [\text{hp}] \quad P = \frac{q_v \cdot \Delta p}{600 \cdot \eta_t} \quad [\text{kw}]$$

$V_g$  = displacement each rotate  $\text{in}^3 [\text{cm}^3]$   
 $\Delta p$  = differential pressure drop psi [bar]  
 $n$  = speed [rpm]  
 $\eta_v$  = volumetric's efficiency  
 $\eta_{mh}$  = mechanical –Hydraulic efficiency  
 $\eta_t = (\eta_v \times \eta_{mh})$  Total efficiency