

# Super X-L<sup>®</sup>

## Hydraulic Pump

A Simplex Super-XL pressure loaded gear pump consists of two intermeshing, hardened steel, precision ground gear assemblies. These precision gears are enclosed by a high strength, die cast aluminum front cover, back cover and a high yield strength extruded aluminum center section.

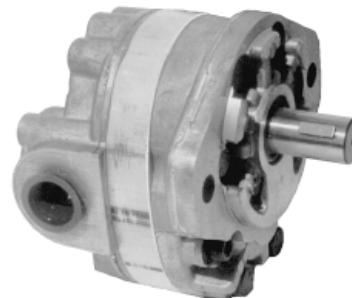
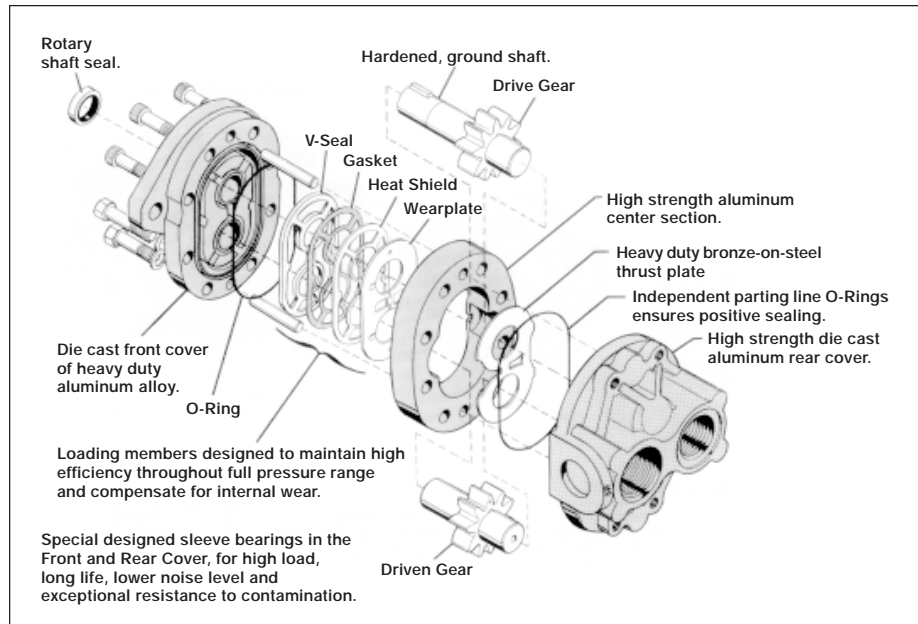
Gear assemblies consist of one drive gear shrink fit on a precision ground and polished drive shaft. This shaft extends outside the pump to permit coupling to an external prime mover by means of a standard key way. The second gear being the driven gear is also shrink fit on a precision ground and polished driven shaft. Retaining rings installed in grooves provided on the shaft ensure that the gears will not move axially and a key keeps the drive gear from moving radially.

A lip type shaft seal is provided at the drive shaft to prevent external leakage of pump fluid. The sealing lip in contact with the fluid is spring loaded. Vent passages within the housings and driven shaft communicate pump inlet pressure to the rotary seal area, thus imposing the lowest possible pressure to the rotary seal for extended life.

The phenolic heat shield, backup gasket, and molded rubber seal form chambers behind the steel backed bronze wearplate. These chambers are connected either to inlet or discharge pressure. Discharge pressure, acting within the chambers, axially loads and deflects the wearplate toward the gear faces to take up gear side clearances.

This pressure loading on the wearplate increases pump efficiency by reducing internal leakage to a minimum, providing longer pump life.

Pump rotation is dependent on proper orientation of heat shield, backup gasket, and rubber seal in the front cover housing, the center section and rear cover oriented respectively. Pumping action is achieved by connecting the pump drive shaft to a prime mover and rotating the gears away from the inlet port. Rotation causes the gear mesh to increase on the inlet side and decrease on the outlet (pressure) side.



### Features

- Pressure Loaded Design
- Efficient, Simple Design - Few Moving Parts
- Exceptionally Compact and Lightweight for their Capacity
- Efficient at High Pressure Operation
- Resistant to Cavitation Effects
- High Tolerance to System Contamination
- Reliable under Cold Weather Operation
- Sleeve Bearing Construction
- Multi-Fluid Compatibility

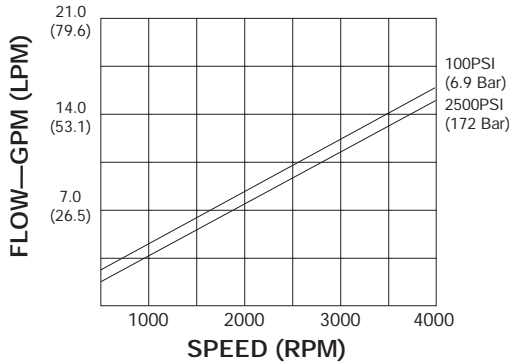
PUMP MODEL	OPTION NUMBER	DISPLACEMENT IN <sup>3</sup> (CC/REV.)	RPM	Flow, GPM LPM				
				100 PSI (6.9 Bar)	1000 PSI (69 Bar)	1500 PSI (103 Bar)	2000 PSI (138 Bar)	2500 PSI (172 Bar)
SUPER XL-11	STD.	.225 (4.18)	1800 (7.54)	1.99 (7.05)	1.86 (6.78)	1.79 (6.56)	1.73 (6.29)	1.66
SUPER XL-39	400	.91 (14.92)	1800 (26.83)	7.08 (26.04)	6.87 (25.66)	6.77 (25.24)	6.66 (24.86)	6.56
SUPER XL-62	410	1.42 (23.28)	1800 (42.07)	11.10 (40.97)	10.81 (40.55)	10.70 (40.17)	10.60 (39.42)	10.40
SUPER XL-90	415	2.15 (35.25)	1800 (63.29)	16.70 (62.54)	16.50 (61.78)	16.30		
SUPER XL-114	417	3.25 (53.28)	1800 (95.89)	25.30 (94.37)	24.90 (93.23)	24.60 (92.48)	24.40	

# SIMPLX<sup>®</sup>

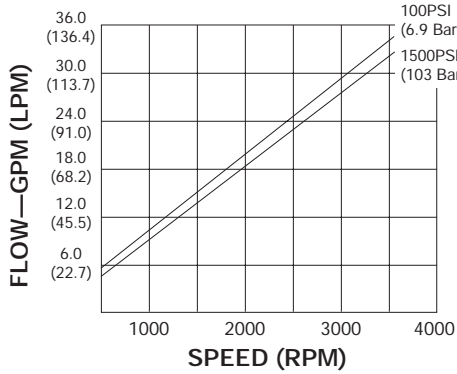
## Performance Data

Based On Oil Temperature of 120°F (49°C)  
(100 SSU) Atmospheric Inlet

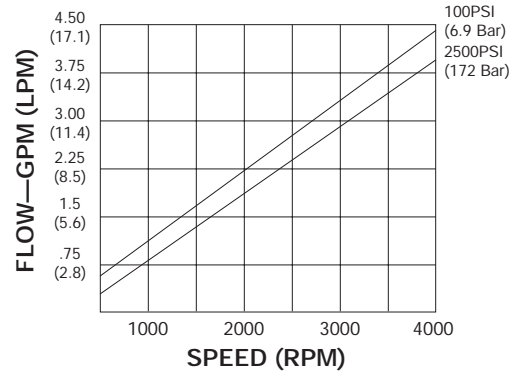
**Super XL-39**  
7GPM Pump, Opt. 400



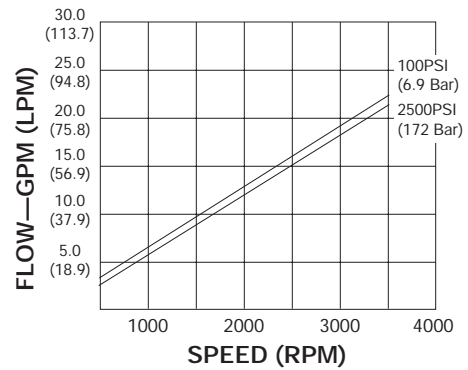
**Super XL-90**  
17GPM Pump, Opt. 415



**Super XL-11**  
2GPM Pump, Standard



**Super XL-62**  
10GPM Pump, Opt. 410



**Super XL-114**  
25GPM Pump, Opt. 417

