L3 SERIES COMPACT PUMPS

- **PORTABLE**
- **ECONOMICAL**
- **LIGHTWEIGHT**
- **EASY TO INSTALL & OPERATE**
- **REQUIRES NO LUBRICATION**
- **IDEAL FOR OEM APPLICATIONS**

SC air driven compact liquid pumps operate on the principal of differential areas. An air piston drives a smaller diameter hydraulic plunger to provide a pressure ratio. The pressure ratio determines the maximum outlet pressure.

SC compact liquid pumps cycle automatically. When compressed air is first applied to the pump, it will cycle at its maximum speed producing maximum flow. At this stage, the pump is acting as a transfer pump filling the pressure receiver with liquid. The pump will then gradually start to cycle at a slower rate as the pressure in the receiver increases and offers more resistance to the reciprocating differential piston.

SC pumps stop automatically when the output pressure force and the air drive force is balanced to create a stall condition. At this point, the pump will maintain pressure without energy consumption, thus providing an economical source for hydraulic power.

SC pumps will cycle with a slight drop in the outlet pressure or increase in the air drive pressure due to very low frictional resistance.

SC pumps are suitable for use on scissor jack lifts, aircraft jacks, clamping devices, punches and pin presses, valve actuation, roller tensioning, torque wrenches, press system overload, pressure testing, crimping, trash compactors, paper and printing paper cutters.

Compatible with all hydraulic fluids, plain water, distilled and di-ionized water, solvents, mild chemicals and liquefied CO_2.

316 Stainless steel wetted hydraulic construction, light weight (six pounds), 3.5” x 7.00” body includes inlet and exhaust muffler.

Available in eight ratios: 15, 25, 35, 45, 65, 105, 125 and 195.

Requires less than 15 psi air drive pressure to operate, the L3 series pump is self priming for immediate operation. Maximum air drive pressure is 125 psi.

Can supply pressures up to 24,375 psi and flow rates up to 1.0 gpm.

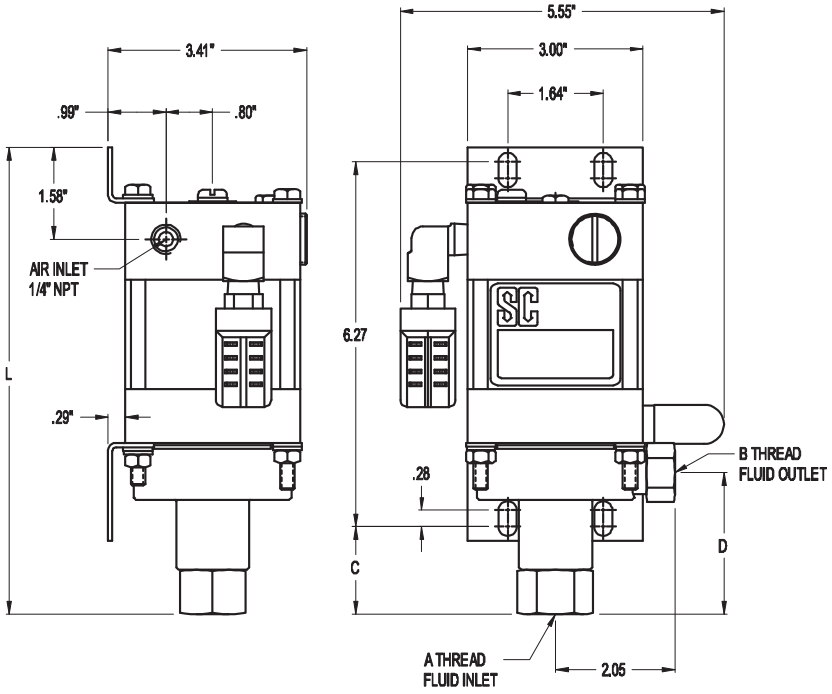
Requires no electrical power or connections.

Alternative gases that can drive the pump include nitrogen vapor from liquefied gas or natural gas pipeline, thus offering a completely self-contained package independent of external power sources.

Hand pump attachment option allows for manual operation when shop air is not available or for precision pressure control.

Manufactured in the United States

L3 Series Compact Pump



APPLICATIONS

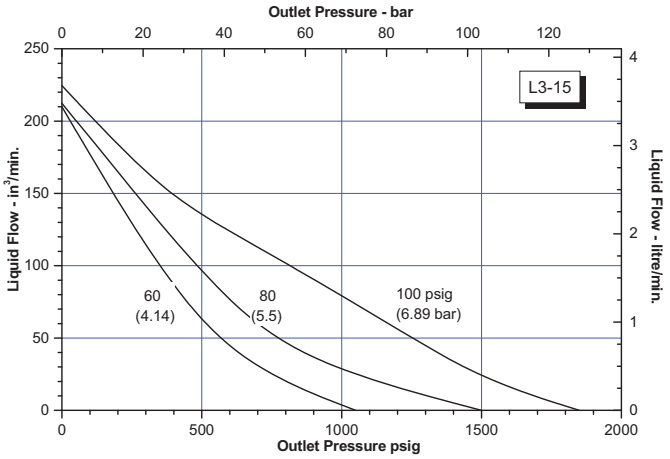
- Scissor jack lifts, aircraft jacks
- Clamping devices
- Punches and pin presses
- Valve actuation
- Roller and bolt tensioning
- Torque wrenches
- Press system overload
- Pressure testing
- Crimping
- Trash compactors

Mounting Dimensions in Inches

Dash Number	Actual Ratio	Max Pressure psig @125 Pa(1)	Displacement Per Cycle Cu. In.	NPT/LF4 (Std)		SAE/LF4 (Optional)			C	D	L
				A Thread	B Thread	A Thread	B Thread	B Thread			
-15	20	2,250	.27	3/8"	1/4"	-8 SAE	-6 SAE	7/16-20 *	1.50	2.43	8.02
-25	31	3,500	.18	3/8"	1/4"	-8 SAE	-6 SAE	7/16-20 *	1.50	2.43	8.02
-35	40	4,375	.14	3/8"	1/4"	-8 SAE	-6 SAE	7/16-20 *	1.50	2.43	8.02
-45	55	6,125	.10	3/8"	1/4"	-8 SAE	-6 SAE	7/16-20 *	1.50	2.43	8.02
-65	79	8,875	.069	1/4"	1/4"	-6 SAE	-6 SAE	7/16-20 *	1.00	1.93	7.52
-105	123	14,000	.044	1/4"	1/4"	-6 SAE	-6 SAE	7/16-20 *	1.00	1.93	7.52
-125	138	15,600	.044	1/4"	7/16-20 *	-6 SAE	-	-	1.00	1.93	7.52
-195	213	24,375	.038	3/8"	9/16-18	-	-	-	2.24	2.71	8.75

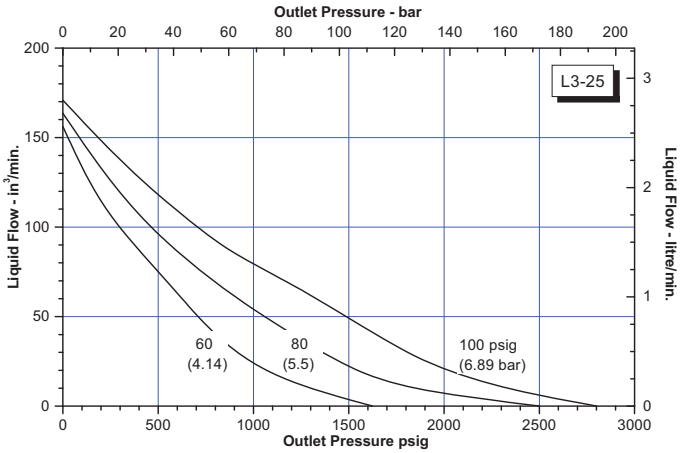
*Coned and Threaded High Pressure Connection for 20KSI O.D. Tubing
(1) Maximum Static Outlet Pressure. Do not exceed 125-psi of air supply pressure

L3-15

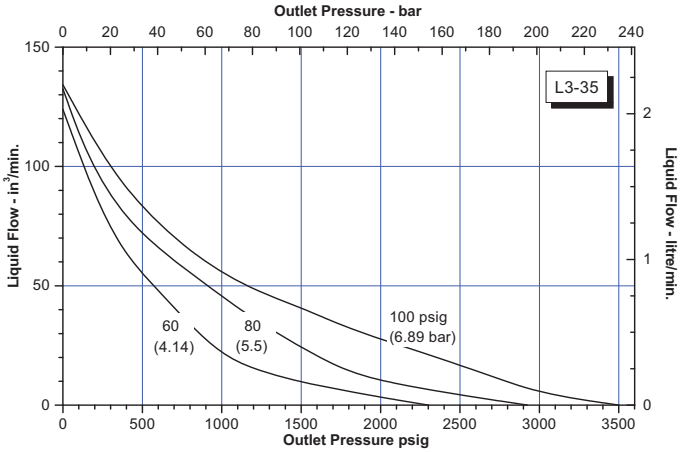


Manufactured in the United States

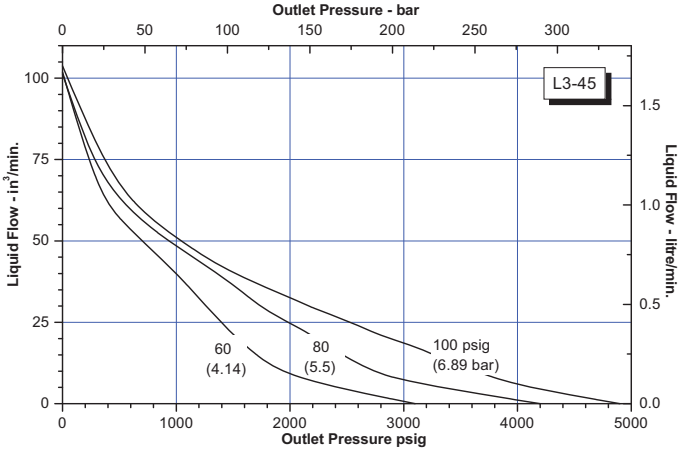
L3 Series Compact Pump



L3-25



L3-35

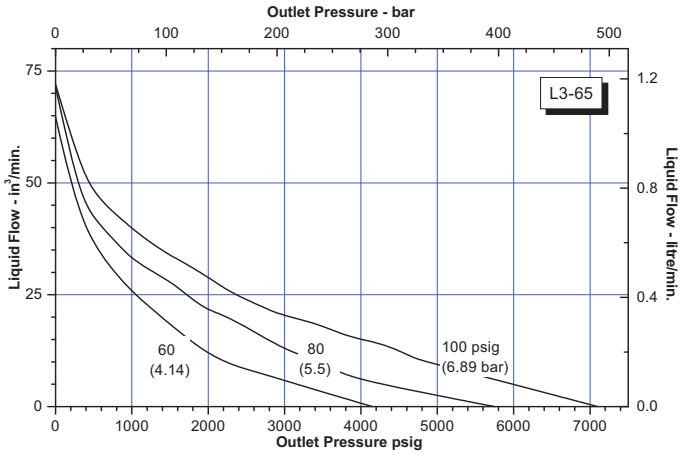


L3-45

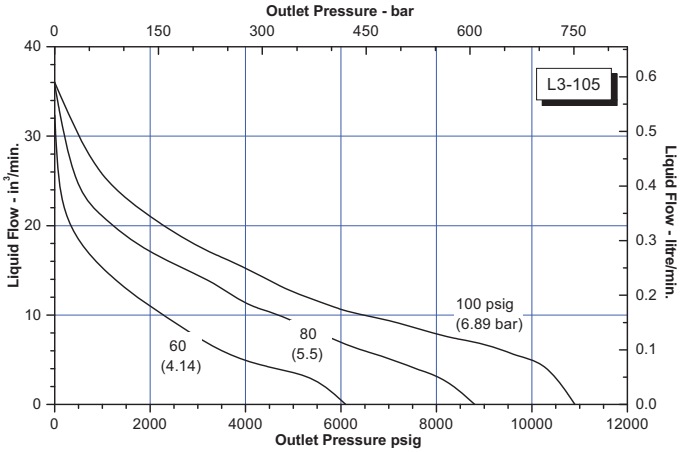
Manufactured in the United States

L3 Series Compact Pump

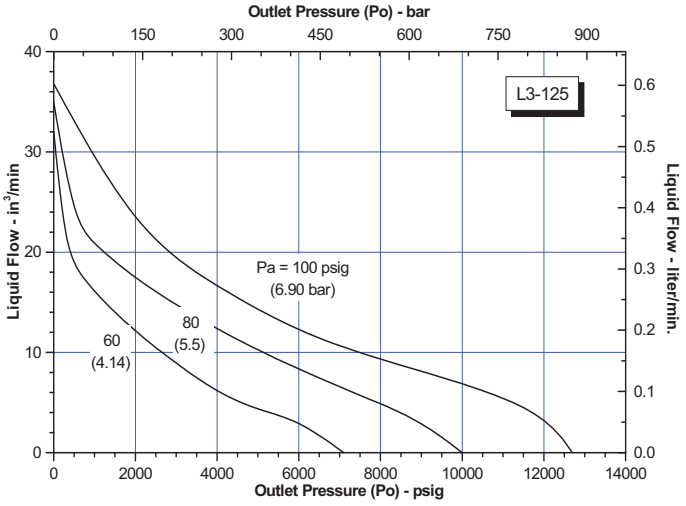
L3-65



L3-105

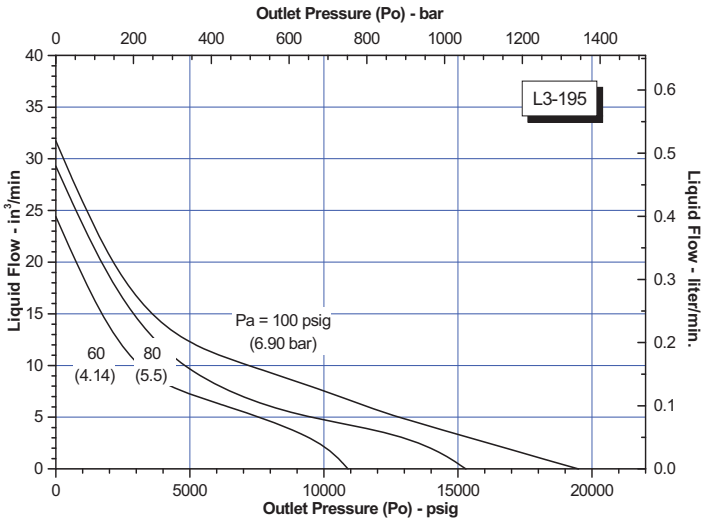


L3-125



Manufactured in the United States

L3 Series Compact Pump

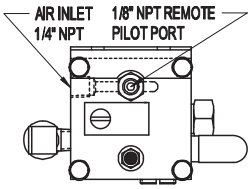


L3-195

Manufactured in the United States

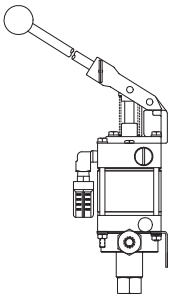
L3 Pump Modifications

In some cases, a combination of the modifications shown can be supplied upon request. Consult factory for additional information and dimensional data if required.

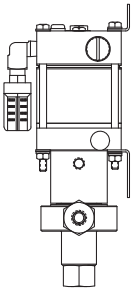


- **"M002" Remote Pilot** – This option provides for a separate 1/8" NPT external air to pilot cycling valve. Useful for remote control operation of the pump.

- **"M003" Straight Threads** – The straight thread modification offers the fluid inlet and outlet ports with SAE straight thread options.



- **"M004" & "M027" Integral Hand Pump Attachment** – This modification permits supplementary operation of the pump by hand. Useful in precise testing or emergency back-up applications requiring a hand pump in addition to pneumatic power.

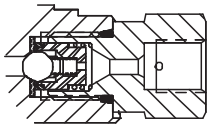


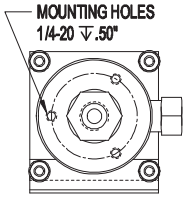
- **"M005" Distance Piece** – The distance piece models are furnished with an isolator attachment which prevents the hydraulic piston from retracting into the air drive during operation, thus providing 100% separation of the hydraulic assembly from the air drive assembly. The isolator attachment prevents contamination and acts as a heat barrier.

- **"M006" No Air Piston Return Spring** – This modification provides improved fill on the suction stroke when pumping liquefied gases such as CO_2.

- **"M008" Noise Reduction** – Noise reduction incorporates a special internal bumper allowing the pump to run quieter without impairing performance.

- **"M009" 1/4" O.D. High Pressure Tubing Fluid Outlet** – This modification provides a coned and threaded high pressure connection for 20 KSI 1/4" O.D. tubing (7/16-20 thread LF4 connection).



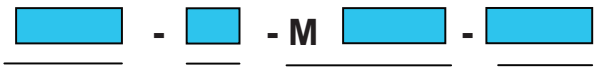


- **"M011" Mounting Holes** – Tapped and threaded bottom mounting holes are available for tank top mounting applications.

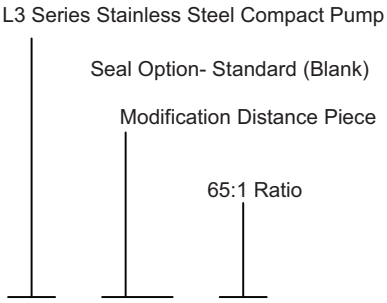
Manufactured in the United States

HOW TO ORDER TABLE

L3 SERIES PUMPS



Example #1 showing 1 modification



Example #2 showing 2 modifications

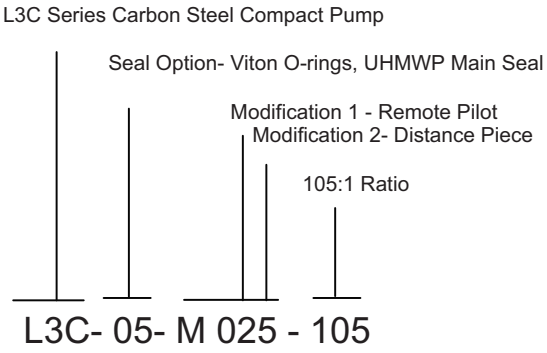


TABLE 1 [1] **Pump Series Designation**

L3	Stainless Steel Hyd. Section Compact Pump
L3C	Carbon Steel Hyd. Section Compact Pump
L3S	All Stainless Steel Construction

TABLE 2 Seal Compound – Hydraulic Section

Blank	Std- Buna-N O-rings, polyurethane Main Seal
Blank	Std- Buna-N O-rings, UHMWP/CG-PTFE Main Seal[2]
03	EPR O-rings, Polyurethane Main Seal
04	Viton O-rings, Polyurethane Main Seal
05	Viton O-rings, UHMWP Main Seal
06	EPR O-rings, UHMWP Main Seal
07	Buna-N O-rings, UHMWP Main Seal

Notes:
(1) Do not fill gap on a two digit description. Refer to example above.
(2) Available *only* for L3-195.

TABLE 3 Modifications

Blank	Standard- No Modifications
002	Remote Pilot
003	SAE Straight Thread Ports
004	Hand Pump Attachment, -15 thru -125 Ratios
027	Hand Pump Attachment, -195 Ratio
005	Distance Piece
006	No Air Piston Return Spring
008	Noise Reduction
009	7/16-20 x ¼" High Press Fitting Outlet

TABLE 4 [1] **Actual Ratio**

-15	20:1 Actual Ratio
-25	31:1 Actual Ratio
-35	40:1 Actual Ratio
-45	55:1 Actual Ratio
-65	79:1 Actual Ratio
-105	123:1 Actual Ratio
-125	133:1 Actual Ratio
-195	213:1 Actual Ratio

Additional Special Modifications may be included with an "M" suffix at the end of the model number.

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