

# Hand Lever/Air Driven, High Pressure Liquid Pump

## Series ACHL189-01

*Single-Acting, Single Piston Air Drive w/ Hand Lever*

### Manual Operation

- Pump comes standard with hand lever for precise pressure control, remote locations or emergency back-up applications.

### Technical Data: Liquid Side Specifications

- Service: *Oil, Water or Water/Oil mixture and other fluids depending on material compatibility.*
- Maximum Outlet Pressure: *31,900 psi (2,200 bar)*
- Maximum Air to Liquid Pressure Ratio: *1:213*
- Volume Displacement Per Stroke: *0.035 in<sup>3</sup> (.57 cm<sup>3</sup>)*
- Inlet Connection: *3/8" FNPT*
- Outlet Connection: *Autoclave F250C-1/4" Female High Pressure*  
*(Contact Autoclave Engineers for Additional Options)*

### Technical Data: Air Side Specifications

- Pump can be operated with air even with manual hand lever attached
- Air Drive Pressure Range: *15-150 psi (1-10 bar)* \*See note 1
- Nominal air pressure required for 31,900 psi (2,200 bar) output pressure is 148 psi (10 bar)
- Inlet Port: *1/4" FNPT*
- Exhaust Port (muffler removed): *1/4" FNPT*
- Air Consumption @ 90 psi: *13 SCFM*
- Prelubricated at Factory

### General Specifications

- Maximum Operating Temperature: *0-140° F (-18° to 60° C)*
- Net Weight without Isolation Chamber: *9 lbs. (4.1 kg)*
- Pressure Head: *316 Stainless Steel*
- Plunger: *440 Stainless Steel*
- Check Valve Glands: *15-5PH Stainless Steel*
- Liquid Seal: *See Ordering Guide for options*
- Air Drive Seals: *Buna N*

#### Notes:

1. *Maximum air drive pressure is limited by maximum output pressure.*
2. *Alternative materials for wetted parts and seals are available, please contact Autoclave Engineers for additional information.*



**Single-Acting, Single Piston Air Drive w/ Hand Lever**

Bottom Inlet Shown



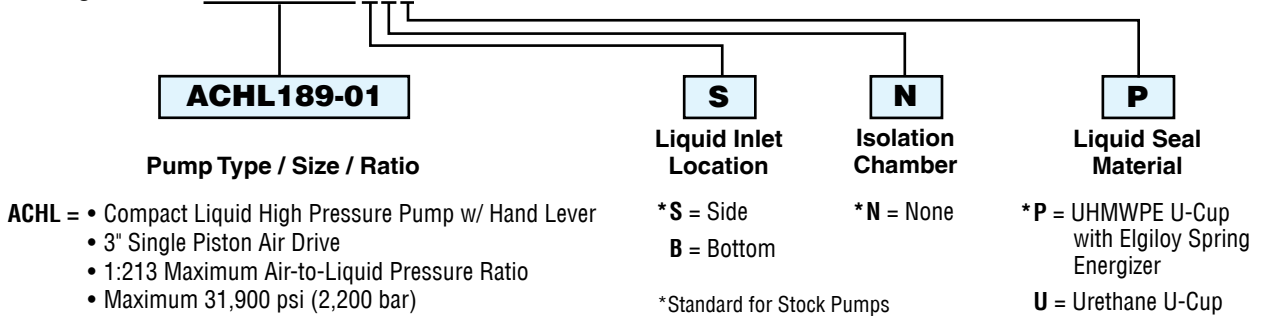
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MADE IN THE U.S.A.

## Ordering Guide:

For complete information on available pump options, contact Autoclave Engineers.

Typical catalog number: **ACHL189-01SNP**

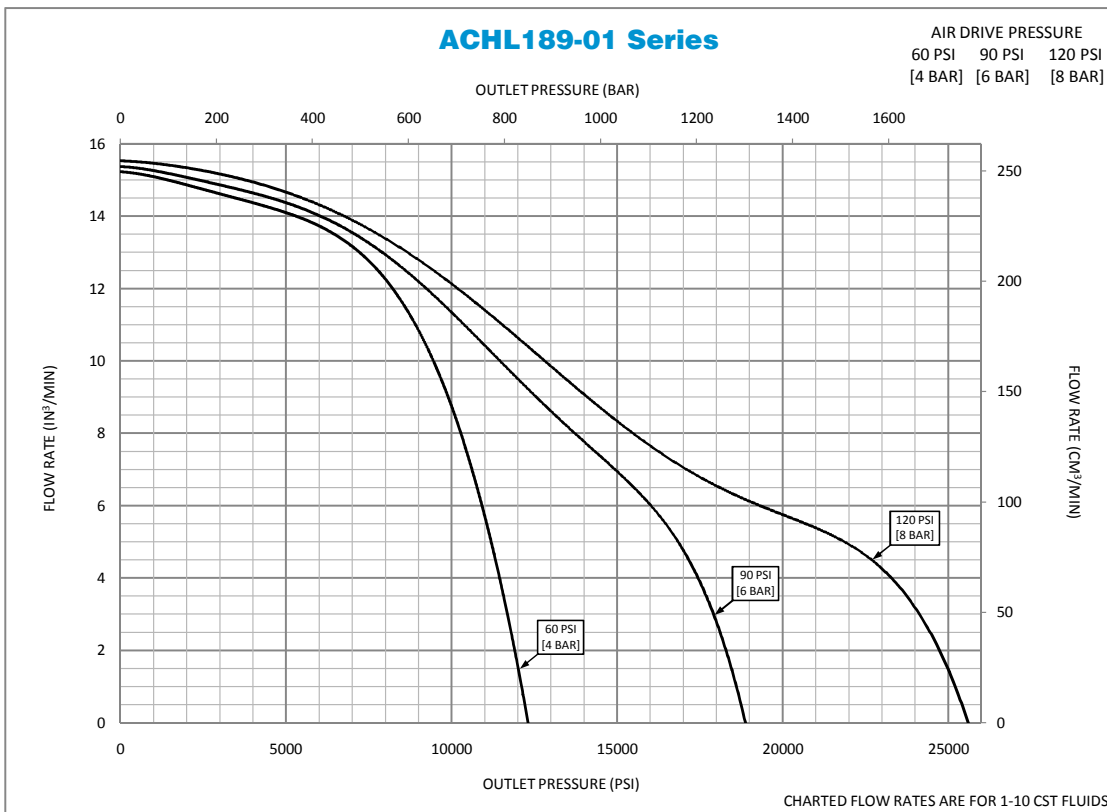


Air Pressure (PSI)	Stall Pressure (PSI)	Hand Lever Force (LBF)
20	3435	12
40	7890	21
60	12350	30
80	16810	39
100	21265	48
120	25725	57
148	31900	70

### Stall Pressure Note:

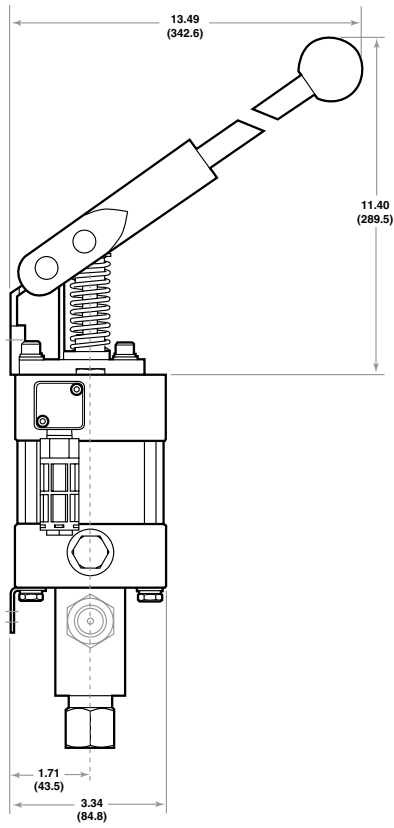
The pump's air piston is returned using a coil spring. Depending on the position of the piston during stall stroke, the stall pressure can vary  $\pm 350$  psi from the values shown on the chart. For precise pressure control, Autoclave recommends using the manual hand lever.

## Flow Rate vs. Outlet Pressure:

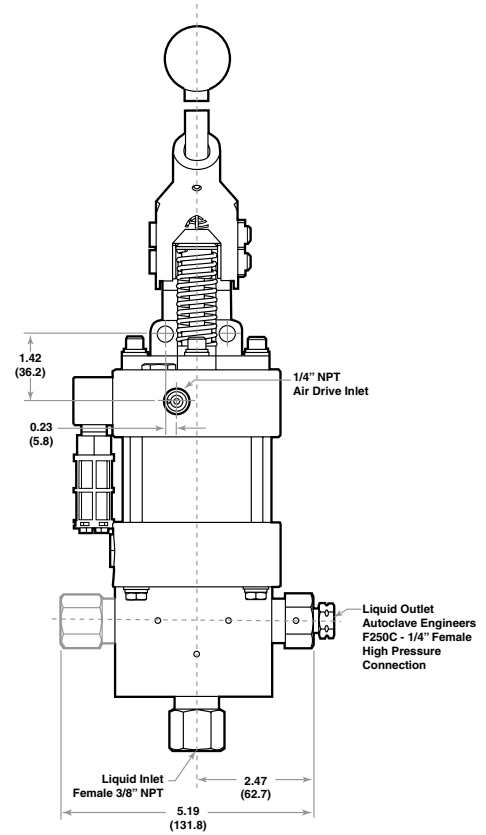


Actual flow rates will vary depending on air flow capacity, downstream flow restrictions, and fluid type.

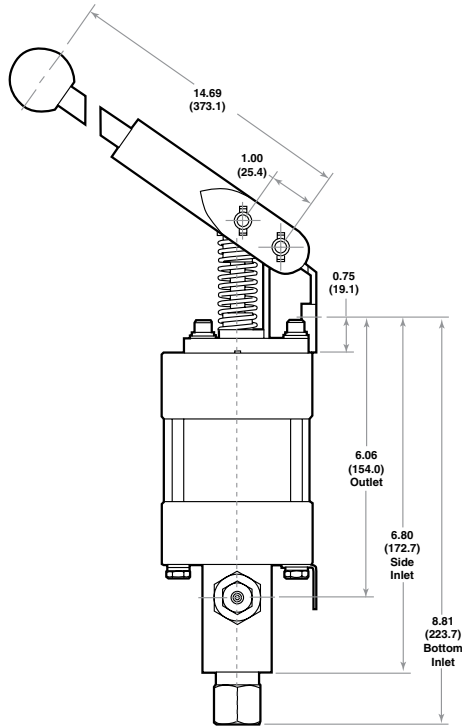
## Dimensional Data:



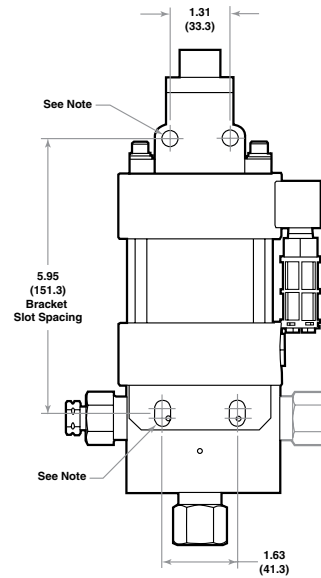
Left View



Front View



Right View



Back View

### Note:

Each Mounting Bracket includes (2) 11/32" (8.73) holes for 5/16" Bolts.  
 Bottom Inlet Pump Head and Side Inlet Pump Head are mutually exclusive.  
 All dimensions are for reference only and are subject to change without notice.  
 Primary Dimensions: Inches  
 Secondary Dimensions: (Millimeters)

## Accessories Available:

- Air Control Packages
- Pneumatic Pilot switches and Solenoid Valves
- Stroke Counter
- Relief Valve / Safety Heads
- Complete line of High Pressure Components - Valves, Fittings & Tubing
- Spare Parts
- Service



Typical Air Control Package



For complete information on available high pressure accessories, please contact Autoclave Engineers.

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