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FLUID SYSTEMS & COMPONENTS



# AHL series air-driven high flow liquid pumps

# Air-Driven, High Flow, High Pressure Liquid Pump

## Series AHL33-2D

*Double-Acting, Dual Piston Air Drive*

### Technical Data: Liquid Side Specifications

- Service: Oil, Water or Water/Oil mixture and other fluids depending on material compatibility
- Maximum Outlet Pressure: 6,700 PSI (462 bar)
- Air to Liquid Pressure Ratio: 1:67
- Isolation Chamber (prevents process contamination of air section): Standard
- Volume Displacement Per Stroke: 15.3 in<sup>3</sup> (250.7 cm<sup>3</sup>)
- Dual Inlet Connections: 1" FNPT
- Dual Outlet Connections: 1/2" FNPT

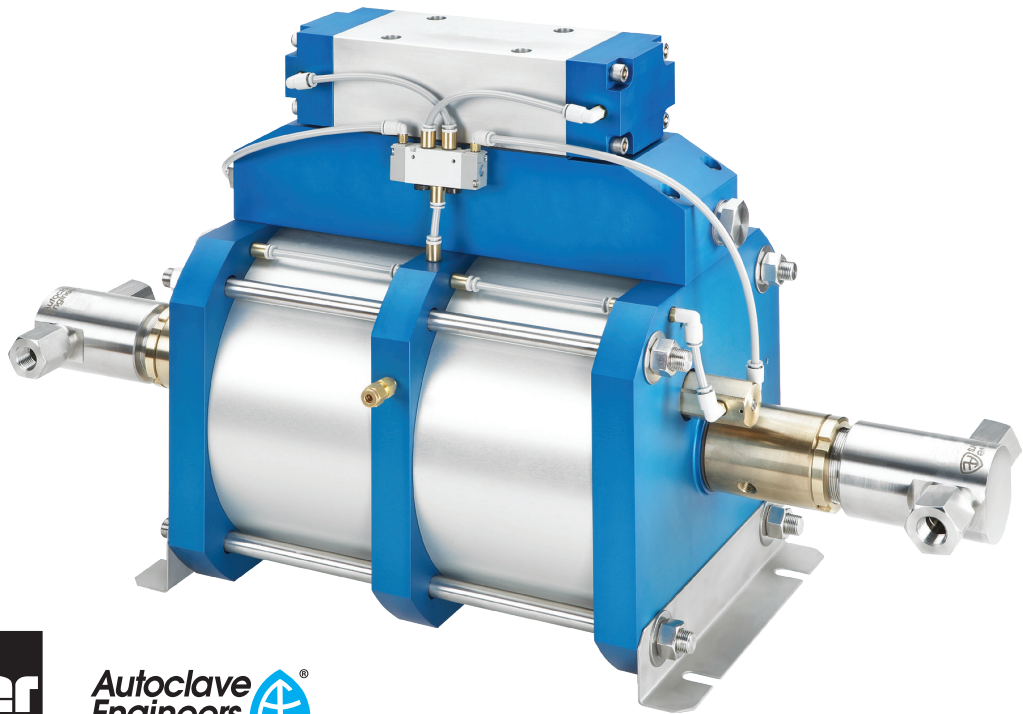
### Technical Data: Air Side Specifications

- Air Drive Pressure Range: 20-100 psi (1.4-6.9 bar) \*See note
- Nominal air pressure required for 6,700 PSI (462 bar) output pressure is 100 psi (6.9 bar)
- Inlet Port: 1" female FNPT
- Pilot Port: 1/8" female FNPT
- Exhaust Ports (mufflers removed): 1" female BSP
- Air Consumption @ 50 PSI air (0 PSI liquid): 290 SCFM
- Prelubricated at Factory

*Note: Maximum air drive pressure is limited by maximum output pressure.*

### General Specifications

- Operating Temperature: 0-140° F (-18° to 60° C)
- Net Weight: 160 lbs (73 kg)
- Pressure Head: 15-5 PH Stainless Steel
- Stainless steel plunger utilizing a proprietary multi-layer carbon based coating with diamond like carbon exterior layer - 3 times the hardness of stellite with a coefficient of friction equal to/less than PTFE
- Check Valve Glands: 316 Stainless Steel
- Liquid Seal: Urethane U-Cup and FKM O-Rings
- Air Drive Seals: Buna N



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Double-Acting, Dual Piston Air Drive



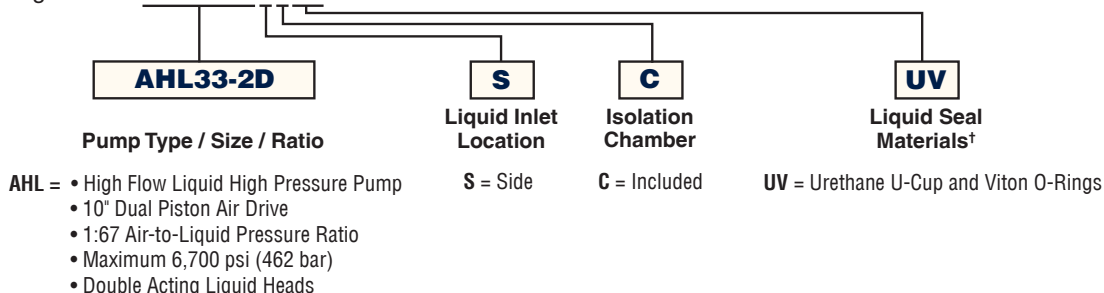
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**Ordering Guide:**

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

Typical catalog number: **AHL33-2DSCUV**



**Liquid Flow Rate vs. Outlet Pressure:**

**AHL33-2DSC Series**

Approximate air drive pressure: 100 psi			
Pressure (PSI)	Pressure (bar)	Flow (gpm)	Flow (liter/min)
0	0	7.6* <i>see note 2</i>	28.8* <i>see note 2</i>
1000	69	6.1	23.0
2000	138	5.7	21.5
3000	207	4.9	18.4
4000	276	4.0	15.2
5000	345	3.2	12.3
6000	414	1.8	6.9

Nominal Liquid Pressure (Stalled)			
Air Drive Pressure		Liquid Pressure	
PSI	bar	PSI	bar
20	1.4	1340	92.4
30	2.1	2010	138.6
40	2.8	2680	184.8
50	3.4	3350	231.0
60	4.1	4020	277.2
70	4.8	4690	323.4
80	5.5	5360	369.6
90	6.2	6030	415.8
100	6.9	6700	461.9

Notes:

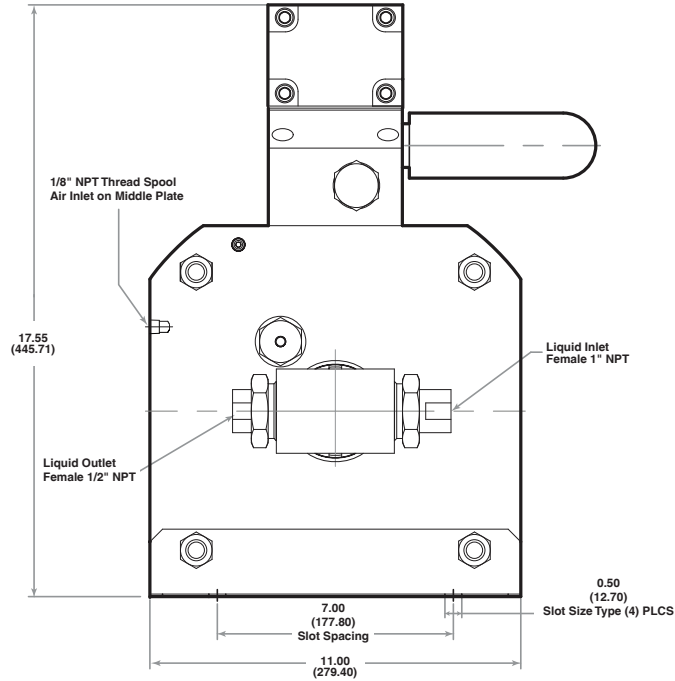
1. Actual flow rates will vary depending on air flow capacity, downstream flow restrictions, and fluid type.
2. Flow value at approximately 50 psi air drive pressure.



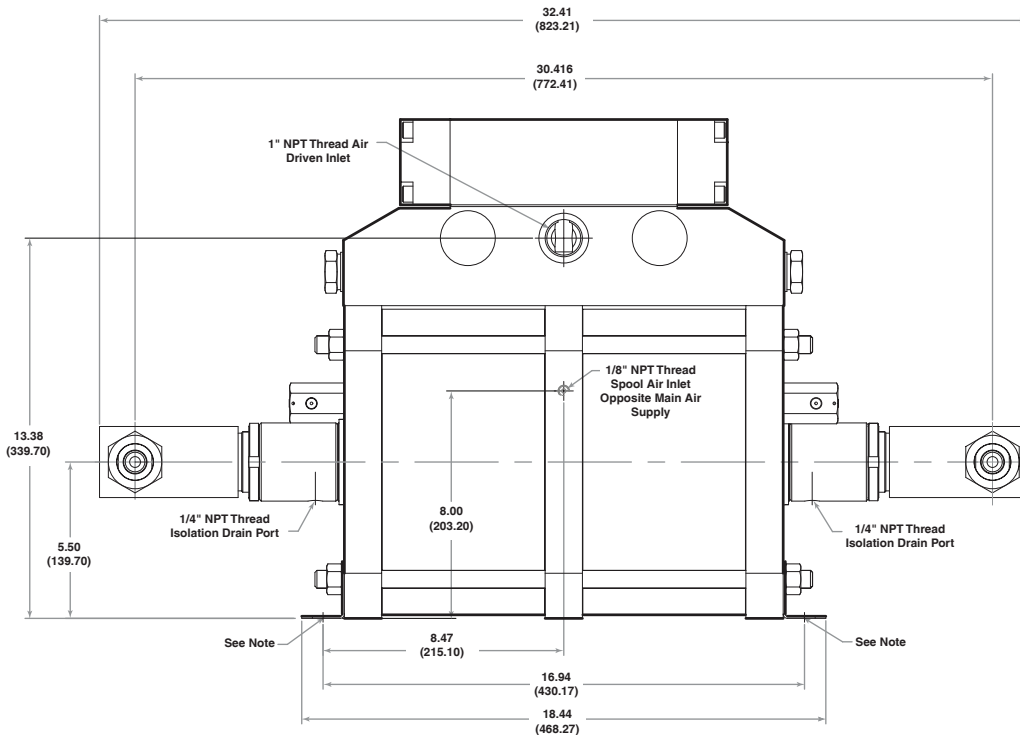
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**Dimensional Data:**



**Side View**



**Front View**

**Note:**

Each Mounting Bracket includes (2) x 0.50" (12.7) Slots for 7/16" Bolts.

Spool air tubing not shown for clarity.

All dimensions are for reference only and are subject to change without notice.

Primary Dimensions: Inches

Secondary Dimensions: (Millimeters)

**Air-Driven, High Pressure Liquid Pump - Series AHL33-2D**

**Technical Specifications & Performance Data**

# Air-Driven, High Flow, High Pressure Liquid Pump

## Series AHL66-2D

*Double-Acting, Dual Piston Air Drive*

### Technical Data: Liquid Side Specifications

- Service: Oil, Water or Water/Oil mixture and other fluids depending on material compatibility
- Maximum Outlet Pressure: 13,300 PSI (917 bar)
- Air to Liquid Pressure Ratio: 1:133
- Isolation Chamber (prevents process contamination of air section): Standard
- Volume Displacement Per Stroke: 7.8 in<sup>3</sup> (127.8 cm<sup>3</sup>)
- Dual Inlet Connections: 1/2" FNPT
- Dual Outlet Connections: 1/2" FNPT

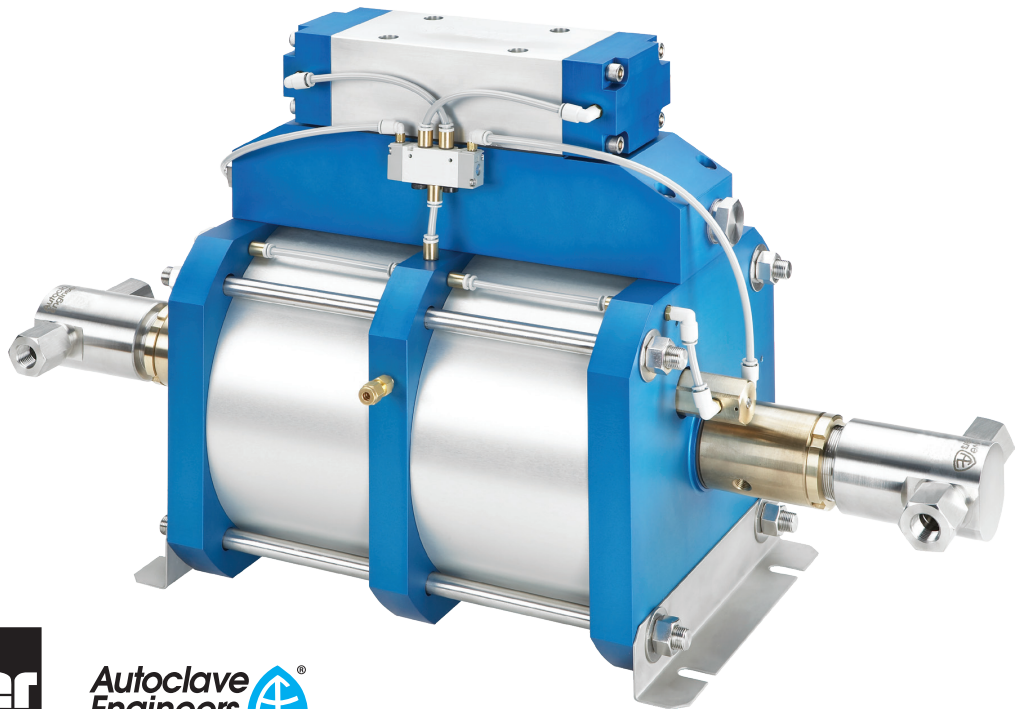
### Technical Data: Air Side Specifications

- Air Drive Pressure Range: 20-100 psi (1.4-6.9 bar) \*See note
- Nominal air pressure required for 13,300 PSI (917 bar) output pressure is 100 psi (6.9 bar)
- Inlet Port: 1" female FNPT
- Pilot Port: 1/8" female FNPT
- Exhaust Ports (mufflers removed): 1" female BSP
- Air Consumption @ 50 PSI air (0 PSI liquid): 290 SCFM
- Prelubricated at Factory

*Note: Maximum air drive pressure is limited by maximum output pressure.*

### General Specifications

- Operating Temperature: 0-140° F (-18° to 60° C)
- Net Weight: 160 lbs (73 kg)
- Pressure Head: 15-5 PH Stainless Steel
- Stainless steel plunger utilizing a proprietary multi-layer carbon based coating with diamond like carbon exterior layer - 3 times the hardness of stellite with a coefficient of friction equal to/less than PTFE
- Check Valve Glands: 316 Stainless Steel
- Liquid Seal: Urethane U-Cup and FKM O-Rings
- Air Drive Seals: Buna N



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Double-Acting, Dual Piston Air Drive



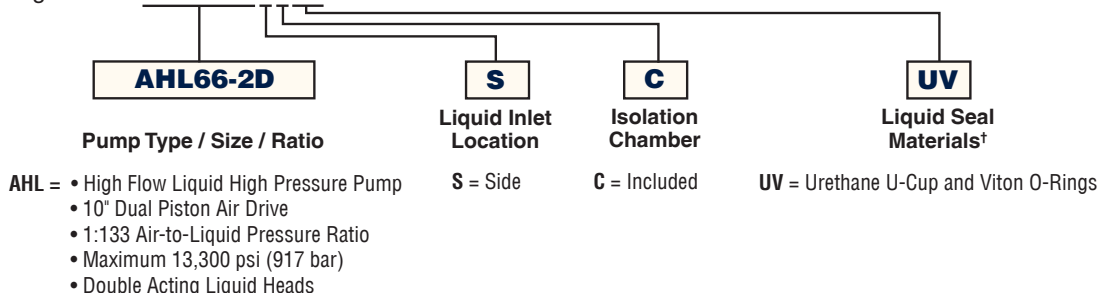
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**Ordering Guide:**

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

Typical catalog number: **AHL66-2DSCUV**



**Liquid Flow Rate vs. Outlet Pressure:**

**AHL66-2DSC Series**

Approximate air drive pressure: 100 psi			
Pressure (PSI)	Pressure (bar)	Flow (gpm)	Flow (liter/min)
0	0	3.6* <i>see note 2</i>	13.7* <i>see note 2</i>
1000	69	3.4	12.9
2000	138	3.1	12.0
3000	207	2.9	11.2
4000	276	2.7	10.3
5000	345	2.5	9.5
6000	414	2.3	8.7
7000	483	2.2	8.2
8000	552	2.0	7.7
9000	621	1.8	6.7
10000	690	1.5	5.7
11000	759	1.3	4.8
12000	828	1.0	3.9

Nominal Liquid Pressure (Stalled)			
Air Drive Pressure		Liquid Pressure	
PSI	bar	PSI	bar
20	1.4	2660	183.4
30	2.1	3990	275.2
40	2.8	5320	366.9
50	3.4	6650	458.6
60	4.1	7980	550.3
70	4.8	9310	642.1
80	5.5	10640	733.8
90	6.2	11970	825.5
100	6.9	13300	917.2

Notes:

- Actual flow rates will vary depending on air flow capacity, downstream flow restrictions, and fluid type.
- Flow value at approximately 50 psi air drive pressure.

**Technical Specifications & Performance Data**

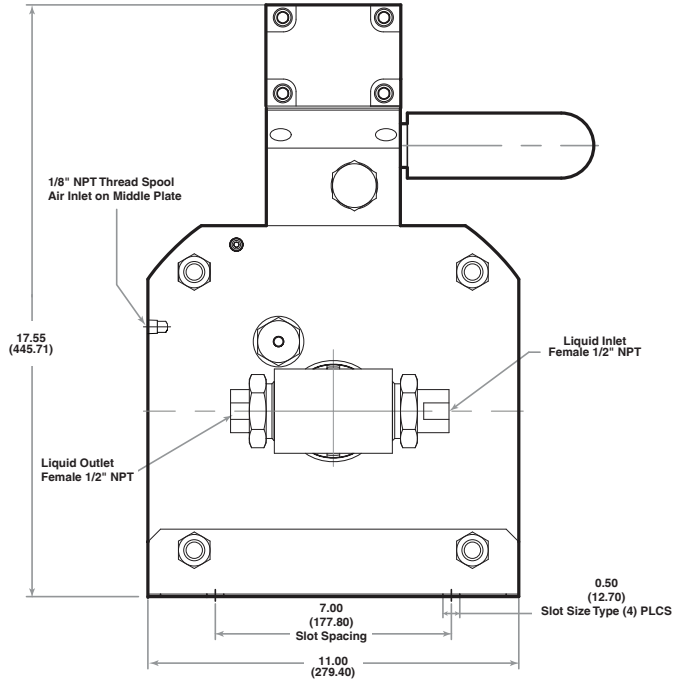
**Air- Driven, High Pressure Liquid Pump - Series AHL66-2D**



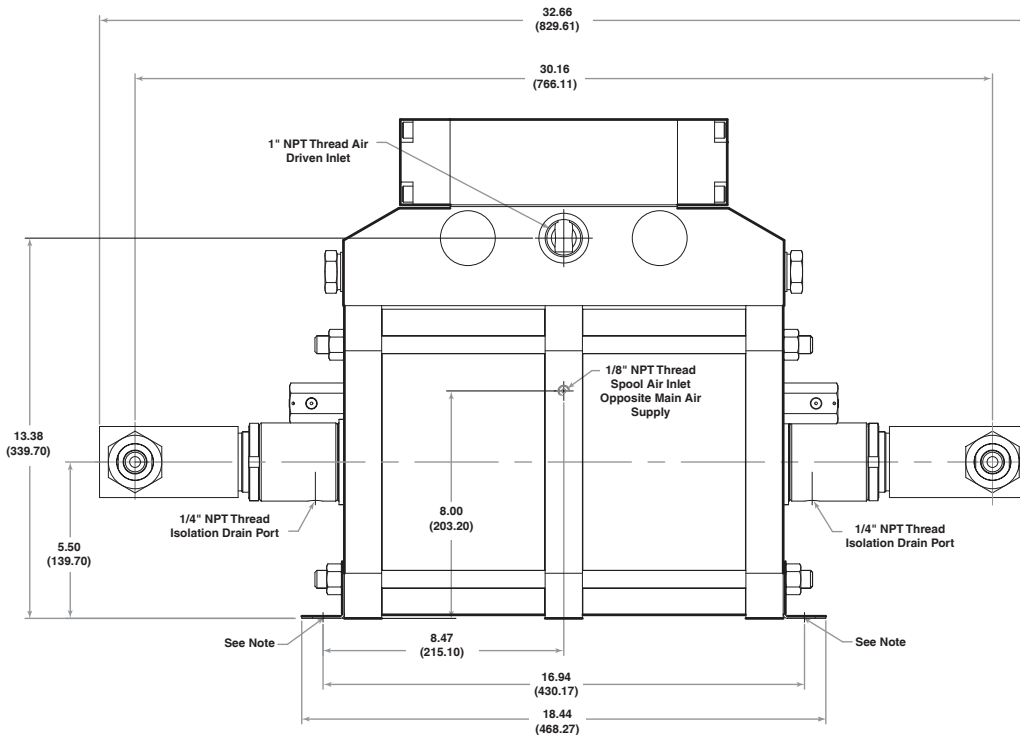
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**Dimensional Data:**



**Side View**



**Front View**

**Note:**

Each Mounting Bracket includes (2) x 0.50" (12.7) Slots for 7/16" Bolts.

Spool air tubing not shown for clarity.

All dimensions are for reference only and are subject to change without notice.

Primary Dimensions: Inches

Secondary Dimensions: (Millimeters)

**Air-Driven, High Pressure Liquid Pump - Series AHL66-2D**

**Technical Specifications & Performance Data**

# Air-Driven, High Flow, High Pressure Liquid Pump

## Series AHL118-2D

*Double-Acting, Dual Piston Air Drive*

### Technical Data: Liquid Side Specifications

- Service: Oil, Water or Water/Oil mixture and other fluids depending on material compatibility
- Maximum Outlet Pressure: 22,500 PSI (1,551 bar)
- Air to Liquid Pressure Ratio: 1:239
- Isolation Chamber (prevents process contamination of air section): Standard
- Volume Displacement Per Stroke: 4.4 in<sup>3</sup> (72.1 cm<sup>3</sup>)
- Dual Inlet Connections: 1/2" FNPT
- Dual Outlet Connections: SF562CX  
(Contact Parker Autoclave Engineers for Additional Options)

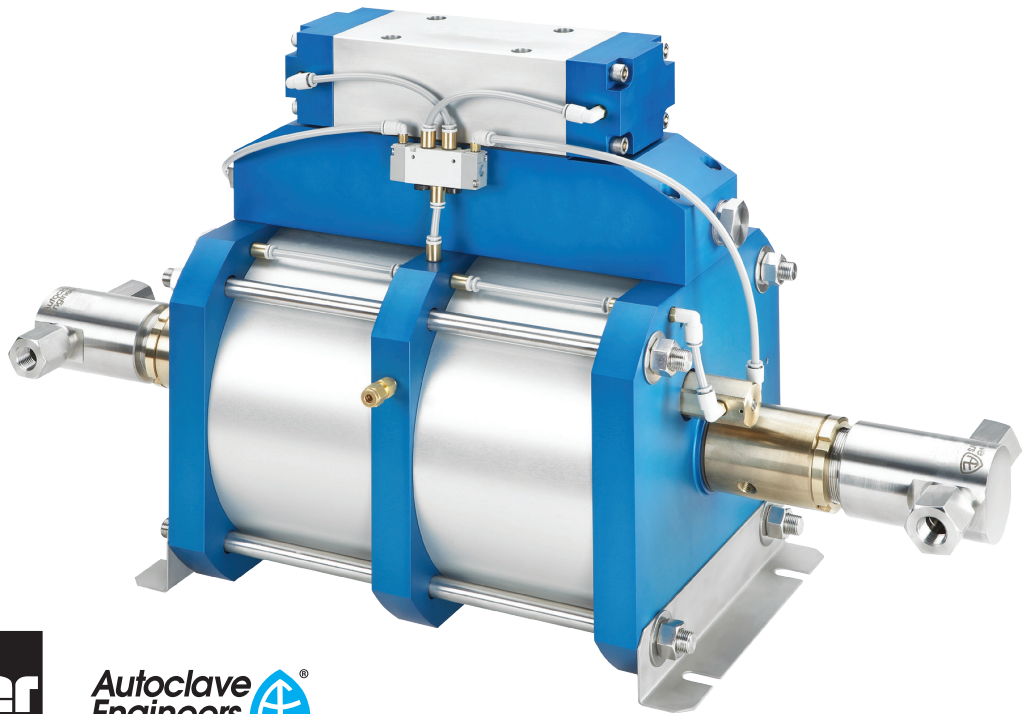
### Technical Data: Air Side Specifications

- Air Drive Pressure Range: 20-95 psi (1.4-6.5 bar) \*See note
- Nominal air pressure required for 22,500 PSI (1,551 bar) output pressure is 95 psi (6.59 bar)
- Inlet Port: 1" female FNPT
- Pilot Port: 1/8" female FNPT
- Exhaust Ports (mufflers removed): 1" female BSP
- Air Consumption @ 50 PSI air (0 PSI liquid): 290 SCFM
- Prelubricated at Factory

*Note: Maximum air drive pressure is limited by maximum output pressure.*

### General Specifications

- Operating Temperature: 0-140° F (-18° to 60° C)
- Net Weight: 160 lbs (73 kg)
- Pressure Head: 15-5 PH Stainless Steel
- Stainless steel plunger utilizing a proprietary multi-layer carbon based coating with diamond like carbon exterior layer - 3 times the hardness of stellite with a coefficient of friction equal to/less than PTFE
- Check Valve Glands: 316 Stainless Steel
- Liquid Seal: See Ordering Guide for options
- Air Drive Seals: Buna N



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Double-Acting, Dual Piston Air Drive





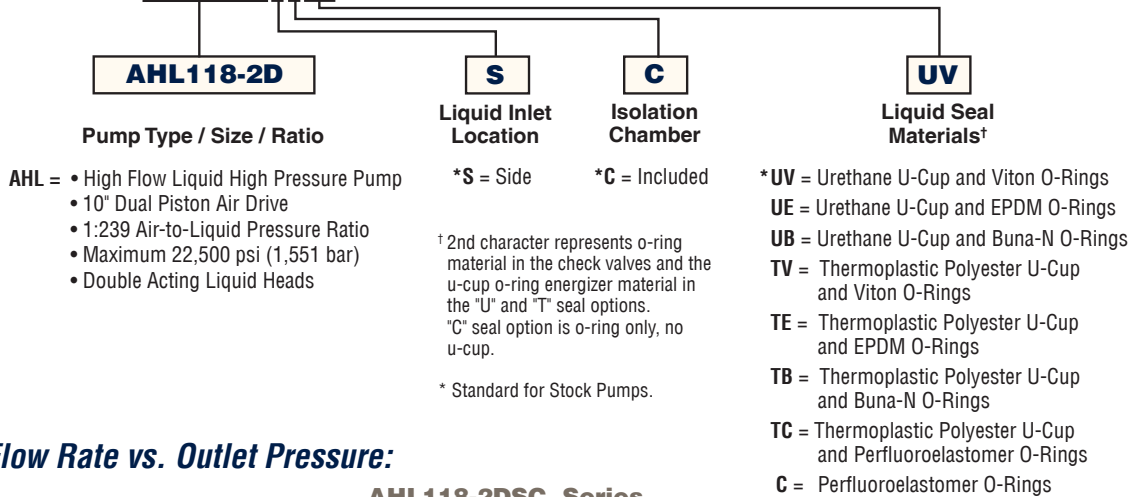
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**Ordering Guide:**

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

Typical catalog number: **AHL118-2DSCUV**



**Liquid Flow Rate vs. Outlet Pressure:**

**AHL118-2DSC Series**

Approximate air drive pressure: 100 psi			
Pressure (PSI)	Pressure (bar)	Flow (gpm)	Flow (liter/min)
0	0	0	0
2000	137.9	2.3	8.5
4000	275.8	2.0	7.7
6000	413.7	1.9	7.0
8000	551.6	1.7	6.4
10000	689.5	1.6	5.9
12000	827.4	1.4	5.3
14000	965.3	1.3	5.0
16000	1103.2	1.2	4.5
18000	1241.1	1.0	3.8
20000	1379.0	0.7	2.5
22000	1516.8	0.3	1.1
24000	1654.7	0.03	.1

Nominal Liquid Pressure (Stalled)			
Air Drive Pressure		Liquid Pressure	
PSI	bar	PSI	bar
20	1.4	4780	329.6
30	2.1	7170	494.4
40	2.8	9560	659.1
50	3.4	11950	823.9
60	4.1	14340	988.7
70	4.8	16730	1153.5
80	5.5	19120	1318.3
90	6.2	21510	1483.1
95	6.6	22500	1551.3

- Notes:
1. Actual flow rates will vary depending on air flow capacity, downstream flow restrictions, and fluid type.
  2. Flow value at approximately 50 psi air drive pressure.

Technical Specifications & Performance Data

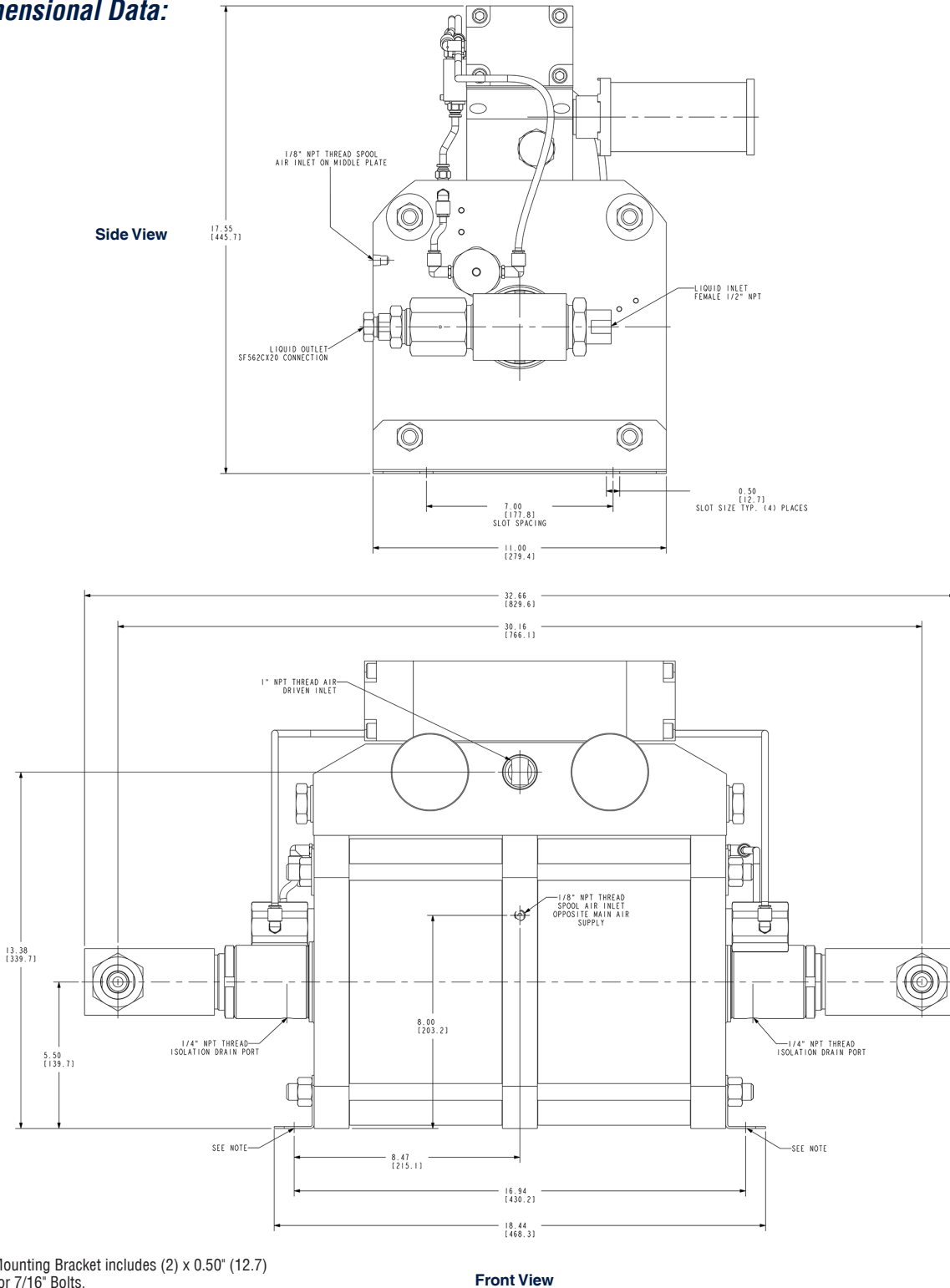
Air- Driven, High Pressure Liquid Pump - Series AHL118-2D



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**Dimensional Data:**



**Note:**  
 Each Mounting Bracket includes (2) x 0.50" (12.7) Slots for 7/16" Bolts.  
 Spool air tubing not shown for clarity.  
 All dimensions are for reference only and are subject to change without notice.  
 Primary Dimensions: Inches  
 Secondary Dimensions: (Millimeters)

**Air-Driven, High Pressure Liquid Pump - Series AHL1186-2D**

**Technical Specifications & Performance Data**