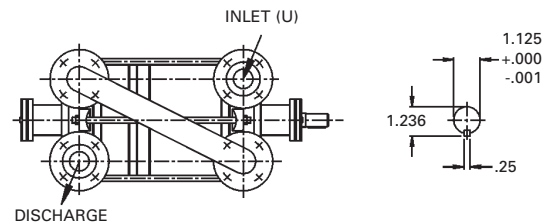
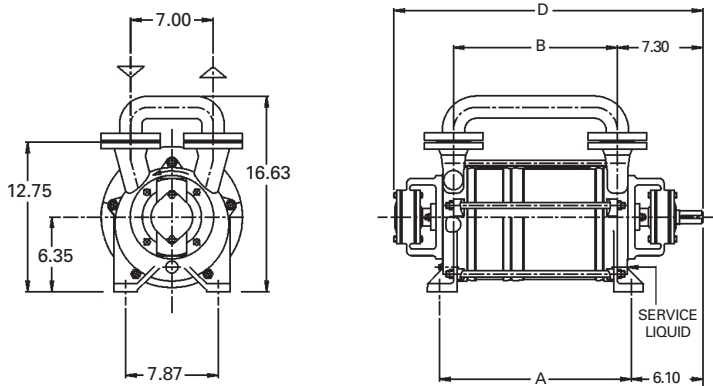


Dimensions (inches)

Pump Model	A	B	C	D
45312	13.33	10.97		23.27
45317	16.28	13.92		26.22

For connection sizes/ratings and motor sizes refer to engineering data table on reverse.

For baseplate mounting, please obtain factory certified dimensions.



Capacity Table

Pump Model - LPH 45312														
Speed (RPM)	20" Hg 252 Torr		22.5" Hg 188 Torr		25" Hg 125 Torr		27.5" Hg 61.5 Torr		28" Hg 49 Torr		28.7" Hg 31 Torr		28.9" Hg 25 Torr	
	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP
1750	102	7.1	110	6.7	112	6.2	102	5.7	95	5.6	70	5.5	61	5.4
1450	83	5.2	88	5.0	93	4.6	86	4.2	80	4.2	60	4.2	53	4.2
1150	57	3.8	61	3.5	66	3.4	68	3.0	64	2.8	48	2.7	42	2.7

Pump Model - LPH 45317														
Speed (RPM)	20" Hg 252 Torr		22.5" Hg 188 Torr		25" Hg 125 Torr		27.5" Hg 61.5 Torr		28" Hg 49 Torr		28.7" Hg 31 Torr		28.9" Hg 25 Torr	
	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP	acfm	HP
1750	150	9.2	155	8.8	150	8.4	136	8.0	125	7.8	90	7.7	73	7.6
1450	102	6.3	109	6.2	114	6.0	110	5.4	105	5.0	76	5.0	60	5.0
1150	74	4.6	80	4.6	87	4.4	82	3.7	78	3.6	58	3.4	48	3.4

Pump Model														

This data represents average values for pumps in standard materials. Capacity in actual cubic feet per minute at 68°F (20°C) using 60°F (16°C) water as a service liquid. Vacuum in inches Hg. Barometric pressure at sea level 29.92" Hg abs. (760 Torr). All performance data per HEI standards; subject to SIHI standard tolerances.

All data subject to change without notice.

ENGINEERING DATA

SERVICE LIQUID RATES (USGPM)

PUMP MODEL	45312	45317
Gas Conn. Size/Rating (U)	1½"/150 RF	1½"/150 RF
Service Liq. Line Size/Rating (U <sub>B</sub> )	½"/NPT	½"/NPT
Cont. Drain Size/Rating (U <sub>se</sub> )	N/A	N/A
1 Motor (@ 1750 rpm) HP	7.5	10
Bare Pump Wt. (lb)	170	190
Direct Dr. Basemount (lbs.)	397	489
5 Min. V-Belt Sheave Dia.	6.3"	6.3"
Separator Model - XBA	1340	1340
Separator Size - Recirc. (Gal.)	10	10
2/3 Norm. Max. Gas Temp. (°F)	200	200
3 Max. Service Liq. Temp. (°F)	180	180
4 Sound Level @ 27.6" HgV (dBA)	66	66
Moment of Inertia Wr <sup>2</sup> (lb. ft <sup>2</sup> )	1.56	2.26
Casing Max. Working Pressure (psi)	30	30
Pneumatic Test Pressure (psig)	15	15

PUMP MODEL - LPH 45312															
Pump Speed	20" Hg 252 Torr			25" Hg 125 Torr			28" Hg 49 Torr			28.7" Hg 31 Torr			28.9" Hg 25 Torr		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1750		1.7	1.2		1.6	1.1		1.6	1.0		1.6	1.0		1.5	1.0
1450	3.2	1.4	0.9	3.4	1.4	0.9	3.5	1.3	0.8	3.5	1.3	0.8	3.5	1.3	0.8
1150		1.1	0.7		1.2	0.7		1.0	0.6		1.0	0.6		1.0	0.6

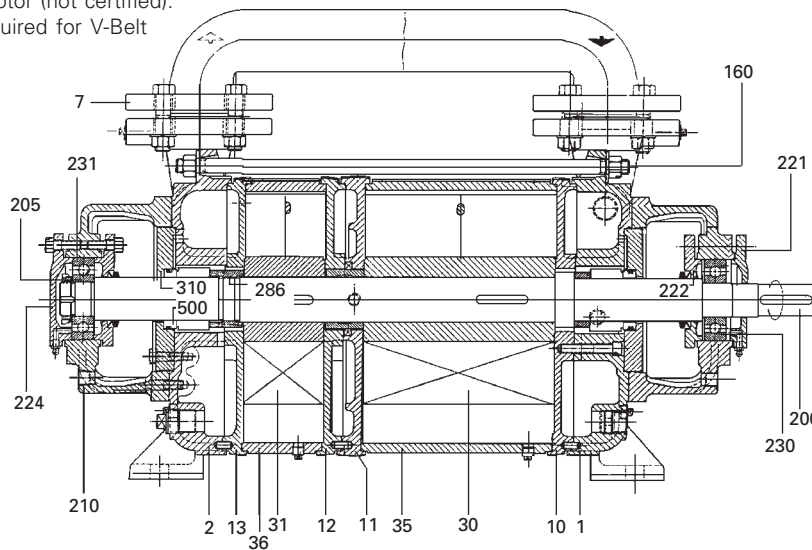
PUMP MODEL - LPH 45317															
Pump Speed	20" Hg 252 Torr			25" Hg 125 Torr			28" Hg 49 Torr			28.7" Hg 31 Torr			28.9" Hg 25 Torr		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1750		1.9	1.4		2.0	1.4		2.0	1.3		2.0	1.3		2.0	1.3
1450	3.3	1.6	1.1	3.8	1.7	1.1	4.0	1.6	1.0	4.1	1.6	1.0	4.1	1.6	1.0
1150		1.1	0.7		1.2	0.7		1.3	0.8		1.5	0.9		1.5	0.9

PUMP MODEL															
Pump Speed	20" Hg 252 Torr			25" Hg 125 Torr			28" Hg 49 Torr			28.7" Hg 31 Torr			28.9" Hg 25 Torr		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1750															
1450															
1150															

Column 'A' is the flow in USGPM required - once through.  
 Column 'B' is the make-up flow required when make-up water is 5°C (9°F) cooler than service water.  
 Column 'C' is the make-up flow when make-up water is 10°C (18°F) cooler than service water.

- For operation from 16 to 22.5" Hg vac., use motor with 1.15 SF.
- Max. gas temperature with saturated gases.
- Higher temperatures possible on request.
- At 3 ft., 1750 RPM w/o motor (not certified).
- Special pump bearings required for V-Belt applications.

SECTIONAL



Standard rotation 'AB' (clockwise) viewed from driven end. 'AL' (counter clockwise) upon request.

PARTS LIST

- |                    |                        |                      |                      |
|--------------------|------------------------|----------------------|----------------------|
| 1. Suction Cover   | 13. Intermediate       | 200. Shaft           | 230. Bearing         |
| 2. Discharge Cover | 30. Impeller           | 205. Bearing Nut     | 231. Bearing         |
| 7. Bypass Manifold | 31. Impeller           | 210. Bearing Housing | 286. Impeller Nut    |
| 10. Intermediate   | 35. Centerbody         | 221. Bearing Cover   | 310. Seal Cover      |
| 11. Intermediate   | 36. Centerbody         | 222. Bearing Cover   | 500. Mechanical Seal |
| 12. Intermediate   | 160. Tie Bolt Assembly | 224. Bearing Cover   |                      |

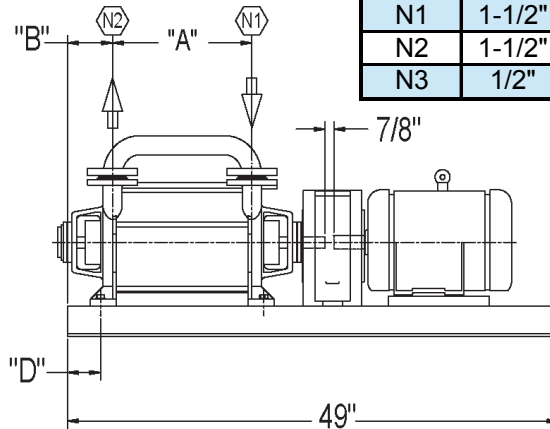
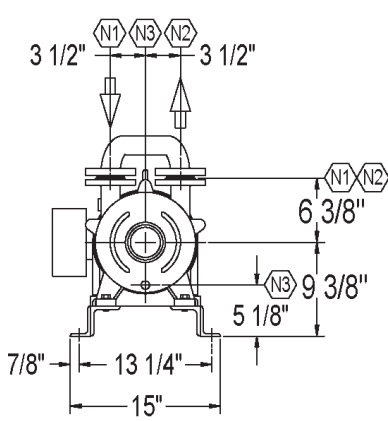
MATERIALS

ITEM	0B	4B
Casing - Wetted	Cast Iron	316 SS
Intermediates	Cast Iron	316 SS
Impeller(s)	Ductile Iron	316 SS
Shaft	420 SS QT	316 SS
Shaft Sleeves	N/A	N/A
Shaft Sealing	AAB <sup>6</sup>	AAB <sup>6</sup>
Casing - Non Wetted	Cast Iron	Cast Iron

**Note:** The service liquid supply pressure may vary with pump speed and vacuum level. Please consult factory engineering department for additional information.

<sup>6</sup>AAB = single bellows seal with viton elastomers, carbon vs SiC faces

**BASE ASSEMBLY**

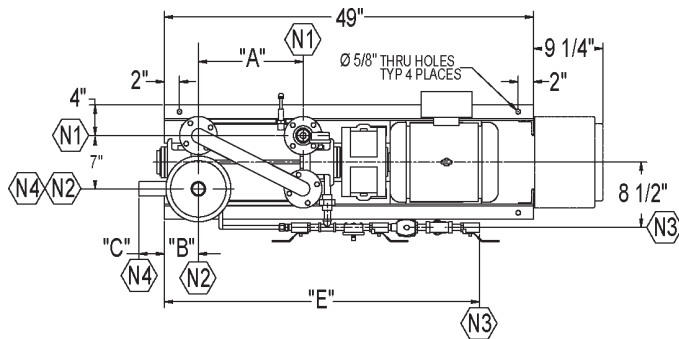


Nozzle Schedule				
Nozzle	Size	Qty.	Description	Service
N1	1-1/2"	1	FNPT	Suction
N2	1-1/2"	1	MNPT	Vent
N3	1/2"	1	FNPT	Service Liquid

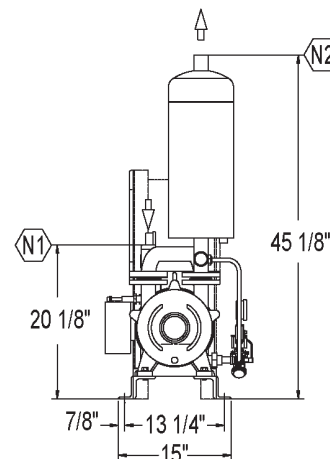
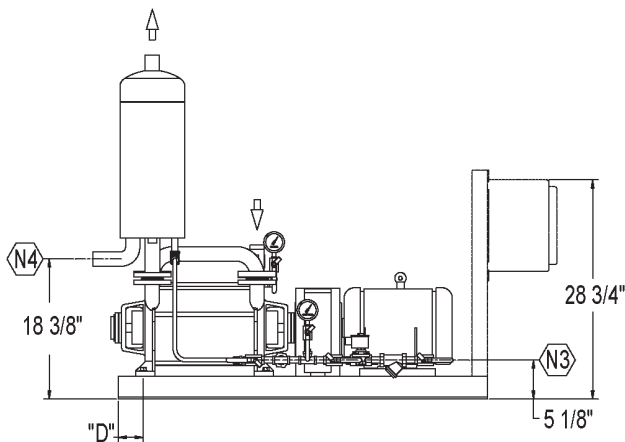
SIHI Pump Model No.	Motor HP/RPM	Motor Frame Size	Baseplate	Approx Shipping Weight	A	B	D
LPHR-45312	7-1/2 / 1750	213T F1	B2208-35	452	11"	7-1/2"	6-1/4"
LPHR-45317	10 / 1750	215T F1	B2208-35	513	13 7/8"	4-1/2"	3-1/4"

Dimensions subject to change, consult factory for certified drawing if required.

**XBAR STANDARD PACKAGE**



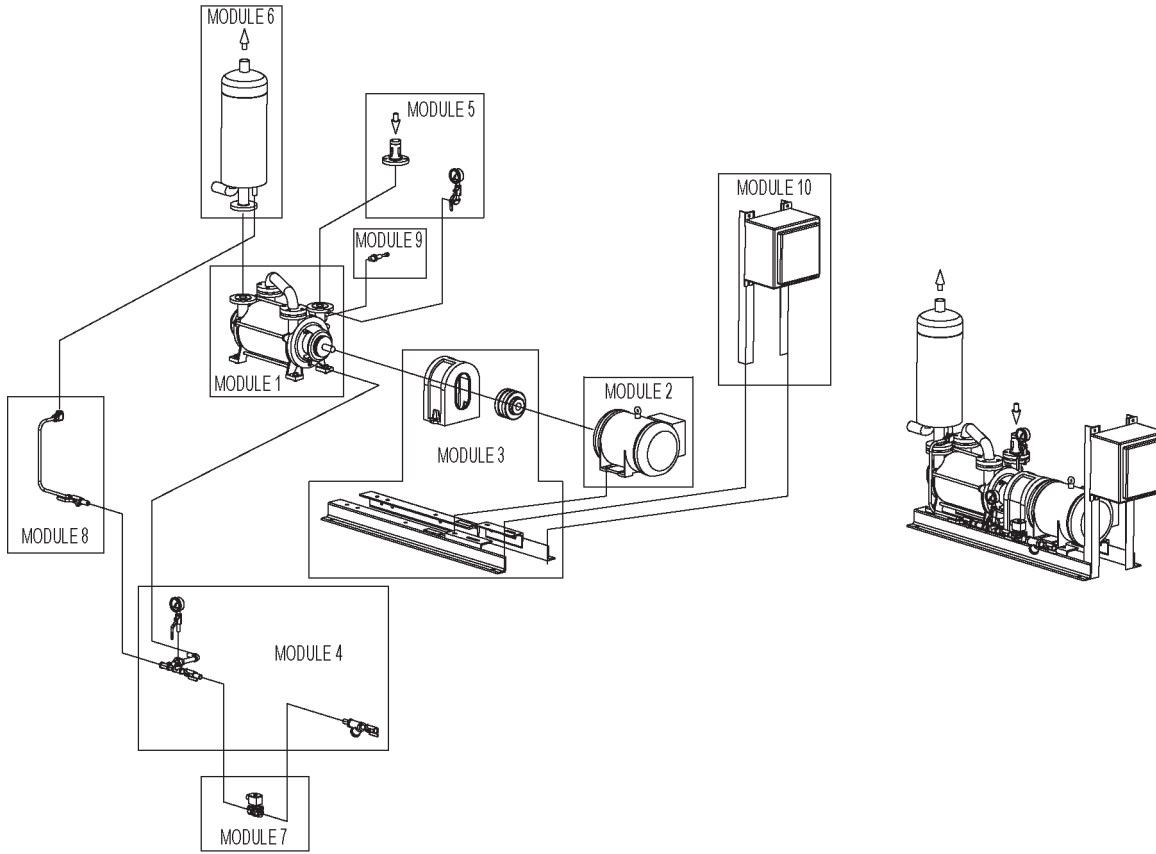
Nozzle Schedule				
Nozzle	Size	Qty.	Description	Service
N1	1-1/2"	1	FNPT	Suction
N2	1-1/2"	1	MNPT	Vent
N3	1/2"	1	FNPT	Service Liquid
N4	1-1/2"	1	MNPT	Overflow



System Model No.	Motor HP/RPM	Motor Frame Size	Xba Tank Model No.	Baseplate	Approx Shipping Weight	A	B	C	D	E
XBAR-45312	7-1/2 / 1750	213T F1	1340	B2208-35	559	11"	7-1/2"	3/8"	6-1/4"	43-3/8"
XBAR-45317	10 / 1750	215T F1	1340	B2208-35	620	13 7/8"	4-1/2"	3 3/8"	3-1/4"	41-7/8"

Dimensions subject to change, consult factory for certified drawing if required.

**XBAR STANDARD PACKAGE MODULAR CONSTRUCTION**



Pump Series:		45000 Series			
Module	Description	Details	Module Standard Construction Options		
Module 1	Pump	Material	0A	0B	4B
Module 2	Motor	HP	7.5		10.0
		RPM	1750		
		Enclosure	TEFC		EXPF
		Voltage	208-230/460		575
		Phase	3		
Module 3	Base Assembly	Base / Coupling / Guard	Rail Base & Flex Coupling & Guard to OSHA Guidelines		
Module 4	Service Liquid Line (less solenoid valve)	Valve / Piping	Bronze / CS	CS / CS	Stainless / Stainless
Module 5	Inlet Vacuum Line	Valve / Piping	Bronze / CS	CS / CS	Stainless / Stainless
Module 6	Discharge	Separator / Piping	CS / CS		Stainless / Stainless
Module 7	Solenoid Valve	Enclosure	NEMA 4		NEMA 7
		Voltage	24VDC	120V/60Hz	110V/50Hz
		Material	Bronze		Stainless Steel
Module 8	Recirculation Line	Valve / Tubing	Bronze / Bronze	CS / CS	Stainless / Stainless
Module 9	Vacuum Relief Valve	Material	Bronze	Iron	Stainless Steel
Module 10	Control Panel	Enclosure	NEMA 4		NEMA 7
		Voltage	230	460	575