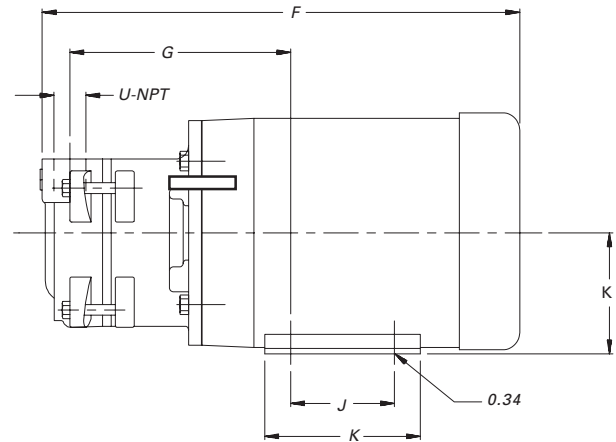
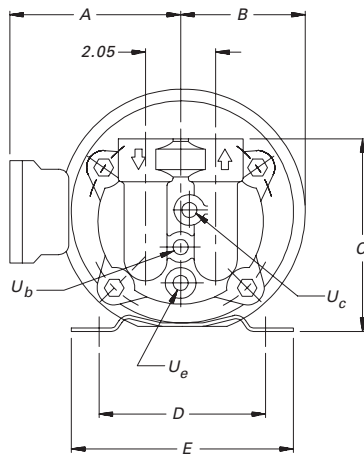


Dimensions (inches)

| PUMP MODEL | A | B | C | D | E | F | G | H | J | K | U |
|------------|------|------|------|------|------|-------|------|------|------|------|------|
| LEM 15 | 5.73 | 3.25 | 5.64 | 4.94 | 6.62 | 14.83 | 6.37 | 4.32 | 3.00 | 3.50 | 0.75 |
| LEM 20 | 5.73 | 3.25 | 5.64 | 4.94 | 6.62 | 14.83 | 6.37 | 4.32 | 3.00 | 3.50 | 0.75 |

Dimensions are for AT/BT motors only. Please consult the factory for alternate enclosures. For connection sizes/ratings and motor sizes, refer to engineering table on reverse.



LEM 15/20

Capacity Table

| Pump Model - LEM 15 | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|------|---------------------|------|---------------------|------|---------------------|------|---------------------|------|---------------------|------|---------------------|------|--------------------|------|-----------------------|----|
| Speed (RPM) | 6" Hg. V. 608 Torr | | 12" Hg. V. 455 Torr | | 18" Hg. V. 303 Torr | | 20" Hg. V. 252 Torr | | 22" Hg. V. 201 Torr | | 24" Hg. V. 150 Torr | | 26" Hg. V. 100 Torr | | 28" Hg. V. 49 Torr | | 28.92" Hg. V. 25 Torr | |
| | cfm | HP | cfm | HP | cfm | HP | cfm | HP | cfm | HP | cfm | HP | cfm | HP | cfm | HP | cfm | HP |
| 3500 | 7.0 | 0.63 | 7.1 | 0.63 | 7.2 | 0.63 | 7.0 | 0.63 | 6.8 | 0.62 | 6.3 | 0.62 | 5.4 | 0.62 | 4.0 | 0.56 | - | - |
| Pump Model - LEM 20 | | | | | | | | | | | | | | | | | | |
| 3500 | 13.2 | 0.8 | 13.5 | 0.88 | 13.5 | 1.0 | 13.4 | 1.0 | 12.9 | 1.0 | 11.3 | 0.88 | 8.2 | 0.83 | 4.0 | 0.75 | - | - |
| 2900 | 7.4 | 0.58 | 8.8 | 0.66 | 9.9 | 0.72 | 9.5 | 0.73 | 8.7 | 0.75 | 7.1 | 0.73 | 5.0 | 0.63 | - | - | - | - |

This data represents average values for pumps in standard materials. Capacity in cubic feet per minute at 68°F (20°C) using 60°F (15°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.

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04.LEM 15/20.01

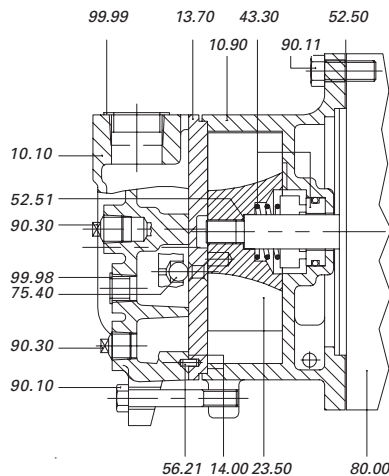


ENGINEERING DATA

| PUMP MODEL | LEM 15 | LEM 20 |
|---|-------------|-------------|
| Gas Conn. Size -'U' | ¾" NPT | ¾" NPT |
| Ser. Liq. Line Qty/Size -'U _B ' | ¼" NPT | ¼" NPT |
| Drain (U _e) & Cav. (U _c) Size | ¼" NPT | ¼" NPT |
| Pump & Motor Wt. (lb.) | 50 | 55 |
| Separator Size-Recirc (G) | 2 | 2 |
| 1/2 Norm Max. Gas Temp. (°F) | 200 | 200 |
| Norm Max. Liq. Temp. (°F) | 180 | 180 |
| 3 Sound Level @24" Hg. (dBA) | 74 | 75 |
| Casing Maximum Working Pressure (psi) | 30 | 30 |
| Pneumatic Test Pressure (psig) | 15 | 15 |
| Motor Data | | |
| Motor Speed @ 60 HZ. | 3500 | 3500 |
| Motor Speed @ 50 HZ. | 2900 | 2900 |
| Std. HP/Frame @ 60 HZ. | ¾/56J | 1/56J |
| Std. HP/Frame @ 50 HZ. | 0.6/56J | 0.8/56J |
| Std. Motor Enclosure | TEFC | TEFC |
| Motor Code Approvals | UL,CSA | UL,CSA |
| Std. Service Factor | 1.15 | 1.15 |
| Stock/Volts 1 Phase | 115/230 | 115/230 |
| 3 Phase | 208/230/460 | 208/230/460 |
| 3 Phase | 575 | 575 |
| Alt Enclosures Available | XPFC1GRD | XPFC1GRD |

1. Max. temp. with saturated gases.
2. Higher temp. possible on request
3. At 3 ft., 3500 RPM with motor (not certified)

SECTIONAL



SERVICE LIQUID RATES

| PUMP MODEL- LEM 15 | | | | | | | | | | | | | | | |
|--------------------|---------------------|------|------|---------------------|------|------|---------------------|------|------|---------------------|------|------|--------------------|------|------|
| Pump Speed | 12" Hg. V. 455 Torr | | | 16" Hg. V. 354 Torr | | | 20" Hg. V. 252 Torr | | | 24" Hg. V. 150 Torr | | | 28" Hg. V. 49 Torr | | |
| | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| 3500 | | 0.20 | 0.10 | | 0.20 | 0.10 | | 0.20 | 0.10 | | 0.20 | 0.10 | | 0.20 | 0.10 |
| 2900 | 0.75 | - | - | 0.75 | - | - | 0.75 | - | - | 0.75 | - | - | 0.75 | - | - |

| PUMP MODEL- LEM 20 | | | | | | | | | | | | | | | |
|--------------------|---------------------|------|------|---------------------|------|------|---------------------|------|------|---------------------|------|------|--------------------|------|------|
| Pump Speed | 12" Hg. V. 455 Torr | | | 16" Hg. V. 354 Torr | | | 20" Hg. V. 252 Torr | | | 24" Hg. V. 150 Torr | | | 28" Hg. V. 49 Torr | | |
| | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| 3500 | | 0.34 | 0.20 | | 0.34 | 0.20 | | 0.34 | 0.20 | | 0.34 | 0.20 | | 0.28 | 0.16 |
| 2900 | 1.0 | 0.26 | 0.15 | 1.0 | 0.26 | 0.15 | 1.0 | 0.27 | 0.16 | 1.0 | 0.27 | 0.16 | 1.0 | 0.20 | 0.11 |

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.

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

PARTS LIST

- 10.10 Cover
- 10.90 Centerbody
- 13.70 Intermediate
- 14.00 Gasket Compound
- 23.50 Impeller
- 43.30 Mechanical Seal
- 52.50 Shim Set
- 52.51 Shim Set
- 56.21 Locating Pin
- 75.40 Orifice Ball
- 80.00 Motor
- 90.10 Bolt
- 90.11 Bolt
- 90.30 Plug
- 99.98 Shipping Plug
- 99.99 Shipping Plug

MATERIALS

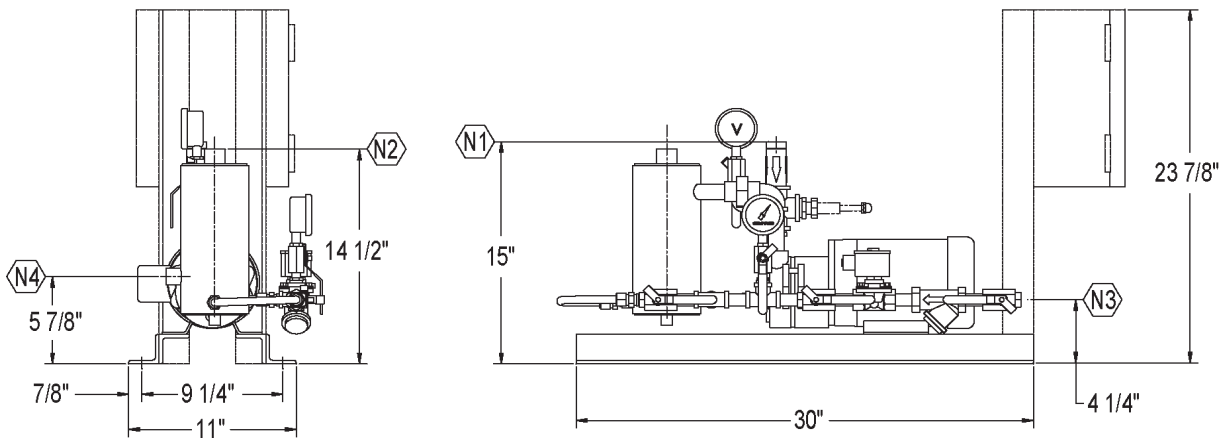
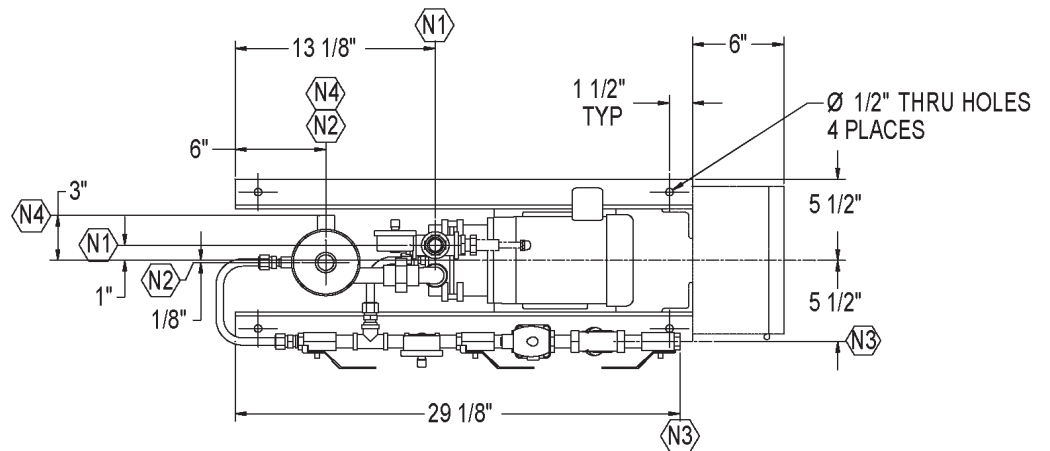
| ITEM | OE | 4B* |
|------------------|------------------|------------------|
| Casing-Wetted | Cast Iron | 316 SS |
| Intermediate | 316 SS | 316 SS |
| Impeller | 316 SS | 316 SS |
| Motor Shaft | 400 SS | 316 SS |
| Mechanical Shaft | AAB ⁴ | AAB ⁴ |

⁴ AAB =single bellows seal with viton elastomers, carbon vs SiC faces

*LEM 15 not available in 4B.

XBAR 15/20 STANDARD PACKAGE

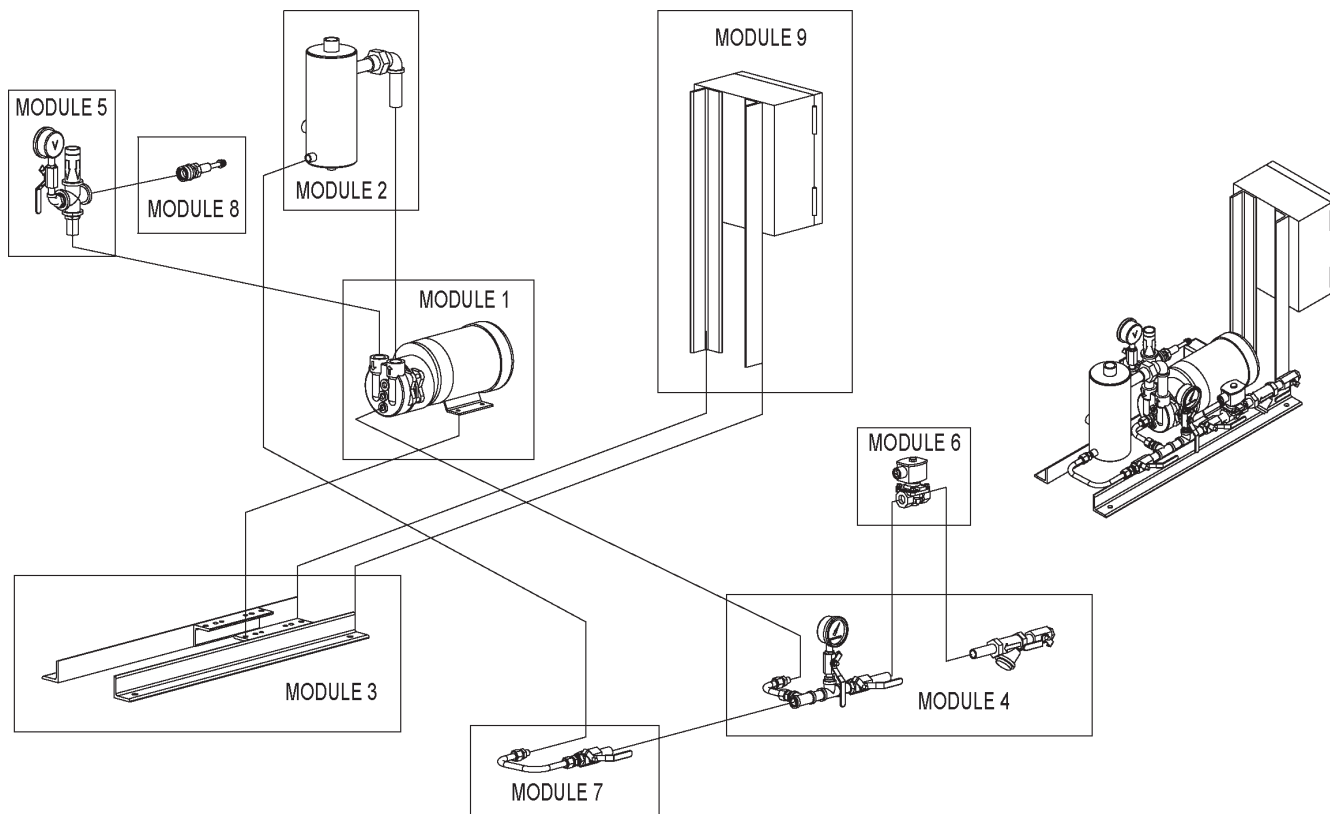
| Nozzle Schedule | | | | |
|-----------------|------|------|-------------|----------------|
| Nozzle | Size | Qty. | Description | Service |
| N1 | 1" | 1 | MNPT | Suction |
| N2 | 3/4" | 1 | FNPT | Vent |
| N3 | 1/2" | 1 | FNPT | Service Liquid |
| N4 | 1/2" | 1 | FNPT | Overflow |



| System Model No. | SIHI Pump Model No. | Motor HP/RPM | Motor Frame Size | Xba Tank Model No. | Baseplate | Approx Shipping Weight |
|------------------|---------------------|--------------|------------------|--------------------|-----------|------------------------|
| XBAR 15 | LEM 15 | 3/4 / 3500 | 56J | 1256 / 1257 | XBM1 | 124 |
| XBAR 20 | LEM 20 | 1 / 3500 | 56J | 1256 / 1257 | XBM1 | 129 |

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

XBAR STANDARD PACKAGE MODULAR CONSTRUCTION



| Pump Series: | | 15/20 Series | | | |
|--------------|---|--------------------|--------------------------------------|----------------|-----------------------|
| Module | Description | Details | Module Standard Construction Options | | |
| Module 1 | Pump | Material | 0A | 0E | 4B |
| | Motor | HP | 3/4 | | 1 |
| | | RPM | 3500 | | |
| | | Enclosure | TEFC | EXPF | |
| | | Voltage | 208-230/460 | 575 | 115/230 |
| Phase | 3 | 3 | 1 | | |
| Module 2 | Discharge | Separator / Piping | CS / Bronze | CS / Stainless | Stainless / Stainless |
| Module 3 | Baseplate | | Rail Base | | |
| 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 | Solenoid Valve | Enclosure | NEMA 4 | | NEMA 7 |
| | | Voltage | 24VDC | 120V/60Hz | 110V/50Hz |
| | | Material | Bronze | | Stainless Steel |
| Module 7 | Recirculation Line | Valve / Tubing | Bronze / Bronze | CS / CS | Stainless / Stainless |
| Module 8 | Vacuum Relief Valve | Material | Bronze | Iron | Stainless Steel |
| Module 9 | Control Panel | Enclosure | NEMA 4 | | NEMA 7 |
| | | Voltage | 230 | 460 | 575 |