



NOTES:

PIPING

1. ALL PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 99.
2. THE RECEIVER DRAIN VALVE IS SUPPLIED WITH THE RECEIVER TANK. EACH PUMP HAS A DRIP LEG PORT WHICH MUST BE CONNECTED TO THE DRAIN LINE. THE VALVE FOR EACH DRIP LEG PORT AND ALL DRAIN LINES SHALL BE SUPPLIED AND INSTALLED BY OTHERS AND RUN TO THE APPROPRIATE WASTE DRAIN.
3. WHEN DETERMINING THE TOTAL PIPE LENGTH, ADD ALL THE STRAIGHT LENGTHS OF PIPE TOGETHER IN ADDITION TO THE NUMBER OF ELBOWS TIMES THE EFFECTIVE PIPE LENGTH FOR THE PIPE SIZE.
4. THE CONTRACTOR SHALL PROVIDE A MEANS TO ISOLATE EACH PUMP FROM THE CENTRALIZED EXHAUST PIPING FOR MAINTENANCE OR REPAIR, PER NFPA 99. THIS SHOULD BE ACHIEVED BY PROVIDING A MEANS TO REMOVE THE EXHAUST PIPING FORM THE PUMP, SO THAT A TECHNICIAN CAN INSTALL A BLIND FLANGE OR CAP TO THE EXHAUST PIPING. TO PREVENT PUMP DAMAGE THROUGH OPERATOR ERROR, SHUTOFF VALVES AND CHECK VALVES SHOULD NOT BE USED.

ELECTRICAL

5. ALL ELECTRICAL COMPONENTS AND WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 99.
6. REFER TO MSV WIRING DIAGRAM SHIPPED WITH CONTROL MODULE UNIT FOR CONNECTIONS IN THE PANEL.
7. CONTRACTOR SHALL VERIFY MOTOR VOLTAGE, PHASE, AND AMP RATINGS BEFORE STARTING ELECTRICAL INSTALLATION; AND MAKE CERTAIN THE VOLTAGE SUPPLIED BY THE HOSPITAL IS THE SAME.
8. ELECTRICAL POWER SHOULD BE SUPPLIED FROM THE EQUIPMENT SYSTEM BRANCH OF THE ESSENTIAL ELECTRICAL SYSTEM (EMERGENCY POWER).
9. WIRE LAG PUMP RUNNING ALARM REMOTE CONTACTS IN THIS CONTROL SYSTEM AS REQUIRED BY NFPA 99.
10. PUMP MODULE CONTROL WIRING IS LOW VOLTAGE WIRING (24VDC). LOW VOLTAGE WIRING MUST BE ROUTED SEPARATELY FROM HIGH VOLTAGE WIRING (115-480VAC). SEPARATION OF LOW VOLTAGE AND HIGH VOLTAGE WIRING MUST ALSO BE MAINTAINED INSIDE THE PUMP CONTROL PANELS AND CENTRAL CONTROLLER. 24VDC LOW VOLTAGE FIELD WIRING TO BE A MINIMUM OF 22 GAUGE, 75 DEG C COPPER WIRE.

PIPE EXHAUST OUTSIDE, TURN DOWN AND SCREEN PER NFPA 99

..... 24 VDC ELECTRICAL  
----- FIELD PIPING INLET  
===== FIELD PIPING OUTLET

ALARM WIRING ACCESS  
PUMP CONTROL WIRING ACCESS  
115V, 1Ø 60Hz CONN.  
WIRE PRESSURE TRANSDUCER TO PANEL

ALLOW FOR ISOLATION (SEE NOTE 4)

PUMP MODULE CONTROL WIRING (SEE NOTE 10)

6" FLANGED CONNECTIONS (BYPASS BY OTHERS)

FLEX HOSE

INLET VALVE

HEPA FILTER

INLET VALVE

CONNECT 1/4" PRESSURE SENSOR (SENSOR SUPPLIED WITH CENTRAL CONTROLLER)

FROM HOSPITAL

MAIN LINE VACUUM SWITCH

MAIN VACUUM GAUGE

SOURCE SHUTOFF VALVE

FOR INTAKE PIPE SIZING REFER TO STANDARD PRESSURE DROP TABLES. TOTAL PRESSURE DROP SHOULD BE LESS THAN 2" Hg AT A SYSTEM VACUUM LEVEL OF 15" Hg.

| EFFECTIVE PIPE LENGTH FOR ELBOWS |           |           |           |
|----------------------------------|-----------|-----------|-----------|
| PIPE SIZE (IN)                   | 5.00" NPT | 6.00" NPT | 8.00" NPT |
| EFF. PIPE LENGTH (FT)            | 16.7      | 19.3      | 24.1      |

| EXHAUST PIPE SIZE TABLE<br>(SEE NOTE 3) |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|
| UNIT SIZE                               | PIPE LENGTH |             |             |             |             |
|   | 0 - 100'    | 101' - 200' | 201' - 300' | 301' - 400' | 401' - 500' |
| DPX 050                                 | 5.00"       | 6.00"       | 6.00"       | 8.00"       | 8.00"       |

|   |       |  |                 |
|---|-------|--|-----------------|
| Revised:  | Date: | Drawn: JEM   | Date: 7/12/2024 |
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| Description: MSV050D-240-HCV 50HP DX VAC PIPING AND WIRING INSTALLATION DIAGRAM |       | Part Number: 4107 8580 58  |                 |
| DN: HOP250142   |       | Rev: 00  |                 |
| Sheet 2 of 2  |       | DO NOT SCALE THIS DOCUMENT   |                 |