

# Liebert CW Parts Manual



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|   |           |
|---|-----------|
| <b>1. Product Description .....</b>     | <b>4</b>  |
| <b>2. Model Number Definition .....</b> | <b>5</b>  |
| <b>3. Blower/ Motor Section .....</b>   | <b>6</b>  |
| 3.1. Blower .....                       | 6         |
| 3.2. Motor .....                        | 8         |
| 3.3. Drive Package .....                | 10        |
| <b>4. Electrical Section .....</b>      | <b>11</b> |
| 4.1. Accent Panel .....                 | 11        |
| 4.2. EP Display .....                   | 12        |
| 4.3. EP Controls.....                   | 13        |
| 4.4. EP Back Panel .....                | 15        |
| 4.4.1. Circuit Breaker .....            | 15        |
| 4.4.2. Fused.....                       | 16        |
| 4.5. EP Condensate Pump .....           | 17        |
| 4.6. EP Humidifier IR.....              | 19        |
| 4.6.1. Circuit Breaker .....            | 19        |
| 4.6.2. Fuse .....                       | 19        |
| 4.7. EP Humidifier Steam .....          | 21        |
| 4.8. EP Motor .....                     | 23        |
| 4.8.1. Circuit Breaker .....            | 23        |
| 4.8.2. Fuse .....                       | 24        |
| 4.9. EP Disconnect .....                | 26        |
| 4.10. EP Reheat .....                   | 27        |
| 4.10.1. Circuit Breaker .....           | 27        |
| 4.10.2. Fuse .....                      | 28        |
| 4.11. EP Sensor .....                   | 30        |
| 4.12. EP Extra Common Alarm .....       | 31        |
| 4.13. EP Main Fan Auxillary .....       | 32        |
| 4.14. EP Firestat .....                 | 33        |
| 4.15. Intellislot .....                 | 34        |
| 4.16. EP Remote Humidifier Contact..... | 35        |
| 4.17. EP Smoke Detector.....            | 36        |
| 4.18. Extra Remote Shutdown.....        | 37        |
| <b>5. Exterior Section .....</b>        | <b>38</b> |
| 5.1. CW Downflow .....                  | 38        |
| 5.2. Vertical Front Return.....         | 39        |
| 5.2.1. 48"/72"/97" VRR CW .....         | 39        |
| 5.2.2. 120" VRR.....                    | 39        |
| 5.3. Vertical Rear Return .....         | 40        |
| 5.3.1. 48"/ 72"/97" VRR CW .....        | 40        |
| 5.3.2. 120"Frame.....                   | 41        |
| 5.4. Vertical Bottom Return .....       | 42        |
| <b>6. Filter Section.....</b>           | <b>43</b> |
| 6.1. VFR.....                           | 43        |
| 6.2. Downflow .....                     | 44        |
| 6.3. VRR.....                           | 45        |
| <b>7. Humidifier Section .....</b>      | <b>46</b> |
| 7.1. Steam Gen without CP .....         | 46        |
| 7.1.1. Downflow .....                   | 46        |
| 7.1.2. Upflow .....                     | 47        |
| 7.1.3. VRR .....                        | 48        |
| 7.2. Steam Gen with CP.....             | 49        |
| 7.2.1. Downflow .....                   | 49        |
| 7.2.2. VBR/VFR.....                     | 50        |
| 7.2.3. CW VFR.....                      | 51        |

|           |                                  |           |
|-----------|----------------------------------|-----------|
| 7.2.4.    | VRR.....                         | 52        |
| 7.2.5.    | Upflow VFR.....                  | 53        |
| 7.2.6.    | Steam Generated Humidifier ..... | 54        |
| 7.3.      | IR without CP .....              | 55        |
| 7.3.1.    | Downflow .....                   | 55        |
| 7.3.2.    | Upflow VFR.....                  | 56        |
| 7.3.3.    | Upflow VRR.....                  | 57        |
| 7.3.4.    | FR/BR .....                      | 58        |
| 7.3.5.    | Humidifier Bulbs.....            | 59        |
| 7.3.5.1.  | 2 Bulb/3 Bulb .....              | 59        |
| 7.3.6.    | 4 Bulb/6 Bulb.....               | 60        |
| 7.3.7.    | Alarm High Water .....           | 60        |
| 7.3.8.    | Humidifier Reset Safety .....    | 61        |
| 7.3.9.    | Solenoid Valve Assembly .....    | 61        |
| 7.3.10.   | Socket Assemblies.....           | 61        |
| 7.3.10.1. | 009-0261.....                    | 61        |
| 7.3.10.2. | 009-0262.....                    | 62        |
| 7.3.10.3. | 009-0263.....                    | 62        |
| 7.3.10.4. | 009-0264.....                    | 62        |
| 7.3.10.5. | 009-0265.....                    | 63        |
| 7.3.10.6. | 009-0266.....                    | 63        |
| 7.3.10.7. | 009-0267.....                    | 63        |
| 7.3.10.8. | 009-0268.....                    | 64        |
| 7.3.10.9. | 009-0297.....                    | 64        |
| 7.4.      | IR with CP.....                  | 65        |
| 7.4.1.    | Upflow VRR.....                  | 65        |
| 7.4.2.    | Upflow VFR.....                  | 66        |
| 7.4.3.    | VFR .....                        | 67        |
| 7.4.4.    | VBR.....                         | 68        |
| 7.4.5.    | Downflow .....                   | 69        |
| 7.4.6.    | VRR.....                         | 70        |
| 7.5.      | No Humidifier Drain .....        | 71        |
| <b>8.</b> | <b>Reheat Section.....</b>       | <b>72</b> |
| <b>9.</b> | <b>Piping Section.....</b>       | <b>73</b> |
| 9.1.      | 2-Way .....                      | 73        |
| 9.1.1.    | Downflow .....                   | 73        |
| 9.1.2.    | SP VFR.....                      | 74        |
| 9.1.3.    | SP VRR .....                     | 74        |
| 9.1.4.    | HP VFR .....                     | 75        |
| 9.1.5.    | HP VRR .....                     | 76        |
| 9.1.6.    | HP STD and BV .....              | 77        |
| 9.1.7.    | Supply Piping .....              | 78        |
| 9.1.8.    | Return Piping .....              | 79        |
| 9.1.9.    | Valve Assembly .....             | 79        |
| 9.1.10.   | Return Assembly .....            | 80        |
| 9.1.11.   | Supply Valve Assembly .....      | 80        |
| 9.2.      | 3-Way .....                      | 81        |
| 9.2.1.    | Downflow .....                   | 81        |
| 9.2.2.    | Standard Pressure .....          | 81        |
| 9.2.3.    | High Pressure .....              | 82        |
| 9.2.4.    | Flow Switch .....                | 83        |
| 9.2.5.    | SP VFR.....                      | 83        |
| 9.2.6.    | Valve Assembly 3W.....           | 84        |
| 9.2.7.    | HP VFR .....                     | 84        |
| 9.2.8.    | SP VRR .....                     | 85        |
| 9.2.9.    | HP VRR .....                     | 86        |

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|            |                            |           |
|------------|----------------------------|-----------|
| 9.2.10.    | HP STD .....               | 87        |
| 9.2.11.    | HP BV .....                | 87        |
| <b>10.</b> | <b>Parts Gallery .....</b> | <b>88</b> |
| <b>11.</b> | <b>Revision Page .....</b> | <b>94</b> |

## 1. Product Description

Liebert CW is available in downflow and upflow models, in 26-181 kW capacities. Options include Variable Speed Drive fan motors for all models; and EC Plug Fans for 86kW, 106kW, 114kW, 146kW and 181kW downflow models. 60 Hz and 50 Hz.

### Flexibility:

- Provides a complete environmental control package, including both precision air conditioning and humidity control.
- Both upflow and downflow configurations are available to cover raised floor and non-raised applications.
- Liebert iCOM control system brings high-level supervision to multiple units, allowing them to work together as a single system to optimize room performance.

### Higher Availability:

- Designed with the highest quality components selected for their proven reliability and performance.
- Provides around-the-clock operation to protect critical installations.
- Operates with a high sensible heat ratio, assuring that proper humidity levels will be maintained.
- Liebert iCOM control system adds automatic sequencing of components to even wear and extend service life.

### Lowest Total Cost Of Ownership:

- Uses existing building chilled water systems to provide cooling.
- Higher efficiency fan options offer more energy savings.

### Ideally Suited For:

- Data centers
- Telecommunications central switch offices
- Industrial process control centers
- Laboratories
- Medical facilities
- Other sensitive electronic applications

## 2. Model Number Definition

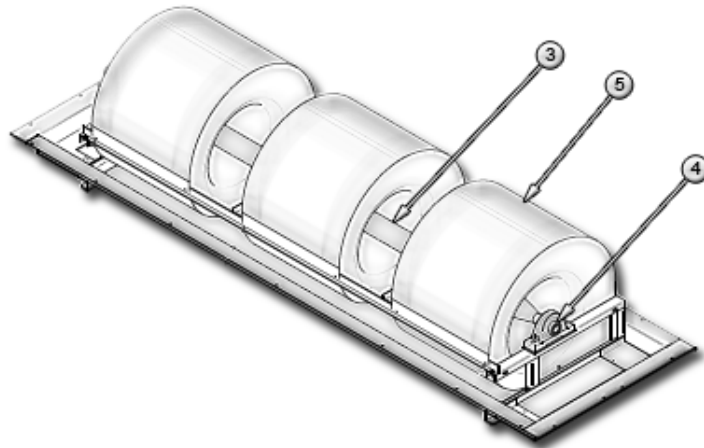
| CW  | 114                    | D  | C             | S  | A  | 2  | 1234   | A |
|---|------------------------|--|---------------|--|--|--|--|---|
| CW = Liebert CW floormount chilled water unit | Nominal capacity in kW | D= Downflow<br>U = Upflow<br>with front return | Chilled Water | S = Forward curved centrifugal fan with std motor<br>V = Forward curved centrifugal fan with Variable speed drive<br>1 = EC motorized impeller | A = 460/3/60<br>B = 575/3/60<br>C = 208/3/60<br>D = 230/3/60<br>2 = 360/3/60<br>F = 380/3/50<br>G = 415/3/50 | 2 = 2-way valve std pressure<br>3 = 3-way valve std pressure<br>1 = 2-way valve high pressure<br>T = 3-way valve high pressure | Configuration A-Z = std configuration<br>S = SFA |   |

\* Consult Factory – extended lead time required.

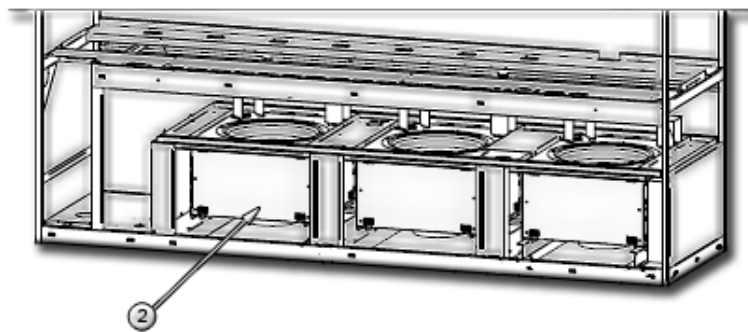
### 3. Blower/ Motor Section

#### 3.1. Blower

BLOWER ASSEMBLY STEP DECK - FRONT



EC FAN ASSEMBLY OPTION

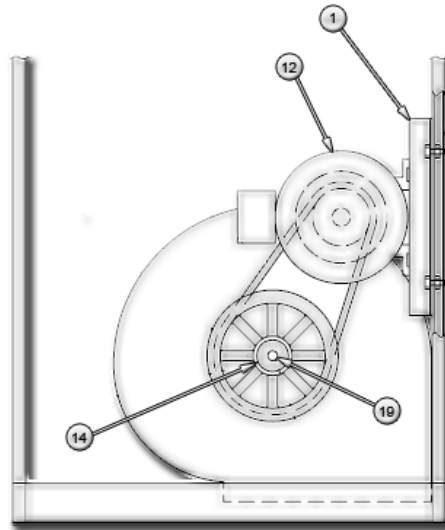


| Item | Part Number | Description                   | 48" | 72" | 97" | 120" |
|------|-------------|-------------------------------|-----|-----|-----|------|
| 2    | 193196G1L   | EC FAN ASSEMBLY               |     |     |     | 3    |
| 3    | 125425P1    | SHAFT BLOWER 30T AWG          |     |     |     | 1    |
|      | 1C11151P1   | SHAFT TUBULAR FAN             |     | 1   |     |      |
|      | 1C11153P1   | SHAFT FAN 1.0DIA X 24.12      | 1   |     |     |      |
|      | 1C30119P1   | SHAFT FAN 1.19DIA X 26.5      |     | 1   |     |      |
|      | B02-0200    | SHAFT TUBULAR FAN             |     |     | 1   |      |
|      | B05-0150    | SHAFT TUBULAR FAN 74.00X3.00  |     |     |     | 1    |
|      | B-1140      | SHAFT TUBULAR FAN             |     |     | 1   |      |
| 4    | 160067P1    | BEARING ROLLER PB 1-7/16"     |     |     |     | 2    |
|      | 185861P1    | BEARING ASSEMBLY 2-015 SERIES | 2   |     |     |      |
|      | 185862P1    | BEARING PILLOW BLOCK 1-3/16   |     | 2   | 2   | 2    |
|      | 1A16949P1   | BEARING PILLOW BLOCK 1-3/16   | 2   | 2   |     |      |
|      | 1A30499P1   | BEARING PILLOW BLOCK W/FTG    |     |     | 2   | 2    |
|      | B-0040      | BEARING                       | 2   |     |     |      |
|      | B05-0200    | BEARING PILLOW BLOCK          |     |     | 2   | 2    |
|      | B-064A      | BEARING PILLOW BLK CI 1-3/16  |     | 2   | 2   |      |

| Item | Part Number | Description                 | Model                   | Quantity |
|------|-------------|-----------------------------|-------------------------|----------|
| 5    | 1C11154P1   | BLOWER W/H A15-15AX1.00 1SS | CW026<br>CW038<br>CW041 | 1        |
|      | 1C29077P2   | BLOWER W/H A15-15AX1.19 KEY | CW026<br>CW038<br>CW041 | 1        |
|      | 1C11155P1   | BLOWER W/H A15-11AX2.25     | CW051<br>CW060          | 2        |
|      | B02-0210    | BLOWER W/H A15-15AX3.00     | CW076<br>CW084          | 2        |
|      |             |                             | CW106<br>CW114          | 3        |
|      | B-1170      | BLOWER W/H A15-15AX2.25     | CW076<br>CW084          | 2        |
|      | 1C11155P1   | BLOWER W/H A15-11AX2.25     | CW076<br>CW084          | 2        |
|      | 1C25524P2   | BLOWER W/H A15-11AX3.00     | CW106<br>CW114          | 3        |
|      | 1C29077P2   | BLOWER W/H A15-15AX1.19 KEY | CW026<br>CW038<br>CW041 | 1        |



### 3.2. Motor



| Item | Part Number | Description                 | 2HP | 3HP | 5HP | 7.5HP | 10HP | 15HP | 20HP |
|------|-------------|-----------------------------|-----|-----|-----|-------|------|------|------|
| 1    | B05-014E    | MOTOR BASE ADJUSTABLE 215-T |     |     |     |       | 1    |      |      |
|      | B05-014F    | MOTOR BASE ADJUSTABLE 254-T |     |     |     |       |      | 1    |      |
|      | B05-014D    | MOTOR BASE ADJUSTABLE 256-T |     |     |     |       |      |      | 1    |
|      | B-0320      | MOTOR BASE ADJUSTABLE 145-T | 1   |     |     |       |      |      |      |
|      | B-0330      | MOTOR BASE ADJUSTABLE 182-T |     | 1   | 1   |       |      |      |      |
|      | B-0430      | MOTOR BASE ADJUSTABLE 184-T |     |     | 1   |       |      |      |      |
|      | B-0440      | MOTOR BASE ADJUSTABLE 213-T |     |     |     | 1     |      |      |      |

| Item | Part Number | Description                     | Quantity | Quantity |
|------|-------------|---------------------------------|----------|----------|
| 12   | B-0920      | MOTOR 2.0HP 200/380/400-3-50    | 2HP      | 1        |
|      | B-1100      | MOTOR 2.0HP 220/380-3-50        |          | 1        |
|      | 160632P1    | MOTOR 2.0HP 208-3-60 PE         |          | 1        |
|      | 160633P1    | MOTOR 2.0HP 230/460-3-60 PE     |          | 1        |
|      | 160634P1    | MOTOR 2.0HP 575-3-60 PE         |          | 1        |
|      | B-0930      | MOTOR 3HP190/416-3-50 380-3-60  | 3HP      | 1        |
|      | B-1110      | MOTOR 3.0HP 220/380-3-50        |          | 1        |
|      | 160635P1    | MOTOR 3.0HP 575-3-60 PE         |          | 1        |
|      | 181595P1    | MOTOR 3HP 230/460               |          | 1        |
|      | 181595P2    | MOTOR 3HP 208                   |          | 1        |
|      | 1A30349P1   | MOTOR 3.0HP 230/460-3-60 PE     |          | 1        |
|      | 1A30349P2   | MOTOR 3.0HP 208-3-60 PE         |          | 1        |
|      | B-0940      | MOTOR 5.0HP 200/380/400-3-50    | 5HP      | 1        |
|      | B-1120      | MOTOR 5.0HP 220/380-3-50        |          | 1        |
|      | 160636P1    | MOTOR 5.0HP 575-3-60 PE         |          | 1        |
|      | 1C30169P1   | MOTOR 5.0HP 230/460-3-60 PE     |          | 1        |
|      | 1C30169P2   | MOTOR 5.0HP 208-3-60 PE         |          | 1        |
|      | B-2170      | MOTOR 7.5/190-416-3-50/380-3-60 | 7.5HP    | 1        |
|      | B-1330      | MOTOR 7.5HP 200/380/400-3-50    |          | 1        |
|      | B-133A      | MOTOR 7.5HP 220/380-3-50        |          | 1        |
|      | 160995P1    | MOTOR 7.5HP 575-3-60 PE         |          | 1        |
|      | 1A22733P1   | MOTOR 7.5HP 230/460-3-60 PE     |          | 1        |
|      | 1A22733P2   | MOTOR 7.5HP 208-3-60 PE         |          | 1        |
|      | B02-0110    | MOTOR 10.0HP 200/380/400-3-50   |          | 10HP     |
|      | B02-0120    | MOTOR 10.0HP 220/380-3-50       | 1        |          |
|      | 132584P1    | MOTOR 10.0HP 575-3-60 TEFC      | 1        |          |
|      | 140998P1    | MOTOR 10.0HP 575-3-60           | 1        |          |
|      | 155671P1    | MOTOR 10.0HP 380/3/60           | 1        |          |
|      | 160285P1    | MOTOR 10.0HP 575-3-60 PE        | 1        |          |
|      | 163925P1    | MOTOR 10HP 230/460-60 INVD      | 1        |          |
|      | 163926P1    | MOTOR 10HP 575-3-60 INVD        | 1        |          |
|      | 163928P1    | MOTOR 10HP 220-3-50 INVD        | 1        |          |
|      | 163929P1    | MOTOR 10HP 200/380/415-50INVD   | 1        |          |
|      | 163930P1    | MOTOR 10HP 208-3-60 INVD        | 1        |          |
|      | 1A20755P1   | MOTOR 10.0HP 230/460-3-60 TEF   | 1        |          |
|      | 1A22735P1   | MOTOR 10.0HP 230/460-3-60 PE    | 1        |          |
|      | 1A22735P2   | MOTOR 10.0HP 208-3-60 PE        | 1        |          |

| Item | Part Number | Description                   | Quantity                      | Quantity |   |
|------|-------------|-------------------------------|-------------------------------|----------|---|
|      | B02-0140    | MOTOR 15.0HP 200/380/400-3-50 | 15HP                          | 1        |   |
|      | 135322P2    | MOTOR 15.0HP 575-3-60TEFC     |                               | 1        |   |
|      | 136175P1    | MOTOR 15.0HP 575-3-60 PE      |                               | 1        |   |
|      | 146006P1    | MOTOR 15.0HP 380-3-60         |                               | 1        |   |
|      | 163937P1    | MOTOR 15HP 230/460-60 INVD    |                               | 1        |   |
|      | 163937P2    | MOTOR 15HP 230/460-60 INVD    |                               | 1        |   |
|      | 163938P1    | MOTOR 15HP 575-3-60 INVD      |                               | 1        |   |
|      | 163938P2    | MOTOR 15HP 575-3-60 INVD      |                               | 1        |   |
|      | 163940P2    | MOTOR 15HP 220-3-50 INVD      |                               | 1        |   |
|      | 163941P1    | MOTOR 15HP 200/380/415-50INVD |                               | 1        |   |
|      | 163941P2    | MOTOR 15HP 200/380/415-50INVD |                               | 1        |   |
|      | 163942P1    | MOTOR 15HP 208-3-60 INVD      |                               | 1        |   |
|      | 163942P2    | MOTOR 15HP 208-3-60 INVD      |                               | 1        |   |
|      | 1A30102P1   | MOTOR 15.0HP 208/230/460-3-60 |                               | 1        |   |
|      | 1C32993P1   | MOTOR 15.0HP 230/460-3-60 PE  |                               | 1        |   |
|      | 1C32993P2   | MOTOR 15.0HP 208-3-60 PE      | 1                             |          |   |
|      |             | 160179P1                      | MOTOR 20.0HP 208-3-60 PEFF    | 20HP     | 1 |
|      |             | 160180P1                      | MOTOR 20.0HP 230/460-3-60 PEF |          | 1 |
|      |             | 160076P1                      | MOTOR 20.0HP 380/415-3-50     |          | 1 |
|      |             | 160074P1                      | MOTOR 20.0HP 380-3-60         |          | 1 |
|      |             | 160181P1                      | MOTOR 20.0HP 575-3-60 PE      |          | 1 |
|      |             | 160137P1                      | MOTOR 20HP 200/380/415-50INVD |          | 1 |
|      |             | 160134P1                      | MOTOR 20HP 208-3-60 INVD      |          | 1 |
|      |             | 160135P1                      | MOTOR 20HP 230/460-60 INVD    |          | 1 |
|      | 160136P1    | MOTOR 20HP 575-3-60 INVD      | 1                             |          |   |

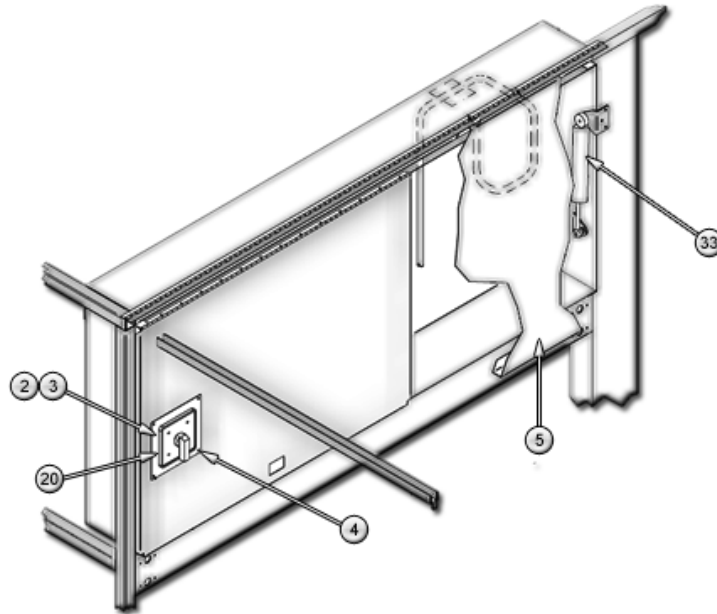
| Item | Part Number | Description                  | Quantity |
|------|-------------|------------------------------|----------|
| 14   | 179161P3    | BUSHING PULLEY B 1-7/16" DIA | 1        |
|      | B-0080      | BUSHING PULLEY H 1"DIA       | 1        |
|      | B-1160      | BUSHING PULLEY H 1-3/16"DIA  | 1        |
|      | 1A23547P1   | BUSHING PULLEY HX1 7/16 DIA  | 1        |
|      | 136133P3    | BUSHING PULLEY B 1-5/8" DIA  | 1        |
|      | 1A32397P4   | BUSHING PULLEY H 1-3/8"      | 1        |
| 19   | B-0650      | KEY STOCK 1/4X 1-5/16        | 1        |

### **3.3. Drive Package**

Due to the complexity of the Drive Package Options for units, you will need to contact the Factory for the Drive Package Parts for your specific unit(s). Please supply the Serial Number(s) and Model Number(s) of the unit(s) for which you need the parts.

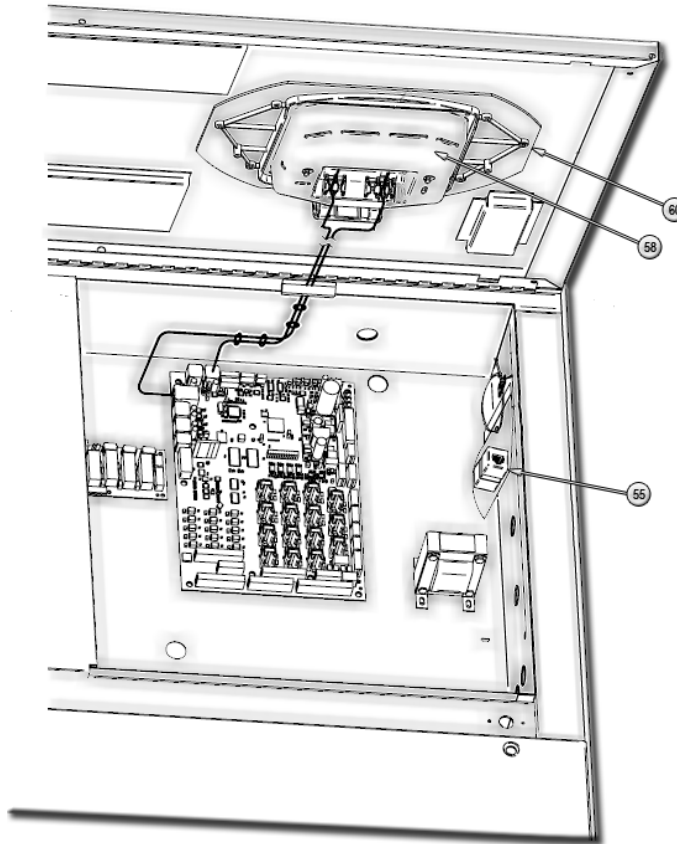
## 4. Electrical Section

### 4.1. Accent Panel



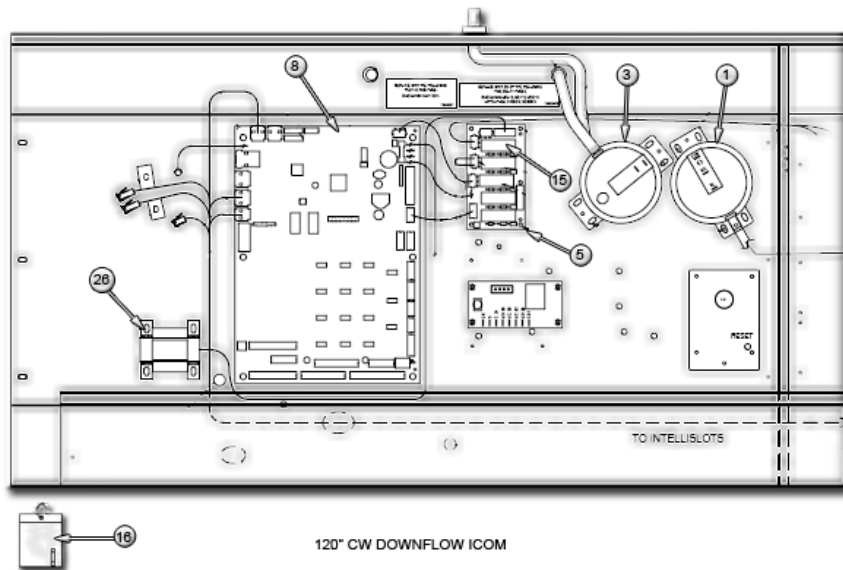
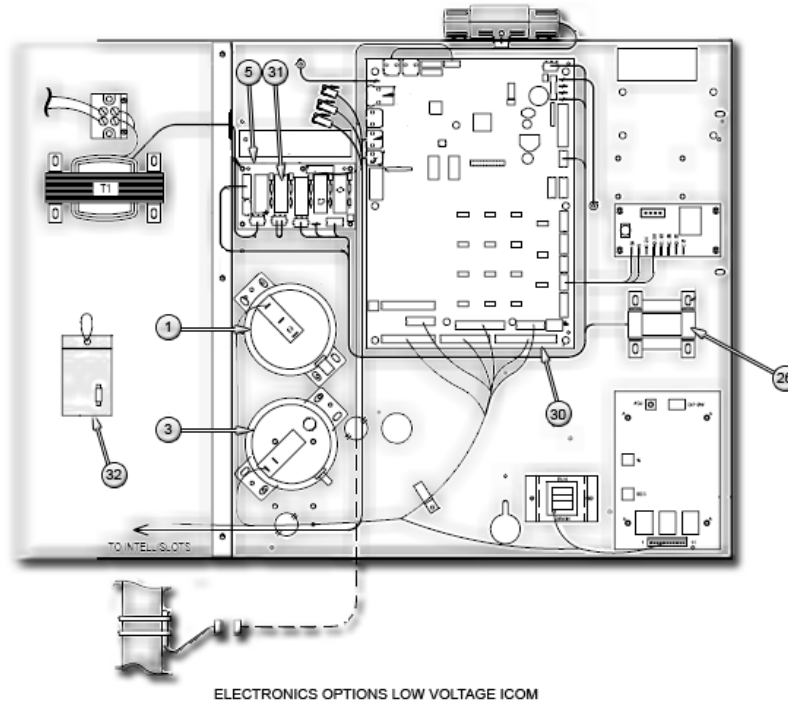
| Item | Part Number | Description                    | Type          | Quantity |
|------|-------------|--------------------------------|---------------|----------|
| 2    | 1A18353P1   | SHAFT EXTENSION K/M DISC SWT   | K/M           | 1        |
| 3    | 1C18352P1   | HANDLE DISC SWT/FACEPLATE K/M  | K/M           | 1        |
| 4    | 1C18707P1   | PLATE DISC K/M                 | K/M           | 1        |
|      | F30-0030    | PLATE LOCKING DISC 6//22T      | LOCKING       | 1        |
|      | F30-0040    | PLATE NON LOCKING DISC 6//22T  | NON LOCKING   | 1        |
| 5    | 1C18707P1   | PLATE DISC K/M                 | K/M           | 1        |
|      | 184107G27   | ACCNT 48" NO DISC LIEB CW ICOM | NO DISC       | 1        |
|      | 184107G28   | ACCNT 48" N/L LIEB CW ICOM     | NON LOCKING   | 1        |
|      | 184107G30   | ACCNT 48" K/M LIEB CW ICOM     | K/M           | 1        |
|      | 184107G31   | ACCNT 72" K/M LIEB CW ICOM     | K/M           | 1        |
|      | 184107G32   | ACCNT 72" LOK LIEB CW ICOM     | LOCKING       | 1        |
|      | 184107G33   | ACCNT 72" N/L LIEB CW ICOM     | NON LOCKING   | 1        |
|      | 184107G34   | ACCNT 72" NO DISC LIEB CW ICOM | NO DISC       | 1        |
|      | 184107G35   | ACCNT 97" LOK LIEB CW ICOM     | LOCKING       | 1        |
|      | 184107G36   | ACCNT 97" N/L LIEB CW ICOM     | NON LOCKING   | 1        |
|      | 184107G37   | ACCNT 97" NO DISC LIEB CW ICOM | NO DISC       | 1        |
|      | 184107G38   | ACCNT 97" K/M LIEB CW ICOM     | K/M           | 1        |
|      | 184107G39   | ACCNT 97" V K/M LIEB CW ICOM   | K/M           | 1        |
|      | 184107G39H  | ACCNT 97" V K/M LIEB CW ICOM   | K/M           | 1        |
|      | 184107G40   | ACCNT 97" V N/L LIEB CW ICOM   | NON LOCKING   | 1        |
|      | 184107G40H  | ACCNT 97" V N/L LIEB CW ICOM   | NON LOCKING   | 1        |
|      | 184107G41   | ACCNT 97" V LOK LIEB CW ICOM   | LOCKING       | 1        |
|      | 184107G41H  | ACCNT 97" V LOK LIEB CW ICOM   | LOCKING       | 1        |
|      | 184107G42   | ACCNT 97" V NO DISC LIEB CW IC | NO DISC       | 1        |
|      | 184107G42H  | ACCNT 97" V NO DISC LIEB CW IC | NO DISC       | 1        |
| 20   | 184108G5    | ACCNT 120" K/M LIEB CW ICOM    | K/M           | 1        |
|      | 184108G6    | ACCNT 120" LOK LIEB CW ICOM    | LOCKING       | 1        |
|      | 184108G7    | ACCNT 120" N/L LIEB CW ICOM    | NON LOCKING   | 1        |
|      | 184108G8    | ACCNT 120" NO DISC LIEB CW ICO | NO DISC       | 1        |
| 20   | 179746P1    | DISCONNECT BEZEL GLOBAL        | ALL           | 1        |
| 33   | 1B29146P1   | CYLINDER GAS SUPPORT 30T V     | K/M           | 1        |
|      |             |                                | NO DISCONNECT | 1        |
|      |             |                                | LOCKING       | 1        |
|      |             |                                | NON LOCKING   | 1        |

## 4.2. EP Display



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 55   | 181898P1    | COUPLER XOVER CAT5E RJ45 F/F   | 1        |
| 58   | 180632G2    | DISPLAY ASSY LRG LRG GR LED GL | 1        |
|      | 180633G1    | DISPLAY ASSY LRG SM GR ICOM    | 1        |
| 60   | 179747P1    | DISPLAY BEZEL ICOM             | 1        |
|      | 179747P2    | DISPLAY BEZEL NO LOGO          | 1        |

**4.3. EP Controls**

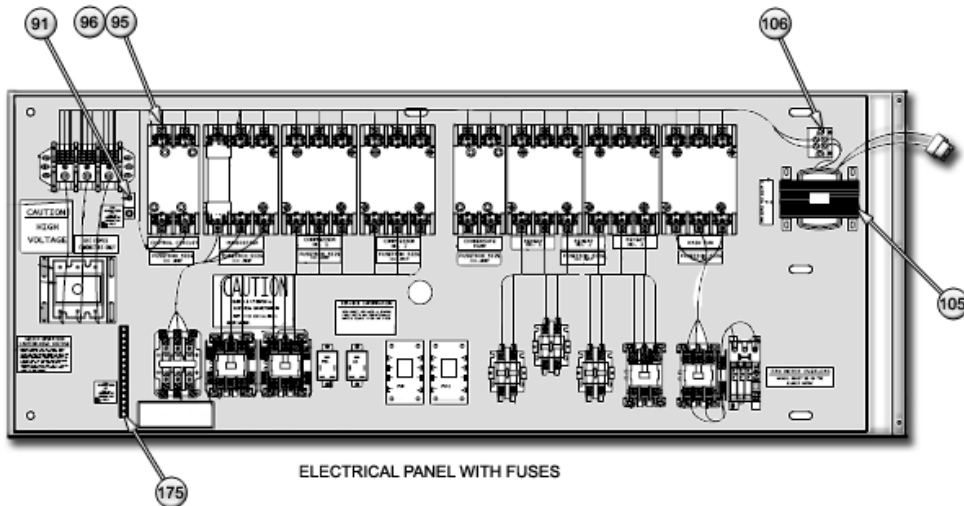
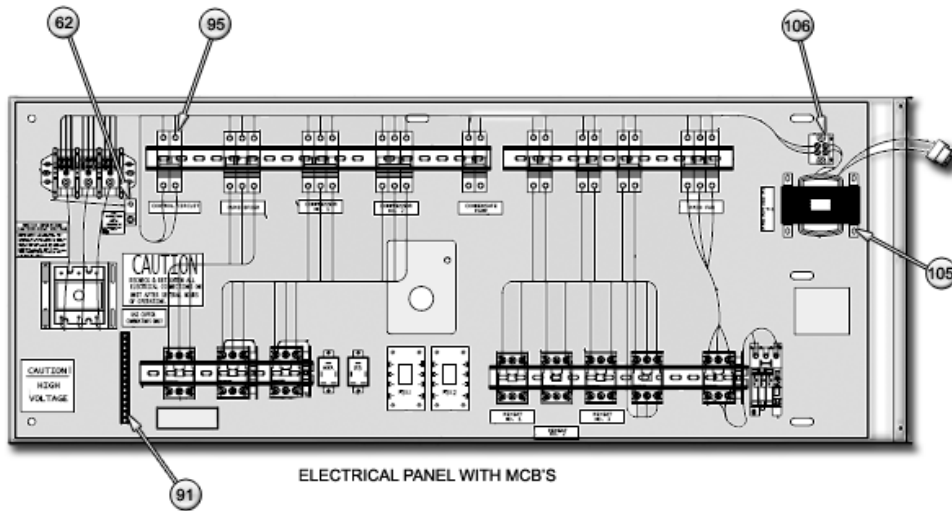


| Item | Part Number                   | Description                    | Model   | Quantity |
|------|-------------------------------|--------------------------------|---|----------|
| 1    | B02-0190                      | SW AIRFLO SENSING              | ALL   | 1        |
|      | 172296P1                      | SW AIRFLO SENSING .32 IWG OPEN | CW106   | 1        |
|      |                               |                                | CW114   | 1        |
| 3    | 128199P1                      | SW AIR DIFFERENTIAL 2PORTS     | ALL   | 1        |
| 5    | 416891G1                      | PWA ENV GLOBAL FUSE BOARD      | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 1        |
| 8    | 416761G1                      | PWA ENV ICOM CTRL LARGE        | ALL   | 1        |
| 15   | See Table below for item # 15 |                                |   |          |
| 16   | See Table below for item # 16 |                                |   |          |
| 26   | 180792P1                      | TRANSFORMER ISOLATION          | ALL   | 1        |

| Item | Part Number                  | Description             | Model | Quantity |
|------|------------------------------|-------------------------|-------|----------|
| 30   | 416761G1                     | PWA ENV ICOM CTRL LARGE | ALL   | 1        |
| 32   | See Table below for item #32 |                         |       |          |

| Item | Part Number | Description                          | Hz   | Model   | Quantity |
|------|-------------|--------------------------------------|------|---|----------|
| 15   | 135409P2    | FUSE GLASS <b>250V</b> 4AMP .25X1.25 | 50Hz | CW026<br>CW038<br>CW041<br>CW051<br>CW060                                     | 5        |
|      | 135409P3    | FUSE GLASS <b>250V</b> 6AMP .25X1.25 | 60Hz | CW076<br>CW084<br>CW106<br>CW114  |          |
| 16   | 135637P2    | FUSE KIT QTY6-4A/2-1.5A NON-TD       | 60Hz | CW106   | 1        |
|      | 135637P3    | FUSE KIT QTY6-6A/2-1.5A NON-TD       | 50Hz | CW114   |          |
|      | 135637P5    | FUSE KIT QTY 6-4A/2-3A NON-TD        | 60Hz | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 1        |
|      | 135637P6    | FUSE KIT QTY 6-6A/2-3A NON-TD        | 50Hz | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 1        |
| 32   | 135637P2    | FUSE KIT QTY6-4A/2-1.5A NON-TD       | 60Hz | CW106   | 1        |
|      | 135637P3    | FUSE KIT QTY6-6A/2-1.5A NON-TD       | 50Hz | CW114   |          |
|      | 135637P5    | FUSE KIT QTY 6-4A/2-3A NON-TD        | 60Hz | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 1        |
|      | 135637P6    | FUSE KIT QTY 6-6A/2-3A NON-TD        | 50Hz | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 1        |

### 4.4. EP Back Panel



#### 4.4.1. Circuit Breaker

| Item | Part Number | Description                  | Model   | Voltage                  | Quantity |
|------|-------------|------------------------------|---|--------------------------|----------|
| 91   | E-362B      | TERM LUG MECH #14-2/0 1/4"   | ALL   | -                        | 1        |
| 95   | E-6030      | FUSEBLOCK 600V 2P 030A       | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V | 1        |
| 96   | E-203D      | FUSE DUAL ELMNT 250V 02.8AMP | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205//236V<br>206/236V    | 2        |
|      | E-2030      | FUSE DUAL ELMNT 250V 04.5AMP | CW026<br>CW038<br>CW041   | 206/236V                 | 2        |

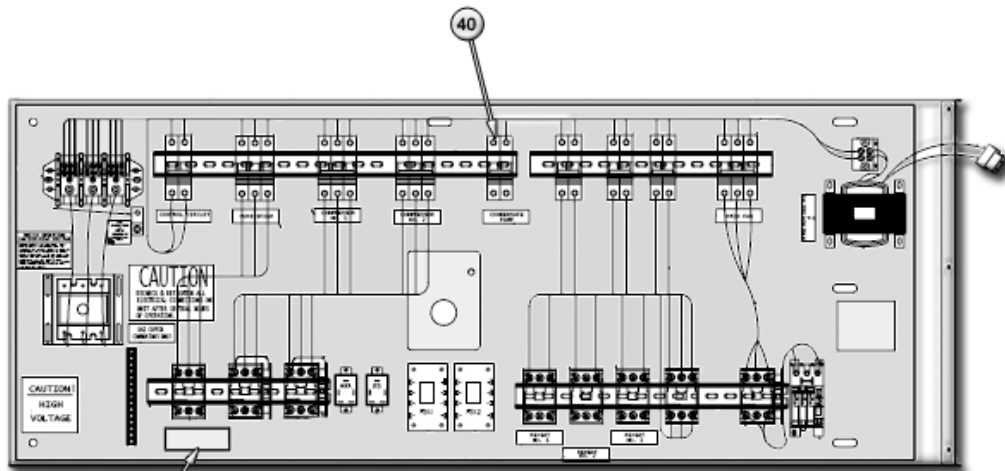


| Item | Part Number | Description                      | Model   | Voltage                  | Quantity |
|------|-------------|----------------------------------|---|--------------------------|----------|
|      | E-194C      | FUSE DUAL ELMNT 600V<br>01.25AMP | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V | 2        |
|      | 187014P1    | FUSE DUAL ELMNT 600V 2.0 AMP     | CW026<br>CW038<br>CW041   | 385/415V<br>466V<br>576V | 2        |
| 105  | 136201P3    | XFMR 200VA 460-615/24V60         | ALL   | -                        | 1        |
|      | 136202P2    | XFMR 300VA 200-240/24V50/60      | ALL   | -                        | 1        |
|      | 136202P3    | XFMR 300VA 380-415/24V 50/60     | ALL   | -                        | 1        |
| 106  | 136205P1    | PWRBLK 2PL 600V 65A TCHPRF       | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | -                        | 1        |
| 175  | 140753G1    | EP S3 EARTH GROUND BAR           | ALL   | -                        | 1        |
|      | E-3620      | GROUND LUG STRIP 13POS<br>SCRTRM | CW106<br>CW114  | -                        | 1        |

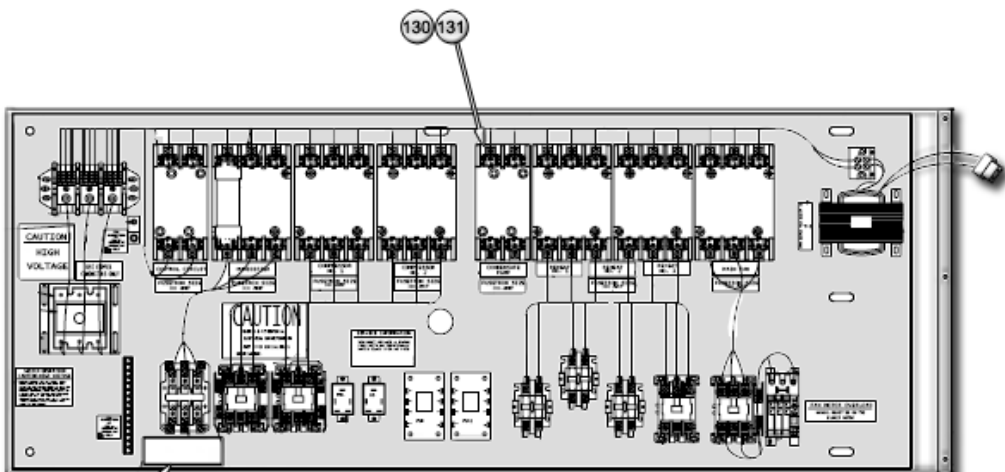
**4.4.2. Fused**

| Item | Part Number | Description                      | Model   | Voltage  | Quantity |
|------|-------------|----------------------------------|---|----------|----------|
| 62   | E-362B      | TERM LUG MECH #14-2/0 1/4"       | ALL   | -        | 1        |
| 91   | E-3620      | GROUND LUG STRIP 13POS<br>SCRTRM | ALL   | -        | 1        |
| 95   | 136240P3    | CB MCB 2P 240/415V 1.6A K CURV   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V | 1        |
|      | 136240P4    | CB MCB 2P 240/415V 2A K CURVE    | CW106   | 385/415V | 1        |
|      | 136240P5    | CB MCB 2P 240/415V 3A K CURVE    | CW114   | 205/235V | 1        |
| 105  | 136201P2    | XFMR 200VA 380-415/2450          | ALL   | -        | 1        |
|      | 136202P3    | XFMR 300VA 380-415/24V 50/60     | ALL   | -        | 1        |
| 106  | 136205P1    | PWRBLK 2PL 600V 65A TCHPRF       | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | -        | 1        |
|      | 140653P1    | PWRBLK 3PL COVER 4X2.5           |   |          |          |

### 4.5. EP Condensate Pump



ELECTRICAL PANEL WITH MCB'S

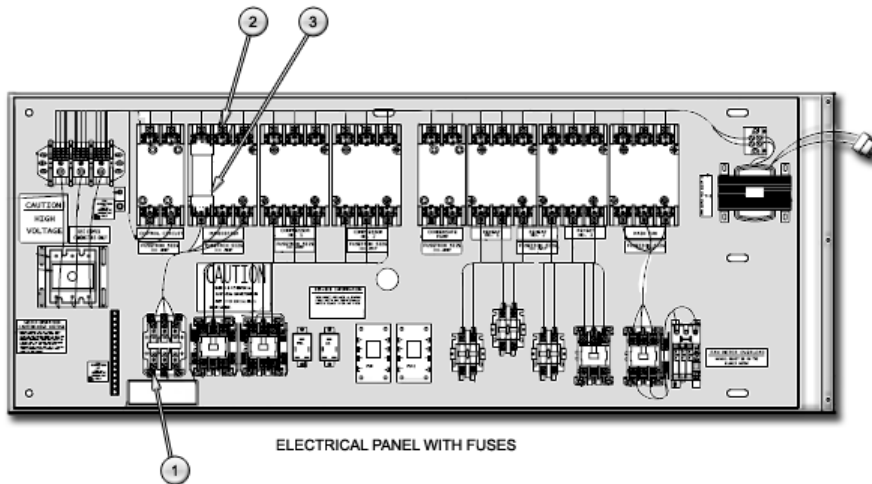
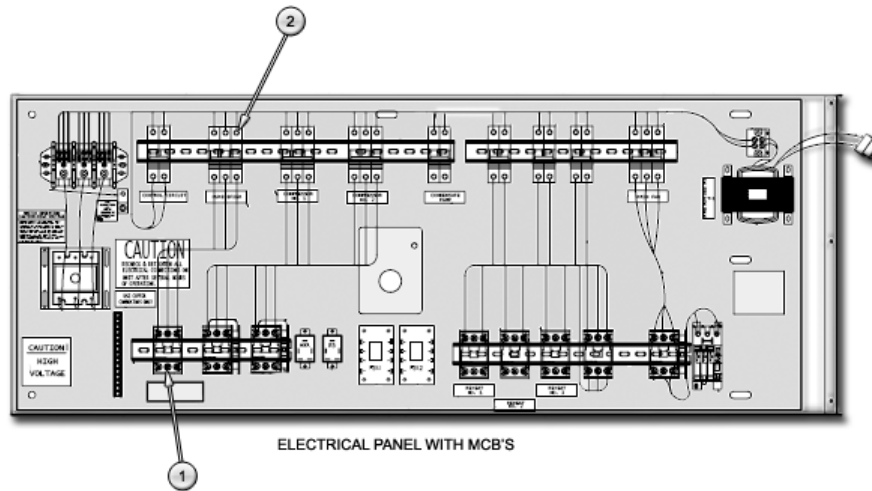


ELECTRICAL PANEL WITH FUSES

| Item | Part Number | Description                   | Model  | Voltage                  | Quantity |
|------|-------------|-------------------------------|--|--------------------------|----------|
| 40   | 136240P4    | CB MCB 2P 240/415V 2A K CURVE | CW106<br>CW114                                     | 385/415V                 | 1        |
|      | 136240P5    | CB MCB 2P 240/415V 3A K CURVE | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/235V<br>385/415V     | 1        |
| 130  | E-6030      | FUSEBLOCK 600V 2P 030A        | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V<br>466V<br>576V | 1        |
|      | E-6040      | FUSEBLOCK 250V 2P 030A        | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/236V<br>206/236V     | 1        |

| Item | Part Number | Description                   | Model  | Voltage                  | Quantity |
|------|-------------|-------------------------------|--|--------------------------|----------|
| 131  | E-203D      | FUSE DUAL ELMNT 250V 02.8AMP  | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/236V<br>206/236V     | 2        |
|      | E-1951      | FUSE DUAL ELMNT 600V 02.8AMP  | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V<br>466V<br>576V | 2        |
|      | E-194C      | FUSE DUAL ELMNT 600V 01.25AMP | CW051<br>CW060<br>CW106<br>CW114                   | 576V                     | 2        |
| 200  | E-0130      | RELAY 2P2T 24VAC COIL         | ALL  | -                        | 1        |

## 4.6. EP Humidifier IR



### 4.6.1. Circuit Breaker

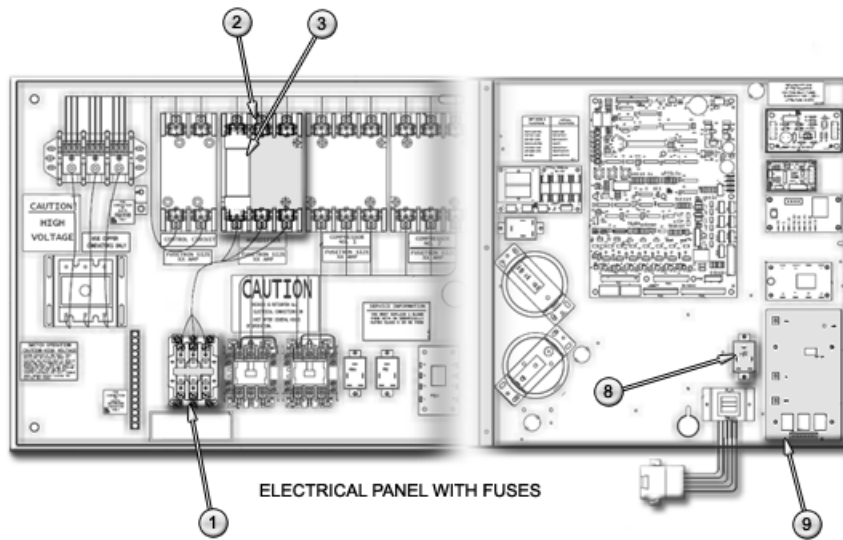
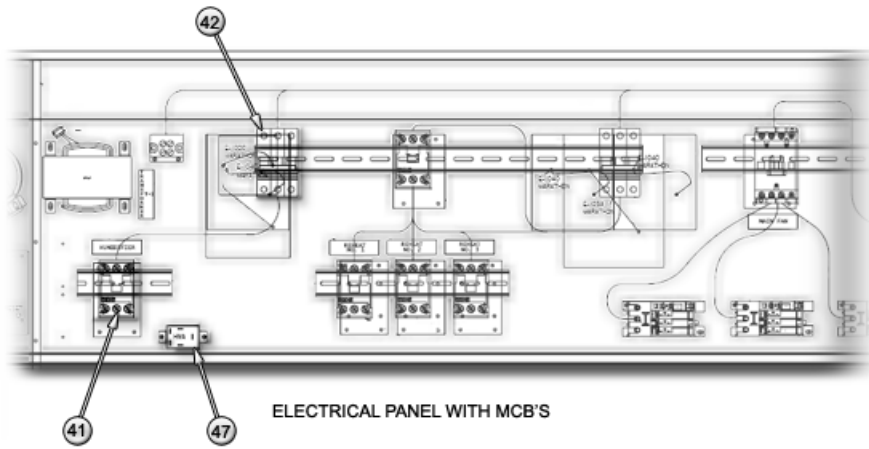
| Item | Part Number | Description                    | Model                            | Voltage  | Quantity |
|------|-------------|--------------------------------|----------------------------------|----------|----------|
| 1    | 136224P1    | CONTACTOR 3P40IND/55RES24      | CW076<br>CW084<br>CW106<br>CW114 | 385/415V | 1        |
| 2    | 136241P11   | CB MCB 3P 240/415V 20A K CURVE | CW076<br>CW084<br>CW106<br>CW114 |          | 1        |
|      | 136241P13   | CB MCB 3P 240/415V 32A K CURVE | CW106<br>CW114                   | 235V     | 1        |
|      | 136241P14   | CB MCB 3P 240/415V 40A K CURVE | CW106<br>CW114                   | 205V     | 1        |

### 4.6.2. Fuse

| Item | Part Number | Description                       | Model  | Voltage | Quantity |
|------|-------------|-----------------------------------|--|---------|----------|
| 1    | E-0100      | CONTACTOR 3PL 24VCOIL<br>40/50AMP | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | -       | 1        |

| Item   | Part Number                  | Description                       | Model   | Voltage                      | Quantity    |
|--------|------------------------------|-----------------------------------|---|------------------------------|-------------|
|        | E-0110                       | CONTACTOR 3PL 24VCOIL<br>25/30AMP | CW026<br>CW038<br>CW041   | -                            | 1           |
|        | E-011B                       | CONTACTOR 2PL 24VCOIL<br>25/35AMP | CW026<br>CW038<br>CW041   | -                            | 1           |
|        | E-011C                       | CONTACTOR 2PL 24VCOIL<br>40/50AMP | CW051<br>CW060  | -                            | 1           |
| 2      | E-1020                       | FUSEBLOCK 250V 3P 030A            | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/206V<br>235/236V<br>236V | 1           |
|        | E-1040                       | FUSEBLOCK 250V 3P 060A            | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 205/206V<br>206V             | 1           |
|        | E-1050                       | FUSEBLOCK 600V 3P 030A            | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V     | 1           |
|        | E-6030                       | FUSEBLOCK 600V 2P 030A            | CW026<br>CW038<br>CW041<br>CW051<br>CW060                                     | 576V                         | 1           |
| 3      | E-1200                       | FUSE DUAL ELMNT 250V 35.0AMP      | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 205/206V<br>206V             | 3           |
|        | E-1230                       | FUSE DUAL ELMNT 250V 20.0AMP      | CW026<br>CW038<br>CW041   | 205/206V                     | 3           |
|        | E-2020                       | FUSE DUAL ELMNT 600V 20.0AMP      | CW076<br>CW084<br>CW106<br>CW114  | 385/415V                     | 3           |
|        |                              |                                   | CW051<br>CW060  | 466V<br>385/415V<br>576V     | 3           |
|        |                              |                                   |   | 576V                         | 2           |
|        | E-2070                       | FUSE DUAL ELMNT 250V 15.0AMP      | CW026<br>CW038<br>CW041   | 235/236V                     | 3           |
|        | E-2090                       | FUSE DUAL ELMNT 250V 30.0AMP      | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 235/236V<br>236V             | 3           |
|        | E-2410                       | FUSE DUAL ELMNT 250V 30.0AMP      | CW026<br>CW038<br>CW041   | 385/415V<br>466V<br>576V     | 3<br>3<br>2 |
|        |                              |                                   | CW076<br>CW084<br>CW106<br>CW114  | 576V                         | 3           |
|        |                              |                                   |   |                              |             |
| E-2730 | FUSE DUAL ELMNT 600V 17.5AMP | CW076<br>CW084<br>CW106<br>CW114  | 466V  | 3                            |             |

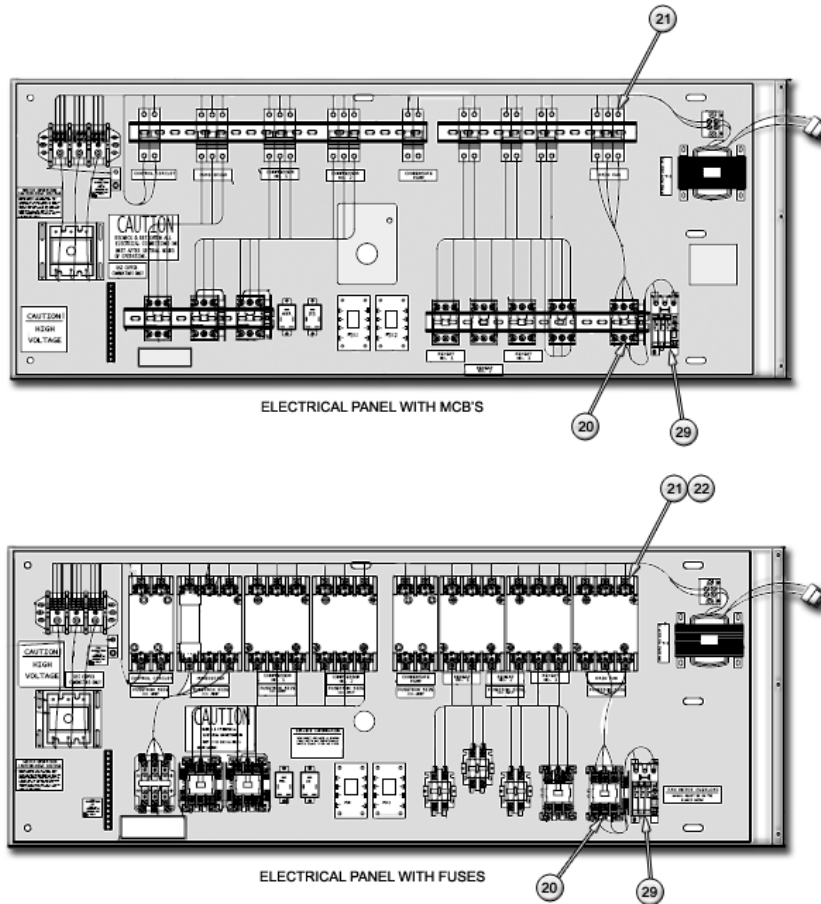
### 4.7. EP Humidifier Steam



| Item | Part Number | Description                    | Model   | Voltage  | Quantity |
|------|-------------|--------------------------------|---|----------|----------|
| 1    | E-009F      | CONTACTOR 3PL 24VCOIL 30/40AMP | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | -        | 1        |
|      | E-0110      | CONTACTOR 3PL 24VCOIL 25/30AMP | ALL   | -        | 1        |
| 2    | E-1020      | FUSEBLOCK 250V 3P 030A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 235/236V | 1        |
|      | E-1040      | FUSEBLOCK 250V 3P 060A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/206V | 1        |

| Item | Part Number | Description                    | Model   | Voltage                  | Quantity |
|------|-------------|--------------------------------|---|--------------------------|----------|
|      | E-1050      | FUSEBLOCK 600V 3P 030A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V<br>466V<br>576V | 1        |
| 3    | E-1200      | FUSE DUAL ELMNT 250V 35.0AMP   | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 205/206V                 | 3        |
|      | E-2070      | FUSE DUAL ELMNT 250V 15.0AMP   | CW026<br>CW038<br>CW041   | 235/236V                 | 3        |
|      | E-2090      | FUSE DUAL ELMNT 250V 30.0AMP   | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 235/236V                 | 3        |
|      | E-2410      | FUSE DUAL ELMNT 600V 15.0AMP   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V<br>466V<br>576V | 3        |
|      | E-2730      | FUSE DUAL ELMNT 600V 17.5AMP   | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114                            | 385/415V                 | 3        |
|      | E-2740      | FUSE DUAL ELMNT 250V 17.5AMP   | CW026<br>CW038<br>CW041   | 205/206V                 | 3        |
| 41   | 136222P1    | CONTACTOR 3P23IND/32RES24/50   | CW106   |                          | 1        |
|      | 136223P1    | CONTACTOR 3P30IND/40RES24      | CW114   |                          | 1        |
| 42   | 136241P11   | CB MCB 3P 240/415V 20A K CURVE | CW106<br>CW114  | 385/415V                 | 1        |
|      | 136241P13   | CB MCB 3P 240/415V 32A K CURVE |   | 235V                     | 1        |
|      | 136241P14   | CB MCB 3P 240/415V 40A K CURVE |   | 205V                     | 1        |
| 47   | E03-0170    | RELAY 1P2T 24V 50/60HZ         | CW106<br>CW114  | -                        | 1        |

### 4.8. EP Motor



#### 4.8.1. Circuit Breaker

| Item | Part Number | Description                    | Model   | Voltage  | Quantity |
|------|-------------|--------------------------------|---|----------|----------|
| 20   | 136221P1    | CONTACTOR 3P16IND/21RES24/50   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084                   | -        | 1        |
|      | 136223P1    | CONTACTOR 3P30IND/40RES24      | ALL   | -        | 1        |
|      | 136224P1    | CONTACTOR 3P40IND/55RES24      | ALL   | -        | 1        |
|      | 136225P1    | CONTACTOR 3P60IND/75RES24      | CW106<br>CW114  | -        | 1        |
| 21   | 136241P10   | CB MCB 3P 240/415V 16A K CURVE | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084                   | 385/415V | 1        |
|      | 136241P11   | CB MCB 3P 240/415V 20A K CURVE |   |          |          |
|      | 136241P12   | CB MCB 3P 240/415V 25A K CURVE | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V | 1        |



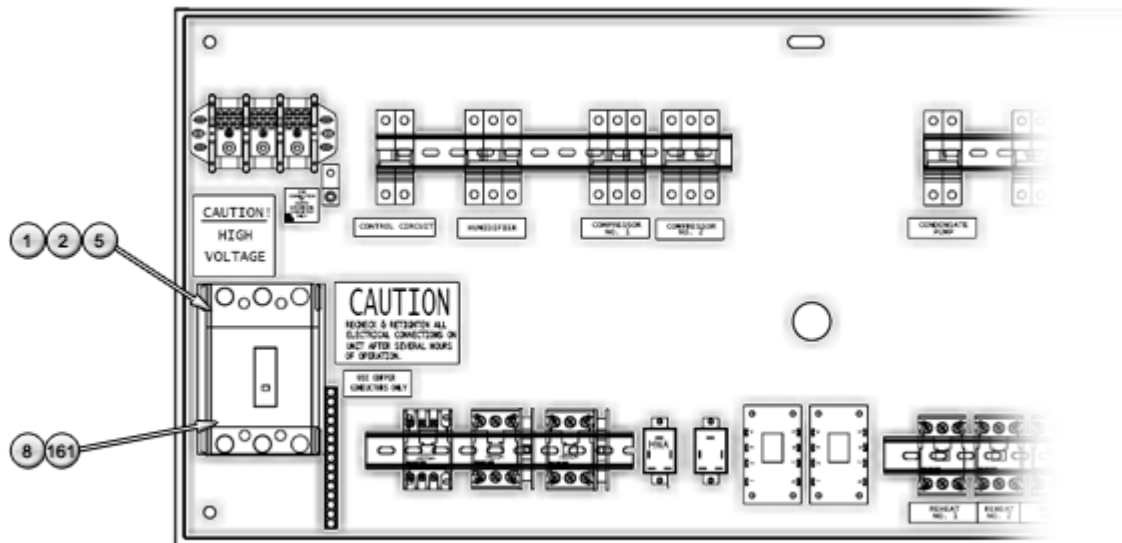
| Item | Part Number | Description                    | Model   | Voltage   | Quantity |
|------|-------------|--------------------------------|---|-----------|----------|
|      | 136241P14   | CB MCB 3P 240/415V 40A K CURVE | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V  | 1        |
|      | 136241P15   | CB MCB 3P 240/415V 50A K CURVE | CW106<br>CW114  | 205//235V | 1        |
|      | 136241P16   | CB MCB 3P 240/415V 63A K CURVE | CW106<br>CW114  | 205//235V | 1        |
| 29   | 124547P1    | OVERLOAD RELAY W/B MNT 32A C-H | ALL   | -         | 1        |

**4.8.2. Fuse**

| Item | Part Number | Description                    | Model   | Voltage                  | Quantity |
|------|-------------|--------------------------------|---|--------------------------|----------|
| 20   | 124501P1    | CONTACTOR 3P16IND/21RES24/50   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084                   | -                        | 1        |
|      | E-009F      | CONTACTOR 3PL 24VCOIL 30/40AMP | ALL   | -                        | 1        |
|      | E-009H      | CONTACTOR 3PL 24VCOIL 65/75AMP | CW106<br>CW114  | -                        | 1        |
|      | E-0100      | CONTACTOR 3PL 24VCOIL 40/50AMP | ALL   | -                        | 1        |
|      | E-0110      | CONTACTOR 3PL 24VCOIL 25/30AMP | ALL   | -                        | 1        |
|      | E-2500      | CONTACTOR 3PL 24VCOIL 50/63AMP | ALL   | -                        | 1        |
| 21   | E-1020      | FUSEBLOCK 250V 3P 030A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084                   | 206/236V                 | 1        |
|      | E-1040      | FUSEBLOCK 250V 3P 060A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205//235V<br>206/236V    | 1        |
|      | E-1041      | FUSEBLOCK 250V 3P 100A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205//235V<br>206//236V   | 1        |
|      | E-1050      | FUSEBLOCK 600V 3P 030A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V | 1        |
|      | E-105A      | FUSEBLOCK 600V 3P 060A         | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V | 1        |

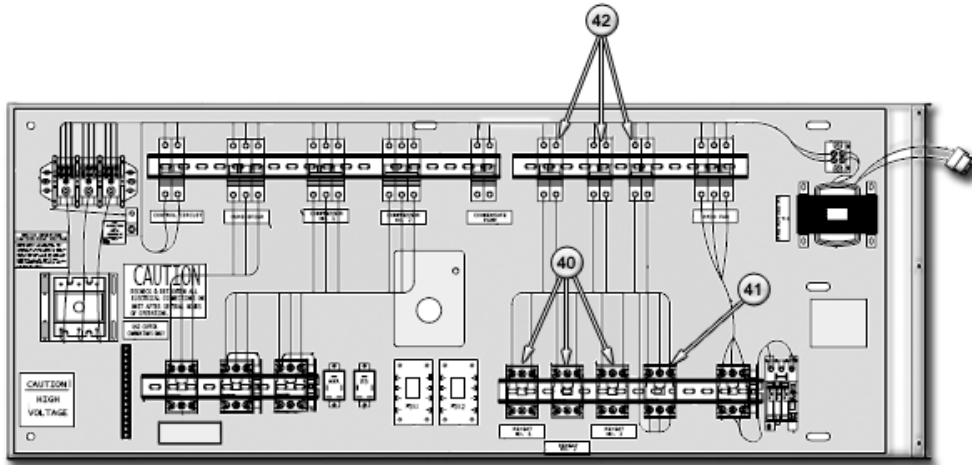
| Item      | Part Number                    | Description                    | Model   | Voltage  | Quantity |
|-----------|--------------------------------|--------------------------------|---|--|----------|
|           | 136811P1                       | FUSEBLOCK BUSS JP600V 30A 3P   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>385/415V<br>576V                           | 1        |
|           | 194432P1                       | FUSEBLOCK J 600V 100A 3P       | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 466V<br>205//235V<br>206//236V<br>385/415V<br>576V | 1        |
| 22        | E05-3810                       | FUSE DUAL ELMNT 600V 45.0AMP   | CW106<br>CW114  | 466V   | 3        |
|           | E05-4170                       | FUSE DUAL ELMNT 600V 50.0AMP   |   | 385/415V   |          |
|           | E-1120                         | FUSE DUAL ELMNT 250V 90.0AMP   |   | 206/236V   |          |
|           | E-1200                         | FUSE DUAL ELMNT 250V 35.0AMP   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084                   | 206//236V  | 3        |
|           | E-2070                         | FUSE DUAL ELMNT 250V 15.0AMP   |   | 206/236V   | 3        |
|           | E-2080                         | FUSE DUAL ELMNT 250V 25.0AMP   |   | 206/236V   | 3        |
|           | E-2410                         | FUSE DUAL ELMNT 600V 15.0AMP   |   | 466V<br>385/415V<br>576V                           | 3        |
|           | E-116A                         | FUSE DUAL ELMNT 250V 70.0AMP   | CW026<br>CW038<br>CW041<br>CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205//235<br>206/236                                | 3        |
|           | E-2020                         | FUSE DUAL ELMNT 600V 20.0AMP   |   | 466V<br>385/415V                                   |          |
|           | E-2021                         | FUSE DUAL ELMNT 600V 35.0AMP   |   | 466V<br>576V                                       |          |
|           | E-2023                         | FUSE DUAL ELMNT 600V 40.0AMP   |   | 385/415V   |          |
|           | E-2730                         | FUSE DUAL ELMNT 600V 17.5AMP   |   | 576V   |          |
|           | E-3050                         | FUSE DUAL ELMNT 600V 25.0AMP   |   | 385/415V<br>576V                                   |          |
|           | E-6050                         | FUSE DUAL ELMNT 250V 45.0AMP   |   | 206/236V   |          |
|           | 186009P12                      | FUSE FASTACTING "J" 600V 15.0A |   | 576V   |          |
|           | 186009P14                      | FUSE FASTACTING "J" 600V 20.0A | 466V<br>385/415V<br>576V  |  |          |
|           | 186009P15                      | FUSE FASTACTING "J" 600V 25.0A | 466V<br>385/415V<br>576V  |  |          |
|           | 186009P16                      | FUSE FASTACTING "J" 600V 30.0A | 466V<br>385/415V  |  |          |
| 186009P17 | FUSE FASTACTING "J" 600V 35.0A | 466V                           |   |  |          |
| 186009P18 | FUSE FASTACTING "J" 600V 40.0A | 385/415V                       |   |  |          |
| 186009P19 | FUSE FASTACTING "J" 600V 45.0A | 205//235V<br>206//236V         |   |  |          |
| 186009P21 | FUSE FASTACTING "J" 600V 60.0A | 206//236V                      |   |  |          |
| 186009P22 | FUSE FASTACTING "J" 600V 70.0A | 205//235V<br>206//236V         |   |  |          |
| 29        | 124547P1                       | OVERLOAD RELAY W/B MNT 32A C-H | ALL   |  | 1        |

### 4.9. EP Disconnect

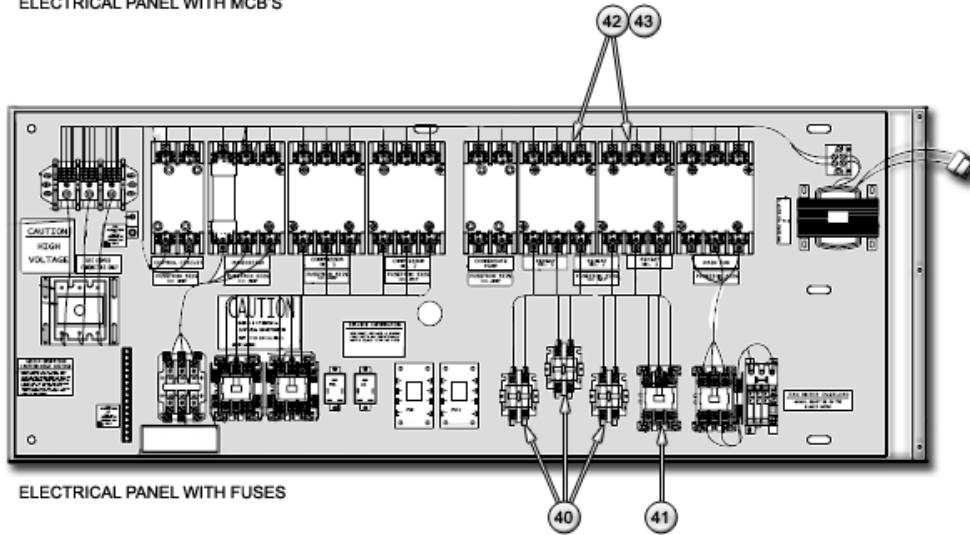


| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 1    | 1C18351P1   | SW DISC 600V 3PL 100A         | 1        |
|      | 1C18351P2   | SW DISC 600V 3PL 60A          | 1        |
|      | E-2900      | SW DISC 240V 3PL 225A         | 1        |
| 2    | 125718P1    | BRKT DISC CSU 3MOD            | 1        |
|      | 1C18603P1   | BRKT DISC K/M                 | 1        |
|      | F02-2140    | BRKT LKDISC OPER 225          | 1        |
|      | 135627P2    | BRKT LKDISC OPER 225A GE 120" | 1        |
|      | 135627P4    | BRKT NON LKDISC 225A GE 120"  | 1        |
|      | F02-2160    | BRKT NON LKDISC OPER 225      | 1        |
| 5    | 1C18354P1   | COLLAR LKG DISC W/2 SCREWS KM | 1        |
| 8    | E-290A      | SW DISC LOKG HANDLE ROTARY    | 1        |
| 161  | E-288B      | SW DISC LOKG RING CATCH       | 1        |

### 4.10. EP Reheat



ELECTRICAL PANEL WITH MCB'S



ELECTRICAL PANEL WITH FUSES

#### 4.10.1. Circuit Breaker

| Item | Part Number | Description                  | Type   | Voltage | Quantity |
|------|-------------|------------------------------|--|---------|----------|
| 40   | 136222P1    | CONTACTOR 3P23IND/32RES24/50 | CW026<br>CW038<br>CW041<br>CW051<br>CW060          | 3       | 136222P1 |
|      | 136223P1    | CONTACTOR 3P30IND/40RES24    | CW051  | 3       | 136223P1 |
|      | 136227P1    | CONTACTOR 3P32IND/50RES24    | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | 3       | 136227P1 |
| 41   | 136222P1    | CONTACTOR 3P23IND/32RES24/50 | CW026<br>CW038<br>CW041<br>CW060<br>CW106<br>CW114 | 1       | 136222P1 |
|      | 136223P1    | CONTACTOR 3P30IND/40RES24    | CW051  | 1       | 136223P1 |
|      | 136227P1    | CONTACTOR 3P32IND/50RES24    | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | 1       | 136227P1 |

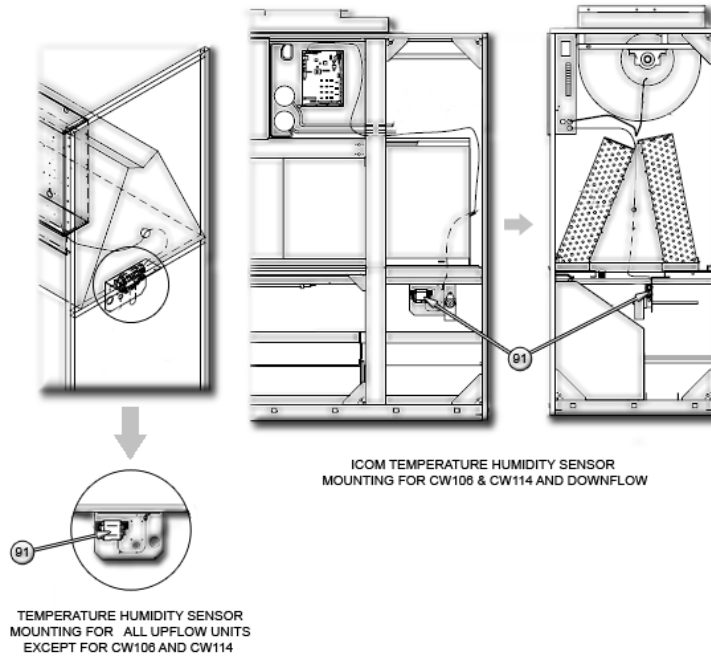
| Item | Part Number | Description                    | Type                                      | Voltage                  | Quantity |
|------|-------------|--------------------------------|---|--------------------------|----------|
|      | 136240P13   | CB MCB 2P 240/415V 32A K CURVE | CW051<br>CW060                            | 385/415V                 | 3        |
|      | 136240P14   | CB MCB 2P 240/415V 40A K CURVE | CW051<br>CW076<br>CW084<br>CW106<br>CW114 | 205V<br>235V<br>385/415V | 3        |
|      | 136240P15   | CB MCB 2P 240/415V 50A K CURVE | CW060                                     | 235V                     | 3        |
|      | 136240P16   | CB MCB 2P 240/415V 63A K CURVE | CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 205/235V                 | 3        |
|      | 136241P11   | CB MCB 3P 240/415V 20A K CURVE | CW038<br>CW041                            | 385/415V                 | 1        |
|      | 136241P13   | CB MCB 3P 240/415V 32A K CURVE | CW038<br>CW041                            | 385/415V                 | 1        |
|      | 136241P14   | CB MCB 3P 240/415V 40A K CURVE | CW026                                     | 205V<br>235V             | 1        |
|      | 136241P15   | CB MCB 3P 240/415V 50A K CURVE | CW038<br>CW041                            | 205V<br>235V             | 1        |
|      | 136241P16   | CB MCB 3P 240/415V 63A K CURVE | CW106<br>CW114                            | 385/415V                 | 1        |

**4.10.2. Fuse**

| Item   | Part Number            | Description                       | Type   | Voltage                  | Quantity |
|--------|------------------------|-----------------------------------|--|--------------------------|----------|
| 40     | E-011A                 | CONTACTOR 2PL 24VCOIL<br>20/30AMP | ALL  | -                        | 3        |
|        | E-011B                 | CONTACTOR 2PL 24VCOIL<br>25/35AMP | CW051  | -                        | 3        |
|        | E-011C                 | CONTACTOR 2PL 24VCOIL<br>40/50AMP | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | -                        | 3        |
| 41     | E-0110                 | CONTACTOR 3PL 24VCOIL<br>25/30AMP | ALL  | -                        | 1        |
|        | E-009F                 | CONTACTOR 3PL 24VCOIL<br>30/40AMP | CW051  | -                        | 1        |
|        | E-0100                 | CONTACTOR 3PL 24VCOIL<br>40/50AMP | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | -                        | 1        |
| 42     | E-1040                 | FUSEBLOCK 250V 3P 060A            | CW026<br>CW038<br>CW041                            | 205/206V<br>235/236V     | 1        |
|        |                        |                                   | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 |                          | 2        |
|        | E-1050                 | FUSEBLOCK 600V 3P 030A            | CW026<br>CW038<br>CW041                            | 466V<br>385/415V<br>576V | 1        |
|        |                        |                                   | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 |                          | 2        |
|        |                        |                                   | CW106<br>CW114                                     |                          | 1        |
| E-105A | FUSEBLOCK 600V 3P 060A | CW076<br>CW084<br>CW106<br>CW114  | 466V<br>385/415V<br>576V                           | 2                        |          |
| 43     | 1A11899P1              | FUSE DUAL ELMNT 600V<br>60.0AMP   | CW106<br>CW114                                     | 385/415V                 | 3        |
|        | E05-4170               | FUSE DUAL ELMNT 600V<br>50.0AMP   | CW106<br>CW114                                     | 466V                     | 3        |

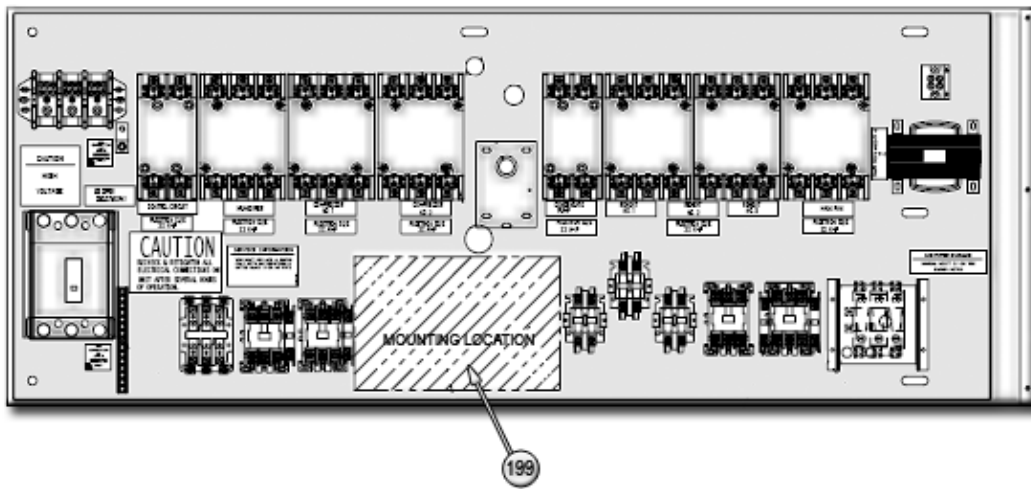
| Item | Part Number | Description                     | Type   | Voltage                  | Quantity |
|------|-------------|---------------------------------|--|--------------------------|----------|
|      | E-1100      | FUSE DUAL ELMNT 600V<br>30.0AMP | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | 385/415V<br>466V         | 6        |
|      |             |                                 | CW038<br>CW041                                     |                          | 3        |
|      | E-1160      | FUSE DUAL ELMNT 250V<br>60.0AMP | CW060<br>CW076<br>CW084<br>CW106<br>CW114          | 205/206V<br>235/236V     | 6        |
|      | E-1200      | FUSE DUAL ELMNT 250V<br>35.0AMP | CW026  | 205/206V<br>235/236V     | 3        |
|      | E-2020      | FUSE DUAL ELMNT 600V<br>20.0AMP | CW026<br>CW038<br>CW041                            | 385/415V<br>576V         | 6        |
|      |             |                                 | CW051<br>CW060                                     | 466V<br>576V             | 3        |
|      | E-2021      | FUSE DUAL ELMNT 600V<br>35.0AMP | CW076<br>CW084<br>CW106<br>CW114                   | 385/415V                 | 6        |
|      | E-2023      | FUSE DUAL ELMNT 600V<br>40.0AMP | CW106<br>CW114                                     | 576V                     | 3        |
|      | E-2100      | FUSE DUAL ELMNT 250V<br>40.0AMP | CW051  | 205/206V<br>235/236V     | 6        |
|      | E-2410      | FUSE DUAL ELMNT 600V<br>15.0AMP | CW051<br>CW026                                     | 576V                     | 6<br>3   |
|      | E-2730      | FUSE DUAL ELMNT 600V<br>17.5AMP | CW026  | 466V                     | 3        |
|      | E-3050      | FUSE DUAL ELMNT 600V<br>25.0AMP | CW038<br>CW041                                     | 466V                     | 3        |
|      |             |                                 | CW051<br>CW060<br>CW076<br>CW084<br>CW106<br>CW114 | 385/415V<br>466V<br>576V | 6        |
|      | E-3060      | FUSE DUAL ELMNT 250V<br>50.0AMP | CW038<br>CW041                                     | 205/206V<br>235/236V     | 3        |
|      |             |                                 | CW060  | 235/236V                 | 6        |

### 4.11. EP Sensor



| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 91   | 181464G1    | SENSOR T/H ASSY INTERNAL ICOM | 181464G1 |

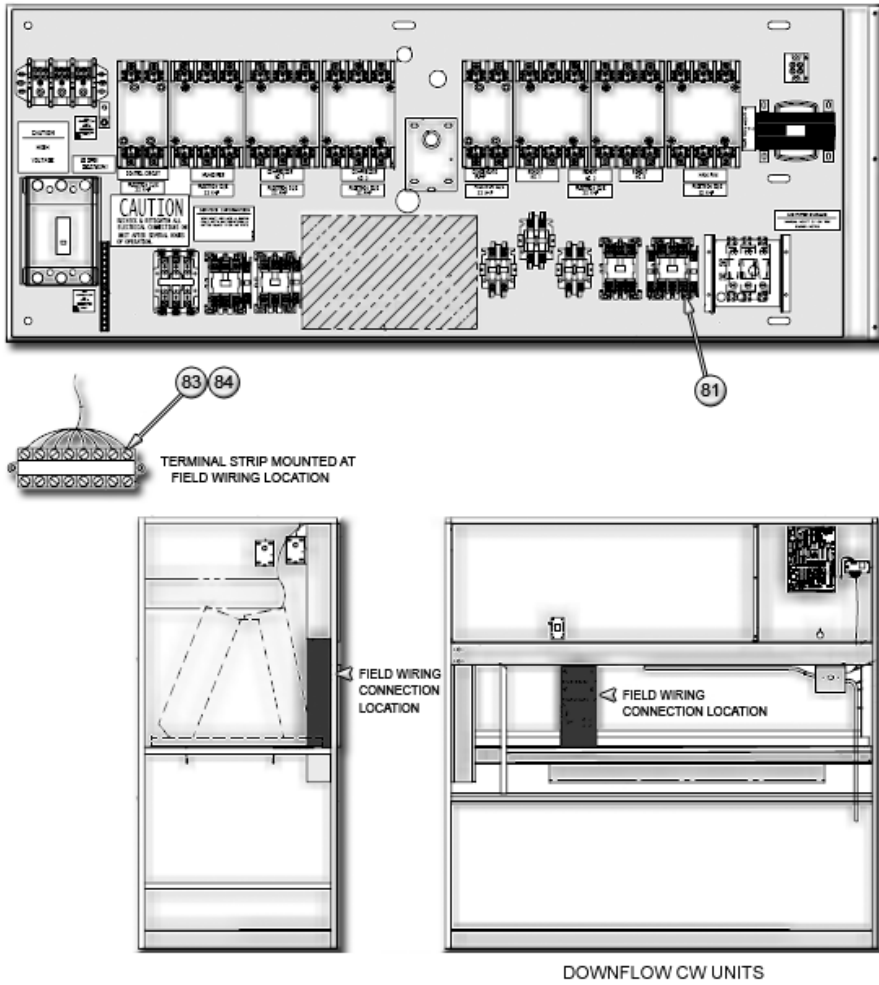
### 4.12. EP Extra Common Alarm



| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 199  | E-2440      | RELAY 4P2T 24VAC 125V MAXLOAD | 1        |

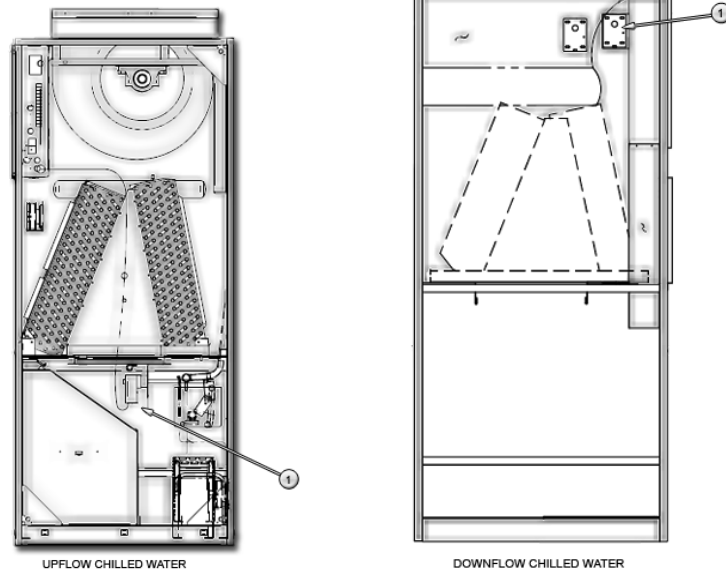


### 4.13. EP Main Fan Auxiliary



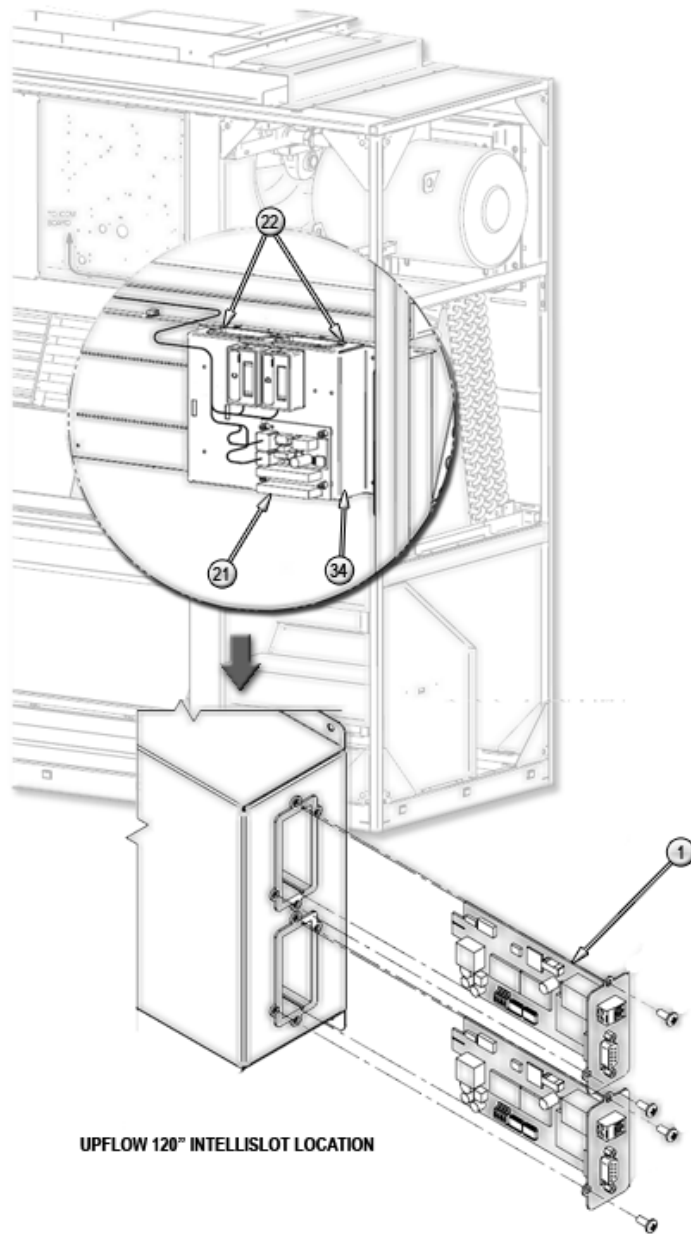
| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 81   | 149117P1    | CONTACTS AUX NO/NC 49ACR6 FRNS | 1        |
| 83   | E-0380      | TERMBLK SECTION 1POS           | 4        |
|      | 132487P1    | TERMLSTRIP SECTION 1 POS       | 4        |
| 84   | 132487P2    | TERMLSTRIP SECTION END BARRIER | 1        |
|      | E-0390      | TERMBLK SECTION END BARRIER    | 1        |

### 4.14. EP Firestat



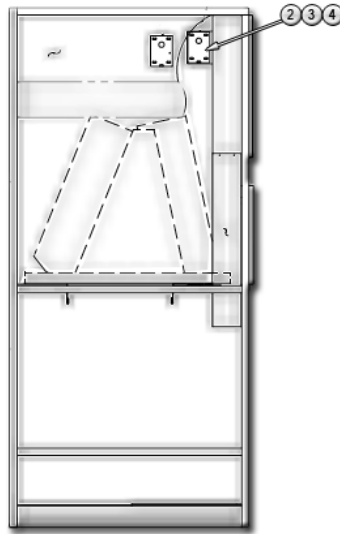
| Item | Part Number | Description           | Quantity |
|------|-------------|-----------------------|----------|
| 1    | E-2350      | FIRESTAT OPEN ON RISE | 1        |

### 4.15. Intellislot



| Item | Part Number | Description                    | Model | Quantity |
|------|-------------|--------------------------------|-------|----------|
| 1    | OC485-LBDS  | KIT OC485-LBDS                 | -     | 1        |
|      | IS-WEBLBDS  | KIT IS-WEBLBDS                 | -     | 1        |
| 21   | 416911G2    | PWA INTELLISLOT PWR SPLY DC IN | -     | ALL      |
| 22   | 200509P1    | ENCLOSURE INTELLISLOT 34 PIN   | -     | ALL      |
| 34   | 185059P1    | BRKT MTG INTELLISLOT S3 CW     | CW106 | 1        |
|      |             |                                | CW104 | 1        |
|      |             |                                | CW026 | 1        |
|      | 184653P1    | BRKT MTG S3 CW INTELLISLOT     | CW038 | 1        |
|      |             |                                | CW041 | 1        |
|      |             |                                | CW051 | 1        |
|      |             |                                | CW060 | 1        |
|      |             |                                | CW076 | 1        |
|      |             |                                | CW084 | 1        |

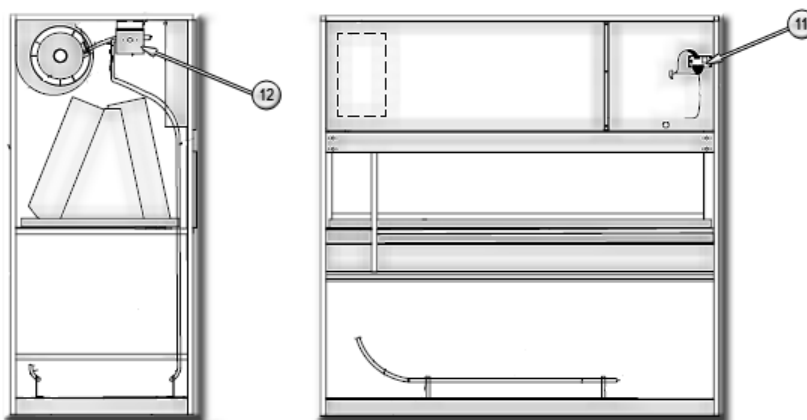
### 4.16. EP Remote Humidifier Contact



DOWNFLOW 48" CW MODEL

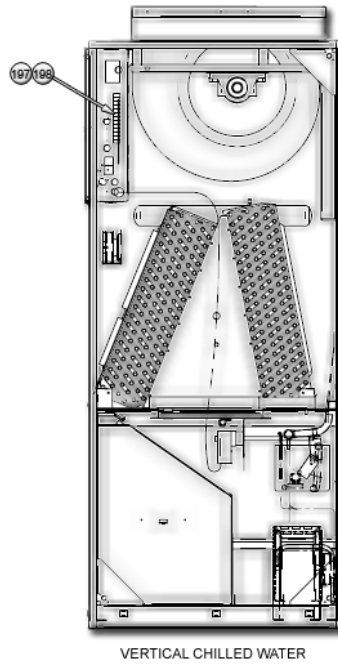
| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 2    | E-0380      | TERMBLK SECTION 1POS           | 2        |
|      | 132487P1    | TERMLSTRIP SECTION 1 POS       | 2        |
| 3    | 132487P2    | TERMLSTRIP SECTION END BARRIER | 1        |
|      | E-0390      | TERMBLK SECTION END BARRIER    | 1        |
| 4    | E03-0170    | RELAY 1P2T 24V 50/60HZ         | 1        |

### 4.17. EP Smoke Detector



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 11   | 124502P2    | PWA SMOKE DET CNTL 24VDC 2CONN | 1        |
| 12   | 149110G1    | SMOKE DETECTOR ENCLO ASSY 731L | 1        |

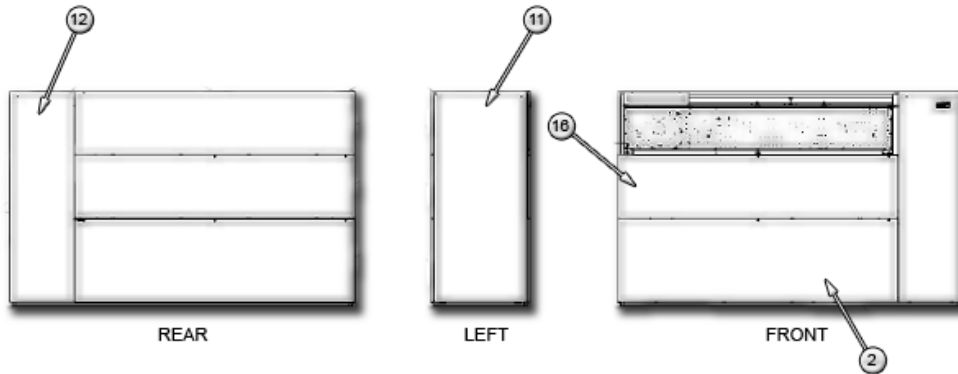
### 4.18. Extra Remote Shutdown



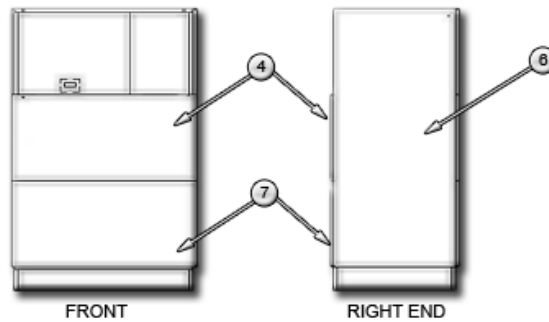
| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 197  | E-0380      | TERMBLK SECTION 1POS           | 4        |
|      | 132487P1    | TERMLSTRIP SECTION 1 POS       | 4        |
| 198  | 132487P2    | TERMLSTRIP SECTION END BARRIER | 1        |
|      | E-0390      | TERMBLK SECTION END BARRIER    | 1        |

## 5. Exterior Section

### 5.1. CW Downflow



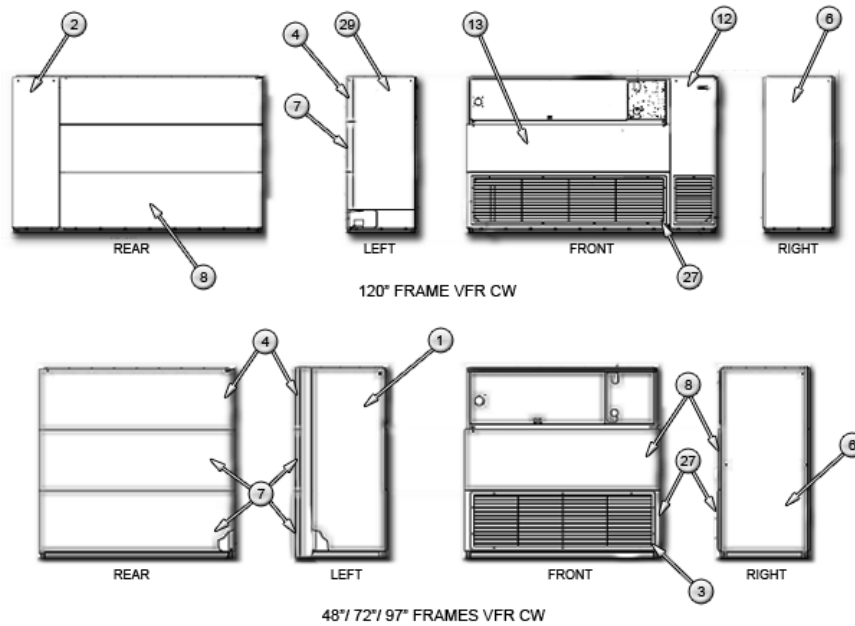
EXTERIOR PANELS 120" D CW



EXTERIOR PANELS 48"/72"/97" D CW

| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 2    | 136021G1    | PANEL ASSY 120"CW BTM          | 2        |
|      | 194589G1    | PANEL ASSY 120"CW BTM          | 2        |
| 4    | F02-6940    | PANEL EXT FR-MDL RR-TOP        | 2        |
|      | F02-7110    | PANEL EXT FR-MDL RR-TOP        | 2        |
|      | F02-7130    | PANEL EXT FR-MDL RR-TOP        | 2        |
| 6    | 1C21770P2   | PANEL EXT END- LEFT/RIGHT      | 2        |
| 7    | F02-6950    | PANEL EXT FR-BTM RR-BTM&MDL    | 3        |
|      | F02-7080    | PANEL EXT FR-BTM RR-MDL&BTM    | 3        |
|      | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM    | 3        |
| 11   | 136057G1    | PANEL ASSY 120"CW END          | 2        |
| 12   | 136058G1    | PANEL ASSY 120"CW FRT/RR RIGHT | 2        |
| 16   | 136022G1    | PANEL ASSY 120"CW MDL          | 3        |

## 5.2. Vertical Front Return



### 5.2.1. 48"/72"/97" VRR CW

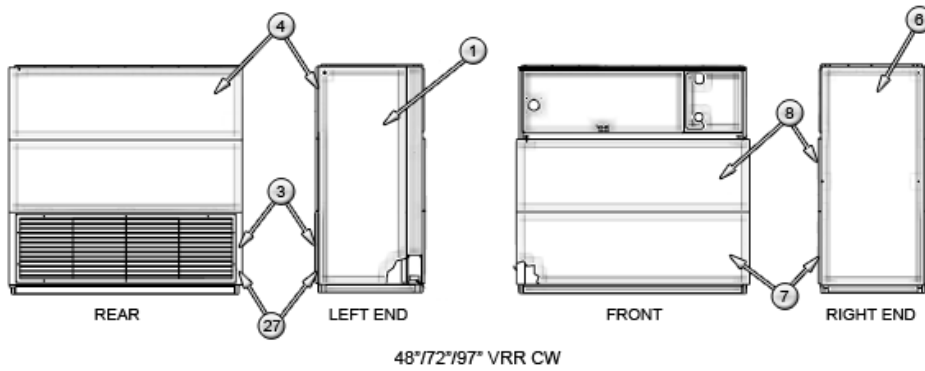
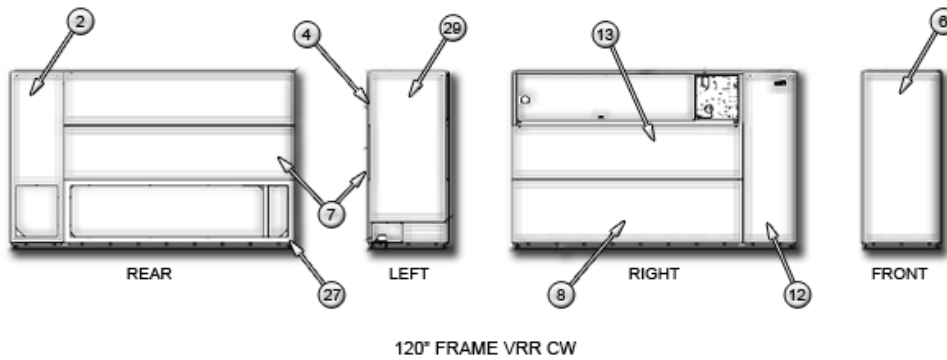
| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 1    | 1C21770P3   | PANEL EXT END 69.5 X 28.8      | 1        |
| 3    | 1C19065P10  | GRILLE RTN AIR 44X18 WG B      | 1        |
|      | 1C19065P11  | GRILLE RTN AIR 68X20 WG B      | 1        |
|      | 1C19065P12  | GRILLE RTN AIR 86X18 WG B      | 1        |
| 4    | F02-7110    | PANEL EXT FR-MDL RR-TOP        | 1        |
|      | F02-7130    | PANEL EXT FR-MDL RR-TOP        | 1        |
|      | F02-6940    | PANEL EXT FR-MDL RR-TOP        | 1        |
| 6    | 1C21770P2   | PANEL EXT END- LEFT/RIGHT      | 1        |
| 7    | F02-6950    | PANEL EXT FR-BTM RR-BTM&MDL    | 2        |
|      | F02-7080    | PANEL EXT FR-BTM RR-MDL&BTM    | 2        |
|      | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM    | 2        |
| 8    | 177182G1    | PANEL ASSY FR MID 48" CW 20GA  | 1        |
|      | 177182G2    | PANEL ASSY FR MID 72" CW 20GA  | 1        |
|      | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA  | 1        |
| 27   | F02-7070    | PANEL EXT FR-BTM RR-BTM W/D.C  | 1        |
|      | F02-7060    | PANEL EXT FR-BTM RR-BTM W/GRIL | 1        |
|      | F02-714A    | PANEL EXT FR OR RR-BOT ASSY    | 1        |
|      | F02-7140    | PANEL EXT FR-BTM RR-BTM W/OPNG | 1        |
|      | F02-716A    | PANEL EXT FR OR RR-BOT ASSY    | 1        |
|      | F02-7160    | PANEL EXT FR-BTM RR-BTM W/OPNG | 1        |

### 5.2.2. 120" VRR

| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 2    | 160019P4    | PANEL VERT REAR 20GA 30T       | 1        |
| 4    | F02-7130    | PANEL EXT FR-MDL RR-TOP        | 1        |
|      | 1D28982P3   | PANEL EXT FR-MDL RR-TOP        | 1        |
| 6    | 160004P1    | PANEL EXT END-LEFT/RIGHT 76"   | 1        |
|      | 160004P2    | PANEL EXT END-LFT/RGT 76" 16GA | 1        |
| 7    | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM    | 1        |
|      | 1D28980P3   | PANEL EXT FR-BTM RR-MDL&BTM    | 1        |
| 8    | 160009P1    | PANEL EXT BTM REAR 99"         | 1        |
|      | 160009P2    | PANEL EXT BTM REAR 76" 16GA    | 1        |
| 12   | 163009G2    | PANEL ASSY VERT W/OPG 16GA     | 1        |
|      | 163009G4    | PANEL ASSY VRT 20GA OPG & BDG  | 1        |
| 13   | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA  | 1        |
|      | 160463G2    | PANEL ASSY FR/RR MID LNR 16GA  | 1        |
| 27   | 160006P1    | PANEL EXT BTM W/OPNG 76"       | 1        |
|      | 160006P2    | PANEL EXT BTM W/OPNG76" 16GA   | 1        |
| 29   | 160004P5    | PANEL EXT END LEFT 120"UH      | 1        |
|      | 160004P6    | PANEL EXT END LEFT 120"UH 16GA | 1        |



### 5.3. Vertical Rear Return



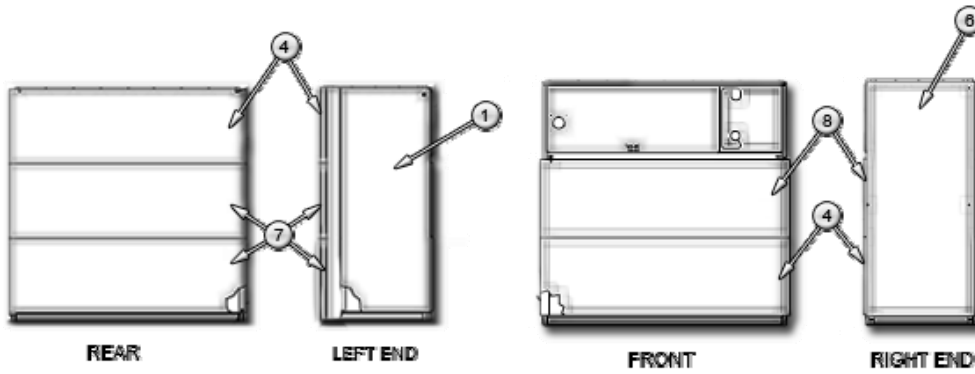
#### 5.3.1. 48"/ 72"/97" VRR CW

| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 1    | 1C21770P3   | PANEL EXT END 69.5 X 28.8     | 1        |
| 3    | 1C19065P10  | GRILLE RTN AIR 44X18 WG B     | 1        |
|      | 1C19065P11  | GRILLE RTN AIR 68X20 WG B     | 1        |
|      | 1C19065P12  | GRILLE RTN AIR 86X18 WG B     | 1        |
| 4    | F02-7110    | PANEL EXT FR-MDL RR-TOP       | 1        |
|      | F02-7130    | PANEL EXT FR-MDL RR-TOP       | 1        |
|      | F02-6940    | PANEL EXT FR-MDL RR-TOP       | 1        |
| 6    | 1C21770P2   | PANEL EXT END- LEFT/RIGHT     | 1        |
| 7    | F02-6950    | PANEL EXT FR-BTM RR-BTM&MDL   | 2        |
|      | F02-7080    | PANEL EXT FR-BTM RR-MDL&BTM   | 2        |
|      | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM   | 2        |
| 8    | 177182G1    | PANEL ASSY FR MID 48" CW 20GA | 1        |
|      | 177182G2    | PANEL ASSY FR MID 72" CW 20GA | 1        |
|      | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA | 1        |
| 27   | 177182G1    | PANEL ASSY FR MID 48" CW 20GA | 1        |
|      | 177182G2    | PANEL ASSY FR MID 72" CW 20GA | 1        |
|      | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA | 1        |
|      | 177182G1    | PANEL ASSY FR MID 48" CW 20GA | 1        |
|      | 177182G2    | PANEL ASSY FR MID 72" CW 20GA | 1        |
|      | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA | 1        |

**5.3.2. 120"Frame**

| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 2    | 160019P4    | PANEL VERT REAR 20GA 30T       | 1        |
| 4    | F02-7130    | PANEL EXT FR-MDL RR-TOP        | 1        |
|      | 1D28982P3   | PANEL EXT FR-MDL RR-TOP        | 1        |
| 6    | 160004P1    | PANEL EXT END-LEFT/RIGHT 76"   | 1        |
|      | 160004P2    | PANEL EXT END-LFT/RGT 76" 16GA | 1        |
| 7    | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM    | 1        |
|      | 1D28980P3   | PANEL EXT FR-BTM RR-MDL&BTM    | 1        |
| 8    | 160009P1    | PANEL EXT BTM REAR 99"         | 1        |
|      | 160009P2    | PANEL EXT BTM REAR 76" 16GA    | 1        |
| 12   | 163009G2    | PANEL ASSY VERT W/OPG 16GA     | 1        |
|      | 163009G4    | PANEL ASSY VRT 20GA OPG & BDG  | 1        |
| 13   | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA  | 1        |
|      | 160463G2    | PANEL ASSY FR/RR MID LNR 16GA  | 1        |
| 27   | 160006P1    | PANEL EXT BTM W/OPNG 76"       | 1        |
|      | 160006P2    | PANEL EXT BTM W/OPNG76" 16GA   | 1        |
| 29   | 160004P5    | PANEL EXT END LEFT 120"UH      | 1        |
|      | 160004P6    | PANEL EXT END LEFT 120"UH 16GA | 1        |

### 5.4. Vertical Bottom Return

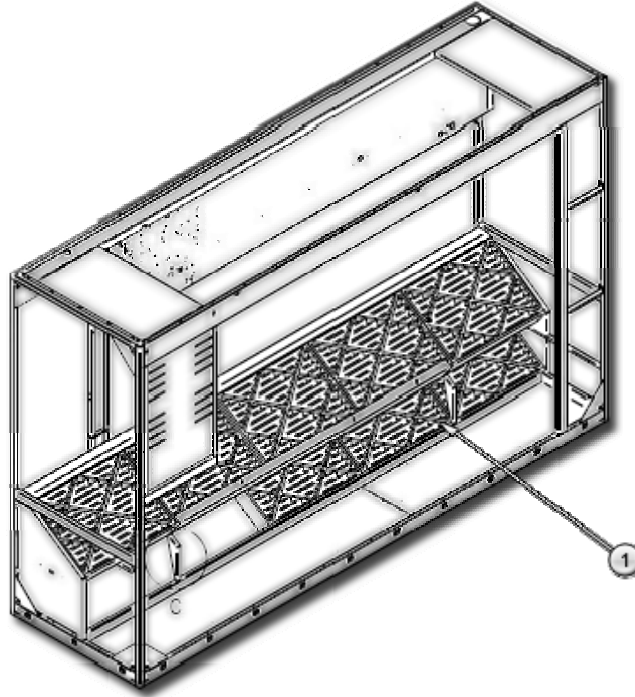


48" 72" 96" FRAMES VBR CW

| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 1    | 1C21770P3   | PANEL EXT END 69.5 X 28.8     | 1        |
| 4    | F02-6940    | PANEL EXT FR-MDL RR-TOP       | 1        |
|      | F02-7110    | PANEL EXT FR-MDL RR-TOP       | 1        |
|      | F02-6940    | PANEL EXT FR-MDL RR-TOP       | 1        |
| 6    | 1C21770P2   | PANEL EXT END- LEFT/RIGHT     | 1        |
| 7    | F02-6950    | PANEL EXT FR-BTM RR-BTM&MDL   | 3        |
|      | F02-7080    | PANEL EXT FR-BTM RR-MDL&BTM   | 3        |
|      | F02-7100    | PANEL EXT FR-BTM RR-MDL&BTM   | 3        |
| 8    | 177182G1    | PANEL ASSY FR MID 48" CW 20GA | 1        |
|      | 177182G2    | PANEL ASSY FR MID 72" CW 20GA | 1        |
|      | 160463G1    | PANEL ASSY FR/RR MID LNR 20GA | 1        |

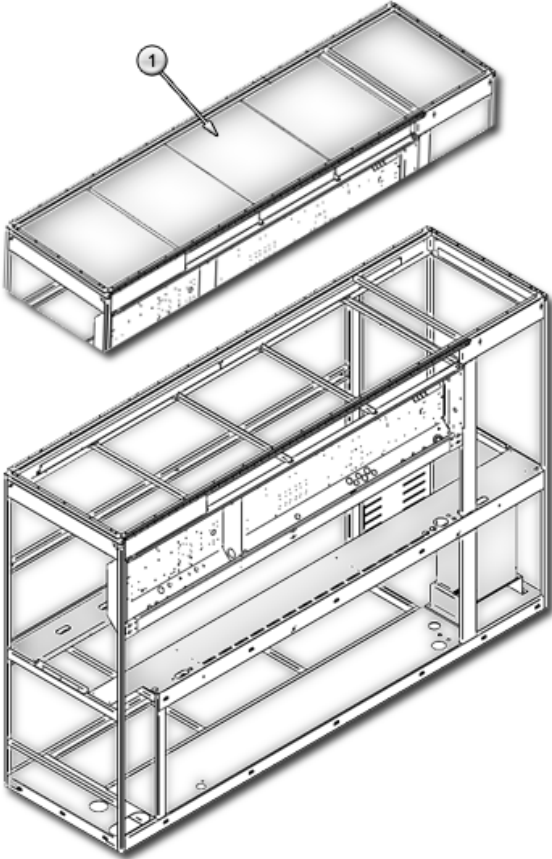
## 6. Filter Section

### 6.1. VFR



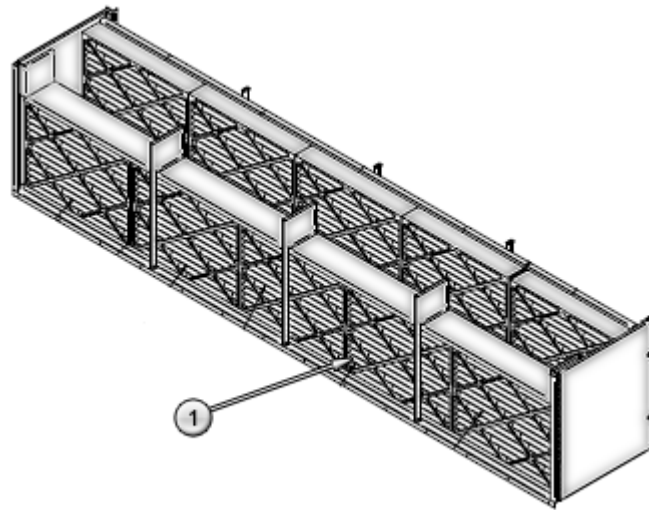
| Item | Part Number | Description            | 48" | 72" | 97" | 120" |
|------|-------------|------------------------|-----|-----|-----|------|
| 1    | 195531P2    | FILTER 18X24X2 MERV 7  |     |     |     | 10   |
|      | 195531P3    | FILTER 18X24X4 MERV 7  | 2   |     |     | 10   |
|      | 195543P4    | FILTER 24X24X4 MERV 7  | 2   | 3   | 4   | 10   |
|      | 195543P5    | FILTER 24X24X4 MERV 11 |     |     | 3   | 4    |

### 6.2. Downflow

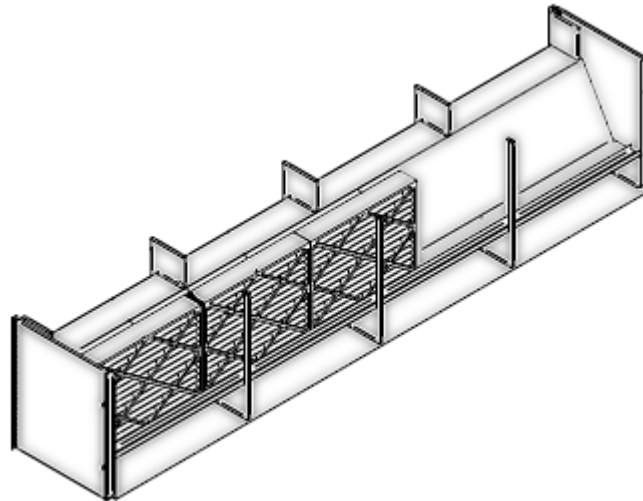


| Item | Part Number | Description                 | 48" | 72" | 97" | 120" |
|------|-------------|-----------------------------|-----|-----|-----|------|
| 1    | 195553P2    | FILTER 30.63X23.1X4 MERV 7  |     |     |     | 5    |
|      | 195553P3    | FILTER 30.63X23.1X4 MERV 11 |     |     |     | 5    |

**6.3. VRR**



REAR



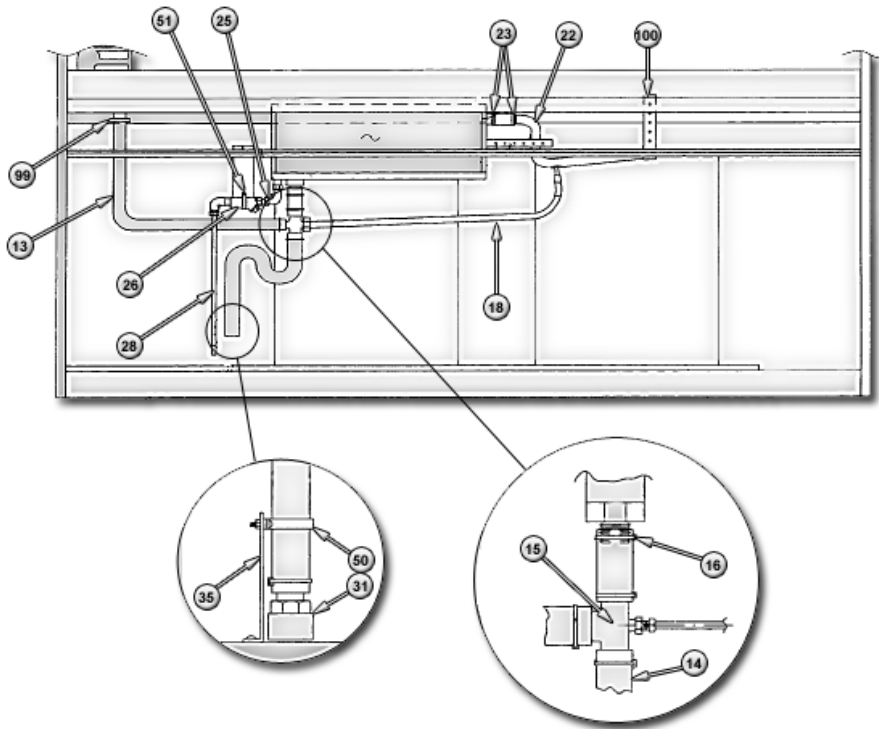
FRONT

| Item | Part Number | Description            | 48" | 72" | 97" | 120" |
|------|-------------|------------------------|-----|-----|-----|------|
| 1    | 195531P2    | FILTER 18X24X2 MERV 7  |     |     |     | 10   |
|      | 195531P3    | FILTER 18X24X4 MERV 7  | 2   |     |     | 10   |
|      | 195543P4    | FILTER 24X24X4 MERV 7  | 2   | 3   | 4   | 10   |
|      | 195543P5    | FILTER 24X24X4 MERV 11 |     |     | 3   | 4    |

## 7. Humidifier Section

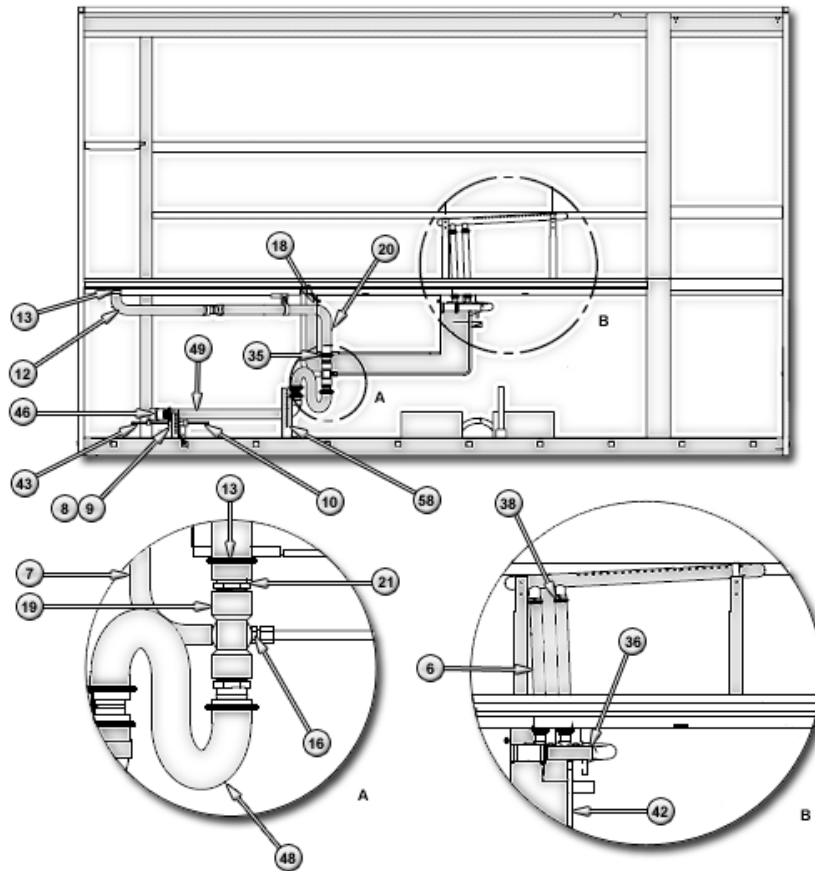
### 7.1. Steam Gen without CP

#### 7.1.1. Downflow



| Item | Part Number | Description                    | 48" | 72" | 97" | 120" |
|------|-------------|--------------------------------|-----|-----|-----|------|
| 13   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT     | 2   | 3   | 3   |      |
| 14   | 1C19070P1   | HOSE DRAIN .75 ID TRAP         | 1   | 1   | 1   | 1    |
| 15   | 121965P1    | FTG CROSS 3/8HOSE X 3/8TUB STR | 1   | 1   | 1   |      |
| 16   | P15-0150    | CLAMP WIRE                     | 5   | 5   | 5   | 8    |
| 18   | F02-371A    | SUPPORT VALVE TEV              | 1   | 1   | 1   |      |
| 22   | 1A21071P1   | HOSE STEAM 1.25ID 10PSI        | 1   | 1   | 1   |      |
| 23   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75 | 2   | 2   | 2   | 1    |
| 25   | 127781P1    | ADAPTER BRASS 1/4COMX1/4MPT    | 1   | 1   | 1   |      |
| 26   | H-0390      | STRAINER "Y" BRASS 1/4FPT      | 1   | 1   | 1   |      |
| 28   | 9A20000P150 | TUBE STR CU 1/4X.028X39.25"    | 1   | 1   | 1   |      |
| 31   | P02-0260    | ADAPTER POLY 3/4FPTX3/4HOSE    | 1   | 1   | 1   | 1    |
| 35   | P02-0260    | ADAPTER POLY 3/4FPTX3/4HOSE    | 1   | 1   | 1   | 1    |
| 50   | P-229B      | CLAMP INSULATED METAL 1"       | 1   | 1   | 1   |      |
| 51   | 149301P4    | CLAMP INSUL MTL HDR SUPT 1-1/8 | 1   | 1   | 1   |      |
| 99   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25 | 1   | 1   | 1   |      |
| 100  | 130916P2    | CLAMP NON-INSULATED 1-1/8 DIA  | 1   | 1   | 1   |      |

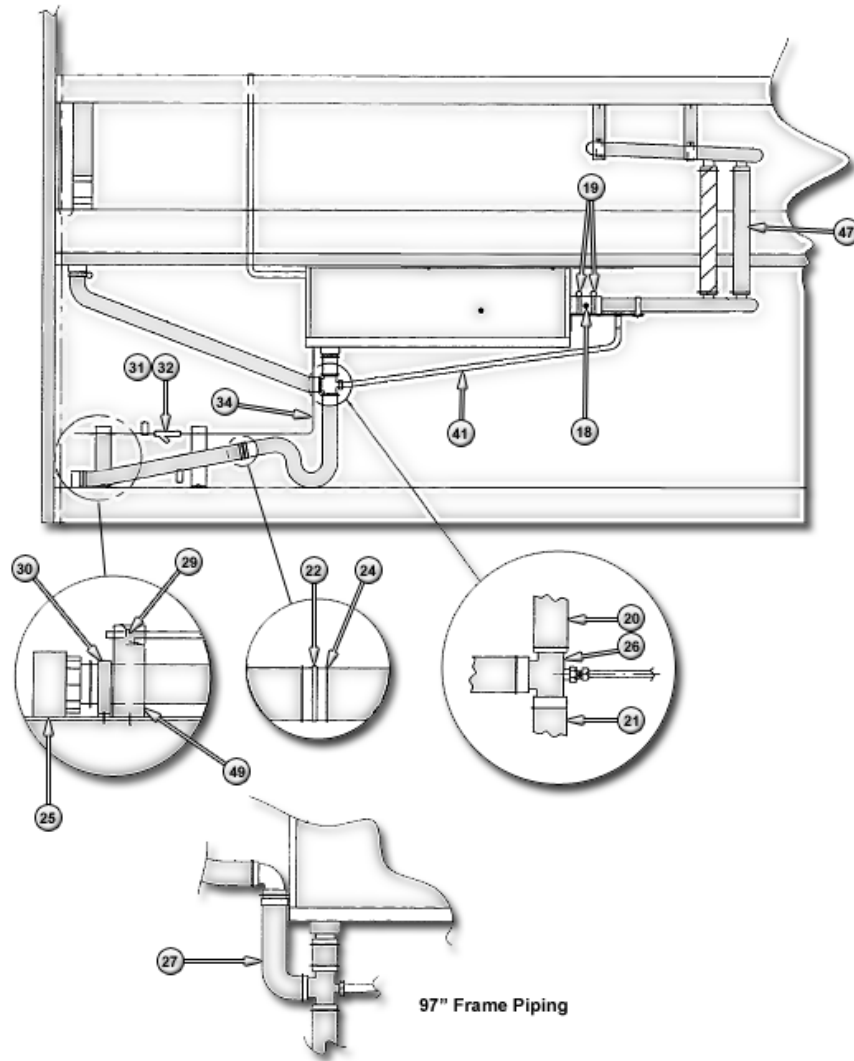
**7.1.2. Upflow**



| Item | Part Number | Description                    | 48" | 72" | 97" | 120" |
|------|-------------|--------------------------------|-----|-----|-----|------|
| 6    | 1A11359P1   | SGH STM SUPPLY HOSE 7/8" ID    |     |     |     | 6    |
| 7    | 1C11305P1   | HOSE DRAIN .75 ID FORMED       |     |     |     | 1    |
| 8    | 127781P1    | ADAPTER BRASS 1/4COMX1/4MPT    |     |     |     | 2    |
| 9    | H-0390      | STRAINER "Y" BRASS 1/4FPT      |     |     |     | 1    |
| 10   | 9A20000P159 | TUBE STR CU 1/4X.028X41.50"    |     |     |     | 1    |
| 12   | 136161P2    | DRAIN LINE FORMED RUBBER LONG  |     |     |     | 1    |
| 13   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75 |     |     |     | 10   |
| 16   | 121965P1    | FTG CROSS 3/8HOSE X 3/8TUB STR |     |     |     | 1    |
| 18   | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8" |     |     |     | 2    |
| 19   | 136389P1    | TEE POLYP 1"X1"X1" FPT         |     |     |     | 1    |
| 20   | 136161P1    | HOSE DRAIN 1.25 ID FORMED      |     |     |     | 1    |
| 21   | 136393P1    | ADAPTER POLYP 1"NPT-1.25"BARB  |     |     |     | 2    |
| 36   | 130916P2    | CLAMP NON-INSULATED 1-1/8 DIA  |     |     |     | 1    |
| 38   | P15-0150    | CLAMP WIRE                     |     |     |     | 4    |
| 42   | 9A20001P172 | TUBE STR CU 3/8X.028X44.75"    |     |     |     | 1    |
| 43   | 9A20001P172 | TUBE STR CU 3/8X.028X44.75"    |     |     |     | 1    |
| 46   | 136395P1    | ADAPT POLYP 1-1/4 MPT 1-1/4 HB |     |     |     | 1    |
| 48   | 136159P1    | HOSE DRAIN 1.25 ID TRAP        |     |     |     | 1    |
| 49   | 136161P2    | DRAIN LINE FORMED RUBBER LONG  |     |     |     | 1    |
| 58   | P-5020      | CLAMP INSUL MTL HVY DTY 1-5/8" |     |     |     | 3    |



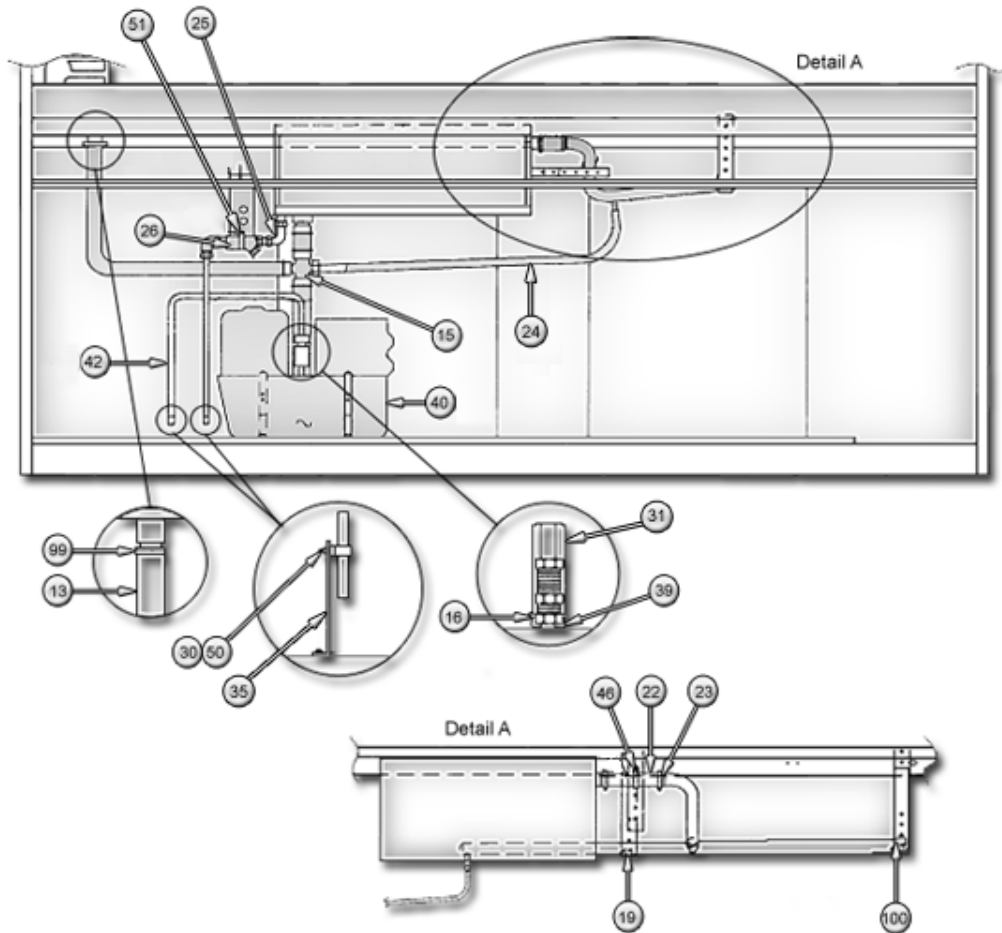
**7.1.3. VRR**



| Item | Part Number | Description                    | 48" | 72" | 97" | 120" |
|------|-------------|--------------------------------|-----|-----|-----|------|
| 18   | 1A21071P1   | HOSE STEAM 1.25ID 10PSI        | 1   | 1   | 1   |      |
| 19   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75 | 2   | 2   | 2   |      |
| 20   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT     | 2   | 3   | 4   | 2    |
| 21   | P-5500      | HOSE DRAIN .75 ID TRAP         | 1   | 1   | 1   |      |
| 22   | P15-0140    | UNION NYLON 3/4BARBX3/4BARB    | 1   | 1   | 1   |      |
| 24   | P15-0150    | CLAMP WIRE                     | 9   | 11  | 13  |      |
| 25   | P02-0260    | ADAPTER POLY 3/4FPTX3/4HOSE    | 1   | 1   | 1   | 1    |
| 26   | 121965P1    | FTG CROSS 3/8HOSE X 3/8TUB STR | 1   | 1   | 1   |      |
| 27   | 1C11305P1   | HOSE DRAIN .75 ID FORMED       |     |     | 1   |      |
| 29   | P-229A      | CLAMP INSULATED METAL 1/4"     | 2   | 2   | 2   | 1    |
| 30   | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8" | 3   | 3   | 4   |      |
| 31   | H-0390      | STRAINER "Y" BRASS 1/4FPT      | 1   | 1   | 1   |      |
| 32   | 127781P1    | ADAPTER BRASS 1/4COMX1/4MPT    | 2   | 2   | 2   |      |
| 34   | 9A20001P172 | TUBE STR CU 3/8X.028X44.75"    | 1   | 1   | 1   |      |
| 41   | 9A20001P172 | TUBE STR CU 3/8X.028X44.75"    | 1   | 1   | 1   |      |
| 47   | 1A11359P1   | SGH STM SUPPLY HOSE 7/8" ID    | 3   | 6   | 6   |      |
| 49   | F20-2300    | BRKT COND PUMP ADJ-PART B      | 2   | 2   | 2   | 2    |

## 7.2. Steam Gen with CP

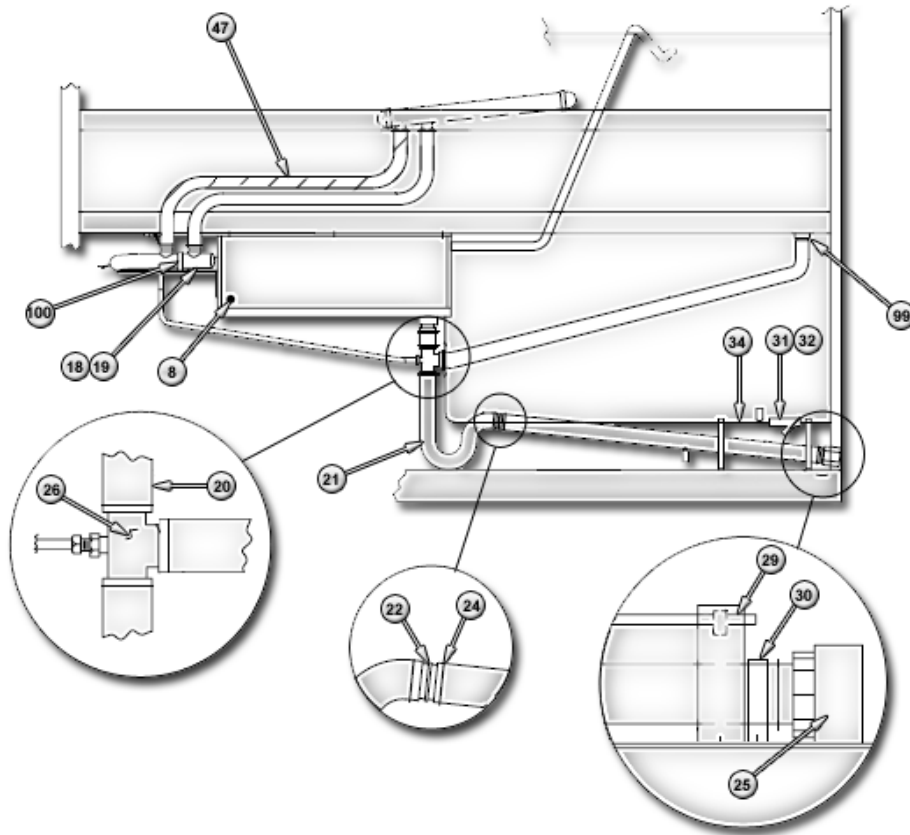
### 7.2.1. Downflow



| Item | Part Number                  | Description                     | 48" | 72" | 97" | 120" |
|------|------------------------------|---------------------------------|-----|-----|-----|------|
| 13   | P15-0170                     | HOSE DRAIN .75 ID STRAIGHT      | 1   | 4   | 4   |      |
| 15   | 121965P1                     | FTG CROSS 3/8HOSE X 3/8TUB STR  | 1   | 1   | 1   |      |
| 16   | P15-0150                     | CLAMP WIRE                      | 5   | 5   | 5   |      |
| 19   | S13-0140                     | CLAMP INSUL MTL HVY DTY 1-1/8"  | 2   | 1   | 1   |      |
| 22   | 1A21071P1                    | HOSE STEAM 1.25ID 10PSI         | 1   | 1   | 1   |      |
| 23   | P02-0020                     | CLAMP HOSE WORM DRIVE .75-1.75  | 2   | 2   | 2   |      |
| 24   | 9A20000P172                  | TUBE STR CU 1/4X.028X44.75"     | 1   | 1   | 1   |      |
| 25   | 127781P1                     | ADAPTER BRASS 1/4COMX1/4MPT     | 1   | 1   | 1   |      |
| 26   | H-0390                       | STRAINER "Y" BRASS 1/4FPT       | 1   | 1   | 1   |      |
| 30   | P-229A                       | CLAMP INSULATED METAL 1/4"      | 1   | 1   | 1   |      |
| 31   | 1C11305P1                    | HOSE DRAIN .75 ID FORMED        | 2   |     |     |      |
| 35   | See table below for item #35 |                                 |     |     |     |      |
| 39   | P15-0140                     | UNION NYLON 3/4BARBX3/4BARB     | 1   | 1   | 1   |      |
| 40   | 1A19271P1                    | PUMP CONDENSATE 208/230/1/60DF  | 1   | 1   | 1   |      |
|      | 1A19271P2                    | PUMP CONDENSATE 460/1/60DF      | 1   | 1   | 1   |      |
| 42   | 9A20002P102                  | TUBE STR CU 1/2X.028X27.25"     | 1   | 1   | 1   |      |
| 46   | P-5020                       | CLAMP INSUL MTL HVY DTY 1-5/8"  |     | 1   | 1   |      |
| 50   | P-2290                       | CLAMP INSULATED METAL 1/2"      |     | 1   | 1   |      |
| 51   | 149301P4                     | CLAMP INSUL MTL HDR SUPT 1-1/8" | 1   | 1   | 1   |      |
| 99   | 124216P2                     | CLAMP HOSE WORM DRIVE .31X1.25  | 1   | 1   | 1   |      |
| 100  | 130916P2                     | CLAMP NON-INSULATED 1-1/8 DIA   | 1   | 1   | 1   |      |

| Item | Part Number | Description               | Voltage | 48" | 72" | 97" | 120" |
|------|-------------|---------------------------|---------|-----|-----|-----|------|
| 35   | F20-2300    | BRKT COND PUMP ADJ-PART B | 206/236 | 2   |     |     |      |
|      |             |                           | 466     |     |     |     |      |
|      |             |                           | 576     | 4   |     |     |      |
|      |             |                           | ALL     |     |     | 6   | 6    |

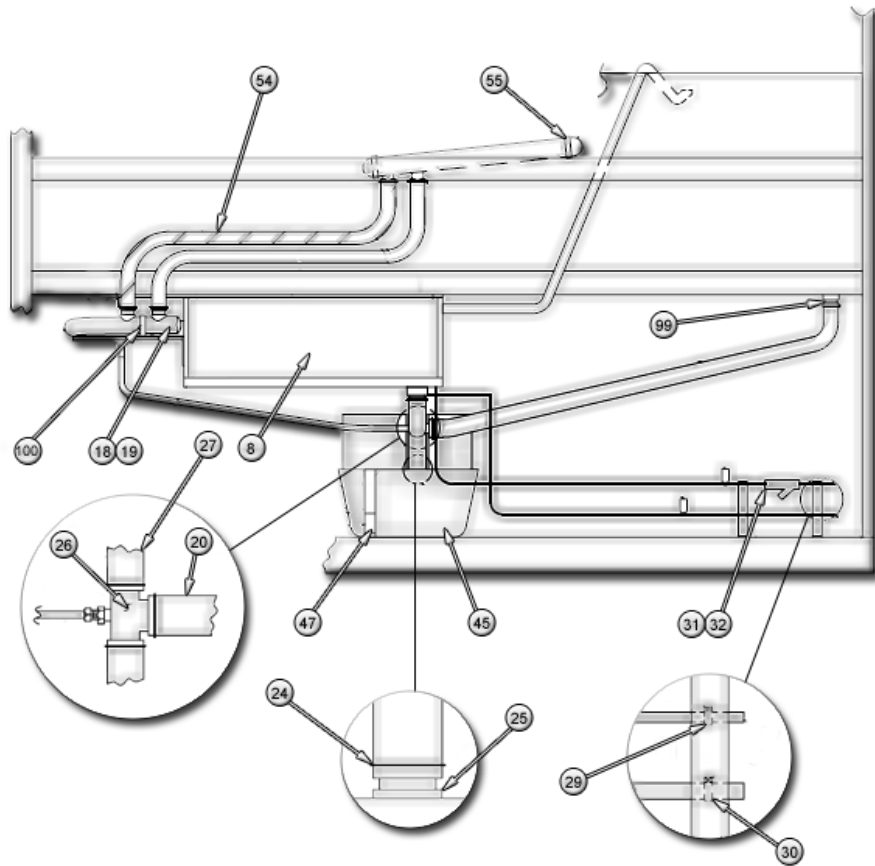
**7.2.2. VBR/VFR**



STEAM GEN HUMIDIFIER WITH CONDENSATE PUMP CW VBR/VFR

| Item | Part Number                                  | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 8    | See "Steam Generated Humidifier " on page 54 |                                |     |     |     |      |
| 18   | 1A21071P1                                    | HOSE STEAM 1.25ID 10PSI        | 1   | 1   | 1   |      |
| 19   | P02-0020                                     | CLAMP HOSE WORM DRIVE .75-1.75 | 2   | 2   | 2   |      |
| 20   | P15-0170                                     | HOSE DRAIN .75 ID STRAIGHT     | 2   | 3   | 5   |      |
| 21   | P-5500                                       | HOSE DRAIN .75 ID TRAP         | 1   | 1   | 1   |      |
| 22   | P15-0140                                     | UNION NYLON 3/4BARBX3/4BARB    | 1   | 1   | 1   |      |
| 24   | P15-0150                                     | CLAMP WIRE                     | 9   | 11  | 13  |      |
| 25   | P02-0260                                     | ADAPTER POLY 3/4FPTX3/4HOSE    | 1   | 1   | 1   |      |
| 26   | 121965P1                                     | FTG CROSS 3/8HOSE X 3/8TUB STR | 1   | 1   | 1   |      |
| 29   | P-2290                                       | CLAMP INSULATED METAL 1/2"     | 2   | 2   | 2   |      |
| 30   | S13-0140                                     | CLAMP INSUL MTL HVY DTY 1-1/8" | 3   | 3   | 3   |      |
| 31   | H-0390                                       | STRAINER "Y" BRASS 1/4FPT      | 1   | 1   | 1   |      |
| 32   | 127781P1                                     | ADAPTER BRASS 1/4COMX1/4MPT    | 2   | 2   | 2   |      |
| 34   | 9A20000P150                                  | TUBE STR CU 1/4X.028X36.00"    | 1   | 1   | 1   |      |
| 47   | 1A11359P1                                    | SGH STM SUPPLY HOSE 7/8" ID    | 3   | 6   | 6   |      |
| 99   | 124216P2                                     | CLAMP HOSE WORM DRIVE .31X1.25 | 1   | 1   | 1   |      |
| 100  | 130916P2                                     | CLAMP NON-INSULATED 1-1/8 DIA  | 1   | 1   | 1   |      |

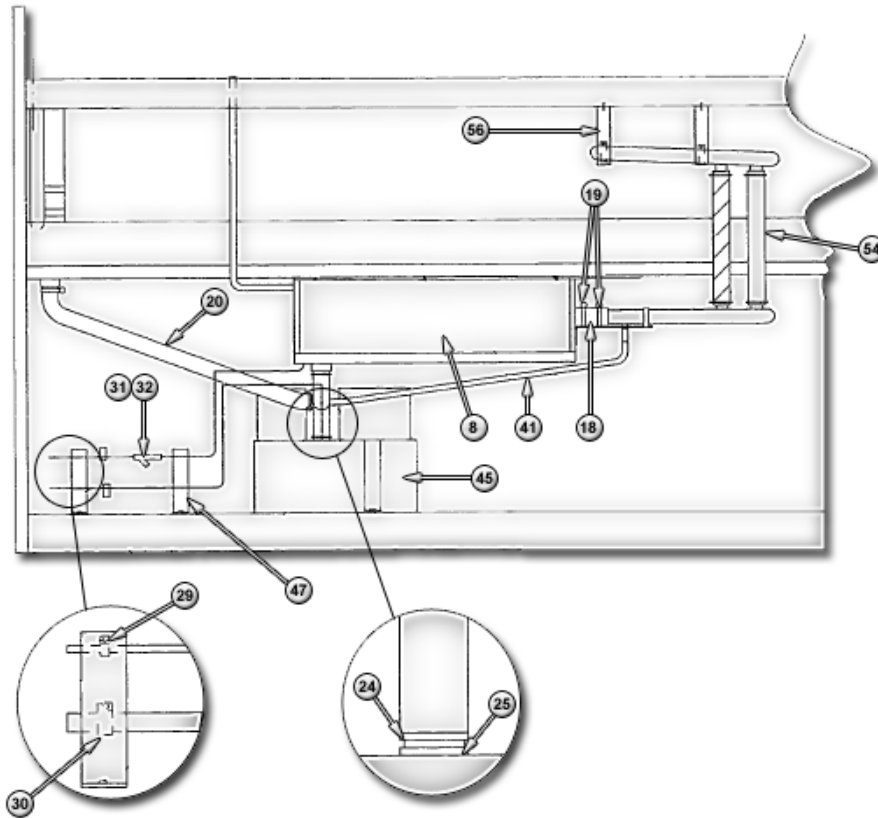
**7.2.3. CW VFR**



STEAM GEN HUMIDIFIER WITH CONDENSATE PUMP CW VFR

| Item | Part Number                                  | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 8    | See "Steam Generated Humidifier " on page 54 |                                |     |     |     |      |
| 18   | 1A21071P1                                    | HOSE STEAM 1.25ID 10PSI        | 1   | 1   | 1   |      |
| 19   | P02-0020                                     | CLAMP HOSE WORM DRIVE .75-1.75 | 2   | 2   | 2   |      |
| 20   | P15-0170                                     | HOSE DRAIN .75 ID STRAIGHT     | 2   | 3   | 3   |      |
| 24   | P15-0150                                     | CLAMP WIRE                     | 7   | 9   | 11  |      |
| 25   | P15-0210                                     | ADAPTER HSE NYLON 1/2MPX3/4BRB | 1   | 1   | 1   |      |
| 26   | 121965P1                                     | FTG CROSS 3/8HOSE X 3/8TUB STR | 1   | 1   | 1   |      |
| 27   | P-5510                                       | HOSE DRAIN .75 ID FORMED       | 1   | 1   | 1   |      |
| 29   | P-2290                                       | CLAMP INSULATED METAL 1/2"     | 2   | 2   | 2   |      |
| 30   | P-2290                                       | CLAMP INSULATED METAL 1/2"     | 2   | 2   | 2   |      |
|      | P-229A                                       | CLAMP INSULATED METAL 1/4"     | 2   | 2   | 2   |      |
| 31   | H-0390                                       | STRAINER "Y" BRASS 1/4FPT      | 1   | 1   | 1   |      |
| 32   | 127781P1                                     | ADAPTER BRASS 1/4COMX1/4MPT    | 2   | 2   | 2   |      |
| 45   | 1A19271P1                                    | PUMP CONDENSATE 208/230/1/60DF | 1   | 1   | 1   |      |
|      | 1A19271P2                                    | PUMP CONDENSATE 460/1/60DF     | 1   | 1   | 1   |      |
| 47   | F20-2300                                     | BRKT COND PUMP ADJ-PART B      | 6   | 6   | 6   |      |
| 54   | 1A11359P1                                    | SGH STM SUPPLY HOSE 7/8" ID    | 3   | 6   | 6   |      |
| 55   | S13-0140                                     | CLAMP INSUL MTL HVY DTY 1-1/8" | 2   | 2   | 2   |      |
| 99   | 124216P2                                     | CLAMP HOSE WORM DRIVE .31X1.25 | 1   | 1   | 1   |      |
| 100  | 130916P2                                     | CLAMP NON-INSULATED 1-1/8 DIA  | 1   | 1   | 1   |      |

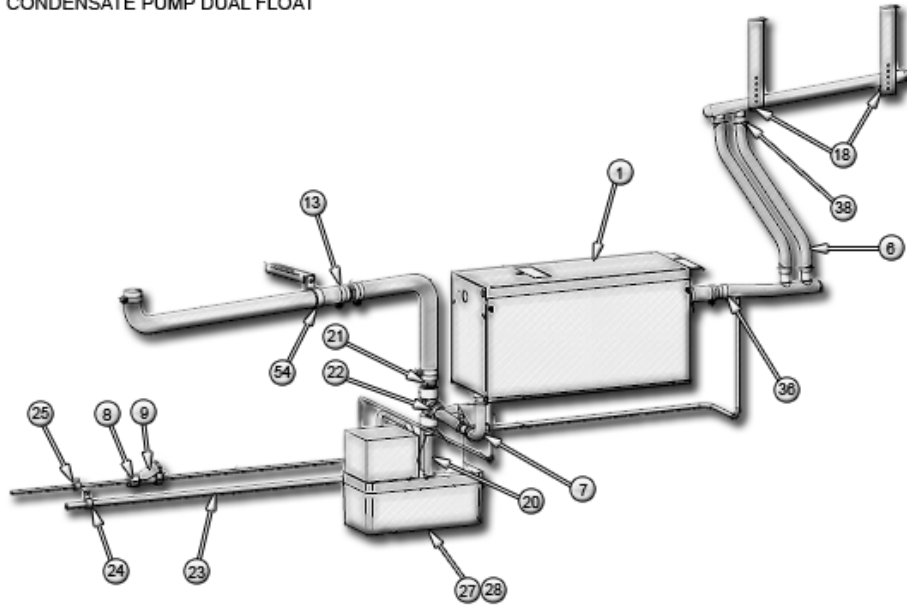
**7.2.4. VRR**



| Item | Part Number | Description                                  | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 8    |             | See "Steam Generated Humidifier " on page 54 |     |     |     |      |
| 18   | 1A21071P1   | HOSE STEAM 1.25ID 10PSI                      | 1   | 1   | 1   |      |
| 19   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75               | 2   | 2   | 2   |      |
| 20   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT                   | 2   | 3   | 4   |      |
| 24   | P15-0150    | CLAMP WIRE                                   | 7   | 9   | 11  |      |
| 25   | P15-0210    | ADAPTER HSE NYLON 1/2MPX3/4BRB               | 1   | 1   | 1   |      |
| 29   | P-229A      | CLAMP INSULATED METAL 1/4"                   | 2   | 2   | 2   |      |
| 30   | P-2290      | CLAMP INSULATED METAL 1/2"                   | 2   | 2   | 2   |      |
| 31   | H-0390      | STRAINER "Y" BRASS 1/4FPT                    | 1   | 1   | 1   |      |
| 32   | 127781P1    | ADAPTER BRASS 1/4COMX1/4MPT                  | 2   | 2   | 2   |      |
| 41   | 9A20002P185 | TUBE STR CU 1/2X.028X48.00"                  | 1   | 1   | 1   |      |
| 45   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF               | 1   | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF                   | 1   | 1   | 1   |      |
| 47   | F20-2300    | BRKT COND PUMP ADJ-PART B                    | 6   | 6   | 6   |      |
| 54   | 1A11359P1   | SGH STM SUPPLY HOSE 7/8" ID                  | 3   | 6   | 6   |      |
| 56   | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8"               | 2   | 2   | 3   |      |

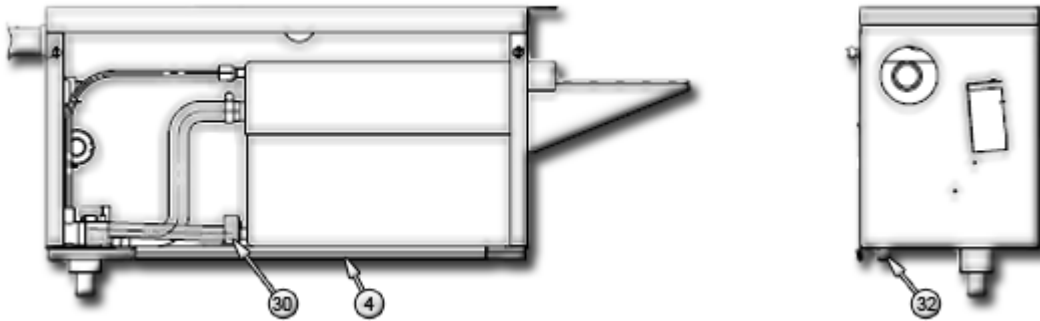
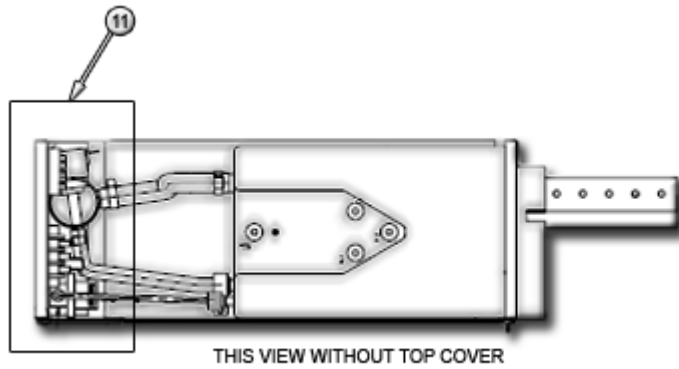
**7.2.5. Upflow VFR**

CONDENSATE PUMP DUAL FLOAT



| Item | Part Number                                  | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 1    | See "Steam Generated Humidifier " on page 54 |                                |     |     |     |      |
| 6    | 1A11359P1                                    | SGH STM SUPPLY HOSE 7/8" ID    |     |     |     | 6    |
| 7    | 1C11305P1                                    | HOSE DRAIN .75 ID FORMED       |     |     |     | 1    |
| 8    | 127781P1                                     | ADAPTER BRASS 1/4COMX1/4MPT    |     |     |     | 2    |
| 9    | H-0390                                       | STRAINER "Y" BRASS 1/4FPT      |     |     |     | 1    |
| 13   | P02-0020                                     | CLAMP HOSE WORM DRIVE .75-1.75 |     |     |     | 6    |
| 18   | S13-0140                                     | CLAMP INSUL MTL HVY DTY 1-1/8" |     |     |     | 3    |
| 20   | P15-0170                                     | HOSE DRAIN .75 ID STRAIGHT     |     |     |     | 1    |
| 21   | 136393P1                                     | ADAPTER POLYP 1"NPT-1.25"BARB  |     |     |     | 1    |
| 22   | 136394P1                                     | ADAPTER POLYP 1"NPTM-3/4"BARB  |     |     |     | 2    |
| 23   | 160461P1                                     | TUBE FORM CU 1/2 CP UH740C     |     |     |     | 1    |
| 24   | P-2290                                       | CLAMP INSULATED METAL 1/2"     |     |     |     | 1    |
| 25   | P-229A                                       | CLAMP INSULATED METAL 1/4"     |     |     |     | 1    |
| 27   | 1A19271P2                                    | PUMP CONDENSATE 460/1/60DF     |     |     |     | 1    |
| 28   | F20-2300                                     | BRKT COND PUMP ADJ-PART B      |     |     |     | 4    |
| 36   | 130916P2                                     | CLAMP NON-INSULATED 1-1/8 DIA  |     |     |     | 1    |
| 38   | P15-0150                                     | CLAMP WIRE                     |     |     |     | 11   |
| 54   | P-5020                                       | CLAMP INSUL MTL HVY DTY 1-5/8" |     |     |     | 1    |

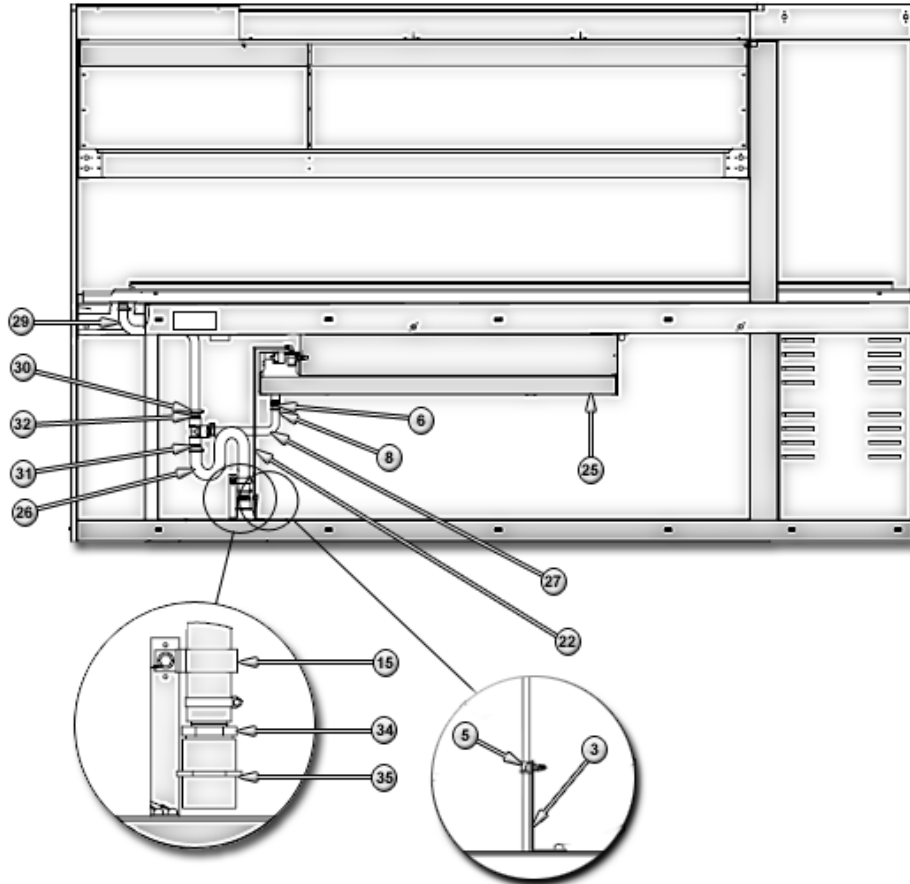
**7.2.6. Steam Generated Humidifier**



| Item | Part Number | Description                   | 48" | 72" | 97" | 120" |
|------|-------------|-------------------------------|-----|-----|-----|------|
| 4    | 121069P1    | PLATE BASE STEAM HUM D        | 1   | 1   | 1   | 1    |
| 11   | 153042P1    | PLATE HUMIDIFIER VALVE        | 1   | 1   | 1   | 1    |
| 30   | 130916P2    | CLAMP NON-INSULATED 1-1/8 DIA | 1   | 1   | 1   | 1    |
| 32   | P-057A      | SLEEVE COMPRESSION BRASS 1/4" | 1   | 1   | 1   | 1    |

### 7.3. IR without CP

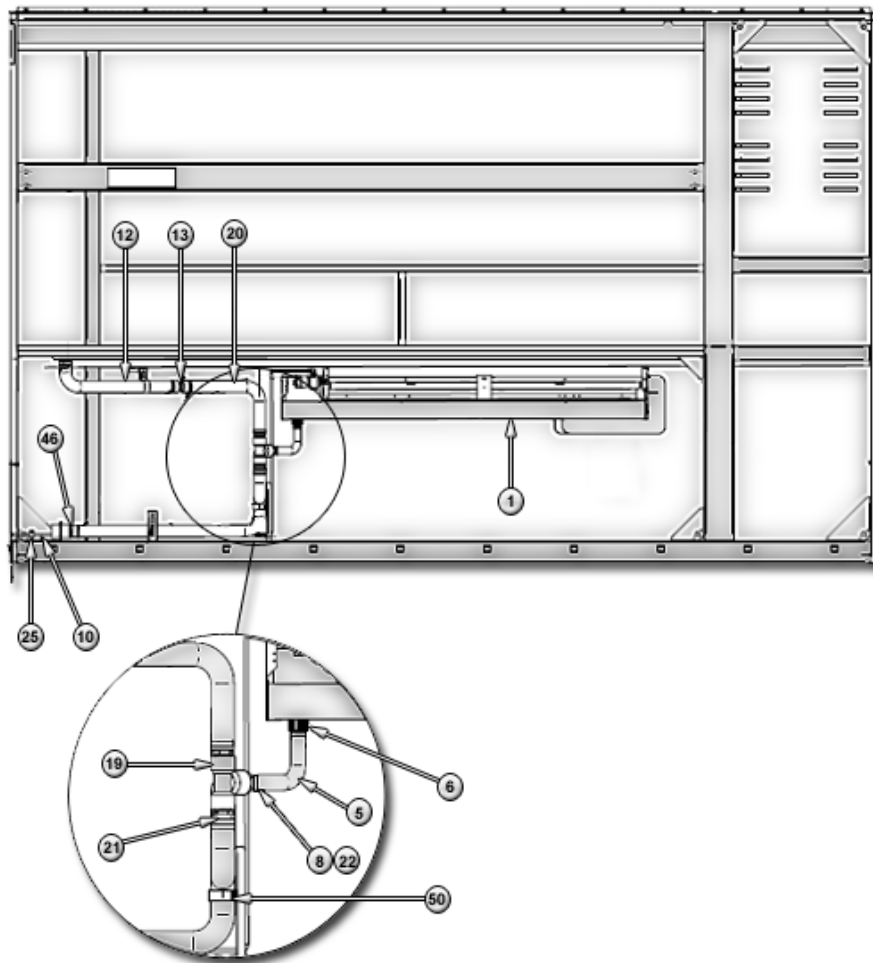
#### 7.3.1. Downflow



| Item | Part Number | Description                       | 48" | 72" | 97" | 120" |
|------|-------------|-----------------------------------|-----|-----|-----|------|
| 3    | F20-2300    | BRKT COND PUMP ADJ-PART B         |     |     |     | 1    |
| 5    | P-229A      | CLAMP INSULATED METAL 1/4"        |     |     |     | 1    |
| 6    | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB    | 1   | 1   | 1   | 1    |
| 8    | P15-0150    | CLAMP WIRE                        | 5   | 5   | 5   | 2    |
| 15   | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8"    | 1   | 1   | 1   | 1    |
| 22   | 1C11813P1   | TUBE FORM CU 1/4X.028             |     |     |     | 1    |
|      |             | See "Humidifier Bulbs" on page 59 |     |     |     |      |
| 27   | 1C11305P1   | HOSE DRAIN .75 ID FORMED          |     |     |     | 1    |
|      | 136161P1    | HOSE DRAIN 1.25 ID FORMED         |     |     |     | 1    |
| 26   | 136159P1    | HOSE DRAIN 1.25 ID TRAP           |     |     |     | 1    |
|      | 136161P1    | HOSE DRAIN 1.25 ID FORMED         |     |     |     | 1    |
| 29   | 136161P2    | DRAIN LINE FORMED RUBBER LONG     |     |     |     | 1    |
| 30   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75    |     |     |     | 4    |
| 31   | 136389P1    | TEE POLYP 1"X1"X1" FPT            |     |     |     | 1    |
| 32   | 136393P1    | ADAPTER POLYP 1"NPT-1.25"BARB     |     |     |     | 2    |
| 34   | 136395P1    | ADAPT POLYP 1-1/4 MPT 1-1/4 HB    |     |     |     | 1    |
| 35   | P-2290      | CLAMP INSULATED METAL 1/2"        |     |     |     | 1    |

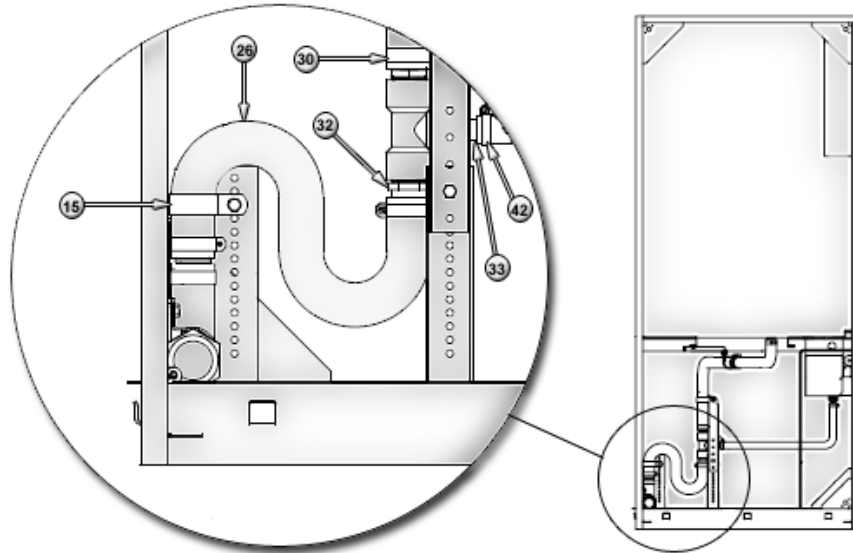
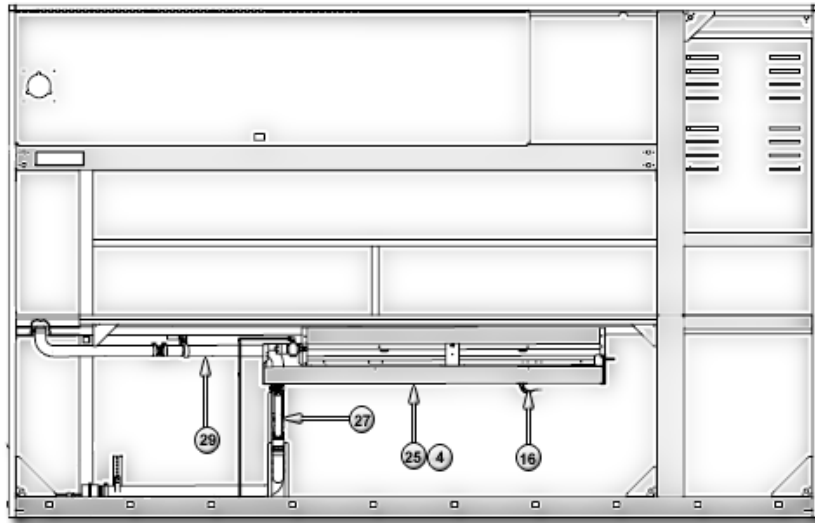


**7.3.2. Upflow VFR**



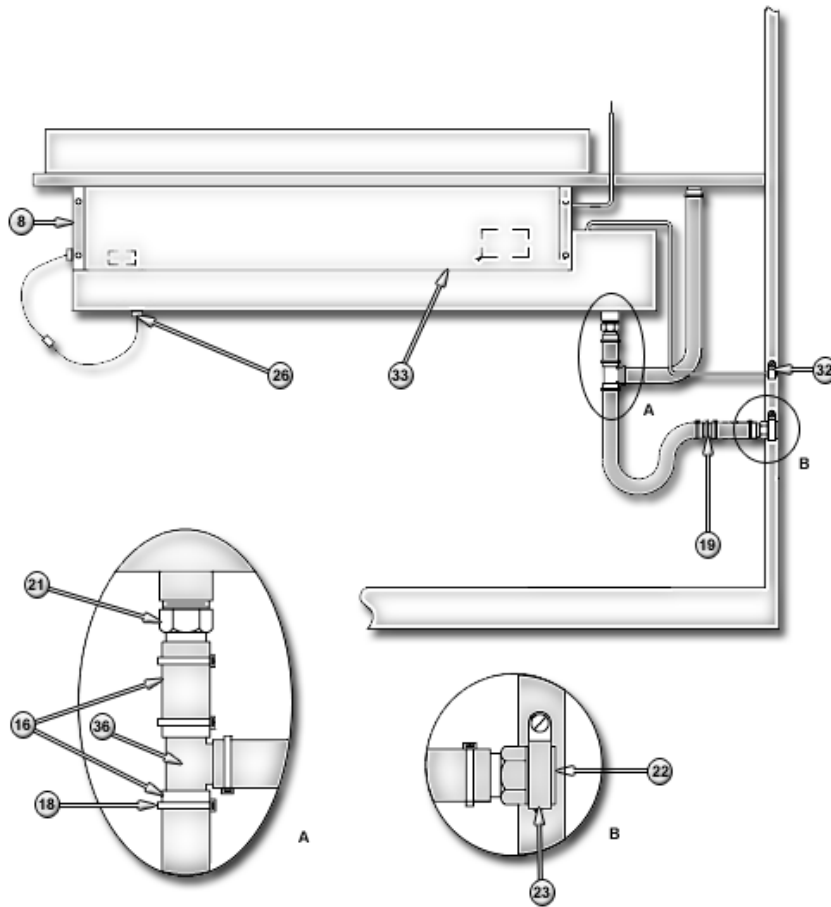
| Item | Part Number | Description                       | 48" | 72" | 97" | 120" |
|------|-------------|-----------------------------------|-----|-----|-----|------|
| 1    |             | See "Humidifier Bulbs" on page 59 |     |     |     |      |
| 5    | 1C11305P1   | HOSE DRAIN .75 ID FORMED          |     |     |     | 1    |
| 6    | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB    |     |     |     | 1    |
| 8    | P15-0150    | CLAMP WIRE                        |     |     |     | 2    |
| 10   | 160376P1    | TUBE FORM CU 1/4 IR               |     |     |     | 1    |
| 12   | 136161P2    | DRAIN LINE FORMED RUBBER LONG     |     |     |     | 2    |
| 13   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75    |     |     |     | 8    |
| 19   | 136389P1    | TEE POLYP 1"X1"X1" FPT            |     |     |     | 1    |
| 20   | 136161P1    | HOSE DRAIN 1.25 ID FORMED         |     |     |     | 1    |
| 21   | 136393P1    | ADAPTER POLYP 1"NPT-1.25"BARB     |     |     |     | 2    |
| 22   | 136394P1    | ADAPTER POLYP 1"NPTM-3/4"BARB     |     |     |     | 1    |
| 25   | P-229A      | CLAMP INSULATED METAL 1/4"        |     |     |     | 1    |
| 46   | 136395P1    | ADAPT POLYP 1-1/4 MPT 1-1/4 HB    |     |     |     | 1    |
| 50   | P-5020      | CLAMP INSUL MTL HVY DTY 1-5/8"    |     |     |     | 3    |

**7.3.3. Upflow VRR**



| Item | Part Number                              | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 4    | F30-0520                                 | DUCT HUM LWR REAR RTN V 15/20T |     |     |     | 1    |
|      | 1D11187P2                                | DUCT HUM LWR                   |     | 1   | 1   |      |
| 15   | P-5020                                   | CLAMP INSUL MTL HVY DTY 1-5/8" |     |     |     | 4    |
| 16   | See "Humidifier Reset Safety" on page 61 |                                |     |     |     |      |
| 25   | See "Humidifier Bulbs" on page 59        |                                |     |     |     |      |
| 26   | 136159P1                                 | HOSE DRAIN 1.25 ID TRAP        |     |     |     | 1    |
| 27   | 1C11305P1                                | HOSE DRAIN .75 ID FORMED       |     |     |     | 1    |
| 29   | 136161P2                                 | DRAIN LINE FORMED RUBBER LONG  |     |     |     | 3    |
| 30   | P02-0020                                 | CLAMP HOSE WORM DRIVE .75-1.75 |     |     |     | 8    |
| 32   | 136393P1                                 | ADAPTER POLYP 1"NPT-1.25"BARB  |     |     |     | 2    |
| 33   | 136394P1                                 | ADAPTER POLYP 1"NPTM-3/4"BARB  |     |     |     | 1    |
| 42   | 124216P2                                 | CLAMP HOSE WORM DRIVE .31X1.25 |     | 1   | 1   | 2    |

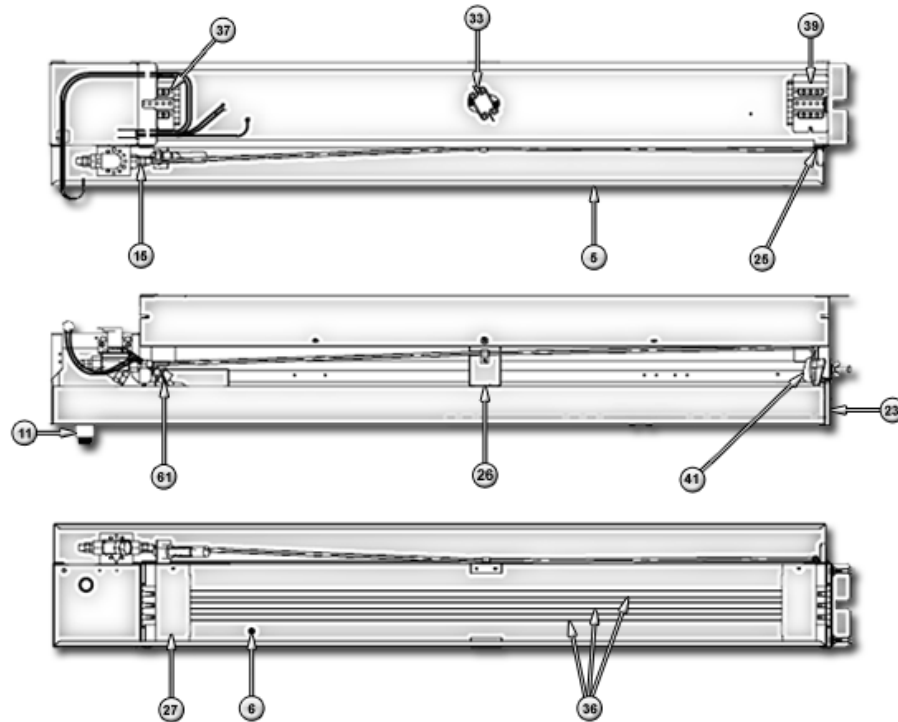
**7.3.4. FR/BR**



| Item | Part Number                              | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 8    | See "Humidifier Bulbs" on page 59        |                                |     |     |     |      |
| 16   | P-5500                                   | HOSE DRAIN .75 ID TRAP         |     | 1   |     |      |
| 18   | P15-0150                                 | CLAMP WIRE                     |     | 7   |     |      |
| 19   | P15-0140                                 | UNION NYLON 3/4BARBX3/4BARB    |     | 1   |     |      |
| 21   | P-5400                                   | ADAPTER SWIVL3/4FPTX3/4HOSEBRB |     | 1   |     |      |
| 22   | P02-0260                                 | ADAPTER POLY 3/4FPTX3/4HOSE    |     | 1   |     |      |
| 23   | S13-0140                                 | CLAMP INSUL MTL HVY DTY 1-1/8" |     | 1   |     |      |
| 26   | See "Humidifier Reset Safety" on page 61 |                                |     |     |     |      |
| 32   | P-229A                                   | CLAMP INSULATED METAL 1/4"     |     | 1   |     |      |
| 33   | F30-0550                                 | DUCT HUM LWR FR&BR V 6//22T    |     | 1   |     |      |
| 36   | 1A16207P1                                | TEE BARB 3/4X3/4X3/4           |     | 1   |     |      |

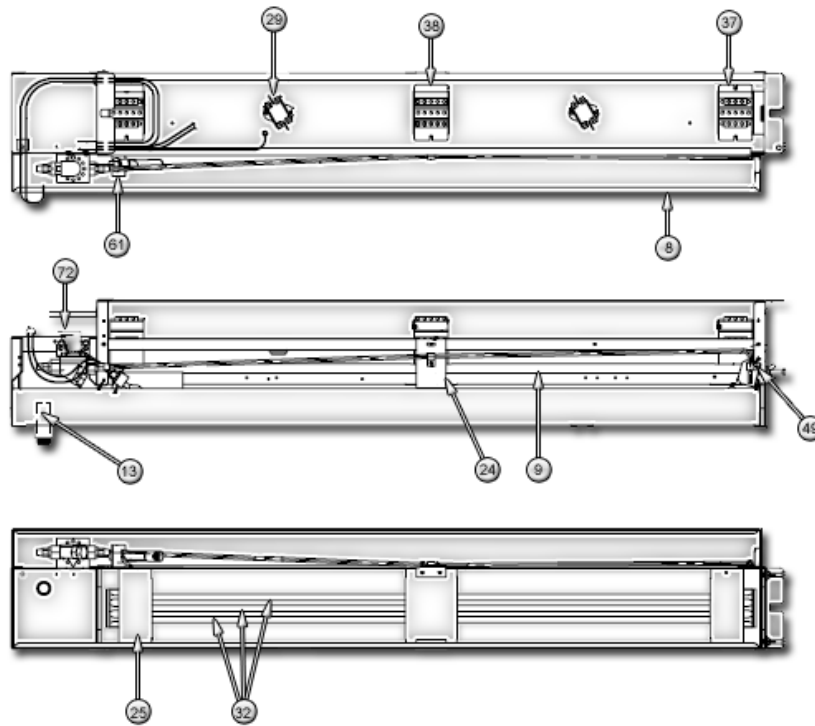
**7.3.5. Humidifier Bulbs**

**7.3.5.1. 2 Bulb/3 Bulb**



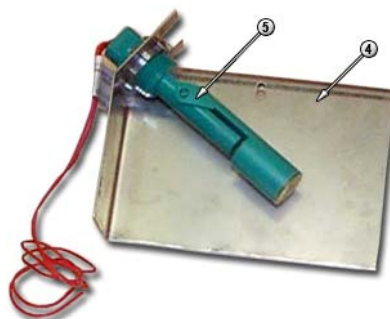
| Item | Part Number  | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 6    | F-602C   | REFLECTOR 575 V DOUBLE         | 1   |     |     |      |
| 5    | 160158G1   | PAN WELDMENT HUMIDIFIER (LONG  | 1   |     |     |      |
| 11   | 1C18003G2  | STANDPIPE ASSY W/NUT           | 1   |     |     |      |
| 15   | See "Solenoid Valve Assembly" on page 61                                   |                                |     |     |     |      |
| 23   | 1C11199P1  | PLATE END HUM ELEC BOX         | 1   |     |     |      |
| 25   | P-229A   | CLAMP INSULATED METAL 1/4"     | 2   |     |     |      |
| 26   | F-6100   | SUPPORT REFLECTOR              | 2   |     |     |      |
| 27   | F-6090   | COVER END BLOCK                | 2   |     |     |      |
| 33   | R13-0090   | SAFETY SWT THERM 120F TR       | 2   | 2   | 2   | 2    |
| 36   | H-0030   | LAMP I/R LINEAR/QRTZ 3800W570V | 2   |     |     |      |
|      | 151187P1   | LAMP I/R LINEAR/QRTZ 3200W240V | 3   |     |     |      |
|      | 151187P2   | LAMP I/R LINEAR/QRTZ 3200W277V | 3   |     |     |      |
| 37   | See "Socket Assemblies 009261, 009262, 009263, 009264, 0090268" on page 61 |                                |     |     |     |      |
| 39   | See "Socket Assemblies 009261, 009262, 009263, 009264, 0090268" on page 61 |                                |     |     |     |      |
| 41   | 1C18337P1  | PLATE SYS3 HUMID               | 1   |     |     |      |
| 61   | See "Alarm High Water" on page 60  |                                |     |     |     |      |

**7.3.6. 4 Bulb/6 Bulb**



| Item | Part Number  | Description                    | 48" | 72" | 97" | 120" |
|------|--|--------------------------------|-----|-----|-----|------|
| 8    | 160158G1   | PAN WELDMENT HUMIDIFIER (LONG) | 1   |     |     |      |
| 9    | F-601C   | REFLECTOR DOUBLE               | 1   |     |     |      |
| 13   | 1C18003G2  | STANDPIPE ASSY W/NUT           | 1   |     |     |      |
| 24   | F-6100   | SUPPORT REFLECTOR              | 2   |     |     |      |
| 25   | F-6090   | COVER END BLOCK                | 2   |     |     |      |
| 29   | R13-0090   | SAFETY SWT THERM 120F TR       | 2   |     |     |      |
| 32   | H-0020   | LAMP I/R LINEAR/QRTZ 1600W240V | 4   |     |     |      |
|      | H-002A   | LAMP I/R LINEAR/QRTZ 1600W208V | 4   |     |     |      |
| 37   | See "Socket Assemblies 009265, 009266. 009267. 0090297" on page 61 |                                |     |     |     |      |
| 38   | See "Socket Assemblies 009265, 009266. 009267. 0090297" on page 61 |                                |     |     |     |      |
| 49   | 1C18337P1  | PLATE SYS3 HUMID               | 1   |     |     |      |
| 61   | See "Alarm High Water" on page 60                                  |                                |     |     |     |      |
| 72   | See " Solenoid Valve Assembly" on page 61                          |                                |     |     |     |      |

**7.3.7. Alarm High Water**



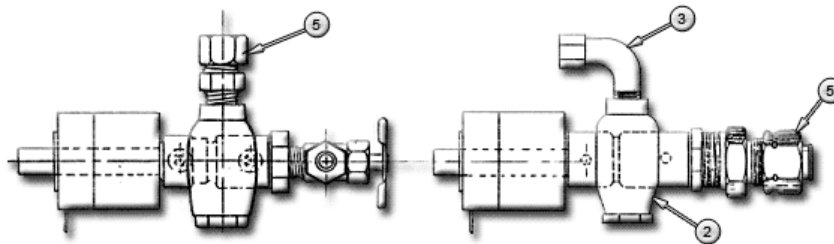
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 4    | 1C18661P2   | SUPERSEDED SEE 183699P1   | 1        |
| 5    | 1A18660P1   | SW LEVEL LIQUID GEMS LS-7 | 1        |

**7.3.8. Humidifier Reset Safety**



| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 3    | H-0450      | SENSOR SAFETY THOPN-RISE 225F | 1        |

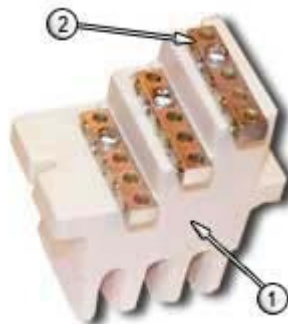
**7.3.9. Solenoid Valve Assembly**



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 2    | P-5590      | VALVE SOL/STRNR/FLO-REG .5 GPM | 1        |
| 3    | P15-0250    | ELBOW, 90 DEGREE COMPRESSION   | 1        |
| 5    | 127781P1    | ADAPTER BRASS 1/4COMX1/4MPT    | 1        |

**7.3.10. Socket Assemblies**

**7.3.10.1. 009-0261**



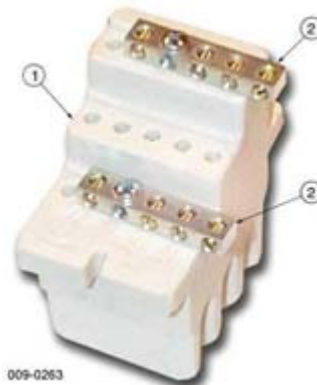
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 3        |

**7.3.10.2. 009-0262**



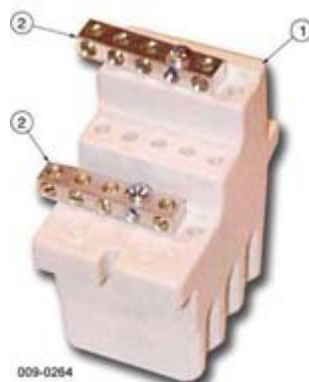
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 3        |

**7.3.10.3. 009-0263**



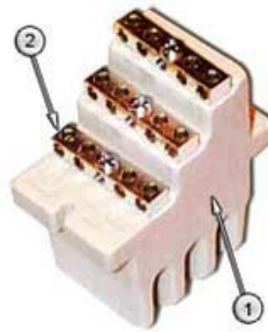
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 2        |

**7.3.10.4. 009-0264**



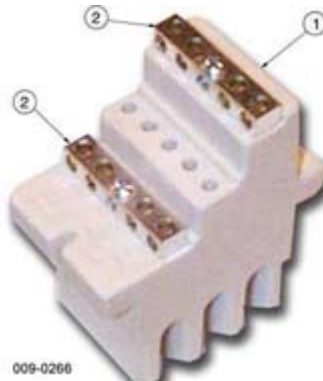
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 2        |

**7.3.10.5. 009-0265**



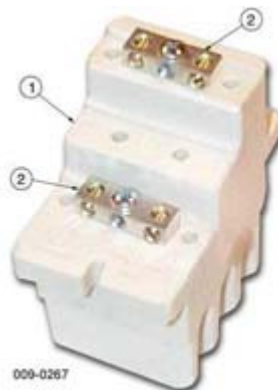
| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 3        |

**7.3.10.6. 009-0266**



| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT | 2        |

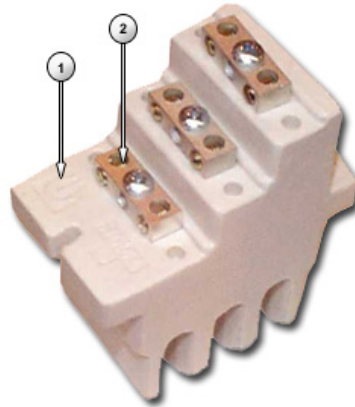
**7.3.10.7. 009-0267**



| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0360      | BUSBAR HUMIDIFIER HI-VOLT | 2        |

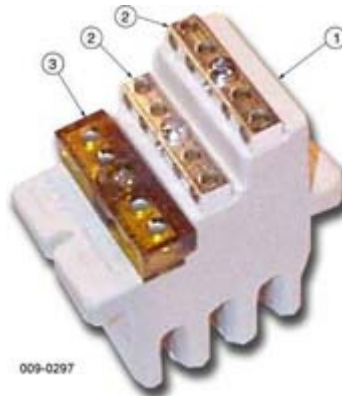


**7.3.10.8. 009-0268**



| Item | Part Number | Description               | Quantity |
|------|-------------|---------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN   | 1        |
| 2    | H-0360      | BUSBAR HUMIDIFIER HI-VOLT | 3        |

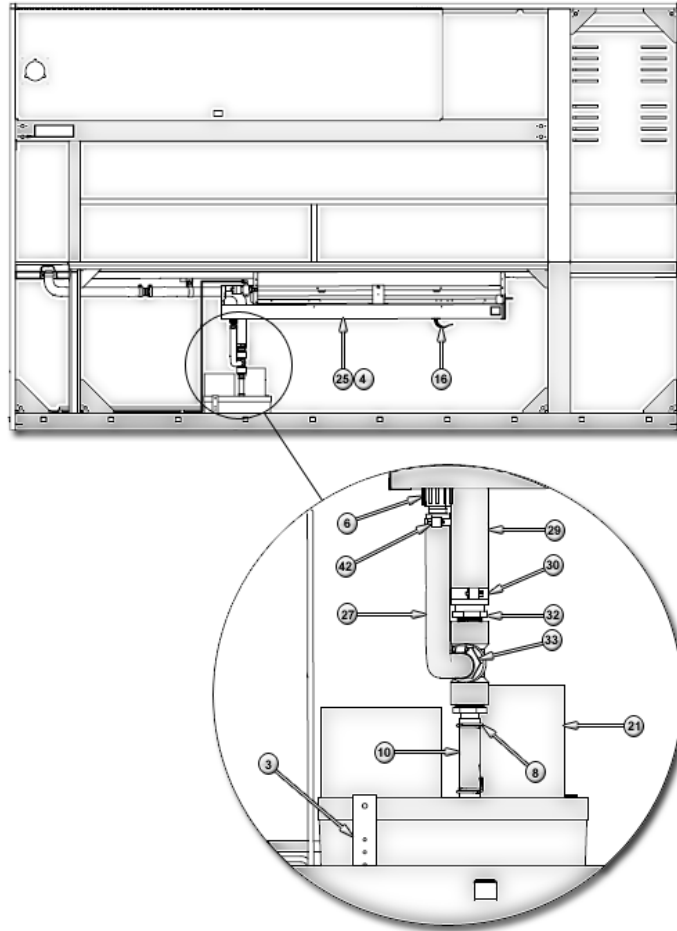
**7.3.10.9. 009-0297**



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 1    | H-014A      | SOCKET BUSBAR PORCELAIN        | 1        |
| 2    | H-0370      | BUSBAR HUMIDIFIER HI-VOLT      | 2        |
| 3    | H-0460      | PWRBLK HUMFR 2PL 600V (UL)SPCL | 1        |

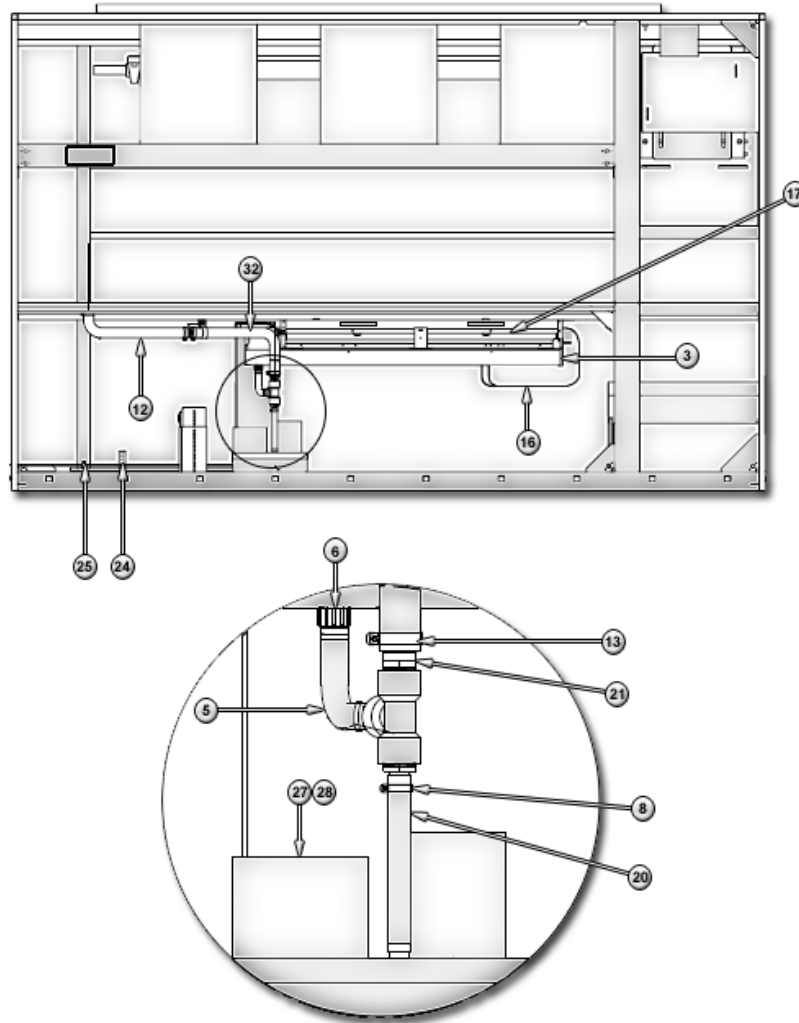
## 7.4. IR with CP

### 7.4.1. Upflow VRR



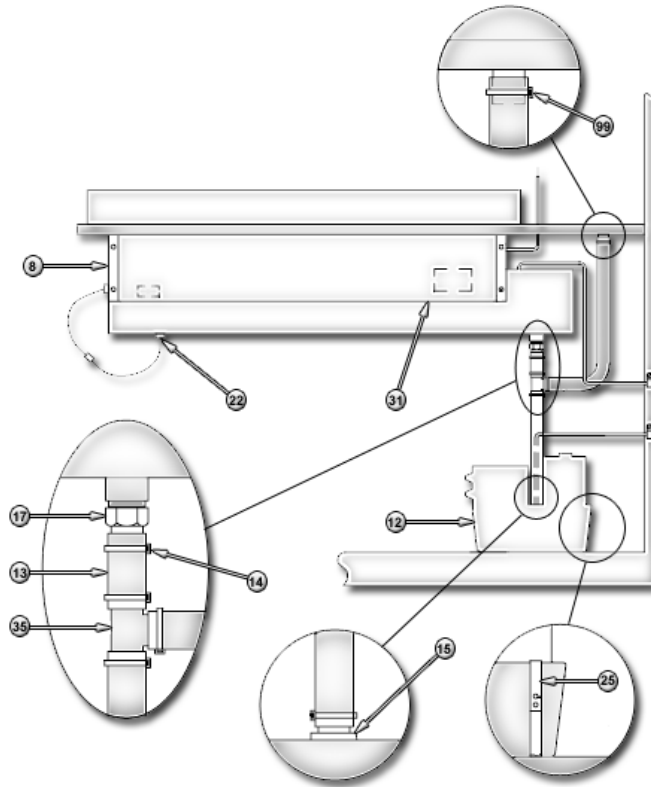
| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 3    | P15-0170    | HOSE DRAIN .75 ID STRAIGHT               | 2   |     |     | 1    |
| 4    | F30-0520    | DUCT HUM LWR REAR RTN V 15/20T           |     |     |     | 4    |
|      | 1D11187P1   | DUCT HUM LWR                             | 1   |     |     |      |
| 6    | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           | 1   |     |     | 1    |
| 8    | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   |     |     | 1    |
| 10   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT               | 2   |     |     | 1    |
| 16   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 21   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   |     |     | 1    |
| 25   |             | See "Humidifier Bulbs" on page 59        |     |     |     |      |
| 27   | 1C11305P1   | HOSE DRAIN .75 ID FORMED                 |     |     |     | 1    |
| 29   | 136161P2    | DRAIN LINE FORMED RUBBER LONG            |     |     |     | 2    |
| 30   | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75           |     |     |     | 4    |
| 32   | 136393P1    | ADAPTER POLYP 1"NPT-1.25"BARB            |     |     |     | 2    |
| 33   | 136394P1    | ADAPTER POLYP 1"NPTM-3/4"BARB            |     |     |     | 2    |
| 42   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25           | 1   |     |     | 2    |

**7.4.2. Upflow VFR**



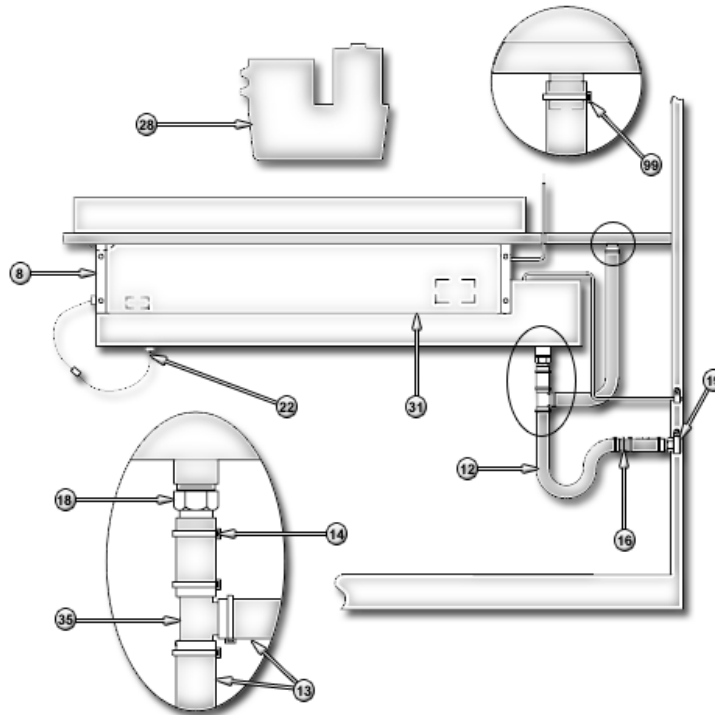
| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 3    |             | See "Humidifier Bulbs" on page           |     |     |     |      |
| 5    | 1C11305P1   | HOSE DRAIN .75 ID FORMED                 |     |     |     | 1    |
| 6    | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           | 1   |     |     | 1    |
| 8    | P15-0150    | CLAMP WIRE                               |     |     |     | 4    |
| 12   | 136161P2    | DRAIN LINE FORMED RUBBER LONG            |     |     |     | 1    |
| 13   | 1C11305P1   | HOSE DRAIN .75 ID FORMED                 |     |     |     | 1    |
| 16   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 17   | F30-0550    | DUCT HUM LWR FR&BR V 6//22T              |     |     |     | 1    |
| 20   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT               |     |     |     | 1    |
| 21   | 136393P1    | ADAPTER POLYP 1"NPT-1.25"BARB            |     |     |     | 1    |
|      | 136394P1    | ADAPTER POLYP 1"NPTM-3/4"BARB            |     |     |     | 2    |
| 24   | P-2290      | CLAMP INSULATED METAL 1/2"               |     |     |     | 1    |
| 25   | P-2290      | CLAMP INSULATED METAL 1/2"               |     |     |     | 2    |
| 27   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           |     |     |     | 1    |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               |     |     |     | 1    |
| 28   | F20-2300    | BRKT COND PUMP ADJ-PART B                |     |     |     | 7    |
| 32   | 136161P1    | HOSE DRAIN 1.25 ID FORMED                |     |     |     | 1    |

**7.4.3. VFR**



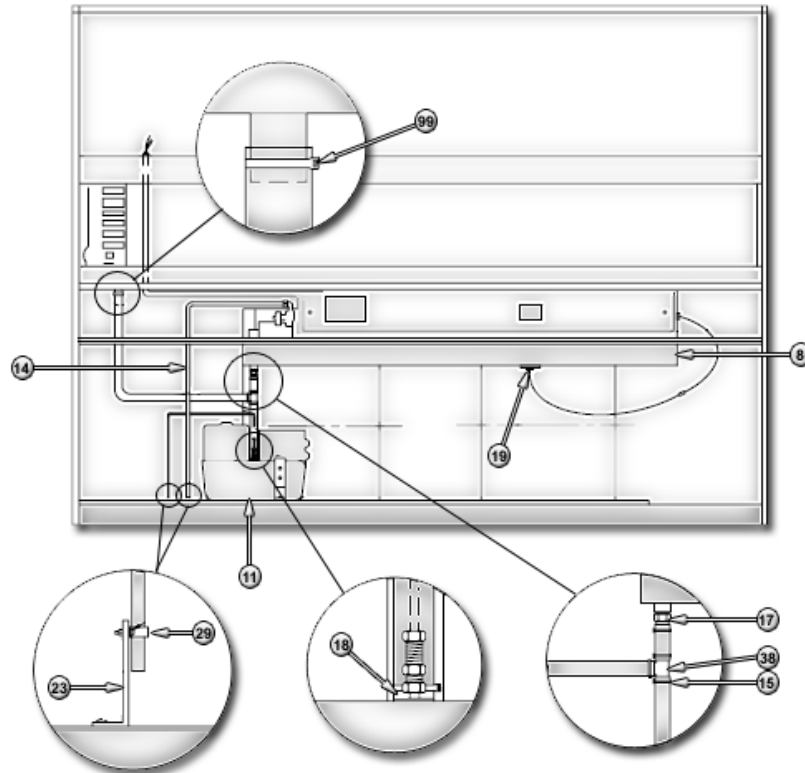
| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 8    |             | See "Humidifier Bulbs" on page 59        |     |     |     |      |
| 12   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               | 1   | 1   | 1   |      |
| 13   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT               | 2   |     |     |      |
| 14   | P15-0150    | CLAMP WIRE                               | 5   | 5   | 5   |      |
| 15   | P15-0140    | UNION NYLON 3/4BARBX3/4BARB              | 1   | 1   | 1   |      |
| 17   | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           | 1   | 1   | 1   |      |
| 22   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 25   | F20-2300    | BRKT COND PUMP ADJ-PART B                | 4   | 4   | 4   |      |
| 31   | 1D11186P1   | DUCT HUM LWR                             | 1   |     |     |      |
|      | F30-0550    | DUCT HUM LWR FR&BR V 6//22T              |     | 1   | 1   |      |
| 35   | 1A16207P1   | TEE BARB 3/4X3/4X3/4                     | 1   | 1   | 1   |      |
| 99   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25           | 1   | 1   | 1   |      |

**7.4.4. VBR**



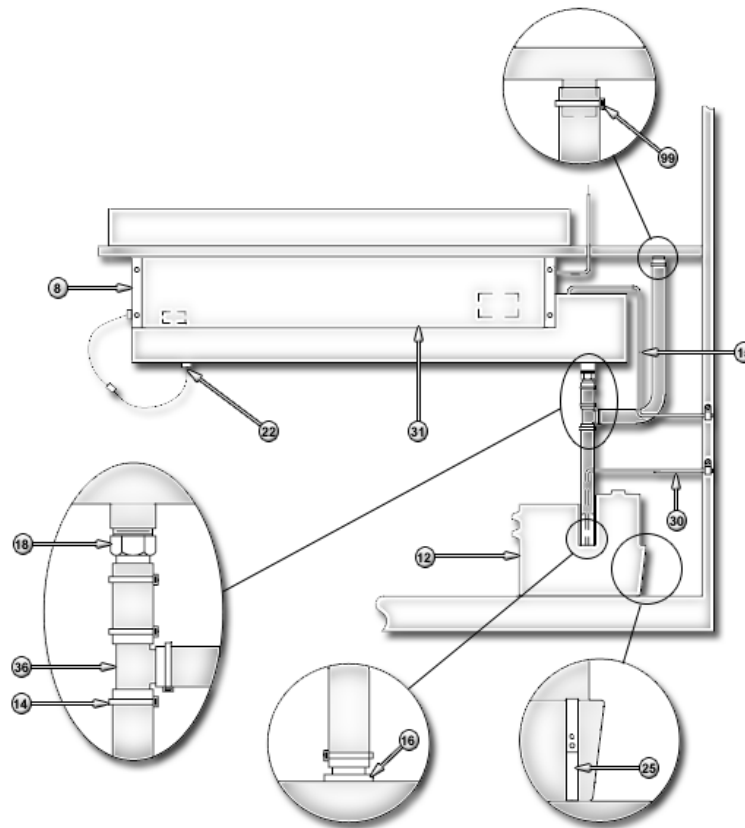
| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 8    |             | See "Humidifier Bulbs" on page 59        |     |     |     |      |
| 12   | P-5500      | HOSE DRAIN .75 ID TRAP                   | 1   | 1   | 1   |      |
| 13   | P15-0170    | HOSE DRAIN .75 ID STRAIGHT               | 2   |     |     |      |
| 14   | P15-0150    | CLAMP WIRE                               | 7   | 7   | 7   |      |
| 16   | P15-0140    | UNION NYLON 3/4BARBX3/4BARB              | 1   | 1   | 1   |      |
| 18   | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           | 1   | 1   | 1   |      |
| 19   | P02-0260    | ADAPTER POLY 3/4FPTX3/4HOSE              | 1   | 1   | 1   |      |
| 22   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 28   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               | 1   | 1   | 1   |      |
| 31   | 1D11186P1   | DUCT HUM LWR                             | 1   |     |     |      |
|      | F30-0550    | DUCT HUM LWR FR&BR V 6//22T              |     | 1   | 1   |      |
| 35   | 1A16207P1   | TEE BARB 3/4X3/4X3/4                     | 1   | 1   | 1   |      |
| 99   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25           | 1   | 1   | 1   |      |

**7.4.5. Downflow**



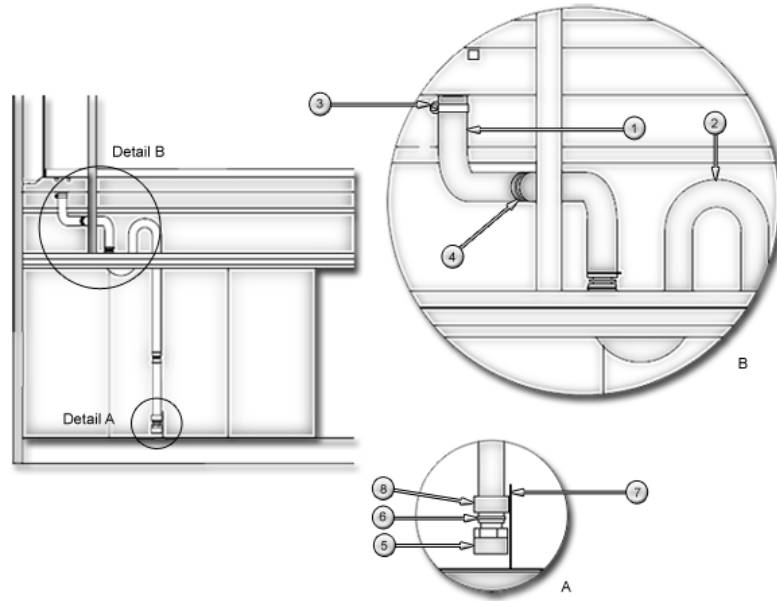
| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 8    |             | See "Humidifier Bulbs" on page 59        |     |     |     |      |
| 11   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               | 1   | 1   | 1   |      |
| 14   | 1C11813P1   | TUBE FORM CU 1/4X.028                    | 1   | 1   | 1   |      |
| 15   | P15-0150    | CLAMP WIRE                               | 5   | 5   | 5   |      |
| 17   | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           | 1   | 1   | 1   |      |
| 18   | P15-0140    | UNION NYLON 3/4BARBX3/4BARB              | 1   | 1   | 1   |      |
| 19   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 23   | F20-2300    | BRKT COND PUMP ADJ-PART B                | 6   | 6   | 6   |      |
| 29   | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8"           |     | 1   | 1   |      |
| 38   | 1A16207P1   | TEE BARB 3/4X3/4X3/4                     | 1   | 1   | 1   |      |
| 99   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25           | 1   | 1   | 1   |      |

**7.4.6. VRR**



| Item | Part Number | Description                              | 48" | 72" | 97" | 120" |
|------|-------------|--|-----|-----|-----|------|
| 8    |             | See "Humidifier Bulbs" on page 59        |     |     |     |      |
| 11   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           | 1   | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               | 1   | 1   | 1   |      |
| 12   | 1A19271P1   | PUMP CONDENSATE 208/230/1/60DF           |     | 1   | 1   |      |
|      | 1A19271P2   | PUMP CONDENSATE 460/1/60DF               |     | 1   | 1   |      |
| 14   | P15-0150    | CLAMP WIRE                               |     | 5   | 5   |      |
| 15   | 1C12503P3   | TUBE FORM CU 1/4X.028                    |     |     | 1   |      |
| 16   | P15-0140    | UNION NYLON 3/4BARBX3/4BARB              |     | 1   | 1   |      |
| 18   | P-5400      | ADAPTER SWIVL3/4FPTX3/4HOSEBRB           |     | 1   | 1   |      |
| 22   |             | See "Humidifier Reset Safety" on page 61 |     |     |     |      |
| 25   | F20-2300    | BRKT COND PUMP ADJ-PART B                |     | 4   | 4   |      |
| 30   | 9A20002P102 | TUBE STR CU 1/2X.028X27.25"              |     |     | 1   |      |
| 31   | 1D11187P2   | DUCT HUM LWR                             |     | 1   | 1   |      |
| 36   | 1A16207P1   | TEE BARB 3/4X3/4X3/4                     |     | 1   | 1   |      |
| 99   | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25           |     | 1   | 1   |      |

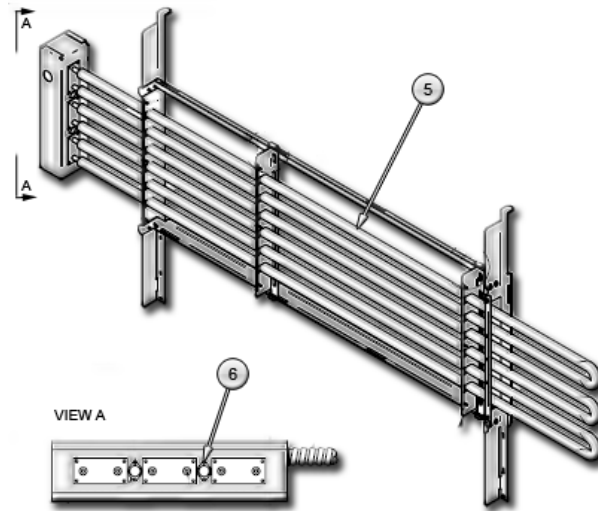
### 7.5. No Humidifier Drain



| Item | Part Number | Description                    | 48" | 72" | 97" | 120" |
|------|-------------|--------------------------------|-----|-----|-----|------|
| 1    | 1C11305P1   | HOSE DRAIN .75 ID FORMED       | 1   |     | 1   | 1    |
|      | 136161P1    | HOSE DRAIN 1.25 ID FORMED      |     |     |     | 1    |
| 2    | 1C19070P1   | HOSE DRAIN .75 ID TRAP         | 1   |     | 1   |      |
|      | 136159P1    | HOSE DRAIN 1.25 ID TRAP        |     |     |     | 1    |
|      | 193274P1    | HOSE DRAIN 1.25 TRAP SHORT     |     |     |     | 1    |
|      | P-5500      | HOSE DRAIN .75 ID TRAP         | 1   |     | 1   |      |
| 3    | 124216P2    | CLAMP HOSE WORM DRIVE .31X1.25 | 1   |     | 1   | 1    |
|      | P02-0020    | CLAMP HOSE WORM DRIVE .75-1.75 |     |     |     | 4    |
| 4    | P15-0140    | UNION NYLON 3/4BARBX3/4BARB    | 3   |     | 3   |      |
|      | P02-0260    | ADAPTER POLY 3/4FPTX3/4HOSE    | 1   |     | 1   |      |
| 5    | 136395P1    | ADAPT POLYP 1-1/4 MPT 1-1/4 HB |     |     |     | 1    |
|      | P15-0150    | CLAMP WIRE                     | 7   |     | 7   |      |
| 7    | F20-2300    | BRKT COND PUMP ADJ-PART B      | 1   |     | 1   |      |
| 8    | S13-0140    | CLAMP INSUL MTL HVY DTY 1-1/8" | 2   |     | 2   |      |



## 8. Reheat Section



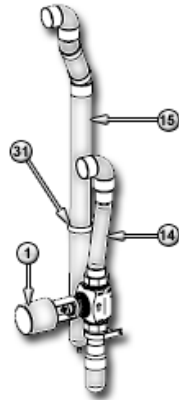
| Item | Part Number | Description                   | KW   | Quantity |
|------|-------------|-------------------------------|------|----------|
| 5    | 148367P2    | HEATER 03.3KW 230V SS 304 S/F | 10KW | 3        |
|      | 148367P3    | HEATER 03.3KW 400V SS 304 S/F |      | 3        |
|      | 148367P4    | HEATER 03.3KW 460V SS 304 S/F |      | 3        |
|      | 148367P5    | HEATER 03.3KW 575V SS 304 S/F |      | 3        |
|      | 148367P6    | HEATER 05.0KW 208V SS 304 S/F | 15KW | 3        |
|      | 148367P7    | HEATER 05.0KW 230V SS 304 S/F |      | 3        |
|      | 148367P8    | HEATER 05.0KW 400V SS 304 S/F |      | 3        |
|      | 148367P9    | HEATER 05.0KW 460V SS 304 S/F |      | 3        |
|      | 148367P10   | HEATER 05.0KW 575V SS 304 S/F | 20KW | 3        |
|      | 148367P11   | HEATER 06.6KW 208V SS 304 S/F |      | 3        |
|      | 148367P12   | HEATER 06.6KW 230V SS 304 S/F |      | 3        |
|      | 148367P13   | HEATER 06.6KW 400V SS 304 S/F |      | 3        |
|      | 148367P14   | HEATER 06.6KW 460V SS 304 S/F | 25KW | 3        |
|      | 148367P15   | HEATER 06.6KW 575V SS 304 S/F |      | 3        |
|      | 148367P16   | HEATER 08.3KW 208V SS 304 S/F |      | 3        |
|      | 148367P17   | HEATER 08.3KW 230V SS 304 S/F |      | 3        |
|      | 148367P18   | HEATER 08.3KW 400V SS 304 S/F | 30KW | 3        |
|      | 148367P19   | HEATER 08.3KW 460V SS 304 S/F |      | 3        |
|      | 148367P20   | HEATER 08.3KW 575V SS 304 S/F |      | 3        |
|      | 148367P21   | HEATER 09.5KW 208V SS 304 S/F |      | 3        |
|      | 148367P22   | HEATER 10.0KW 230V SS 304 S/F |      | 3        |
|      | 148367P23   | HEATER 10.0KW 400V SS 304 S/F |      | 3        |
|      | 148367P24   | HEATER 10.0KW 460V SS 304 S/F |      | 3        |
|      | 148367P25   | HEATER 10.0KW 575V SS 304 S/F |      | 3        |

| Item | Part Number | Description            | Voltage                              | Model  | Quantity |
|------|-------------|------------------------|--------------------------------------|--|----------|
| 6    | 136965P1    | SAFETY SWT THERM 105F  | 10KW<br>15KW<br>20KW<br>25KW<br>30KW | 205/206V<br>235/236V<br>466V<br>576V                     | 2        |
|      | R-0970      | SAFETY SWT THERM. 115F | 10KW<br>15KW<br>20KW<br>25KW<br>30KW | 205/206V<br>235/236V<br>385/405V<br>415V<br>466V<br>576V | 2        |
|      | R-013A      | SAFETY SWT THERM. 125F | 20KW<br>25KW<br>30KW                 | 205/206V<br>235/236V<br>466V<br>576V                     | 2        |

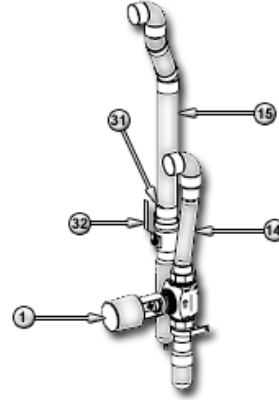
## 9. Piping Section

### 9.1. 2-Way

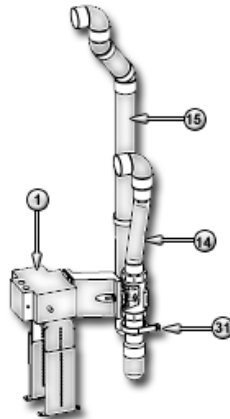
#### 9.1.1. Downflow



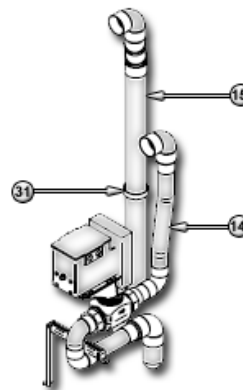
Standard Pressure



Standard Pressure  
with Valve Ball



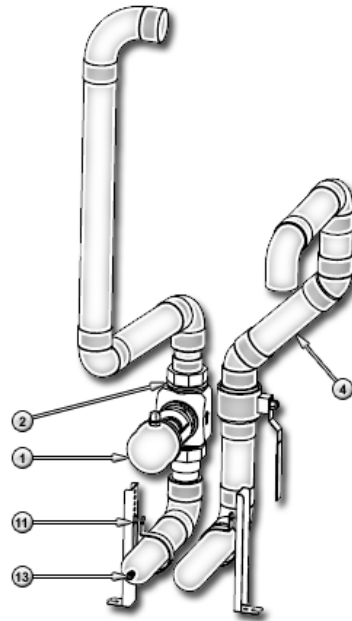
High Pressure



Standard and High Pressure  
Surge-Resistant

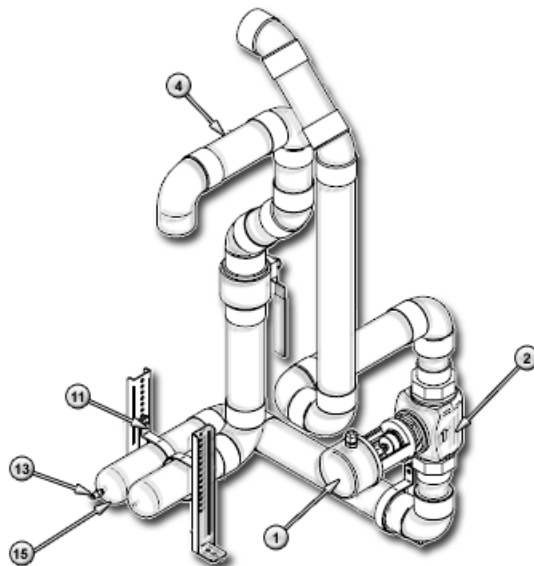
| Item | Part Number | Description                    | Standard Pressure | Standard Pressure w/ Valve Ball | High Pressure | Standard and High Pressure SR |
|------|-------------|--------------------------------|-------------------|---------------------------------|---------------|-------------------------------|
| 1    | 146353G3    | ACTUATOR ASSY SP LRG 151" WH   | 1                 | 1                               |               |                               |
|      | 1C23799G4   | ACTUATOR ASSY S3 HP .5 W/CAM77 |                   |                                 | 1             |                               |
| 14   |             | See Supply Piping on page 78   |                   |                                 |               |                               |
| 15   |             | See Return Piping on page 4    |                   |                                 |               |                               |
| 31   | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"    | 1                 | 1                               | 1             | 1                             |
| 32   | 1C14431P6   | VALVE BALL BRONZE 2" SWT F/P   |                   | 1                               |               |                               |

**9.1.2. SP VFR**



| Item | Part Number | Description                      | Quantity |
|------|-------------|----------------------------------|----------|
| 1    | 146353G3    | ACTUATOR ASSY SP LRG 151" WH     | 1        |
| 2    |             | See "Valve Assembly" on page 79  |          |
| 4    |             | See "Return Assembly" on page 80 |          |
| 11   | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"      | 2        |
| 13   | P02-0290    | VALVE CORE REFRIGERANT           | 2        |

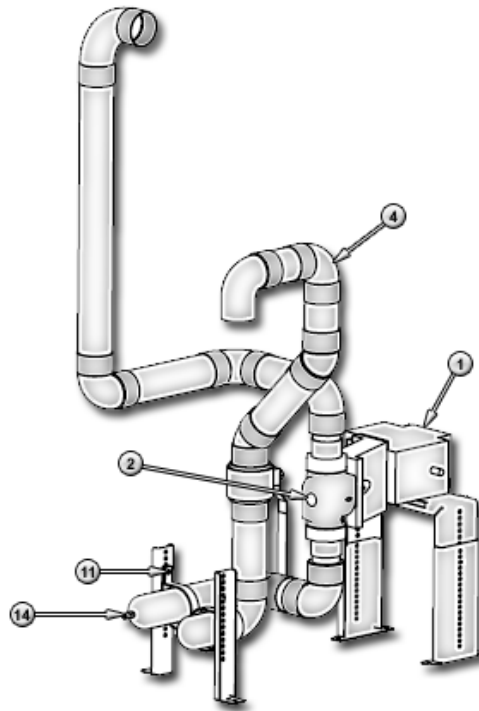
**9.1.3. SP VRR**



2-Way Standard Pressure VRR

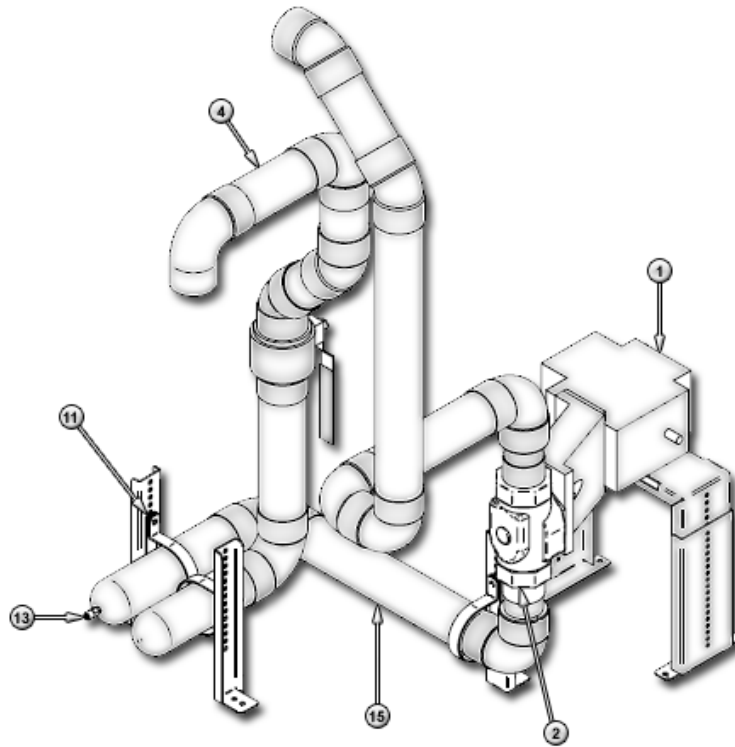
| Item | Part Number | Description                            | Quantity |
|------|-------------|--|----------|
| 1    | 146353G3    | ACTUATOR ASSY SP LRG 151" WH           | 1        |
| 2    |             | See "Valve Assembly" on page 79        |          |
| 4    |             | See "Return Assembly" on page 80       |          |
| 11   | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"            | 3        |
| 13   | P02-0290    | VALVE CORE REFRIGERANT                 | 2        |
| 15   |             | See "Supply Valve Assembly" on page 80 |          |

**9.1.4. HP VFR**



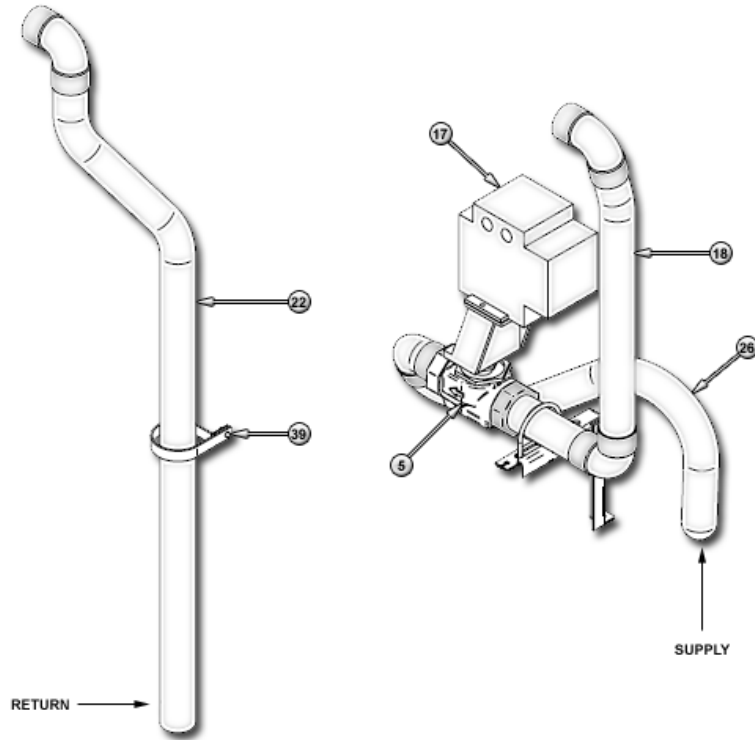
| Item | Part Number | Description                      | Quantity |
|------|-------------|----------------------------------|----------|
| 1    | 1C23799G5   | ACTUATOR ASSY HP .5 W/CAM77 LG   | 1        |
| 2    |             | See "Valve Assembly" on page 79  |          |
| 4    |             | See "Return Assembly" on page 80 |          |
| 11   | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"      | 1        |
| 14   | P02-0290    | VALVE CORE REFRIGERANT           | 2        |

**9.1.5. HP VRR**



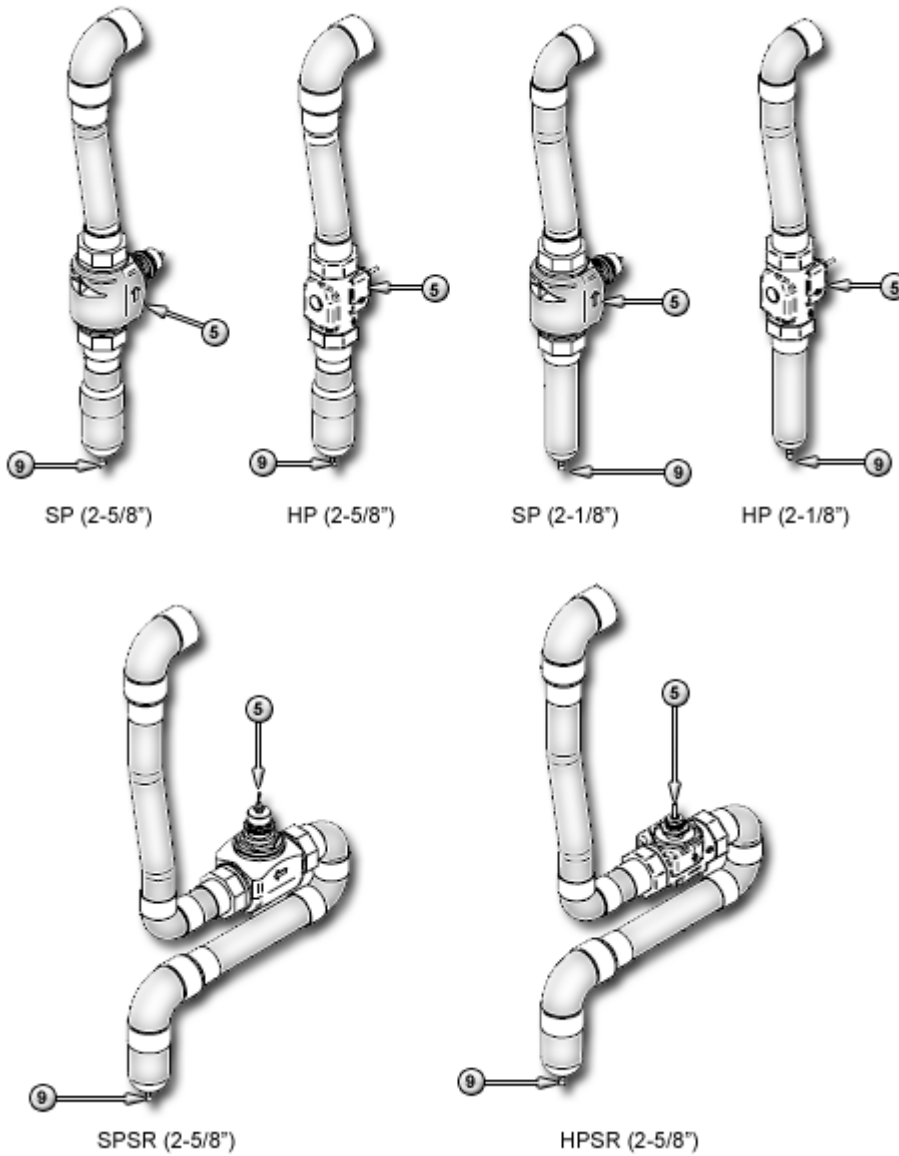
| Item | Part Number | Description                            | Quantity |
|------|-------------|--|----------|
| 1    | 1C23799G5   | ACTUATOR ASSY HP .5 W/CAM77 LG         | 1        |
| 2    |             | See "Valve Assembly" on page 79        |          |
| 4    |             | See "Return Assembly" on page 80       |          |
| 11   | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"            | 3        |
| 13   | P02-0290    | VALVE CORE REFRIGERANT                 | 2        |
| 15   |             | See "Supply Valve Assembly" on page 80 |          |

**9.1.6. HP STD and BV**



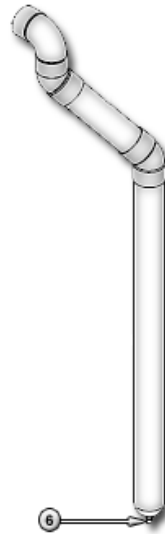
| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 5    | 159006P3    | VALVE CW2WAY 1" 250# B/C       | 1        |
|      | 159006P4    | VALVE CW2WAY 1-1/4" 250# B/C   | 1        |
|      | 159006P5    | VALVE CW2WAY 1-1/2" 250# B/C   | 1        |
|      | 159006P6    | VALVE CW2WAY 2" 250# B/C       | 1        |
|      | P02-0290    | VALVE CORE REFRIGERANT         | 2        |
| 17   | 1C23799G4   | ACTUATOR ASSY S3 HP .5 W/CAM77 | 1        |
| 18   | 1C14935P1   | TUBE FORM CU 1-1/8X.050        | 1        |
|      | 1C14936P2   | TUBE FORM CU 1-1/8 WTR         | 1        |
| 22   | 1C13673P2   | TUBE FORM CU 1-5/8             | 1        |
|      | 1C13777P2   | TUBE FORM CU 2-1/8             | 1        |
|      | 1C15006P2   | TUBE FORM CU 1-3/8             | 1        |
|      | 186192P1    | TUBE FORM CU 2-1/8             | 1        |
| 26   | 1C13672P1   | TUBE FORM CU 1-5/8             | 1        |
|      | 1C13776P1   | TUBE FORM CU 2-1/8             | 1        |
|      | 1C15005P1   | TUBE FORM CU 1-1/8 WTR         | 1        |
|      | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"    | 1        |
| 39   | P-5020      | CLAMP INSUL MTL HVY DTY 1-5/8" | 1        |
|      | P-5560      | CLAMP INSUL MTL HVY DTY 21/8ID | 1        |

**9.1.7. Supply Piping**



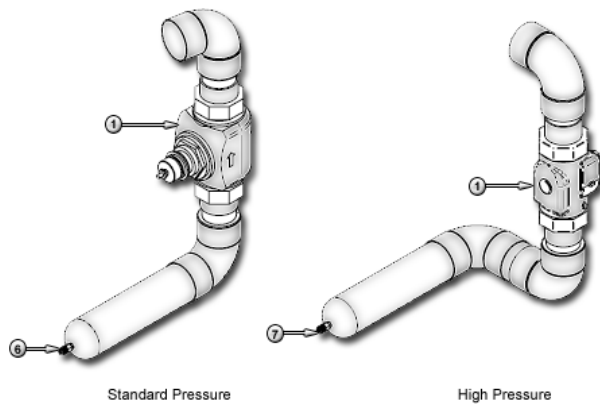
| Item | Part #   | Description                | SP | HP |
|------|----------|----------------------------|----|----|
| 5    | 159009P3 | VALVE 2" 2WAY UNION BODY   | 1  |    |
|      | 159006P6 | VALVE CW2WAY 2" 250# B/C   |    | 1  |
| 9    | P02-0270 | VALVE ACCESS BODY 1/4X SWT | 1  | 1  |

**9.1.8. Return Piping**



| Item | Part Number | Description                   | Quantity |
|------|-------------|-------------------------------|----------|
| 6    | 187933G1    | VALVE ACC BODY 1/4 EXT2" BEAD | 1        |

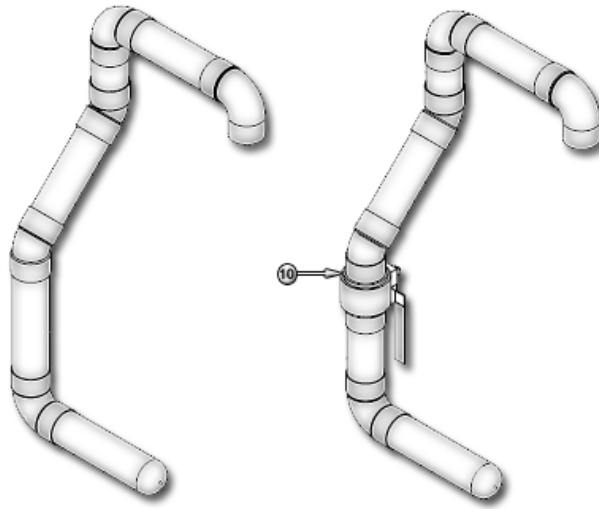
**9.1.9. Valve Assembly**



| Item | Part Number | Description                | SP | HP |
|------|-------------|----------------------------|----|----|
| 1    | 159009P3    | VALVE 2" 2WAY UNION BODY   | 1  |    |
|      | 159006P6    | VALVE CW2WAY 2" 250# B/C   |    | 1  |
| 6/7  | P02-0270    | VALVE ACCESS BODY 1/4X SWT | 1  | 1  |



**9.1.10. Return Assembly**

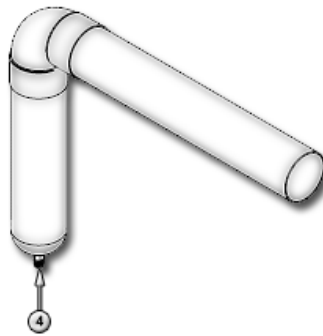


Return Piping

Return Piping with Valve Ball

| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 8    | 1C14431P7   | VALVE BALL BRONZE 2-1/2 SWT SP | 1        |
| 10   |             |                                |          |

**9.1.11. Supply Valve Assembly**

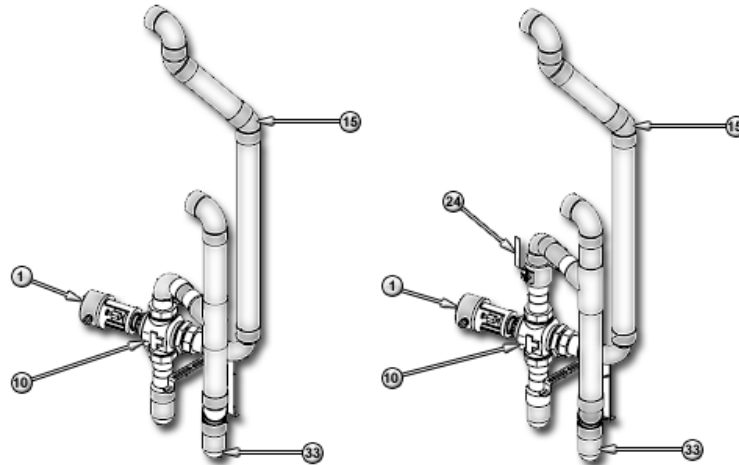


| Item | Part Number | Description                | Quantity |
|------|-------------|----------------------------|----------|
| 4    | P02-0270    | VALVE ACCESS BODY 1/4X SWT | 1        |

## 9.2. 3-Way

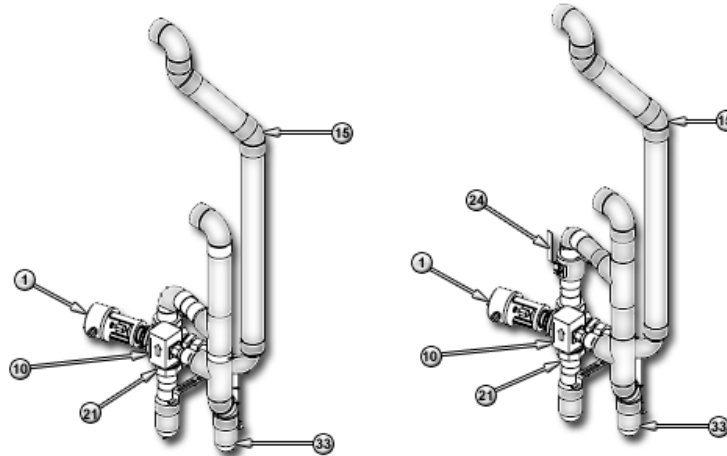
### 9.2.1. Downflow

### 9.2.2. Standard Pressure



Standard Pressure

Standard Pressure with Valve Ball



Standard Pressure with Flow Switch

Standard Pressure with Valve Ball and Flow Switch

| Item | Part #    | Description                  | SP       | SP-VB    | SP- FS   | SP-VB- FS |
|------|-----------|------------------------------|----------|----------|----------|-----------|
| 1    | 146352G1  | ACTUATOR ASSY SP SML 92" WH  | 1        | 1        | 1        | 1         |
| 10   | 159010P3  | VALVE 2" 3WAY UNION BODY     | 1        | 1        | 1        | 1         |
| 15   |           | See Return Piping on page 79 | See p.79 | See p.79 | See p.79 | See p.79  |
| 21   |           | See Flow Switch on page 83   |          |          | See p.83 | See p.83  |
| 24   | 1C14431P6 | VALVE BALL BRONZE 2" SWT F/P |          | 1        |          | 1         |
| 33   | P02-0270  | VALVE ACCESS BODY 1/4X SWT   | 2        | 2        | 2        |           |

Legend:

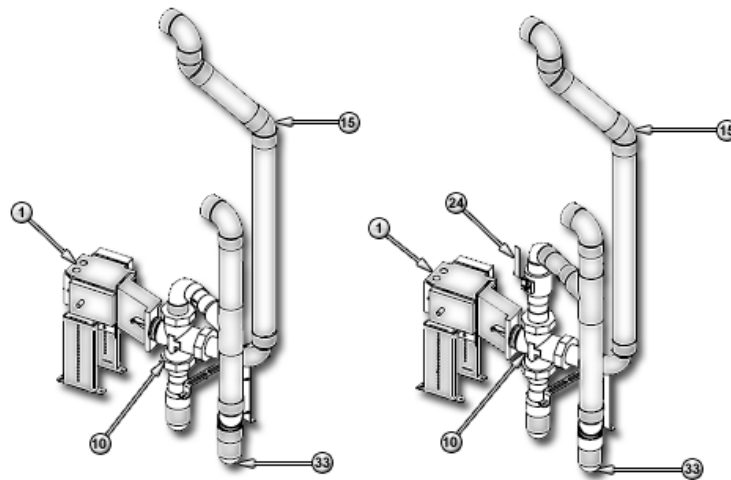
SP – Standard Pressure

SP-VB – Standard Pressure with Valve Ball

SP-FS – Standard Pressure with Flow Switch

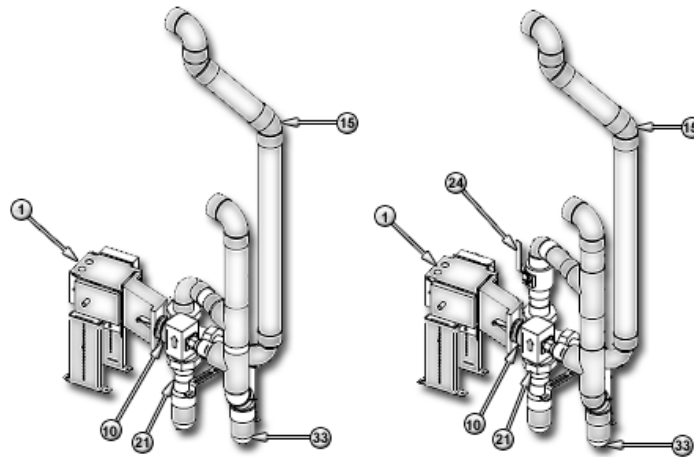
SP-VB-FS – Standard Pressure with Valve Ball and Flow Switch

### 9.2.3. High Pressure



High Pressure

High Pressure with Valve Ball



High Pressure with Flow Switch

High Pressure with Valve Ball and Flow Switch

| Item | Part #    | Description                    | HP       | HP-VB    | HP- FS   | HP-VB- FS |
|------|-----------|--------------------------------|----------|----------|----------|-----------|
| 1    | 1C23799G4 | ACTUATOR ASSY S3 HP .5 W/CAM77 | 1        | 1        | 1        | 1         |
| 10   | 159007P6  | VALVE CW3WAY 2" 250# B/C       | 1        | 1        | 1        | 1         |
| 15   |           | See Return Piping on page 79   | See p.79 | See p.79 | See p.79 | See p.79  |
| 21   |           | See Flow Switch on page 83     |          |          | See p.83 | See p.83  |
| 24   | 1C14431P6 | VALVE BALL BRONZE 2" SWT F/P   |          | 1        |          | 1         |
| 33   | P02-0270  | VALVE ACCESS BODY 1/4X SWT     | 2        | 2        | 2        | 2         |

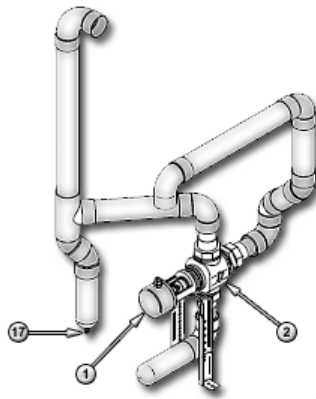
Legend:

- SP – Standard Pressure
- SP-VB – Standard Pressure with Valve Ball
- SP-FS – Standard Pressure with Flow Switch
- SP-VB-FS – Standard Pressure with Valve Ball and Flow Switch

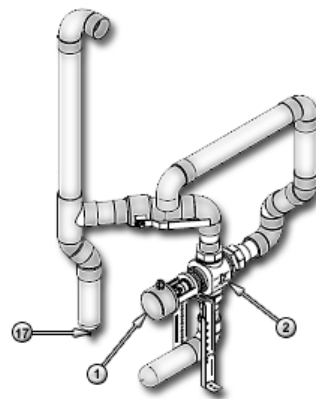
**9.2.4. Flow Switch**

| Part Number | Description                   | 147 | 200 | 248 | 302 | 376 | 422 | 522 | 529 | 600 | 739 | 740 |
|-------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 127998P1    | SW FLOW ASSY 1-3/8"           |     | 1   |     |     |     |     |     |     |     |     |     |
| 127998P2    | SW FLOW ASSY 1-1/8"           | 1   |     |     |     |     |     |     |     |     |     |     |
| 127998P3    | SW FLOW ASSY 1-5/8"           |     |     | 1   | 1   |     |     |     |     |     |     |     |
| 127998P4    | SW FLOW ASSY 2-1/8"           |     |     |     |     | 1   | 1   | 1   | 1   | 1   |     |     |
| 1A15464P1   | SW FLOW HI PRESSURE           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| P-5540      | SW FLOW SPDT<br>1.25"MPT 300# | 1   | 1   | 1   | 1   | 1   | 1   |     | 1   |     |     |     |
| P-4120      | SW FLOW SPDT 1"MPT            |     |     |     |     |     |     |     |     |     | 1   | 1   |

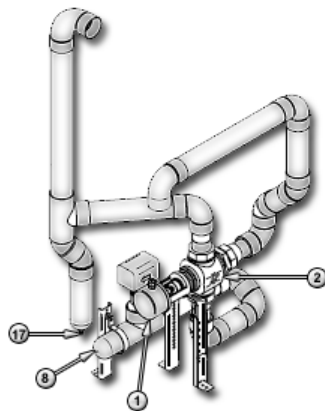
**9.2.5. SP VFR**



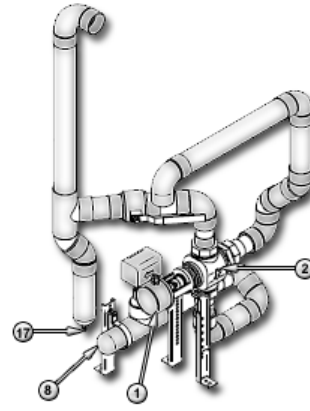
Standard Pressure



Standard Pressure with Valve Ball



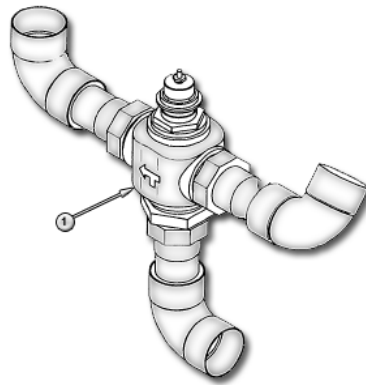
Standard Pressure with Flow Switch



Standard Pressure with  
Valve Ball and Flow Switch

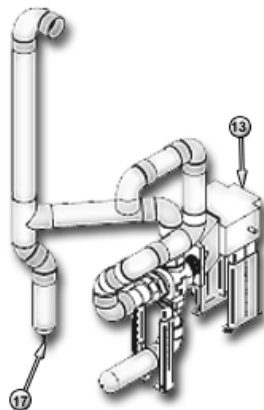
| Item | Part #   | Description                          | SP       | SP-VB    | SP- FS   | SP-VB- FS |
|------|----------|--------------------------------------|----------|----------|----------|-----------|
| 1    | 146352G3 | ACTUATOR ASSY SP SML 151"<br>WH      | 1        | 1        | 1        | 1         |
| 2    |          | See "Valve Assembly" on page<br>84   | See p.84 | See p.84 | See p.84 | See p.84  |
| 8    |          | See " Switch Flow Assembly"<br>above |          |          | See p.83 | See p.83  |
| 17   | P02-0290 | VALVE CORE REFRIGERANT               | 2        | 2        | 2        | 2         |

**9.2.6. Valve Assembly 3W**

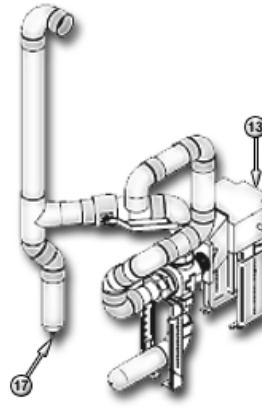


| Item | Part Number | Description              | Quantity |
|------|-------------|--------------------------|----------|
| 1    | 159010P3    | VALVE 2" 3WAY UNION BODY | 1        |

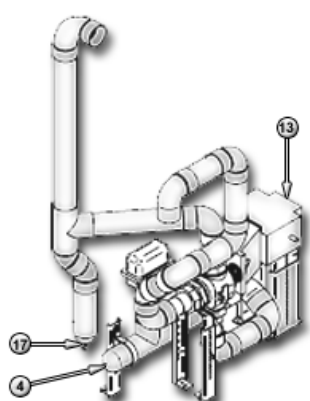
**9.2.7. HP VFR**



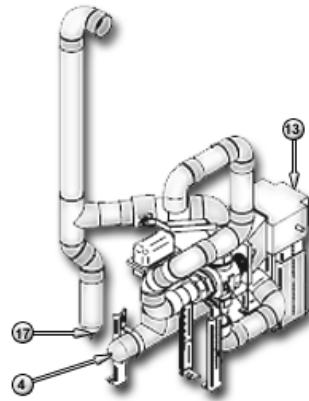
High Pressure



High Pressure with Valve Ball



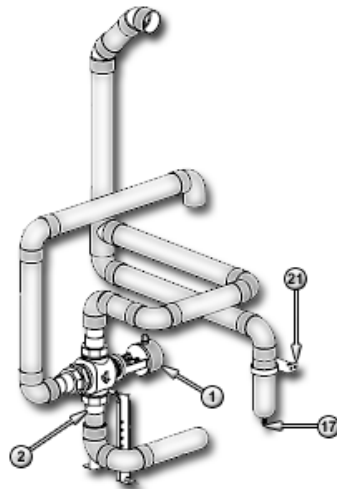
High Pressure with Flow Switch



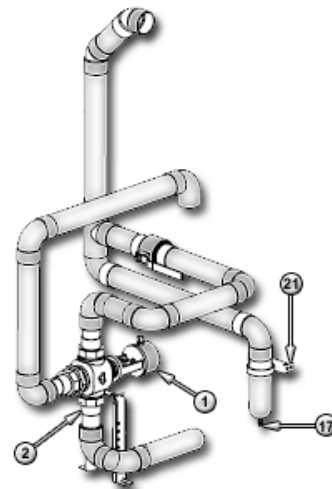
High Pressure with Valve Ball and Flow Switch

| Item | Part #    | Description                           | SP | SP-VB | SP- FS   | SP-VB- FS |
|------|-----------|---------------------------------------|----|-------|----------|-----------|
| 4    |           | See "Switch Flow Assembly" on page 83 |    |       | See p.83 | See p.83  |
| 13   | 1C23799G5 | ACTUATOR ASSY HP .5 W/CAM77 LG        | 1  | 1     | 1        | 1         |
| 17   | P02-0290  | VALVE CORE REFRIGERANT                | 2  | 2     | 2        | 2         |

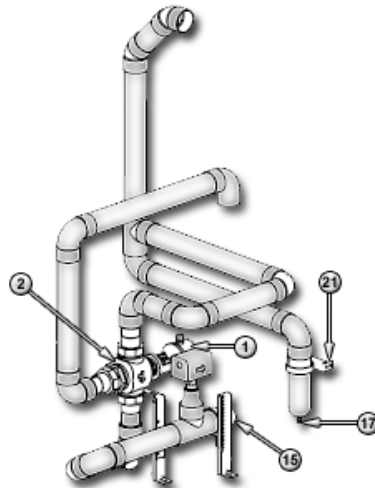
**9.2.8. SP VRR**



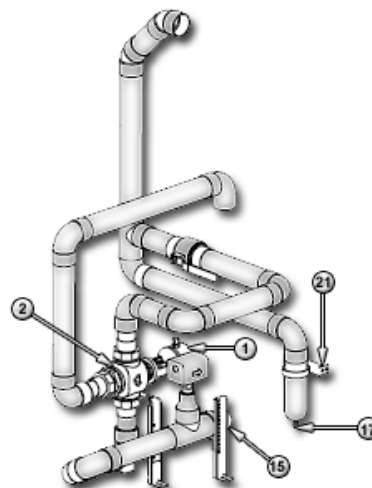
Standard Pressure



Standard Pressure with Valve Ball



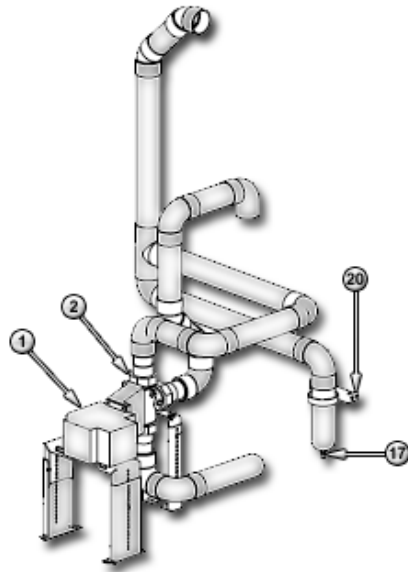
Standard Pressure with Flow Switch



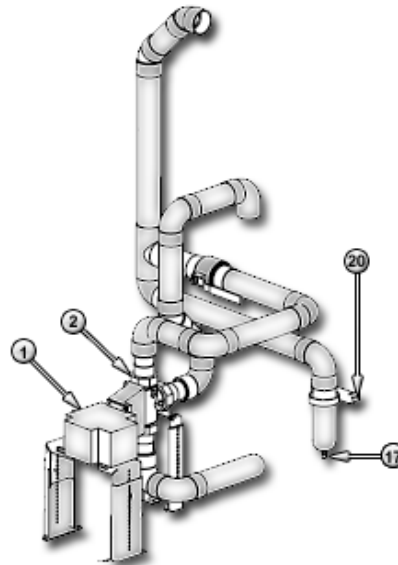
Standard Pressure with Valve Ball and Flow Switch

| Item | Part #    | Description                     | SP       | SP-VB    | SP- FS   | SP-VB- FS |
|------|-----------|---------------------------------|----------|----------|----------|-----------|
| 1    | 146352G3  | ACTUATOR ASSY SP SML 151" WH    | 1        | 1        | 1        | 1         |
| 2    |           | Valve Assembly on page 84       | See p.84 | See p.84 | See p.84 | See p.84  |
| 15   |           | Switch Flow Assembly on page 83 |          |          | See p.83 | See p.83  |
| 17   | P02-0290  | VALVE CORE REFRIGERANT          | 2        | 2        | 2        | 2         |
| 21   | 1A23371P1 | CLAMP INSUL MTL HVY DTY 03"     | 1        | 1        | 2        | 2         |

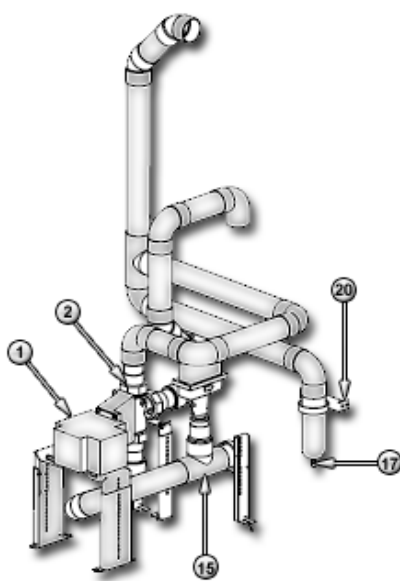
**9.2.9. HP VRR**



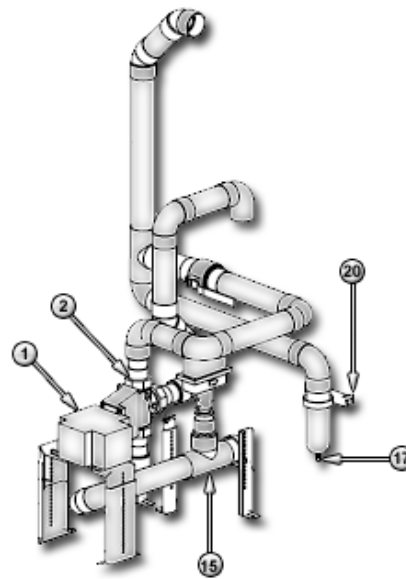
High Pressure



High Pressure with Valve Ball



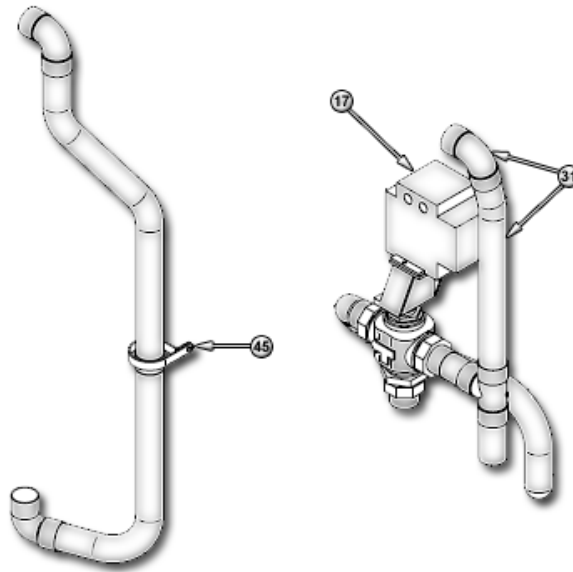
High Pressure with Flow Switch



High Pressure with Valve Ball and Flow Switch

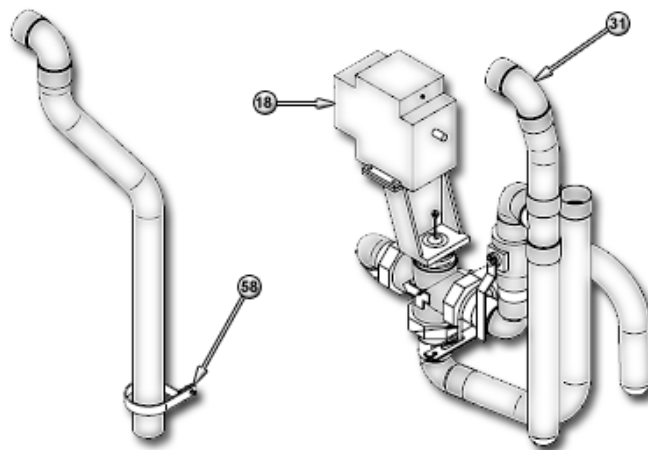
| Item | Part #    | Description                           | SP       | SP-VB    | SP- FS   | SP-VB- FS |
|------|-----------|---------------------------------------|----------|----------|----------|-----------|
| 1    | 1C23799G5 | ACTUATOR ASSY HP .5 W/CAM77 LG        | 1        | 1        | 1        | 1         |
| 2    |           | See "Valve Assembly" on page 84       | See p.84 | See p.84 | See p.84 | See p.84  |
| 15   |           | See "Switch Flow Assembly" on page 83 |          |          | See p.83 | See p.83  |
| 17   | P02-0290  | VALVE CORE REFRIGERANT                | 2        | 2        | 2        | 2         |
| 20   | 1A23371P1 | CLAMP INSUL MTL HVY DTY 03"           | 1        | 1        | 2        | 2         |

**9.2.10. HP STD**



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 17   | 1C23799G4   | ACTUATOR ASSY S3 HP .5 W/CAM77 | 1        |
| 31   | 1C13676G1   | PIPG SUP/LINE ASSY 1-5/8 DF CW | 1        |
|      | 185674G1    | PIPG SUP/LINE ASSY 2-1/8 DF CW | 1        |
| 45   | P-5020      | CLAMP INSUL MTL HVY DTY 1-5/8" | 1        |
|      | P-5560      | CLAMP INSUL MTL HVY DTY 21/8ID | 1        |
|      | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"    | 1        |

**9.2.11. HP BV**



| Item | Part Number | Description                    | Quantity |
|------|-------------|--------------------------------|----------|
| 18   | 1C23799G4   | ACTUATOR ASSY S3 HP .5 W/CAM77 | 1        |
| 31   | 185674G1    | PIPG SUP/LINE ASSY 2-1/8 DF CW | 1        |
| 58   | P-5020      | CLAMP INSUL MTL HVY DTY 1-5/8" | 1        |
|      | P-5560      | CLAMP INSUL MTL HVY DTY 21/8ID | 1        |
|      | 1A23371P1   | CLAMP INSUL MTL HVY DTY 03"    | 1        |



### 10. Parts Gallery



1A22733P1



193196G1



B05-014E



B-0040



B-0080



B-0650



B-1140



B-1170



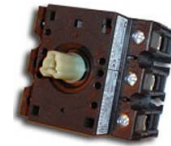
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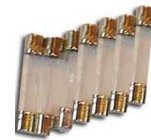
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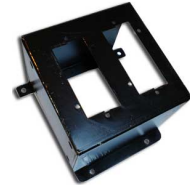
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179747



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180633G1



181464G1



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200509P1



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416891G1



416911G2



B02-0190



E03-0170



E-009F



E-011A



E-0100



E-105A



E-0110



E-0130



E-194C



E-288A



E-288B



E-362B



E-0380



E-1020



E-1040



E-1050



E-1200



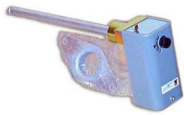
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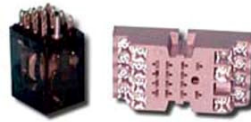
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E-2440



E-2730



E-3060



E-3620



E-6030



E-6040



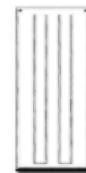
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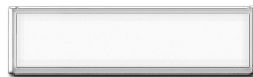
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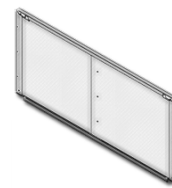
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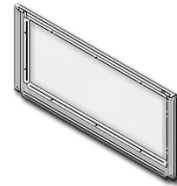
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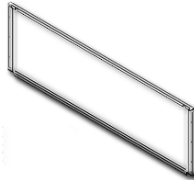
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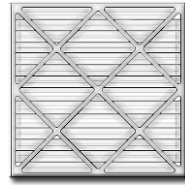
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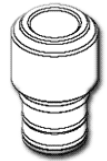
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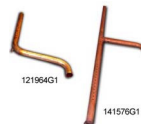
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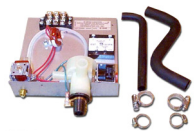
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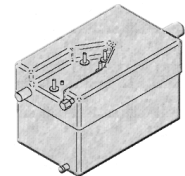
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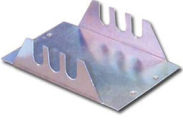


















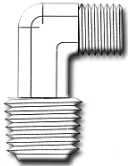

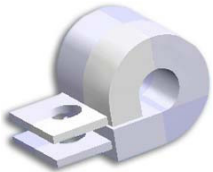


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|   |   |  |   |
|---|---|--|---|
|    |    |     |    |
| F20-2300  | F30-0520  | F30-0550   | F-601C  |
|    |    |    |    |
| F-601D  | F-602C  | F-6090   | F-6100  |
|    |    |    |    |
| H-002A  | H-014A  | H-0020   | H-0030  |
|  |  |   |  |
| H-0360  | H-0370  | H-0390   | H-0450  |
|  |  |  |  |
| H-0460  | P02-0020  | P02-0260   | P15-0140  |
|  |  |   |  |
| P15-0150  | P15-0170  | P15-0210   | P15-0250  |
|  |  |  |  |
| P-057A  | P-229A  | P-229B   | P-2290  |



P-5020



P-5400



P-5500



P-5510



P-5590



R13-0090



S13-0140



1A23371P1



1C13676G1



1C14431P2



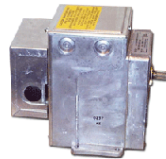
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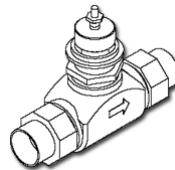
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159010P3



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P02-0270



P02-0290



136965P1



148367P1

### 11. Revision Page

| Revision Date | Modification | Details             |
|---------------|--------------|---------------------|
| 05/2009       | -            | Manual Release Date |
|               |              |                     |
|               |              |                     |
|               |              |                     |