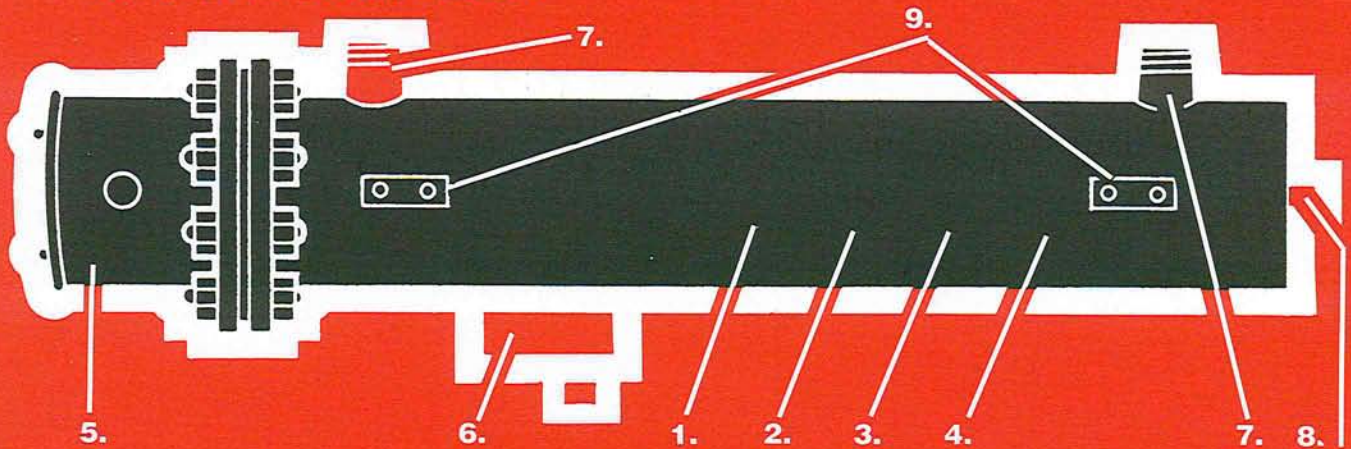


# CIRCULATION HEATERS— FLANGED & SCREW PLUG

1. .475" DIA. INCOLOY TUBULAR ELEMENTS
2. STAINLESS STEEL ELEMENT SUPPORTS EVERY 20-24"
3. 1" INSULATION ENCASED IN A PAINTED STEEL SHROUD
4. ASA 150 LB. CARBON STEEL CONSTRUCTION ON VESSEL

5. NEMA I GENERAL PURPOSE WIRING ENCLOSURE.
6. SIDE MOUNTED THERMOSTAT
7. INLET & OUTLET NOZZELS
8. 1/2" NPT SEDIMENT DRAIN
9. HEAVY DUTY MOUNTING LUGS



## FEATURES

- INCOLOY ELEMENTS
- STEEL OR STAINLESS STEEL CONSTRUCTION
- NPT OR FLANGED CONNECTIONS
- NEMA 1 HOUSING STANDARD
- NEMA 4/7 HOUSING OPTIONAL
- BUILT IN THERMOSTATS AVAILABLE
- ASME CODE WELDING AND STAMP OPTIONAL

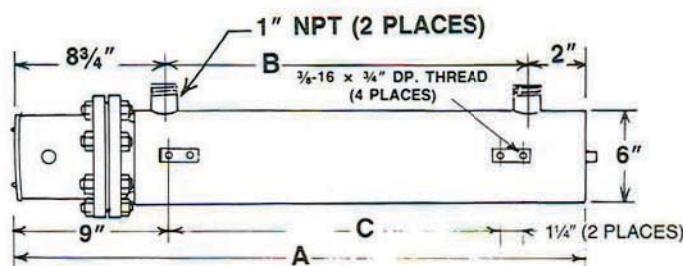
## APPLICATIONS

- HIGH TEMPERATURE HEATING
- STEAM SUPERHEATING
- AIR AND GAS HEATING

**DELTA**   
MANUFACTURING  
COMPANY INCORPORATED

# CIRCULATION HEATERS—FLANGED & SCREW PLUG

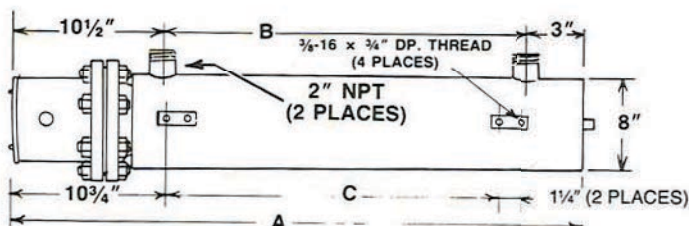
**3" - 150#**  
(3) .475 dia. elements



| VOLTS<br>3<br>PHASE | A       | B       | C       | 48 WSI                        |                            | 23 WSI                                   |                            | 12 WSI                              |                            | 8 WSI                             |                            | NET<br>WT.<br>LBS. |
|---------------------|---------|---------|---------|-------------------------------|----------------------------|------------------------------------------|----------------------------|-------------------------------------|----------------------------|-----------------------------------|----------------------------|--------------------|
|                     |         |         |         | CLEAN WATER<br>MILD SOLUTIONS | MODEL<br>NUMBER            | GASES, LT. WT. OILS<br>CAUSTIC SOLUTIONS | MODEL<br>NUMBER            | GASES, MED. WT.<br>OILS, CORROSIVES | MODEL<br>NUMBER            | GASES, #6 FUEL<br>OIL, CORROSIVES | MODEL<br>NUMBER            |                    |
| 240<br>480          | 33"     | 22 1/2" | 16 1/2" | 6                             | CH33-6-3T5<br>CH33-6-5T5   | 3                                        | CM33-3-3T5<br>CM33-3-5T5   | 1.5                                 | CL33-15-3T5<br>CL33-15-5T5 | 1                                 | CV33-1-3T5<br>CV33-1-5T5   | 65                 |
| 240<br>480          | 33"     | 22 1/2" | 16 1/2" | 7.5                           | CH33-75-3T5<br>CH33-75-5T5 | 3.7                                      | CM33-37-3T5<br>CM33-37-5T5 | 2                                   | CL33-2-3T5<br>CL33-2-5T5   | 1.2                               | CV33-12-3T5<br>CV33-12-5T5 | 67                 |
| 240<br>480          | 33"     | 22 1/2" | 16 1/2" | 9                             | CH33-9-3T5<br>CH33-9-5T5   | 4.5                                      | CM33-45-3T5<br>CM33-45-5T5 | 2.3                                 | CL33-23-3T5<br>CL33-23-5T5 | 1.5                               | CV33-15-3T5<br>CV33-15-5T5 | 70                 |
| 240<br>480          | 43 1/4" | 32 1/2" | 26 1/2" | 12                            | CH33-12-3T5<br>CH33-12-5T5 | 6                                        | CM33-6-3T5<br>CM33-6-5T5   | 3                                   | CL33-3-3T5<br>CL33-3-5T5   | 2                                 | CV33-2-3T5<br>CV33-2-5T5   | 80                 |
| 240<br>480          | 55 3/4" | 45"     | 39"     | 15                            | CH33-15-3T5<br>CH33-15-5T5 | 7.5                                      | CM33-75-3T5<br>CM33-75-5T5 | 3.7                                 | CL33-37-3T5<br>CL33-37-5T5 | 2.5                               | CV33-25-3T5<br>CV33-25-5T5 | 95                 |
| 240<br>480          | 55 3/4" | 45"     | 39"     | 18                            | CH33-18-3T5<br>CH33-18-5T5 | 9                                        | CM33-9-3T5<br>CM33-9-5T5   | 4.5                                 | CL33-45-3T5<br>CL33-45-5T5 | 3                                 | CV33-3-3T5<br>CV33-3-5T5   | 96                 |
| 240<br>480          | 59 3/4" | 49"     | 39"     | 20                            | CH33-20-3T5<br>CH33-20-5T5 | 10                                       | CM33-10-3T5<br>CM33-10-5T5 | 5                                   | CL33-5-3T5<br>CL33-5-5T5   | 3.3                               | CV33-33-3T5<br>CV33-33-5T5 | 100                |

NOTE: All models wired for 3-phase operation unless otherwise specified.

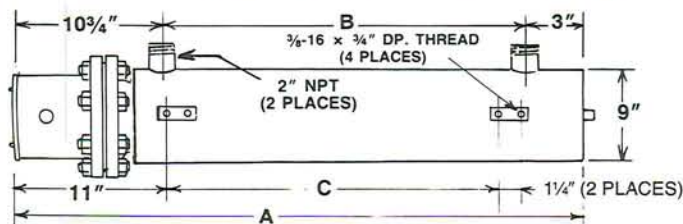
**5" - 150#**  
(6) .475 dia. elements



| VOLTS<br>3<br>PHASE | A       | B       | C       | 48 WSI                        |                            | 23 WSI                                   |                            | 12 WSI                              |                              | 8 WSI                             |                            | NET<br>WT.<br>LBS. |
|---------------------|---------|---------|---------|-------------------------------|----------------------------|------------------------------------------|----------------------------|-------------------------------------|------------------------------|-----------------------------------|----------------------------|--------------------|
|                     |         |         |         | CLEAN WATER<br>MILD SOLUTIONS | MODEL<br>NUMBER            | GASES, LT. WT. OILS<br>CAUSTIC SOLUTIONS | MODEL<br>NUMBER            | GASES, MED. WT.<br>OILS, CORROSIVES | MODEL<br>NUMBER              | GASES, #6 FUEL<br>OIL, CORROSIVES | MODEL<br>NUMBER            |                    |
| 240<br>480          | 28"     | 14"     | 13"     | 9                             | CH56-9-3T5<br>CH56-9-5T5   | 4.5                                      | CM56-45-3T5<br>CM56-45-5T5 | 2.2                                 | CL56-22-3T5<br>CL56-22-5T5   | 1.5                               | CV56-15-3T5<br>CV56-15-5T5 | 105                |
| 240<br>480          | 28"     | 14"     | 13"     | 12                            | CH56-12-3T5<br>CH56-12-5T5 | 6                                        | CM56-6-3T5<br>CM56-6-5T5   | 3                                   | CL56-3-3T5<br>CL56-3-5T5     | 2                                 | CV56-2-3T5<br>CV56-2-5T5   | 105                |
| 240<br>480          | 31"     | 17"     | 16 1/2" | 15                            | CH56-15-3T5<br>CH56-15-5T5 | 7.5                                      | CM56-75-3T5<br>CM56-75-5T5 | 3.7                                 | CL56-37-3T5<br>CL56-37-5T5   | 2.5                               | CV56-25-3T5<br>CV56-25-5T5 | 110                |
| 240<br>480          | 35"     | 21 1/4" | 20"     | 18                            | CH56-18-3T5<br>CH56-18-5T5 | 9                                        | CM56-9-3T5<br>CM56-9-5T5   | 4.5                                 | CL56-45-3T5<br>CL56-45-5T5   | 3                                 | CV56-3-3T5<br>CV56-3-5T5   | 123                |
| 240<br>480          | 43 1/2" | 30"     | 25"     | 24                            | CH56-24-3T5<br>CH56-24-5T5 | 12                                       | CM56-12-3T5<br>CM56-12-5T5 | 6                                   | CL56-6-3T5<br>CL56-6-5T5     | 4                                 | CV56-4-3T5<br>CV56-4-5T5   | 140                |
| 240<br>480          | 50 1/2" | 37"     | 25"     | 30                            | CH56-30-3T5<br>CH56-30-5T5 | 15                                       | CM56-15-3T5<br>CM56-15-5T5 | 7.5                                 | CL56-75-3T5<br>CL56-75-5T5   | 5                                 | CV56-5-3T5<br>CV56-5-5T5   | 155                |
| 240<br>480          | 60"     | 48 1/2" | 25"     | 36                            | CH56-36-3T5<br>CH56-36-5T5 | 18                                       | CM56-18-3T5<br>CM56-18-5T5 | 9                                   | CL56-9-3T5<br>CL56-9-5T5     | 6                                 | CV56-6-3T5<br>CV56-6-5T5   | 175                |
| 240<br>480          | 60"     | 48 1/2" | 25"     | 40                            | CH56-40-3T5<br>CH56-40-5T5 | 20                                       | CM56-20-3T5<br>CM56-20-5T5 | 10                                  | CL56-10-3T5<br>CL56-10-5T5   | 6.7                               | CV56-67-3T5<br>CV56-67-5T5 | 180                |
| 240<br>480          | 73 1/2" | 61 3/4" | 25"     | 50                            | CH56-50-3T5<br>CH56-50-5T5 | 25                                       | CM56-25-3T5<br>CM56-25-5T5 | 12.5                                | CL56-125-3T5<br>CL56-125-5T5 | 8.3                               | CV56-83-3T5<br>CV56-83-5T5 | 205                |
| 240<br>480          | 86 1/2" | 74 3/4" | 25"     | 60                            | CH56-60-3T5<br>CH56-60-5T5 | 30                                       | CM56-30-3T5<br>CM56-30-5T5 | 15                                  | CL56-15-3T5<br>CL56-15-5T5   | 10                                | CV56-10-3T5<br>CV56-10-5T5 | 235                |

# CIRCULATION HEATERS—FLANGED & SCREW PLUG

**6" -150#**  
(12) .475 dia. elements

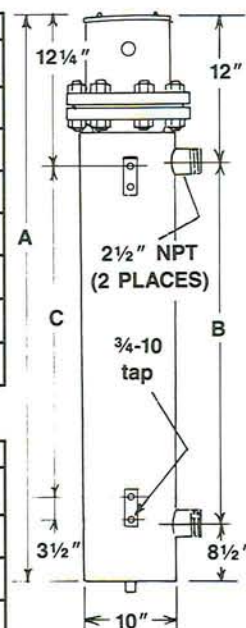


|                     |      |      |     | 48 WSI                        |                                | 23 WSI                                   |                              | 12 WSI                              |                              | 8 WSI                             |                              |                    |
|---------------------|------|------|-----|-------------------------------|--------------------------------|------------------------------------------|------------------------------|-------------------------------------|------------------------------|-----------------------------------|------------------------------|--------------------|
|                     |      |      |     | CLEAN WATER<br>MILD SOLUTIONS |                                | GASES, LT. WT. OILS<br>CAUSTIC SOLUTIONS |                              | GASES, MED. WT.<br>OILS, CORROSIVES |                              | GASES, #6 FUEL<br>OIL, CORROSIVES |                              |                    |
| VOLTS<br>3<br>PHASE | A    | B    | C   | KW                            | MODEL<br>NUMBER                | KW                                       | MODEL<br>NUMBER              | KW                                  | MODEL<br>NUMBER              | KW                                | MODEL<br>NUMBER              | NET<br>WT.<br>LBS. |
| 240<br>480          | 28"  | 14"  | 13" | 18                            | CH612-18-3T5<br>CH612-18-5T5   | 9                                        | CM612-9-3T5<br>CM612-9-5T5   | 4.5                                 | CL612-45-3T5<br>CL612-45-5T5 | 3                                 | CV612-3-3T5<br>CV612-3-5T5   | 120                |
| 240<br>480          | 28"  | 14"  | 13" | 24                            | CH612-24-3T5<br>CH612-24-5T5   | 12                                       | CM612-12-3T5<br>CM612-12-5T5 | 6                                   | CL612-6-3T5<br>CL612-6-5T5   | 4                                 | CV612-4-3T5<br>CV612-4-5T5   | 123                |
| 240<br>480          | 31"  | 17"  | 16" | 30                            | CH612-30-3T5<br>CH612-30-5T5   | 15                                       | CM612-15-3T5<br>CM612-15-5T5 | 7.5                                 | CL612-75-3T5<br>CL612-75-5T5 | 5                                 | CV612-5-3T5<br>CV612-5-5T5   | 130                |
| 240<br>480          | 35"  | 21¼" | 20" | 36                            | CH612-36-3T5<br>CH612-36-5T5   | 18                                       | CM612-18-3T5<br>CM612-18-5T5 | 9                                   | CL612-9-3T5<br>CL612-9-5T5   | 6                                 | CV612-6-3T5<br>CV612-6-5T5   | 150                |
| 240<br>480          | 43½" | 30"  | 25" | 48                            | CH612-48-3T5<br>CH612-48-5T5   | 24                                       | CM612-24-3T5<br>CM612-24-5T5 | 12                                  | CL612-12-3T5<br>CL612-12-5T5 | 8                                 | CV612-8-3T5<br>CV612-8-5T5   | 172                |
| 240<br>480          | 50½" | 37"  | 25" | 60                            | CH612-60-3T5<br>CH612-60-5T5   | 30                                       | CM612-30-3T5<br>CM612-30-5T5 | 15                                  | CL612-15-3T5<br>CL612-15-5T5 | 10                                | CV612-10-3T5<br>CV612-10-5T5 | 190                |
| 240<br>480          | 60"  | 48½" | 25" | 72                            | CH612-72-3T5<br>CH612-72-5T5   | 36                                       | CM612-36-3T5<br>CM612-36-5T5 | 18                                  | CL612-18-3T5<br>CL612-18-5T5 | 12                                | CV612-12-3T5<br>CV612-12-5T5 | 210                |
| 240<br>480          | 60"  | 48½" | 25" | 80                            | CH612-80-3T5<br>CH612-80-5T5   | 40                                       | CM612-40-3T5<br>CM612-40-5T5 | 20                                  | CL612-20-3T5<br>CL612-20-5T5 | 13                                | CV612-13-3T5<br>CV612-13-5T5 | 215                |
| 240<br>480          | 73½" | 61¾" | 25" | 100                           | CH612-100-3T5<br>CH612-100-5T5 | 50                                       | CM612-50-3T5<br>CM612-50-5T5 | 25                                  | CL612-25-3T5<br>CL612-25-5T5 | 17                                | CV612-17-3T5<br>CV612-17-5T5 | 255                |
| 240<br>480          | 86½" | 74¾" | 25" | 120                           | CH612-120-3T5<br>CH612-120-5T5 | 60                                       | CM612-60-3T5<br>CM612-60-5T5 | 30                                  | CL612-30-3T5<br>CL612-30-5T5 | 20                                | CV612-20-3T5<br>CV612-20-5T5 | 295                |

**8" -150#** (18) .475 dia. elements

| 48 WSI                      |      |      |     |                                |                 | 23 WSI                       |      |      |      |     |                                |                 |
|-----------------------------|------|------|-----|--------------------------------|-----------------|------------------------------|------|------|------|-----|--------------------------------|-----------------|
| CLEAN WATER, MILD SOLUTIONS |      |      |     |                                |                 | LT. WT. OILS, GASES, CAUSTIC |      |      |      |     |                                |                 |
| A                           | B    | C    | KW  | MODEL<br>NUMBER                | NET<br>WT. LBS. | VOLTS<br>3-PH                | A    | B    | C    | KW  | MODEL<br>NUMBER                | NET<br>WT. LBS. |
| 45¼"                        | 24¾" | 21¼" | 50  | CH818-50-3T5<br>CH818-50-5T5   | 260             | 240<br>480                   | 53"  | 32¾" | 29"  | 30  | CM818-30-3T5<br>CM818-30-5T5   | 300             |
| 53"                         | 32¾" | 29"  | 75  | CH818-75-3T5<br>CH818-75-5T5   | 300             | 240<br>480                   | 60"  | 39¾" | 36"  | 40  | CM818-40-3T5<br>CM818-40-5T5   | 340             |
| 60"                         | 39¾" | 36"  | 100 | CH818-100-3T5<br>CH818-100-5T5 | 340             | 240<br>480                   | 68"  | 47¼" | 43¾" | 50  | CM818-50-3T5<br>CM818-50-5T5   | 375             |
| 72"                         | 51¼" | 47½" | 120 | CH818-120-3T5<br>CH818-120-5T5 | 385             | 240<br>480                   | 77⅞" | 56¾" | 53"  | 60  | CM818-60-3T5<br>CM818-60-5T5   | 425             |
| 77½"                        | 56¾" | 53"  | 150 | CH818-150-3T5<br>CH818-150-5T5 | 425             | 240<br>480                   | 86½" | 65¾" | 62"  | 70  | CM818-70-3T5<br>CM818-70-5T5   | 500             |
| 86½"                        | 65¾" | 62"  | 175 | CH818-175-3T5<br>CH818-175-5T5 | 465             | 240<br>480                   | 96½" | 75¾" | 72"  | 80  | CM818-80-3T5<br>CM818-80-5T5   | 500             |
| 96½"                        | 75¾" | 72"  | 200 | CH818-200-3T5<br>CH818-200-5T5 | 500             | 240<br>480                   | 105" | 85"  | 81"  | 100 | CM818-100-3T5<br>CM818-100-5T5 | 540             |

| 12 WSI                           |      |      |      |                              |                 |                                 | 8 WSI |      |      |      |                              |                 |
|----------------------------------|------|------|------|------------------------------|-----------------|---------------------------------|-------|------|------|------|------------------------------|-----------------|
| MED. WT. OILS, GASES, CORROSIVES |      |      |      |                              |                 | #6 FUEL OILS, GASES, CORROSIVES |       |      |      |      |                              |                 |
| A                                | B    | C    | KW   | MODEL<br>NUMBER              | NET<br>WT. LBS. | VOLTS<br>3-PH                   | A     | B    | C    | KW   | MODEL<br>NUMBER              | NET<br>WT. LBS. |
| 45¼"                             | 24¾" | 21¼" | 12.5 | CL818-12-3T5<br>CL818-12-5T5 | 260             | 240<br>480                      | 53"   | 32¾" | 29"  | 10   | CV818-10-3T5<br>CV818-10-5T5 | 300             |
| 53"                              | 32¾" | 29"  | 18.7 | CL818-18-3T5<br>CL818-18-5T5 | 300             | 240<br>480                      | 60"   | 39¾" | 36¼" | 13.3 | CV818-13-3T5<br>CV818-13-5T5 | 340             |
| 60"                              | 39¾" | 36¼" | 25   | CL818-25-3T5<br>CL818-25-5T5 | 340             | 240<br>480                      | 68"   | 47¼" | 44"  | 16.7 | CV818-16-3T5<br>CV818-16-5T5 | 375             |
| 68"                              | 47¼" | 43¾" | 30   | CL818-30-3T5<br>CL818-30-5T5 | 375             | 240<br>480                      | 77⅝"  | 56¾" | 53"  | 20   | CV818-20-3T5<br>CV818-20-5T5 | 425             |
| 86½"                             | 65¾" | 62½" | 37.5 | CL818-37-3T5<br>CL818-37-5T5 | 465             | 240<br>480                      | 86½"  | 65¾" | 62¼" | 23.3 | CV818-23-3T5<br>CV818-23-5T5 | 465             |
| 96"                              | 75¾" | 72"  | 44   | CL818-44-3T5<br>CL818-44-5T5 | 500             | 240<br>480                      | 96½"  | 75¾" | 72"  | 27   | CV818-27-3T5<br>CV818-27-5T5 | 500             |
| 96"                              | 75¾" | 72"  | 50   | CL818-50-3T5<br>CL818-50-5T5 | 500             | 240<br>480                      | 105"  | 85"  | 81"  | 30   | CV818-30-3T5<br>CV818-30-5T5 | 540             |



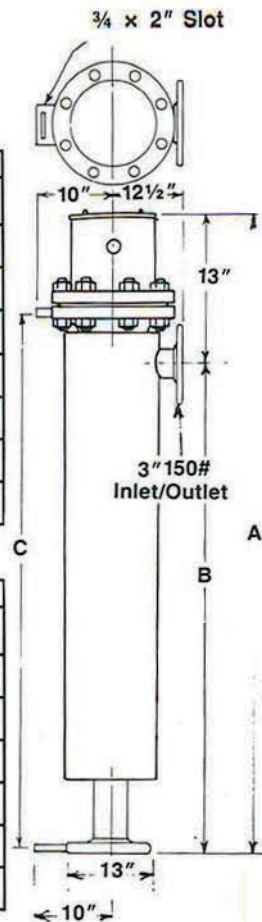
# CIRCULATION HEATERS—FLANGED & SCREW PLUG

## 10" - 150# (27) .475 dia. elements

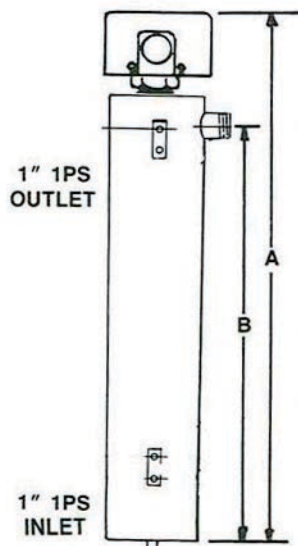
| 48 WSI                      |         |         |     |                              |              |            | 23 WSI                       |         |         |     |                              |              |  |
|-----------------------------|---------|---------|-----|------------------------------|--------------|------------|------------------------------|---------|---------|-----|------------------------------|--------------|--|
| CLEAN WATER, MILD SOLUTIONS |         |         |     |                              |              |            | LT. WT. OILS, GASES, CAUSTIC |         |         |     |                              |              |  |
| A                           | B       | C       | KW  | MODEL NUMBER                 | NET WT. LBS. | VOLTS 3-PH | A                            | B       | C       | KW  | MODEL NUMBER                 | NET WT. LBS. |  |
| 43"                         | 29"     | 35"     | 75  | CH1027-75-3<br>CH1027-75-5   | 435          | 240<br>480 | 63"                          | 49"     | 55"     | 45  | CM1027-45-3<br>CM1027-45-5   | 505          |  |
| 50"                         | 36"     | 42"     | 100 | CH1027-100-3<br>CH1027-100-5 | 460          | 240<br>480 | 74"                          | 60 1/4" | 66"     | 60  | CM1027-60-3<br>CM1027-60-5   | 540          |  |
| 57 1/2"                     | 43 1/2" | 49 1/2" | 125 | CH1027-125-3<br>CH1027-125-5 | 485          | 240<br>480 | 81 1/2"                      | 67 3/4" | 73 1/2" | 75  | CM1027-75-3<br>CM1027-75-5   | 580          |  |
| 64"                         | 50"     | 56"     | 150 | CH1027-150-3<br>CH1027-150-5 | 505          | 240<br>480 | 81 1/2"                      | 67 3/4" | 73 1/2" | 90  | CM1027-90-3<br>CM1027-90-5   | 585          |  |
| 71"                         | 57"     | 63"     | 175 | CH1027-175-3<br>CH1027-175-5 | 525          | 240<br>480 | 89"                          | 75 1/4" | 81"     | 105 | CM1027-105-3<br>CM1027-105-5 | 615          |  |
| 77 1/2"                     | 63 1/2" | 69"     | 200 | CH1027-200-3<br>CH1027-200-5 | 550          | 240<br>480 | 97 1/2"                      | 81 3/4" | 89"     | 120 | CM1027-120-3<br>CM1027-120-5 | 675          |  |
| 86"                         | 72 1/2" | 78"     | 225 | CH1027-225-3<br>CH1027-225-5 | 605          | 240<br>480 | 97 1/2"                      | 81 3/4" | 89"     | 135 | CM1027-135-3<br>CM1027-135-5 | 680          |  |

| 12 WSI                           |         |         |    |                            |              |            | 8 WSI                           |         |         |    |                            |              |  |
|----------------------------------|---------|---------|----|----------------------------|--------------|------------|---------------------------------|---------|---------|----|----------------------------|--------------|--|
| MED. WT. OILS, GASES, CORROSIVES |         |         |    |                            |              |            | #6 FUEL OILS, GASES, CORROSIVES |         |         |    |                            |              |  |
| A                                | B       | C       | KW | MODEL NUMBER               | NET WT. LBS. | VOLTS 3-PH | A                               | B       | C       | KW | MODEL NUMBER               | NET WT. LBS. |  |
| 50"                              | 36"     | 42"     | 25 | CL1027-25-3<br>CL1027-25-5 | 460          | 240<br>480 | 71"                             | 57"     | 63"     | 20 | CV1027-20-3<br>CV1027-20-5 | 525          |  |
| 57 1/2"                          | 43 1/2" | 49 1/2" | 30 | CL1027-30-3<br>CL1027-30-5 | 485          | 240<br>480 | 79"                             | 65"     | 71"     | 25 | CV1027-25-3<br>CV1027-25-5 | 550          |  |
| 71"                              | 57"     | 63"     | 45 | CL1027-45-3<br>CL1027-45-5 | 525          | 240<br>480 | 89"                             | 75 1/4" | 81"     | 30 | CV1027-30-3<br>CV1027-30-5 | 615          |  |
| 77 1/2"                          | 63 1/2" | 69"     | 50 | CL1027-50-3<br>CL1027-50-5 | 550          | 240<br>480 | 96 1/2"                         | 82 3/4" | 88 1/2" | 35 | CV1027-35-3<br>CV1027-35-5 | 670          |  |
| 87 1/2"                          | 74"     | 79 1/2" | 55 | CL1027-55-3<br>CL1027-55-5 | 610          | 240<br>480 | 104"                            | 90"     | 96"     | 40 | CV1027-40-3<br>CV1027-40-5 | 710          |  |
| 94 1/2"                          | 81"     | 86 1/2" | 60 | CL1027-60-3<br>CL1027-60-5 | 660          | 240<br>480 | 104"                            | 90"     | 96"     | 45 | CV1027-45-3<br>CV1027-45-5 | 710          |  |

Other sizes & ratings & materials of construction available—consult factory.



## 1" NPT Screw Plug

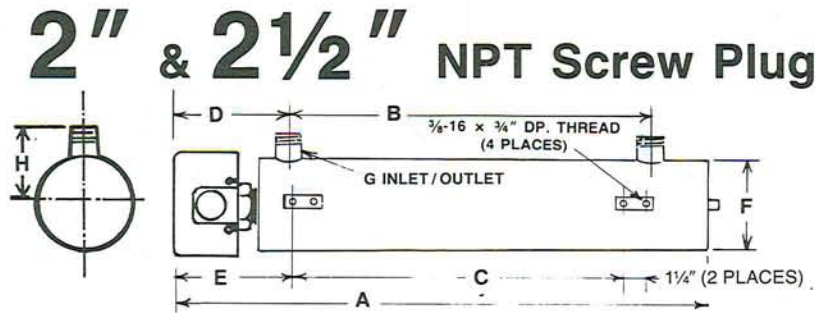


| 60 WSI - BRASS PLUG |            |                            |    |         |          |  | 23 WSI - STEEL PLUG |                            |         |         |          |  |  |
|---------------------|------------|----------------------------|----|---------|----------|--|---------------------|----------------------------|---------|---------|----------|--|--|
| WATTS               | VOLTS      | CAT. NO.                   | A  | B       | WT. LBS. |  | WATTS               | CAT. NO.                   | A       | B       | WT. LBS. |  |  |
| 1.5                 | 120<br>240 | CHB1-15-1T2<br>CHB1-15-2T2 | 18 | 12 3/8" | 14       |  | .5                  | CMR1-5-1T2<br>CMR1-5-2T2   | 19 1/8" | 13 1/2" | 14       |  |  |
| 2                   | 120<br>240 | CHB1-2-1T2<br>CHB1-2-2T2   | 18 | 12 3/8" | 14       |  | .75                 | CMR1-75-1T2<br>CMR1-75-2T2 | 19 1/8" | 13 1/2" | 14       |  |  |
| 2.5                 | 120<br>240 | CHB1-25-1T2<br>CHB1-25-2T2 | 22 | 16 3/8" | 16       |  | 1                   | CMR1-1-1T2<br>CMR1-1-2T2   | 22 3/8" | 16 3/4" | 17       |  |  |
| 3                   | 120<br>240 | CHB1-3-1T2<br>CHB1-3-2T2   | 22 | 16 3/8" | 16       |  | 1.5                 | CMR1-15-1T2<br>CMR1-15-2T2 | 29 3/8" | 23 3/4" | 20       |  |  |

Features: Incoloy sheathed element  
1" insulation encased in painted steel shroud  
Carbon steel piping welded leaktight  
60-250°F built-in thermostat

**DELTA**  
MANUFACTURING  
COMPANY INCORPORATED

# CIRCULATION HEATERS—FLANGED & SCREW PLUG



| PLUG SIZE | D   | E   | F   | G      | H   |
|-----------|-----|-----|-----|--------|-----|
| 2" NPT    | 6¾" | 6"  | 5"  | ¾" NPT | 4½" |
| 2½" NPT   | 7½" | 7¾" | 5¾" | 1" NPT | 5½" |

Features: Incoloy sheathed elements  
 1" insulation encased in painted steel shroud  
 Carbon steel piping welded leaktight  
 60-250°F built-in thermostat

**48 WSI - BRASS PLUG**

**23 WSI - STEEL PLUG**

| 2" | VOLTS<br>1-PH      | KW | CAT. NO.                   | A   | B   | C  | WT.<br>LBS. | KW  | CAT NO.                    | A   | B   | C  | WT.<br>LBS. |
|----|--------------------|----|----------------------------|-----|-----|----|-------------|-----|----------------------------|-----|-----|----|-------------|
|    | 120/240<br>240/480 | 3  | CHC2-3-2T2<br>CHC2-3-4T2   | 24¼ | 15  | —  | 20          | 1.5 | CMF2-15-2T2<br>CMF2-15-4T2 | 23¼ | 15  | —  | 20          |
|    | 120/240<br>240/480 | 4  | CHC2-4-2T2<br>CHC2-4-4T2   | 31¼ | 23  | —  | 27          | 2   | CMF2-2-2T2<br>CMF2-2-4T2   | 31¼ | 23  | —  | 27          |
|    | 120/240<br>240/480 | 5  | CHC2-5-2T2<br>CHC2-5-4T2   | 31¼ | 23  | —  | 27          | 2.5 | CMF2-25-2T2<br>CMF2-25-4T2 | 31¼ | 23  | —  | 27          |
|    | 120/240<br>240/480 | 6  | CHC2-6-2T2<br>CHC2-6-4T2   | 31¼ | 23  | —  | 27          | 3   | CMF2-3-2T2<br>CMF2-3-4T2   | 31¼ | 23  | —  | 27          |
|    | 120/240<br>240/480 | 8  | CHC2-8-2T2<br>CHC2-8-4T2   | 38¾ | 30½ | 26 | 36          | 4   | CMF2-4-2T2<br>CMF2-4-4T2   | 38¾ | 30½ | 26 | 36          |
|    | 120/240<br>240/480 | 10 | CHC2-10-2T2<br>CHC2-10-4T2 | 46¼ | 38  | 26 | 43          | 5   | CMF2-5-2T2<br>CMF2-5-4T2   | 46¼ | 38  | 26 | 43          |
|    | 120/240<br>240/480 | 12 | CHC2-12-2T2<br>CHC2-12-4T2 | 54¼ | 46  | 39 | 50          | 6   | CMF2-6-2T2<br>CMF2-6-4T2   | 54¼ | 46  | 39 | 50          |

**48 WSI - BRASS PLUG**

**23 WSI - STEEL PLUG**

| 2½" | VOLTS<br>3-PH | KW  | CAT. NO.                   | A  | B   | C   | WT.<br>LBS. | KW   | CAT NO.                    | A  | B   | C   | WT.<br>LBS. |
|-----|---------------|-----|----------------------------|----|-----|-----|-------------|------|----------------------------|----|-----|-----|-------------|
|     | 240<br>480    | 6   | CHH3-6-3T2<br>CHH3-6-5T2   | 31 | 22½ | 16½ | 65          | 3    | CMP3-3-3T2<br>CMP3-3-5T2   | 31 | 22½ | 16½ | 70          |
|     | 240<br>480    | 7.5 | CHH3-75-3T2<br>CHH3-75-5T2 | 31 | 22½ | 16½ | 65          | 3.75 | CMP3-37-3T2<br>CMP3-37-5T2 | 31 | 22½ | 16½ | 70          |
|     | 240<br>480    | 9   | CHH3-9-3T2<br>CHH3-9-5T2   | 31 | 22½ | 16½ | 65          | 4.5  | CMP3-45-3T2<br>CMP3-45-5T2 | 31 | 22½ | 16½ | 70          |
|     | 240<br>480    | 12  | CHH3-12-3T2<br>CHH3-12-5T2 | 41 | 32½ | 26½ | 76          | 6    | CMP3-6-3T2<br>CMP3-6-5T2   | 41 | 32½ | 26½ | 80          |
|     | 240<br>480    | 15  | CHH3-15-3T2<br>CHH3-15-5T2 | 55 | 45  | 39  | 93          | 7.5  | CMP3-75-3T2<br>CMP3-75-5T2 | 55 | 45  | 39  | 96          |
|     | 240<br>480    | 18  | CHH3-18-3T2<br>CHH3-18-5T2 | 55 | 45  | 39  | 95          | 9    | CMP3-9-3T2<br>CMP3-9-5T2   | 55 | 45  | 39  | 98          |

## HOW TO ORDER CIRCULATION HEATERS

1. Order by part number, if known
2. Quantity
3. Flange or screw plug size, pipe body size, pressure rating
4. Kilowatt and voltage
5. Optional features: terminal housing, wetted surface materials, thermocouples
6. Control device and temperature range

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