

# CLASSIC

## Submittal

JVA/VA-AR18EI  
Classic Architectural  
Copper/Aluminum and  
Steel Elements

### Specification

#### ☐ JVA Slip Jointed Enclosure

##### ENCLOSURE:

STYLE: Classic Ext. Alum. Inlet  
OUTLET: Extruded Aluminum Grille  
Pencil Proof

LENGTHS: 2'0" thru 8'0" in 6" Increments  
MAT'L: ☐ 16 Ga. CRS (Std)  
☐ 14 Ga. CRS (Opt'l)  
☐ 16 Ga. Stainless Steel (Opt'l)\*  
☐ 14 Ga. Stainless Steel (Opt'l)\*  
☐ 14 Ga. Aluminum (Opt'l)  
☐ 12 Ga. Aluminum (Opt'l)  
\*Available on "J" Style Only  
FINISH: ☐ Baked Powder (Std)  
☐ Baked Metallic (Opt'l)

##### FLOOR ANGLE:

☐ Ext. Al (Clear Anodized)  
☐ 1" x 1" CRS Painted

##### ACCESSORIES:

☐ JVA Overlapping Type  
☐ VA Underlapping Type

##### ELEMENT:

TYPE: ☐ Cu/Al (Mechanically  
Expanded)  
LENGTHS: 2'0" thru 12'6" in 1" Increments  
for 1" & 1-1/4" Cu.  
2'0" thru 8'0" in 1"  
Increments for 3/4" Cu.  
One End Flared, (Std)  
TYPE: ☐ IPS Steel (Mechanically  
Expanded)  
LENGTHS: 2'0" Thru 12'0" in 1" Increments  
☐ NPT Thread both Ends (Std)  
☐ Beveled Ends for Field Weld

See Catalog for Working  
Pressures

#### ☐ VA Wiped Edge Enclosure

##### BACKPLATE:

TYPE: ☐ Partial B/P  
LENGTHS: 8'0" Only  
MAT'L: ☐ 20 Ga. Prepainted (Std)  
☐ 18 Ga. Galvannealed (Opt'l)  
TYPE: ☐ Full Ht. B/P (Opt'l)  
LENGTHS: 2'0" thru 8'0" in 6" Increments  
MAT'L: ☐ 20 Ga. Galvannealed (Opt'l)  
☐ 20 Ga. Painted (Opt'l)  
☐ 18 Ga. Painted (Opt'l)

##### AIRSEAL:

☐ 1/8" x 3/8" Closed Cell (Opt'l)

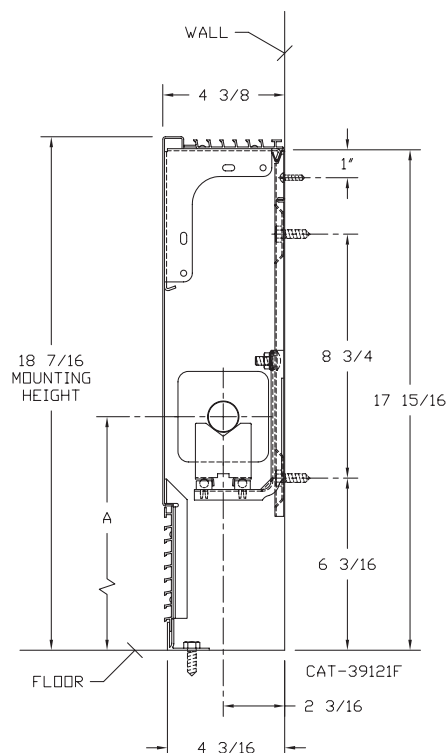
##### BRACKETS:

☐ Vertical Wall Brkt  
w/B.B. Hgr

##### DAMPER:

☐ Dial Type (Opt'l)  
☐ Tamper Resistant (Opt'l)

#### JVA/VA-AR18EI (JVA Shown)



| ELEMENT<br>TUBE SIZE | FIN SIZE<br>HEIGHT x WIDTH | CRADLE<br>NUMBER | A MIN  | A MAX  |
|----------------------|----------------------------|------------------|--------|--------|
| 3/4" COPPER          | 3 1/4 x 3 1/4              | 2                | 7"     | 9 1/2" |
| 1" COPPER            | 3 1/4 x 3 1/4              | 2                | 7 1/4" | 9 5/8" |
| 1 1/4" COPPER        | 3 1/4 x 3 1/4              | 1                | 7"     | 9 1/8" |
| 1" STEEL             | 3 1/4 x 3 1/4              | 2                | 7 1/4" | 9 3/4" |
| 1 1/4" STEEL         | 3 1/4 x 3 1/4              | 1                | 7"     | 9 1/4" |



COMMERCIAL HYDRONIC PRODUCTS

260 North Elm St., Westfield, MA 01085

(413) 564-5535 Fax: (413) 562-8437

www.sterlingheat.com



PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_

LOCATION: \_\_\_\_\_

ARCHITECT: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

PO NUMBER: \_\_\_\_\_

STYLE JVA/VA-AR18EI

COPPER/ALUMINUM ELEMENT RATINGS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE<br>SIZE | CATALOG<br>DESIGNATION | FIN SIZE<br>HEIGHT X WIDTH | FINS<br>PER<br>FT. | FIN<br>THICKNESS<br>IN INCHES | ENCL<br>HEIGHT<br>IN INCHES | TIERS<br>AND<br>CENTERS<br>IN INCHES | MTG.<br>HEIGHT<br>IN INCHES | STEAM<br>215°<br>FACTOR | HOT WATER (AVG.)                                  |      |      |      |      |      |      |      |      |
|--------------|------------------------|----------------------------|--------------------|-------------------------------|-----------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
|              |                        |                            |                    |                               |                             |                                      |                             |                         | 200°                                              | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
|              |                        |                            |                    |                               |                             |                                      |                             |                         | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES |      |      |      |      |      |      |      |      |
|              |                        |                            |                    |                               |                             |                                      |                             |                         | 1.00                                              | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40  | .33  |
| 3/4"         | C3/4-33                | 3-1/4" SQ.                 | 32                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1050                    | 900                                               | 820  | 720  | 640  | 560  | 470  | 420  | 350  | 270  |
| 3/4"         | C3/4-34                | 3-1/4" SQ.                 | 40                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1230                    | 1060                                              | 960  | 850  | 750  | 650  | 550  | 490  | 410  | 320  |
| 3/4"         | C3/4-35                | 3-1/4" SQ.                 | 50                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1370                    | 1180                                              | 1070 | 950  | 840  | 730  | 620  | 550  | 450  | 360  |
| 1"           | C33                    | 3-1/4" SQ.                 | 32                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1130                    | 970                                               | 880  | 780  | 690  | 600  | 510  | 450  | 370  | 290  |
| 1"           | C34                    | 3-1/4" SQ.                 | 40                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1270                    | 1090                                              | 990  | 880  | 770  | 670  | 570  | 510  | 420  | 330  |
| 1"           | C35                    | 3-1/4" SQ.                 | 50                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1320                    | 1140                                              | 1030 | 910  | 810  | 700  | 590  | 530  | 440  | 340  |
| 1 1/4"       | C133                   | 3-1/4" SQ.                 | 32                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 960                     | 830                                               | 750  | 660  | 590  | 510  | 430  | 380  | 320  | 250  |
| 1 1/4"       | C134                   | 3-1/4" SQ.                 | 40                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1130                    | 970                                               | 880  | 780  | 690  | 600  | 510  | 450  | 370  | 290  |
| 1 1/4"       | C135                   | 3-1/4" SQ.                 | 50                 | .020                          | 18-7/16                     | 1                                    | 18-7/16                     | 1270                    | 1090                                              | 990  | 880  | 770  | 670  | 570  | 510  | 420  | 330  |

STEEL ELEMENT RATINGS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE<br>SIZE | CATALOG<br>DESIGNATION | FIN SIZE<br>HEIGHT X WIDTH | FINS<br>PER<br>FT. | FIN<br>THICKNESS<br>IN INCHES | ENCL<br>HEIGHT<br>IN INCHES | TIERS<br>AND<br>CENTERS<br>IN INCHES | MTG.<br>HEIGHT<br>IN INCHES | STEAM<br>215°<br>FACTOR | HOT WATER (AVG.)                                  |      |      |      |      |      |      |      |      |
|--------------|------------------------|----------------------------|--------------------|-------------------------------|-----------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
|              |                        |                            |                    |                               |                             |                                      |                             |                         | 200°                                              | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
|              |                        |                            |                    |                               |                             |                                      |                             |                         | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES |      |      |      |      |      |      |      |      |
|              |                        |                            |                    |                               |                             |                                      |                             | 1.00                    | 0.86                                              | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40  | .33  | .26  |
| 1"           | S33                    | 3-1/4" SQ.                 | 32                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 880                     | 760                                               | 690  | 610  | 540  | 470  | 400  | 350  | 290  | 230  |
| 1"           | S34                    | 3-1/4" SQ.                 | 40                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 970                     | 830                                               | 760  | 670  | 590  | 510  | 440  | 390  | 320  | 250  |
| 1"           | S35                    | 3-1/4" SQ.                 | 50                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 1040                    | 890                                               | 810  | 720  | 630  | 550  | 470  | 420  | 340  | 270  |
| 1-1/4"       | S133                   | 3-1/4" SQ.                 | 32                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 870                     | 750                                               | 680  | 600  | 530  | 460  | 390  | 350  | 290  | 230  |
| 1-1/4"       | S134                   | 3-1/4" SQ.                 | 40                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 980                     | 840                                               | 760  | 680  | 600  | 520  | 440  | 390  | 320  | 250  |
| 1-1/4"       | S135                   | 3-1/4" SQ.                 | 50                 | .032                          | 18-7/16                     | 1                                    | 18-7/16                     | 1020                    | 880                                               | 800  | 700  | 620  | 540  | 460  | 410  | 340  | 270  |

## DESIGN DATA

## COMMERCIAL FINNED TUBE RATING CORRECTION CHARTS

**CATALOG FINNED TUBE RATINGS ARE BASED UPON THE FOLLOWING CONDITIONS:**

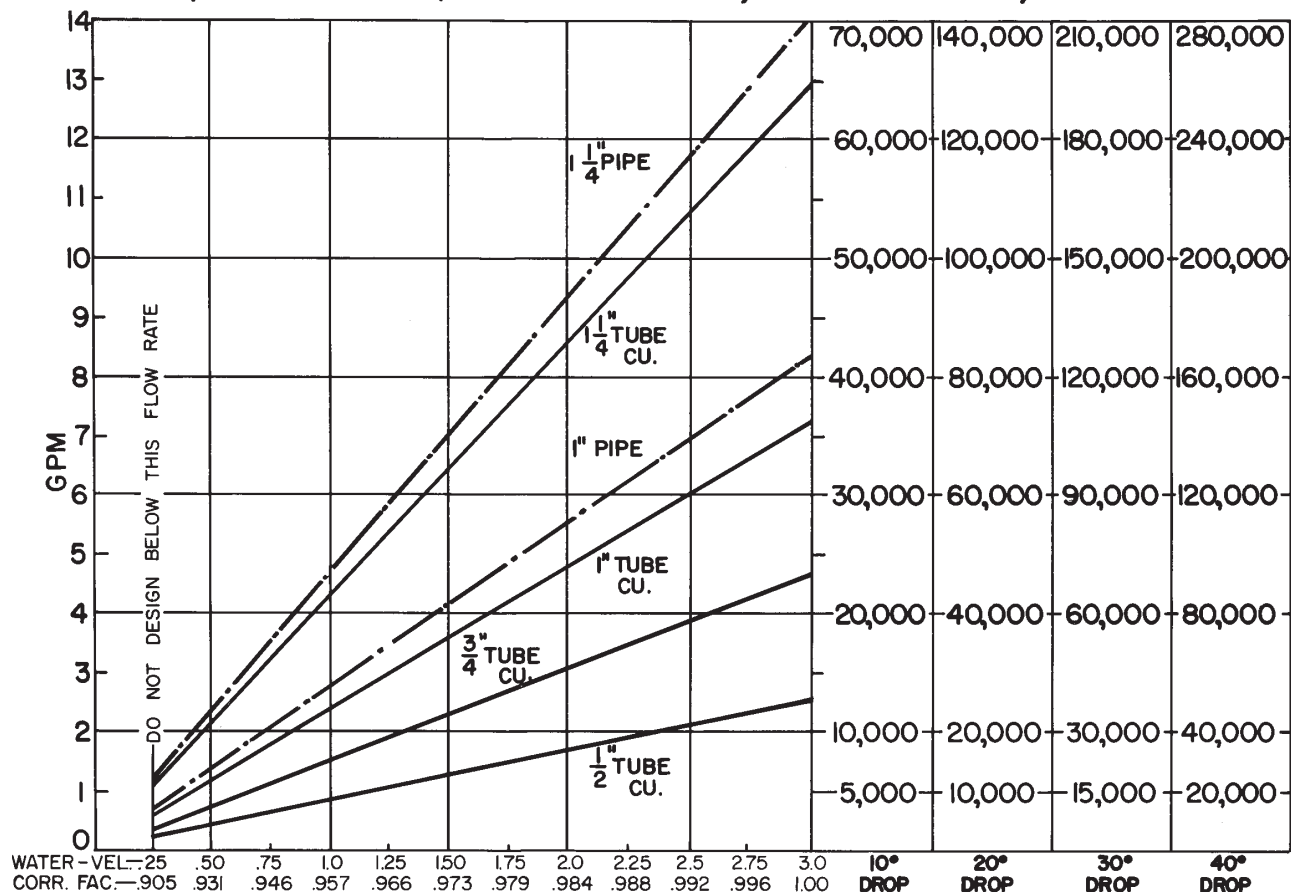
- 215°F AVERAGE WATER OR STEAM TEMPERATURE
- 65°F ENTERING AIR TEMPERATURE
- 3 FEET PER SECOND WATER FLOW RATE
- CATALOG MOUNTING HEIGHT

USE THE FOLLOWING CALCULATION WITH CORRECTION FACTORS FOR JOB CONDITIONS TO DETERMINE CORRECTED RATING:

$$\text{CORRECTED RATING} = (215^{\circ}\text{F CATALOG RATING}) \times \left( \frac{\text{CORRECTION FACTOR FOR STEAM OR WATER AND AVERAGE AIR TEMP.}}{\text{CORRECTION FACTOR FOR FLOW RATE}} \right) \times \left( \frac{\text{CORRECTION FOR MOUNTING HTG.-SEE CATALOG RATING}}{\text{CORRECTION FACTOR FOR FLOW RATE}} \right)$$

**USE THE FOLLOWING CHARTS TO SELECT CORRECTION FACTORS**

CHART/WATER VEL./CORR. FACTOR / PRESS. DROP/TOTAL BTU.

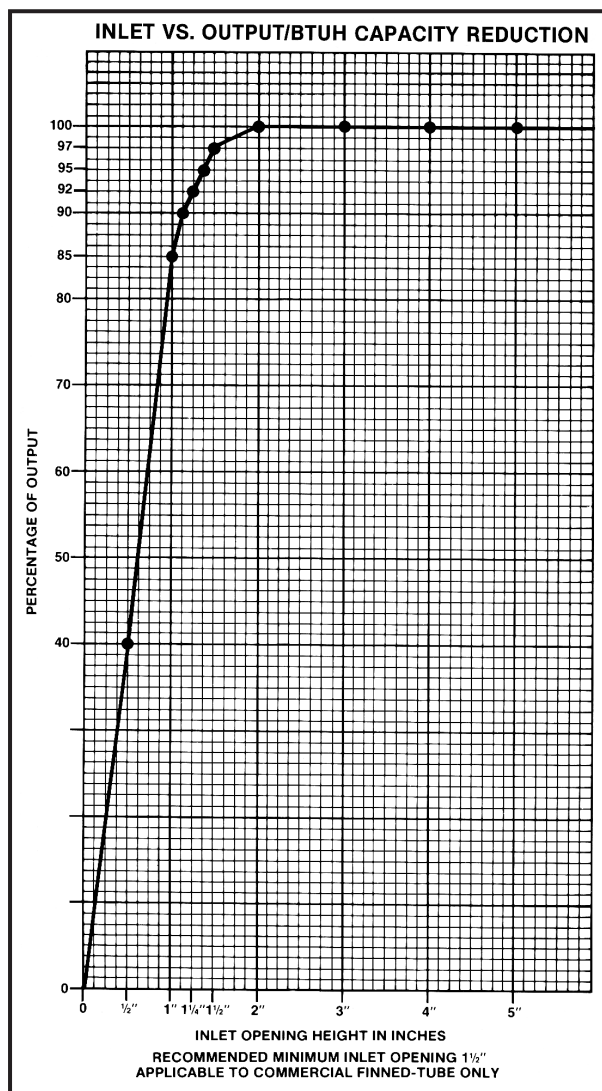


|                  |      |     |      |     |      |      |      |      |      |      |              |
|------------------|------|-----|------|-----|------|------|------|------|------|------|--------------|
| 1/2" COP ALUM.   | .180 |     | 2.33 |     |      | 5.33 |      |      | 9.16 |      |              |
| 3/4" COP ALUM.   | .5   |     | 1.5  |     |      | 3.16 |      |      | 5.4  |      | 6.25         |
| 1" COP ALUM.     | .233 | .41 |      | .83 |      | 1.45 |      | 2.16 | 2.83 |      | 3.66         |
| 1" PIPE          |      | .37 | .79  |     | 1.3  |      | 2.00 | 2.70 | 3.70 |      | 4.80         |
| 1 1/4" COP ALUM. | .16  | .33 | .55  | .79 | 1.08 | 1.33 | 1.8  | 2.25 | 2.26 | 2.91 | 3.3          |
| 1 1/4" PIPE      | .09  | .18 | .31  | .5  | .70  | 1.0  | 1.1  | 1.3  | 1.6  | 1.8  | 2.58 2.3 3.3 |

PRESSURE DROP PER  
100 LINEAR FT., IN  
FEET OF HEAD

## DESIGN DATA

### INLET AIR CORRECTION FACTOR



### GUARANTEED WORKING PRESSURES

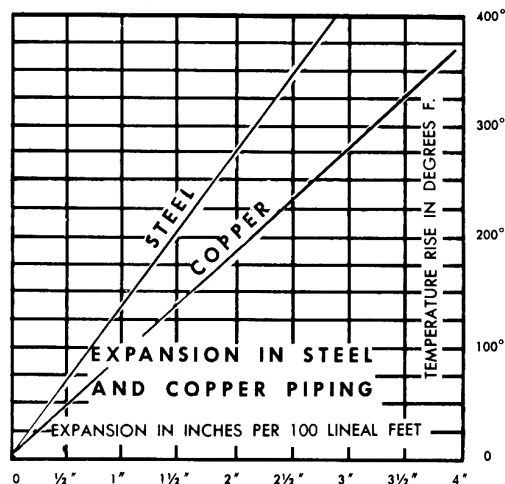
1" IPS — 780 AT TEMPERATURES UP TO 650°F.  
 1 1/4" IPS — 660 AT TEMPERATURES UP TO 650°F.  
 2" IPS — 405 AT TEMPERATURES UP TO 650°F.  
 1 1/4" CU — 194 AT TEMPERATURES UP TO 300°F.  
 1" CU — 204 AT TEMPERATURES UP TO 300°F.  
 3/4" CU — 218 PSI AT TEMPERATURES UP TO 300°F.  
 MAXIMUM PRESSURES AT OTHER TEMPERATURES ARE AVAILABLE UPON REQUEST.

### RATE OF PITCH FOR STEAM 1/2" DROP OVER 20 FT. RUN.

| PIPE WATER CAPACITIES AND QUANTITIES<br>CIRCULATED AT VELOCITY OF 3* FEET PER SECOND |                      |                            |                          |
|--------------------------------------------------------------------------------------|----------------------|----------------------------|--------------------------|
| Pipe Size                                                                            | Gals. Per Linear Ft. | Gals./Min. @ 3' Sec. Vel.* | Lbs./Hr. @ 3' Sec. Vel.* |
| 1/2"                                                                                 | .016                 | 2.88                       | 1440                     |
| 3/4"                                                                                 | .023                 | 4.14                       | 2070                     |
| 1"                                                                                   | .040                 | 7.20                       | 3600                     |
| 1 1/4"                                                                               | .063                 | 11.34                      | 5660                     |
| 1 1/2"                                                                               | .102                 | 18.36                      | 9160                     |
| 2"                                                                                   | .170                 | 30.60                      | 15300                    |
| 2 1/2"                                                                               | .275                 | 49.50                      | 24850                    |
| 3"                                                                                   | .390                 | 70.20                      | 35000                    |

\*3 Ft./Sec. Velocity is Basic for Hot Water Rating Factors Shown on this Page.

$$\text{VELOCITY FT./SEC.} = \frac{\text{LBS. PER HOUR}}{(\text{GALS. PER FT.}) (3600) (8.3)}$$



### GLYCOL CORRECTION FACTORS

#### Fluid Temperature 200°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20         | .952            | .988             |
| 30         | .921            | .968             |
| 40         | .888            | .943             |
| 50         | .852            | .912             |

#### Fluid Temperature 180°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20         | .946            | .982             |
| 30         | .913            | .961             |
| 40         | .879            | .934             |
| 50         | .842            | .902             |

#### Fluid Temperature 140°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20         | .934            | .97              |
| 30         | .898            | .946             |
| 40         | .861            | .916             |
| 50         | .821            | .881             |

### ALTITUDE FACTORS

Approximate factors for convective heat value at varying altitudes

| Altitude   | Ferrous Units | Copper Alum. Units |
|------------|---------------|--------------------|
| Sea Level  | 1.000         | 1.000              |
| 1,000 ft.  | .984          | .969               |
| 2,000 ft.  | .968          | .938               |
| 3,000 ft.  | .952          | .908               |
| 4,000 ft.  | .936          | .878               |
| 5,000 ft.  | .920          | .850               |
| 6,000 ft.  | .904          | .822               |
| 7,000 ft.  | .889          | .795               |
| 8,000 ft.  | .874          | .768               |
| 9,000 ft.  | .859          | .743               |
| 10,000 ft. | .844          | .718               |
| 15,000 ft. | .771          | .603               |
| 20,000 ft. | .703          | .502               |

## CORRECTION FACTORS FOR STEAM PRESSURES AND AIR TEMPERATURES OTHER THAN STANDARD

| STEAM        |          | ENTERING AIR TEMPERATURE, °F |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|----------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Pressure     |          | Temp.                        |      |      | STD  |      |      |      |      |      |      |      |      |      |      |      |
| Gauge        | Abs. Psi | °F                           | 45   | 55   | 65   | 70   | 75   | 80   | 85   | 90   | 100  | 110  | 120  | 130  | 140  | 150  |
| (Vac) 15" Hg | 7.32     | 178.9                        | 0.90 | 0.80 | 0.70 | 0.65 | 0.60 | 0.56 | 0.51 | 0.45 | 0.39 | 0.32 | 0.25 | 0.18 | 0.13 | 0.08 |
| (Vac) 10"    | 9.78     | 192.2                        | 1.02 | 0.91 | 0.81 | 0.76 | 0.71 | 0.66 | 0.62 | 0.55 | 0.48 | 0.40 | 0.33 | 0.26 | 0.20 | 0.14 |
| (Vac) 5"     | 12.25    | 202.9                        | 1.11 | 1.00 | 0.90 | 0.85 | 0.79 | 0.75 | 0.70 | 0.63 | 0.56 | 0.48 | 0.40 | 0.33 | 0.27 | 0.20 |
| (Vac) 0 Psi  | 14.696   | 212.0                        | 1.19 | 1.09 | 0.97 | 0.92 | 0.87 | 0.82 | 0.77 | 0.70 | 0.63 | 0.54 | 0.46 | 0.38 | 0.31 | 0.25 |
| ► .899       | 15.595   | 215.0                        | 1.22 | 1.11 | 1.00 | 0.95 | 0.90 | 0.84 | 0.80 | 0.75 | 0.65 | 0.57 | 0.48 | 0.40 | 0.33 | 0.26 |
| 5            | 19.70    | 227.1                        | 1.34 | 1.22 | 1.11 | 1.05 | 1.00 | 0.95 | 0.90 | 0.81 | 0.75 | 0.66 | 0.57 | 0.49 | 0.41 | 0.34 |
| 10           | 24.70    | 239.4                        | 1.45 | 1.33 | 1.22 | 1.17 | 1.11 | 1.05 | 1.00 | 0.91 | 0.85 | 0.75 | 0.66 | 0.58 | 0.50 | 0.42 |
| 15           | 29.70    | 249.8                        | 1.55 | 1.43 | 1.31 | 1.26 | 1.20 | 1.14 | 1.09 | 1.00 | 0.94 | 0.84 | 0.75 | 0.66 | 0.57 | 0.49 |
| 20           | 34.70    | 258.8                        | 1.63 | 1.52 | 1.40 | 1.33 | 1.28 | 1.23 | 1.17 | 1.07 | 1.02 | 0.92 | 0.82 | 0.73 | 0.64 | 0.55 |
| 25           | 39.70    | 266.8                        | 1.71 | 1.59 | 1.47 | 1.41 | 1.36 | 1.30 | 1.25 | 1.15 | 1.09 | 0.98 | 0.89 | 0.80 | 0.71 | 0.62 |
| 30           | 44.70    | 274.0                        | 1.78 | 1.66 | 1.54 | 1.48 | 1.42 | 1.37 | 1.31 | 1.21 | 1.15 | 1.05 | 0.95 | 0.85 | 0.76 | 0.68 |
| 40           | 54.70    | 286.7                        | 1.91 | 1.79 | 1.66 | 1.61 | 1.54 | 1.49 | 1.43 | 1.32 | 1.27 | 1.16 | 1.06 | 0.97 | 0.87 | 0.78 |
| 50           | 64.70    | 297.7                        | 2.02 | 1.90 | 1.77 | 1.71 | 1.65 | 1.60 | 1.54 | 1.42 | 1.37 | 1.26 | 1.16 | 1.06 | 0.96 | 0.87 |
| 60           | 74.70    | 307.3                        | 2.10 | 2.00 | 1.87 | 1.81 | 1.75 | 1.69 | 1.63 | 1.51 | 1.47 | 1.35 | 1.25 | 1.15 | 1.05 | 0.95 |
| 70           | 84.70    | 316.0                        | 2.20 | 2.09 | 1.95 | 1.89 | 1.83 | 1.77 | 1.71 | 1.59 | 1.55 | 1.44 | 1.33 | 1.23 | 1.12 | 1.03 |
| 80           | 94.70    | 323.9                        | 2.27 | 2.17 | 2.03 | 1.97 | 1.91 | 1.85 | 1.80 | 1.69 | 1.63 | 1.52 | 1.41 | 1.31 | 1.20 | 1.10 |
| 90           | 104.70   | 331.2                        | 2.36 | 2.24 | 2.11 | 2.05 | 1.98 | 1.93 | 1.87 | 1.74 | 1.70 | 1.59 | 1.48 | 1.38 | 1.28 | 1.17 |
| 100          | 114.70   | 337.9                        | 2.43 | 2.31 | 2.18 | 2.11 | 2.05 | 2.00 | 1.94 | 1.81 | 1.77 | 1.65 | 1.54 | 1.44 | 1.33 | 1.23 |
| 125          | 139.70   | 352.9                        | 2.59 | 2.47 | 2.33 | 2.27 | 2.21 | 2.16 | 2.10 | 1.96 | 1.92 | 1.80 | 1.69 | 1.59 | 1.48 | 1.38 |
| 150          | 164.70   | 365.9                        | 2.73 | 2.62 | 2.47 | 2.43 | 2.35 | 2.29 | 2.23 | 2.08 | 2.05 | 1.94 | 1.82 | 1.72 | 1.61 | 1.51 |
| 175          | 189.70   | 377.4                        | 2.86 | 2.74 | 2.60 | 2.54 | 2.47 | 2.41 | 2.35 | 2.21 | 2.17 | 2.05 | 1.95 | 1.85 | 1.73 | 1.63 |
| 200          | 214.70   | 387.8                        | 2.95 | 2.85 | 2.71 | 2.63 | 2.58 | 2.52 | 2.47 | 2.31 | 2.29 | 2.17 | 2.06 | 1.96 | 1.84 | 1.75 |

From Keenan and Keyes — Linear Interpolation.

Note: Gauge pressure should be corrected for altitude.

## CORRECTION FACTORS FOR WATER TEMPERATURES AND AIR TEMPERATURES OTHER THAN STANDARD

| AVERAGE WATER<br>TEMP. °F | ENTERING AIR TEMPERATURE, °F |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                           | 45                           | 55   | STD  | 70   | 75   | 80   | 85   | 90   | 95   | 100  | 110  | 120  | 130  | 140  | 150  |
| 90                        | .19                          | .13  | .11  | .06  |      |      |      |      |      |      |      |      |      |      |      |
| 100                       | .25                          | .19  | .15  | .11  | .08  | .06  |      |      |      |      |      |      |      |      |      |
| 110                       | .31                          | .25  | .20  | .16  | .13  | .11  | .08  | .06  |      |      |      |      |      |      |      |
| 120                       | .38                          | .31  | .26  | .21  | .19  | .16  | .13  | .11  | .08  | .06  |      |      |      |      |      |
| 130                       | .45                          | .38  | .33  | .28  | .25  | .21  | .19  | .16  | .13  | .11  | .06  |      |      |      |      |
| 140                       | .53                          | .45  | .40  | .34  | .31  | .28  | .25  | .21  | .19  | .16  | .11  | .06  |      |      |      |
| 150                       | .61                          | .53  | .45  | .41  | .38  | .34  | .31  | .28  | .25  | .21  | .16  | .11  | .06  |      |      |
| 160                       | .69                          | .61  | .53  | .49  | .45  | .41  | .38  | .34  | .31  | .28  | .21  | .16  | .11  | .06  |      |
| 170                       | .77                          | .69  | .61  | .57  | .53  | .49  | .45  | .41  | .38  | .34  | .28  | .21  | .16  | .11  | .06  |
| 180                       | .86                          | .77  | .69  | .65  | .61  | .57  | .53  | .49  | .45  | .41  | .34  | .28  | .21  | .16  | .11  |
| 190                       | .95                          | .86  | .78  | .73  | .69  | .65  | .61  | .57  | .53  | .49  | .41  | .34  | .28  | .21  | .16  |
| 200                       | 1.05                         | .95  | .86  | .82  | .77  | .73  | .69  | .65  | .61  | .57  | .49  | .41  | .34  | .28  | .21  |
| 210                       | 1.14                         | 1.05 | .95  | .91  | .86  | .82  | .77  | .73  | .69  | .65  | .57  | .49  | .41  | .34  | .28  |
| ► 215 (STD.)              | 1.19                         | 1.09 | 1.00 | .95  | .91  | .86  | .82  | .77  | .73  | .69  | .61  | .53  | .45  | .38  | .31  |
| 220                       | 1.24                         | 1.14 | 1.05 | 1.00 | .95  | .91  | .86  | .82  | .77  | .73  | .65  | .57  | .49  | .41  | .34  |
| 230                       | 1.34                         | 1.24 | 1.14 | 1.09 | 1.05 | 1.00 | .95  | .91  | .86  | .82  | .73  | .65  | .57  | .49  | .41  |
| 240                       | 1.44                         | 1.34 | 1.25 | 1.19 | 1.14 | 1.09 | 1.05 | 1.00 | .95  | .91  | .82  | .73  | .65  | .57  | .49  |
| 250                       | 1.55                         | 1.44 | 1.34 | 1.29 | 1.24 | 1.19 | 1.14 | 1.09 | 1.05 | 1.00 | .91  | .82  | .73  | .65  | .57  |
| 260                       | 1.66                         | 1.55 | 1.44 | 1.39 | 1.34 | 1.29 | 1.24 | 1.19 | 1.14 | 1.09 | 1.00 | .91  | .82  | .73  | .65  |
| 270                       | 1.76                         | 1.66 | 1.55 | 1.50 | 1.44 | 1.39 | 1.34 | 1.29 | 1.24 | 1.19 | 1.09 | 1.00 | .91  | .82  | .73  |
| 280                       | 1.87                         | 1.76 | 1.66 | 1.60 | 1.55 | 1.50 | 1.44 | 1.39 | 1.34 | 1.29 | 1.19 | 1.09 | 1.00 | .91  | .82  |
| 290                       | 1.99                         | 1.87 | 1.76 | 1.71 | 1.66 | 1.60 | 1.55 | 1.50 | 1.44 | 1.39 | 1.29 | 1.19 | 1.09 | 1.00 | .91  |
| 300                       | 2.10                         | 1.99 | 1.87 | 1.82 | 1.76 | 1.71 | 1.66 | 1.60 | 1.55 | 1.50 | 1.39 | 1.29 | 1.19 | 1.09 | 1.00 |