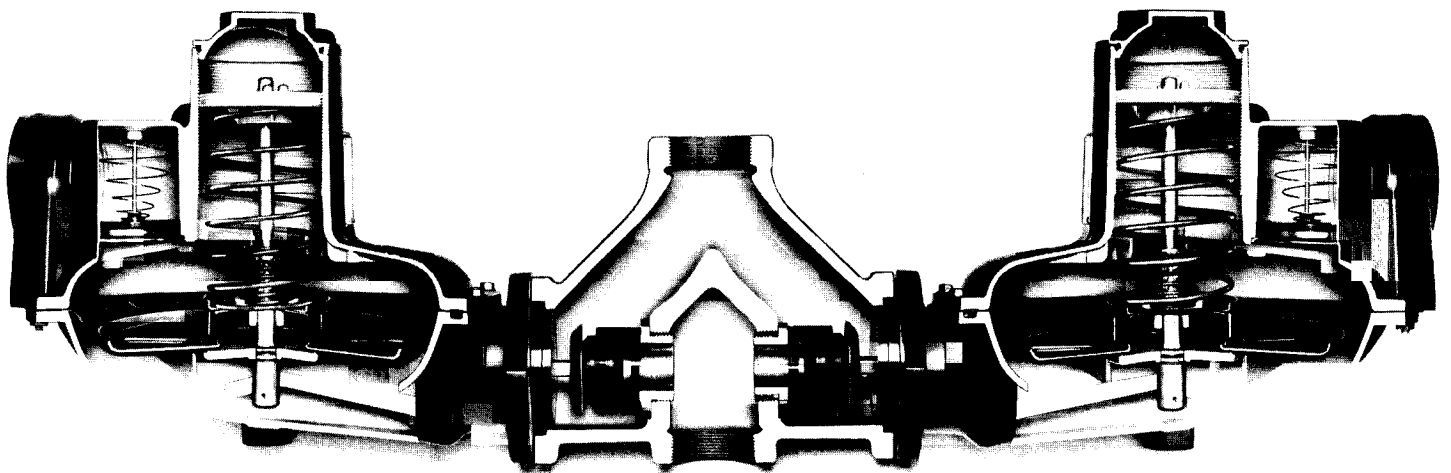


B-838 R, N, D, & M Twin Parallel Flow Service Regulators

- High capacity service regulators with single large valve body; orifices to 1 $\frac{3}{8}$ "
- Parallel regulation with extra large double relief capacity for increased safety.
- Combined unit saves space; eliminates extra piping.
- Reduces regulator installation costs significantly.

Below: Cut-away illustration of B-838 R showing single valve body with two diaphragm cases.



MODEL DESCRIPTION

The B-838 models N, R, M & D are single valve body regulators with large (12¹/₁₆" dia.) twin diaphragm cases. They are designed to smoothly handle the increased and varying flows of larger orifices (up to 1³/₈") and provide excellent control of widely fluctuating inlet pressures.

Twin parallel flow regulator design offers unusually large internal relief capacity for greater safety. It also saves space, eliminates extra piping and reduces installation costs. These regulators are ideal for commercial and small industrial applications. They can be piped into diaphragm-type or rotary meters.

The four models described in this data sheet are of the same basic construction with design options available to meet your needs for relief or no relief regulation, downstream control or monitoring.

B-838-N (non-relief) model is used on low or intermediate inlet pressures where an internal relief, or other type of over-pressure equipment is not required. Orifice size: ³/₈" to 1³/₈".

B-838-R is the largest internal relief service regulator in the industry. Its design features unrestricted flow areas from loading ring outlet through the lower case throat and into the relief valve area. Relief valve plate allows unrestricted flow to the large vent valve and vent (see relief data and curves). Two positive safety stops ensure operation of the internal relief in event of mechanical failure of other functioning parts. The stops give consistent initial relief and stop valve travel before orifice can cut into seat material. The point of relief is a function of the main adjustment spring setting and relief spring compression. Example: Regulator main spring set to give 9" w.c. outlet pressure. Relief spring is equal to 7" w.c. outlet pressure. The point of relief will be 16" w.c. or 7" w.c. above set. Orifice size: ¹/₄" to 1³/₈".

B-838-D. A standard B-838 unit with closed throat and downstream control tap. This is used when it is desirable to control the regulator from points other than the valve outlet side to take up pressure loss in long runs of pipe or where boost is undesirable. All capacity curves are the same except there is no boost experienced at the control point. Internal relief is available in this model. Control line limits capacity, however. Orifice size: ¹/₄" to 1³/₈".

B-838-M. Same as B-838-D with a closed throat and an O-ring seal on the valve stem through the throat to assure positive control downstream when installed ahead of the operating regulator. Used in a series installation as the first or upstream regulator. As an upstream monitor, this unit gives customers an operating safety device that assumes control over the operating regulator when failure is sensed by the control line of the monitor. This system assures maximum safety with uninterrupted service. The monitor regulator should be set to take over control from the operating regulator with only a slight increase in outlet pressure. Orifice size: ¹/₄" to 1³/₈".

SAMPLE PROBLEMS FOR SIZING B-838 REGULATORS

Problem No. 1

Max Flow: 15,000 scfh

Inlet Pressure Range: 5-25 PSIG

Outlet Pressure: 7" W.C.

Set Point: 15 PSIG inlet; 7" W.C. outlet

1. Smallest orifice based on 5 PSIG inlet pressure, 7" W.C. outlet and flowing 15,000 scfh is 1" in a 2" x 4" Valve Body.
2. Select Correct Adjustment Spring. See "B838R Spring Ranges". For a 1" orifice, a BROWN SPRING has a range of 6.2 to 9.3" W.C. at 25 PSIG Inlet pressure. The set point is 15 PSIG, therefore the adjusted spring range is based on "SPRING DATA" chart. For a 1" orifice, BROWN SPRING, the outlet pressure changes .85" W.C. for each 10 PSIG inlet pressure change. Therefore, the spring range at 15 PSIG is:
 $6.2 - .85 = 5.35" \text{ W.C. Min.}$
 $9.3 - .85 = 8.45" \text{ W.C. Max.}$
3. Determine the outlet pressure swing when the set point is 7.0" W.C. outlet pressure and 15 PSIG inlet pressure and the inlet varies from 5 to 25 PSIG. The outlet pressure varies .85" W.C. for each 10 PSIG inlet pressure change for a BROWN SPRING and 1" orifice. Therefore, the outlet pressure at 5 PSIG inlet pressure is:
 $7.0 - .85 = 6.15" \text{ W.C., WOR, and}$
 $7.0 + .85 = 7.85" \text{ W.C., WOR, at 25 PSIG, inlet pressure.}$
4. See "B-838-R Relief Valve Characteristics". With a 1" orifice and 7" W.C. set point, with one valve seat blocked wide open, the downstream pressure build-up will be approximately 1.5 PSIG with 25 PSIG inlet and venting approximately 30 Mcfh.

Problem No. 2 **

Downstream Monitor Installation

Max. Flow: 20,000 scfh

Inlet Pressure: 10 PSIG

Outlet Pressure: 7" W.C.

Set Monitor For: 11" W.C.

Select Model B-838-M as the *first* or upstream regulator and it is the OPERATING REGULATOR.
Select Model B-838-R as the second or downstream regulator and it is the MONITOR REGULATOR.

Note: The 'M' model regulator is *always* the *upstream* regulator *regardless of its function*.

1. Select orifice for MONITOR regulator.
Orifice = 1¹/₄" K = 3500
2" x 4" Valve Body.
2. Since MONITOR regulator will be normally wide open (set for 11" W.C.), calculate the pressure drop required to flow 20,000 scfh

$$* Q = K \sqrt{P_{out} \Delta P}$$

where: Q = scfh

K = Regulator Flow Constant

P_{out} = Outlet Pressure – PSIA

Δ P = Differential Pressure – PSI

*Below critical velocity

**Based on flow and pressure drop, it may be possible to match the valve body of the upstream regulator to the inlet of the downstream regulator.

$$\sqrt{\Delta P} = \frac{Q}{\sqrt{P_{out} \times K}}$$

$$\sqrt{\Delta P} = \frac{20,000}{\sqrt{14.4 + .25 \times 3500}} = 1.4929$$

$$\Delta P = 2.23 \text{ PSI}$$

3. Select correct adjustment spring for the MONITOR REGULATOR. For 1 1/4" orifice, 10 PSIG inlet and 11" W.C. outlet, correct spring is BLACK with a range from 9.2 to 16.5" W.C.
4. Select smallest orifice in 2" x 4" Valve Body for 10 PSIG inlet, 2.48 PSIG outlet (2.23 + .25) and 20,000 scfh for the upstream operating regulator. Try a 3/4" orifice.

$$Q = K \sqrt{P_{out} \times \Delta P}$$

$$= 2100 \sqrt{(14.4 + 2.48) \times (10 - 2.48)}$$

$$= 2100 \sqrt{16.88 \times 7.52}$$

$$= 2100 \sqrt{126.9376}$$

$$= 2100 \times 11.2667$$

$$= 23,660 \text{ scfh}$$

5. Select correct adjustment spring for the operating regulator. For 3/4" orifice, 10 PSIG inlet and 7" W.C. outlet, correct spring is BROWN with a range of:

$$8.6 - \left(\frac{15}{10 \times .60} \right) = 7.7" \text{ W.C. max.}$$

$$5.5 - \left(\frac{15}{10 \times .60} \right) = 4.6" \text{ W.C. min.}$$

Problem No. 3 **

Upstream Monitor Installation

Max Flow: 20,000 scfh

Inlet Pressure: 10 PSIG

Outlet Pressure: 7" W.C.

Set Monitor For: 11" W.C.

Select Model B-838-M as the *first* or upstream regulator and it is the MONITOR REGULATOR.

Select Model B-838-R as the second or downstream regulator and it is the OPERATING REGULATOR.

1. Select largest practical orifice for the monitor to flow 20,000 scfh with minimum pressure drop. See "B-838 Monitor Specifications 2" x 4". For 10 PSIG inlet, a 1 1/4" orifice will flow 23,500 scfh with a 2.0 PSIG max. pressure drop. Therefore, the inlet pressure will be 8 PSIG to the operating regulator.
2. Select smallest orifice with 8 PSIG inlet, 7" outlet and flow 20,000 scfh.
Select a 1" orifice.
3. Select Monitor Regulator adjustment spring for 1 1/4" orifice, 11" W.C. outlet pressure, BLACK SPRING has a range of 9.2" W.C. to 16.5" W.C.
4. Select OPERATING REGULATOR adjustment spring for 1" orifice, 7" W.C. outlet pressure, BROWN SPRING will have a range of:

$$9.3 - \left(\frac{17}{10 \times .60} \right) = 8.3" \text{ W.C. max.}$$

$$6.2 - \left(\frac{17}{10 \times .60} \right) = 5.1" \text{ W.C. min.}$$

B-838 R, N, D, M SPECIFICATIONS

Max. Inlet Pressure: 125 PSIG

Max. Emergency Outlet Pressure: 30 PSIG

Outlet Pressure Range: Approx. 5" W.C. to 5 PSIG

Relief: See Relief Curves

Inlet Connection Sizes: 2" NPT or Flanged

Outlet Connection Sizes: 2" NPT: 2", 3" or 4" Flanged

Do Not Mix Inlet & Outlet NPT & Flange

Basic Orifice Sizes: 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1 1/4" & 1 3/8"

Diameter

Max. Inlet Pressure per orifice size:

| Orifice Size | Valve Body Size | | |
|--------------|-----------------|----------|----------|
| | 2" x 2" | 2" x 3" | 2" x 4" |
| 3/8" | 125 PSIG | 125 PSIG | 125 PSIG |
| 1/2" & 5/8" | 75 PSIG | 75 PSIG | 75 PSIG |
| 3/4" | 60 PSIG | 60 PSIG | 60 PSIG |
| 1" | 45 PSIG | 45 PSIG | 60 PSIG |
| 1 1/4" | 25 PSIG | 30 PSIG | 40 PSIG |

Max. Capacity on inches W.C. inlet: 80,000 scfh

Vent Sizes: 1" NPT (without internal relief)

2 1/2" NPT (with internal relief)

Shipping Weights: 2" x 2" NPT 57 lbs.

2" x 2" Fig. 59 lbs.

2" x 3" Fig. 70 lbs.

2" x 4" Fig. 80 lbs.

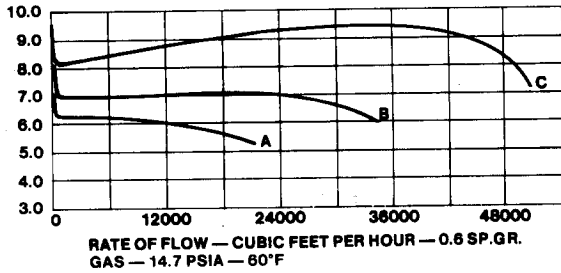
Downstream Control Line Taps: 1/2" NPT

Loading Ring Settings: See Capacity Tables

Packing: One per box

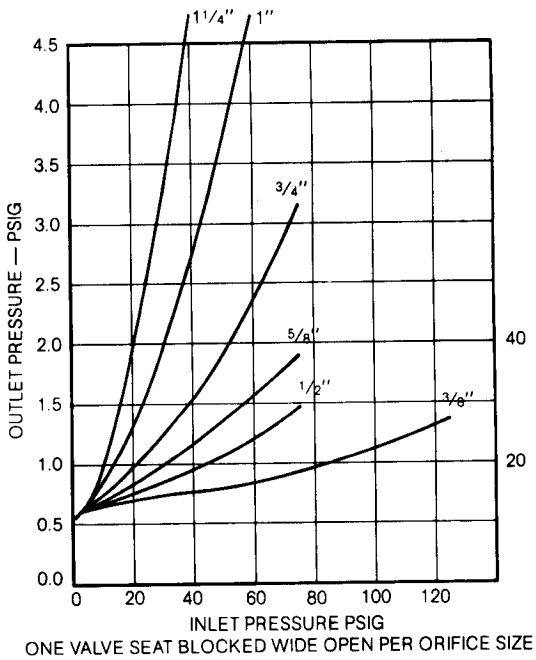
B-838 R TYPICAL PERFORMANCE DATA

Set Point 7" w.c.

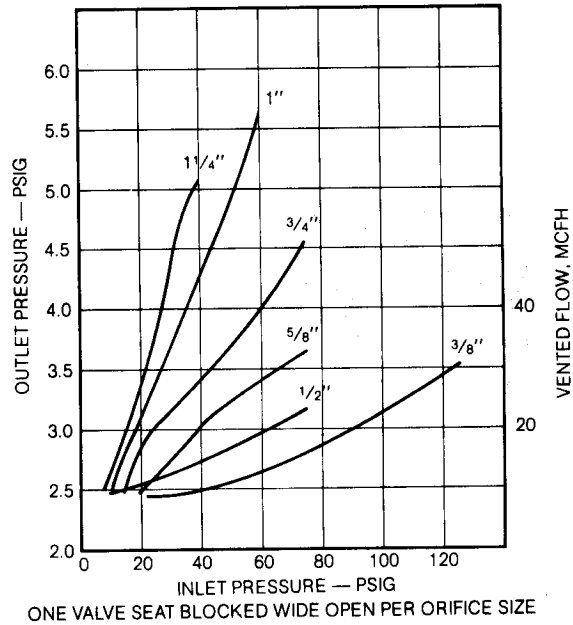


B-838 R RELIEF VALVE CHARACTERISTICS

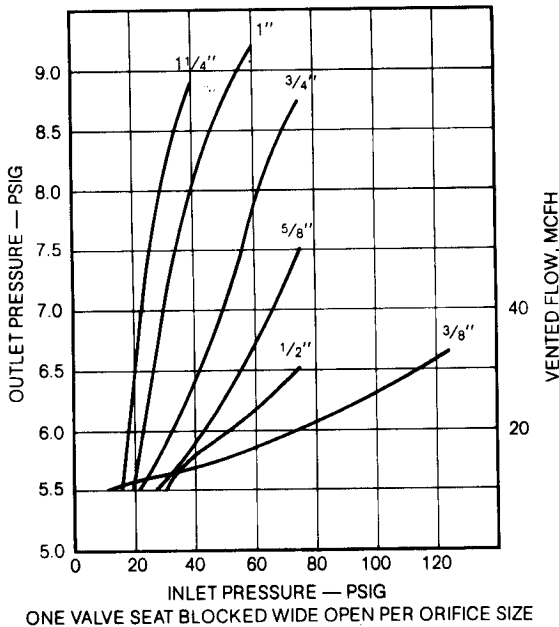
Set Point 7" w.c.



Set Point 2 PSIG



Set Point 5 PSIG



B-838 N SPRING RANGES

| ADJUSTED OUTLET PRESSURE RANGE Spring Adjustment Ferrule at Min. & Max. Depths | | | | |
|---|----------------|--------------|-----------------|-------------|
| ORIFICE SIZE | INLET PRESSURE | SPRING COLOR | OUTLET PRESSURE | |
| | | | MIN. | MAX. |
| 3/8" | 25 PSIG | ORANGE | 2.61" W.C. | 5.0" W.C. |
| | | BROWN | 3.66" W.C. | 7.79" W.C. |
| | | GREEN | 4.08" W.C. | 10.21" W.C. |
| | | BLACK | 6.34" W.C. | 16.74" W.C. |
| | | BLUE | .51 PSIG | 1.42 PSIG |
| | | SILVER | 1.42 PSIG | 3.21 PSIG |
| | | YELLOW | 2.92 PSIG | 4.87 PSIG |
| | | RED | 2.90 PSIG | 6.33 PSIG* |
| 1/2" | 25 PSIG | ORANGE | 2.7" W.C. | 5.0" W.C. |
| | | BROWN | 3.9" W.C. | 8.2" W.C. |
| | | GREEN | 4.5" W.C. | 10.7" W.C. |
| | | BLACK | 6.8" W.C. | 18.0" W.C. |
| | | BLUE | .56 PSIG | 1.5 PSIG |
| | | SILVER | 1.43 PSIG | 3.3 PSIG |
| | | YELLOW | 2.3 PSIG | 4.5 PSIG |
| | | RED | 2.9 PSIG | 6.35 PSIG* |
| 5/8" | 25 PSIG | ORANGE | 2.8" W.C. | 5.8" W.C. |
| | | BROWN | 4.3" W.C. | 9.2" W.C. |
| | | GREEN | 5.2" W.C. | 11.8" W.C. |
| | | BLACK | 7.8" W.C. | 19.8" W.C. |
| | | BLUE | .64 PSIG | 1.65 PSIG |
| | | SILVER | 1.45 PSIG | 3.57 PSIG |
| | | YELLOW | 2.31 PSIG | 4.5 PSIG |
| | | RED | 2.98 PSIG | 7.18 PSIG* |
| 3/4" | 25 PSIG | ORANGE | 3.0" W.C. | 6.2" W.C. |
| | | BROWN | 4.7" W.C. | 9.6" W.C. |
| | | GREEN | 5.7" W.C. | 12.3" W.C. |
| | | BLACK | 8.7" W.C. | 20.9" W.C. |
| | | BLUE | .68 PSIG | 1.67 PSIG |
| | | SILVER | 1.46 PSIG | 3.6 PSIG |
| | | YELLOW | 2.32 PSIG | 4.5 PSIG |
| | | RED | 3.02 PSIG | 7.45 PSIG* |
| 1" | 25 PSIG | ORANGE | 4.3" W.C. | 7.2" W.C. |
| | | BROWN | 5.9" W.C. | 10.8" W.C. |
| | | GREEN | 6.8" W.C. | 13.3" W.C. |
| | | BLACK | 9.6" W.C. | 21.5" W.C. |
| | | BLUE | .70 PSIG | 1.68 PSIG |
| | | SILVER | 1.48 PSIG | 3.7 PSIG |
| | | YELLOW | 2.33 PSIG | 4.5 PSIG |
| | | RED | 3.04 PSIG | 7.05 PSIG* |
| 1 1/4" | 10 PSIG | ORANGE | 3.2" W.C. | 6.4" W.C. |
| | | BROWN | 4.7" W.C. | 9.6" W.C. |
| | | GREEN | 5.6" W.C. | 12.2" W.C. |
| | | BLACK | 8.4" W.C. | 20.0" W.C. |
| | | BLUE | .61 PSIG | 1.62 PSIG |
| | | SILVER | 1.42 PSIG | 3.5 PSIG |
| | | YELLOW | 2.25 PSIG | 4.5 PSIG |
| | | RED | 2.9 PSIG | 6.20 PSIG* |

B-838 R SPRING RANGES

| ADJUSTED OUTLET PRESSURE RANGE Spring Adjustment Ferrule at Min. & Max. Depths | | | | |
|---|----------------|--------------|-----------------|-------------|
| ORIFICE SIZE | INLET PRESSURE | SPRING COLOR | OUTLET PRESSURE | |
| | | | MIN. | MAX. |
| 3/8" | 25 PSIG | ORANGE | 2.61" W.C. | 4.30" W.C. |
| | | BROWN | 4.50" W.C. | 7.41" W.C. |
| | | GREEN | 4.81" W.C. | 8.49" W.C. |
| | | BLACK | 7.92" W.C. | 14.51" W.C. |
| | | BLUE | .59 PSIG | 1.10 PSIG |
| | | SILVER | 1.01 PSIG | 2.08 PSIG |
| | | YELLOW | 2.83 PSIG | 4.89 PSIG |
| | | RED | 3.27 PSIG | 6.20 PSIG* |
| 1/2" | 25 PSIG | ORANGE | 2.7" W.C. | 4.3" W.C. |
| | | BROWN | 4.8" W.C. | 7.8" W.C. |
| | | GREEN | 5.3" W.C. | 8.9" W.C. |
| | | BLACK | 8.5" W.C. | 15.6" W.C. |
| | | BLUE | .65 PSIG | 1.16 PSIG |
| | | SILVER | 1.02 PSIG | 2.14 PSIG |
| | | YELLOW | 2.18 PSIG | 4.52 PSIG |
| | | RED | 3.25 PSIG | 6.22 PSIG* |
| 5/8" | 25 PSIG | ORANGE | 3.0" W.C. | 4.6" W.C. |
| | | BROWN | 5.1" W.C. | 8.1" W.C. |
| | | GREEN | 5.6" W.C. | 9.3" W.C. |
| | | BLACK | 8.9" W.C. | 16.0" W.C. |
| | | BLUE | .68 PSIG | 1.20 PSIG |
| | | SILVER | 1.05 PSIG | 2.17 PSIG |
| | | YELLOW | 2.22 PSIG | 4.62 PSIG |
| | | RED | 3.34 PSIG | 6.32 PSIG* |
| 3/4" | 25 PSIG | ORANGE | 3.5" W.C. | 4.9" W.C. |
| | | BROWN | 5.5" W.C. | 8.6" W.C. |
| | | GREEN | 6.0" W.C. | 9.5" W.C. |
| | | BLACK | 9.2" W.C. | 16.3" W.C. |
| | | BLUE | .70 PSIG | 1.21 PSIG |
| | | SILVER | 1.08 PSIG | 2.20 PSIG |
| | | YELLOW | 2.23 PSIG | 4.60 PSIG |
| | | RED | 3.36 PSIG | 6.31 PSIG* |
| 1" | 25 PSIG | ORANGE | 4.2" W.C. | 5.6" W.C. |
| | | BROWN | 6.2" W.C. | 9.3" W.C. |
| | | GREEN | 6.9" W.C. | 10.2" W.C. |
| | | BLACK | 10.1" W.C. | 17.3" W.C. |
| | | BLUE | .72 PSIG | 1.23 PSIG |
| | | SILVER | 1.10 PSIG | 2.25 PSIG |
| | | YELLOW | 2.32 PSIG | 4.65 PSIG |
| | | RED | 3.43 PSIG | 6.35 PSIG* |
| 1 1/4" | 10 PSIG | ORANGE | 3.5" W.C. | 5.0" W.C. |
| | | BROWN | 5.7" W.C. | 8.6" W.C. |
| | | GREEN | 6.2" W.C. | 9.7" W.C. |
| | | BLACK | 9.2" W.C. | 16.5" W.C. |
| | | BLUE | .70 PSIG | 1.22 PSIG |
| | | SILVER | 1.05 PSIG | 2.16 PSIG |
| | | YELLOW | 2.23 PSIG | 4.52 PSIG |
| | | RED | 3.20 PSIG | 6.27 PSIG* |

*MAXIMUM ALLOWABLE OUTLET PRESSURE IS 5.00 PSIG

SPRING DATA

| Outlet Pressure Change as a Result of a 10 PSIG Inlet Pressure Change | | | | | | |
|--|-----------------------|-----------|-----------|-----------|-----------|------------|
| Spring Color | Orifice Size — Inches | | | | | |
| | 3/8 | 1/2 | 5/8 | 3/4 | 1 | 1 1/4 |
| ORANGE | .17" W.C. | .24" W.C. | .36" W.C. | .52" W.C. | .83" W.C. | 1.15" W.C. |
| BROWN | .21" W.C. | .26" W.C. | .38" W.C. | .60" W.C. | .85" W.C. | 1.20" W.C. |
| GREEN | .22" W.C. | .28" W.C. | .40" W.C. | .62" W.C. | .88" W.C. | 1.23" W.C. |
| BLACK | .25" W.C. | .30" W.C. | .44" W.C. | .65" W.C. | .90" W.C. | 1.27" W.C. |
| BLUE | .01 PSIG | .01 PSIG | .02 PSIG | .02 PSIG | .03 PSIG | .06 PSIG |
| SILVER | .02 PSIG | .02 PSIG | .02 PSIG | .03 PSIG | .04 PSIG | .06 PSIG |
| YELLOW | .02 PSIG | .04 PSIG | .04 PSIG | .05 PSIG | .06 PSIG | .07 PSIG |
| RED | .03 PSIG | .05 PSIG | .05 PSIG | .05 PSIG | .08 PSIG | .09 PSIG |

B-838 CAPACITY TABLE 2" x 2"

| Outlet Pressure | | 7" W.C. | 7" W.C. | 11" W.C. | 11" W.C. | 1 PSIG | 2 PSIG | 2 PSIG | 2 PSIG | 5 PSIG | 5 PSIG | 5 PSIG |
|-----------------------------|-------------------|---|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pressure Drop | | 1" W.C. | 1" W.C. | 2" W.C. | 2" W.C. | 0.2 PSIG | 1% ABS | 2% ABS | WO | 1% ABS | 2% ABS | WO |
| Loading Ring Setting | | 0° | | 0° | | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| Orifice Size | Inlet Press. PSIG | Flow Rate, scfh of .60 Sp. Gr. Gas @ 14.7 psia & 60°F | | | | | | | | | | |
| 1 1/4" | 1 | 4750 | | 5350 | | | | | | | | |
| | 2 | 6400 | | 7200 | | 6900 | | | | | | |
| | 3 | 8500 | N.C. | 9200 | N.C. | 9200 | 3800 | 6200 | 11950 | | | |
| | 5 | 11500 | | 11750 | | 12100 | 5600 | 9500 | 20705 | | | |
| | 10 | 18000 | | 16000 | | 18000 | 9300 | 14000 | 33785 | 5200 | 8000 | 29015 |
| | 15 | 20000 | | 20000 | | 20000 | 11700 | 16300 | 43085 | 7000 | 10900 | 41040 |
| | 25 | 20000 | | 20000 | | 20000 | 17400 | 20000 | 58060 | 9500 | 15200 | 58060 |
| Loading Ring Setting | | 0° | 29° | 0° | 25° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1" | 1 | 4000 | 3200 | 3750 | 3200 | | | | | | | |
| | 2 | 5950 | 5000 | 6000 | 5100 | 5550 | | | | | | |
| | 3 | 7300 | 6000 | 7600 | 6500 | 8450 | 3300 | 5550 | 9355 | | | |
| | 5 | 10900 | 7800 | 10650 | 8700 | 10950 | 4550 | 7950 | 16210 | | | |
| | 10 | 15100 | 11600 | 15000 | 13000 | 15100 | 7450 | 12000 | 26450 | 3850 | 5750 | 22715 |
| | 15 | 20000 | 17400 | 20000 | 19000 | 20000 | 9700 | 14700 | 33730 | 5200 | 8000 | 32130 |
| | 25 | 20000 | 20000 | 20000 | 20000 | 20000 | 15800 | 19800 | 45455 | 8750 | 13500 | 45455 |
| 45 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 68355 | 12500 | 18100 | 68355 | |
| Loading Ring Setting | | 0° | 32° | 0° | 32° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/4" | 1 | 3000 | 2850 | 2500 | 2350 | | | | | | | |
| | 2 | 3750 | 3400 | 4200 | 4050 | 4000 | | | | | | |
| | 3 | 5150 | 4400 | 5500 | 5250 | 6200 | 2750 | 4150 | 6700 | | | |
| | 5 | 7800 | 6100 | 8300 | 7650 | 7900 | 4000 | 6500 | 11610 | | | |
| | 10 | 11250 | 10600 | 11700 | 10500 | 12600 | 6400 | 10000 | 18940 | 3650 | 5500 | 16270 |
| | 15 | 15250 | 13900 | 15700 | 13500 | 15800 | 8500 | 13200 | 24155 | 4800 | 7400 | 23010 |
| | 60 | 20000 | 19000 | 20000 | 20000 | 20000 | 12000 | 17200 | 32555 | 8100 | 12000 | 32555 |
| 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 61255 | 14800 | 20000 | 61255 | |
| Loading Ring Setting | | 0° | 36° | 0° | 36° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 5/8" | 1 | 2000 | 1850 | 2000 | 2050 | | | | | | | |
| | 2 | 3500 | 2900 | 3250 | 3200 | 2800 | | | | | | |
| | 3 | 4750 | 3500 | 4400 | 4150 | 3800 | 2450 | 3700 | 5025 | | | |
| | 5 | 6700 | 5150 | 6450 | 5850 | 5600 | 3500 | 5250 | 8705 | | | |
| | 10 | 9800 | 7400 | 10200 | 9300 | 8700 | 5800 | 8600 | 14205 | 3150 | 4600 | 12200 |
| | 15 | 12900 | 9850 | 13350 | 11000 | 11500 | 7500 | 11100 | 18120 | 4100 | 6000 | 17225 |
| | 25 | 14000 | 14000 | 16100 | 17000 | 17000 | 11300 | 15300 | 24415 | 6200 | 9400 | 24415 |
| 60 | 20000 | 20000 | 20000 | 20000 | 20000 | 19100 | 20000 | 45940 | 12750 | 18150 | 45940 | |
| 75 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 55165 | 14300 | 20000 | 55165 | |
| Loading Ring Setting | | 0° | 36° | 0° | 40° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1/2" | 1 | 1600 | 1550 | 1500 | 1450 | | | | | | | |
| | 2 | 2500 | 2300 | 2300 | 2250 | 2350 | | | | | | |
| | 3 | 3500 | 3000 | 3400 | 3200 | 3200 | 1850 | 2600 | 3670 | | | |
| | 5 | 5000 | 3800 | 4800 | 4450 | 4300 | 2960 | 4000 | 6370 | | | |
| | 10 | 8700 | 6000 | 7550 | 6700 | 7000 | 4600 | 7050 | 10395 | 2650 | 3250 | 8930 |
| | 15 | 10100 | 7300 | 9800 | 8000 | 9300 | 6800 | 8750 | 13255 | 3700 | 5000 | 12625 |
| | 25 | 12250 | 10500 | 13100 | 10800 | 12800 | 10400 | 13400 | 17865 | 5400 | 7550 | 17865 |
| 60 | 20000 | 19200 | 20000 | 20000 | 20000 | 17400 | 20000 | 33615 | 9600 | 14700 | 33615 | |
| 75 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 40365 | 13000 | 18700 | 40365 | |
| Loading Ring Setting | | 0° | 25° | 0° | 32° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/8" | 1 | 1400 | 1400 | 1400 | 1300 | | | | | | | |
| | 2 | 2150 | 1850 | 2150 | 2050 | 1850 | | | | | | |
| | 3 | 2750 | 2450 | 2700 | 2450 | 2450 | 1350 | 2050 | 2800 | | | |
| | 5 | 3600 | 3400 | 3450 | 3400 | 3450 | 2350 | 3000 | 4250 | | | |
| | 10 | 5400 | 4900 | 5300 | 4700 | 5050 | 3400 | 4450 | 6930 | 2050 | 2650 | 5950 |
| | 15 | 6850 | 5900 | 6650 | 5950 | 6650 | 4400 | 6250 | 8840 | 2700 | 3550 | 8420 |
| | 25 | 10200 | 8500 | 10100 | 8300 | 9500 | 6400 | 8900 | 11910 | 3600 | 5000 | 11910 |
| | 60 | 20000 | 15300 | 18300 | 15400 | 18300 | 13200 | 17800 | 22410 | 6500 | 10600 | 22410 |
| | 75 | 20000 | 17400 | 17700 | 20000 | 20000 | 14900 | 19800 | 26910 | 7400 | 12200 | 26910 |
| | 100 | 20000 | 20000 | 20000 | 20000 | 20000 | 17300 | 20000 | 34410 | 9800 | 15300 | 34410 |
| 125 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 41910 | 11300 | 20000 | 41910 | |

Capacities are in SCFH, 60° F @ 14.7 P.S.I.A.
 N.C. — No change needed in loading ring setting
 K factors are wide open

B-838 CAPACITY TABLE 2" x 3"

| Outlet Pressure | | 7" W.C. | 7" W.C. | 11" W.C. | 11" W.C. | 1 PSIG | 2 PSIG | 2 PSIG | 2 PSIG | 5 PSIG | 5 PSIG | 5 PSIG |
|----------------------|-------------------|---|---------|----------|----------|----------|--------|--------|--------|--------|--------|--------|
| Pressure Droop | | 1" W.C. | 1" W.C. | 2" W.C. | 2" W.C. | 0.2 PSIG | 1% ABS | 2% ABS | WO | 1% ABS | 2% ABS | WO |
| Loading Ring Setting | | 0° | 40° | 0° | 43° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| Orifice Size | Inlet Press. PSIG | Flow Rate, scfh of .60 Sp. Gr. Gas @ 14.7 psia & 60°F | | | | | | | | | | |
| 1 1/4" | 1 | 5600 | 5400 | 5450 | 5350 | | | | | | | |
| | 2 | 9600 | 8450 | 8800 | 8500 | 7800 | | | | | | |
| | 3 | 13200 | 11000 | 11600 | 11000 | 11800 | 5500 | 8000 | 13890 | | | |
| | 5 | 18900 | 17400 | 16700 | 16100 | 17000 | 9100 | 12900 | 24065 | | | |
| | 10 | | 29100 | 28000 | 26200 | 27700 | 15600 | 22200 | 39270 | 5500 | 8600 | 33730 |
| | 15 | | 38500 | 37100 | 34500 | 36500 | 22300 | 33400 | 50080 | 7300 | 11700 | 47700 |
| | 25 | | 40000 | | 40000 | 40000 | 39500 | 40000 | 67490 | 13100 | 23200 | 67490 |
| | 30 | | 40000 | | 40000 | 40000 | 40000 | 40000 | 75990 | 18000 | 27400 | 75990 |
| Loading Ring Setting | | 0° | 46° | 0° | 43° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1" | 1 | 4450 | 3800 | 4400 | 4200 | | | | | | | |
| | 2 | 7300 | 6500 | 7400 | 7200 | 6500 | | | | | | |
| | 3 | 10850 | 8500 | 10300 | 9000 | 9300 | 5100 | 6800 | 11850 | | | |
| | 5 | 16400 | 14400 | 14800 | 12200 | 13650 | 7100 | 10600 | 20525 | | | |
| | 10 | 23800 | 23000 | 23300 | 19600 | 22500 | 12600 | 18500 | 33495 | 4900 | 7600 | 28770 |
| | 15 | | 29900 | 30100 | 26500 | 29200 | 17100 | 23000 | 42715 | 6600 | 10100 | 40685 |
| | 25 | | 40000 | | 40000 | 40000 | 28800 | 39000 | 57565 | 11500 | 18400 | 57565 |
| | 45 | | 40000 | | 40000 | 40000 | 40000 | 40000 | 86565 | 21200 | 34000 | 86565 |
| Loading Ring Setting | | 0° | 46° | 0° | 45° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/4" | 1 | 3500 | 3100 | 3100 | 2900 | | | | | | | |
| | 2 | 5500 | 4500 | 5000 | 4750 | 4300 | | | | | | |
| | 3 | 7500 | 6400 | 7050 | 6450 | 6450 | 4100 | 6000 | 8170 | | | |
| | 5 | 13100 | 10200 | 11850 | 9200 | 10200 | 5900 | 8250 | 14155 | | | |
| | 10 | 19000 | 18100 | 19700 | 17000 | 17050 | 9600 | 13700 | 23100 | 3700 | 6050 | 19840 |
| | 15 | 26500 | 25250 | 26400 | 23700 | 23800 | 13200 | 19800 | 29460 | 5300 | 8500 | 28060 |
| | 25 | | 40000 | | 38000 | 38200 | 23900 | 32000 | 39700 | 8400 | 13800 | 39700 |
| | 60 | | 40000 | | 40000 | 40000 | 40000 | 40000 | 74700 | 20200 | 35500 | 74700 |
| Loading Ring Setting | | 0° | 48° | 0° | 43° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 5/8" | 1 | 2300 | 2100 | 2200 | 2100 | | | | | | | |
| | 2 | 3950 | 3200 | 3700 | 3500 | 3000 | | | | | | |
| | 3 | 5600 | 4300 | 5000 | 4750 | 4550 | 3400 | 4650 | 5925 | | | |
| | 5 | 7350 | 6100 | 7550 | 6500 | 6100 | 4900 | 6650 | 10265 | | | |
| | 10 | 14200 | 11800 | 14400 | 12000 | 11950 | 7200 | 10900 | 16750 | 3200 | 4800 | 14385 |
| | 15 | 20400 | 17400 | 20000 | 17000 | 16000 | 11300 | 14000 | 21360 | 4850 | 7100 | 20345 |
| | 25 | | 28850 | 34300 | 29100 | 27450 | 14400 | 22000 | 28785 | 7200 | 11100 | 28785 |
| | 60 | | 40000 | | 40000 | 40000 | 34000 | 40000 | 54160 | 16800 | 24600 | 54160 |
| 75 | | 40000 | | 40000 | 40000 | 40000 | 40000 | 65035 | 19800 | 32000 | 65035 | |
| Loading Ring Setting | | 0° | 48° | 0° | 45° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1/2" | 1 | 1650 | 1550 | 1500 | 1450 | | | | | | | |
| | 2 | 2500 | 2300 | 2650 | 2250 | 2450 | | | | | | |
| | 3 | 3500 | 3000 | 3750 | 3500 | 3600 | 2800 | 3800 | 4495 | | | |
| | 5 | 5450 | 4400 | 6000 | 4650 | 5100 | 4450 | 5700 | 7785 | | | |
| | 10 | 10500 | 6850 | 8900 | 7450 | 7550 | 6050 | 8200 | 12705 | 2850 | 4100 | 10910 |
| | 15 | 13800 | 8500 | 12100 | 11100 | 11100 | 7800 | 11100 | 16205 | 3800 | 5300 | 15435 |
| | 25 | 21000 | 16600 | 19700 | 17600 | 17400 | 13000 | 17300 | 21835 | 5800 | 8800 | 21835 |
| | 60 | | 36600 | | 38800 | 38400 | 28000 | 33000 | 41085 | 12100 | 18800 | 41085 |
| 75 | | 40000 | | 40000 | 40000 | 35000 | 40000 | 49335 | 17500 | 24400 | 49335 | |
| Loading Ring Setting | | 0° | | 0° | | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/8" | 1 | 1400 | | 1400 | | | | | | | | |
| | 2 | 2150 | | 2150 | | 1850 | | | | | | |
| | 3 | 2800 | | 2700 | | 2450 | 1700 | 2050 | 2800 | | | |
| | 5 | 3700 | | 3650 | | 3450 | 2600 | 3200 | 4250 | | | |
| | 10 | 5900 | | 5800 | | 5050 | 3900 | 5200 | 6930 | 2200 | 3000 | 5950 |
| | 15 | 7450 | N.C. | 7300 | N.C. | 6650 | 5200 | 6650 | 8840 | 3000 | 4100 | 8420 |
| | 25 | 10900 | | 10500 | | 9500 | 8600 | 10750 | 11910 | 4300 | 6100 | 11910 |
| | 60 | 21400 | | 21400 | | 19000 | 19200 | 20600 | 22410 | 8000 | 12600 | 22410 |
| | 75 | 26000 | | 26000 | | 25400 | 24800 | 26200 | 26910 | 10800 | 17100 | 26910 |
| | 100 | 30000 | | 30000 | | 29800 | 26400 | 28500 | 34410 | 12000 | 19000 | 34410 |
| 125 | 35000 | | 35000 | | 34700 | 31200 | 34600 | 41910 | 15700 | 23000 | 41910 | |

N.C. — No change needed in loading ring setting
K factors are wide open

B-838 CAPACITY TABLE 2" x 4"

| Outlet Pressure | | 7" W.C. | 7" W.C. | 11" W.C. | 11" W.C. | 1 PSIG | 2 PSIG | 2 PSIG | 2 PSIG | 5 PSIG | 5 PSIG | 5 PSIG |
|----------------------|-------------------|---|---------|----------|----------|----------|--------|--------|--------|--------|--------|--------|
| Pressure Drop | | 1" W.C. | 1" W.C. | 2" W.C. | 2" W.C. | 0.2 PSIG | 1% ABS | 2% ABS | WO | 1% ABS | 2% ABS | WO |
| Loading Ring Setting | | | 30° | 0° | 32° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| Orifice Size | Inlet Press. PSIG | Flow Rate, scfh of .60 Sp. Gr. Gas @ 14.7 psia & 60°F | | | | | | | | | | |
| 1 1/4" | 1 | | 6000 | 6000 | 5500 | | | | | | | |
| | 2 | | 10300 | 10900 | 9500 | 8850 | | | | | | |
| | 3 | | 14800 | 14100 | 13000 | 13300 | 5750 | 8400 | 14300 | | | |
| | 5 | N.C. | 21000 | 20000 | 17500 | 19000 | 9550 | 13600 | 24775 | | | |
| | 10 | | 34000 | | 31000 | 32600 | 16400 | 23350 | 40425 | 5600 | 10000 | 34720 |
| | 15 | | 45600 | | 42000 | 44000 | 23450 | 35150 | 51555 | 7500 | 13500 | 49105 |
| | 25 | | 58000 | | 54000 | 56000 | 47000 | 58500 | 69475 | 13400 | 23500 | 69475 |
| | 40 | | 75000 | | 74000 | 74000 | 69700 | 74000 | 95725 | 19000 | 28200 | 95725 |
| Loading Ring Setting | | 0° | 40° | 0° | 46° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1" | 1 | 5100 | 5550 | 5450 | 4500 | | | | | | | |
| | 2 | 8350 | 8150 | 8250 | 7500 | 6850 | | | | | | |
| | 3 | 11500 | 11400 | 11000 | 10050 | 9900 | 5350 | 7150 | 12260 | | | |
| | 5 | 17600 | 17400 | 15600 | 14300 | 14200 | 7450 | 11150 | 21235 | | | |
| | 10 | 31200 | 31000 | 30900 | 28400 | 28200 | 13250 | 19450 | 34650 | 5050 | 7850 | 29760 |
| | 15 | | 44000 | 43900 | 40300 | 40000 | 18000 | 27500 | 44190 | 6800 | 10400 | 42090 |
| | 25 | | 52000 | | 51600 | 51300 | 34000 | 45000 | 59550 | 11850 | 18950 | 59550 |
| | 60 | | 80000 | | 80000 | 80000 | 75000 | 80000 | 112050 | 29000 | 48000 | 112050 |
| Loading Ring Setting | | 0° | 40° | 0° | 46° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/4" | 1 | 4050 | 3950 | 3950 | 3500 | | | | | | | |
| | 2 | 6000 | 5700 | 5800 | 5650 | 5100 | | | | | | |
| | 3 | 8000 | 7950 | 7900 | 7600 | 6900 | 4300 | 6300 | 8580 | | | |
| | 5 | 14200 | 12100 | 14000 | 12000 | 11800 | 6200 | 8650 | 14865 | | | |
| | 10 | 19500 | 18800 | 21600 | 19000 | 19200 | 10100 | 14400 | 24255 | 3800 | 6200 | 20835 |
| | 15 | | 27600 | | 27600 | 27600 | 13900 | 20850 | 30935 | 5450 | 8750 | 29465 |
| | 25 | | 39400 | | 39400 | 39400 | 25150 | 33700 | 41685 | 8650 | 14200 | 41685 |
| | 60 | | 65000 | | 65000 | 65000 | 62000 | 67000 | 78435 | 21900 | 39000 | 78435 |
| Loading Ring Setting | | 0° | 40° | 0° | 46° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 5/8" | 1 | 3000 | 2900 | | 3300 | | | | | | | |
| | 2 | 4900 | 4300 | | 5400 | 3600 | | | | | | |
| | 3 | 6350 | 6100 | | 6700 | 5700 | 3650 | 5050 | 6730 | | | |
| | 5 | 9750 | 9100 | | 10700 | 7700 | 5300 | 7200 | 10795 | | | |
| | 10 | 15800 | 15500 | N.C. | 17600 | 14600 | 7800 | 11800 | 17615 | 3300 | 4950 | 15130 |
| | 15 | 22000 | 18100 | | 22750 | 19400 | 12000 | 14900 | 22465 | 5000 | 7300 | 21395 |
| | 25 | 30200 | 29000 | | 30200 | 30200 | 14900 | 23800 | 30270 | 7400 | 11450 | 30270 |
| | 75 | | 44100 | | 46500 | 46500 | 37000 | 51500 | 56960 | 17300 | 28300 | 56960 |
| Loading Ring Setting | | 0° | 46° | 0° | 46° | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 1/2" | 1 | 2250 | 2100 | 2100 | 2050 | | | | | | | |
| | 2 | 3500 | 3550 | 3500 | 3400 | 3000 | | | | | | |
| | 3 | 4900 | 4550 | 4500 | 4500 | 4150 | 2900 | 3900 | 4905 | | | |
| | 5 | 7000 | 6350 | 6400 | 6200 | 6100 | 4700 | 6000 | 8495 | | | |
| | 10 | 11350 | 10700 | 10400 | 10150 | 9900 | 6650 | 9050 | 13860 | 2950 | 4250 | 11905 |
| | 15 | 14000 | 13900 | 13500 | 13300 | 12900 | 8750 | 12500 | 17675 | 3600 | 5450 | 16835 |
| | 25 | | 21500 | 21000 | 20800 | 19400 | 14750 | 19600 | 23820 | 6000 | 9100 | 23820 |
| | 75 | | 43500 | | 41400 | 39500 | 34800 | 43500 | 44820 | 12500 | 19400 | 44820 |
| Loading Ring Setting | | 0° | | 0° | | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/8" | 1 | 1400 | | 1400 | | | | | | | | |
| | 2 | 2200 | | 2250 | | 2000 | | | | | | |
| | 3 | 2800 | | 2800 | | 2650 | 1700 | 2050 | 2800 | | | |
| | 5 | 3950 | | 4050 | | 3800 | 2600 | 3200 | 4250 | | | |
| | 10 | 6350 | | 6350 | | 6000 | 3900 | 5200 | 6930 | 2200 | 3000 | 5950 |
| | 15 | 8150 | N.C. | 8150 | N.C. | 7750 | 5200 | 6650 | 8840 | 3000 | 4100 | 8420 |
| | 25 | 11100 | | 11100 | | 10600 | 8600 | 10750 | 11910 | 4300 | 6100 | 11910 |
| | 100 | 30000 | | 30000 | | 29800 | 28000 | 28700 | 34410 | 12000 | 19000 | 34410 |
| Loading Ring Setting | | 0° | | 0° | | 0° | 0° | 0° | 0° | 0° | 0° | 0° |
| 3/8" | 125 | 35000 | | 35000 | | 34700 | 34000 | 35100 | 41910 | 15700 | 23000 | 41910 |

N.C. — No change needed in loading ring setting
K factors are wide open

B-838 MONITOR SPECIFICATIONS 2" x 2"

| ORIFICE SIZE | INLET PRESS. PSIG | CAPACITY, SCFH DROP IN PRESSURE ACROSS ORIFICE, PSIG | | | | | | | | |
|--------------|-------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 |
| 1 1/4" | 1 | 3650 | 5100 | 6250 | 7200 | 8050 | | | | |
| | 2 | 3750 | 5300 | 6450 | 7450 | 8300 | 11500 | | | |
| | 3 | 3850 | 5450 | 6650 | 7650 | 8550 | 11900 | 16300 | | |
| | 5 | 4050 | 5750 | 7000 | 8100 | 9050 | 12600 | 17400 | 20700 | |
| | 8 | 4350 | 6200 | 7550 | 8700 | 9700 | 13600 | 18800 | 22400 | 27500 |
| | 10 | 4550 | 6450 | 7900 | 9100 | 10100 | 14200 | 19700 | 23500 | 29000 |
| | 15 | 5000 | 7100 | 8650 | 10000 | 11100 | 15600 | 21700 | 26100 | 32500 |
| | 25 | 5800 | 8200 | 10000 | 11500 | 12900 | 18100 | 25300 | 30600 | 38500 |
| | 35 | 6500 | 9200 | 11200 | 12900 | 14500 | 20400 | 28500 | 34600 | 43700 |
| | 50 | 7400 | 10500 | 12800 | 14800 | 16500 | 23300 | 32700 | 39700 | 50500 |
| | 75 | 8750 | 12300 | 15100 | 17400 | 19500 | 27500 | 38700 | 47100 | 60100 |
| 100 | 9900 | 13900 | 17100 | 19700 | 22000 | 31100 | 43900 | 53500 | 68500 | |
| 1" | 1 | 2850 | 4000 | 4900 | 5650 | 6300 | | | | |
| | 2 | 2950 | 4150 | 5050 | 5800 | 6500 | 9050 | | | |
| | 3 | 3000 | 4250 | 5200 | 6000 | 6700 | 9350 | 12800 | | |
| | 5 | 3200 | 4500 | 5500 | 6350 | 7050 | 9900 | 13600 | 16200 | |
| | 8 | 3400 | 4850 | 5900 | 6800 | 7600 | 10600 | 14700 | 17600 | 21500 |
| | 10 | 3550 | 5050 | 6150 | 7100 | 7950 | 11100 | 15400 | 18400 | 22700 |
| | 15 | 3900 | 5550 | 6800 | 7800 | 8750 | 12200 | 17000 | 20400 | 25400 |
| | 25 | 4550 | 6400 | 7850 | 9050 | 10100 | 14200 | 19800 | 24000 | 30100 |
| | 35 | 5100 | 7200 | 8800 | 10100 | 11300 | 15900 | 22300 | 27100 | 34200 |
| | 50 | 5800 | 8200 | 10000 | 11600 | 12900 | 18200 | 25600 | 31100 | 39500 |
| | 75 | 6850 | 9650 | 11800 | 13600 | 15200 | 21500 | 30300 | 36900 | 47100 |
| 100 | 7750 | 10900 | 13400 | 15400 | 17300 | 24400 | 34300 | 41900 | 53600 | |
| 3/4" | 1 | 2050 | 2875 | 3500 | 4050 | 4500 | | | | |
| | 2 | 2100 | 2975 | 3600 | 4150 | 4650 | 6450 | | | |
| | 3 | 2150 | 3050 | 3700 | 4300 | 4800 | 6700 | 9150 | | |
| | 5 | 2275 | 3200 | 3950 | 4550 | 5050 | 7050 | 9750 | 11600 | |
| | 8 | 2450 | 3450 | 4250 | 4850 | 5450 | 7600 | 10500 | 12600 | 15400 |
| | 10 | 2550 | 3600 | 4400 | 5100 | 5700 | 7950 | 11000 | 13200 | 16200 |
| | 15 | 2800 | 3950 | 4850 | 5600 | 6250 | 8750 | 12200 | 14600 | 18200 |
| | 25 | 3250 | 4600 | 5600 | 6500 | 7250 | 10200 | 14200 | 17200 | 21600 |
| | 35 | 3650 | 5150 | 6300 | 7250 | 8100 | 11400 | 16000 | 19400 | 24500 |
| | 50 | 4150 | 5850 | 7200 | 8300 | 9250 | 13000 | 18300 | 22300 | 28300 |
| | 75 | 4900 | 6900 | 8450 | 9800 | 10900 | 15400 | 21700 | 26400 | 33700 |
| 100 | 5550 | 7800 | 9600 | 11000 | 12300 | 17400 | 24600 | 30000 | 38400 | |

B-838 MONITOR SPECIFICATIONS 2" x 3"

| ORIFICE SIZE | INLET PRESS. PSIG | CAPACITY, SCFH DROP IN PRESSURE ACROSS ORIFICE, PSIG | | | | | | | | |
|--------------|-------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 |
| 1 1/4" | 1 | 4200 | 5950 | 7300 | 8400 | 9350 | | | | |
| | 2 | 4350 | 6150 | 7500 | 8650 | 9650 | 13400 | | | |
| | 3 | 4500 | 6350 | 7750 | 8900 | 9950 | 13800 | 19000 | | |
| | 5 | 4750 | 6700 | 8200 | 9400 | 10500 | 14700 | 20200 | 24000 | |
| | 8 | 5100 | 7200 | 8800 | 10100 | 11300 | 15800 | 21800 | 26100 | 31900 |
| | 10 | 5300 | 7500 | 9150 | 10600 | 11800 | 16500 | 22900 | 27400 | 33700 |
| | 15 | 5850 | 8250 | 10000 | 11600 | 12900 | 18200 | 25300 | 30400 | 37700 |
| | 25 | 6750 | 9550 | 11600 | 13400 | 15000 | 21100 | 29500 | 35600 | 44700 |
| | 35 | 7550 | 10600 | 13000 | 15000 | 16800 | 23700 | 33200 | 40200 | 50800 |
| | 50 | 8600 | 12200 | 14900 | 17200 | 19200 | 27100 | 38000 | 46200 | 58700 |
| | 75 | 10100 | 14300 | 17600 | 20300 | 22700 | 32000 | 45000 | 54800 | 69900 |
| 100 | 11500 | 16200 | 19900 | 22900 | 25600 | 36200 | 51000 | 62200 | 79600 | |
| 1" | 1 | 3600 | 5100 | 6200 | 7150 | 7950 | | | | |
| | 2 | 3700 | 5250 | 6400 | 7400 | 8250 | 11400 | | | |
| | 3 | 3800 | 5400 | 6600 | 7600 | 8500 | 11800 | 16200 | | |
| | 5 | 4050 | 5700 | 6950 | 8050 | 8950 | 12500 | 17200 | 20500 | |
| | 8 | 4350 | 6150 | 7500 | 8650 | 9650 | 13500 | 18600 | 22200 | 27200 |
| | 10 | 4500 | 6400 | 7800 | 9000 | 10000 | 14100 | 19500 | 23300 | 28700 |
| | 15 | 4950 | 7000 | 8600 | 9900 | 11000 | 15500 | 21500 | 25900 | 32200 |
| | 25 | 5750 | 8150 | 9950 | 11400 | 12800 | 18000 | 25100 | 30400 | 38100 |
| | 35 | 6450 | 9100 | 11100 | 12800 | 14300 | 20200 | 28300 | 34300 | 43300 |
| | 50 | 7350 | 10400 | 12700 | 14700 | 16400 | 23100 | 32400 | 39400 | 50100 |
| | 75 | 8650 | 12200 | 15000 | 17300 | 19300 | 27300 | 38400 | 46700 | 59600 |
| 100 | 9800 | 13800 | 16900 | 19600 | 21900 | 30900 | 43500 | 53000 | 67900 | |
| 3/4" | 1 | 2475 | 3500 | 4250 | 4900 | 5500 | | | | |
| | 2 | 2575 | 3600 | 4400 | 5100 | 5650 | 7900 | | | |
| | 3 | 2650 | 3700 | 4550 | 5250 | 5850 | 8150 | 11200 | | |
| | 5 | 2800 | 3900 | 4800 | 5550 | 6150 | 8600 | 11800 | 14100 | |
| | 8 | 3000 | 4200 | 5150 | 5950 | 6650 | 9300 | 12800 | 15300 | 18800 |
| | 10 | 3100 | 4400 | 5400 | 6200 | 6950 | 9700 | 13400 | 16100 | 19800 |
| | 15 | 3400 | 4850 | 5900 | 6800 | 7600 | 10700 | 14800 | 17800 | 22200 |
| | 25 | 3950 | 5600 | 6850 | 7900 | 8850 | 12400 | 17300 | 20900 | 26300 |
| | 35 | 4450 | 6250 | 7650 | 8850 | 9900 | 13900 | 19500 | 23600 | 29800 |
| | 50 | 5050 | 7150 | 8750 | 10100 | 11300 | 15900 | 22300 | 27200 | 34500 |
| | 75 | 5950 | 8450 | 10300 | 11900 | 13300 | 18800 | 26400 | 32200 | 41100 |
| 100 | 6750 | 9550 | 11700 | 13500 | 15100 | 21300 | 30000 | 36600 | 46800 | |

B-838 MONITOR SPECIFICATIONS 2" x 4"

| ORIFICE SIZE | INLET PRESS. PSIG | CAPACITY, SCFH DROP IN PRESSURE ACROSS ORIFICE, PSIG | | | | | | | | | |
|--------------------|-------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | |
| 1 1/4" K = 3500 | 1 | 4350 | 6150 | 7500 | 8650 | 9600 | | | | | |
| | 2 | 4500 | 6300 | 7750 | 8900 | 9900 | 13800 | | | | |
| | 3 | 4600 | 6500 | 7950 | 9200 | 10200 | 14300 | 19600 | | | |
| | 5 | 4850 | 6900 | 8400 | 9700 | 10800 | 15100 | 20800 | 24700 | | |
| | 8 | 5200 | 7400 | 9000 | 10400 | 11600 | 16300 | 22400 | 26800 | 32800 | |
| | 10 | 5450 | 7700 | 9400 | 10900 | 12100 | 17000 | 23500 | 28100 | 34600 | |
| | 15 | 6000 | 8450 | 10300 | 11900 | 13300 | 18700 | 26000 | 31200 | 38800 | |
| | 25 | 6950 | 9800 | 12000 | 13800 | 15400 | 21700 | 30300 | 36600 | 45900 | |
| | 35 | 7750 | 11000 | 13400 | 15500 | 17300 | 24400 | 34100 | 41300 | 52200 | |
| | 50 | 8850 | 12500 | 15300 | 17700 | 19800 | 27900 | 39100 | 47500 | 60300 | |
| | 75 | 10400 | 14700 | 18100 | 20900 | 23300 | 32900 | 46300 | 56300 | 71900 | |
| | 100 | 11800 | 16700 | 20500 | 23600 | 26400 | 37300 | 52500 | 63900 | 81800 | |
| 1" K = 3000 | 1 | 3700 | 5250 | 6400 | 7400 | 8250 | | | | | |
| | 2 | 3850 | 5400 | 6600 | 7600 | 8500 | 11800 | | | | |
| | 3 | 3950 | 5600 | 6800 | 7850 | 8750 | 12200 | 16800 | | | |
| | 5 | 4150 | 5900 | 7200 | 8300 | 9250 | 12900 | 17800 | 21200 | | |
| | 8 | 4500 | 6350 | 7750 | 8900 | 9950 | 13900 | 19250 | 23000 | 28100 | |
| | 10 | 4650 | 6600 | 8100 | 9300 | 10400 | 14600 | 20200 | 24100 | 29700 | |
| | 15 | 5150 | 7250 | 8900 | 10200 | 11400 | 16000 | 22300 | 26800 | 33200 | |
| | 25 | 5950 | 8400 | 10300 | 11800 | 13200 | 18600 | 26000 | 31400 | 39400 | |
| | 35 | 6650 | 9400 | 11500 | 13300 | 14800 | 20900 | 29200 | 35400 | 44800 | |
| | 50 | 7600 | 10700 | 13100 | 15200 | 16900 | 23900 | 33500 | 40700 | 51700 | |
| | 75 | 8950 | 12600 | 15500 | 17900 | 20000 | 28200 | 39700 | 48300 | 61600 | |
| | 100 | 10100 | 14300 | 17500 | 20200 | 22600 | 31900 | 45000 | 54800 | 70200 | |
| 3/4" K = 2100 | 1 | 2600 | 3650 | 4500 | 5150 | 5750 | | | | | |
| | 2 | 2700 | 3800 | 4650 | 5350 | 5950 | 8300 | | | | |
| | 3 | 2750 | 3900 | 4750 | 5500 | 6150 | 8550 | 11700 | | | |
| | 5 | 2900 | 4100 | 5050 | 5800 | 6500 | 9050 | 12400 | 14800 | | |
| | 8 | 3150 | 4450 | 5400 | 6250 | 6950 | 9750 | 13500 | 16100 | 19700 | |
| | 10 | 3250 | 4600 | 5650 | 6500 | 7300 | 10200 | 14100 | 16900 | 20800 | |
| | 15 | 3600 | 5050 | 6200 | 7150 | 8000 | 11200 | 15600 | 18700 | 23300 | |
| | 25 | 4150 | 5900 | 7200 | 8300 | 9250 | 13000 | 18200 | 22000 | 27600 | |
| | 35 | 4650 | 6600 | 8050 | 9300 | 10400 | 14600 | 20500 | 24800 | 31300 | |
| | 50 | 5300 | 7500 | 9200 | 10600 | 11800 | 16700 | 23500 | 28500 | 36200 | |
| | 75 | 6250 | 8850 | 10800 | 12500 | 14000 | 19700 | 27600 | 33800 | 43100 | |
| | 100 | 7100 | 10000 | 12300 | 14100 | 15800 | 22300 | 31400 | 38400 | 49100 | |

WARRANTY

Schlumberger Gas, 970 Highway 127 North, Owenton, Kentucky 40359-9302, warrants this gas product against defects in materials and workmanship for a period of one year from the date the product is installed by Schlumberger at the original purchaser's site. During such one-year period, provided that the original purchaser continues to own the product, Schlumberger will, at its sole option, repair any defects, replace the product or repay the purchase price.

This Warranty will be void if the purchaser fails to observe the procedures for installation, operation or service of the product as set forth in the Operating Manual and Specifications for the product or if the defect is caused by tampering, physical abuse or misuse of the product.

SCHLUMBERGER SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES WILL SCHLUMBERGER BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER.

In the event of a malfunction of the product, consult your Schlumberger Service Representative or Schlumberger Gas, 970 Highway 127 North, Owenton, Kentucky 40359-9302.

Schlumberger Gas

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