

# Technical Specifications





## **Corrugated Stainless Steel**

Provides superior flexibility over copper. Available with yellow and black epoxy coating for improved corrosion resistance. Easily identifiable as a gas connector.



## **Many Configurations**

Our connectors cover a range of connection types and BTUs up to 290,900.



### Easy to Install

Deep corrugations enhance flexibility.



#### 100% Leak Tested

Factory tested for peace of mind.

## **Materials**

| Tubing   | Stainless Steel 304 (ASTM A240)        |
|----------|--|
| Coating  | Yellow Epoxy / Black Epoxy / Stainless |
| Fittings | Zinc-Plated Steel S45C                 |

# **Specifications**

| Tubing<br>Coating | -40° F to 150° F (-40° C to 65° C) |
|-------------------|------------------------------------|
| Fittings          | 0.5 psi                            |

#### **Design Certifications and Approvals**

ANSI Z 21.24/CSA 6.10 Connectors for Gas Appliances

ANSI Z 21.75/CSA 6.27 Connectors for Outdoor Appliances and Manufactured Homes

ANSI Z 21.60/CSA 6.16 Movable Gas Appliances

ANSI Z 21.93/CSA 6.30 Excess Flow Gas Valves

Commonwealth of Massachusetts Board of State Examiners (except 48", 60", 72")

City of New York-MEA #376-92-M

The excess flow valve has a rate trip flow that is higher than the open-ended flow of the piping system  $\frac{1}{2}$ 



# Write in the Model Number

Refer to back for help



Tube Size Tube Style Fitting 1 Fitting 2 Length

| Job Name        | Engineer / Architect: |
|-----------------|-----------------------|
| Job Location:   | Wholesaler:           |
| Submittal Date: | Contractor:           |



# Selecting a Gas Connector

Gas Connector Nomenclature



Tube Size Tube Style Fitting 1 Fitting 2 Length



| Tub | e Size  | Tube | e Style             | Fitt | ing 1                        | Fitt | ing 2                          | Length |
|-----|---------|------|---------------------|------|------------------------------|------|--------------------------------|--------|
| 10  | 3/8" OD | YE   | Yellow epoxy coated | 50   | 1/2" MIP (tapped 3/8" FIP)   | 50   | 1/2" MIP (tapped 3/8" FIP)     | 12"    |
| 20  | 1/2"OD  | BE   | Black epoxy coated  | 51   | 1/2" FIP                     | 51   | 1/2" FIP                       | 18"    |
| 30  | 5/8" OD | SS   | Stainless steel     | 52   | 3/8" MIP (tapped 1/4" FIP)   | 52   | 3/8" MIP (tapped 1/4" FIP)     | 24"    |
| 40  | 1" OD   |      |                     | 53   | 3/8" FIP                     | 53   | 3/8" FIP                       | 30"    |
|     |         |      |                     | 54   | 3/4" MIP (tapped 1/2" FIP)   | 54   | 3/4" MIP (tapped 1/2" FIP)     | 36"    |
|     |         |      |                     | 55   | 3/4" FIP                     | 55   | 3/4" FIP                       | 48"    |
|     |         |      |                     | 56   | 1" MIP (tapped 3/4" FIP)     | 56   | 1" MIP (tapped 3/4" FIP)       | 60"    |
|     |         |      |                     | 57   | 1" FIP                       | 57   | 1" FIP                         | 72"    |
|     |         |      |                     | 61   | 1/2" FIP straight ball valve | 61   | 1/2" FIP straight ball valve   |        |
|     |         |      |                     | 63   | 3/4" FIP straight ball valve | 63   | 3/4" FIP straight ball valve   |        |
|     |         |      |                     | 71   | 1/2" FIP 90° ball valve      | 71   | 1/2" FIP 90° ball valve        |        |
|     |         |      |                     |      |                              | V0   | 1/2" MIP (tapped 3/8" FIP) EFV |        |
|     |         |      |                     |      |                              | V1   | 1/2" FIP EFV                   |        |
|     |         |      |                     |      |                              | V2   | 3/8" MIP (tapped ¼" FIP) EFV   |        |
|     |         |      |                     |      |                              | V3   | 3/8" FIP EFV                   |        |
|     |         |      |                     |      |                              | V4   | 3/4" MIP (tapped 1/2" FIP) EFV |        |
|     |         |      |                     |      |                              | V5   | 3/4" MIP EFV                   |        |
|     |         |      |                     |      |                              | V6   | 1" MIP (tapped 3/4" FIP) EFV   |        |
|     |         |      |                     |      |                              | V7   | 1" FIP EFV                     |        |
|     |         |      |                     |      |                              |      |                                |        |

# **BTU Capacities Chart**

Capacities of Gas Connectors of Various Lengths in BTU/Hr for Natural Gas (Multiply by 1.6 for LP Gas)

| OD (in) ID (in) | ID (in) | Straight Length Capacity in BTU/HR |         |         |         |         |         |         |         |
|-----------------|---------|------------------------------------|---------|---------|---------|---------|---------|---------|---------|
|                 | 12"     | 18"                                | 24"     | 30"     | 36"     | 48"     | 60"     | 72"     |         |
| 3/8"            | 1/4"    | 48,000                             | 43,800  | 40,000  | 36,400  | 33,400  | 28,300  | 24,900  | 23,100  |
| 1/2"            | 3/8"    | 102,000                            | 93,100  | 85,000  | 77,100  | 71,100  | 60,500  | 53,200  | 49,100  |
| 5/8"            | 1/2"    | 180,000                            | 164,200 | 150,000 | 136,000 | 125,000 | 106,000 | 93,200  | 86,000  |
| 1"              | 3/4"    |                                    |         | 290,900 | 270,500 | 255,900 | 215,000 | 197,400 | 173,900 |

# **ArmorBoost Excess Flow Chart**

|  | 3/8" OD | 1/2" OD | 5/8" OD | l" OD   |
|--|---------|---------|---------|---------|
| Max flow capacity (BTU/h)                      | 75,000  | 123,000 | 180,000 | 260,000 |
| Max pressure drop @ max flow capacity (in. wc) | 0.63    | 0.74    | 1.21    | 1.96    |
| Flow capacity @ 5 in. wc pressure drop (BTU/h) | 66,800  | 111,000 | 122,500 | 159,000 |
| Trip flow rate @ 5 in. wc (BTU/h)              | 101,000 | 223,000 | 217,000 | 290,000 |
| Max pressure drop @ trip flow (in. wc)         | 2.76    | 3.24    | 2.88    | 2.88    |

- \*Rated Trip Flow and Max Flow Capacity values are kBTU/h @ max. "w.c. PD (natural gas, 0.64 s.g., 1000 BTU/cu.ft.)
- $\bullet \ A \, minimum \, of \, 5" \, w.c. \, inlet \, pressure \, is \, required \, with \, a \, maximum \, inlet \, pressure \, of \, 14" \, w.c. \, (1/2 \, psig).$ • Installation orientation: Multi-poise (horizontal, vertical up, vertical down).
- EFV Type: EFVB (Bypass with automatic reset)

- Bypass rate: MAX 2.5 SCFH at 0.5 psi
- The maximum trip flow is 1.4 times the rated trip flow.
  Operating temperature: -40°F to 150°F (-40°C to 65°C)
- Reaction Temperature Range: 350°F to 425°F (176.7°C to 218.3°C)

