

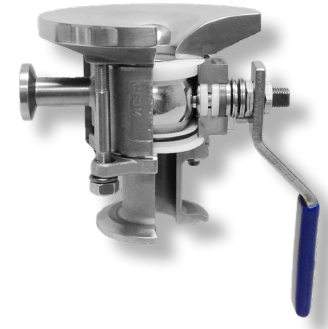
# IMI PBM FIRESAFE TANK BOTTOM VALVES

## Tank Bottom Series 6, 1/2" - 3"



### DESIGN FEATURES:

- Fire Rated, tested to API-607
- **FI Series Fire Rated Flush Tank valves have o-rings.**
- Three-piece "swing-out" body design
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning and draining.
- True-Bore® design
- Valves are rated to full vacuum.
- Material Test Report (MTRS) provided for wetted components
- Surface finishes are achieved without the use of ADIs (Animal Derived Ingredients)
- Optional Fusible Link – A Spring Return Handle unit can be equipped with an optional fusible link specified to a customer's required melt temperature, which closes the valve during fire conditions.
- Direct mount automation



| SPECIFICATIONS           | 2-Way Valves                                                        |
|--------------------------|---------------------------------------------------------------------|
| Sizes                    | 1/2" - 3"                                                           |
| Material                 | 316/316L, (ASTM A351 CF3M), Hastelloy® C276 and other materials     |
| Temperatures             | Ambient for V-TEF™ to 400° F, S-TEF® to 450°F                       |
| End Connections          | Extended tube, hygienic clamp, compression ends (1/2" - 1")         |
| Seats & Seals            | V-TEF™ or S-TEF® Seats, Graphite seals, O-rings (EPR, FKM standard) |
| Stem Packing Material    | V-TEF™ or S-TEF®, Graphite secondary seals                          |
| Body Bolts & Nuts        | 18-8 Stainless Steel, Fully encapsulated                            |
| Maximum Working Pressure | up to 720 psig CWP depending on valve series, size and temperature  |
| Temperatures             | up to 450°F depending on seat and seal material                     |
| Polish                   | Standard internal polish of 30 Ra ID                                |

| CV Values (gpm), Series 6 |                |       |
|---------------------------|----------------|-------|
| Size                      | End Connection |       |
|                           | F-             | X-    |
| 1/2"                      | 7              | 8     |
| 3/4"                      | 24             | 28    |
| 1"                        | 55             | 60    |
| 1-1/2"                    | 160            | 190   |
| 2"                        | 370            | 420   |
| 3"                        | 850            | 1,000 |

| ID Surface Finish, Ra Readings for Valves per ASME BPE |                     |           |      |
|--------------------------------------------------------|---------------------|-----------|------|
| Surface Finish                                         | IMI PBM Polish Code | µ-in.     | µ-m. |
| <b>Mechanical Polish</b>                               |                     |           |      |
| SF 1                                                   | A                   | 20 Ra max | 0.51 |
| SF 2                                                   | A                   | 25 Ra max | 0.64 |
| SF 3                                                   | -                   | 30 Ra max | 0.76 |
| <b>Mechanical Polish and Electropolish</b>             |                     |           |      |
| SF 4                                                   | G                   | 15 Ra max | 0.38 |
| SF 5                                                   | F                   | 20 Ra max | 0.51 |
| SF 6                                                   | F                   | 25 Ra max | 0.64 |

### How To Order:

| PRODUCT (1-2)  |    | SIZE (5)            |   | END CONN. |   | SEAT & SEAL |                         | PAD OPTIONS |                                                             | BALL & STEM |                                                 | OPERATOR |                        | POLISH  |                                  |   |                                      |
|----------------|----|---------------------|---|-----------|---|-------------|-------------------------|-------------|-------------------------------------------------------------|-------------|-------------------------------------------------|----------|------------------------|---------|----------------------------------|---|--------------------------------------|
| MATERIAL (3-4) |    | SERIES (6)          |   | (7-8)     |   | (9)         |                         | (10-11)     |                                                             | (12)        |                                                 | (13-14)  |                        | (15-16) |                                  |   |                                      |
| FI             | H- | Cast 316/316L S / S | C | 1/2"      | 6 | F -         | Ext. Butt weld for Tube | G           | V-TEF™ Seats / Graphite Seals / FKM O-Rings                 | --          | Standard Weld Pad                               | -        | Standard Ball and Stem | --      | W/ Standard Lever Handle         | - | 30 Ra ID Standard                    |
|                | HL | Cast 316L S / S     | D | 3/4"      |   | X-          | Hygienic Clamp          | J           | V-TEF™ Seats / Graphite Seals / VTFE Cav Fill / FKM O-Rings | 02          | w/o weld pad w/ shipping pad                    | G        | 17-4PH Stem            | 02      | W/O Handle W/ Stem Actuator Prep | A | 20 Ra ID                             |
|                | C- | Hastelloy C-276     | E | 1"        |   | SM          | Compression (thru 1")   | Z           | V-TEF™ Seats / Graphite Seals / EPR O-Rings                 |             | Other Weld Pad Options available - Contact PBM. |          |                        | 04      | Locking Lever Handle             | C | 20 Ra ID / 32 Ra OD                  |
|                |    |                     | G | 1-1/2"    |   | G-          | Female Cherry Burrell   |             |                                                             |             |                                                 |          |                        | 18      | Extended Handle                  |   |                                      |
|                | Y- | Hastelloy C-22      | H | 2"        |   | H-          | Male Cherry Burrell     | 2           | V-TEF™ Seats / Graphite Seals / VTFE Cav Fill / EPR O-Rings |             |                                                 |          |                        | 20      | DA 80psig actuator               | F | 20 Ra ID after Electro Polish        |
|                | P- | AL6XN               | K | 3"        |   |             |                         | H           | S-TEF® Seats / Graphite Seals / FKM O-Rings                 |             |                                                 |          |                        | 27      | DA 60psig actuator               |   |                                      |
|                |    |                     |   |           |   |             |                         | 0           | S-TEF® Seats / Graphite Seals / EPR O-Rings                 |             |                                                 |          |                        | 34      | SR 80psig actuator               |   | More polish available - Contact PBM. |
|                |    |                     |   |           |   |             |                         | 9           | V-TEF™ Seats / Seals / FEP Encaps. FKM O-Rings              |             |                                                 |          |                        | 41      | SR 60psig actuator               |   |                                      |

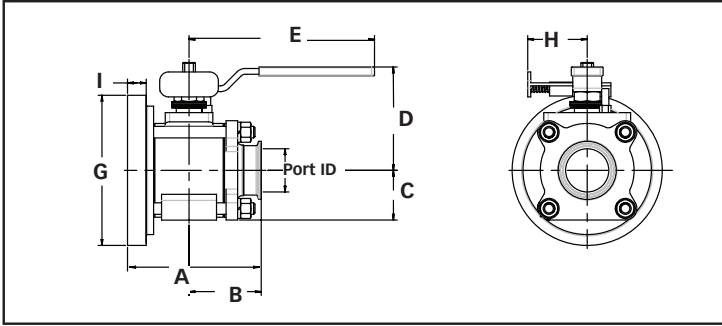
<http://pbmvalve.com/build-a-part-number>

Other Seat/seal options available - Contact PBM.

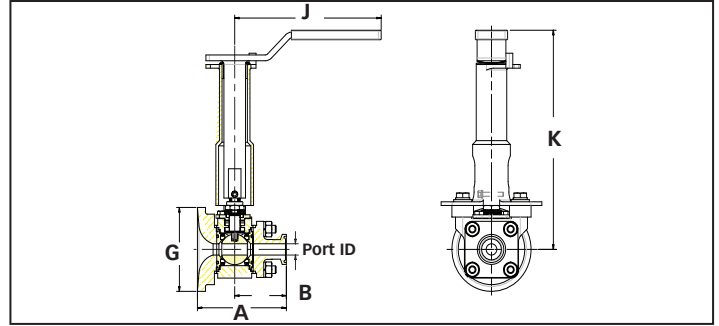
Other operator options available - Contact PBM.

# IMI PBM Fire Rated FI Series 6, Manual

Flush Tank Valve with Locking Handle



Flush Tank Valve with Extended Locking

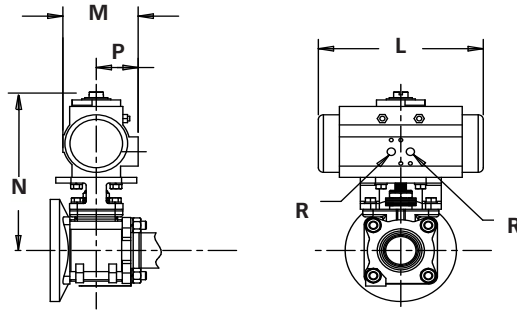


Flush Tank Firesafe Dimensioned valves in inches

| Valve Size | Size Code | ID Port | Face to Face |      | Q to Face |      | Q to Bottom | Q to Top | Length from Q | Butt Weld Length | Pad Dia. G | Pad < > I | Approx. Wgt. (lbs.) |      | Locking Handle |     | Ext. Locking Handle |      |      |                    |
|------------|-----------|---------|--------------|------|-----------|------|-------------|----------|---------------|------------------|------------|-----------|---------------------|------|----------------|-----|---------------------|------|------|--------------------|
|            |           |         | X-           | F-   | X-        | F-   | C           | D        |               |                  |            |           | E                   | X-   | F-             | H   | Hole Dia. for Lock  | J    | K    | Hole Dia. for Lock |
|            |           |         |              |      |           |      |             |          |               |                  |            |           |                     |      |                |     |                     |      |      |                    |
| 1/2"       | C         | 0.37    | 3.09         | 4.04 | 1.80      | 2.75 | .92         | 2.71     | 4.15          | 1.50             | 2.75       | .28       | 2.70                | 2.70 | 1.62           | .25 | 5.09                | 7.18 | 0.31 |                    |
| 3/4"       | D         | 0.62    | 3.36         | 4.11 | 2.00      | 2.75 | 1.00        | 2.73     | 4.15          | 1.50             | 3.00       | .31       | 5.30                | 5.35 | 1.62           | .25 | 5.09                | 7.33 | 0.31 |                    |
| 1"         | E         | 0.87    | 4.40         | 4.72 | 2.69      | 3.00 | 1.33        | 3.08     | 5.09          | 1.50             | 3.75       | .32       | 6.40                | 6.26 | 1.62           | .25 | 5.09                | 7.60 | 0.31 |                    |
| 1-1/2"     | G         | 1.37    | 5.09         | 6.09 | 2.75      | 3.75 | 1.78        | 4.38     | 8.03          | 1.50             | 5.50       | .62       | 15.5                | 15.5 | 2.58           | .38 | 8.00                | 9.44 | 0.38 |                    |
| 2"         | H         | 1.87    | 5.73         | 6.60 | 3.10      | 3.97 | 2.15        | 4.69     | 8.03          | 1.75             | 6.50       | .81       | 22.5                | 22.5 | 2.58           | .38 | 8.00                | 9.76 | 0.38 |                    |

## ACTUATED DIMENSIONS

Unit of Measure = inches  
Dimensions based on actuators used with V-TEF™ seats.



| Size   | 80 PSI Double Acting |      |       |      |     | 60 PSI Double Acting |      |       |      |     | 80 PSI Spring Return |      |       |      |     | 60 PSI Spring Return |      |       |      |     |
|--------|----------------------|------|-------|------|-----|----------------------|------|-------|------|-----|----------------------|------|-------|------|-----|----------------------|------|-------|------|-----|
|        | L                    | M    | N     | P    | R   | L                    | M    | N     | P    | R   | L                    | M    | N     | P    | R   | L                    | M    | N     | P    | R   |
| 1/2"   | 5.55                 | 2.79 | 5.84  | 1.61 | 1/8 | 6.46                 | 3.17 | 6.29  | 1.77 | 1/8 | 5.55                 | 2.79 | 5.84  | 1.61 | 1/8 | 5.55                 | 2.79 | 5.84  | 1.61 | 1/8 |
| 3/4"   | 6.46                 | 3.17 | 6.44  | 1.77 | 1/8 | 6.46                 | 3.17 | 6.44  | 1.77 | 1/8 | 5.55                 | 2.79 | 5.99  | 1.61 | 1/8 | 5.55                 | 2.79 | 5.99  | 1.61 | 1/8 |
| 1"     | 8.27                 | 3.72 | 7.80  | 2.07 | 1/8 | 8.27                 | 3.72 | 7.80  | 2.07 | 1/8 | 5.55                 | 2.79 | 6.64  | 1.61 | 1/8 | 5.55                 | 2.79 | 6.64  | 1.61 | 1/8 |
| 1-1/2" | 10.83                | 4.85 | 10.16 | 2.68 | 1/4 | 10.83                | 4.85 | 10.16 | 2.68 | 1/4 | 6.46                 | 3.17 | 8.39  | 1.77 | 1/8 | 8.27                 | 3.72 | 9.10  | 2.07 | 1/8 |
| 2"     | 10.83                | 4.85 | 10.47 | 2.68 | 1/4 | 13.12                | 5.39 | 11.82 | 2.87 | 1/4 | 8.27                 | 3.72 | 9.42  | 2.07 | 1/8 | 8.27                 | 3.72 | 9.42  | 2.07 | 1/8 |
| 2-1/2" | 13.12                | 5.39 | 13.48 | 2.87 | 1/4 | 14.65                | 5.83 | 13.96 | 3.15 | 1/4 | 13.12                | 5.39 | 13.48 | 2.87 | 1/4 | 13.12                | 5.39 | 13.48 | 2.87 | 1/4 |
| 3"     | 14.65                | 5.83 | 14.29 | 3.15 | 1/4 | 17.13                | 6.46 | 15.16 | 3.44 | 1/4 | 13.12                | 5.39 | 13.81 | 2.87 | 1/4 | 13.12                | 5.39 | 13.81 | 2.87 | 1/4 |



<http://www.pbmvalve.com/valves/tank-bottom-valve>

<http://pbmvalve.com/maintenance-instructions>

[www.PBMValve.com](http://www.PBMValve.com)

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