

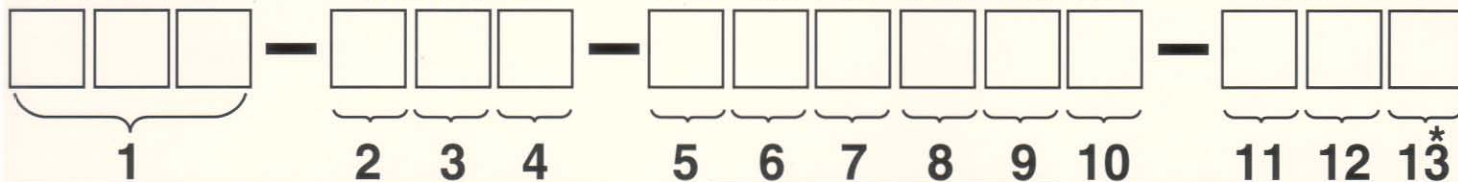
FLOWSEAL FIGURE NUMBER SYSTEM

VALVE SIZE

VALVE TYPE

MATERIALS OF CONSTRUCTION

FEATURES



1. Size Code

02 = 2"
025 = 2 1/2"
03 = 3"
035 = 3 1/2"
04 = 4"
to
48 = 48"

2. Body Class Code

0 = 150 PSI Max. Diff. Pressure
1 = ANSI 150
3 = ANSI 300
6 = ANSI 600

3. Body Type Code

W = Wafer
L = Lugged

4. Shaft Design Code

A = Straight
2" - 24" ANSI 150
2" - 12" ANSI 300
2" - 8" ANSI 600
C = Balanced
30" - 48" ANSI 150
14" - 30" ANSI 300
10" - 16" ANSI 600

5. Body Material Code

1 = Carbon Steel
2 = 316 SS
3 = Monel
4 = Alloy 20
5 = Alum Bronze MIL-B-24480
8 = Alum Bronze B148 ASTM C958
H = Hastelloy C
X = Special

6. Disc Material Code

0 = Alum Bronze/ENP B148 C958
2 = 316 SS
3 = Monel
4 = Alloy 20
5 = Alum Bronze MIL-B-24480
7 = 316 SS Nitrided
8 = Alum Bronze B148 ASTM C958
9 = 316 SS/ENP
H = Hastelloy C
J = Hastelloy C/ENP
X = Special

7. Shaft Material Code

1 = 17-4PH SS
2 = 316 SS (Note 1)
3 = Monel
4 = Alloy 20
6 = Inconel 718/750
7 = Ferralium A479
0 = Nitronic 50
H = Hastelloy C
X = Special

8. Seat Material Code

T = TFE
R = RTFE
L = Polyethylene (UHMWPE)
F = Fire-Flow (TFE & Metal)
B = Fire-Flow (RTFE & Metal)
M = Inconel
S = 300 SS
C = Fire-Flow (TFE & Monel)
J = Fire-Flow (RTFE & Monel)
H = Fire-Flow (TFE & Hastelloy C)
K = Fire-Flow (RTFE & Hastelloy C)
X = Special

9. Packing Material Code

T = TFE
G = Graphite
F = Fire-Flow
X = Special

10. Bearing Material Code

G = Glass Backed TFE
H = 316 SS Backed TFE
F = Fire-Flow (Garfil & 316 SS)
S = Stainless Steel Nitrided
B = Bronze
K = Monel
J = Hastelloy C Backed TFE
X = Special

11. Actuator Type Code

B = Bare Shaft
H = Ratchet Handle
L = Ratchet Handle w/Lock
T = Throttle
3 = Worm Gear
4 = Pneumatic Double Acting
5 = Pneumatic SR Fail Close
6 = Pneumatic SR Fail Open
7 = Hydraulic
8 = Electric
X = Other

12. Special Feature Code

O = None
A = Oxygen Service
C = Chlorine Service
D = Bi-directional Dead-end Service
F = Flat Face
M = Mil-V-24624
N = NACE Construction
S = 60 to 125 AARH Facing
V = Vacuum Service
X = Special Feature
Further Description Required

13. Series Code

*Factory Assigned

Note 1. Use of 316 SS shaft may lower shutoff differentials. See page 6.

Standard materials

Example: 12 – 1WA – 191FFF – B0G

TYPICAL SPECIFICATION

1.0 Scope

This specification covers the design and testing of high pressure offset seat butterfly valves.

3.6 Valves shall have internal stop to prevent disc over-travel.
3.7 Valves shall be Flowseal or approved equal.

2.0 Applicable Standards

The following standards shall apply
ANSI B16.5: Pipe Flanges and Flanged Fittings (24" size and smaller).
ANSI B16.34: Valves—Flanged and Butt-welding End.
MSS SP-25: Standard Marking System for Valves, Fittings, Flanges and Unions.
MSS SP-61: Pressure Testing of Steel Valves.
MSS SP-68: High Pressure—Offset Seat Butterfly Valves.
API 609: Butterfly Valves, Lug-Type and Wafer-Type.
API 607: Fire Test for Soft-Seated Quarter Turn Valves.

4.0 Materials

4.1 Valves shall be constructed of new material.
4.2 Carbon steel valves shall be constructed from materials below:
4.2.1 Body—ASTM A105 or A216 Gr. WCB.
4.2.2 Disc—ASTM A182 F316 or A351 Gr. CF8M.
4.3 Stainless steel valves shall be constructed from materials below:
4.3.1 Body—ASTM A182 Gr. F316 or A351 Gr. CF8M.
4.3.2 Disc—ASTM A182 Gr. F316 or A351 Gr. CF8M.

3.0 Design Requirement

3.1 Valves shall be High Performance Butterfly with offset seat and eccentric shaft. They shall be capable of sealing against full differential pressure in either flow direction.
3.2 Valve seat shall be both self and pressure energized with an elastomeric core. The self energizing member shall be isolated from the line media.
3.3 Valves shall have retained top and bottom low friction bearings.
3.4 Shaft design shall be single or dual piece.
3.5 Retainer rings must be recessed in the body so that the line gasket prevents any potential external leakage.

5.0 Inspection and Test

5.1 Valves shall be hydrostatically shell tested per ANSI B16.34 and MSS SP-61.
5.2 Valves shall be seat tested per MSS SP-61. No leakage is permitted for resilient seated valves.
5.3 API 598 testing available upon request.
5.4 Flowseal Fire-Flow™ valves qualified to API 607 fire test standard.