








HOW TO ORDER

Type of connection	Size of connection	Pressure rating	Valve type	Body/bonnet style	Body material	Trim material
A 	B 	C 	D 	E 	F 	G 
F	0 8	— 2	0 7	4 B	1 3	M S

Example: is a NPS 2 (DN 50) 600 Class stainless steel bolted bonnet globe valve with MS trim.

A	TYPE OF CONNECTION
B	Butt weld
C	Combination (socket weld/threaded)
F	Flanged B16.5 (B16.47 series A)
R	Flanged ring joint
S	Thread NPT
U	Undrilled flanges
W	Socket weld
X	Butt weld (intermediate class)

B	SIZE OF CONNECTION
Customers have the choice of specifying valve size as part of the valve figure number (B) using the numbers below, or indicating valve size separately. Sizes shown in NPS (DN)	
EXAMPLES: F08-2054B-13MS (valve size is part of figure number) 2F-2054B-13MS (valve size is shown separately)	
01	¼ (8)
02	⅜ (10)
03	½ (15)
04	¾ (20)
05	1 (25)
06	1¼ (32)
07	1½ (40)
08	2 (50)
09	2½ (65)
10	3 (80)
11	3½ (90)
12	4 (100)

C	PRESSURE RATING
0	150
1	300
2	600 or 800 API 602
3	1500
4	2500
5	4500
6	400
7	900
8	1690
9	2680
A	2750
B	2900
C	3100
D	3500
E	4100
F	3900

D	VALVE TYPE
01	Flow control
02	Ball check
03	Piston check
05	Conventional port gate
06	Full port gate
07	Stop globe
08	Stop check
09	Needle
10	Continuous blowdown
11	Swing check
14	Parallel slide
15	Instrument
17	IREB gate
18	Extended body gate
21	Boiler blowoff
22	Pressure relief
23	Double disc gate
34	Tilting disc check
62	Full port ball check
63	Full port piston check
67	Full port stop globe
68	Full port stop check
69	Full port needle

E	BODY/BONNET STYLE
4	Vertical
5	Angle
6	Inclined y-pattern
7	Inclined y-pattern bonnetless 45°
8	Elbow down
B	Bolted bonnet (forged)
D	Diaphragm
F	Extended bonnet (cryogenic) forged
R	Forged bolted bonnet bellows seal
S	Y-pattern bellows seal (non-rotating stem)
T	All welded bellows seal
U	Welded bonnet (cryogenic)
W	Welded bonnet
Y	Bonnetless (rotating stem)
Z	Bonnetless (non-rotating stem)

Note: Velan valves for **NACE** service (as indicated by figure number and/or description) comply with the metallurgical requirements of the current NACE MR0103 and MR0175 / ISO 15156. Material selection is dependent on the actual environment and it is therefore the equipment End User's responsibility to ensure that the materials are suitable for the intended service. Please contact Velan for any questions regarding the application of our products for NACE service.

F	BODY MATERIAL
02	A105
04	CrMo F5
05	CrMo F11
06	CrMo F22
09	CrMo F9
10	SS F316H ⁽²⁾⁽⁴⁾
11	SS F304
12	SS F304L
13	SS F316 ⁽³⁾⁽⁴⁾
14	SS F316L ⁽⁴⁾
15	SS F347
16	SS F304H
18	SS F321
19	Monel M35
20	Inconel 625 ⁽¹⁾
21	Hastelloy C ⁽¹⁾
22	Titanium Gr. 5
23	Alloy 20 (CN7M)
24	LF1
25	LCB
26	LF2
27	LF3/LC3
31	LCC
32	SS F51
34	F91
35	SS F44 (254SMO)
36	SS F321H
37	Incoloy 825 ⁽¹⁾

- (1) Must specify grade
- (2) Material Code "10" (F316H) has a minimum carbon content of 0.04% must be used when temperatures are above 1000°F (538°C).
- (3) Material Code "13" (F316) is not suitable for temperatures above 1000°F (538°C).
- (4) Material Codes "10" (F316H), "13" (F316), and "14" (F316L) are dual certified. If dual certification is required, F316 should be procured with a note that the valves should be dual certified with F316L. If this is specified on the order, then the MTR will state that the F316 valve will meet the chemical and mechanical properties of Dual Certified F316L.

G	TRIM (standard trims)					
Code	Wedge/disc surface ⁽¹⁾		Seat surface ⁽¹⁾	Stem	Bellows ⁽²⁾ (if applicable)	API Number
MS	Standard	CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	316/316L	321	16
MY		CF8M or 316	CoCr alloy ⁽³⁾	316/316L	321	12
TS		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	13 CR (410)	321	5
TY		13 CR (410 or CA15)	CoCr alloy ⁽³⁾	13 CR (410)	321	8
NA		13 CR (410 or CA15) HRC 22 max.	CoCr alloy ⁽³⁾	13 CR 410 HRC 22 max.		8 ⁽⁵⁾
NB	Nace Service ⁽⁶⁾	CF8M or 316	CoCr alloy ⁽³⁾	316/316L	321	12 ⁽⁵⁾
NC		Monel	CoCr alloy ⁽³⁾	Monel	Hastelloy C	11 ⁽⁵⁾
NE		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	13 CR 410 HRC 22 max.	Inconel 625	5 ⁽⁵⁾
NF		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	Same as body		
NG		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	316/316L	321	16 ⁽⁵⁾
AS		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	321	321	
CS		Alloy 20	CoCr alloy ⁽³⁾	Alloy 20		14
HC		Hastelloy C	CoCr alloy ⁽³⁾	Hastelloy C	Hastelloy C	
HM		HF-acid trim	HF-acid trim	HF-acid trim		
MC		CF8M or 316 with CTFE insert ⁽⁴⁾	CoCr alloy ⁽³⁾	316		12
PA		NOREM	NOREM	630	Inconel 625	
US		CoCr alloy ⁽³⁾	CoCr alloy ⁽³⁾	SS 616HT		
UY		13 CR (410 or CA15)	CoCr alloy ⁽³⁾	SS 616HT		
XX		Monel	Monel	Monel		9
XY		Monel	CoCr alloy ⁽³⁾	Monel		11

- (1) Base material is either the same as the body or solid trim at manufacturer's option.
- (2) Bellows material shown as standard, Inconel can be used in lieu of 321 and Hastelloy C in lieu of Inconel, where design and/or pressure class applicable.
- (3) CoCr alloy (Grade 6 or 21) based on material or application at manufacturer's option.
- (4) Inserts may be in seat or wedge at manufacturer's option.
- (5) NACE service valves are supplied with all materials conforming to NACE MR0175. (Including bolting with max. hardness of RC22).

Note: CoCr alloy as used throughout this catalog refers to cobalt chrome hardfacing alloys as supplied by Kennametal Stellite™, and other approved manufacturers.

Consult Velan's website at www.velan.com, for diagnostic troubleshooting and available trim materials.