

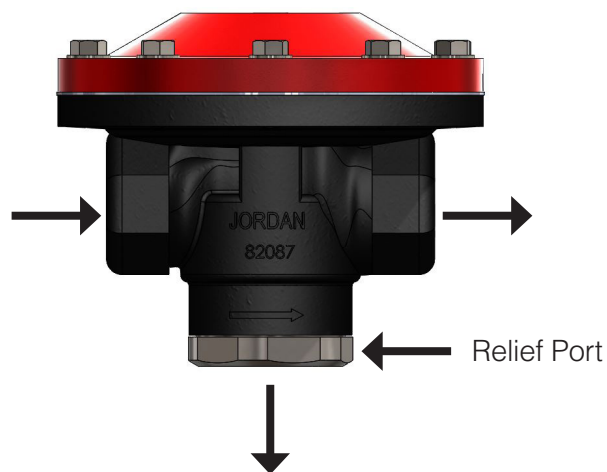
# Mark 586FT/586A Series

## Cage Trim, Dome Loaded, Back Pressure Regulators

**Mark 586FT installation** – designed to be installed in a "T" fashion such that the fluid normally flows in one side and out the other side, with the flow being relieved through the bottom bypass when the pressure exceeds the setting.

**Mark 586A installation** – designed to be installed with one side port as an inlet and the other side port plugged with the flow being relieved through the bottom bypass when the pressure exceeds the setting.

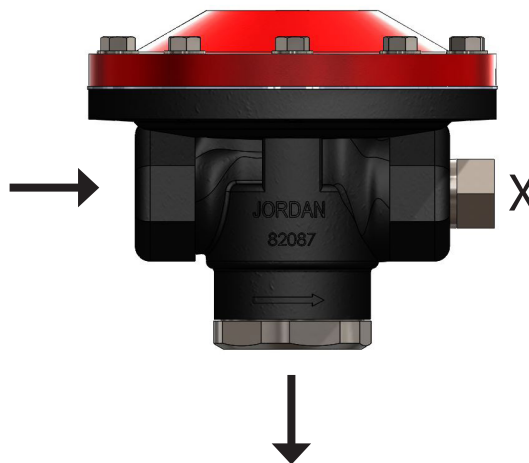
The Mark 586 is available in sizes up to 2" (DN50) in a wide variety of body materials. Diaphragms can be either Stainless Steel or elastomer. Low flow versions with Cv values as low as 0.21 (0,18 Kv) are available in certain sizes.



**MK586FT installation**

### FEATURES

- Easy to maintain and service – remove bottom entry cage to access plug; diaphragm accessible from top
- Large effective diaphragm area – for increased accuracy and sensitivity
- Large orifices and body passages – provides high flow capacities
- "Tight Shutoff" – choice of hard (ANSI CL IV) or soft (ANSI CL VI) bubble tight seats
- Versatile application – use on steam, air, gas liquids or chemicals



**MK586A installation**



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**SPECIFICATIONS**

**Sizes:** 1/4" through 2" (DN8 through DN50)

**End Connections Inlet & Flow Thru**

- Threaded — FNPT, BSPT, BSPP
- ANSI Flanges — 150#, 300# (1/2" – 2")
- DIN Flanges — PN10/16, PN25/40 (1/2" – 2")
- See accessories for bottom/bypass connections other than FNPT

**Body Materials**

- Ductile Iron
- Bronze
- Carbon Steel
- Stainless Steel

**Hard Seat Plug**

- 17-4 plug with EPDM (Option 'H') -20°F to 500°F (-29°C to 260°C)
- 17-4 plug with Viton (Option 'F') -20°F to 400°F (-29°C to 204°C)

**Soft Seat Plug**

- Buna-N / 316 (Option 'B') -20°F to 200°F (-29°C to 93°C)
- Viton / 316 (Option 'V') -20°F to 350°F (-29°C to 177°C)
- EPDM / 316 (Option 'J') -20°F to 350°F (-29°C to 177°C)

**Stem:** 17-4 Ph Stainless Steel

**Bottom/Bypass Cage**

- BR/DI/CS/SS: 316/316L if threaded
- BR/DI/CS: E-Nickel plated A105 if flanged

**Cage Seat:** Stainless Steel

**Spring Housing:** Cast Iron

**Diaphragm**

- Buna-N: -20°F to 200°F (-29°C to 93°C)
- EPDM: -20°F to 350°F (-29°C to 177°C); (290°F / 143°C for continuous steam)
- Jorlon: -20°F to 450°F (-29°C to 232°C)
- 316/316L SST: -20°F to 500°F (-29°C to 260°C)
- Viton/Nomex: -20°F to 450°F (-29°C to 232°C)

**Shutoff**

- Hard Seat: ANSI Class IV
- Soft Seat: ANSI Class VI for bubble-tight shutoff

**Maximum Inlet Pressure:** 300 psi (20,7 bar)

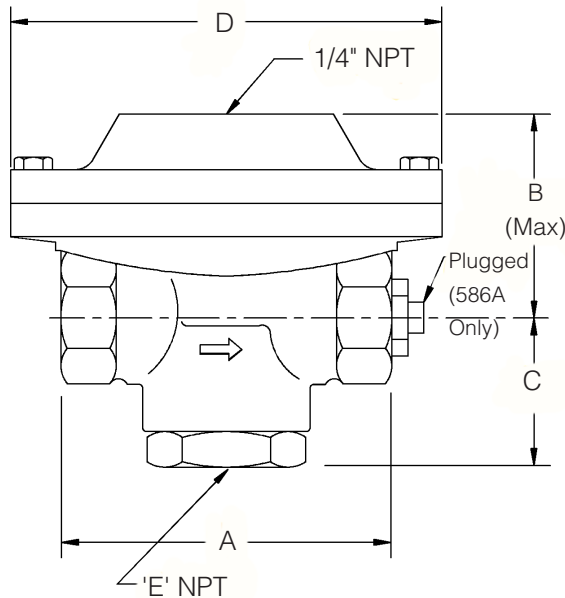
**Cv (Kv) Values**

Valve Size In. (DN)	F <sub>L</sub>	Flow-Thru Cv (Kv)
		586FT Only
1/4" (DN8)	0.80	3.1 (2,7)
3/8" (DN10)	0.80	5.8 (5,0)
1/2" (DN15)	0.80	10.8 (9,3)
3/4" (DN20)	0.80	16.4 (14,1)
1" (DN25)	0.80	26 (22,4)
1" (DN25)	0.80	26 (22,4)
1-1/4" (DN32)	0.85	55 (47,3)
1-1/2" (DN40)	0.85	85 (73,1)
2" (DN50)	0.85	105 (90,3)

Valve Size In (DN)	Diaphragm	Cv (Kv)
1/4", 3/8", 1/2" (DN8, DN10, DN15)	All	0.21, 0.42, 0.84, 1.6, 2.6 (0,18; 0,36; 0,72; 1,4; 2,2)
3/4", 1" (DN20, DN25)	All	0.21, 0.42, 0.84, 1.6, 2.9, 4.4 (0,18; 0,36; 0,72; 1,4; 2,5; 3,8)
3/4" (DN20)	Metal	5.5, 7.9 (4,7; 6,8)
3/4" (DN20)	Elastomer	6.5, 9.4 (5,6; 8,1)
1" (DN25)	Metal	5.7, 8.9 (4,9; 7,7)
1" (DN25)	Elastomer	6.8, 11.3 (5,9; 9,7)
1-1/4", 1-1/2", 2" (DN32, DN40, DN50)	All	1.6, 2.9, 4.4, 5.6, 7.7 (1,4; 2,5; 3,8; 4,8; 6,6)
1-1/4" (DN32)	Metal	13.5, 15.5 (11,6; 13,4)
1-1/4" (DN32)	Elastomer	17.6, 22.3 (15,2; 19,2)
1-1/2" (DN40)	Metal	14.2, 16.9 (12,2; 14,6)
1-1/2" (DN40)	Elastomer	18.8, 24.0 (16,2; 20,7)
2" (DN50)	Metal	17.4, 21.7 (15,0; 18,7)
2" (DN50)	Elastomer	24.7, 32.4 (21,3; 27,9)

MARK 586FT/586A DOME LOADED CAGE TRIM BACK PRESSURE REGULATOR

**DIMENSIONS**



- Flanged Ends – inches (metric)

Valve Size	Dimensions (Inches)					Weight lbs
	A	B	C	D	E	
1/4"	5.00	2.09	2.56	5.00	1/2"	8
3/8"	5.00	2.09	2.56	5.00	1/2"	8
1/2"	5.00	2.09	2.56	5.00	1/2"	8
3/4"	5.00	3.04	2.62	6.80	1"	15
1"	5.00	3.04	2.62	6.80	1"	15
* 1-1/4"	9.50	4.03	4.00	9.38	2"	45
1-1/2"	7.50	4.03	4.00	9.38	2"	45
2"	7.50	4.03	4.00	9.38	2"	45

\* 1 1/2" Body with 1 1/4" Bushing

- Threaded Ends – inches (metric)

Valve Size	Dimensions (mm)					Weight kgs
	A	B	C	D	E	
DN8	127	53	65	127	DN15	3,6
DN10	127	53	65	127	DN15	3,6
DN15	127	53	65	127	DN15	3,6
DN20	127	77	67	173	DN25	6,8
DN25	127	77	67	173	DN25	6,8
* DN32	241	102	98	238	DN50	20,4
DN40	191	102	98	238	DN50	20,4
DN50	191	102	98	238	DN50	20,4

\* 1 1/2" Body with 1 1/4" Bushing

**ORDERING SCHEMATIC**

Model No	Size	Body Mat'l

1	2	3	4	5	6

7	8	9	10	11	12	13	14

	Model
586FT	Flow thru installation
586A	Angle flow installation

	Body Material
DI	Ductile Iron
CS	Carbon Steel (WCB)
S6	Stainless Steel (CF8M)
BR	Bronze

	Size
025	1/4" (DN8)
038	3/8" (DN10)
050	1/2" (DN15)
075	3/4" (DN20)
100	1" (DN25)
125	1-1/4" (DN32)
150	1-1/2" (DN40)
200	2" (DN50)

**ORDERING SCHEMATIC (CON'T)**

Model No	Size	Body Mat'l

1	2	3	4

5	6	7	8	9	10	11	12	13	14

1 & 2	End Connections
PT	NPT
BT	BSPT
BP	BSPP
SW	FSW
F1	125# FE
F5	150# FE
F2	250# FE
F3	300# FE
F7	PN 10 DIN FE
F6	PN 16 DIN FE
F8	PN 25 DIN FE
F4	PN 40 DIN FE
JC	FNPT F/JCC
ZZ	Non-Standard

5 & 6	Range
ALL	
00	None
ZZ	Non-Standard

7 & 8	Diaphragm
BN	Buna-N
EP	EPDM
JL	Jorlon
S6	316SST
VI	Viton
ZZ	Non-Standard

3 & 4	Plug Seat & Body O-Ring		
	Material		Cv
B	Buna-N	1	0.21
V	Viton	2	0.42
J	EPDM	3	0.84
H	Hard/EPDM	4	1.6
F	Hard/Viton	6	2.6
		7	2.9
		8	4.4
		A	5.5
		B	5.6
		C	5.7
		D	6.5
		E	6.8
		G	7.7
		H	7.9
		I	8.9
		J	9.4
		K	11.3
		L	13.4
		M	13.5
		N	14.2
		P	15.5
		R	16.9
		T	17.4
		U	17.6
		V	18.8
		X	21.7
		Y	22.3
		1	24.0
		2	24.7
		3	32.4
ZZ	Non-Standard		

9 & 10	Actuator
ALL	
MD	For Metal Diaph. (S6) / All Ranges
ED	For Elastomer Diaph. (VI, BN, JL) All Ranges
E6	316 Actuator All Diaph.
ZZ	Non-Standard

11 & 12	Accessories
00	None
S6	316SS Bolting
SC	Oil-Free Clean
XC	Oxygen Clean
BP	BSPP Bottom/Bypass
BT	BSPT Bottom/Bypass
F1	125# FE Bottom/Bypass
F5	150# FE Bottom/Bypass
F2	250# FE Bottom/Bypass
F3	300# FE Bottom/Bypass
F7	PN10 DIN FE Bottom/Bypass
F6	PN16 DIN FE Bottom/Bypass
F8	PN25 DIN FE Bottom/Bypass
F4	PN40 DIN FE Bottom/Bypass
ZZ	Non-Standard

13 & 14	PED Compliance
00	Not required
0F	CE Category I
0G	SEP
ZZ	Non-Standard

