



MEKASTER
ISO 9001 : 2008

SAFETY RELIEF VALVES SCREWED AND FLANGED TYPE

SERIES 9

FULL LIFT AND FULL/MODIFIED NOZZLE
GAS OR LIQUID CRYOGENIC SERVICE
SCREWED - 1/2" TO 1 1/2"
FLANGED - ANSI 150 TO 2500
SET PRESSURE UPTO 420 BAR



DESIGN FEATURE

- End connection screwed (BSP or NPT) or flanged
- Adjusting ring
- Inlet connection screwed male or female
- Screwed Full / Modified Nozzle
- Flanges according to ANSI B 16.5
- ISO PN Flanges (On Request)
- Suitable for Thermal Relief applications

CONSTRUCTION

Body Materials

- Carbon Steel
- Stainless Steel
- Cr Mo Steel
- Low temperature Steel
- Nickel Copper Alloy
- Alloy 20

ACCESSORIES

- Test Gag
- Lifting Lever
- Nozzle & Disc Stellite
- Metal to Metal OR Soft Seat



MEKASTER

HEAD OFFICE

908, Ansal Bhawan,
16, K.G. Marg,
New Delhi 110 001
Tel 011 2335416

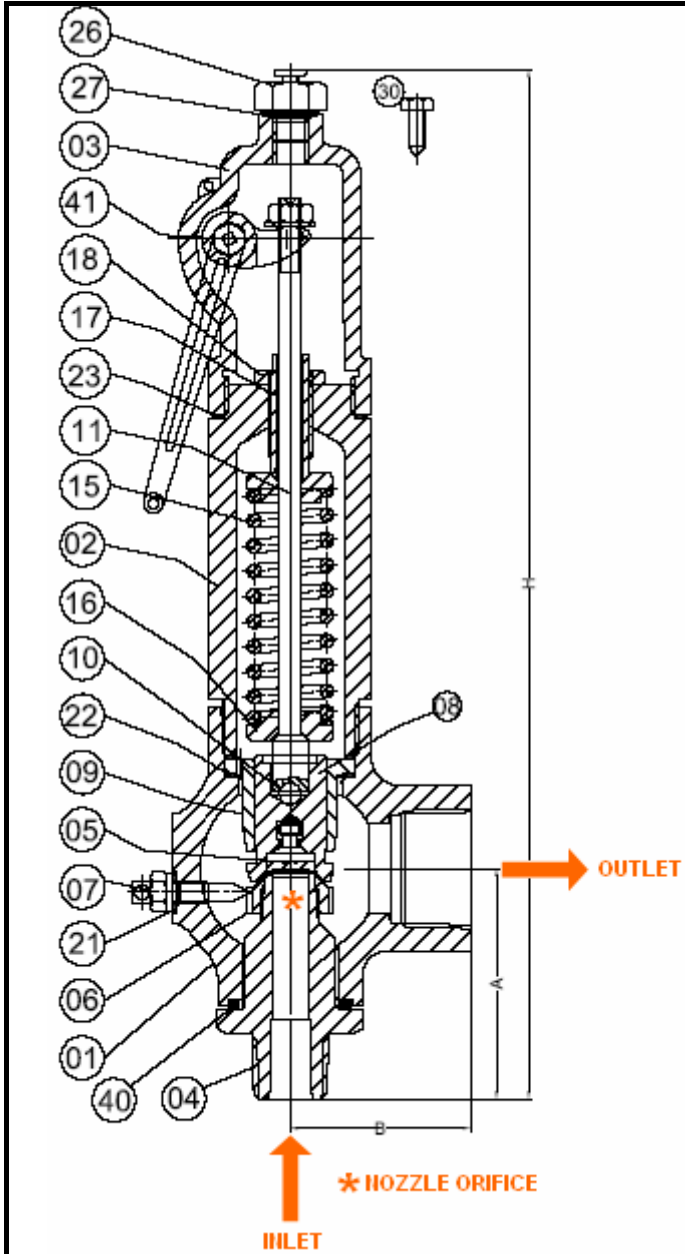
Email corp@mekaster.com, Tuncon@mekaster.com



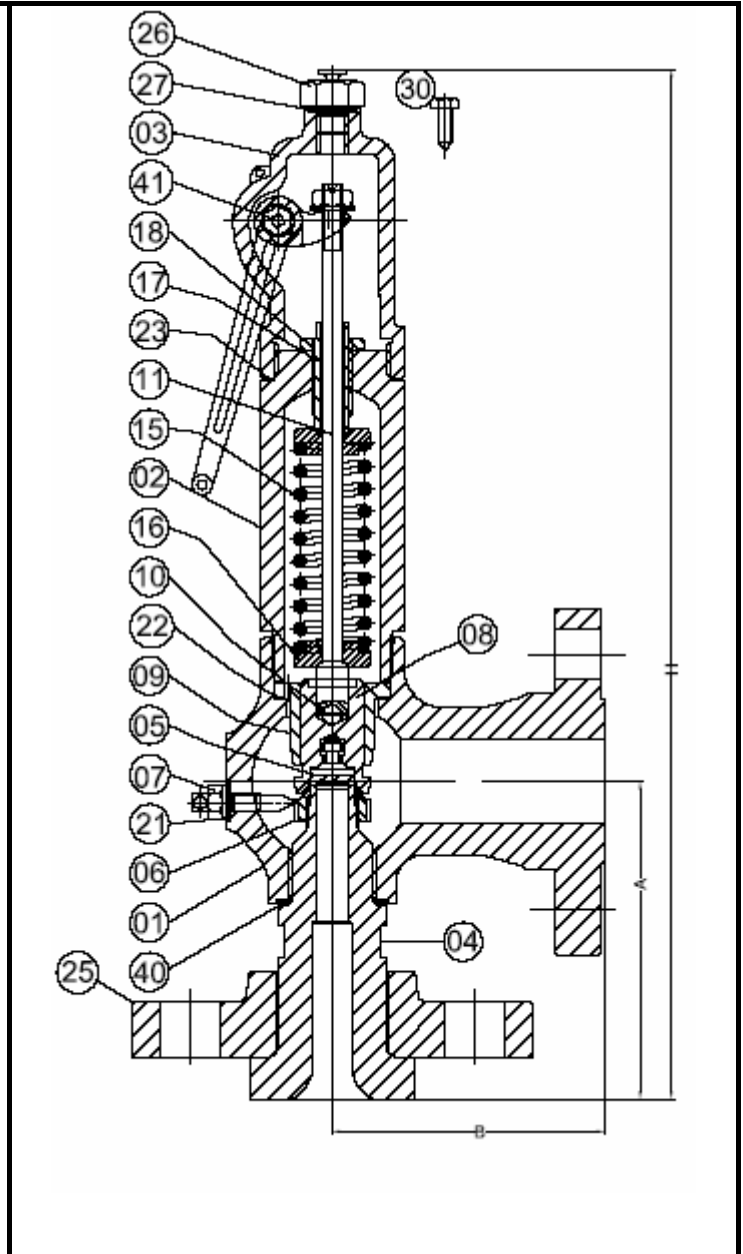
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9 Series Valves – Screwed End Connection



9 Series Valves – Flanged End Connection



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PART LIST

PART LIST		CARBON STEEL	STAINLESS STEEL (FOR LOW TEMP AND CORROSIVE SERVICES)
PART NO.	DESCRIPTION	TEMP -29°C TO 250°C	TEMP -196°C TO 250°C
01	Body	A 216 GR WCB	A 351 GR CF8M
02	Bonnet	A 216 GR WCB	A 351 GR CF8M
03	Cap	A 216 GR WCB	A 351 GR CF8M
04 (R)	Nozzle	SS – 316	SS – 316
05 (R)	Disc	SS – 316	SS – 316
06	Adj. Ring	A 351 GR CF8M	A 351 GR CF8M
07	Adj. Ring Pin	SS – 304	SS – 316
08	Disc Holder/ Piston	SS – 304	SS – 316
09	Guide	SS – 316/ A 351 GR CF 8M	SS – 316/ A 351 GR CF 8M
10	Ball	SS – 304	SS – 304
11	Spindle	SS – 304	SS – 316
15 (R)	Spring	SS – 304	SS – 304
16	Spring Washer	C.S.	SS – 304
17	Adj. Screw	SS – 304	SS – 304
18	Lock Nut	SS – 304	SS – 304
21	Set Screw Gasket	TEFLON	TEFLON
22 (R)	Guide Gasket	TEFLON	TEFLON
23 (R)	Cap Gasket	TEFLON	TEFLON
25	Inlet Flange	ASTM A 105	ASTM A 182 F 316
26	Cap Plug	SS – 304	SS – 304
27 (R)	Plug Gasket	TEFLON	TEFLON
30	Test Gag	C.S.	SS – 304
40	Nozzle Gasket	SS – 316	SS – 316
41	Lever Assembly	A 479 410	A 479 304

(R) Recommended Spare Parts

- Other materials available on request



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SIZES – SCREWED TYPE

Designation	ORIFICE		PRESSURE CLASS	CONNECTION – BSP/NPT		MAX SET PRESSURE AT 38 °C (BAR-g)	DIMENSION - SCREWED CONNECTION				APPROX WEIGHT KG
	Eff. Area (cm ²) SQ inch	Act. Area (cm ²) SQ inch		Inlet Male	Outlet Female		±3 A mm	±3 B mm	H mm (±20)		
									Non -Lever Type	Lever Type	
B	(0.28) 0.044	(0.28) 0.044	4	1/2"	1/2"	153	51	40	212	265	2.5
			4	1/2"	3/4"	153	51	40	212	265	2.5
			4	1/2"	1"	153	51	40	212	265	2.5
			4	3/4"	1"	153	51	40	212	265	2.5
			4	1"	1"	153	56	40	212	265	2.5
			6	3/4"	1"	420	64	85	332	332	6
D	(0.71) 0.11	(0.8) 0.124	3	*1/2"	1"	102	64	50	223	276	3
			3	3/4"	1"	102	64	50	223	276	3
			3	1"	1"	102	70	50	223	276	3
			5	3/4"	1"	255	64	85	332	332	6
			5	1"	1"	255	70	85	338	338	7
E	(1.26) 0.196	(1.43) 0.222	2	3/4"	1"	51	64	50	224	277	3
			2	1"	1"	51	70	50	224	277	3
			4	3/4"	1"	153	64	85	332	332	6
			4	1"	1"	153	70	85	338	338	7
F	(1.98) 0.307	(2.27) 0.352	2	1"	1.5"	51	91	60	291	344	6
			2	1.5"	1.5"	51	91	60	291	344	6
G	(3.24) 0.503	(3.664) 0.558	1	1"	1.5"	19.6	91	60	291	344	6
			1	1.5"	1.5"	19.6	91	60	291	344	6

*: NOT IN BSP MALE

SIZES – FLENGE TYPE

Designation	ORIFICE		PRESSURE CLASS	CONNECTION				MAX SET PRESSURE AT 38 °C (BAR-g)	DIMENSION				APPROX WEIGHT KG
	Eff. Area (cm ²) SQ inch	Act. Area (cm ²) SQ inch		N.D. – Inlet	N.D. – Outlet	Inlet Class	Outlet Class		±3 A mm	±3 B mm	H mm (±20)		
											Non -Lever Type	Lever Type	
B	(0.28) 0.044	(0.28) 0.044	4	1/2" / 3/4" / 1"	1"	150	150	19.7	98	85	261	314	6
			4			300	150	51	98	85	261	314	6
			4			600	150	102.1	98	85	261	314	6
			4			900	150	153.1	98	90	261	314	8
			6			1500	300	255.5	118	120	390	390	11
			6			2500	300	425.5	118	120	390	390	12
D	(0.71) 0.11	(0.8) 0.124	3	1/2" / 3/4" / 1"	1"	150	150	19.7	98	85	260	312	7
			3			300	150	51	98	85	260	312	7
			3			600	150	102.1	98	85	260	312	7
			5			900	150	153.1	118	120	390	390	11
			5			1500	300	255.5	118	120	390	390	12
E	(1.26) 0.196	(1.43) 0.222	2	3/4" / 1"	1"	150	150	19.7	98	85	260	312	7
			2			300	150	51	98	85	260	312	7
			4			600	150	102.1	118	120	390	390	11
			4			900	150	153.1	118	120	390	390	11
F	(1.98) 0.307	(2.27) 0.352	2	1" / 1 1/2"	1 1/2"	150	150	19.7	118	100	318	371	10
			2	300		150	51	118	100	318	371	10	
G	(3.24) 0.503	(3.664) 0.558	1	1" / 1 1/2"	1 1/2"	150	150	19.7	118	100	318	371	10



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DE-CODIFICATION PLAN

ORIFICE SYMBOL As per API 526 IN SAMPLE CODE D – ORIFICE "D" OTHER OPTIONS B,D,E, F,G	PRESSURE CLASS (BAR G) IN SAMPLE CODE 3-102 OTHER OPTIONS 1-19.6 4-153 2-51.0 5-255 3-102 6-420	INLET SIZE (flanged or screwed male/ female) IN SAMPLE CODE G- ¾" OTHER OPTIONS F - ½" ; G - ¾" H - 1" ; K - 1 ½"	CONNECTION IN SAMPLE CODE N-NPT OTHER OPTIONS N-NPT K-BSP A - Flanges
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POSITION NO.:	1	2	3	4	5	6	7	8	9	10	11										
SAMPLE CODE :	9	-	D	-	A	-	3	-	P	-	G	-	H	-	N	-	R
TRY A CODE:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DESIGNATION
9- 9 Series

BODY MATERIAL
IN SAMPLE CODE
A–Carbon Steel
OTHER OPTIONS
A–Carbon Steel
X-S.S.

SPRING MAT
IN SAMPLE CODE
P-SS304
OTHER OPTIONS
C-Carbon Steel
I-Inconel
P-SS304
Q-SS316
T-Tungsten Alloy

OUTLET SIZE
(flanged or screwed female)
IN SAMPLE CODE
H - 1"
OTHER OPTIONS
F - ½" ; G - ¾"
H - 1" ; K - 1 ½"

ACCESSORIES & OTHER REQ.
IN SAMPLE CODE
R - Soft Seat
OTHER OPTIONS
A – Without Accessories
F - Packed Lever
S - Stellite Disc & Nozzle
V - Test Gag
SP - Special Requirements