LOWFLOW
a division of Jordan Valve

708 MAX Series

Maximum Inlet Pressure Diaphragm Control Valve

CRN Registration Number Available

DIAPHRAGM CONTROL VALVES

The Mark 708 was developed by Jordan Valve to provide the most accurate control available for fractional flow services: whether for pilot plant installations, test stands, R & D facilities, or for specialized processes such as dosing, injection and venting applications.

The Mark 708 MAX product is a Diaphragm Operated Control Valve with a maximum flow coefficient of 10Cv from a 0.875 in dia orifice. There are two Cv's covered: 6.5 and 10. Class IV hard seats and Class VI soft seat with PEEK. Standard actuator is the 35M, with 3-15 and 6-30 bench sets, available for ATC / ATO. All positioners normally offered on the ¾" Mk708 are available on the Mk708 MAX. Optional end connection can be added as needed: BSPT, BSPP, and Welded Flanged Ends.

Features:

- Rolling diaphragm – the rolling diaphragm design ensures that the effective diaphragm area remains relatively constant, regardless of valve stem position. This increases accuracy of the actuator when positioning the valve by ensuring a linear response to input signal changes.
- Spring-loaded TFE/Chevron packing – the spring-loaded packing maintains a proper compression, while minimizing excessive friction. This alleviates the need for most field adjusting. The TFE packing is suitable for temperatures to 450°F (232°C), while braided or Graphite/Grafoil may be used for higher temperature requirements.
- Bolted body/bonnet connection – the bolting provides solid construction and secure connection. This bolting adds ease to maintenance, as bonnet/actuator assembly may be removed with the valve body in-line.
- Guided trim – extended orifice and plug guiding are standard and offers improved shutoff and accuracy equivalent to heavy duty trim option of competitors
- Quick change trim – the secondary stem connection eliminates stroke adjustment when changing trim facilitating faster, easier trim changes

MK708MAX

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MK708 SERIES SPECIFICATIONS

Sizes: 1" (DN25)

Body Materials

- Body B61 Bronze
- WCB Carbon Steel
- CF8M Stainless Steel

Bonnet Materials

- CF8M Stainless Steel

Trim Materials

- 316L Stainless Steel

Body Seals

- Teflon Gasket

Soft Seat

- PEEK, available for 6.5 Cv

Shut Off

- Class IV hard seats, Class VI - Soft Seats

Optional Materials of Construction

- On Application

End Connections

- FNPT, others to be added as needed

Actuator Materials

- Steel – 35M

For other options/materials, consult factory

Flow Capacity

- 6.5 Cv
- 10 Cv

Maximum Operating Pressure (FNPT)

- up to 500 psi (BR) or 1000 psi (CS/S6) max inlet @ 100°F

Pressure @ Maximum Operating Temperature (FNPT)

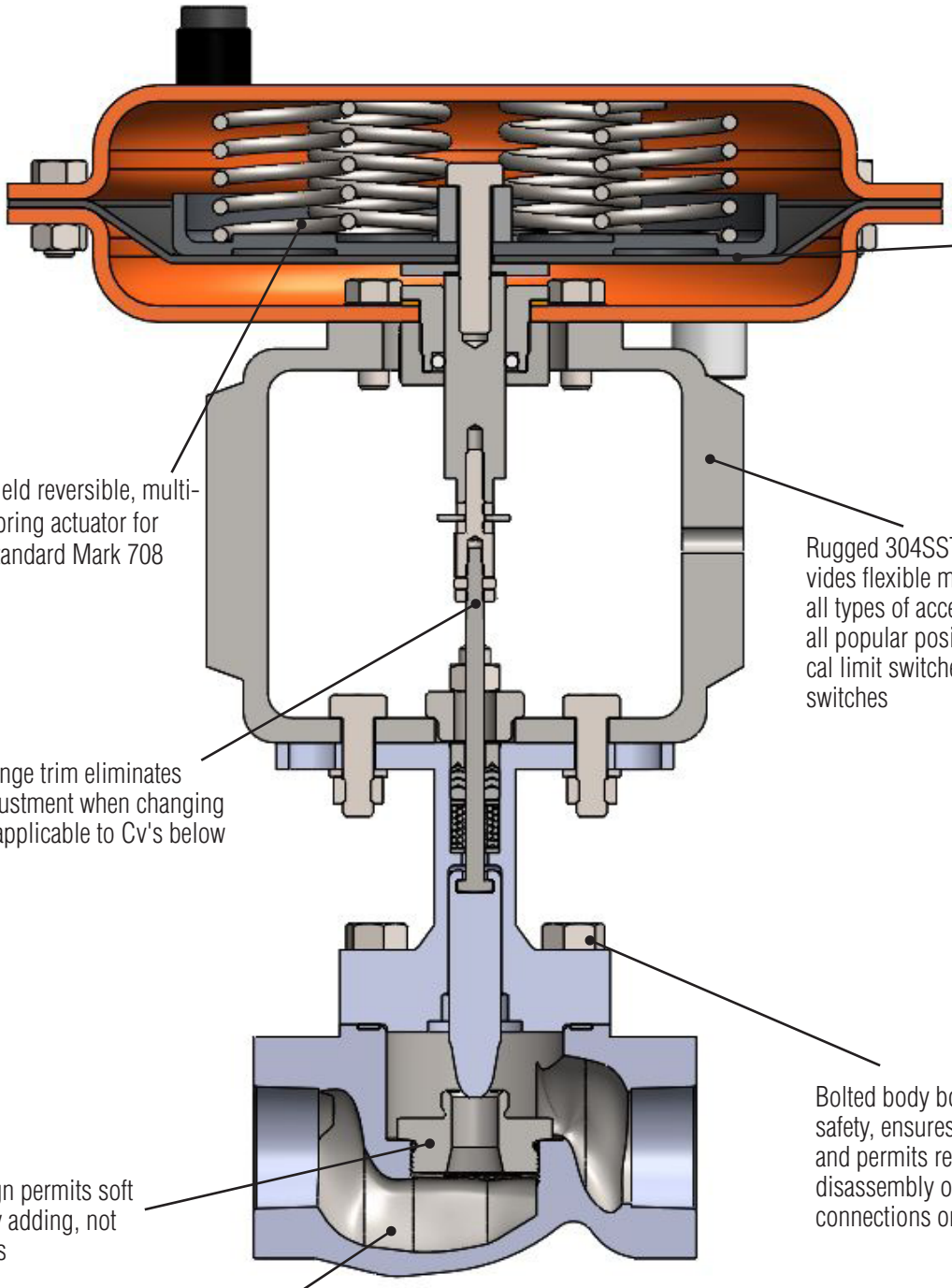
- 350 psi max inlet @ 450°F (BR), 1000psi max inlet @ 450°F (CS), 990 psi max inlet @ 450°F (CS)

Stem Packing

- Standard: spring-loaded TFE/Chevron (to 450°F/232°C)
- Optional: braided or Graphite/Grafoil

Action	Range	10Cv - 0.875 in orifice	6.5 Cv - 0.470 in orifice
Reverse (ATO)	3-15 @ air cutoff	150	810
	6-30 @ air cutoff	210	1000
Direct (ATC)	3-15 w/20 psi air	150	810
	6-30 w/40 psi air	480	1000

MK708MAX SERIES FEATURES & BENEFITS



Rolling diaphragm provides constant surface area throughout entire stroke

Field reversible, multi-spring actuator for standard Mark 708

Rugged 304SST NAMUR yoke provides flexible mounting options for all types of accessories, including all popular positioners, mechanical limit switches and proximity switches

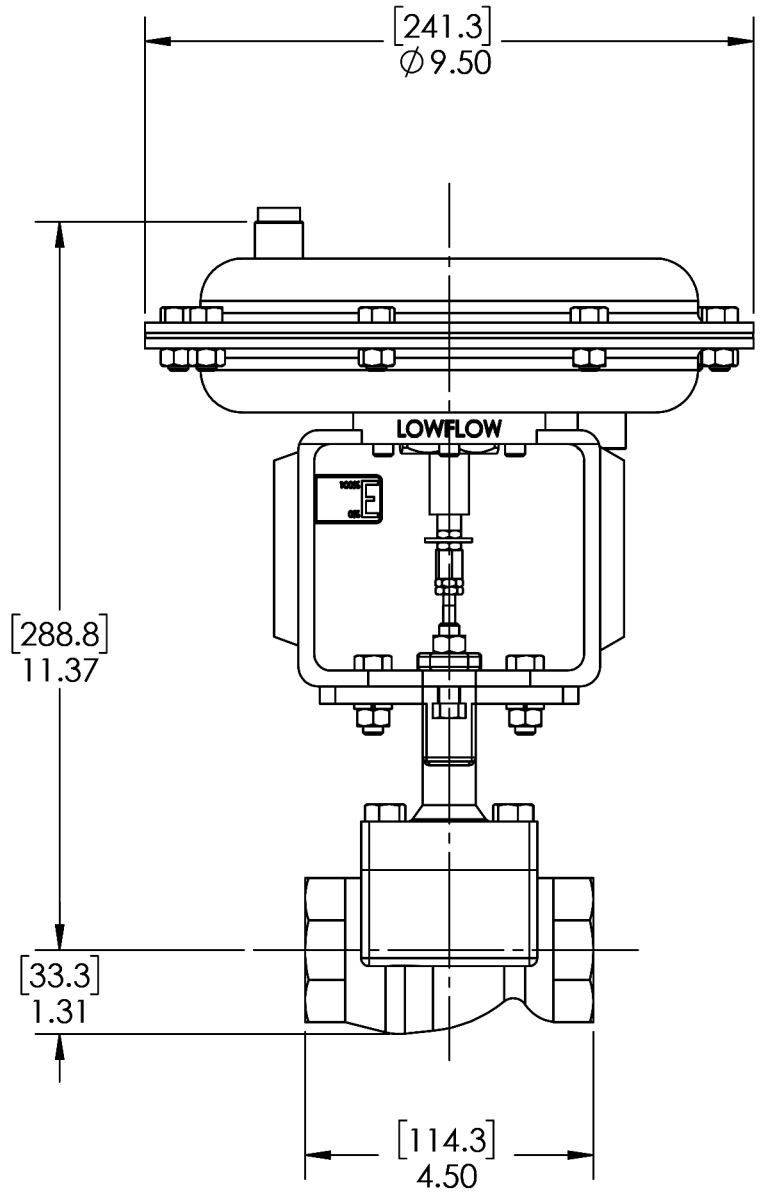
Quick change trim eliminates stroke adjustment when changing trim (not applicable to Cv's below 0.05)

Bolted body bonnet enhances safety, ensures proper alignment and permits removal without disassembly of control signal connections on the actuator

Modular seat design permits soft seat field retrofit by adding, not replacing, two parts

Optimized flow geometry aids precision control even in laminar flow regimes

MK708MAX SERIES DIMENSIONS



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MK708MAX SERIES ORDERING SCHEMATIC

Model No.	Size	Body Mat'l	/	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

MODEL	
708MAX	Standard

SIZE	
100	1" (DN25)

1 & 2	END CONNECTIONS		
PT	NPT	F7	PN 10 DIN FE
BT	BSPT	F8	PN 16 DIN FE
BP	BSPP	F6	PN 25 DIN FE
SW	FSW	F4	PN 40 DIN FE
F5	150# FE	ZZ	NON-STANDARD
F3	300# FE		

3 & 4	TRIM
G6	316SS/Graf. Pkg.
T6	316SS/Tef. Pkg.
TM	Monel/Tef. Pkg.
TA	AL20/Tef. Pkg.
TB	H-B/Tef. Pkg.
TC	H-C/Tef. Pkg.
TT	TI/Tef. Pkg.
ZZ	Non-Standard

5 & 6	PLUG SEAT		
	Material of Stem/Plug/Seat		Cv
A	Standard - Linear Hard	A	6.5
B	Standard - =% Hard	H	10.0
C	Standard - Q.O. Hard		
D	Standard - Linear Soft (TEF)		
E	Standard - =% Soft (TEF)		
F	Standard - Q.O. Soft (TEF)		
G	316/17-4/416 - Linear Hard		
H	316/17-4/416 - =% Hard		
I	316/17-4/416 - Q.O. Hard		
J	316/17-4/416 - Linear Soft (TEF)		
K	316/17-4/416 - =% Soft (TEF)		
L	316/17-4/416 - Q.O. Soft (TEF)		
M	316/Stellite/Stell. - Linear Hard		
N	316/Stellite/Stell. - =% Hard		
P	316/Stellite/Stell. - Q.O. Hard		
Q	316/Stellite/316 - Linear Soft (TEF)		
R	316/Stellite/316 - =% Soft (TEF)		
S	316/Stellite/316 - Q.O. Soft (TEF)		
T	H-C/Stellite/Stell. - Linear Hard		
U	H-C/Stellite/Stell. - =% Hard		
V	H-C/Stellite/Stell. - Q.O. Hard		
W	H-C/Stellite/H-C - Linear Soft (TEF)		
X	H-C/Stellite/H-C - =% Soft (TEF)		
Y	H-C/Stellite/H-C - Q.O. Soft (TEF)		
ZZ	Non-standard		

BODY MATERIAL	
CS	WCB Carbon Steel Barstock
S6	CF8M Stainless Steel
MN	Monel
A2	Alloy 20
HB	Hastelloy B
HC	Hastelloy C
TI	Titanium

7, 8, 9, 10, 11 & 12	ACTUATOR		
	Range/Action	Diaphragm	Actuator
A3B3D3	3-15 DIR	Buna-N	35M
B3B3R3	3-15 REV		
C3B3D3	3-9 DIR		
D3B3R3	3-9 REV		
E3B3D3	9-15 DIR		
F3B3R3	9-15 REV		
G3B3D3	6-30 DIR		
H3B3R3	6-30 REV		
ZZ	Non-standard		

13 & 14	ACCESSORIES
0	None
AR	Air Regulator
C4	Class IV Shutoff
S8	18-8 SS Bolting
S6	316SS Bolting
SH	304SS Bolting Strain Hardened
S4	410SS Bolting
S2	3-way Solenoid Energize to Open
S3	3-way Solenoid Energize to Close
X2	3-way Solenoid X-Proof Energize to Open
X3	3-way Solenoid X-Proof Energize to Close
SC	Oil Free Cleaning
XC	Oxygen Clean
ZZ	Non-Standard

15	ACTION
D	Air-to-close
R	Air-to-open

16	I/P
0	None
Z	Non-standard