

PART NUMBER							
Example :	M8-1S	MT	2V1	I	/	K	A/B:B3/8
	1	2	3	4		5	6
							7

1 - Valve Series and Surface Finish	
M8-1U	Ra 0,15µm EP (6 µinch Ra)
M8-1V	Ra 0,25µm EP (10 µinch Ra)
M8-1S	Ra 0,4µm nonEP (15 µinch Ra)

3 - Valve Configurations	
2V1	2 ports in line
See below for other configurations	

5 - Seat Material	
K	PCTFE (Kel-F®)
V	PI (Vespel®)
P	PVDF
M	Metal

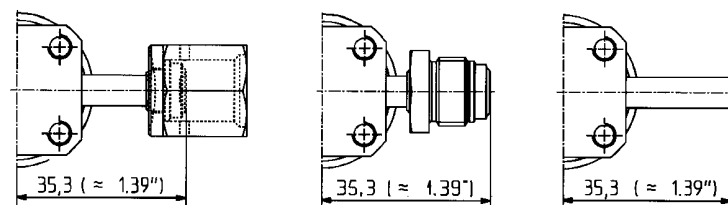
7 - Options	
MS	Valve fitted with locking device (manual)
FT	Panel mounting
—	Back mounting
CI	Electric limit switch (LP actuators only)

2 - Valve Actuation (Standard: Normally closed)	
QT	Manually actuated - Quarter Turn
MT	Manually actuated - Multi Turn
LP	Pneumatically actuated - Low Pressure
HP	Pneumatically actuated - High Pressure (Add - NO - for Normally Open version) (Add - NF - for normally close version)

Standard colour for handles: white (other colours on request)
for LP actuators: NO=green NF=blue
for HP actuators: NO/NF=white

4 - Body Material	
A	AISI 316L AOD/VAR
I	AISI 316L
H	Hastelloy® (on request)

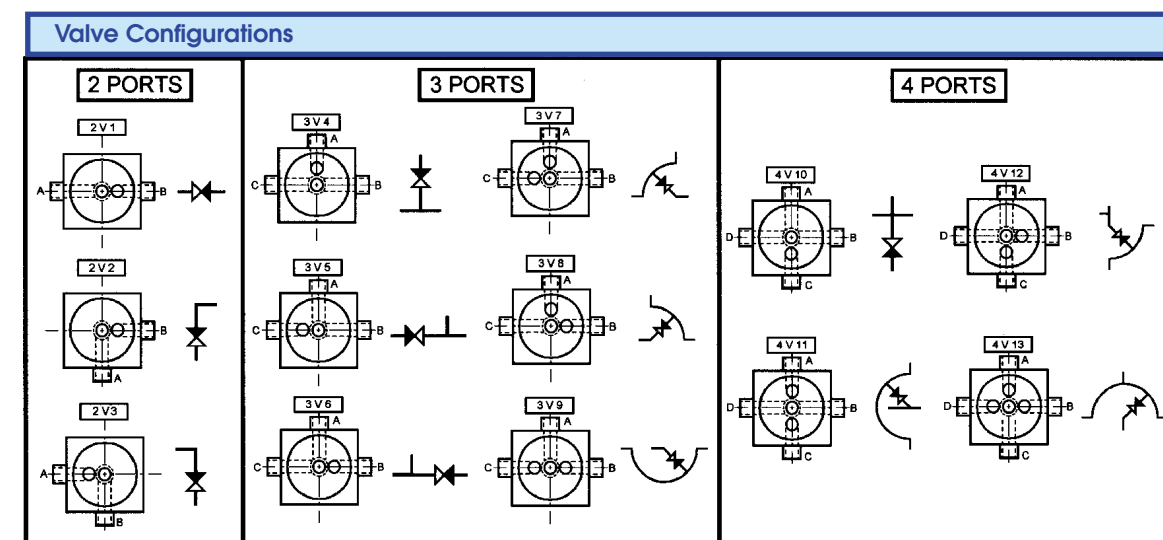
6 - End Connections	
V3/8-F	VAC-U-FAST® 3/8 - Female (Face Seal)*
V3/8-M	VAC-U-FAST® 3/8 - Male (Face Seal)*
B3/8	BWO 3/8" - Standard (Orbital Weld)
B1/2	BWO 1/2" - (Orbital Weld)
B10	BWO 10 mm (Orbital Weld)
B12	BWO 12 mm (Orbital Weld)
RDB 10	Double ring fitting: 10 mm
RDB 12	Double ring fitting: 12 mm
RDB 1/2	Double ring fitting: 1/2"



VAC-U-FAST® -Female
(face seal)*

VAC-U-FAST® -Male
(face seal)*

BWO for standard
welding heads



* All VAC-U-FAST® Face Seals are VCR® compatible. VCR® is a registered trade mark of CAJON CO., HASTELLOY® is a registered trade mark of CABOT Corp., Kel-F® is a registered trade mark of 3M company, Vespel® is a registered trade mark of DUPONT ELGLOY® is a registered trade mark of ELGLOY Company.



SELFA

Valves & Fittings

A total component solution, from source to process

M8-1

SPRINGLESS DIAPHRAGM VALVES FOR HP AND UHP APPLICATIONS (STANDARD AND GAS SPECIFIC)

8-1



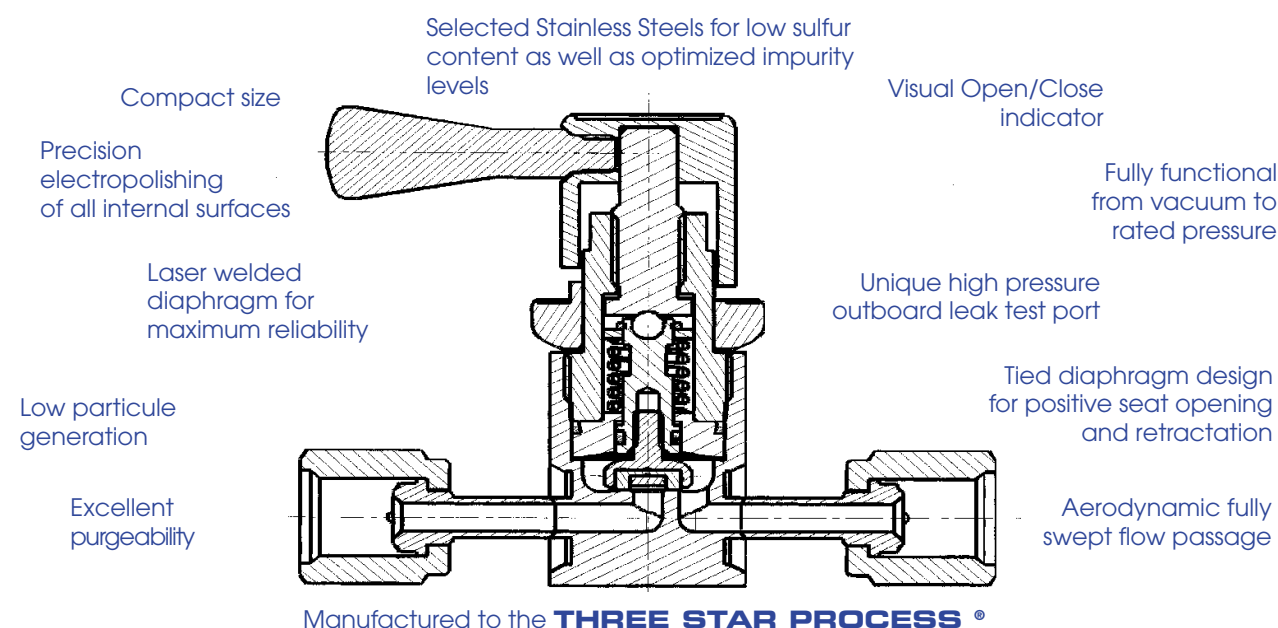
FEATURE a unique proven design

M8-1

TECHNICAL DATA

M8-1

The M8-1 was designed in response to the industry's needs for a compact HIGH FLOW high/low pressure valve to combat gas distribution techniques that require high flow rates. This valve is ideal for handling high flow gases such as HCl, N₂O, etc. upstream and downstream of the source regulator. Its compact size and standard panel mount holes enable it to be integrated into gas supply systems where previously only standard valves with low Cv's could be used.



TECHNICAL DATA		
Fluid Media		Standard, High and Ultra High Purity, corrosive and non-corrosive gases
Max working pressure	M8-1 Manual	vacuum to 240 bar (3500 PSI)
	M8-1 Pneumatic - Low Pressure	17 bar (250 PSI)
	M8-1 Pneumatic - High Pressure	200 bar (2900 PSI)
Actuator operating pressure		5 - 7 bar (75 - 105 PSI)
Temperature range		-20°C to + 80°C (-2°F to 176°F)
Burst Pressure		850 bar (12500 PSI)
Flow Capacity (C _v)	M8-1 Manual	C _v = 0.53
	M8-1 Pneumatic	C _v = 0.53
Certified max. Helium inboard leak rate		< 2.10 ⁻¹⁰ mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)		< 2.10 ⁻¹¹ mbar.l/sec
Certified max. Helium across the seat leak rate (at max. pressure)		< 2.10 ⁻¹⁰ mbar.l/sec
Wetted volume		< 1.6 cc
Mounting		Front or back mounting
Nominal heat Diameter		8 mm (0.32")

CONSTRUCTION MATERIALS

DIMENSIONS

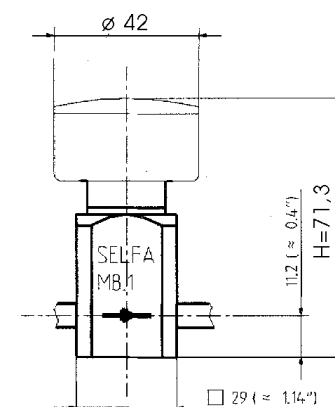
		Valve Grade & Materials		
	Parts	M8-1S	M8-1V	M8-1U
Wetted parts	Body	SS 316L	SS 316L	SS 316L/AOD-VAR
	Surface Finish	< 0,4 µm non EP (15 Ra)	< 0,25 µm EP (10 Ra)	< 0,15 µm EP (6 Ra)
	Diaphragm	Hastelloy®		
	Seat Material	Kel-F® (Vespel®, PVDF, metal on request)		
Non-wetted parts	Backup diaphragms	Elgiloy®		
	all others	Stainless Steel or alloys		

Manual Actuation

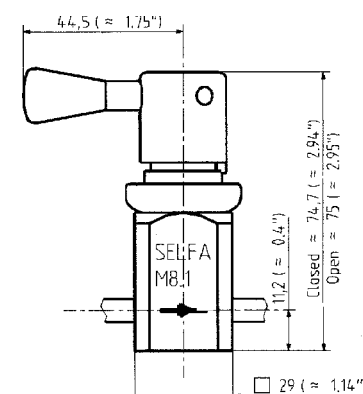
Parts for all valve grades	
Upper spindle	Brass
Handle	Aluminum or Extruded Plastic
All others	Stainless Steel or Alloys

Pneumatic Actuation

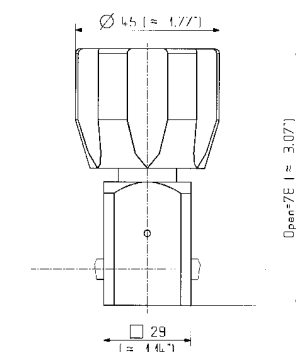
Parts	Low Pressure	High Pressure
Actuator Body	SS 316 L	Aluminum
Piston	Aluminum	
O-rings	NBR - PC 851	
All others	Stainless Steel or Alloys	



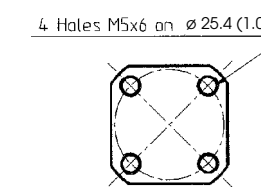
M8-1- Pneumatic valve Low Pressure



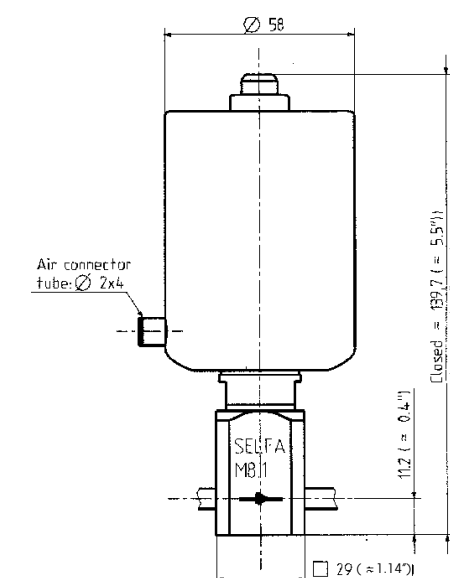
M8-1 Quarter turn (QT) valve



M8-1 Multi turn valve (MT) with on/off window



M8-1 Bottom view



M8-1- High Pressure Pneumatic valve