



SELFA

Valves & Fit

A total component solution, from source to process

M20
SPRINGLESS DIAPHRAGM VALVES
FOR HP AND UHP APPLICATIONS
(STANDARD AND GAS SPECIFIC)

20



FEATURE a unique proven design

M20

Tied diaphragm design for positive seat opening and retraction

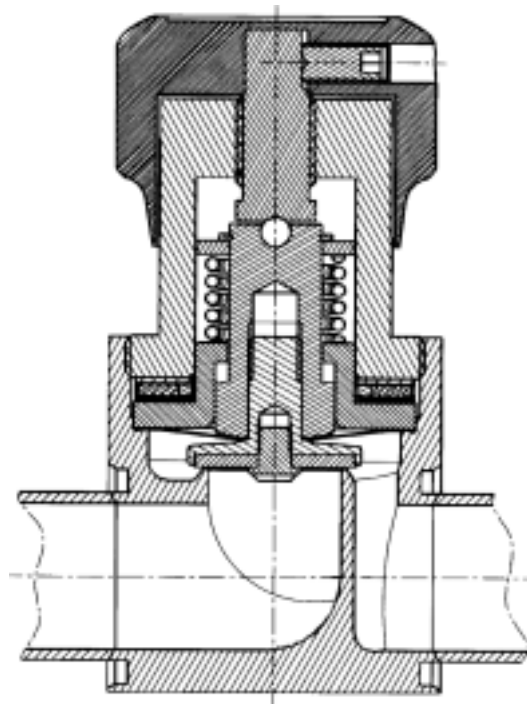
Low particle emission

Fully swept flow path

Reduced gas absorption and desorption from seat material

Clean operation, no rubbing

Fully contained Seat



Small internal volume

Easy purgeability

ed Stainless Steels for low sulfur content as well as optimized impurity levels

Excellent flow coefficient

Metal to Metal sealing to atmosphere

Manufactured to the **THREE STAR PROCESS®**

CONSTRUCTION MATERIALS

		Valve Grade & Materials		
		S	V	U
Wetted parts	Parts			
	Body		Stainless Steel 316L	
	Body Surface Finish	<0,4µm (15µin Ra) nonEP	< 0,25 µm (10µin Ra) EP	< 0,15 µm (6µin Ra) EP
	Diaphragms	Elgiloy®		
Non-wetted parts	Seat material	PCTFE (Kel-F®) / PVDF or Vespel® (on request)		
	Backup diaphragm	Elgiloy®		
	All others	Stainless Steel or alloys		

Manual Actuation

Upper Spindle	Stainless Steel
Handle	Aluminum
All others	Stainless Steel or Alloys

Pneumatic Actuation

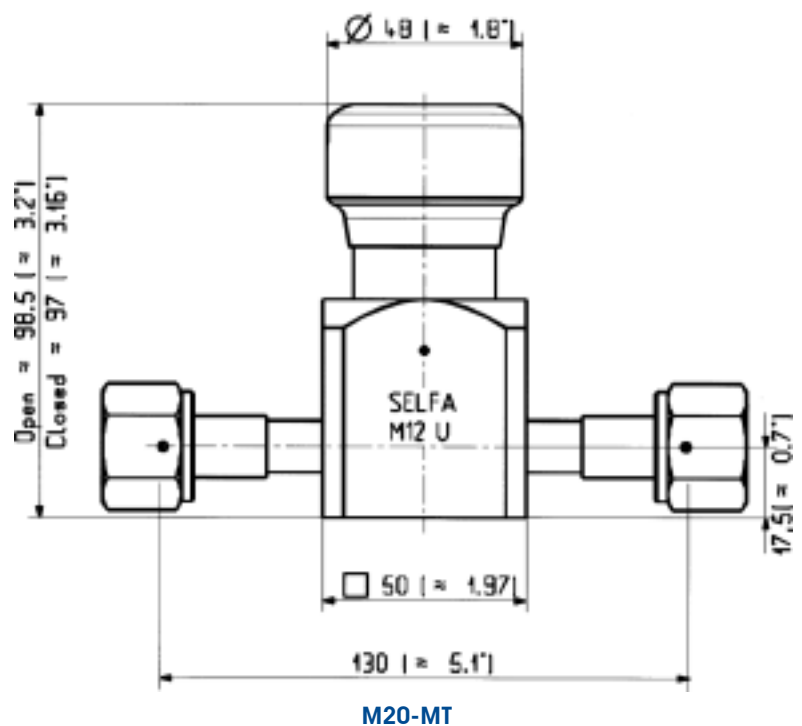
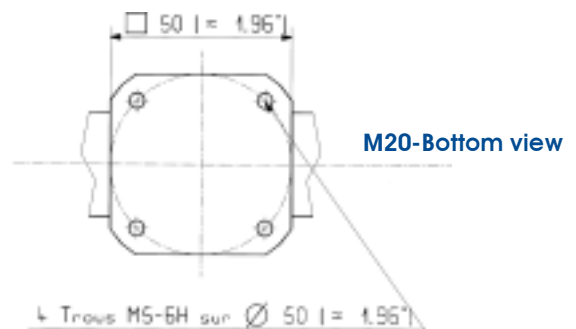
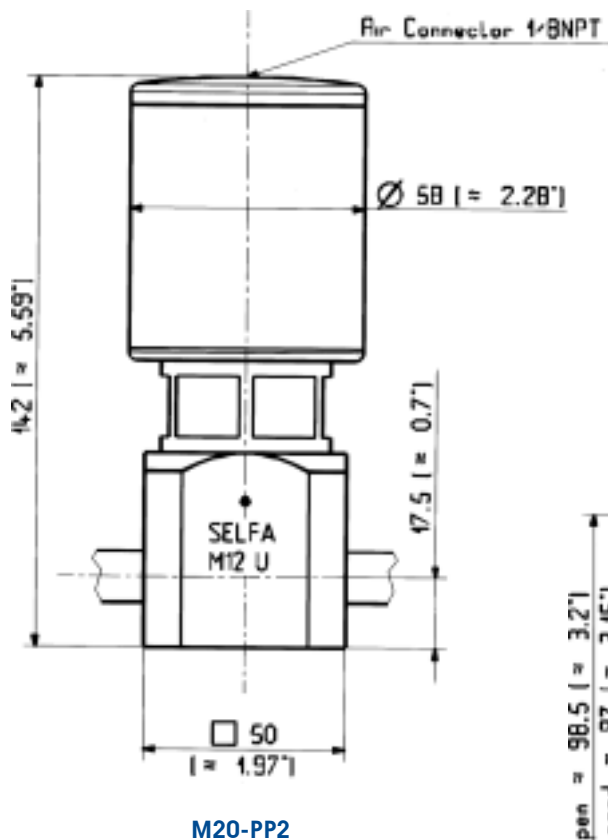
Parts	PP2
O-ring	NBR
Actuator Body	Aluminum Anodized

TECHNICAL DATA

M20

TECHNICAL DATA		
Fluid Media		High and Ultra High Purity, corrosive and non-corrosive gases
Max operating pressure	M20 MT manual	15 bar (215 PSI)
	M20 PP2 pneumatic	15 bar (215 PSI)
Min. operating pressure		Vacuum (for manual only)
Actuator opening pressure		5 to 7 bar (75 to 105 PSI)
Temperature range		-20°C to + 80°C (-4°F to 176°F)
Flow Coefficient		Cv = 3,5
Certified max. Helium inboard leak rate (at max. pressure)		< 10 ⁻⁹ mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)		< 10 ⁻⁹ mbar.l/sec
Nominal Seat Diameter		20 mm (0.79")

DIMENSIONS



HOW TO ORDER

M20

PART NUMBER								
Example :	M20 U	MT	2V1	I	/	K	A/B : B3/4	FT
	1	2	3	4		5	6	7

1 - Valve Series	
M20-U	UHP - Ra 0.15µm Ep. (6µin Ra)
M20-V	HP/UHP - Ra 0.25µm Ep. (10µin Ra)
M20-S	HP Version - Ra 0.4µm (15µin Ra) non EP

2 - Valve Actuation	
MT	Multi-Turn Handwheel
PP2	Pneumatically actuated (Normally close version)

3 - Valve Configurations	
2V1	2 ports in line
2VPEG	2 Ports in line, upstream purge port - left side
2VPSG	2 Ports in line, downstream purge port - left side
2V1P2	2 Ports in line, 2 purge ports upstream/ downstream/left side
For "Tee" configurations please refer to M12 documentation	

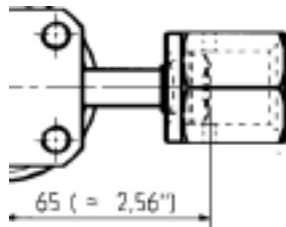
Standard colour for handles: white (other colours on request)
for pneumatic actuators: blue

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

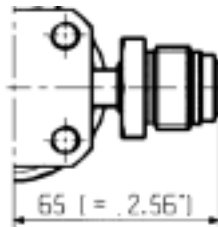
4 - Body Material	
I	AISI 316 L
H	Hastelloy (on request)

7 - Options	
FT	Panel Mounting
—	Back Mounting
CI	Electric Limit Switch (PP2 actuators)

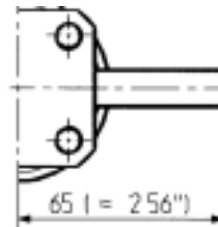
6 - End Connections for 2VPEG/2VPSG/2V1P2/2V1	
V 3/4-F	GAZEL® 3/4" - Female (Face Seal*)
V 3/4-M	GAZEL® 3/4" - Male (Face Seal*)
B 3/4	BWO 3/4" (Butt Orbital Weld)
B1	BWO 1" (Butt Orbital Weld)
V1-M	GAZEL® 1" - Male (Face Seal*)
SAGALOK Double Ring Fittings on request	
Purge port available as BWO 1/4" or GAZEL® 1/4" male	



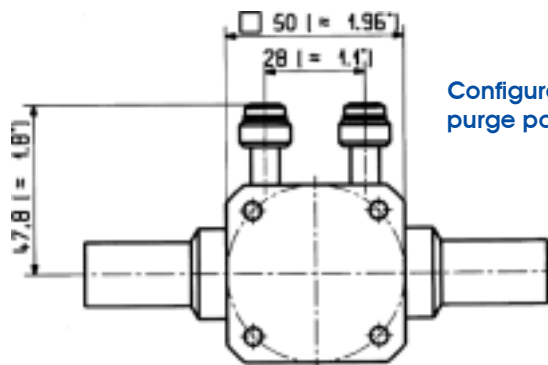
GAZEL® -Female (face seal)*



GAZEL® -Male (face seal)*



BWO for standard welding heads



Configuration with purge ports

*All GAZEL® Face Seals are VCR® compatible. VCR® is a registered trade mark of CAJON CO., HASTELLO® 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, ELGILOY® is a registered trade mark of ELGILOY Company.