

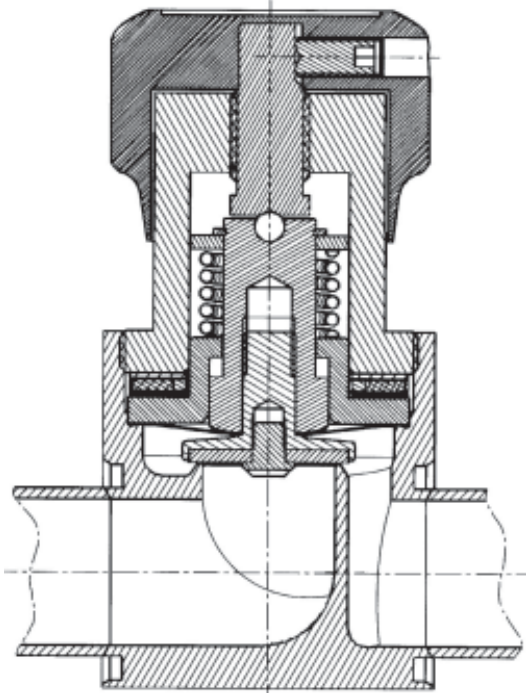
FEATURE a unique proven design

M20

TECHNICAL DATA

M20

Tied diaphragm design for positive seat opening and retraction



Individual serial number for full traceability

Low particle emission

Fully swept flow path

Reduced gas absorption and desorption from seat material

Clean operation, no rubbing

Fully contained Seat

Assembling, testing and packaging in cleanroom class 10

Small internal volume

Easy purgeability

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

Manual Actuation

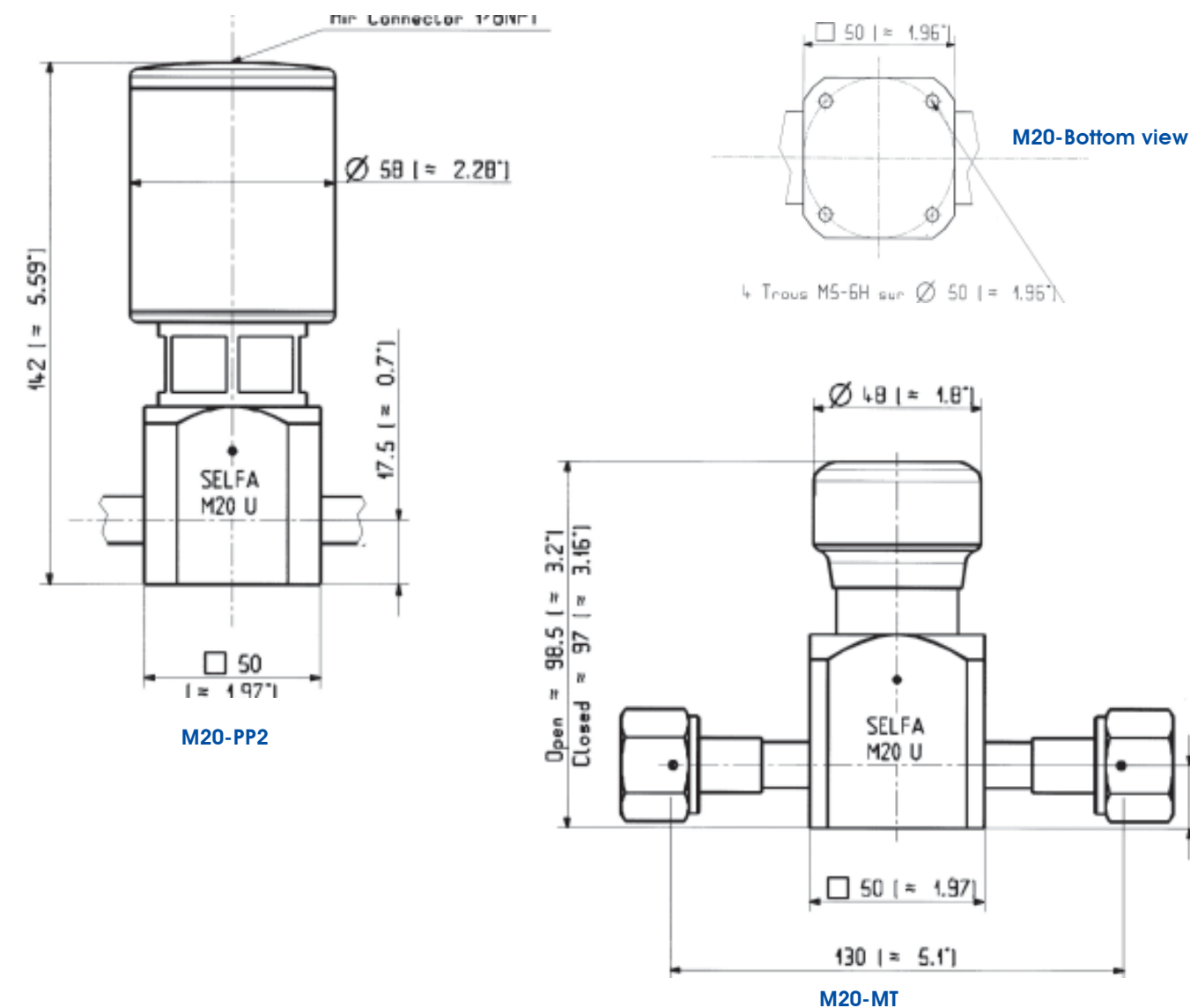
Upper Spindle	Stainless Steel
Handle	Aluminum
All others	Stainless Steel or Alloys

Pneumatic Actuation

Parts	PP2
O-ring	NBR
Actuator Body	Aluminum Anodized

TECHNICAL DATA		
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
Certified max. Helium across the seat leak rate (at max. pressure)		< 1.10 ⁻⁹ mbar.l/sec
Nominal Seat Diameter		20 mm (0.79")

DIMENSIONS



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

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

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

5 - Seat Material

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

7 - Options

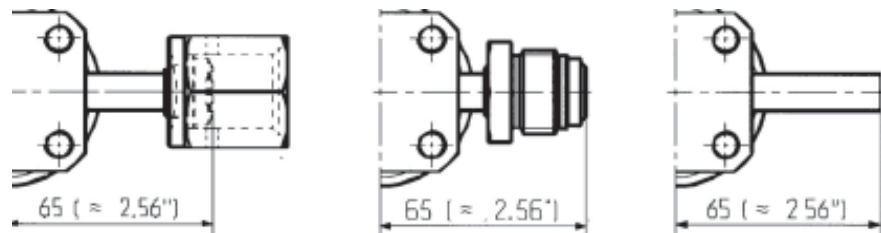
FT Panel Mounting
— Back Mounting
CI Electric Limit Switch (PP2 actuators)

4 - Body Material (others on request)

I AISI 316 L
H Hastelloy (on request)

6 - End Connections for 2VPEG/2VPSG/2V1P2/2V1

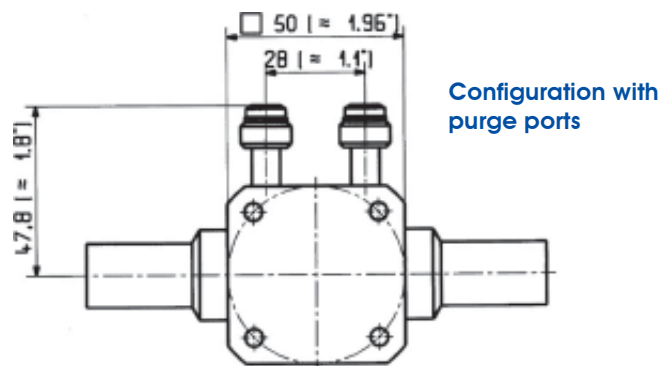
V 3/4-F GAZEL® 3/4" - Female (Face Seal*)
V 3/4-M GAZEL® 3/4" - Male (Face Seal*)
B 3/4 BWO 3/4" (Butt Orbital Weld)
B1 BWO 1" (Butt Orbital Weld)
V1-M GAZEL® 1" - Male (Face Seal*)
SAGALOK Double Ring Fittings on request
Metric BWO available on request
Purge port available as GAZEL® 1/4" male



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., 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, ELGILOY® is a registered trade mark of ELGILOY Company.



SELFA

Valves & Fittings

A total component solution, from source to process

M20

SPRINGLESS DIAPHRAGM VALVES

FOR HP AND UHP APPLICATIONS

(STANDARD AND GAS SPECIFIC)

