

FEATURE a unique proven design

SIR100

TECHNICAL DATA

SIR100

The **SIR 100 Regulator** was created in response to the industry’s needs **for a low pressure non tied diaphragm regulator** for specialty source gas service, i.e. gas cabinets. The design and material of construction, plus some unique features make it an ideal choice for gas source applications with the reactive and hazardous gases the Semiconductor and Allied Industries use.

Individual Serial number,
for full traceability

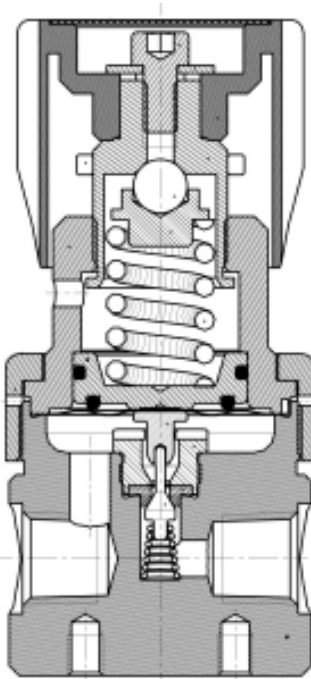
Ergonomic Design

Spherical ball for ultra
smooth control

Metal to metal seal
to atmosphere

Minimal wetted surfaces
for optimal purging

Gas specific solutions
(Body and seat materials)



Assembling, testing & Packaging
in cleanroom Cl. 10

Controlled (PC)
electropolishing for better
corrosion resistance

2,3,4,5, or 6 ports options
available

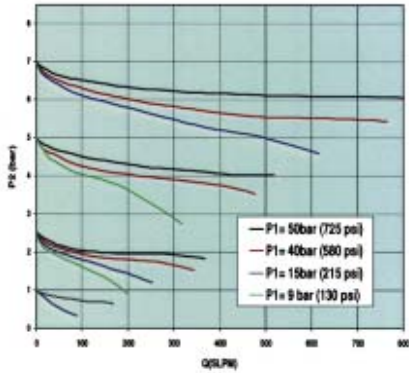
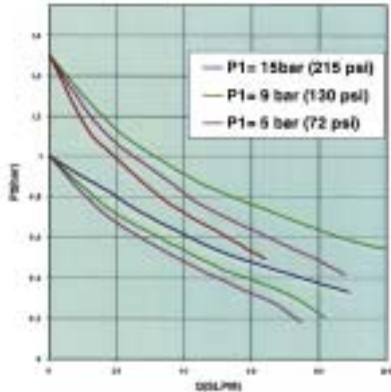
diaphragm counter
balance springs

Excellent response at low
pressures (droop, hysteresis,
creep)

Manufactured to the **THREE STAR PROCESS®**

TECHNICAL DATA	
Fluid Media	Standard, HP, UHP, corrosive and non-corrosive gases
Inlet pressure	50 bar (725 PSI)
Outlet pressure	2 - 4 - 7 bar (30 - 60 - 100 PSI)
Temperature range	-20°C to + 65°C (-4°F to 150°F)
Flow Coefficient	C _v = 0.2
Certified max. Helium inboard leak rate (at max. pressure)	< 1.10 ⁻⁹ mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)	< 1.10 ⁻⁹ mbar.l/sec
Certified max. Helium across the seat leak rate (at max. pressure)	< 1.10 ⁻⁹ mbar.l/sec
Number of ports	2, 3, 4, 5 or 6

FLOW CURVES

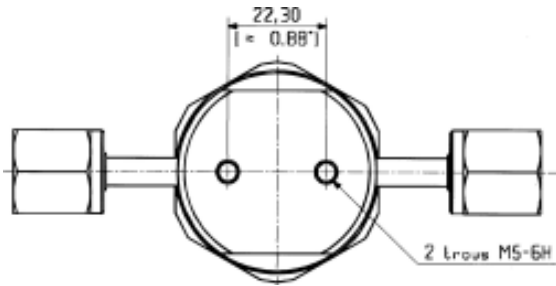
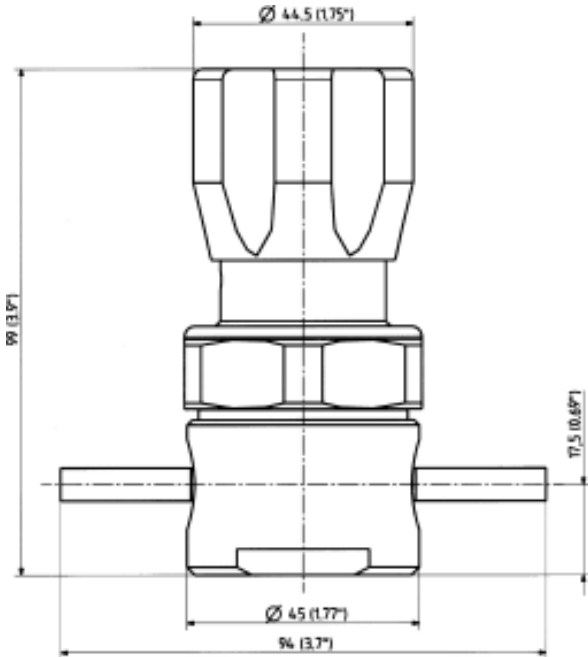


CONSTRUCTION MATERIALS

DIMENSIONS

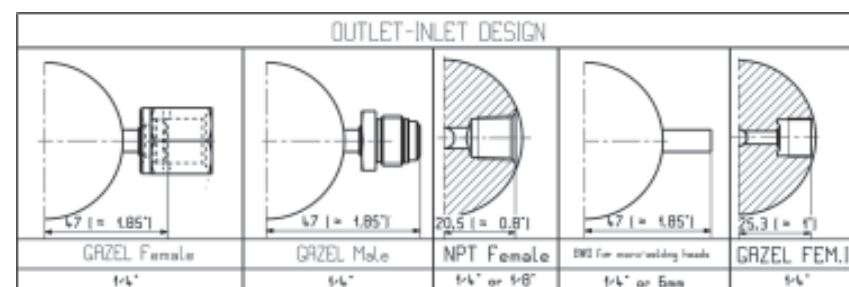
	Parts	Materials
Wetted Parts	Body	AISI 316L, VAR
	Diaphragm	Hastelloy®
	Seat	PCTFE (Kel-F®) / PI (Vespe®) / PVDF
	Poppet	AISI 316L, VAR
Non-wetted parts	Bonnet	Nickel Plated Brass
	Handle	Extruded Plastic
	Others	Stainless Steel or alloys

SURFACE FINISH		
U: <Ra 0.15µm Ep. (6µin Ra)	V: <Ra 0.25µm Ep. (10µin Ra)	S: <Ra 0.4µm non Ep. (15µin Ra)



PART NUMBER						
Example :	SIR 100 U	2V1	A	/	K	7b A/B:V1/4M
	1	2	3		4	5 6

1 - Series & Surface finish SIR 100 U - Ra 0.15µm Ep. (6µin Ra) SIR 100 V - Ra 0.25µm Ep. (10µin Ra) SIR 100 S - Ra 0.4µm non Ep. (15µin Ra)		2 - Ports configurations 2V1 2 ports in line See below for other ports configurations	
3 - Body Material (others on request) A AISI 316L, VAR I AISI 316L H Hastelloy® on request		4 - Seat Material K PCTFE (Kel-F®) V PI (Vespel®) P PVDF	
5 - Outlet regulated pressure 2b 2 bar - 30 psig 4b 4 bar - 60 psig 7b 7 bar - 100 psig Inlet pressure upto 50 bar (725 psig)		6 - End Connections V 1/4-F GAZEL® 1/4" - Female (Face Seal*) V 1/4-M GAZEL® 1/4" - Male (Face Seal*) V 1/4-FI GAZEL® 1/4" - Internal (Face Seal*) B 1/4 BWO 1/4" - Standard (Orbital Weld) B 6 BWO 6 mm (Orbital Weld) NPT FI 1/4 NPT - Inlet threads	



Configurations					
2V1	3V3	3V4	4V5	4V6	4V9
5V7	5V8	5V10	5V11	6V2	

*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

SIR 100

DIAPHRAGM PRESSURE REGULATOR FOR HP & UHP APPLICATIONS

