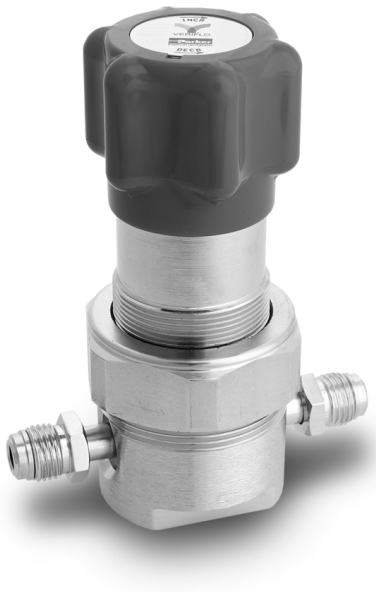
SQHP Series

High Pressure High Purity Regulator

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Customer Value Proposition:

The SQHP regulator delivers high purity gas via an internally tied diaphragm design that is springless and has no threads in the wetted area. The SQHP allows for inlet pressures up to 3500 psig.



Contact Information:

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Veriflo Division
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veriflo.sales@parker.com

www.parker.com/veriflo

Product Features:

- "VeriClean", Veriflo's custom low sulfur high purity 316L Stainless Steel™ enhances electropolishing, welding and corrosion resistance.
- Provides precise pressure control of outlet pressure with an inlet pressure as high as 3,500 psig.
- No high pressure seals to atmosphere.
- 100% Helium leak tested.
- Unique compression member loads the seal to the body without requiring a threaded nozzle or additional seals to atmosphere.
- Tied diaphragm for added safety.
- Metal-to-metal diaphragm-to-body seal assures high leak integrity.

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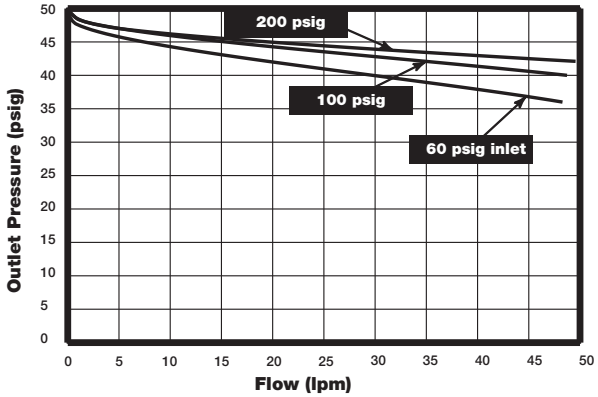
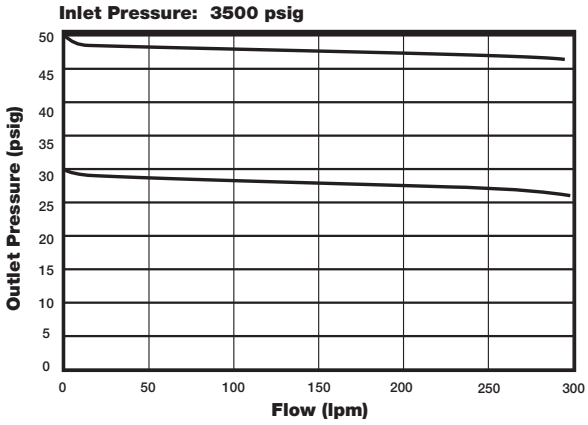
SQHP Series

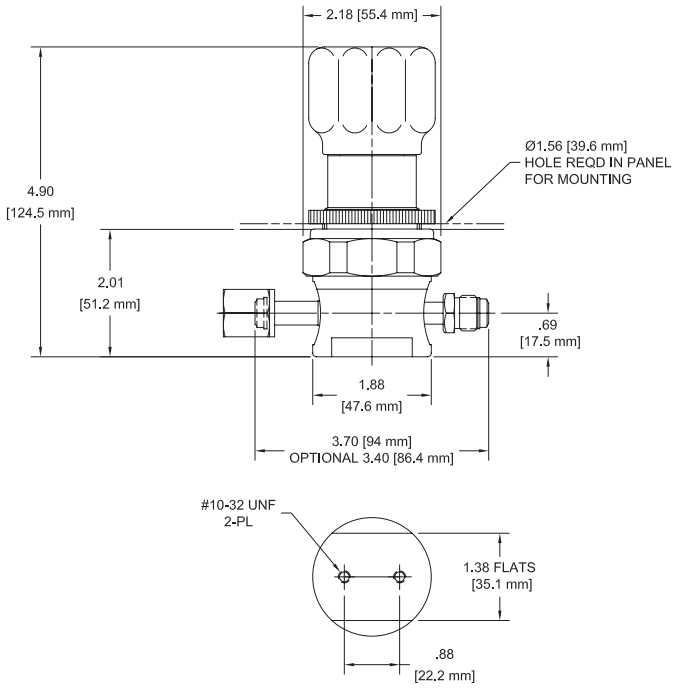
Flow Curves

Additional flow curves available upon request





Dimensional Drawing



Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

SQHP Series

Ordering Information

Build an SQHP Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

	1	2	3	4	5	6	7	8
Sample:	**SQHP**	**30**		**4P**	**V3**	**40**	**FS**	**FMMM**	**PM**
Finished Order:	**SQHP304PV340FSFMMMPM**							

1 Pressure Setting
30 = 30 psig
50 = 50 psig
100 = 100 psig

2 Body Material
= 316L Stainless Steel
H = Hastelloy C-22®

3 Porting
2P = 2 Ports *No X required for gauges, inlet & outlet ports only*
3P = 3 Ports *One X for gauge port*
4P = 4 Ports *Two X's for gauge ports*

See Regulator Porting Guide for additional options and port layouts

4 Outlet Gauge
V3 = -30 in Hg 0 - 30 psig
L = -30 in Hg 0 - 60 psig
V1 = -30 in Hg 0 - 100 psig
X = No Gauge
Additional ranges available upon request

5 Inlet Gauge
10 = 0 - 1000 psig
30 = 0 - 3000 psig
40 = 0 - 4000 psig
X = No Gauge
Additional ranges available upon request

6 Port Style
FS = 1/4" Face Seal
TS = 1/4" Tube Stub
TS6 = 3/8" Tube Stub

7 Port Configuration
M = Male
F = Female
I = Internal Face Seal
1/4" FS-M Gauge Ports are Standard

8 Optional Features
This section can have multiple options

PM = Panel Mount
SS = Stainless Steel Internals
Includes diaphragm and poppet. Recommended for Carbon Monoxide (CO) or Nickel Carbonyl $Ni(CO)_4$ service
TH = Hastelloy C-22® Trim
Available on Stainless Steel body, only. Includes Compression Member
VESP = Vespel® Seat *Recommended for Nitrous Oxide (N2O) service*
3.4 = 3.4" Optional End-To-End Dimension

SQHP Series

Specifications

Materials of Construction	
Wetted	
Body Options	VeriClean™ 316L Stainless Steel (std) or Hastelloy C-22®
Compression Member Options	VeriClean™ 316L Stainless Steel (std) or Hastelloy C-22®
Diaphragm Options	Hastelloy C-22® (std) or 316L Stainless Steel
Poppet Options	Hastelloy C-22® (std) or 316L Stainless Steel
Seat Options	PCTFE (std) or Vespel®
Non-wetted	
Cap	Nickel Plated Brass
Nut	316L Stainless Steel
Knob	ABS (Red)
Operating Conditions	
Maximum Inlet	3500 psig (240 barg)
Outlet Options	0 to 30 psig (2 barg), 0 to 60 psig (4 barg), 0 to 100 psig (7 barg),
Temperature	-40°F to 150°F (-40°C to 66°C)

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

Functional Performance	
Design	
Burst Pressure	10,500 psig (724 barg)
Proof Pressure	5,250 psig (362 barg)
Flow Capacity	C_V 0.06
Leak Rate	Inboard Test Method
Internal	5×10^{-8} scc/sec He
External	2×10^{-10} scc/sec He
Supply Pressure Effect	<0.1 psig per 100 psig (<0.02 barg per 6.7 barg)
Internal Volume	6.35 cc
Approx. Weight	1.5 lbs. (7 kgs)

Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.
Hastelloy C-22® is a registered trademark of Haynes International, Inc.
VeriClean™ is a trademark of Parker Hannifin Corporation

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