F9 Series

UHP Check Valve
Stainless Steel, Welded

Value Proposition:

Veriflo Division presents the F9 Series Check Valve, a high purity, all welded check valve, featuring a patented asymmetric spring design for a consistently quiet operation.

The F9 Series Check Valve offers high Cv (up to Cv = 0.90) in a small footprint to conserve much needed panel space.

Two seal materials achieve compatibility with all semiconductor gases, reducing inventory requirements.

Contact Information:

Parker Hannifin Corporation
Veriflo Division
250 Canal Blvd
Richmond, California 94804

phone 510 235 9590
fax 510 232 7396
veriflo.sales@parker.com

www.parker.com/veriflo
Mobile App: m.parker.com/veriflo

Product Features:

- Noise Free Operation with the patented asymmetric spring design
- Reduced footprint with the welded design
- Two seal offerings to meet all SEMI gas compatibility requirements
- Class 100 clean room assembled and packaged
- Electropolished (EP) version for Ultra High Purity applications available
- VeriClean™ 316L Stainless Steel enhances electropolishing and corrosion resistance

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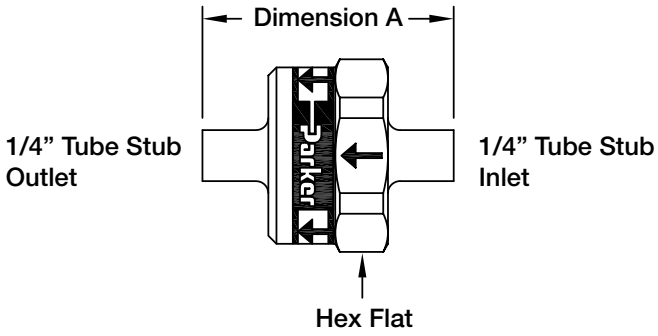
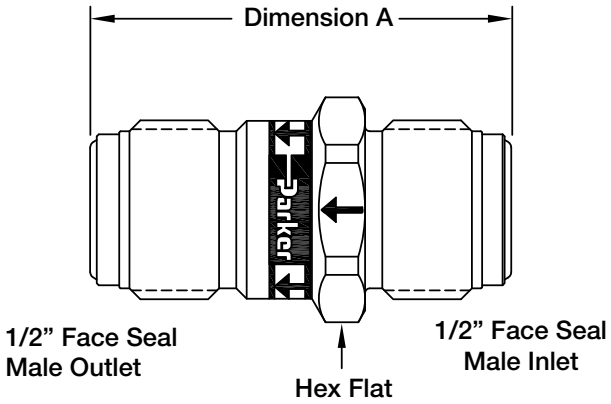
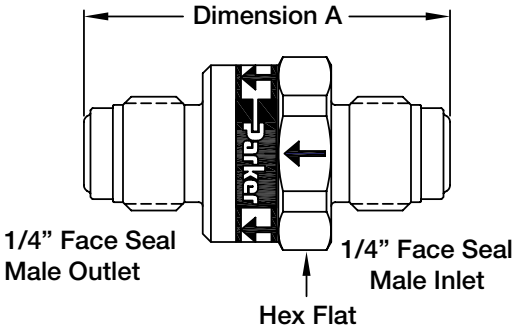
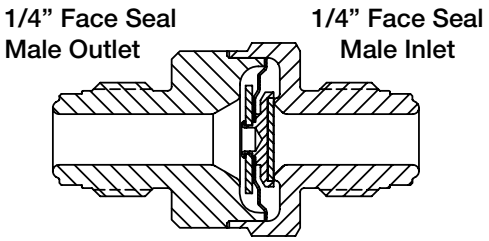
F9 Series

Dimensional Drawing









DIMENSION TABLE			
Connection Type	**Size**	**A in. (mm)**	**Hex**
Male Face Seal Fitting	1/4”	1.80 (45.7)	7/8”
	1/2”	2.06 (52.3)	1.0”
Tube Stub	1/4”	1.24 (31.5)	7/8”
	3/8”	1.24 (31.5)	7/8”
	1/2”	1.24 (31.5)	7/8”

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

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Ordering Information

Build an F9 Series Check Valve by replacing the numbered symbols with an option from the corresponding tables below.

Contact factory for most up to date lead time information.
Blue = Configurations that have selections in blue will require a quote from the factory.

	①	②	③
Samples:	**F9**	**M8**	**V**	**-EP**
Finished Orders:	**F9M8V-EP**			

① Inlet/Outlet Port Type

- M4 = 1/4" Face Seal Male
- M8 = 1/2" Face Seal Male
- T4 = 1/4" Tube Stub
- T6 = 3/8" Tube Stub

② Seal Material

- V = Fluorocarbon Elastomer (FKM) *Rated at 3,000 psig max. pressure*
- KR = Perfluoroelastomer (FFKM) *Rated at 1,000 psig max. pressure*

③ Internal Surface Finish

- -EP = Electropolish 7 R_a *Blue label*
- *Omit* = Passivate 10 R_a *Gold label*

Additional configurations available upon request

F9 Series

Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel
Spring	Elgiloy® or equivalent
Seal Options *The user is solely responsible for selecting and insuring that the product and materials of constructions are compatible with the process fluid.*	Fluorocarbon Elastomer (FKM) or Perfluoroelastomer (FFKM) *Contact factory for seat material and bonding agent MSDS.*
Poppet	316L Stainless Steel
Stop	316L Stainless Steel

Operating Conditions		
Based Upon Seal Options:	Fluorocarbon Elastomer (FKM)	Perfluoroelastomer (FFKM)
Maximum Pressure	3,000 psig (206 barg)	1,000 psig (68 barg)
Maximum Back Pressure	3,000 psig (206 barg)	1,000 psig (68 barg)
Cracking	≤ 2 psig (0.13 barg)	≤ 2 psig (0.13 barg)
Reset	≤ 2 psig (0.13 barg)	≤ 2 psig (0.13 barg)
Temperature	-10°F to 150°F (-23°C to 66°C)	

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

Functional Performance	
Flow Capacity	*Flow curves available. Please consult factory.*
1/4" Tube Stub	C_V 0.45 (X_T 0.89)
1/4" & 1/2" Face Seal	C_V 0.90 (X_T 0.78)
3/8" & 1/2" Tube Stub	C_V 0.90 (X_T 0.78)
Leak Rate	
Internal	Bubble Tight
External	< 1 x 10^{-9} scc/sec He Inboard Test Method
Surface Finish	
Omit	10 Ra Passivate (std) *(gold label)*
EP	7 Ra Electropolished *(blue label)*
Internal Volume	
1/4" Face Seal Male	0.14 cubic inch (2.29 cc)
Approx. Weight	
1/4" Face Seal Male	0.15 lbs. (2.4 oz)
1/4" Tube Stub	0.07 lbs. (1.2 oz)

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