

Furon® UPX Valve

Pneumatically Actuated 3-Way Valve (1/4", 1/2" & 3/4" Orifice)

Furon UPX Valves are specifically designed for safe and reliable transfer of highly aggressive chemicals, including concentrated hydrogen fluoride (HF) and hydrogen chloride (HCl). Our proprietary technology protects the valve's working components from degradation due to chemical attacks. The wetted flow path constructed from 100% virgin PFA, assuring compliance with the highest purity standards. Additionally, the UPX Valves are capable of handling a wide variety of abrasive slurries and have a long track record of success in slurry applications.

Applications

It is our position based on our testing that Furon UPX Valves are ideal for use in the semiconductor industry, or other applications, such as Flat Panel, Photovoltaic, and Chemical Processing requiring ultra-high purity and/or superior chemical resistance. You should conduct your own testing to understand its compatibility with your specific application.

Our testing* has shown among other things that Furon UPX Valves are:

- Designed for use in ultra-pure deionized water and aggressive chemical applications
- Suitable for use in certain abrasive slurry such as SS25
- Compatible with concentrated HF 49% and HCl 37 %

* The testing results may vary based on other impacting factors



Features and Benefits

- Superior life expectancy over competitive valves
- Suitable for use in all chemicals, including concentrated HF and HCl
- Suitable for use in abrasive slurries
- 100% virgin PTFE/PFA flow path
- Double diaphragm containment with standard leak detection port
- No exposed metallics
- Integral swivel base for freedom and ease of mounting
- Visual position indicator standard
- Furon UPX Valve designs have been tested for more than 3 million cycles

ASK AN ENGINEER

Furon UPX Valve - Pneumatically Actuated, 3-Way

Part Number	End Connection Type	Orifice		End Connection Size		A		B		C		ØD		E		F	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
UPX3-F44	FlareGrip® II	1/4	6.35	1/4	6.35	4.3	109.22	1.38	35.05	4.13	106.90	2.12	53.85	2.72	69.09	2.20	55.88
UPX3-S30044	Nippon Pillar Super 300*			1/4	6.35	Please contact us											
UPX3-F46	FlareGrip® II	1/4	6.35	3/8	9.52	4.7	119.38	1.70	43.18	5.00	127.0	2.90	73.66	3.62	91.95	2.35	59.69
UPX3-S30046	Nippon Pillar Super 300*			3/8	9.52	Please contact us											
UPX3-744	FuseBond™	1/2	12.7	1/4	6.35	4.9	124.46	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	2.50	63.50
UPX3-F88	FlareGrip® II			1/2	12.7	5.6	142.24										
UPX3-S30088	Nippon Pillar Super 300*	1/2	12.7	1/2	12.7	5.5	139.70	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	2.80	71.12
UPX3-F812	FlareGrip® II			3/4	19.05	5.9	149.86										
UPX3-S300812	Nippon Pillar Super 300*	1/2	12.7	3/4	19.05	7.2	182.88	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	2.95	74.93
UPX3-788	FuseBond™			1/2	12.7	5.6	142.24										
UPX3-7812	FuseBond™	3/4	19.05	3/4	19.05	5.9	169.86	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	2.94	74.67
UPX3-F1212	FlareGrip® II			3/4	19.05	6.3	160.02										
UPX3-S300-1212	Nippon Pillar Super 300*	3/4	19.05	3/4	19.05	8.0	203.20	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	3.15	80.01
UPX3-F1216	FlareGrip® II			1	25.4	6.9	175.26										
UPX3-S300-1216	Nippon Pillar Super 300*	3/4	19.05	1	25.4	8.0	203.20	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	3.45	87.63
UPX3-71212	FuseBond™			3/4	19.05	5.9	149.86										
UPX3-71216	FuseBond™	3/4	19.05	1	25.4	5.8	147.32	1.90	48.26	5.30	134.62	3.40	86.36	4.20	106.68	2.95	74.93
				1	25.4	5.8	147.32										

Tested with HCl for more than 2.1 million cycles and HF for more than 1.1 million cycles

Operating Specifications

Operating Pressure*	100 psig (6.9 bar)			
Back Pressure*	Up to 100 psig (6.9 bar) based on the model**			
Flow	Orifice	1/4"	1/2"	3/4"
	Cv	0.8	3.2	7.0
Max Operating Temperature++	Ambient: 149°F (65°C) Media: 230°F (110°C)++			
Actuator Pressure	70 - 90 PSIG (4.8 - 6.2 bar)			
Body	PFA			
Diaphragm	Modified PTFE			
Top Cap	ETFE			

* At room temperature

** [Please contact us](#) for more information

+ [Please contact us](#) for higher temperature

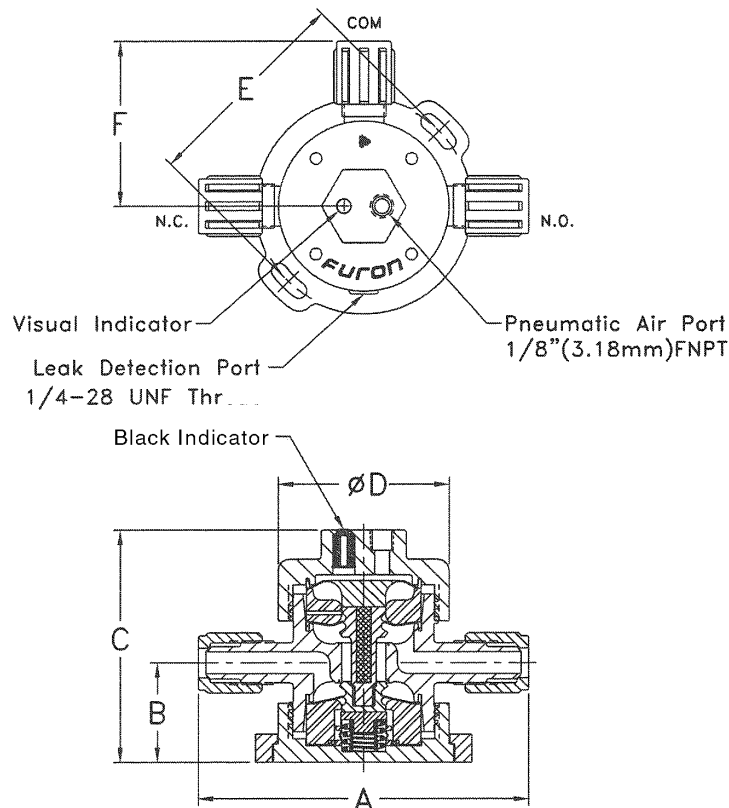
++ It is recommended to use a FuseBond™ or Nippon Pillar Super 300* connection over a flare fitting for high temperature application

Options

- PFA Flare nuts (add -3)
- Other end connection types available. [Please contact us](#) for:
 - FNPT
 - Sanitary Flange
 - Tube End
 - Others not listed
- Fiber optic position indication sensor ([Please contact us](#))
- Alternative flow patterns ([Please contact us](#))

Furon UPX Valve - Pneumatically Actuated, 3-Way

Drawings



U.S. Patents 5,967,173 & 5,261,442



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