



Your "Tru" Solution to Leak-Free Fitting Assemblies™

## Sweep Elbows

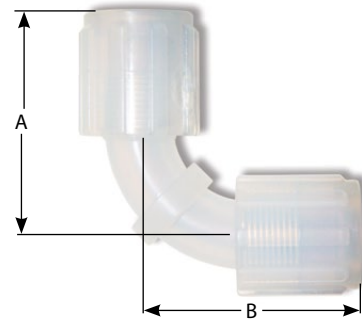
The following comparison data of Flow Coefficient (Cv) was performed in Fit-LINE's laboratory.



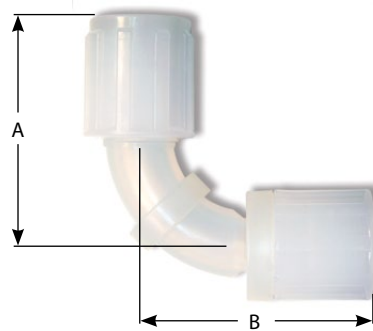
- Fit-LINE's 1/4" Sweep Elbow is **133%** more efficient than a 1/4" Standard 90° Elbow.
- Fit-LINE's 3/8" Sweep Elbow is **67%** more efficient than a 3/8" Standard 90° Elbow.
- Fit-LINE's 1/2" Sweep Elbow is **38%** more efficient than Entegris' 1/2" Sweep Elbow and is **90%** more efficient than a 1/2" Standard 90° Elbow.
- Fit-LINE's 3/4" Sweep Elbow is **62%** more efficient than Entegris' 3/4" Sweep Elbow and is **116%** more efficient than a 3/4" Standard 90° Elbow.
- Fit-LINE's 1" Sweep Elbow is **69%** more efficient than Entegris' 1" Sweep Elbow and is **130%** more efficient than a 1" Standard 90° Elbow.

	Fit-LINE Sweep Elbow (Full Orifice)	VS	Entegris Sweep Elbow (Truncated Orifice)	VS	Standard 90° Elbow
1/4"	0.7		N/A		0.3
3/8"	2.5		N/A		1.5
1/2"	8.0		5.8		4.2
3/4"	26.4		16.3		12.2
1"	56.6		33.3		24.6

The data above is measured in Gallons Per Minute at 1 PSI Pressure Drop



Union Elbow Sweep				
US. Patent 6,164,706; 6,426,031				
PFA Part No.	Tube O.D. / TightFlare™	Orifice	A	B
UES44N-1	1/4	.15	1.62	1.62
UES66N-1	3/8	.25	1.83	1.83
UES88N-1	1/2	.38	2.05	2.05
UES1212N-1	3/4	.63	2.33	2.33
UES1616N-1	1	.88	2.78	2.78



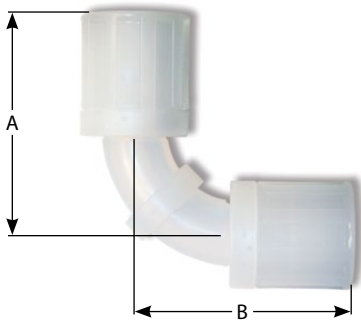
Union Elbow Sweep (TightFLARE™)				
(Male x Female Flare)				
US. Patent 6,164,706; 6,426,031; 7,055,870				
PFA Part No.	Tube O.D. / TightFlare™	Orifice	A	B
UES44TN-1	1/4	.15	1.62	1.78
UES66TN-1	3/8	.25	1.83	1.97
UES88TN-1	1/2	.38	2.05	2.15
UES1212TN-1	3/4	.63	2.33	2.56
UES1616TN-1	1	.88	2.78	3.22

Consult the factory for additional sizes and configurations  
PVDF nut (-1) standard; PFA nuts (-3) optional



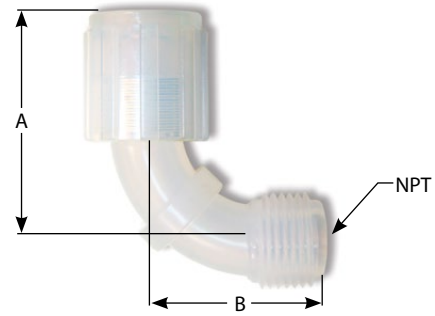
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## Sweep Elbows



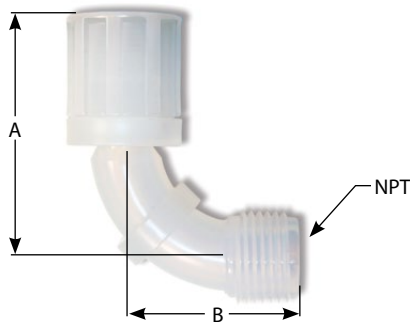
**Union Elbow Sweep (TightFLARE™)**  
(Female Flare x Female Flare)  
US. Patent 6,164,706; 6,426,031; 7,055,870

PFA Part No.	TightFlare™	Orifice	A	B
UES4TN-1	1/4	.15	1.78	1.78
UES6TN-1	3/8	.25	1.97	1.97
UES8TN-1	1/2	.38	2.15	2.15
UES12TN-1	3/4	.63	2.56	2.56
UES16TN-1	1	.88	3.22	3.22



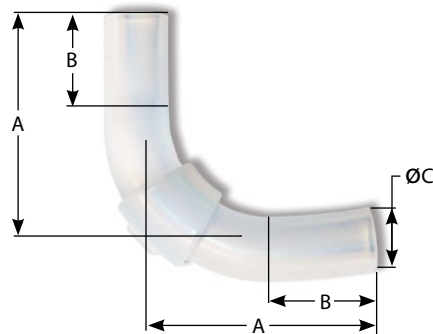
**Male Elbow Sweep**  
US. Patent 6,164,706; 6,426,031

PFA Part No.	Tube O.D. / NPT	Orifice	A	B
MES4-4N-1	1/4	.15	1.62	1.20
MES6-6N-1	3/8	.25	1.83	1.32
MES8-8N-1	1/2	.38	2.05	1.55
MES12-12N-1	3/4	.63	2.33	1.76
MES16-16N-1	1	.88	2.78	2.26



**MALE ELBOW SWEEP (TightFLARE™)**  
US. Patent 6,164,706; 6,426,031; 7,055,870

PFA Part No.	Tube O.D. / TightFlare™	Orifice	A	B
MES4T-4N-1	1/4	.15	1.78	1.20
MES6T-6N-1	3/8	.25	1.97	1.32
MES8T-8N-1	1/2	.38	2.15	1.55
MES12T-12N-1	3/4	.63	2.56	1.76
MES16T-16N-1	1	.88	3.22	2.26



**Weld Elbow Sweep (Tube x Tube)**

PFA Part No.	Tube O.D.	A	B	C Orifice
WES4TS	1/4	1.41	.60	.15
WES6TS	3/8	1.61	.70	.25
WES8TS	1/2	1.79	.80	.38
WES12TS	3/4	2.17	.92	.63
WES16TS	1	2.68	.92	.88

PVDF nut (-1) standard; PFA nuts (-3) optional

All dimensions are in inches unless otherwise specified