

## FURON<sup>®</sup> FUSEBOND<sup>™</sup> FITTINGS

FITTING SOLUTION FOR  
WELDABLE SYSTEMS

Furon FuseBond fittings offer a complete line of industry standard high purity PFA weldable pipe fittings. Product line sizes range from ¼" to 2" and are designed to be compatible with schedule 40 pipe, making it ideal to use with Furon HP PFA pipe.

Our Furon FuseBond fittings are manufactured with alignment marks every 45° to ease precise alignment of fittings during the assembly and welding process. With unique patent pending technology, our No O-Ring union fitting brings flexibility to the rigid world of welded systems thanks to countless disassembly/reassembly capabilities.

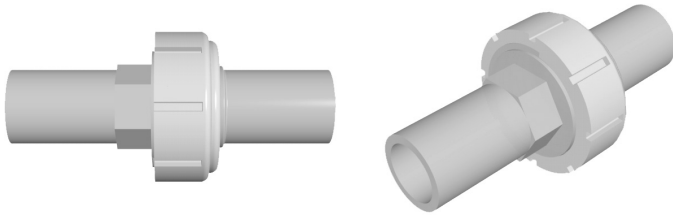
### APPLICATIONS

The Furon FuseBond fitting offers the perfect weldable fitting solution for superior performance for transfer, recirculation, dispensing and bulk delivery in semiconductor, photovoltaic and chemical processing industries or any industry where high-purity and chemical resistance is a must.

### FEATURES AND BENEFITS

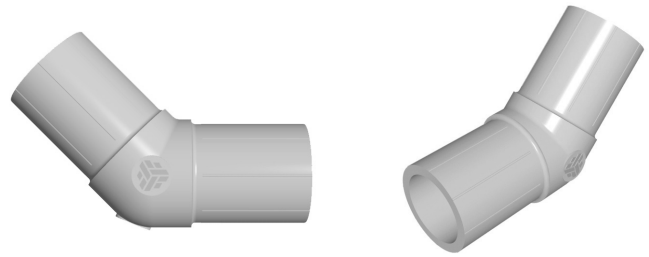
- High-purity PFA
- Ideally used with Furon HP PFA Pipe
- Large variety of configuration:
  - Tee
  - Cap
  - Reducer
  - Elbow
- Transition fitting to other connection style:
  - NPT connections
  - Flare connections
- Double bagged in Cleanroom
- No O-ring coupling solution

## STRAIGHT AND ELBOW FUSEBOND FITTING LINE



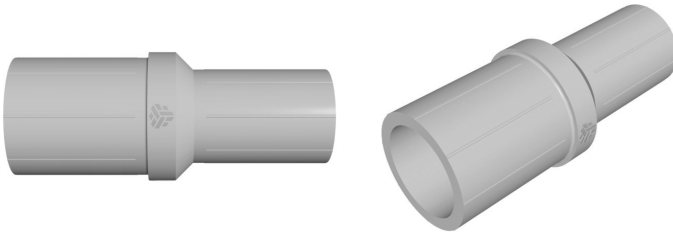
**SSUM**  
No O-Ring Union Molded

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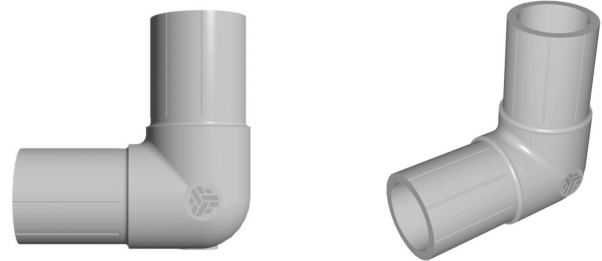
**45E**  
45° Elbow

Page 8



**UR**  
Union Reducer

Page 6



**E**  
Elbow

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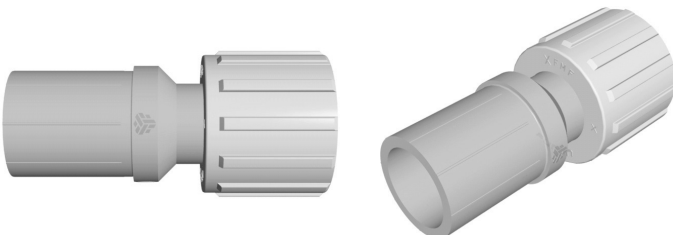
**UA**  
Union Adapter

Page 6



**ETA**  
Elbow Tube Adapter

Page 9



**UAFF**  
Union Adapter Female Flare

Page 7



**ETAFF**  
Elbow Tube Adapter  
Female Flare

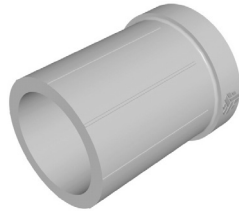
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jump to page

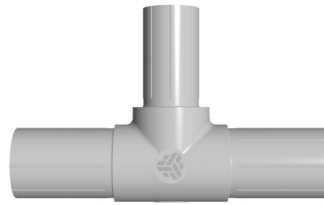
## CAP AND TEE FUSEBOND FITTING LINE



**C**  
Cap



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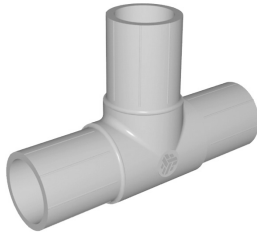
**UTR**  
Union Tee Reducer



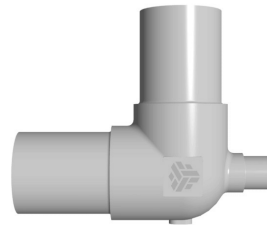
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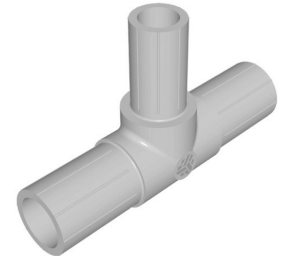
**UT**  
Union Tee



Page 10



**UTR**  
Union Tee Reducer



Page 12



**BTFF**  
Branch Tee Female Flare



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## NOTES

All pipe ends are manufactured to standard schedule 40 pipe dimensions.

## NOMENCLATURE

Example Description for Straight, Elbow and Caps

**FB UA - 6 F 12 N - 1**

Fitting Product	Type of Fitting	Tube or Pipe Size	Flare Type	Pipe Size	Nut/Nuts are assembled on fitting	Nut Material
FuseBond = FB	No O-Ring = SSUM Union Reducer = UR Union Adapter = UA Union Adapter Female Flare = UAFF 45° Elbow = 45E Elbow = E Elbow Tube Adapter = ETA Elbow Tube Adapter Female Flare = ETAFF Cap = C	1/4" = 4 3/8" = 6 1/2" = 8 3/4" = 12 1" = 16 2" = 32  If only one number appears in this position, both ends are same size	Flare = F Female Flare = FF  If no Flare is on fitting this will not appear in description	1/4" = 4 3/8" = 6 1/2" = 8 3/4" = 12 1" = 16 2" = 32	Nut = N  If no Nut is on fitting this will not appear in description	PVDF = 1 PFA = 3  If no Nut is on fitting this will not appear in description

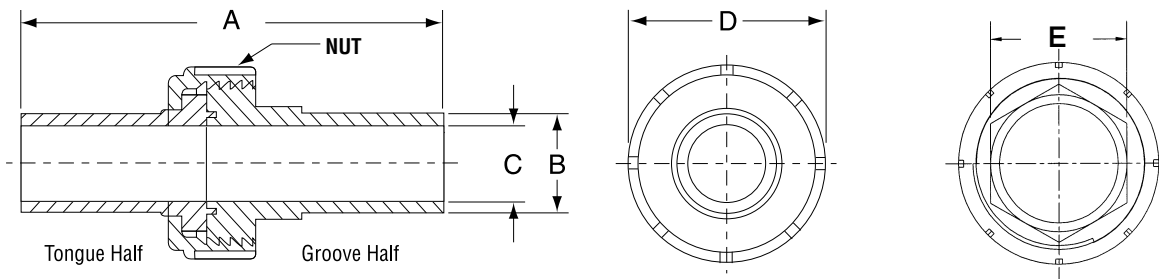
Example Description for Tees

**FB BT - 12 12 16 FF N - 1**

Fitting Product	Type of Fitting	Pipe Size	Pipe Size	Tube or Pipe Size	Flare Type	Nut/Nuts are assembled on fitting	Nut Material
FuseBond = FB	Union Tee = UT Branch Tee = BT Union Tee Reducer = UTR	1/4" = 4 3/8" = 6 1/2" = 8 3/4" = 12 1" = 16 2" = 32  If only one number appears in this position, both ends are same size	1/4" = 4 3/8" = 6 1/2" = 8 3/4" = 12 1" = 16 2" = 32	1/4" = 4 3/8" = 6 1/2" = 8 3/4" = 12 1" = 16 2" = 32	Flare = F Female Flare = FF  If no Flare is on fitting this will not appear in description	Nut = N  If no Nut is on fitting this will not appear in description	PVDF = 1 PFA = 3  If no Nut is on fitting this will not appear in description

## FURON NO O-RING UNION

Description	Nominal Pipe Size by Schedule 40	A		B		C		D		E HEX	
		in	mm	in	mm	in	mm	in	mm	in	mm
		SSUM-8788	1/2	4.26	108.2	0.84	21.3	0.607	15.4	2.00	50.8
SSUM-8788-C	2.26	57.4									
SSUM-1271212	3/4	4.47	113.5	1.05	26.6	0.809	20.5	2.13	54.1	1.05	26.7
SSUM-1271212-C		2.47	62.7								
SSUM-1671616	1	4.49	114.0	1.315	33.4	1.033	26.2	2.50	63.5	1.315	33.4
SSUM-1671616-C		2.49	63.2								
SSUM-3273232	2	3.8	96.3	2.07	52.6	2.38	60.5	3.50	88.9	2.375	60.3

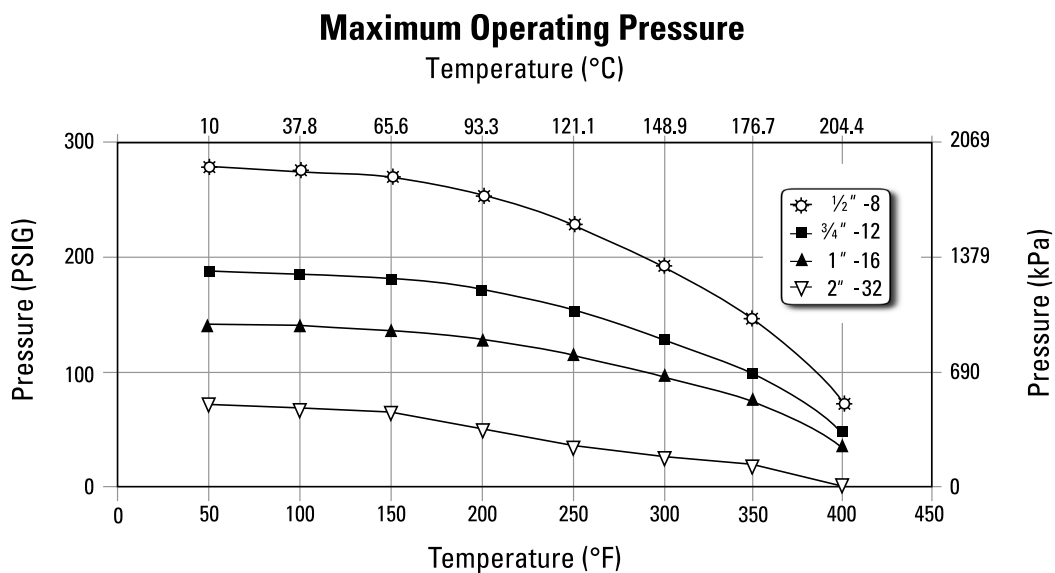


### TECHNICAL SPECIFICATIONS - NO O-RING

Fitting Body Material	100% Virgin High Purity PFA
Max. Operating Temperature*	See graphical chart
Max. Operating Pressure**	See graphical chart
Nut Material	ETFE

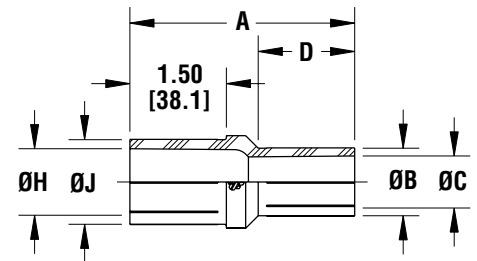
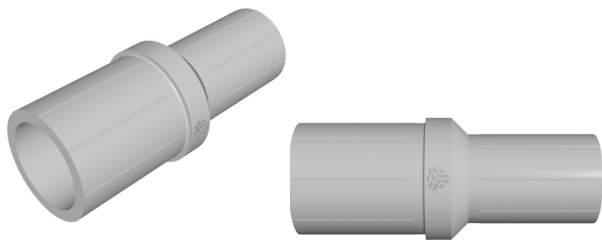
\*At ambient temperature

\*\*Based on size, [please contact us](#) for more details or specific configuration



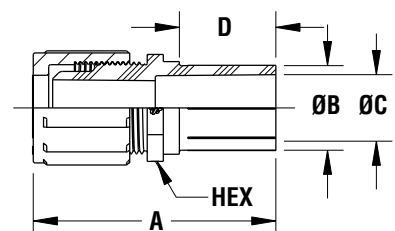
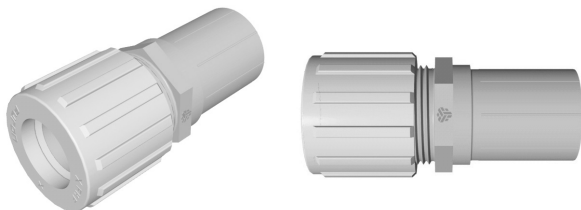
## FURON® UR - UNION REDUCER

Description	Pipe x Pipe		A		ØB		ØC		D		ØH		ØJ	
	in	in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FBUR-84	1/2	1/4	2.51	63.8	0.540	13.72	0.354	8.99	0.50	12.7	0.607	15.42	0.840	21.34
FBUR-124	3/4	1/4	2.62	68.5							0.809	20.55	1.050	26.67
FBUR-128	3/4	1/2	3.47	88.1	0.840	21.34	0.607	15.42	1.50	38.1	1.034	26.26	1.315	33.40
FBUR-164	1	1/4	2.75	69.9	0.540	13.72	0.354	8.99	0.50	12.7				
FBUR-168	1	1/2	3.60	91.4	0.840	21.34	0.607	15.42	1.50	38.1	1.034	26.26	1.315	33.40
FBUR-1612	1	3/4	3.50	88.8	1.050	26.67	0.809	20.55						
FBUR-3212	2	3/4	4.03	102.2	1.315	33.40	1.034	26.26	1.50	38.1	2.052	52.12	2.375	60.33
FBUR-3216	2	1	3.89	98.9										



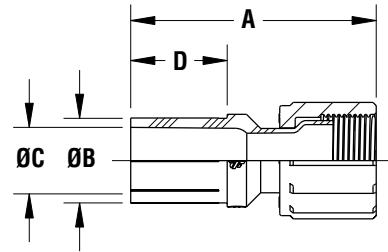
## FURON® UA - UNION ADAPTER

Description	Tube Size		Nominal Pipe Size by Schedule 40	A		ØB		ØC		D		HEX	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
FBUA-4F4N-1	1/4	6.4	1/4	1.89	48.1	0.54	13.72	0.354	8.99	0.50	12.7	0.68	17.3
FBUA-4F8N-1			1/2	2.05	52.0	0.84	21.67	0.607	15.42	1.50	38.1	0.94	23.9
FBUA-4F12N-1			3/4	2.06	52.2	1.05	26.67	0.809	20.55			1.18	30.0
FBUA-6F4N-1	3/8	9.5	1/4	2.20	55.8	0.54	13.72	0.354	8.99	0.50	12.7	0.81	20.6
FBUA-6F8N-1			1/2	1.99	50.5	0.84	21.67	0.607	15.42	1.50	38.1	0.94	23.9
FBUA-6F12N-1			3/4	2.13	54.1	1.05	26.67	0.809	20.55			1.18	30.0
FBUA-8F8N-1	1/2	12.7	1/2	2.14	54.2	0.84	21.67	0.607	15.42	1.50	38.1	1.44	36.6
FBUA-8F12N-1			3/4	2.28	57.8	1.05	26.67	0.809	20.55			1.18	30.0
FBUA-8F16N-1			1	2.24	56.9	1.315	33.4	1.034	26.26			0.94	23.9
FBUA-12F8N-1	3/4	19.1	1/2	2.25	57.0	0.84	21.67	0.607	15.42	1.50	38.1	1.18	30.0
FBUA-12F12N-1			3/4	2.43	61.6	1.05	26.67	0.809	20.55			1.44	36.6
FBUA-12F16N-1			1	2.44	62.0	1.315	33.4	1.034	26.26				
FBUA-16F8N-1	1	25.4	1/2	2.59	65.8	0.84	21.67	0.607	15.42	1.50	38.1	1.44	36.6
FBUA-16F12N-1			3/4	2.50	63.6	1.05	26.67	0.809	20.55				
FBUA-16F16N-1			1	2.53	64.2	1.315	33.4	1.034	26.26				
FBUA-16F32N-1			2	2.68	68.1	2.375	60.33	2.052	52.12				



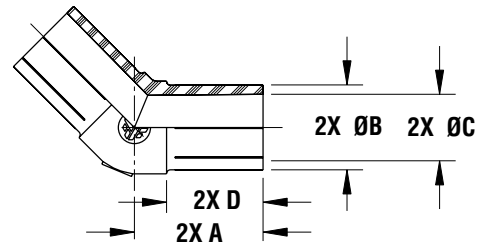
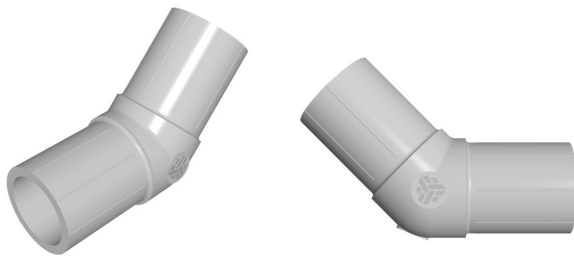
## FURON® UAFF - UNION ADAPTER FEMALE FLARE

Description	Tube Size		Nominal Pipe Size by Schedule 40	A		ØB		ØC		D	
	in	mm		in	mm	in	mm	in	mm	in	mm
FBUA-4FF4N-1	1/4	6.4	1/4	2.34	59.5	0.540	13.72	0.354	8.99	0.50	12.7
FBUA-8FF8N-1	1/2	12.7	1/2	3.39	86.2	0.840	21.34	0.607	15.42	1.50	38.1
FBUA-8FF12N-1			3/4	3.50	88.8	1.050	26.67	0.809	20.55		
FBUA-12FF8N-1	3/4	19.1	1/2	3.44	87.4	0.840	21.34	0.607	15.42		
FBUA-12FF12N-1			3/4	3.55	90.1	1.050	26.67	0.809	20.55		
FBUA-12FF16N-1			1	3.68	93.4	1.315	33.40	1.034	26.26		
FBUA-16FF12N-1	1	25.4	3/4	3.69	93.6	1.050	26.67	0.809	20.55		
FBUA-16FF16N-1			1	3.82	97.0	1.315	33.40	1.034	26.26		
FBUA-16FF32N-1			2	4.35	110.4	2.375	60.33	2.052	52.12		



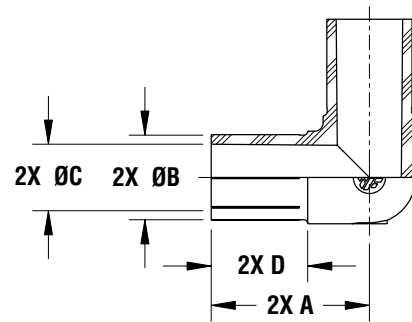
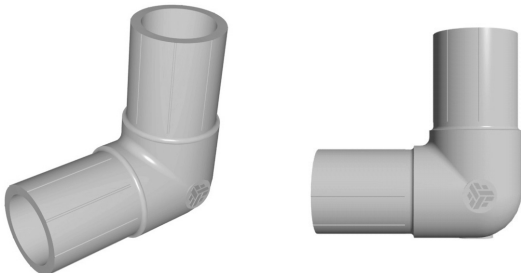
## FURON® 45E - 45° ELBOW

Description	Nominal Pipe Size by Schedule 40		A		ØB		ØC		D	
	in	in	mm	in	mm	in	mm	in	mm	
FB45E-4	1/4	1.00	25.4	0.540	13.72	0.354	8.99	0.50	12.7	
FB45E-8	1/2	2.00	50.8	0.840	21.34	0.607	15.42	1.50	38.1	
FB45E-12	3/4			1.050	26.67	0.809	20.55			
FB45E-16	1			1.315	33.40	1.034	26.26			
FB45E-32	2	2.50	63.5	2.375	60.33	2.052	52.12			



## FURON® E - ELBOW

Description	Nominal Pipe Size by Schedule 40		A		ØB		ØC		D	
	in	in	mm	in	mm	in	mm	in	mm	
FBE-4	1/4	1.08	27.4	0.540	13.72	0.354	8.99	0.50	12.7	
FBE-8	1/2	2.20	55.9	0.840	21.34	0.607	15.42	1.50	38.1	
FBE-12	3/4	2.35	59.7	1.050	26.67	0.809	20.55			
FBE-16	1	2.46	62.5	1.315	33.40	1.034	26.26			
FBE-32	2	3.30	83.8	2.375	60.33	2.052	52.12			



## FURON® ETA - ELBOW TUBE ADAPTER

Description	Tube Size		Nominal Pipe Size by Schedule 40	A		ØB		ØC		D		F	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
FBETA-4F4N-1	1/4	6.4	1/4	1.08	27.4	0.540	13.72	0.354	8.99	0.50	12.7	1.99	50.6
FBETA-8F8N-1	1/2	12.7	1/2	2.20	55.9	0.840	21.34	0.607	15.42	1.50	38.1	2.51	63.8
FBETA-8F12N-1			3/4	2.23	56.6	1.050	26.67	0.809	20.55			2.54	64.6
FBETA-12F12N-1	3/4	19.1	3/4	2.35	59.7	1.315	33.40	1.034	26.26			2.57	65.2
FBETA-12F16N-1				1	2.46							62.5	2.73
FBETA-16F16N-1	1	25.4	1	2.46	62.5	2.375	60.325	2.052	52.12			2.93	74.3
FBETA-16F32N-1				2	2.50							63.5	3.42
FBETA-12F8N-1	3/4	19.1	1/2	2.20	55.9	0.840	21.34	0.607	15.42	2.57	65.3		
FBETA-16F12N-1	1	25.4	3/4	2.35	59.7	1.050	26.67	0.809	20.55	2.90	73.7		



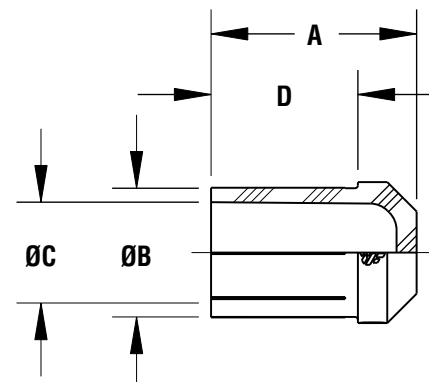
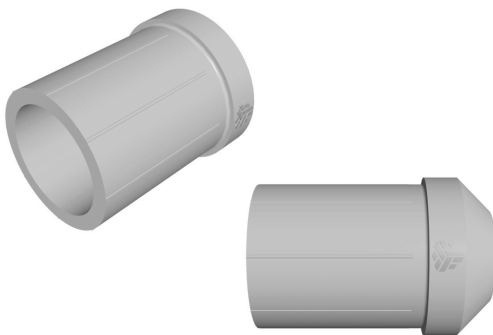
## FURON® ETAFF - ELBOW UNION TUBE ADAPTER FEMALE FLARE

Description	Tube Size		Nominal Pipe Size by Schedule 40	A		ØB		ØC		D		F	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
FBETA-4FF4N-1	1/4	6.4	1/4	1.08	27.4	0.546	13.87	0.350	8.89	0.50	12.7	1.80	45.8
FBETA-8FF8N-1	1/2	12.7	1/2	2.20	55.9	0.845	21.46	0.602	15.29	1.50	38.1	2.02	51.2
FBETA-8FF12N-1			3/4	2.23	56.6	1.055	26.80	0.804	20.42			2.27	57.6
FBETA-12FF8N-1	3/4	19.1	1/2	2.20	55.9	0.845	21.46	0.602	15.29			2.21	56.2
FBETA-12FF12N-1			3/4	2.35	59.7	1.055	26.80	0.804	20.42			2.38	60.5
FBETA-12FF16N-1	1	24.4	1	2.35	59.7	1.323	33.60	1.025	26.04			2.65	67.2
FBETA-16FF12N-1			3/4	1.055	26.80	0.804	20.42						
FBETA-16FF16N-1	1	24.4	1	2.46	62.5	1.323	33.60	1.025	26.04	3.14	79.7		
FBETA-16FF32N-1			2	2.50	63.5	2.385	60.58	2.047	51.99				



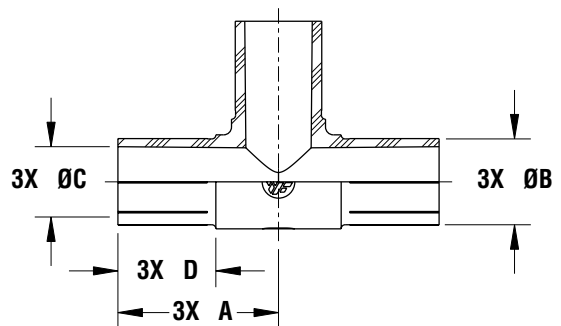
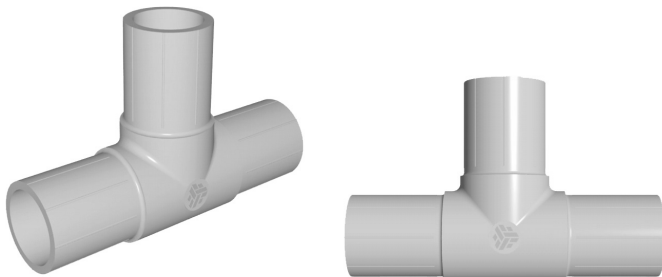
## FURON® C - CAP

Description	Nominal Pipe Size by Schedule 40		A		ØB		ØC		D	
	in	in	mm	in	mm	in	mm	in	mm	
FBC-4	1/4	0.95	24.1	0.540	13.72	0.354	8.99	0.50	12.7	
FBC-8	1/2	2.10	53.2	0.840	21.34	0.607	15.42	1.50	38.1	
FBC-12	3/4	2.12	53.8	1.050	26.67	0.809	20.55			
FBC-16	1	2.10	53.3	1.315	33.40	1.030	26.16			
FBC-32	2	2.39	60.8	2.375	60.33	2.052	52.12			



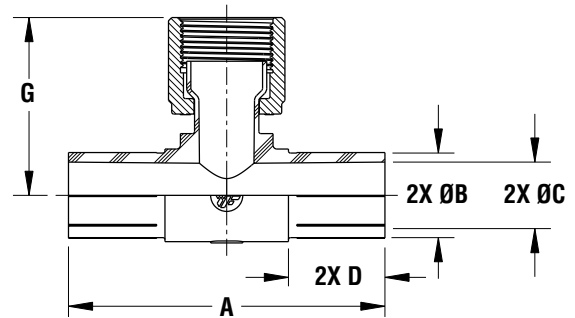
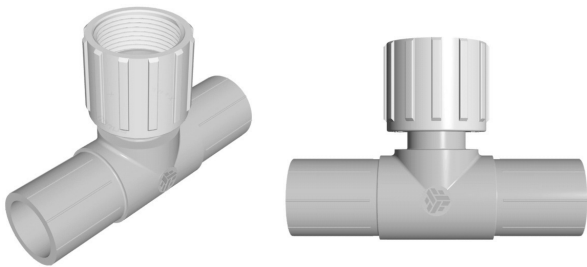
## FURON® UT - UNION TEE

Description	Nominal Pipe Size by Schedule 40		A		ØB		ØC		D	
	in	in	mm	in	mm	in	mm	in	mm	
FBUT-4	1/4	1.08	27.4	0.540	13.72	0.354	8.99	0.50	12.7	
FBUT-8	1/2	2.20	55.9	0.840	21.34	0.607	15.42	1.50	38.1	
FBUT-12	3/4	2.35	59.7	1.050	26.67	0.809	20.55			
FBUT-16	1	2.46	62.5	1.315	33.40	1.034	26.26			
FBUT-32	2	3.30	83.8	2.375	60.33	2.052	52.12			



## FURON® BTFF - BRANCH TEE FEMALE FLARE

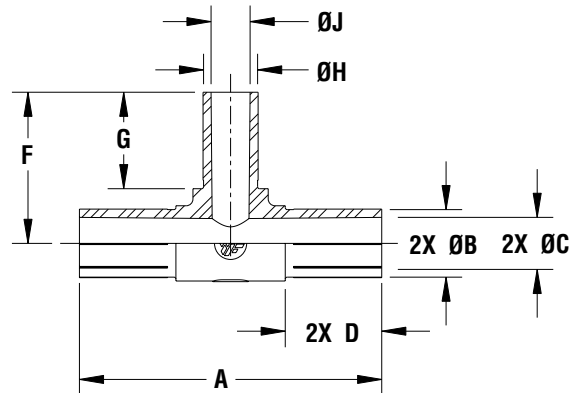
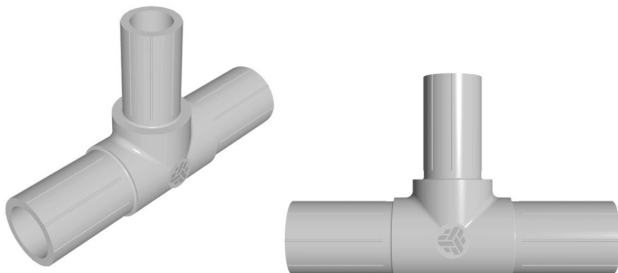
Description	Pipe x Pipe x Tube				A		ØB		ØC		D		G	
	in	in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FBBT-888FFN-1	1/2	1/2	1/2	12.7	4.47	113.54	0.84	21.34	0.61	15.49	1.50	38.1	1.83	46.48
FBBT-121212FFN-1	3/4	3/4	3/4	19.0	4.76	120.90	1.05	26.67	0.81	20.57			2.76	70.2
FBBT-121216FFN-1	3/4	3/4	1	25.4	4.92	125.00			0.809	20.55				



## FURON® UTR - UNION TEE REDUCER

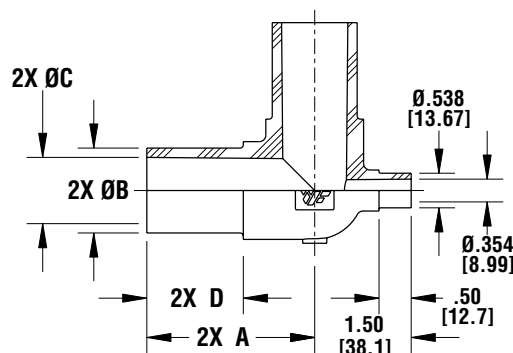
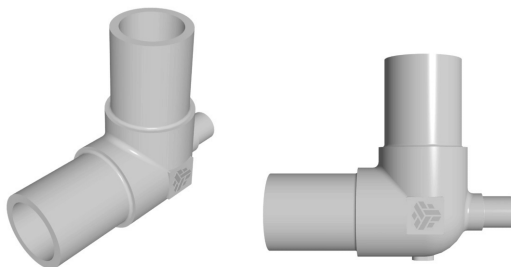
Description	Pipe x Pipe x Pipe				A		ØB		ØC		D		F		G		ØH		ØJ	
	in	in	in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
FBUTR-12124**	3/4	3/4	1/4	4.48	113.8	1.05	26.67	0.817	20.75	1.50	38.1	1.47	37.3	0.50	12.7	0.538	13.67	0.354	8.99	
FBUTR-12128	3/4	3/4	1/2	4.70	119.38			0.809	20.55			2.35	59.69	1.50	38.1	0.84	21.34	0.67	15.42	
FBUTR-16164**	1	1	1/4	4.64	117.9	1.315	33.40	1.034	26.26			1.60	40.6	0.50	12.7	0.538	13.67	0.354	8.99	
FBUTR-323216	2	2	1	6.60	167.64	2.38	60.33	2.052	52.12			2.98	75.89	1.50	38.1	1.32	33.40	1.025	26.04	

\*\* Alignment marks not available on this product



## FURON® UTR - UNION TEE REDUCER

Description	Pipe x Pipe x Tube				A		ØB		ØC		D	
	in	in	in	mm	in	mm	in	mm	in	mm	in	mm
FBUTR-12412	3/4	1/4	3/4	19.0	2.63	66.8	1.05	26.67	0.80	31.75	1.52	38.6
FBUTR-16416	1	1/4	1	25.4	2.61	66.3	1.32	33.53	1.03	38.61	1.50	38.1



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**NOTE:** This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values. Saint-Gobain strongly recommends that you conduct practical tests simulating the conditions of your application to ensure that the product meets your requirements for your specific application

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