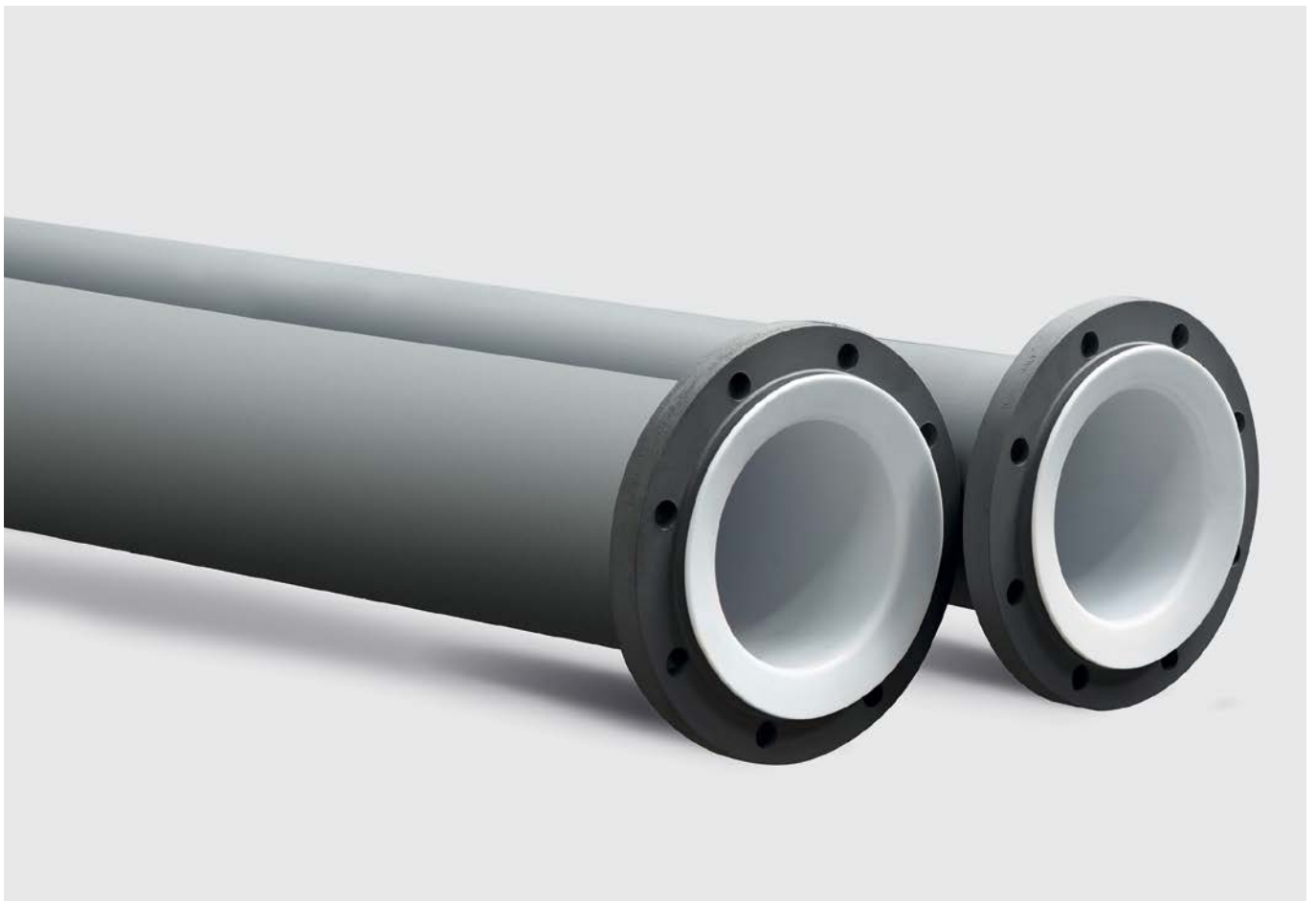




## POLYFLURON® PTFE lined steel pipes and fittings ASME





# Lined pipe classes

Based on over 60 years of experience with paste-extruded PTFE and more than 1000 reference customers, we supply a comprehensive range of POLYFLURON lined piping systems, mainly for the transport of corrosive media.

The following pages provide information on available products, dimensions and design options, as well as the materials used and permitted operating conditions.

This brochure deals exclusively with pipes and fittings up to a diameter of 24 inch [DN600]. Larger dimensions up to 120 inch [DN3000] for columns and vessels are covered by a separate brochure, which is available on request.

We offer our lined piping products in two different liner thickness classes.

- **Standard**

Corrosion resistant and permeation reducing lining for aggressive media processed at moderate pressures and temperatures. This product series meets the standards of the chemical industry for paste extruded PTFE linings.

- **Heavy duty**

Suitable for long term operation with highly permeable media processed at high pressures and temperatures.

From our many years experience, we recommend the use of standardized pipe lengths. These reduce inventory costs and allow greater flexibility in assembly.

**Our product range includes pipes of the following dimensions:**

Nominal diameters: from 1 to 24 inch

Lengths: larger diameters available upon request  
up to 20 feet, depending on the nominal diameter [20 ft.]

# Technical specifications

**POLYFLURON PTFE is a virginal paste extruded PTFE exhibiting exceptional thermal, chemical, mechanical and electrical properties.**

## Exceptional properties

- Nearly universal chemical resistance and insolubility
- High operating temperatures up to 500 °F
- Flexibility to - 110 °F
- High flexural fatigue resistance, nearly no material fatigue
- No aging by heat or UV radiation
- Exceptional electric insulator
- Very high purity (free of migrating additives or monomers), non-toxic
- Anti-adhesive surface, low coefficient of friction/wear, self-cleaning
- Excellent dimensional stability – no water absorption, no swelling
- Non-flammable

## Pipes/Fittings

### Material code

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A 106 Gr. B

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API 5L Gr. B

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A 234 WPB

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DIN EN 10213-2

Subject to technical changes.

The standards given below are ASME standards. If you require pipes and fittings according to DIN standards, please refer to our respective EN/DIN brochure.

## Field of use

- Pressure load:** 1 to 6 inch – up to 485 psi (PN40);  
8 to 24 inch – up to 363 psi (PN25)
- Vacuum:** Full vacuum [-1 barg] for all dimensions up to 4 inch and 300 °F. Vacuum-resistant versions for larger dimensions and higher temperatures on request.
- Lining:** Virginal paste-extruded PTFE meeting DIN 2874.
- Temperatures:** 14 °F up to 450 °F; lower service temperatures can be accommodated with the use of special steel materials.

## Options

- Antistatic (electrically conductive) liner
- Stainless steel and low temperature steel
- Venting nozzles
- Grounding bolts and connections
- Custom shapes
- Special paint coatings

Stainless steel materials are available on request.

## Flanges

### Material code

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A 105 (C21)

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A 570 Gr. 36

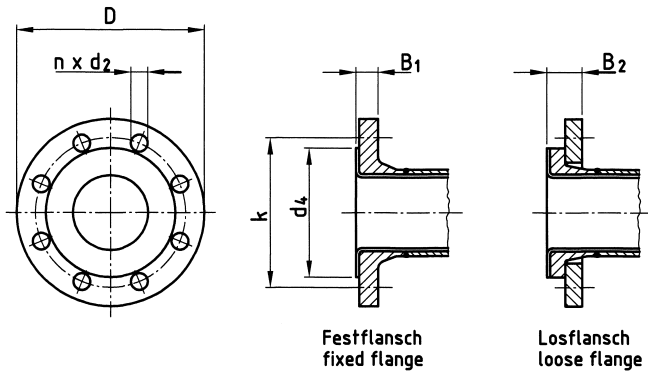
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A 515 Gr. 55

Subject to technical changes.

### Pipe dimensions

The following table gives the standard wall thicknesses of steel pipes meeting ANSI B36.10.



### Pipe dimensions

DN	Steel pipe	DN	Steel pipe
Outside $\varnothing$ x wall thickness		Outside $\varnothing$ x wall thickness	
[in]	[in]	[in]	[in]
1	1.32 x 0.13	8	8.63 x 0.32
1 ¼	1.66 x 0.14	10	10.75 x 0.37
1 ½	1.90 x 0.15	12	12.75 x 0.37
2	2.37 x 0.15	14	14 x 0.37
2 ½	2.87 x 0.22	16	16 x 0.37
3	3.5 x 0.22	18	18 x 0.37
4	4.5 x 0.24	20	20 x 0.37
5	5.56 x 0.26	24	24 x 0.37
6	6.63 x 0.28		

Subject to technical changes.

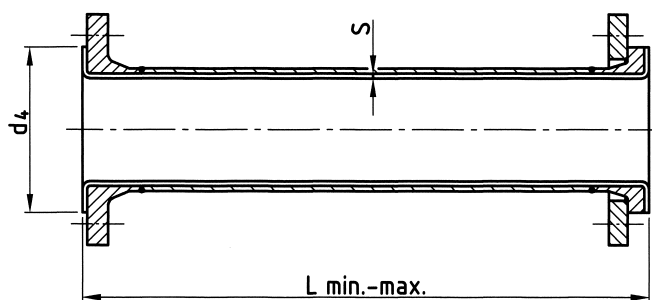
### Flange dimensions

DN	Flange $\varnothing$	Seal. surface	Bolt circle $\varnothing$	Bolt holes	Flange thickness incl. collar		
[in]	D [in]	d4 [in]	k [in]	n x [Number]	d2 [in]	B1 [in]	B2 [in]
1	4.2	2.0	3.1	4	¾	0.67	1.14
1 ¼	4.6	2.5	3.5	4	¾	0.75	1.22
1 ½	5.0	2.9	3.9	4	¾	0.83	1.30
2	6.0	3.6	4.7	4	¾	0.87	1.42
2 ½	7.0	4.1	5.5	4	¾	1.02	1.57
3	7.5	5.0	6.0	4	¾	1.06	1.69
4	9.0	6.2	7.5	8	¾	1.10	1.73
5	10.0	7.3	8.5	8	¾	1.10	1.81
6	11.0	8.5	9.5	8	¾	1.18	1.89
8	13.5	10.6	11.7	8	¾	1.34	2.13
10	16.0	12.8	14.2	12	1	1.38	2.24
12	19.0	15.0	17.0	12	1	1.46	2.32
14	21.0	16.3	18.7	12	1 ½	1.57	2.44
16	23.5	18.5	21.2	16	1 ½	1.65	2.60
18	25.0	21.0	22.7	16	1 ¼	1.77	2.72
20	27.5	23.0	25.0	20	1 ¼	1.89	2.91
24	32.0	27.2	29.5	20	1 ¾	2.09	3.11

Subject to technical changes.

# POLYFLURON® PTFE lined pipes

The standardized diameters and lengths of POLYFLURON PTFE lined steel pipes are given in ASME B 16.5 standard. We can supply all items listed in this standard. For larger diameters up to 120 inch [DN 3000], please refer to our separate brochure entitled "Columns and Vessels".



## Lined pipes

DN	L min	L max	Lining wall thickness		PTFE Flange ø d4 [in]	Weight fix/loose	
			Standard [in]	Heavy Duty [in]		Lined pipe [lb/ft]	Flange [lb]
1	4.0	236	0.12		2.0	2.01	4.63
	4.0	236		0.16	2.0		
1 ¼	4.0	236	0.12		2.5	2.69	6.17
	4.0	236		0.16	2.5		
1 ½	4.0	236	0.12		2.9	3.29	7.28
	4.0	236		0.16	2.9		
2	4.0	236	0.12		3.6	4.36	11.68
	4.0	236		0.16	3.6		
2 ½	4.0	236	0.14		4.1	6.71	17.20
	4.0	236		0.16	4.1		
3	4.5	236	0.14		5.0	8.73	20.50
	4.5	236		0.16	5.0		
4	4.5	236	0.18		6.2	12.75	30.86
	4.5	236		0.20	6.2		
5	4.5	236	0.18		7.3	16.78	37.48
	5.0	236		0.20	7.3		
6	5.0	236	0.20		8.5	22.15	46.30
	5.0	236		0.24	8.5		
8	5.5	236	0.20		10.6	32.89	74.96
	5.5	236		0.31	10.6		
10	5.5	236	0.20		12.8	45.65	103.62
	5.5	236		0.31	12.8		
12	6.0	157	0.22		15.0	57.73	156.53
	6.0	157		0.31	15.0		
14	6.0	138	0.22		16.3	63.10	202.83
	6.0	98		0.31	16.3		
16	8.0	98	0.22		18.5	73.17	249.12
	8.0	98		0.31	18.5		
18	8.0	79	0.22		21.0	81.23	282.19
	8.0	79		0.31	21.0		
20	10.0	79	0.24		23.0	91.30	350.53
	10.0	79		0.31	23.0		
24	10.0	71	0.24		27.2	110.76	480.61
	10.0	63		0.31	27.2		

Subject to technical changes.

# POLYFLURON® PTFE lined elbows

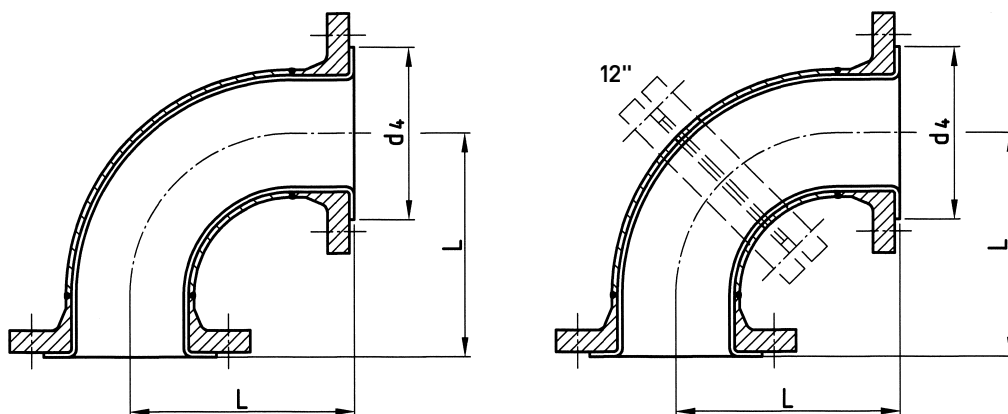
Elbows are manufactured with angles of 90°, 60°, 45° or 30°. Other angles are available on request. Please ask us for more information. 90° elbows are supplied with one fixed and one loose flange as standard. All 45° elbows come

with fixed flanges. Alternatives are available on request. Products up to 10 inch diam. are manufactured in one part. Items of 12 inch diam. or above come in two parts.

## Lined elbows

DN [in]	L		PTFE		Weight	
	90° elbow [in]	45° elbow [in]	S [in]	d4 [in]	90° elbow [approx. lb]	45° elbow [approx. lb]
1	3.5	2.0*	0.12	2.0	5.5	5.3
1¼	3.75	2.0	0.12	2.5	7.3	6.6
1½	4.0	2.2	0.12	2.9	9.2	7.9
2	4.5	2.5	0.12	3.6	14.1	11.9
2½	5.0	3.0	0.14	4.1	19.4	17.4
3	5.5	3.0	0.14	5.0	26.4	22.0
4	6.5	4.0	0.18	6.2	37.4	33.0
5	7.5	4.5	0.18	7.3	48.4	41.8
6	8.0	5.0	0.20	8.5	68.2	48.4
8	9.0	5.5	0.20	10.6	96.8	77.0
10	11.0	6.5	0.20	12.8	143.0	134.2
12	19.0	7.5	0.22	15.0	385.0	198.0
14	21.5	7.5	0.22	16.3	525.8	217.8
16	24.0	8.0	0.22	18.5	605.0	255.2
20	29.0	9.5	0.24	23.0	985.6	367.4
24	34.0	11.0	0.24	27.2	1375.0	514.8

\* not included in ANSI B 16.5. Subject to technical changes.



# POLYFLURON® PTFE and PFA lined tees and lined reducing tees

T-pieces up to 4 inch diam. are available with either of two different linings. The POLYFLURON PTFE lined variant is supplied with a high performance flange connection of well-proven design [see drawing A].

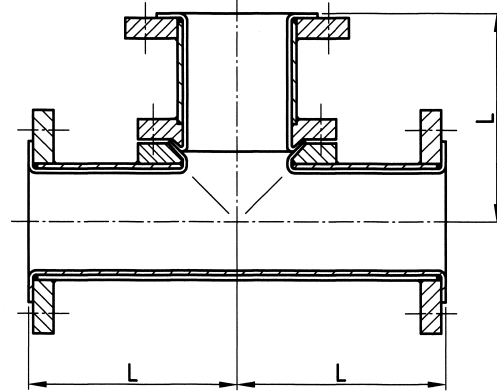
As an alternative, PFA-lined tees are available as shown on drawing B. PFA is a tetrafluorethylene-based copolymer with chemical and thermal properties comparable to those of PTFE. Fixed flanges are supplied as standard. Loose flanges are, however, also available on request.

## Lined tees

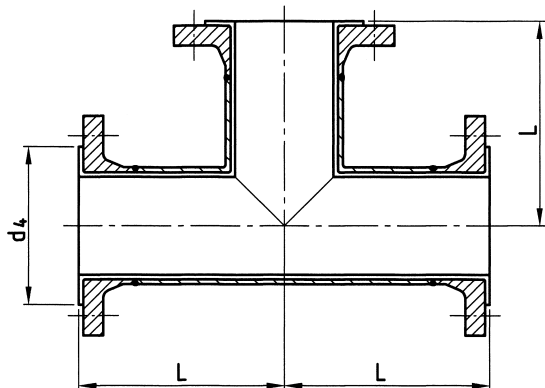
DN	L	Weight	
		PTFE [approx. lb]	PFA [approx. lb]
[in]	[in]		
1	3.5	16.5	11.0
1 ¼	3.75	16.5	14.3
1 ½	0.5	24.2	18.7
2	4.5	37.4	28.6
2 ½	5.0	39.6	38.5
3	5.5	57.2	61.6
4	6.5	88.0	103.4
5	7.5	99.0	
6	8.0	138.6	
8	9.0	235.4	
10	11.0	336.6	
12	12.0	473.0	
14	14.0	646.8	
16	15.0	792.0	
18	16.5	1001.0	
20	18.0	1254.0	

Subject to technical changes.

Steel pipe dimensions, lining wall thicknesses and flange diameters correspond to the standard dimensions.



↑ PTFE lined T-pieces (Drawing A)



↑ PFA lined T-pieces (Drawing B)

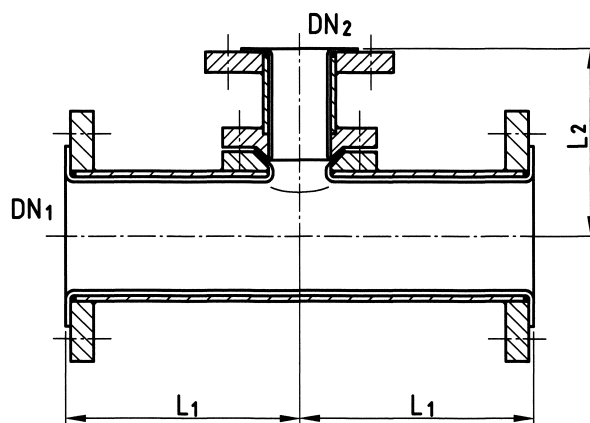


### Lined reducing tees

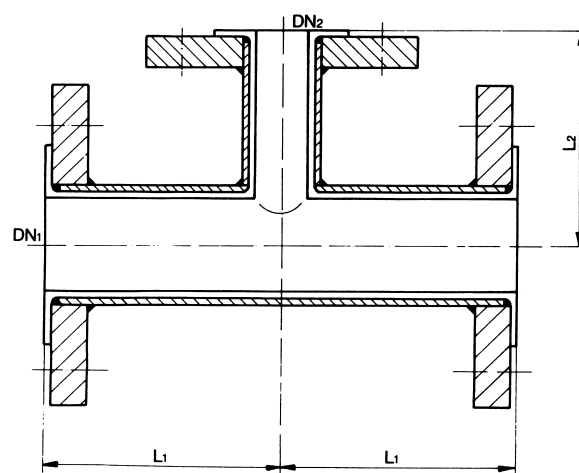
DN 1	DN 2	L 1	L 2	Weight	
[in]	[in]	[in]	[in]	PTFE lining [approx. lb]	PFA lining [approx. lb]
1 ¼	1	3.75	3.75	11.7	9.2
	1	4.0	4.0	1388.2	11.4
2	1 ½	4.5	4.5	21.3	19.1
	1	4.5	4.5	17.4	18.5
2 ½	2	5.0	5.0	33.0	23.1
	1 ½	5.0	5.0	30.8	20.9
3	2	5.5	5.5	39.6	41.8
	1 ½	5.5	5.5	35.2	39.6
	1	5.5	5.5	30.8	37.4
4	3	6.5	6.5	59.4	74.8
	2	6.5	6.5	50.6	68.2
	1	6.5	6.5	44.0	63.8
5	4	7.5	7.5	79.2	
	3	7.5	7.5	70.4	
6	4	8.0	8.0	94.6	
	3	8.0	8.0	85.8	
8	6	9.0	9.0	149.6	
	4	9.0	9.0	134.2	
10	8	11.0	11.0	231.0	
	6	11.0	11.0	206.8	
12	10	12.0	12.0	332.2	
	8	12.0	12.0	301.4	
	6	12.0	12.0	275.0	
14	12	14.0	14.0	442.2	
	10	14.0	14.0	404.8	
	8	14.0	14.0	376.2	
16	14	15.0	15.0	587.4	
	12	15.0	15.0	536.8	
	10	15.0	15.0	501.6	
18	16	16.5	16.5	682.0	
	14	16.5	16.5	631.4	
	12	16.5	16.5	578.6	
20	16	18.0	18.0	818.4	
	14	18.0	18.0	763.4	
	12	18.0	18.0	710.6	

Subject to technical changes.

All reducing tees are available with fixed flanges as standard. Loose flanges can also be supplied on request. PFA lined variants are also available up to 4 inch diam. Intermediate sizes and special dimensions are supplied on request. Dimensions meet ANSI B 16.5.



↑ PTFE lined reducing T-piece



↑ PFA lined reducing T-piece

# POLYFLURON® PTFE and PFA lined crosses and lined reducing crosses

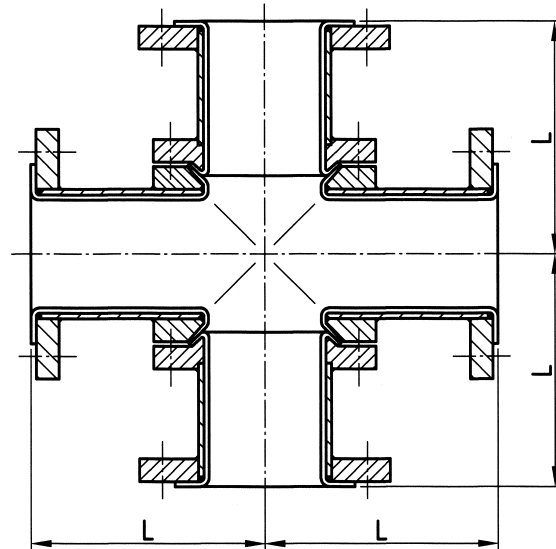
All crosses are available with fixed flanges as standard. Loose flanges can also be supplied on request. PFA lined variants are also available up to 4 inch diam. Dimensions meet ANSI B 16.5.

## Lined crosses

DN	L	Weight	
		PTFE [approx. lb]	PFA [approx. lb]
1	3.5	19.8	11.0
1 ¼	3.75	19.8	14.3
1 ½	4.0	26.4	18.7
2	4.5	39.6	28.6
2 ½	5.0	57.2	38.5
3	5.5	68.2	61.6
4	6.5	99.0	103.4
5	7.5	151.8	
6	8.0	156.2	
8	9.0	253.0	
10	11.0	376.2	
12	12.0	517.0	
14	14.0	708.4	
16	15.0	919.6	
18	16.5	1012.0	
20	18.0	1243.0	

Subject to technical changes.

Steel pipe dimensions, lining wall thicknesses and flange diameters correspond to the standard dimensions.



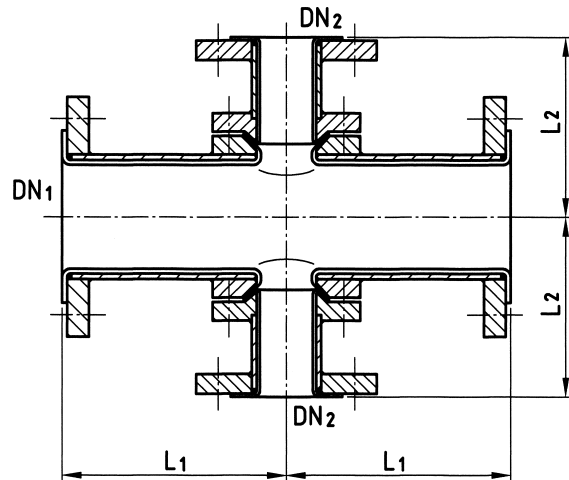
↑ PTFE lined cross

### Lined reducing crosses

DN 1	DN 2	L 1	L 2	Weight	
[in]	[in]	[in]	[in]	PTFE [approx. lb]	PFA [approx. lb]
1 ¼	1	3.75	3.75	18.7	9.9
1 ½	1	4.0	4.0	20.5	11.4
2	1 ½	4.5	4.5	30.8	19.1
	1	4.5	4.5	24.2	18.5
2 ½	2	5.0	5.0	39.6	26.4
	1 ½	5.0	5.0	35.2	24.2
3	2	5.5	5.5	48.4	41.8
	1 ½	5.5	5.5	41.8	39.6
	1	5.5	5.5	35.2	37.4
4	3	6.5	6.5	68.2	74.8
	2	6.5	6.5	57.2	68.2
	1	6.5	6.5	48.4	63.8
5	4	7.5	7.5	92.4	
	3	7.5	7.5	72.6	
6	4	8.0	8.0	107.8	
	3	8.0	8.0	94.6	
8	6	9.0	9.0	167.2	
	4	9.0	9.0	136.4	
10	8	11.0	11.0	363.0	
	6	11.0	11.0	237.6	
12	10	12.0	12.0	411.4	
	8	12.0	12.0	363.0	
	6	12.0	12.0	312.4	
14	12	14.0	14.0	569.8	
	10	14.0	14.0	508.2	
	8	14.0	14.0	466.4	
16	14	15.0	15.0	710.6	
	12	15.0	15.0	633.6	
	10	15.0	15.0	574.2	
18	16	16.5	16.5	913.0	
	14	16.5	16.5	838.2	
	12	16.5	16.5	763.4	
20	16	18.0	18.0	1009.8	
	14	18.0	18.0	917.4	
	12	18.0	18.0	781.0	

Subject to technical changes.

All crosses are available with fixed flanges as standard. Loose flanges can also be supplied on request. Dimensions meet ANSI B 16.5.



↑ PTFE lined reducing cross

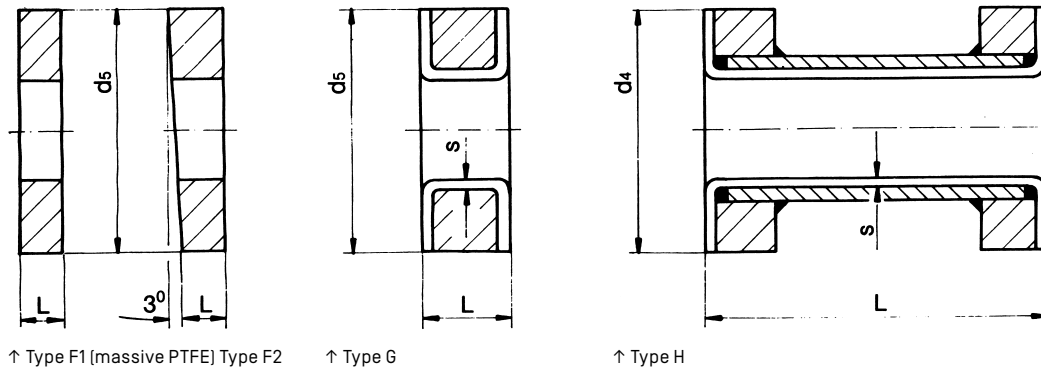
Steel pipe dimensions, lining wall thicknesses and flange diameters correspond to the standard dimensions.

# POLYFLURON®

## PTFE and PTFE lined spacers

Spacers are used to compensate for deviations in the assembly of pipe systems. Depending on their size, they can be manufactured either from massive PTFE or PTFE lined steel. The different designs are named Type F, G and H.

Their specific designs are shown in the illustrations below. Please refer to the table below and on the opposite page for dimensional details of the three spacer types. Nominal diameters of 1¼ inch, 2½ inch and 5 inch are also available.



### Lined spacers

DN1	Length of			PTFE		Weight		
[in]	Type F1/2* [in]	Type G [in]	Type H [in]	s [in]	d4 [in]	d5 [in]	[approx. lb]	
1	0.5					2.5	0.2	
			1.0		0.12		2.5	1.1
			2.0		0.12		2.5	2.6
				3.0	0.12	2.0		1.5
1 ½	0.5					3.2	0.2	
			1.0		0.12		3.2	2.2
			2.0		0.12		3.2	4.0
				3.0	0.12	2.9		2.4
2	0.5					4.0	0.2	
			1.0		0.12		4.0	3.1
			2.0		0.12		4.0	5.1
				3.0	0.12	0.4		3.5
3	0.5					5.2	0.4	
			1.0		0.14		5.2	4.6
			2.0		0.14		5.2	7.9
				3.0	0.14	5.0		6.2
4	0.5					5.2	7.9	
				4.0	0.14	5.0		6.6
			1.0		0.18		6.8	0.4
			2.0		0.18		6.8	5.5
		3.0	0.18	6.2		6.8	11.0	
		4.0	0.18	6.2			7.7	
							8.4	

\* please state F1 or F2.

Subject to technical changes.

## Lined spacers

DN1 [in]	Length of				PTFE		Weight [approx. lb]	
	Type F1/2* [in]	Type G [in]	Type H [in]	s [in]	d4 [in]	d5 [in]		
6	0.5					8.6	0.9	
			1.0		0.20		8.6	8.6
			2.0		0.20		8.6	15.8
				3.0	0.20	8.5		13.2
				4.0	0.20	8.5		14.3
8	0.5				0.00		10.9	1.3
			1.0		0.20		10.9	11.7
			2.0		0.20		10.9	24.2
				3.0	0.20	10.6		33.0
				4.0	0.20	10.6		21.6
10		1.0		0.20		13.3	15.4	
		2.0		0.20		13.3	28.6	
		3.0		0.20		13.3	39.6	
			4.0	0.20	12.8		28.6	
12		1.0		0.22		16.0	18.0	
		2.0		0.22		16.0	33.0	
		3.0		0.22		16.0	46.2	
			4.0	0.22	15.0		35.2	
14		1.0		0.22		17.6	30.8	
		2.0		0.22		17.6	61.6	
		3.0		0.22		17.6	92.4	
			4.0	0.22	16.3		48.4	
16		1.0		0.22		20.1	39.6	
		2.0		0.22		20.1	79.2	
		3.0		0.22		20.1	118.8	
			4.0	0.22	18.5		59.4	
18		1.0		0.22		21.5	41.8	
		2.0		0.22		21.5	85.8	
		3.0		0.22		21.5	129.8	
			4.0	0.22	21.0		74.8	
20		1.0		0.24		23.7	46.2	
		2.0		0.24		23.7	92.4	
		3.0		0.24		23.7	140.8	
			4.0	0.24	23.0		83.6	
24		1.0		0.24		28.1	46.2	
		2.0		0.24		28.1	88.0	
		3.0		0.24		28.1	143.0	

\* please state F1 or F2.

Subject to technical changes.

# POLYFLURON®

## PTFE and PFA lined instrument tees

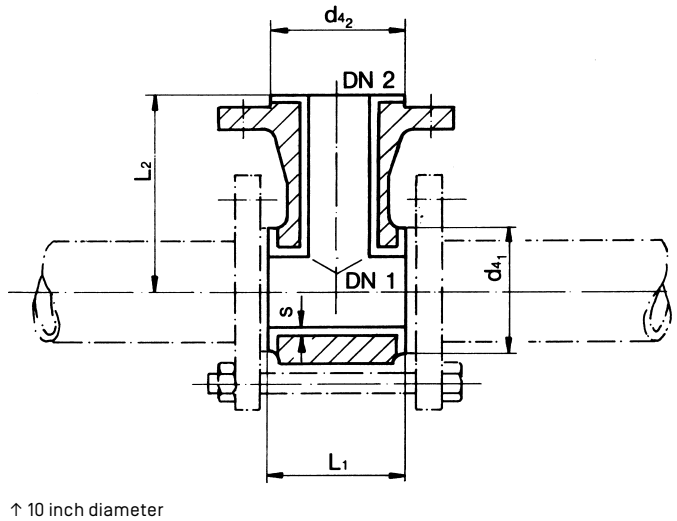
Instrument tees are used to connect manometers or thermometers, and also for sampling.

Instrument tees up to 10 inch diam. are supplied with a PFA lining. PFA is a tetrafluorethylene-based copolymer with chemical and thermal properties comparable to those of PTFE.

### PFA lined instrument tees

DN 1 [in]	DN 2 [in]	L 1 [mm]	L 2 [mm]	Weight [approx. lb]
1	1	50	89	4.2
1 ¼	1	50	95	6.2
1 ½	1 ½	75	102	9.7
	1	50	102	0.9
2	2	90	114	17.8
	1 ½	75	114	13.6
	1	50	114	7.0
2 ½	2	90	127	24.2
	1 ½	75	127	19.8
	1	50	127	11.0
3	2	90	140	30.8
	1 ½	75	140	18.3
	1	50	140	9.5
4	2	90	165	38.5
	1 ½	75	165	22.0
	1	50	165	12.1
5	2	90	190	48.4
	1 ½	75	190	30.8
	1	50	190	19.8
6	2	90	203	52.8
	1 ½	75	203	33.0
	1	50	203	16.9
8	2	90	229	57.2
	1 ½	75	229	39.6
	1	50	229	24.2
10	2	90	279	61.6
	1 ½	75	279	52.8
	1	50	279	33.0

Subject to technical changes.

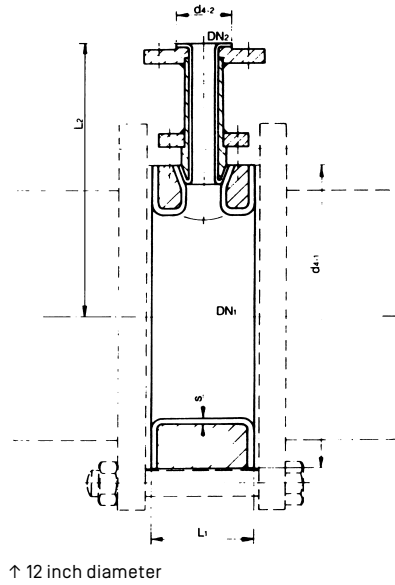


Products of 12 inch diam. or above are available in POLYFLURON  
PTFE lined steel (see table and drawings below).  
Dimensions meet ASME B 16.5.

### PTFE lined instrument tees

DN 1	DN 2	L 1	L 2	Weight
[in]	[in]	[mm]	[mm]	[approx. lb]
12	2	120	330	66.0
	1 ½	105	330	63.8
	1	90	330	59.4
14	2	120	360	96.8
	1 ½	105	360	94.6
	1	90	360	92.4
16	2	120	390	112.2
	1 ½	105	390	107.8
	1	90	390	105.6
18	2	120	430	127.6
	1 ½	105	430	125.4
	1	90	430	123.2
20	2	120	450	145.2
	1 ½	105	450	143.0
	1	90	450	140.8

Subject to technical changes.



# POLYFLURON® PTFE lined reducers and lined reducing flanges

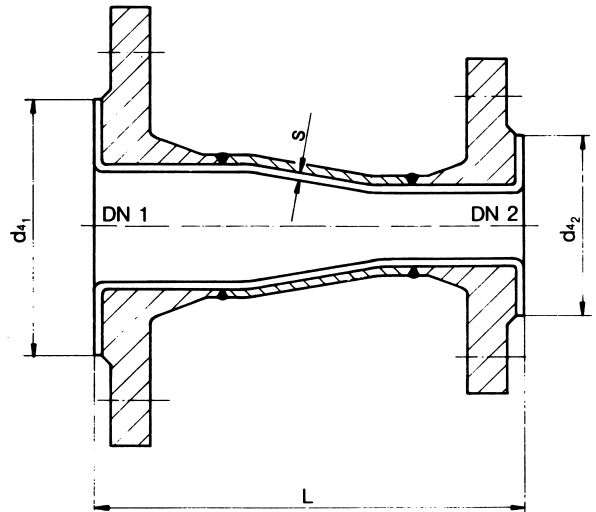
Reducers are used to reduce/enlarge the pipe diameters in order to improve liquid flow. Eccentric reducers often

allow better emptying of pipe systems. Dimensions meet ANSI B 16.5.

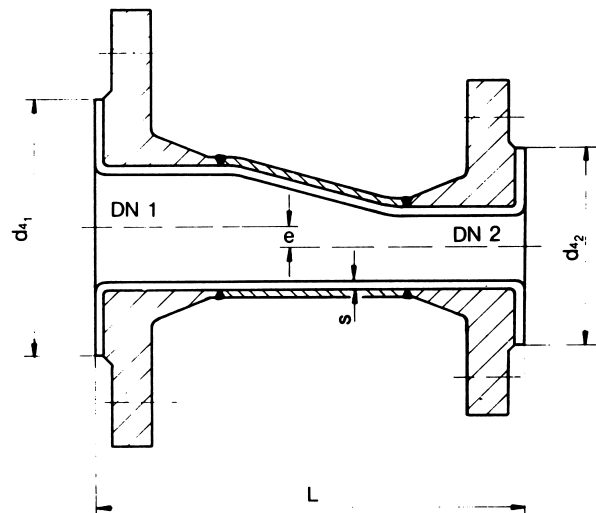
## Lined reducers

DN 1	DN 2	L	Lining	Weight
[in]	[in]	[in]	<sup>s</sup> [in]	[approx. lb]
1	¾	4.5	0.12	5.3
1 ½	1	4.5	0.12	7.5
2	1	5.0	0.12*	9.9
	1 ½	5.0	0.12	11.4
3	1	6.0	0.14*	14.7
	1 ½	6.0	0.14*	16.5
	2	6.0	0.14	15.2
4	2 ½	6.0	0.16	16.5
	2	7.0	0.18*	21.8
	2 ½	7.0	0.18	23.3
6	3	7.0	0.18	28.6
	4	9.0	0.20*	44.0
	6	9.0	0.20	48.4
8	4	11.0	0.20*	68.2
	6	11.0	0.20	77.0
10	6	12.0	0.20	99.0
	8	12.0	0.20	114.4
12	6	14.0	0.22**	136.4
	8	14.0	0.22	151.8
	10	14.0	0.22	167.2
14	8	16.0	0.22**	154.0
	10	16.0	0.22**	200.2
	12	16.0	0.22	231.0
16	10	18.0	0.22**	215.6
	12	18.0	0.22**	253.0
	14	18.0	0.22	275.0
18	12	19.0	0.22**	297.0
	14	19.0	0.22**	327.8
20	16	19.0	0.22	352.0
	14	20.0	0.22**	369.6
	16	20.0	0.22**	396.0
	18	20.0	0.22	418.0

\* isostatic PTFE or PFA lining.  
 \*\* two-part paste-extruded PTFE lining.  
 Subject to technical changes.



↑ Type K



↑ Type E

Single-part paste-extruded PTFE lining

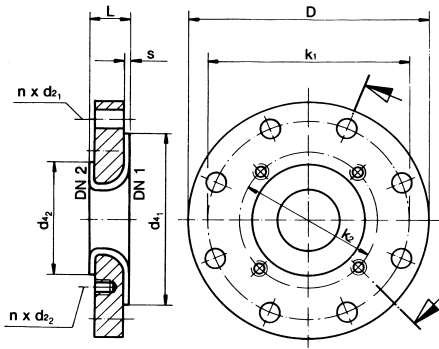


Reducing flanges are provided with holes as shown below (smaller diameter flanges are always threaded):

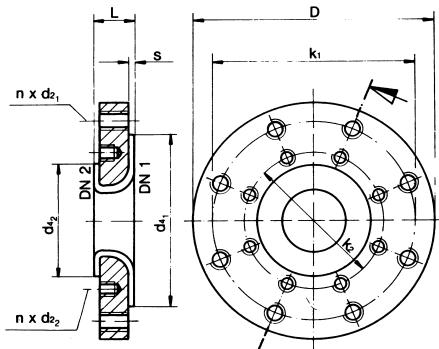
Type A: With clearance holes for larger nominal diameters  
 Type B: With threaded holes for both nominal diameters

Type C: With threaded holes, holes on small diameter side are not straddled

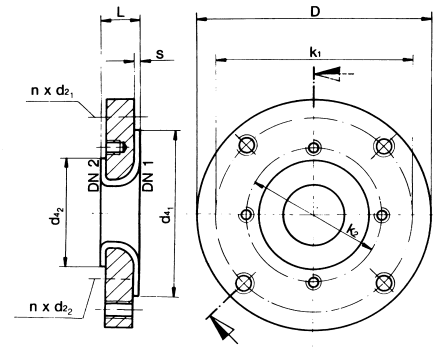
Connections to diameters of 1 1/4 inch, 2 1/2 inch and 5 inch, as well as larger dimensions and diameter combinations not stated here, can also be supplied on request.



↑ Type A



↑ Type B



↑ Type C

**Lined reducing flanges**

DN1	DN2	L	PTFE				Metal		Weight	Type		
			s	d4 - 1	d4 - 2	D	k1	n x d2 - 1			k2	n x d2 - 2
[in]	[in]	[mm]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[approx. lb]	
1	3/4	25	0.12	2.0	1.7	4.3	3.1	4 x 1/2 UNC	2.7	4 x 1/2 UNC	3.3	C
1 1/2	1	25	0.12	2.9	2.0	5.0	3.9	4 x 1/2 UNC	3.1	4 x 1/2 UNC	4.2	C
2	1	25	0.12	3.6	2.0	6.0	4.7	4 x 5/8 UNC	3.1	4 x 1/2 UNC	6.4	B
2	1 1/2	25	0.12	3.6	2.9	6.0	4.7	4 x 5/8 UNC	3.9	4 x 1/2 UNC	5.9	C
3	1	30	0.16	5.0	2.0	7.5	6.0	4 x Ø 3/4	4.7	4 x 5/8 UNC	12.1	A
3	1 1/2	30	0.16	5.0	2.9	7.5	6.0	4 x 5/8 UNC	3.9	4 x 1/2 UNC	11.7	B
3	2	30	0.16	5.0	3.6	7.5	6.0	4 x 5/8 UNC	4.7	4 x 5/8 UNC	11.4	C
4	1	30	0.12	6.2	2.0	9.0	7.5	8 x Ø 3/4	3.1	4 x 1/2 UNC	17.6	A
4	1 1/2	30	0.16	6.2	2.9	9.0	7.5	8 x Ø 3/4	3.9	4 x 1/2 UNC	17.2	A
4	2	30	0.16	6.2	3.6	9.0	7.5	8 x Ø 3/4	4.7	4 x 5/8 UNC	16.7	A
4	3	30	0.20	6.2	5.0	9.0	7.5	8 x 5/8 UNC	6.0	4 x 5/8 UNC	14.5	B
6	1	35	0.12	8.5	2.0	11.0	9.5	8 x Ø 7/8	3.1	4 x 1/2 UNC	26.4	A
6	1 1/2	35	0.16	8.5	2.9	11.0	9.5	8 x Ø 7/8	3.9	4 x 1/2 UNC	28.6	A
6	2	35	0.16	8.5	3.6	11.0	9.5	8 x Ø 7/8	4.7	4 x 5/8 UNC	28.6	A
6	3	35	0.20	8.5	5.0	11.0	9.5	8 x Ø 7/8	6.0	4 x 5/8 UNC	26.4	A
6	4	35	0.20	8.5	6.2	11.0	9.5	8 x 3/4 UNC	7.5	8 x 5/8 UNC	24.2	B
8	2	35	0.16	10.6	3.6	13.5	11.7	8 x Ø 7/8	4.7	4 x 5/8 UNC	41.8	A
8	3	35	0.20	10.6	5.0	13.5	11.7	8 x Ø 7/8	6.0	4 x 5/8 UNC	39.6	A
8	4	35	0.20	10.6	6.2	13.5	11.7	8 x Ø 7/8	7.5	8 x 5/8 UNC	37.4	A
8	6	35	0.20	10.6	8.5	13.5	11.7	8 x 3/4 UNC	9.5	8 x 3/4 UNC	33.0	B
10	2	35	0.20	12.8	3.6	16.0	14.2	12 x Ø 1	4.8	4 x 5/8 UNC	59.4	A

Subject to technical changes.

## Lined reducing flanges

DN1	DN 2	L	PTFE					Metal	Weight	Type		
			s	d4 - 1	d4 - 2	D	k1				n x d2 - 1	k2
[in]	[in]	[mm]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[approx. lb]	
10	3	1.4	0.20	12.8	5.0	16.0	14.2	12 x Ø 1	6.0	4 x 5/8 UNC	57.2	A
10	4	1.4	0.20	12.8	6.2	16.0	14.2	12 x Ø 1	7.5	8 x 5/8 UNC	55.0	A
10	6	1.4	0.20	12.8	8.5	16.0	14.2	12 x Ø 1	9.5	8 x 3/4 UNC	50.6	A
10	8	1.4	0.20	12.8	10.6	16.0	14.2	12 x 7/8 UNC	11.7	8 x 3/4 UNC	44.0	B
12	2	1.6	0.20	15.0	3.6	19.0	17.0	12 x Ø 1	4.7	4 x 5/8 UNC	101.2	A
12	3	1.6	0.20	15.0	5.0	19.0	17.0	12 x Ø 1	6.0	4 x 5/8 UNC	99.0	A
12	4	1.6	0.20	15.0	6.2	19.0	17.0	12 x Ø 1	7.5	8 x 5/8 UNC	96.8	A
12	6	1.6	0.20	15.0	8.5	19.0	17.0	12 x Ø 1	9.5	8 x 3/4 UNC	90.2	A
12	8	1.6	0.20	15.0	10.6	19.0	17.0	12 x Ø 1	11.7	8 x 3/4 UNC	83.6	A
12	10	1.6	0.20	15.0	12.8	19.0	17.0	12 x 7/8 UNC	14.2	12 x 7/8 UNC	72.6	B
14	4	1.6	0.20	16.3	6.2	21.0	18.7	12 x Ø 1 1/8	7.5	8 x 5/8 UNC	118.8	A
14	6	1.6	0.20	16.3	8.5	21.0	18.7	12 x Ø 1 1/8	9.5	8 x 3/4 UNC	112.2	A
14	8	1.6	0.20	16.3	10.6	21.0	18.7	12 x Ø 1 1/8	11.7	8 x 3/4 UNC	105.6	A
14	10	1.6	0.20	16.3	12.8	21.0	18.7	12 x Ø 1 1/8	14.2	12 x 7/8 UNC	94.6	A
14	12	1.6	0.20	16.3	15.0	21.0	18.7	12 x 1 UNC	17.0	12 x 7/8 UNC	81.4	C
16	6	1.8	0.20	18.5	8.5	23.5	21.2	16 x Ø 1 1/8	9.5	8 x 3/4 UNC	158.4	A
16	8	1.8	0.20	18.5	10.6	23.5	21.2	16 x Ø 1 1/8	11.7	8 x 3/4 UNC	149.6	A
16	10	1.8	0.20	18.5	12.8	23.5	21.2	16 x Ø 1 1/8	14.2	12 x 7/8 UNC	138.6	A
16	12	1.8	0.20	18.5	15.0	23.5	21.2	16 x Ø 1 1/8	17.0	12 x 7/8 UNC	125.4	A
16	14	1.8	0.20	18.5	16.3	23.5	21.2	16 x 1 UNC	18.7	12 x 1 UNC	114.4	B
18	8	1.8	0.20	21.0	10.6	25.0	22.7	16 x Ø 1 1/4	11.7	8 x 3/4 UNC	176.0	A
18	10	1.8	0.20	21.0	12.8	25.0	22.7	16 x Ø 1 1/4	14.2	12 x 7/8 UNC	162.8	A
18	12	1.8	0.20	21.0	15.0	25.0	22.7	16 x Ø 1 1/4	17.0	12 x 7/8 UNC	151.8	A
18	14	1.8	0.20	21.0	16.3	25.0	22.7	16 x 1 1/8 8UN	18.7	12 x 1 UNC	140.8	B
18	16	1.8	0.20	21.0	18.5	25.0	22.7	16 x 1 1/8 8UN	21.2	16 x 1 UNC	123.2	C
20	10	1.8	0.20	23.0	12.8	27.5	25.0	20 x Ø 1 1/4	14.2	12 x 7/8 UNC	204.6	A
20	12	1.8	0.20	23.0	15.0	27.5	25.0	20 x Ø 1 1/4	17.0	12 x 7/8 UNC	191.4	A
20	14	1.8	0.20	23.0	16.3	27.5	25.0	20 x Ø 1 1/4	18.7	12 x 1 UNC	182.6	A
20	16	1.8	0.20	23.0	18.5	27.5	25.0	20 x 1 1/8 8UN	21.2	16 x 1 UNC	165.0	B
24	12	2.0	0.20	27.2	15.0	32.0	29.5	20 x Ø 1 1/8	17.0	12 x 7/8 UNC	297.0	A
24	14	2.0	0.20	27.2	16.3	32.0	29.5	20 x Ø 1 1/8	18.7	12 x 1 UNC	281.6	A
24	16	2.0	0.20	27.2	18.5	32.0	29.5	20 x Ø 1 1/8	21.2	16 x 1 UNC	264.0	A
24	18	2.0	0.20	27.2	21.0	32.0	29.5	20 x Ø 1 1/8	22.7	16 x 1 1/8 8NC	242.0	A

Subject to technical changes.

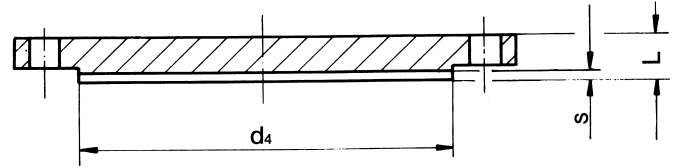
# POLYFLURON® PTFE lined blind flanges

The POLYFLURON PTFE lining is fixed to the steel surface to prevent it from separating during transport and assembly. Sealing surfaces meet ANSI B16.5.

## Lined blind flanges

DN	L	PTFE	Weight
[in]	[mm]	<sup>s</sup> [in]	[approx. lb]
1	17	0.12	2.0
1 ¼	19	0.12	2.9
1 ½	21	0.12	4.0
2	22	0.12	5.1
2 ½	25	0.12	7.0
3	27	0.12	9.0
4	27	0.12	16.9
5	28	0.16	20.2
6	29	0.16	26.4
8	33	0.16	46.2
10	35	0.20	70.4
12	37	0.20	112.2
14	40	0.20	143.0
16	42	0.20	182.6
18	45	0.20	209.0
20	48	0.20	224.4
24	53	0.20	290.4

Subject to technical changes.





**Graphite Materials & Systems | SGL CARBON GmbH**  
Sales Europe/Middle East/Africa | [pt-europe@sglcarbon.com](mailto:pt-europe@sglcarbon.com)  
Sales Americas | [pt-americas@sglcarbon.com](mailto:pt-americas@sglcarbon.com)  
Sales Asia/Pacific | [pt-asia@sglcarbon.com](mailto:pt-asia@sglcarbon.com)  
[www.sglprocesstechnology.com](http://www.sglprocesstechnology.com)

#### **TIS Lined Pipe\_US.00**

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