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# Lined and fitted pipes



Process developments in the chemical, petrochemical, pharmaceutical, food and oil industries require equipment capable of withstanding the most aggressive corrosive influences. The use of PTFE/PFA for protecting pipework installations is now well established with a proven history.

Krane offer a comprehensive range of pipes and fittings.

Temperature range -50°C to +200°C.

## Lined steel products

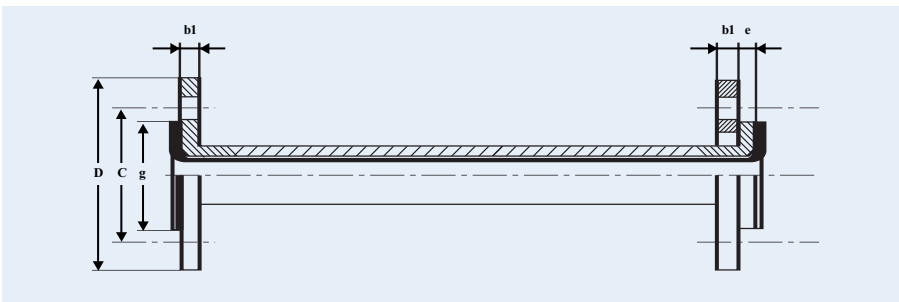
Straight Pipe, Elbows -30°, 45°, 60°, 90°, Equal Tees, Reducing Tees, Crosses, Reducers, Reducing Flanges, Blank Flanges, Spacers, Instrument Tees, Bellows, Dip Pipes, Valves, Sight Glasses, Tanks and Vessels.

The complete range of Krane lined pipework and fittings can be manufactured to suit any existing systems in your plant.

Krane specifications allow for all types of steel and all standards of flanges including ASA, British Standard, DIN, etc.

Pipe linings can be standard or vacuum type.

Emergency service - PTFE lined spools for urgent requirements can normally be supplied within a few days.

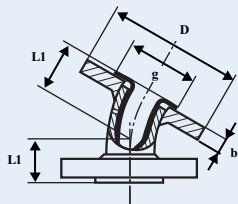


Nominal Diameter		Approximate Weight (kg)		Flanges				Boring		Bolts Ø mm	g mm
mm	in	1m with 2 flanges	Per added metre	D mm	b1 mm	b2 mm	e mm	C mm	Number x Ø mm		
25	1	5	2	108	15	16	12	80	4 x 16	12	51
40	1.5	7	4	127	18	16	12	98	4 x 16	12	73
50	2	10	5	152	20	18	14	121	4 x 20	16	92
80	3	16	8	191	24	18	16	152	4 x 20	16	127
100	4	21	12	229	24	18	16	191	8 x 20	16	157
150	6	36	21	279	25	18	18	241	8 x 23	20	216
200	8	55	34	343	29	20	20	298	8 x 23	20	270
250	10	75	47	406	31	24	22	362	12 x 26	22	324
300	12	102	61	483	32	28	24	432	12 x 26	22	381

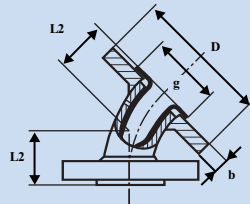
Larger diameters on request

Nominal Diameter		Approximate Weight						L	L1	L2	L3	L4	b	g
mm	in	T	X	30°	45°	60°	90°	mm +2mm	mm +2mm	mm +2mm	mm +2mm	mm +2mm	mm	mm
25	1	5	6	2	2	2	3	178	37	44	54	89	15	51
40	1.5	9	12	4	5	5	5	204	43	57	68	102	18	73
50	2	13	17	6	6	6	7	228	49	64	85	114	20	92
80	3	21	27	9	10	10	11	280	58	76	96	140	24	127
100	4	27	35	10	11	12	12	330	63	102	125	165	24	157
150	6	47	63	16	17	19	21	406	74	127	140	203	26	216
200	8	65	87	27	29	32	39	458	88	140	185	229	29	270
250	10	130	174	37	32	48	57	558	148	165	246	279	31	324
300	12	165	220	44	54	57	78	610	162	276	298	305	32	381

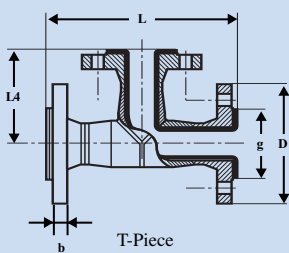
Non standard items available on request



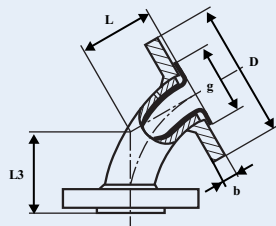
30° Elbow



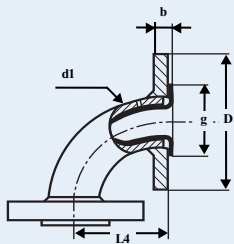
45° Elbow



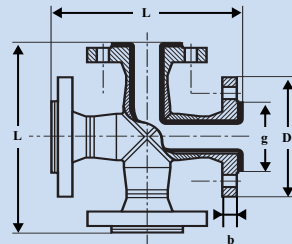
T-Piece



60° Elbow



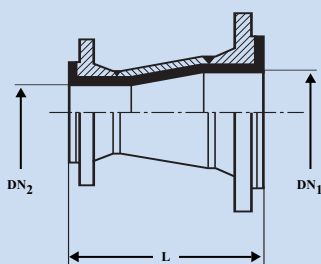
90° Elbow



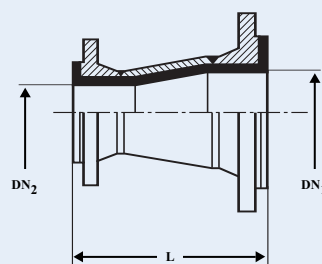
Cross Piece

DN 1 mm	DN 2 mm	DN 1 ins	DN 2 ins	L mm	Approx weight (Kg)
25	15	1"	0.5"	114	3
25	20	1"	0.75"	114	3
40	25	1.5"	1"	114	3
50	25	2"	1"	127	3
50	40	2"	1.5"	127	4
80	25	3"	1"	152	6
80	40	3"	1.5"	152	6
80	50	3"	2"	152	7
100	40	4"	1.5"	178	8
100	50	4"	2"	178	10
100	80	4"	3"	178	11
150	50	6"	2"	229	18
150	80	6"	3"	229	20
150	100	6"	4"	229	21
200	100	8"	4"	280	32
200	150	8"	6"	280	34
250	80	10"	3"	305	38
250	100	10"	4"	305	39
250	150	10"	6"	305	40
250	200	10"	8"	305	42
300	100	12"	4"	356	44
300	150	12"	6"	356	45
300	200	12"	8"	356	46
300	250	12"	10"	356	54

Concentric



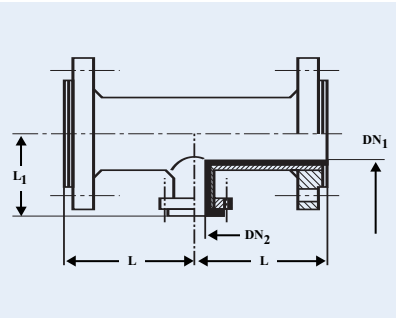
Eccentric



# Reducing Tees

DN 1 mm	DN 2 mm	DN 1 ins	DN 2 ins	L mm	L1 mm	Approx weight in kg
40	25	1.5"	1"	102	102	6
50	25	2"	1"	114	114	7
50	40	2"	1.5"	114	114	8
80	25	3"	1"	140	140	13
80	40	3"	1.5"	140	140	13
80	50	3"	2"	140	140	13
100	25	4"	1"	165	165	14
100	40	4"	1.5"	165	165	14
100	50	4"	2"	165	165	17
100	80	4"	3"	165	165	19
150	25	6"	1"	203	203	18
150	40	6"	1.5"	203	203	19
150	50	6"	2"	203	203	19
150	80	6"	3"	203	203	47
150	100	6"	4"	203	203	47
200	50	8"	2"	229	220	76
200	80	8"	3"	229	220	80
200	100	8"	4"	229	227	80
200	150	8"	6"	229	228	80
250	80	10"	3"	279	279	111
250	100	10"	4"	279	279	111
250	150	10"	6"	279	279	111
250	200	10"	8"	279	279	111
300	100	12"	4"	305	305	150
300	150	12"	6"	305	305	154
300	200	12"	8"	305	305	158
300	250	12"	10"	305	305	160

Non standard items available on request

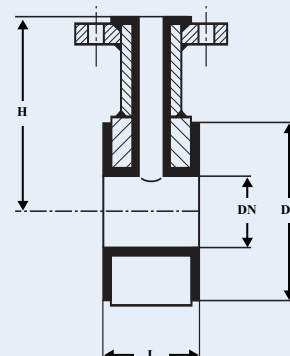


# Instrument Tees

DN mm	DN ins	H	L	D4	Approx weight in kg
25	1"	89	50	49	3
40	1.5"	102	50	71	3
50	2"	114	50	89	3
80	3"	140	50	124	5
100	4"	165	50	155	6
150	6"	203	50	212	8
200	8"	229	50	266	9
250	10"	279	50	318	14
300	12"	305	50	375	20

Non standard items available on request

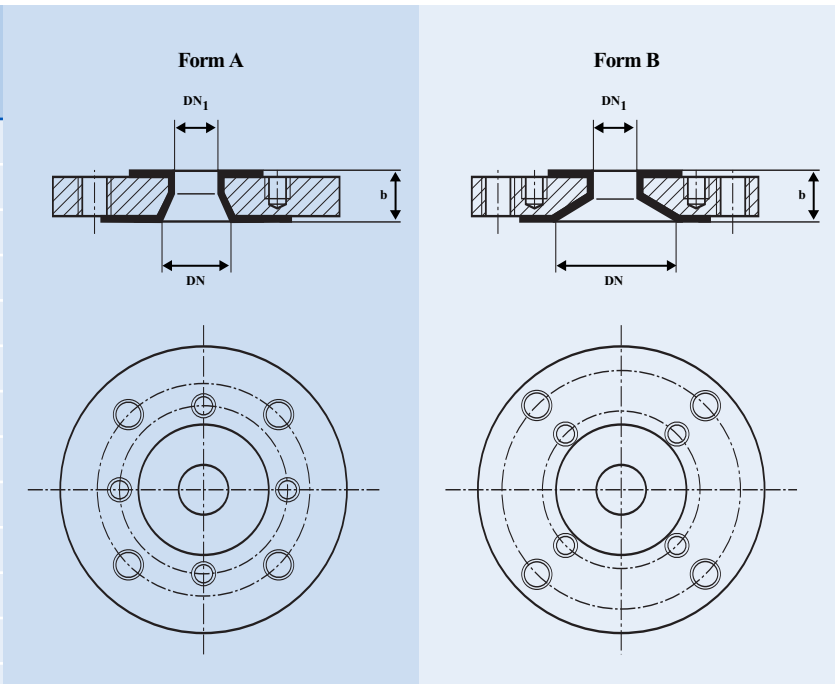
Dimensions for 25mm Branch.  
Other Branch diameters also available.



# Reducing Flanges

DN mm	DN 1 mm	DN ins	DN 1 ins	b mm	Approx weight in kg
25	15	1"	0.5"	25	1
25	20	1"	0.75"	25	1
40	25	1.5"	1"	25	1
50	25	2"	1"	25	2
50	40	2"	1.5"	25	2
80	25	3"	1"	30	6
80	40	3"	1.5"	30	6
80	50	3"	2"	30	6
100	25	4"	1"	30	6
100	40	4"	1.5"	30	6
100	50	4"	2"	30	6
100	80	4"	3"	30	6
150	40	6"	1.5"	35	12
150	50	6"	2"	35	12
150	80	6"	3"	35	11
150	100	6"	4"	35	11
200	80	8"	3"	35	16
200	100	8"	4"	35	16
200	150	8"	6"	35	15
250	50	10"	2"	35	21
250	100	10"	4"	35	19
250	150	10"	6"	35	19
250	200	10"	8"	35	18
300	150	12"	6"	35	29
300	200	12"	8"	35	27
300	250	12"	10"	35	26

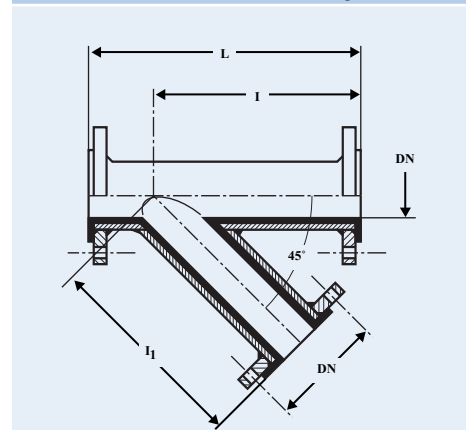
Holes and diameters in accordance with relevant flange standards. Some sizes for Form B not possible due to bolt hole orientation. Non standard items available on request



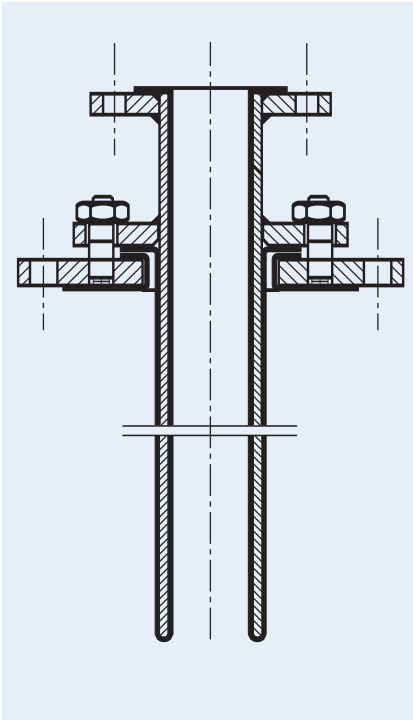
# Laterals

DN mm	DN ins	L mm	I mm	I1 mm	Approx weight in kg
25	1"	190	145	145	4
40	1.5"	229	179	179	7
50	2"	267	203	203	9
80	3"	330	254	254	18
100	4"	381	303	303	28
150	6"	457	368	368	55
200	8"	559	445	445	90
250	10"	Dimensions determined by design requirements			
300	12"	Dimensions determined by design requirements			

Non standard items available on request



# Dip Pipes

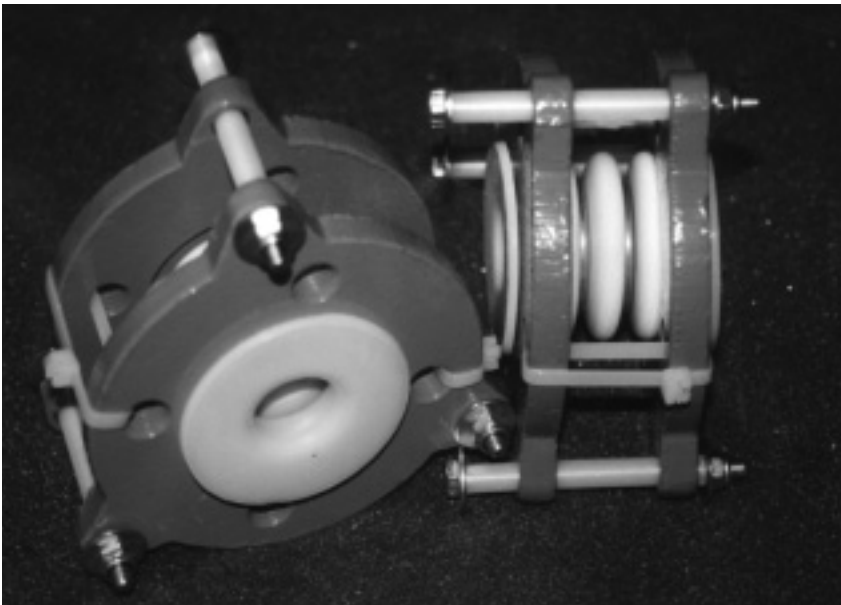


## Solid Plastic and Mild Steel lined Dip Pipes

Available in sizes from 1" diameter - 6" diameter (25mm - 150mm)

Can be manufactured to different configurations and to suit most specifications.

# PTFE Expansion Bellows



Bellows being connected parts, provide a flexible coupling that takes up relative movements and changes of position caused by starting up or by temperature and pressure variations during operation.

The PTFE bellows are made of pure PTFE by uniform moulding without deformation guaranteeing uniform thickness.

- Low Permiability
- High Vacuum Resistance
- High Pressure Resistance
- High Temperature Resistance
- Long Life
- High Safety
- High Flexibility
- Large Expansion

Standard Flanges ASA 150 or DIN, others on request.

# Solid fabrications of corrosion resistant plastics



## Range of Items

Sparge Pipes

Dip Pipes

Pipework - spools, elbows, equal tees, reducing tees, reducers, reducing flanges, blank and drilled flanges, instrument tees.

Filter Plates

Baffle plates

Tanks

Sliding Spectacle Spades

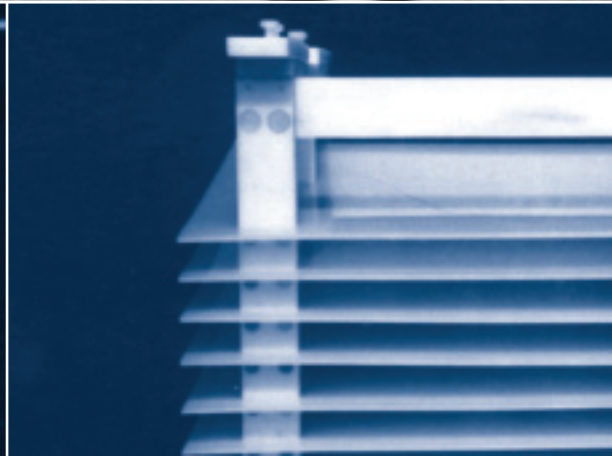
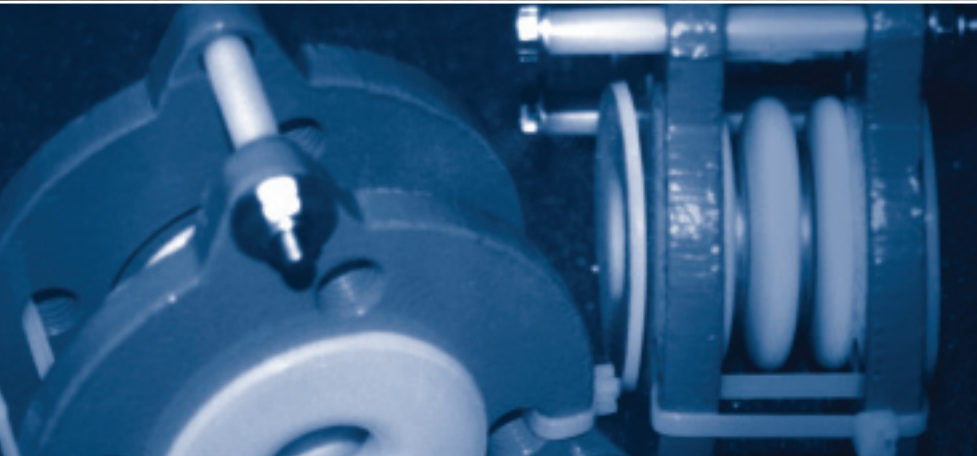
Special items

## Materials

		Temperature range
For guidance only		
<b>uPVC</b>	Unplasticised Polyvinyl Chloride	0°C to +60°C
<b>PP</b>	Polypropylene	0°C to 90°C
<b>PVDF</b>	Polyvinylidene fluoride	-50°C to +140°C
<b>Halar E-CTFE</b>	Ethylene - Chlorotrifluoroethylene	-50°C to 150°C
<b>FEP</b>	Fluorinated Ethylene Propylene	-50°C to 150/220°C
<b>PTFE</b>	Polytetrafluoroethylene	-50°C to 200°C

## Welding Standards

Our operatives are specially trained for working with all the materials listed below and are experienced in the relevant standards for carrying out the work.



Krane Engineering Ltd, Endeavour Close Industrial Estate, Port Talbot SA12 7PT  
Tel: 01639 892 893 Fax: 01639 891 800