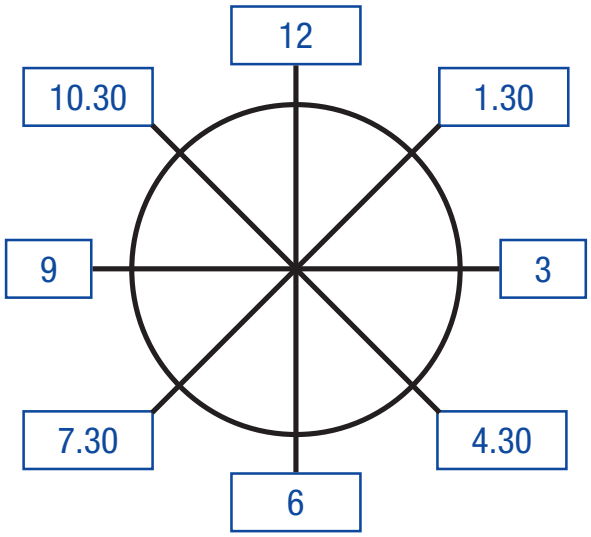
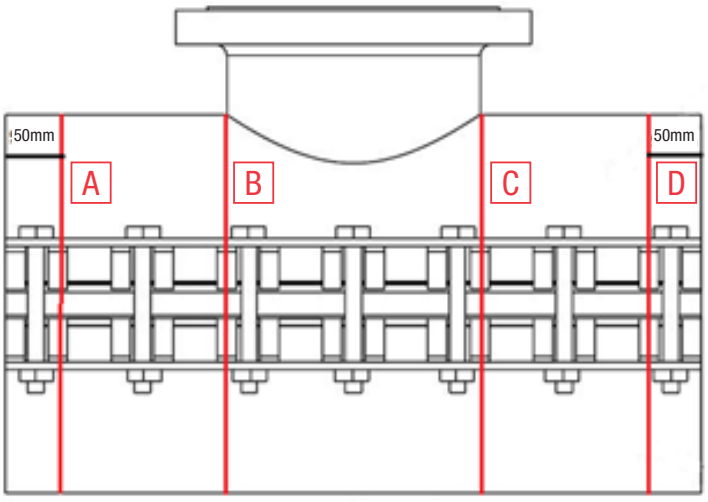
PIPE MEASURING FORM
FOR UNDER PRESSURE TEES

Available to download from the website on the relevant product pages

Customer		Email	
Contact		AVK Reference	
Mobile		Date	





It is important that calipering of the pipe diameter is done accurately and consistently to ensure that products supplied will fit correctly. Please use the following guidance to record and inform AVK UK of the measurements. *If a dimension cannot be measured accurately in the position defined below please mark the cell X in the table blank.*

Prior to calipering, ensure the pipe surface is thoroughly cleaned. Caliper the pipe diameter in 4 positions around the circumference and in four positions longitudinally according to the diagrams adjacent. Then measure the circumference in the same positions using a Pi tape. Record the information below and send to the appropriate AVK UK address detailed below.

Note: A tee length is typically a minimum of 3 times the branch diameter. Please check our website for accurate dimensions.

www.avkuk.co.uk

24/7 EMERGENCY LINE FOR GAS AND WATER FITTINGS 0800 202 8228

POSITION	A	B	C	D
12-6				
1.30-7.30				
3-9				
4.30-10.30				
Circumference				

REPAIR CLAMPS AND TEES
PIPE MATERIAL GUIDE

Pipe Material	Standard	
Asbestos Cement Pipe	BS 486	Specification for asbestos-cement pressure pipes and joints
Asbestos Cement Pipe	BS EN 512	Fibre-cement products. Pressure pipes and joints
ABS	BS 5391	Acrylonitrile-butadiene-styrene (ABS) pressure pipe specification
Cast Iron	BS 78	Specification for cast iron spigot and socket pipes (vertically cast) and spigot and socket fittings
Cast Iron	BS 1211	Specification for centrifugally cast (spun) iron pressure pipes for water, gas and sewage
Clay	BS EN 295	Vitrified clay pipe systems for drains and sewers
Ductile Iron	BS 4772	Specification for ductile iron pipes and fittings
Ductile Iron	BS EN 545	Ductile iron pipes, fittings, accessories and their joints for water pipelines. Requirements and test methods
Ductile Iron	BS EN 598	Ductile iron pipes, fittings, accessories and their joints for sewerage applications. Requirements and test methods
Ductile Iron	BS EN 969	Ductile iron pipes, fittings, accessories and their joints for gas pipelines. Requirements and test methods
GRP	BS 5480	Specification for glass reinforced plastics (GRP) pipes, joints and fittings for use for water supply or sewerage
GRP	BS EN 14364	Plastics piping systems for drainage and sewerage with or without pressure. Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP). Specifications for pipes, fittings and joints
Polyethylene (PE)	BS EN 12201	Plastics piping systems for water supply, and for drainage and sewerage under pressure. Polyethylene (PE)
PVC-U	BS 3505	Specification for unplasticized polyvinyl chloride (PVC-U) pressure pipes for cold potable water
PVC-U	BS EN ISO 1452	Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure. Unplasticized poly(vinyl chloride) (PVC U). Fittings
PVC-U	BS 3506	Specification for unplasticized PVC pipe for industrial uses
PVC-O	ISO 16422	Pipes and joints made of oriented unplasticized poly(vinyl chloride) (PVC-O) for the conveyance of water under pressure - Specifications
Metric PVC-U and PE	BS ISO 11922	Thermoplastics pipes for the conveyance of fluids. Dimensions and tolerances. Metric series
Steel	BS 1387	Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads
Steel	BS EN 10225	Non-alloy steel tubes suitable for welding and threading. Technical delivery conditions
Steel	ISO 4200	Plain end steel tubes, welded and seamless. General tables of dimensions and masses per unit length
Steel	BS EN10024	Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids. Technical delivery conditions
Steel	BS 4825-1 to 5	Stainless steel tubes and fittings for the food industry and other hygienic applications
Steel	BS 534	Specification for steel pipes, joints and specials for water and sewage
Steel	BS EN 10224	Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids
Steel	BS 3600	Specification for dimensions and masses per unit length of welded and seamless steel pipes and tubes for pressure purposes
Steel	BS EN 10220	Seamless and welded steel tubes. Dimensions and masses per unit length
Steel	BS 3601	Specification for carbon steel pipes and tubes with specified room temperature properties for pressure purposes
Steel	BS EN 10216	Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties
Steel	BS EN 10217	Welded steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties
Steel	BS 1600	Specification for dimensions of steel pipe for the petroleum industry

Note: Product information is correct at time of printing

FLANGE TABLE

Flange tables	Nominal bore	O/D of Flange		No of Bolts	Dia of Bolts		Dia of Holes		PC Dia of Holes	
		inch	mm		inch	mm	inch	mm	inch	mm
B.S.'D'	2"/50mm	6"	152	4	5/8"		3/4"	19	4.1/2"	113
B.S.'E'	2"/50mm	6"	152	4	5/8"		3/4"	19	4.1/2"	113
PN10	2"/50mm	6.1/2"	165	4		M16	3/4"	18	5"	125
PN16	2"/50mm	6.1/2"	165	4		M16	3/4"	18	5"	125
ANSI 150	2"/50mm	6"	152	4	5/8"		3/4"	19	4.3/4"	119
ANSI 300	2"/50mm	6.1/2"	165	8	5/8"		3/4"	19	5"	125
B.S.'D'	3"/80mm	7.1/4"	184	4	5/8"		3/4"	19	5.3/4"	144
B.S.'E'	3"/80mm	7.1/4"	184	4	5/8"		3/4"	19	5.3/4"	144
PN10	3"/80mm	7.7/8"	200	8		M16	3/4"	17	6.1/2"	159
PN16	3"/80mm	7.7/8"	200	8		M16	3/4"	18	6.1/2"	160
ANSI 150	3"/80mm	7.1/2"	191	4	5/8"		3/4"	19	6"	150
ANSI 300	3"/80mm	8.1/4"	210	8	3/4"		7/8"	22	6.5/8"	166
B.S.'D'	4"/100mm	8.1/2"	216	4	5/8"		3/4"	19	7"	175
B.S.'E'	4"/100mm	8.1/2"	216	8	5/8"		3/4"	19	7"	175
PN10	4"/100mm	8.4/5"	220	8		M16	3/4"	17	7"	179
PN16	4"/100mm	8.4/5"	220	8		M16	3/4"	18	7"	180
ANSI 150	4"/100mm	9"	229	8	5/8"		3/4"	19	7.1/2"	188
ANSI 300	4"/100mm	10"	254	8	3/4"		7/8"	22	7.7/8"	197
B.S.'D'	6"/150mm	11"	280	8	5/8"		3/4"	19	9.1/4"	231
B.S.'E'	6"/150mm	11"	280	8	3/4"		7/8"	22	9.1/4"	231
PN10	6"/150mm	11.2/5"	285	8		M20	7/8"	21	9.1/2"	239
PN16	6"/150mm	11.2/5"	285	8		M20	7/8"	22	9.1/2"	240
ANSI 150	6"/150mm	11"	279	8	3/4"		7/8"	22	9.1/2"	238
ANSI 300	6"/150mm	12.1/2"	318	12	3/4"		7/8"	22	10.5/8"	266
B.S.'D'	8"/200mm	13.1/4"	336	8	5/8"		3/4"	20	11.1/2"	288
B.S.'E'	8"/200mm	13.1/4"	336	8	3/4"		7/8"	22	11.1/2"	288
PN 10	8"/200mm	13.3/5"	340	8		M20	7/8"	21	11.1/2"	294
PN16	8"/200mm	13.3/5"	340	12		M20	7/8"	22	11.1/2"	295
ANSI 150	8"/200mm	13.1/2"	343	8	3/4"		7/8"	22	13.1/2"	338
ANSI 300	8"/200mm	15"	381	12	7/8"		1"	25	15"	375
B.S.'D'	10"/250mm	16"	406	8	3/4"		7/8"	22	14	350
B.S.'E'	10"/250mm	16"	406	12	3/4"		7/8"	22	14	350
PN 10	10"/250mm		395	12		M20	7/8"	22	14	350
PN16	10"/250mm	16.1/5"	405	12		M24	1"	26	14.1/4"	355
ANSI 150	10"/250mm	16"	406	12	7/8"		1.1/8"	25	14.1/4"	361
ANSI 300	10"/250mm	17.1/2"	445	16	1"		1.1/8"	28	15.1/4"	381
B.S.'D'	12"/300mm	18"	457	12	3/4"		7/8"	25	16"	400
B.S.'E'	12"/300mm	18"	457	12	7/8"		1"	26	16"	400
PN 10	12"/300mm		445	12		M20	7/8"	22	16"	400
PN16	12"/300mm	18.2/5"	460	12		M24	1"	26	16.1/2"	410
ANSI 150	12"/300mm	19"	483	12	3/4"		1"	25	17"	425
ANSI 300	12"/300mm	20.1/2"	521	16	1.1/8"		1.1/4"	31	17.3/4"	444
B.S.'D'	14"/350mm	20.3/4"	525	12	7/8"		1"	25	18.1/2"	463

Note: Product information is correct at time of printing

Flange tables	Nominal bore	O/D of Flange		No of Bolts	Dia of Bolts		Dia of Holes		PC Dia of Holes	
		inch	mm		inch	mm	inch	mm	inch	mm
B.S.'E'	14"/350mm	20.¾"	525	12	⅞"		1"	25	18.½"	463
PN 10	14"/350mm		505	16		M20	⅞"	22		460
PN16	14"/350mm	20.⅘"	520	16		M24	1"	26	18.½"	470
ANSI 150	14"/350mm	21"	533	12	1"		1.⅛"	28	18.¾"	469
ANSI 300	14"/350mm	23"	584	20	1.⅛"		1.¼"	31	20.¼"	506
B.S.'D'	16"/400mm	22.¾"	575	12	⅞"		1"	25	20.½"	513
B.S.'E'	16"/400mm	22.¾"	575	12	⅞"		1"	25	20.½"	513
PN10	16"/400mm		565	16		M24	1"	26	20.½"	515
PN16	16"/400mm	23.⅕"	580	16		M27	1.¼"	30	21"	525
ANSI 150	16"/400mm	23.½"	597	16	1"		1.⅛"	28	21.¼"	531
ANSI 300	16"/400mm	25.½"	648	20	1.¼"		1.⅜"	34	22.½"	563
B.S.'D'	18"/450mm	25.¼"	610	12	⅞"		1"	25	23"	575
B.S.'E'	18"/450mm	25.¼"	610	16	⅞"		1"	25	23"	575
PN10	18"/450mm	25.¼"	615	20		M24	1"	26	22.½"	565
PN16	18"/450mm	25.⅗"	640	20		M27	1.¼"	30	23.½"	585
ANSI 150	18"/450mm	25"	635	16	1.⅛"		1.¼"	31	22.¾"	569
ANSI 300	18"/450mm	28"	711	24	1.¼"		1.⅜"	34	24.¾"	619
B.S.'D'	20"/500mm	27.¾"	705	16	⅞"		1"	25	25.¼"	631
B.S.'E'	20"/500mm	27.¾"	705	16	⅞"		1"	25	25.¼"	631
PN10	20"/500mm		670	20		M24	1"	26	24.¾"	620
PN16	20"/500mm	28.⅜"	715	20		M30	1.⅜"	33	26"	650
ANSI 150	20"/500mm	27.½"	699	20	1.⅛"		1.¼"	31	25"	625
ANSI 300	20"/500mm	30.½"	775	24	1.¼"		1.⅜"	34	27"	675
B.S.'D'	24"/600mm	32.½"	825	16	1"		1.⅛"	28	29.¾"	744
B.S.'E'	24"/600mm	32.½"	825	16	1.⅛"		1.¼"	31	29.¾"	744
PN 10	24"/600mm		780	20		M27	1.¼"	30		725
PN16	24"/600mm		840	20		M33	1.½"	36	31"	770
ANSI 150	24"/600mm	32"	813	20	1.¼"		1.⅜"	34	29.½"	738
ANSI 300	24"/600mm	36"	914	24	1.½"		1.⅝"	41	32"	800
PN 10	28"/700mm		895	24		M27		30		840
PN 16	28"/700mm		910	24		M33		36		840
B.S. 'D'	30" /750mm	39.¼"		20	1.⅛"		1.¼		36.½	
B.S. 'E'	30" /750mm	39.¼"		20	1.¼"		1.½		36.⅓	
PN10 /PN16	30" /750mm	750mm dia does not exist for PN10 or PN16 standards								
PN 10	32"/800mm		1015	24		M30		33		950
PN 16	32"/800mm		1025	24		M36		39		950
PN 10	36"/900mm		1115	28		M30		33		1050
PN 16	36"/900mm		1125	28		M36		39		1050
PN 10	40"/1000mm		1230	28		M30		33		1160
PN 16	40"/1000mm		1255	28		M36		42		1170
PN 10	48"/1200mm		1455	32		M36		39		1380
PN 16	48"/1200mm		1485	32		M45		48		1390

Note: Product information is correct at time of printing

PIPE OUTSIDE DIAMETER CHART

NOMINAL BORE		INCHES	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	12	14
		MM	15	20	25	32	40	50	65	80	90	100	125	150	175	200	225	250	300	350
DUCTILE IRON	BS4772 (1988) DIN 28601, 28602 28603, 28605						56 DIN 28601	66 DIN 28605	82 DIN 28605	98		118	144 DIN 28601/3	170		222		274	326	378
uPVC	BS3505		21.4	26.8	33.6	42.3	48.3	60.4		88.9		114.3	140.2	168.3		219.1		273	323.9	355.6
	BS3506		21.4	26.8	33.6	42.3	48.3	60.4	75.2	88.9		114.3	140.2	168.3	193.8	219.1	244.5	273	323.9	355.5
(IMPERIAL CAST IRON) and ASBESTOS CEMENT (TURNED END)	BS1211(1981) (UTI 27" NB) BS78 (1981) BS486 (1966)	CLASS AB ONLY					2.20 55.9	2.72 69.1	3.24 82.3	3.76 95.5		4.80 121.9	5.90 149.9	6.98 177.3	8.06 204.7	9.14 232.2	10.20 259.1	11.26 286.0	13.14 333.8	15.22 387
		CLASS CD ONLY					2.20 55.9	2.72 69.1	3.24 82.3	3.76 95.5		4.80 121.9	5.90 149.9	6.98 177.3	8.06 204.7	9.14 232.2	10.20 259.1	11.26 286.0	13.60 345.4	15.72 399.3
		NON STD					2.25 57		3.25 82.5											
STEEL	ISO/4200 (1991)	SER 1	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9		114.3	139.7	168.3		219.1		273	323.9	355.6
		SER 2		25.0	32.0	40.0	57.0	63.5	70.0		101.6	127.0	133.0							
		SER 3		25.4	30.0	44.5	54.0		73.0	82.5		108.0	141.3	159.0	193.7		244.5			
		SER 3		35.0									152.4	177.8						
	BS1387		21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9		114.3	139.7	165.1						
	BS3600 (1998) & BS3601 (1993) (pipe ends to BS534 1990)		21.4	26.8	33.6	42.3	48.3	60.4	76.1	88.9	101.6	114.3	139.7	168.3	193.7	219.1	244.5	273	323.9	355.6
	API 5L & BS1600		21.4	26.7	33.4	42.2	48.3	60.3	73.0	88.9	101.6	114.3	141.3	168.3		219.1		273.1	323.9	355.6
GRP	BS5480															220		272	324	376
METRIC ASBESTOS CEMENT (TURNED END)	BS486	CLASS 15												177		232	259	286	334	392
		CL SS 20														232	259	286	345	405
		CLASS 25						69		96		122		177		240	268	295	356	419
ABS	BS5391																			

uPVC & POLYETHYLENE (METRIC) BS5556 (ISO/161/1)	METRIC uPVC & PE HAVE A DESIGNATED NOMINAL BORE WHICH IS USUALLY													
	16	20	25	32	40	50	63	75	90	110	125	140	160	180

Note: Product information is correct at time of printing

15	16	18	20	21	22	24	26	27	28	30	32	33	34	36	40	42	44	48	52	56	64	72	80
375	400	450	500	525	550	600	650	675	700	750	800	825	850	900	1000	1050	1100	1200	1300	1400	1600	1800	2000
	429	480 BS ONLY	532			635			738		842			945	1048		1152 BS ONLY	1255 BS ONLY		1462 BS ONLY	1668 BS ONLY		
	406.4	457.2	508			609.6																	
	406.4	457.2	508		558.8	609.6																	
16.26 413	17.30 439	19.38 492	21.46 545	22.50 572	23.54 598	25.60 650	27.66 703	28.70 729	29.72 755	31.78 807	33.84 860	34.88 886	35.92 912	37.96 964	42.06 1068	44.12 1121	46.16 1172	50.26 1277					
16.78 426.2	17.84 453.1	19.9 506.9	22.06 560.3	23.12 587.2	24.16 613.7	26.26 667.0	28.36 720.3	29.40 746.8	30.44 773.2	32.52 826.0	34.62 879.3	35.66 905.8		38.76 984.5	42.92 1090.2	45.00 1143.0		51.20 1300.5					
	406.4	457	508			610			711		813			914	1016	1067	1118	1219		1422	1626	1829	2032
									762							1168			1321				
					559		660						864										
	406.4	457	508		559	610	660		711	762	813		864	914	1016			1219		1422	1626	1829	2032
	406.4	457.2	508		559	609.6	660.4		711.2	762	812.8		863.6	914.4	1016	1066.8	1117.6	1219.2	1320.8	1422.4	1125.6	1828.8	2032
	427	478	530			633			718		820			924	1027		1144	1228	1350	1449	1640	1844	2048
	448	498	568			654			761	808	882		927	970									
	463	515	586			672			780	830	904		952	996									
	478	532	605			691			801	852	915		977	1024									

THE SAME AS THE OUTSIDE DIAMETER. QUOTE PIPE CLASS, RATING OR WALL THICKNESS ON ENQUIRIES

200	225	280	315	355	400	450	500	560	630	710	800	900	1000	1200	1400	1600	1800	2000

Note: Product information is correct at time of printing