

PE & PVC Dimension Tables



About Us

Hygrade Water - Your Australian Watermain Expert

With world-leading exclusive agencies, Hygrade Water is the premier supplier of over 2,000 fully certified watermain products, including a full complement of valves, pipe fittings, and related specialist products for civil and municipal applications.

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How To Find Us

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PVC Pipe Systems

We offer a complete range of PVC pipe and fittings for water applications. All PVC pipe and fittings are manufactured in accordance with relevant standards including AS/NZS 1477, AS/NZS 4765 and AS/NZS 4441.



PVC Pressure Pipe

TABLE 1 Series 1 White uPVC/mPVC Pressure Pipe (800-PN12.6 RJ/850-PN12.6 RJ)

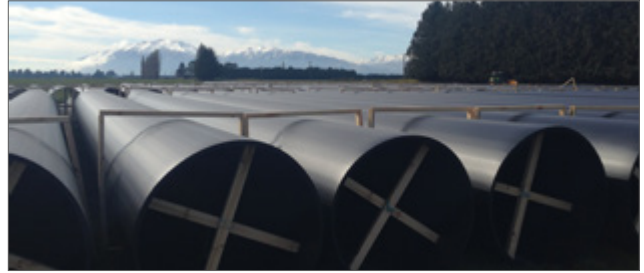
Size	Inside Diameter	Outside Diameter
80 mm	80 mm	89 mm
100 mm	100 mm	114 mm
125 mm	125 mm	140 mm
150 mm	150 mm	160 mm
175 mm	175 mm	200 mm
200 mm	200 mm	225 mm
225 mm	225 mm	250 mm
250 mm	250 mm	280 mm
300 mm	300 mm	315 mm
375 mm	375 mm	400 mm
400 mm	400 mm	450 mm
450 mm	450 mm	500 mm

TABLE 2 Series 2 Blue uPVC/mPVC Pressure Pipe (1800-PN12.6 RJ/1850-PN12.6 RJ) Ductile Iron, Asbestos Cement

Size	Inside Diameter	Outside Diameter
80 mm	80 mm	96 mm
100 mm	100 mm	122 mm
150 mm	150 mm	177 mm
200 mm	200 mm	232 mm
225 mm	225 mm	259 mm
250 mm	250 mm	286 mm
300 mm	300 mm	345 mm
375 mm	375 mm	426 mm
450 mm	450 mm	560 mm

100

All polyethylene pipe and fittings (PE80 and PE100) are manufactured in accordance with relevant standards including AS/NZS 4130 and AS/NZS 4129.



NOM.	SDR 41			SDR 33		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9		SDR 7.4	
PE80 MDPE	PN 3.2			PN 4		—		PN 6.3		PN 8		PN 10		PN 12.5		PN 12.5		PN 20	
PE100 HDPE	PN 4			—		PN 6.3		PN 8		PN 10		PN 12.5		PN 16		PN 16		PN 25	
Size DN	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	Min. Wall Thickness	Mean I.D.	
16	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.8	12	2.2	11	
20	1.6	17	1.6	17	1.6	17	1.6	17	1.6	17	1.6	17	1.9	16	2.3	15	2.8	14	
25	1.6	22	1.6	22	1.6	22	1.6	22	1.6	22	1.9	21	2.3	20	2.8	19	3.5	18	
32	1.6	29	1.6	29	1.6	29	1.6	29	1.9	28	2.4	27	2.9	26	3.6	24	4.4	23	
40	1.6	37	1.6	37	1.6	37	1.9	36	2.4	35	3.0	34	3.7	32	4.5	31	5.5	28	
50	1.6	47	1.6	47	2.0	46	2.4	45	3	44	3.7	42	4.6	40	5.6	38	6.9	35	
63	1.6	60	2.0	59	2.4	58	3.0	57	3.8	55	4.7	53	5.8	51	7.1	48	8.6	45	
75	1.9	71	2.3	70	2.9	69	3.6	67	4.5	66	5.5	63	6.8	61	8.4	58	10.3	53	
90	2.2	86	2.8	84	3.5	83	4.3	81	5.4	78	6.6	76	8.2	73	10.1	69	12.3	65	
110	2.7	105	3.4	103	4.3	101	5.3	99	6.6	96	8.1	93	10.0	89	12.3	84	15.1	78	
125	3.1	119	3.9	117	4.8	115	6.0	113	7.4	110	9.2	106	11.4	101	14.0	96	17.1	89	
140	3.5	133	4.3	131	5.4	129	6.7	126	8.3	123	10.3	118	12.7	114	15.7	108	19.2	99	
160	4.0	152	4.9	150	6.2	148	7.7	144	9.5	140	11.8	136	14.6	130	17.9	123	21.9	114	
180	4.4	171	5.5	169	6.9	166	8.6	163	10.7	158	13.3	153	16.4	145	20.1	138	24.6	128	
200	4.9	190	6.2	188	7.7	184	9.6	180	11.9	175	14.7	170	18.2	162	22.4	154	27.3	143	
225	5.5	215	6.9	211	8.6	207	10.8	203	13.4	198	16.6	191	20.5	183	25.1	173	30.8	161	
250	6.2	238	7.7	235	9.6	230	11.9	225	14.8	219	18.4	212	22.7	203	27.9	192	34.2	179	
280	6.9	267	8.6	263	10.7	258	13.4	253	16.4	246	20.6	238	25.4	228	31.3	215	38.3	200	
315	7.7	300	9.7	296	12.1	290	15.0	285	18.7	278	23.2	268	28.6	256	35.2	242	43.0	226	
355	8.7	338	10.9	333	13.6	328	16.9	320	21.1	311	26.1	301	32.2	289	39.6	273	48.5	225	
400	9.8	380	12.3	376	15.3	370	19.1	362	23.7	351	29.4	340	36.3	326	44.7	307	54.6	287	
450	11.0	429	13.8	422	17.2	415	21.5	406	26.7	395	33.1	382	40.9	366	50.2	347	61.5	322	
500	12.3	476	15.3	470	19.1	462	23.9	452	29.6	440	36.8	424	45.4	407	55.8	348			
560	13.7	534	17.2	526	21.4	517	26.7	506	33.2	493	41.2	476	50.8	456					
630	15.4	600	19.3	592	24.1	582	30.0	570	37.3	554	46.3	535	57.2	513					
710	17.4	677	21.8	667	27.2	656	33.9	642	42.1	625	52.2	603							
800	19.6	762	24.5	752	30.6	739	38.1	723	47.4	704	58.8	680							
900	22.0	858	27.6	846	34.4	832	42.9	814	53.5	792									
1000	24.5	953	30.6	940	38.2	924	47.7	904	59.3	880									
1200	29.4	1143	36.7	1128	45.9	1109	57.2	1085											

Pipe Sizing Chart

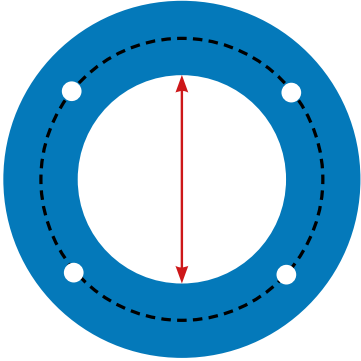
Pressure Pipe			Nominal Diameter																									
Material	Designation	Standard	50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	675	700	750	800	900	1000	1100	1200
Ductile Iron (DICI)	International	DIS2531E	66	82	98	118	144	170		222		274	326	378		429	480	532		635	738	738	790	842	945	1048	1152	1255
	Class K9 or K12	AS2280			96	122	177			232	259	286	345		426		507	560		667			826					
Glass Reinforced Plastic (GRP)		AS1413			122	122	177			232	259	286	345	399	426	453	507	560	587	667	747		826	924	1026		1229	
	Class B	AS1742-2			122	122	177			232	259	286	334		413		492	545		650								
Cast Iron (CICL)	Class C	AS1544			96	122	149	177	203	232	259	286	345		426		507	560		667								
	Class AB	AS1711			96	122	177			232	259	286	334		413		492		572	650								
Asbestos Cement (AC)	Class CD	AS1711			96	122	177			232	259	286	345		426		507		587	667	747	826						
	Imperial (Blue)	AS1477			122	122	177			232	259	286	345		426		507		560	667								
Polyvinyl Chloride (PVC)	Metric (White)	AS1477	60	75	89	114	140	160	200	225	250	280	315	355	400	450	500	560		630								
	Std. W.T.	AS1579			114	168	219			273	324	356		406	457	508		610		711	762	813, 864	914	1067		1220		
Galvanized Steel	GW1	AS1074	60	76	89	114	140	165																				
Polyethylene (PE 80B or PE100)	SR13.6 PN12.5 or SDR11 PN16	AS4130	63	75	90	110, 125	140	160, 180	200	250, 225	280, 315		355	400	400, 450	450, 500	500, 560		630	710	800	900	1000	1100	1200		1400	
	Class 2-12	AS4058				197				279			362		445		533		616	699	787	870	946	1029		1105, 1194	1270, 1354	
Reinforced Concrete (RC)			51	64	76	102	127	152		203	229																	
Copper (CU)		AS3688																										

The figures in this chart are rounded to the nearest whole number. This should only be used as a guide.

Identifying Flanges

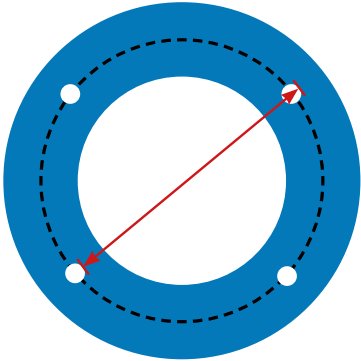
The number of holes, size of the holes, pitch circle diameter (PCD) and thickness of flange depends on the flange standard. Most flanged watermain fittings have AS4087 Table D or AS2129 Table E Flanges. However, some areas specify AS2129 Table E and there are certain circumstances where BS4504 PN16 flanging is required.

Note: Some fittings such as Viking Johnson Maxiadaptors, have flanges with slotted holes and therefore will suit several flange drillings.



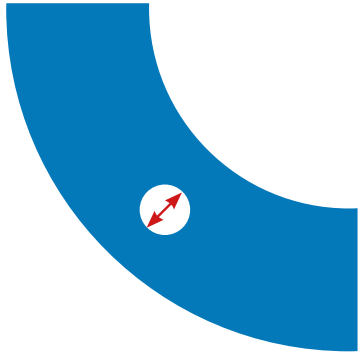
Flange Size

This relates to the inside diameter of the pipe or fitting which generally matches the flange. This does not apply to backing rings as they need to slide over the pipe fitting. This size could be referred to in millimetres or inches.



Pitch Circle Diameter (PCD)

This is the diameter of an imaginary circle drawn through the fixing holes of a flange. An accurate way to measure this would be to run a tape measure from the outside edge of one hole to the inside edge of an opposing hole (red arrow).



Size of Bolts

Relates to the diameter of the bolt holes. If the bolt size is specified as M16 (16 mm diameter bolt) the bolt hole will be a slightly larger diameter (eg 18 mm Ø) to easily accommodate the bolt.

Flange Dimensions

Nominal Diameter																										
AS4087 - Standard Pressure		50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200	
Drilling compatible with: AS2129 Table C AS2129 Table D	Outside Diameter	150	165	185	215	255*	280		335	370	405	455	525	550	580	640	705		825	910	995	1060	1175	1255	1490	
	Pitch Circle Diameter	114	127	146	178	210*	235		292	324	356	406	470	495	521	584	641		756	845	927	984	1092	1175	1410	
	No. of Holes	4	4	4	4	8*	8		8	8	8	12	12	12	12	12	16		16	20	20	20	24	32		
	Hole Diameter	18	18	18	18	18*	18		18	18	22	22	26	26	26	26	26	26		30	30	33	36	36	36	
	Bolt Diameter	16	16	16	16	16*	16		16	16	20	20	24	24	24	24	24		27	27	30	33	33	33	33	
Class	Figure																									
PN16	B5			18	20		23		23	24	24	30	33	33	33	33	35		42	45	47	48	52	56	63	
PN14	B2			19	22		22		25	25	25	29	32	32	32	35	38		41	44	48	48	51	54	60	
PN16	B7			11	13		13		19	19	19	23	30	30	30	30	38		48	56	56	56	66	66	76	
EN1092 (ISO 7005) PN16		50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200	
Drilling compatible with: BS4504 PN16 DIN2533 PN16	Outside Diameter	165	185	200	220	250	285		340		405	460	520		580	640	715		840	910		1025	1125	1255	1485	
	Pitch Circle Diameter	125	145	160	180	210	240		295		355	410	470		525	585	650		770	840		950	1050	1170	1390	
	No. of Holes	4	4	8	8	8	8		12		12	12	16		16	20	20		20	24		24	28	28	32	
	Hole Diameter	19	19	19	19	19	23		23		28	28	28		31	31	34		37	37		41	41	44	50	
	Bolt Diameter	16	16	16	16	16	20		20		24	24	24		27	27	30		33	33		36	36	39	45	
Class	Table																									
16	11			19	19	19	19		20		22	24.5	26.5		28	30	31.5		36	39.5		43	46.5	50	57	
16	11			22	20	22	24	26	30		32	32	36		38	40	42		48	54		58	62	66	-	
AS2129 - Table E		50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200	
Drilling compatible with: AS2129 Table F AS2129 Table H	Outside Diameter	150	165	185	215	255	280		335		405	455	525		580	640	705		825	910	995	1060	1175	1255	1490	
	Pitch Circle Diameter	114	127	146	178	210	235		292		356	406	470		521	584	641		756	845	927	984	1092	1175	1410	
	No. of Holes	4	4	4	8	8	8		8		12	12	12		12	16	16		16	20	20	20	24	32		
	Hole Diameter	18	18	18	18	18	22		22		22	26	26		26	26	26	26		33	33	36	36	36	39	
	Bolt Diameter	16	16	16	16	16	20		20		20	24	24		24	24	24		30	30	33	33	33	36	36	
Class	Table																									
PN14	E			19	19	22	22		25		25	29	32		32	35	38		41	44	48	48	51	54	60	
AS4087 - High Pressure		50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200	
Drilling compatible with: AS2129 Table F AS2129 Table H	Outside Diameter	165	185	205	230	280**	305		370	405	430	490	550	580	610	675	735		850	935	1015	1060	1185	1275	1530	
	Pitch Circle Diameter	127	146	165	191	235**	260		324	356	381	438	495	521	552	610	673		781	857	940	984	1105	1194	1441	
	No. of Holes	4	8	8	8	8**	12		12	12	12	16	16	16	16	20	24		24	24	28	28	32	36	40	
	Hole Diameter	18	18	18	18	22**	22		22	26	26	26	30	30	30	30	33	33		36	36	36	36	39	42	
	Bolt Diameter	16	16	16	16	20**	20		20	24	24	24	27	27	27	30	30		33	33	33	33	36	36	39	
Class	Figure																									
PN35	B6			22	22		27		31	34	34	38	41	42	44	46	49		54	58	59	63	68	72	82	
PN21	B3			19	22		25		29	29	32	32	35	35	38	41			44	48	51	52	57	60	67	
PN35	B4			29	32		35		41	41	44	44	48	51	51	54	57		64							
PN21	B8			15	15	19	24		24	30	30	30	30	38	38	38	48		58	58	58	68	68	78	88	
PN35	B9			19	19	24	24		31	38	38	38	48	48	48	48	58		68	78	78	84	94	98	108	

*Measurements are based off AS2129 Table D **Measurements are based off AS2129 Table F

Our Brands

Our range of specialist water products are sourced globally from the world's best brands and agencies and backed by our team of industry experts.



- Penstocks and Stopboards



- Pipe restraints and flexible joints



- Pipe condition assessment and leak detection technology



- Resilient Seated Gate Valves
- DI Fittings
- Hydrants
- Swing check valves
- Ball check valves
- Strainer Y-style
- Air release valves



- Valves
- Fittings
- Couplings
- Haku Pipe Saddles



- Multigrip & Duo fit large bore couplings



- Butterfly valves
- Check valves
- Foot valves
- Needle valves
- Air valves



- Water control valves
- Pressure management and reducing valves



- Check valves
- Gate Valves