DAMOS

DAVID MOSS GROUP

PRODUCT CATALOGUE

About David Moss

David Moss Group manufactures and supplies HDPE and PVC pipe and fittings. David Moss supplies into a variety of industry sectors, including but not limited to Mining, Industrial, Civil, Irrigation, Utilities, Government, Agricultural and Rural. Incorporated in 1960 in Perth, Western Australia, David Moss Group employs over 140 staff, across 2 manufacturing and fabrication facilities and 3 branch locations; operating via our Perth, Kalgoorlie, Brisbane and Sydney business units, the organisation offers an Australia wide footprint. The Perth, Kalgoorlie and Brisbane locations are pivotal in supporting the ever increasing demand for our products nationally and globally.

Incorporated in 1960 in Perth, Western Australia, David Moss Group employ over 140 staff.

OUR MISSION

Our mission is to deliver sustainable solutions that create and connect communities.

OUR VISION

At David Moss Group, we aspire to be industry leaders by innovating sustainable solutions that enrich the lives of our employees, their families, and our communities. We are dedicated to setting new standards in resource efficiency, waste minimisation, and recycling.

Our collaborative and efficient team exceeds expectations, helping our customers achieve their goals and drive success.

We envision a workplace where every employee thrives, grows, and finds fulfillment in contributing to our collective success.

OUR VALUES

SAFETY

We prioritise the health and well-being of our employees, customers and communities by maintaining a safe work environment and practices.

COLLABORATION

We value teamwork and open communication, working together to achieve common goals and leverage diverse perspectives to drive success.

INTEGRITY

We operate with honesty, transparency and ethical principles, ensuring that our actions reflect our commitment to doing what is right.

INNOVATION

We embrace creativity and forward thinking, continuously seeking and implementing innovative solutions to stay at the forefront of our industry.

SUSTAINABILITY

By integrating sustainable practices into our business model, we aim to minimise our ecological footprint, support the well-being of our planet and ensure that our actions contribute positively to the future of our communities and generations to come.

GROWTH

We are committed to ongoing personal and professional development, embracing challenges and opportunities that enable both individual and organisational advancement.

Dimensions

PIPE CAPACITY OF TRUCKS

COILS		STRAIGHT LENGTHS SDR17 - 20M			
SIZE	COILS PER TRUCK	SIZE	LENGTHS	SIZE	LENGTHS
50mm x 150m	56	110	483	400	38
63mm x 100m	42	125	380	450	30
75mm x 100m	36	140	304	500	24
90mm x 100m	30	160	230	560	19
110mm x 100m	20	180	175	630	15
125mm x 100m	12	225	114	710	11
140mm x 100m	12	250	94	800	9
160mm x 80m	12	280	76	900	6
		315	61	1000	5

Please Note: These are average quantities only. Some trucks may be able to carry more lengths, while some will carry less depending on bolster/gate height. Please also note: extendible trucks maybe subject to weight (21,500 kgs) rather the number of pipes.

PIPE COIL DIMENSIONS

PIPE DIAMETER	COIL			
	OUTSIDE DIAMETER	INSIDE DIAMETER	WIDTH	LENGTH (M)
20	1200	800	220	200
25	1400	800	220	200
32	1440	800	220	200 (up to 2000)
40	1520	800	220	150 (up to 1500)
50	1800	1000	250	150 (up to 1000)
63	1930	1300	300	100 (up to 750)
75	2100	1500	375	100 (up to 500)
90	2620	1900	360	100 (up to 300)
110	3000	2200	440	100 (up to 250)
125	3250	2570	500	60 (up to 100)
140	3400	2570	600	60 (up to 100)
160	3402	2570	640	100

Please Note: The following dimensions are based on volume and not weight. To be used as a guide only.

HDPE - POLYETHYLENE PIPE DIMENSIONS AS PER AS/NZS 4130

	SDR 41 / PN 4			SDR 33			SDR 26 / PN 6.3			SDR 21 / PN 8			SDR 17 / PN 10			SDR 13.6 / PN 12.5			SDR 11 / PN 16			SDR 9 / PN 20			SDR 7.4 / PN 25		
OD	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.7	1.6	0.08	12.3	1.8	0.08	11.4	2.2	0.10
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.7	1.6	0.10	16.1	1.9	0.11	15.2	2.3	0.13	14.2	2.8	0.16
25	-	-	-	-	-	-	-	-	-	-	-	-	21.7	1.6	0.12	21.1	1.9	0.14	20.2	2.3	0.17	19.2	2.8	0.20	17.7	3.5	0.24
32	-	-	-	-	-	-	-	-	-	-	-	-	28.1	1.9	0.19	27.0	2.4	0.23	26.0	2.9	0.27	24.5	3.6	0.33	22.8	4.4	0.39
40	-	-	-	-	-	-	-	-	-	-	-	-	35.0	2.4	0.29	33.8	3.0	0.36	32.3	3.7	0.43	30.6	4.5	0.51	28.6	5.5	0.60
50	-	-	-	-	-	-	-	-	-	-	-	-	43.9	3.0	0.45	42.4	3.7	0.55	40.4	4.6	0.68	38.4	5.6	0.80	35.7	6.9	0.95
63	-	-	-	-	-	-	-	-	-	-	-	-	55.2	3.8	0.72	53.3	4.7	0.88	51.0	5.8	1.06	48.2	7.1	1.27	45.1	8.6	1.49
75	-	-	-	70.4	2.3	0.550	69.2	2.9	0.68	67.7	3.6	0.83	65.8	4.5	1.02	63.7	5.5	1.23	61.0	6.8	1.48	57.6	8.4	1.78	53.6	10.3	2.12
90	-	-	-	84.5	2.8	0.792	83.0	3.5	0.98	81.3	4.3	1.19	79.0	5.4	1.47	76.5	6.6	1.76	73.1	8.2	2.15	69.1	10.1	2.58	64.5	12.3	3.04
110	104.7	2.7	0.94	103.2	3.4	1.176	101.3	4.3	1.47	99.2	5.3	1.79	96.5	6.6	2.19	93.4	8.1	2.63	89.4	10.0	3.18	84.5	12.3	3.82	78.6	15.1	4.55
125	118.9	3.1	1.24	117.3	3.9	1.520	115.4	4.8	1.85	112.9	6.0	2.28	109.9	7.4	2.79	106.1	9.2	3.41	101.5	11.4	4.13	96.1	14.0	4.93	89.5	17.1	5.85
140	133.2	3.5	1.55	131.5	4.3	1.888	129.2	5.4	2.34	126.5	6.7	2.86	123.1	8.3	3.50	118.9	10.3	4.27	113.9	12.7	5.14	107.6	15.7	6.20	100.2	19.2	7.36
160	152.3	4.0	2.01	150.4	4.9	2.440	147.6	6.2	3.07	144.5	7.7	3.75	140.7	9.5	4.57	135.9	11.8	5.57	130.0	14.6	6.75	123.1	17.9	8.07	114.7	21.9	9.58
180	171.5	4.4	2.50	169.2	5.5	3.088	166.3	6.9	3.82	163.1	8.6	4.62	158.3	10.7	5.78	152.8	13.3	7.07	146.3	16.4	8.54	138.5	20.1	10.21	129.1	24.6	12.11
200	190.5	4.9	3.07	187.7	6.2	3.868	184.6	7.7	4.74	180.6	9.6	5.84	175.8	11.9	7.13	170.1	14.7	8.62	162.5	18.2	10.52	153.7	22.4	12.62	143.4	27.3	14.93
225	214.4	5.5	3.89	211.5	6.9	4.817	207.9	8.6	5.96	203.3	10.8	7.38	197.8	13.4	9.04	191.1	16.6	11.01	182.9	20.5	13.32	173.2	25.1	15.93	161.3	30.8	18.93
250	238.0	6.2	4.87	234.9	7.7	5.974	230.9	9.6	7.38	226.1	11.9	9.03	220.0	14.8	11.08	212.4	18.4	13.56	203.4	22.7	16.38	192.5	27.9	19.64	179.2	34.2	23.36
280	266.7	6.9	6.03	263.1	8.6	7.470	258.7	10.7	9.20	253.0	13.4	11.40	246.3	16.6	13.92	237.9	20.6	16.99	227.8	25.4	20.54	215.4	31.3	24.68	200.7	38.3	29.29
315	300.2	7.7	7.58	296.0	9.7	9.467	290.9	12.1	11.72	284.9	15.0	14.33	276.6	18.7	17.84	267.6	23.2	21.54	256.3	28.6	26.00	242.4	35.2	31.22	226.1	43.0	36.98
355	338.2	8.7	9.64	333.6	10.9	11.969	327.9	13.6	14.81	321.0	16.9	18.19	312.1	21.1	22.44	301.6	26.1	27.29	288.8	32.2	32.99	273.3	39.6	39.56	254.6	48.5	47.00
400	380.0	9.8	12.85	375.8	12.3	15.243	369.5	15.3	18.78	361.5	19.1	23.19	351.9	23.7	28.36	339.9	29.4	34.62	325.4	36.3	41.89	307.8	44.7	50.29	287.0	54.6	59.62
450	428.9	11.0	15.41	423.0	13.8	19.200	415.8	17.2	23.75	406.8	21.5	29.34	395.9	26.7	35.93	382.4	33.1	43.85	366.1	40.9	53.05	346.5	50.2	63.58	322.8	61.5	75.54
500	476.3	12.3	19.18	470.0	15.3	23.678	462.0	19.1	29.30	452.0	23.9	36.19	440.0	29.6	44.26	424.9	36.8	54.11	406.8	45.4	65.46	385.0	55.8	78.47	360.3	67.6	92.35
560	533.7	13.7	23.80	526.3	17.2	29.717	517.5	21.4	36.64	506.4	26.7	45.21	492.7	33.2	55.53	475.9	41.2	67.80	455.8	50.8	81.92	430.3	62.5	98.96	403.5	75.7	115.80
630	600.4	15.4	30.22	592.2	19.3	37.594	582.1	24.1	46.54	569.8	30.0	57.22	554.4	37.3	70.27	535.0	46.3	86.21	512.6	57.2	103.90	484.1	70.3	125.32	454.0	85.1	146.60
710	676.5	17.4	38.45	667.3	21.8	47.775	655.9	27.2	59.15	641.9	33.9	72.85	624.6	42.1	89.37	603.4	52.2	108.99	577.6	64.5	131.97	546.5	79.3	158.33	511.6	95.9	186.17
800	762.3	19.6	48.76	752.0	24.5	60.520	739.2	30.6	74.91	723.4	38.1	92.33	703.9	47.4	113.32	680.0	58.8	138.26	651.0	72.5	167.36	615.9	89.3	200.89	576.5	108.1	236.31
900	857.8	22.0	61.51	846.0	27.6	76.663	831.7	34.4	94.75	813.9	42.9	116.84	791.7	53.5	143.71	764.9	66.2	175.16	732.4	81.7	211.85	694.0	100.0	253.15	648.5	121.6	299.20
1000	952.9	24.5	76.15	940.1	30.6	94.420	924.1	38.2	116.91	904.2	47.7	144.34	879.8	59.3	177.16	852.1	72.5	213.33	814.9	91.0	260.08	771.1	111.1	312.46	720.6	135.1	369.26
1200	1143.1	29.4	109.59	1127.5	36.7	136.292	1108.5	45.9	168.32	1084.7	57.2	207.68	1062.7	70.6	243.30	1020.0	88.2	310.35	975.8	109.1	376.86	924.9	133.3	449.80	864.4	162.2	531.42

SDR – SIZE DIMENSIONAL RATIO, PN – PRESSURE RATING AT 20 DEGREES C AS/NZS 4130:2018

ALL PIPE SIZES AND SDR'S HIGHLIGHTED IN ORANGE UTILISE PREMIUM RESINS DESIGNED SPECIFICALLY FOR THE MANUFACTURE OF LARGE OD OR THICK WALL PIPE.

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HDPE Pressure Pipe Systems

David Moss Group manufactures and supplies HDPE pressure pipes from 20mm to 1200mm, and from SDR 41 to SDR 7.4, to AS/NZS 4130.
We also offer a comprehensive range of connection systems including electrofusion, mechanical, compression, butt welded fittings and backing rings. Our extensive range includes moulded and fabricated fittings, and incorporates multi-bends, elbows, wye junctions, t junctions, inverted (scour) tees, forged moulded tees, reducing tees, and complete spool packages produced from isometric drawings.

David Moss are a leading manufacturer of HDPE pipe, servicing both the Australian and international markets.

HDPE Pipe

HDPE pipe is ideal for various applications due to its durability, flexibility and light weight characteristics. This pipe is available in straight lengths from 6 to 25 metres and coils from 20mm to 180mm diametre.

ADVANTAGES

- ✓ Zero leak rate
- ✓ Lightweight
- ✓ Environmentally sustainable
- ✓ Corrosion and chemical resistant
- ✓ Reduced life cycle costs
- ✓ Greater hydraulic capacity
- ✓ Reduced contraction and expansion
- ✓ Exceptional for trenchless installations
- ✓ Adaptability
- ✓ Long life expectancy
- ✓ Reduced anchorage loads
- ✓ More resistance to collapse under vacuum effect
- ✓ Quicker installation and easier handling on site

LIQUID OR GAS	MARKER COLOUR	PIPE STYLE
Potable Water	BLUE	Black pipe with blue stripe, or
Recycled / Reclaimed Water	LILAC	Black pipe with Lilac/purple stripe or solid Lilac/purple jacket
Sewer	CREAM	Black pipe with cream stripe

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HDPE & PVC Electrical Pipe Systems

David Moss Group supplies a full range of PE electrical conduit coils for your directional drilling applications. Electrical HDPE coils are available in 50mm, 63mm, 90mm, 110mm, 125mm, 140mm and 160mm OD's, and come in 80m, 100m and 150m lengths as standard. Electrical PVC straight lengths are 4m long and are available in 50mm, 65mm, 80mm, 100mm and 150mm OD's. Special sizes and lengths can be manufactured to suit your project requirements. Fabricated bends, adaptors, fittings and accessories are also available.

Special sizes and lengths can be manufactured to suit your project requirements.

HDPE ELECTRICAL CONDUIT (ORANGE)

OUTSIDE DIAMETER (INCH)	PN12.5	COIL LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
50	HD	150m	82.5	PE5013150CO
63	HD	100m	87	PE6313100CO
90	HD	100m	175	PE9013100CO
110	HD	100m	263	PE11013100CO
125	HD	100m	339	PE12513100CO
140	HD	100m	424	PE14013100CO
160	HD	80m	443.2	PE1601380CO
160	HD	100m	554	PE16013100CO

COMPRESSION COUPLING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	16	10	CPC20
25	16	10	CPC25
32	16	10	CPC32
40	16	5	CPC40
50	16	5	CPC50
63	16	2	CPC63

PVC ELECTRICAL CONDUIT (ORANGE)

4M LENGTHS

NOM OD SIZE	DMIN	DMAX	MEAN BORE	MIN WALL	WEIGHT KG/M	PACK SIZE (STICKS)	PRODUCT CODE
50	49.7	50	42.6	3.7	0.78	280	AQCHD504
63	62.7	63	54.6	4.2	1.15	210	AQCHD634
80	88.7	89.1	79.1	5	1.95	104	AQCHD804
100	114.1	114.5	104.7	4.8	2.4	81	AQCHD1004
150	160	160.5	142.7	8.8	6.1	45	AQCHD1504

Comms Pipe Systems

David Moss Group supplies a full range of HDPE communication conduit coils for directional drilling applications, and PVC conduit lengths for open trenching applications. Communications coils are available in 63mm and 110mm OD. Special sizes and lengths can be manufactured to suit your project requirements. Fabricated bends, adaptors, fittings and accessories are also available.

David Moss Communication conduits are manufactured in standards sizes, however custom SDR and lengths are available upon request.

COMMUNICATION CONDUIT (WHITE)

OUTSIDE DIAMETER (INCH)	COIL LENGTH (M)	CLASS 9 PRODUCT CODE
63	140	PC6313140CW
110	100	PC11013100CW

PVC COMMUNICATION CONDUIT (WHITE)

6M LENGTHS

NOM OD SIZE	DMIN	DMAX	MEAN BORE	MIN WALL	WEIGHT KG/M	PRODUCT CODE
50	60.1	60.45	53.15	3.65	0.8	AQCC506
100	113.62	114.2	105.2	4.5	2.31	AQCC1006

AUS COMM

4.5M LENGTHS

NOM OD SIZE	DMIN	DMAX	MEAN BORE	MIN WALL	WEIGHT KG/M	PRODUCT CODE
50	60.1	60.45	53.15	3.65	0.8	AQTC5045
100	113.62	114.2	105.2	4.5	2.31	AQTC10045

157.339 MM

OUTSIDE DIAMETER (INCH)	LENGTH	TELSTRA CODE	CLASS PRODUCT CODE	PRODUCT CODE
32	500	-	10	PC3217500BK

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Gas Pipe Systems

David Moss supplies a full range of APA, and ATCO approved PE pipe and Electrofusion fittings, standard pipe sizes include 16mm, 20mm, 40mm, 63mm, 110mm, 160mm and 225mm. Pipes are available in both SDR17 and SDR11 in a range of coils and straight lengths.

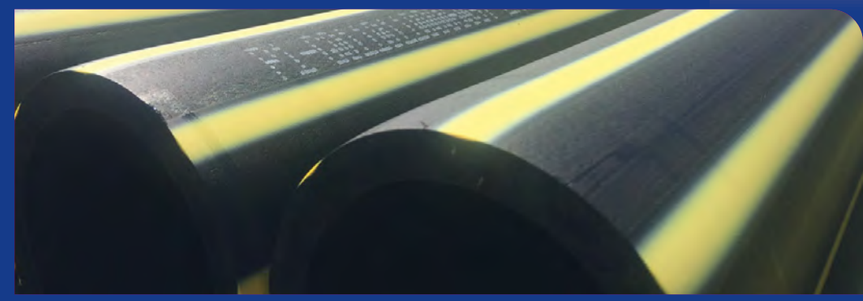
A comprehensive range of electrofusion fittings, welding machines and accessories are available to complement the pipe range.

HDPE Gas Pipe

David Moss manufactures a full range of high grade HDPE pipe, designed specifically for the Australian gas network, where leak free solutions are a must. Our products provide a high resistance to chemical and corrosion, thus making HDPE the ideal medium for the Australian gas distribution and transmission networks.

ADVANTAGES

- ✓ Zero leak rate
- ✓ Lightweight and flexible
- ✓ Environmentally sustainable
- ✓ Corrosion and chemical resistant
- ✓ Excellent flow characteristics
- ✓ Exceptional for trenchless installations
- ✓ Reduced movement on tailings dam walls & racks
- ✓ Long life expectancy
- ✓ More resistance to collapse under vacuum effect
- ✓ Easier to handle in longer lengths



HDPE GAS PIPE - YELLOW STRIPE (WA ONLY)

NOMINAL OUTSIDE DIAMETER (MM)	SDR	LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
20	11	100	11	PG2011100SY
20	11	200	22	PG2011200SY
25	11	100	17	PG2511100SY
25	11	200	34	PG2511200SY
40	11	6	2.58	PG40116SY
40	11	100	43	PG4011100SY
63	11	6	6.3	PG63116SY
63	11	100	105	PG6311100SY
110	11	6	18.96	PG110116SY
110	11	50	158	PG1101150SY
110	11	100	318	PG1101100SY
160	11	6	40.32	PG160116SY
160	11	12	80.64	PG1601112SY
160	11	80	537.6	PG1601180SY
225	11	12	159	PG2251112SY
225	11	20	265	PG2251120SY

HDPE GAS PIPE - CO-EX (WA ONLY)

NOMINAL OUTSIDE DIAMETER (MM)	SDR	LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
110	17	6	13.02	PG110176CY
110	17	50	108.5	PG1101750CY
110	17	100	217	PG11017100CY
160	17	6	27.3	PG160176CY
160	17	12	54.6	PG1601712CY
160	17	80	364	PG1601780CY
225	17	12	108	PG2251712CY
315	17	12	210.84	PG3151712CY

HDPE GAS PIPE

NOMINAL OUTSIDE DIAMETER (MM)	SDR	LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
16	11	100	8	PG1611100SY
16	11	400	32	PG1611400SY
20	11	100	11	PG2011100SY
20	11	200	22	PG2011200SY
25	11	100	17	PG2511100SY
32	11	50	13.5	PG321150SY
32	11	100	27	PG3211100SY
40	11	50	21.5	PG401150SY
40	11	100	43	PG4011100SY
40	11	150	64.5	PG4011150SY
50	11	6	4.08	PG50116SY
50	11	100	67	PG5011100SY
63	11	7	6.36	PG63116SY
63	11	50	52.5	PG631150SY
63	11	100	105	PG6311100SY
90	11	7	12.9	PG90116SY
90	11	100	215	PG9011100SY
110	11	6	18.96	PG110116SY
110	11	12	37.92	PG1101112SY
110	11	110	316	PG11011110SY
125	11	12	49.2	PG1251112SY
160	11	12	80.64	PG1601112SY
180	11	12	101.88	PG1801112SY
225	11	6	79.5	PG225116SY
225	11	12	159	PG2251112SY

David Moss also supply a full and comprehensive range of Electrofusion (EF) fittings, poly to steel transition fittings and butt welded fittings.

Rural Pipe Systems

David Moss manufacture and supply a large range of HDPE pipe and fittings for the rural sector, manufactured to deal with the harsh Australian climate, David Moss Rural product range features both pipes and comprehensive range of compression fittings. Our products are ideal for rural settings due to their durability, flexibility and light weight characteristics. Our Pipe range is available in Red Stripe SDR17/PN10 (AS2698.2) and also as David Moss Solabloc Rural, featuring a coex white jacket with red stripes. Our rural range is primarily supplied as coiled pipes ranging in length from 100M to 300M, however we also offer custom straight lengths, and coils lengths as custom orders.

Coiled pipes available in 100, 200, 300 and 500m variants, with other custom coils sizes and straight lengths upon request.

RED STRIPE

NOMINAL SIZE (INCH)	COIL LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
¾	200	22	PR20200SR
1	200	28 each (56 pack)	PR25200SR
1 ¼	150	34.5 (69 pack)	PR32150SR
1 ¼	300	69 each	PR32300SR
1 ½	150	51 each (102 pack)	PR40150SR
1 ½	300	102	PR40300SR
1 ½	500	167	PR40500SR
2	100	57 each (114 pack)	PR50100SR
2	200	114	PR50200SR
2	300	156	PR50300SR
2	400	228	PR50400SR
2	500	285	PR50500SR

GREEN STRIPE

NOMINAL SIZE (INCH)	COIL LENGTH (M)	WEIGHT (KG)	PRODUCT CODE
¾	200	22	PR20200SG
1	200	28 each (56 pack)	PR25200SG
1 ¼	150	34.5 (69 pack)	PR32150SG
1 ¼	300	69 each	PR32300SG
1 ½	150	51 each (102 pack)	PR40150SG
1 ½	300	102	PR40300SG
1 ½	500	167	PR40500SG
2	100	57 each (114 pack)	PR50100SG
2	200	114	PR50200SG
2	300	156	PR50300SG
2	400	228	PR50400SG
2	500	285	PR50500SG

Provided mainly in coils from 100M to 300M, we also offer custom lengths of coils and straight lengths as bespoke orders.

Solabloc Co-Extruded White HDPE Pipe

Over time, the effects of the sun's ultraviolet (UV) radiation can degrade plastic. David Moss Solabloc designed for use in high temperatures and ideal for above ground installations, our PE100 pipe is manufactured with a highly reflective white external skin which significantly reduces heat absorption. During manufacture the white outer layer is co-extruded with the inner black pipe wall and forms an integral part of the pipe. Extensive testing has proved that heat absorption is greatly reduced, whilst maintaining UV stability, compared to standard black PE pipe under the same conditions. As with all the pipe in our range, our Solabloc pipe range is manufactured to meet or exceed the specifications of AS/NZS 4130: PE Pipes for Pressure Applications.

Extensive testing has proved that heat absorption is greatly reduced, whilst maintaining UV stability.

Radiation Absorption

Standard Black PE Pipe

95%

Co-Extruded PE Pipe

41%

Co-extruded HDPE

David Moss manufacture and supply co-extruded HDPE pipe ranging from 20mm to 1200mm in diameter and coils from 40mm to 160mm diameter, available from SDR33 to SDR 7.4.

Designed for High Temperature service, David Moss Solabloc pipe was developed to tackle the common issues that arise with HDPE pipe being used in high temperature environments. David Moss Group utilise advanced extrusion technologies to apply a white external coating to the conventional black pipe, thus providing a semi reflective coating, that inhibits the amount of radiation absorption. UV and Radiation absorption have drastic impacts on both the life span of the pipeline, and the pipelines ability to run at maximum pressure for its full design life, there are also strict deregulation standards applied to pipelines that are supplied in solid black. With this in mind David Moss Solabloc was developed to allow asset owners and pipeline designers to improve the efficiency, extend the design life and lower the maintenance cycle and running cost of their pipelines.

ADVANTAGES

- ✓ Designed for use in high temperatures
- ✓ Reduced temperature rise in contents conveyed
- ✓ Thinner pipe means lower purchase cost
- ✓ Greater hydraulic capacity
- ✓ Reduced contraction and expansion
- ✓ Reduced movement on tailings dam walls & racks
- ✓ Reduced anchorage loads
- ✓ More resistance to collapse under vacuum effect
- ✓ Easier to handle in longer lengths

Fire Main Systems

David Moss Group supply a range of HDPE pipe for below ground fire mains applications, designed specifically for this application, the fire mains HDPE pipe is available in straight lengths of 6m and 12m.
Fire mains HDPE pipe is offered in 40mm, 63mm, 125mm, 180mm, 250mm and 315mm, all as a SDR11 with custom SDR's available up to SDR7.4. A first choice product for asset owners, consultants and contractors David Moss Fire mains pipe is manufactured in accordance with AS/NZS 4130 and are fully compliant to AS/NZS3500.

David Moss HDPE Fire product range is completed via a comprehensive range of HDPE Fittings and custom fabrication services.

HPDE Fire Main Pipe Systems

David Moss Manufactures a range of high grade HDPE pipe, designed for use in below ground passive and active fire suppression networks, and fire ring mains. Our products provide a high resistance to chemicals and corrosion, thus making HDPE ideal for gas and pressurised pipelines.

ADVANTAGES

- ✓ Zero leak rate
- ✓ Lightweight and flexible
- ✓ Non-biodegradable
- ✓ Corrosion and chemical resistant
- ✓ Excellent flow characteristics
- ✓ Exceptional for trenchless installations
- ✓ Reduced movement on tailings dam walls & racks
- ✓ Long life expectancy
- ✓ More resistance to collapse under vacuum effect
- ✓ Easier to handle in longer lengths

FIRE MAINS - RED STRIPE

SDR 11			
NOMINAL OUTSIDE DIAMETER (MM)	LENGTH (M)	PN	PRODUCT CODE
40	6	16	P40116SR
125	6	16	PI25116SR
125	12	16	PI251112SR
180	6	16	PI80116SR
180	12	16	PI801112SR
250	6	16	P250116SR
250	12	16	P2501112SR
315	6	16	P315116SR
315	12	16	P3151112SR
355	6	16	P355116SR
355	12	16	P3551112SR
450	6	16	P450116SR
450	12	16	P4501112SR
500	6	16	P500116SR
500	12	16	P5001112SR

Sewer Hi-vis HDPE Pipe Systems

David Moss manufacture and supply a large range of Hi-Vis pipes and fittings purposely designed for the waste water industry. Our pipe technology provides great reflective ability for video inspection, as well as durability, flexibility and light weight characteristics.

Featuring a bold white inner layer, and vivid black/white striped outer jacket, Damos Hi-Vis pipes are the specifiers choice for waste water applications.

HI-VIS HDPE PIPE - WHITE STRIPE

SDR21/PN8						SDR17/PN10				
OD	LENGTH (M)	MEAN BORE	MIN WT	WEIGHT KG / M	PRODUCT CODE	LENGTH (M)	MEAN BORE	MIN WT	WEIGHT KG / M	PRODUCT CODE
110	6	98.7	5.3	1.78	PHV110216	6	96.0	6.6	2.17	PHV110176
110	12	98.7	5.3	1.78	PHV1102112	12	96.0	6.6	2.17	PHV1101712
125	6	112.3	6.0	2.27	PHV125216	6	109.3	7.4	2.77	PHV125176
125	12	112.3	6.0	2.27	PHV1252112	12	109.3	7.4	2.77	PHV1251712
140	6	125.8	6.7	2.85	PHV140216	6	122.4	8.3	3.48	PHV140176
140	12	125.8	6.7	2.85	PHV1402112	12	122.4	8.3	3.48	PHV1401712
160	6	143.7	7.7	3.73	PHV160216	6	139.9	9.5	4.55	PHV160176
160	12	143.7	7.7	3.73	PHV1602112	12	139.9	9.5	4.55	PHV1601712
180	6	161.8	8.6	4.69	PHV180216	6	157.4	10.7	5.75	PHV180176
180	12	161.8	8.6	4.69	PHV1802112	12	157.4	10.7	5.75	PHV1801712
200	6	179.7	9.6	5.81	PHV200216	6	174.9	11.9	7.09	PHV200176
200	12	179.7	9.6	5.81	PHV2002112	12	174.9	11.9	7.09	PHV2001712
225	6	202.2	10.8	7.34	PHV225216	6	196.7	13.4	9.00	PHV225176
225	12	202.2	10.8	7.34	PHV2252112	12	196.7	13.4	9.00	PHV2251712
250	6	224.9	11.9	8.99	PHV250216	6	218.8	14.8	11.03	PHV250176
250	12	224.9	11.9	8.99	PHV2502112	12	218.8	14.8	11.03	PHV2501712
280	6	251.7	13.4	11.35	PHV280216	6	245.0	16.6	13.85	PHV280176
280	12	251.7	13.4	11.35	PHV2802112	12	245.0	16.6	13.85	PHV2801712
315	6	283.4	15.0	14.26	PHV315216	6	275.6	18.7	17.5 4	PHV315176
315	12	283.4	15.0	14.26	PHV3152112	12	275.6	18.7	17.5 4	PHV3151712
355	6	319.4	16.9	18.10	PHV355216	6	310.5	21.1	22.33	PHV355176
355	12	319.4	16.9	18.10	PHV3552112	12	310.5	21.1	22.33	PHV3551712
400	6	359.7	19.1	23.08	PHV400216	6	350.1	23.7	28.22	PHV400176
400	12	359.7	19.1	23.08	PHV4002112	12	350.1	23.7	28.22	PHV4001712
450	6	404.7	21.5	29.19	PHV450216	6	393.8	26.7	35.76	PHV450176
450	12	404.7	21.5	29.19	PHV4502112	12	393.8	26.7	35.76	PHV4501712
500	6	449.7	23.9	36.02	PHV500216	6	437.7	29.6	44.05	PHV500176
500	12	449.7	23.9	36.02	PHV5002112	12	437.7	29.6	44.05	PHV5001712
560	6	503.8	26.7	45.08	PHV560216	6	490.1	33.2	55.34	PHV560176
560	12	503.8	26.7	45.08	PHV5602112	12	490.1	33.2	55.34	PHV5601712

SDR13.6/PN12.5						SD11/PN16				
OD	LENGTH (M)	MEAN BORE	MIN WT	WEIGHT KG / M	PRODUCT CODE	LENGTH (M)	MEAN BORE	MIN WT	WEIGHT KG / M	PRODUCT CODE
110	6	92.8	8.1	2.63	PHV110136	6	88.9	10.0	3.16	PHV110116
110	12	92.8	8.1	2.63	PHV1101312	12	88.9	10.0	3.16	PHV1101112
125	6	105.5	9.2	3.39	PHV125136	6	100.9	11.4	4.10	PHV125116
125	12	105.5	9.2	3.39	PHV1251312	12	100.9	11.4	4.10	PHV1251112
140	6	118.2	10.3	4.24	PHV140136	6	113.2	12.7	5.12	PHV140116
140	12	118.2	10.3	4.24	PHV1401312	12	113.2	12.7	5.12	PHV1401112
160	6	135.1	11.8	5.54	PHV160136	6	129.2	14.6	6.72	PHV160116
160	12	135.1	11.8	5.54	PHV1601312	12	129.2	14.6	6.72	PHV1601112
180	6	151.9	13.3	7.03	PHV180136	6	145.4	16.4	8.49	PHV180116
180	12	151.9	13.3	7.03	PHV1801312	12	145.4	16.4	8.49	PHV1801112
200	6	169.0	169.0	14.7	PHV200136	6	161.6	18.2	10.52	PHV200116
200	12	169.0	169.0	14.7	PHV2001312	12	161.6	18.2	10.52	PHV2001112
225	6	190.0	16.6	10.95	PHV225136	6	181.8	20.5	13.25	PHV225116
225	12	190.0	16.6	10.95	PHV2251312	12	181.8	20.5	13.25	PHV2251112
250	6	211.2	18.4	13.49	PHV250136	6	202.2	22.7	16.30	PHV250116
250	12	211.2	18.4	13.49	PHV2501312	12	202.2	22.7	16.30	PHV2501112
280	6	236.6	20.6	16.90	PHV280136	6	226.5	25.4	20.43	PHV280116
280	12	236.6	20.6	16.90	PHV2801312	12	226.5	25.4	20.43	PHV2801112
315	6	266.1	23.2	21.43	PHV315136	6	254.8	28.6	25.86	PHV315116
315	12	266.1	23.2	21.43	PHV3151312	12	254.8	28.6	25.86	PHV3151112
355	6	300.0	26.1	27.16	PHV355136	6	287.2	32.2	32.83	PHV355116
355	12	300.0	26.1	27.16	PHV3551312	12	287.2	32.2	32.83	PHV3551112
400	6	338.1	29.4	34.45	PHV400136	6	323.6	36.3	41.68	PHV400116
400	12	338.1	29.4	34.45	PHV4001312	12	323.6	36.3	41.68	PHV4001112
450	6	380.3	33.1	43.63	PHV450136	6	364.0	40.9	52.78	PHV450116
450	12	380.3	33.1	43.63	PHV4501312	12	364.0	40.9	52.78	PHV4501112
500	6	422.6	36.8	53.84	PHV500136	6	404.5	45.4	65.13	PHV500116
500	12	422.6	36.8	53.84	PHV5001312	12	404.5	45.4	65.13	PHV5001112
560	6	473.3	41.2	67.55	PHV560136	6	453.2	50.8	81.59	PHV560116
560	12	473.3	41.2	67.55	PHV5601312	12	453.2	50.8	81.59	PHV5601112

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NexGen Systems

Conventional polyethylene pipe cannot perform as well in extreme conditions, or when faced with highly abrasive material transfer; nor will it fulfill the clients ultimate design and performance requirements. This has challenged polyethylene producers, to develop advanced solutions, in order to provide systems for these ultra abrasive and harsh applications. Drawing from over 60 years of manufacturing experience, Damos NexGen Wear-Tuff is a performance innovation with much greater pressure and abrasion resistance, leading to a maximum pipe performance beyond PE100 for a sustainable future.

Damos NexGen Wear-Tuff is a performance innovation with much greater pressure and abrasion resistance.

10% Thickness Reduction

Faster Welding Installation

Greater Flow Volume

Improved Project Efficiency

Damos Wear-Tuff

THE INNOVATION

Damos NexGen Wear-Tuff is a performance innovation with the ability to run at greater pressures, whilst featuring better abrasion resistance; leading to a maximum pipe performance beyond the capabilities of HDPE100.

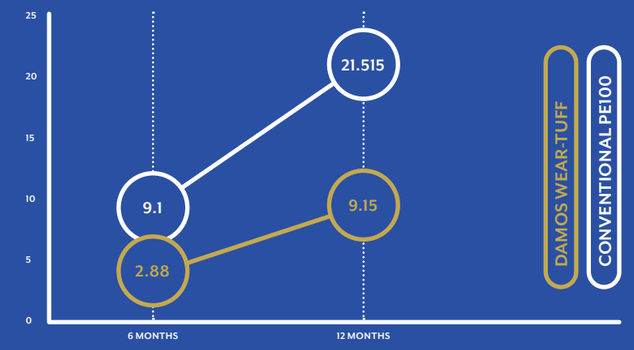
CUSTOMER VALUES

Damos NexGen Wear-Tuff is not only a material innovation, it also creates a number of benefits to customers, asset owners and operators, due to its ease of installation, cost efficiency and design life.

SUSTAINABLE DEVELOPMENT

Damos NexGen Wear-Tuff has been created through intense research and development phases, in order to provide a material with higher performance than traditional PE100. The results of this higher performance means that the NexGen Wear-Tuff will provide longer service life, and higher durability, resulting in less material consumption and more sustainable manufacturing processes.

THICKNESS LOSS AFTER 6 & 12 MONTHS OF PIPE USAGE(MM)



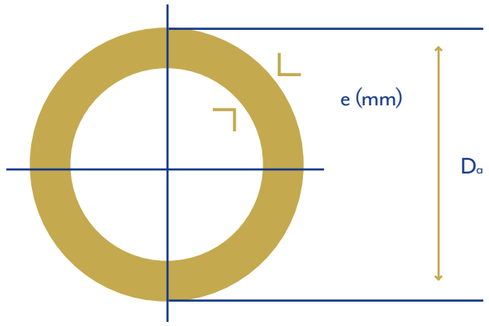
Damos NexGen Wear-Tuff pipe range is available from DN40 to DN1200, and is complemented with a full range of butt weldable fittings.

NEXGEN SYSTEMS

10% HIGHER PRESSURE WITHSTANDING

Operating pressure has a direct relationship with inherent thickness and strength of the material (highlighted in the equation opposite). With a MRS of 11.2MPa, Damos NexGen Wear-Tuff, is able to achieve an operating pressure 10% greater than conventional PE100; whilst utilising a wall thickness which is 10% less than conventional PE100.

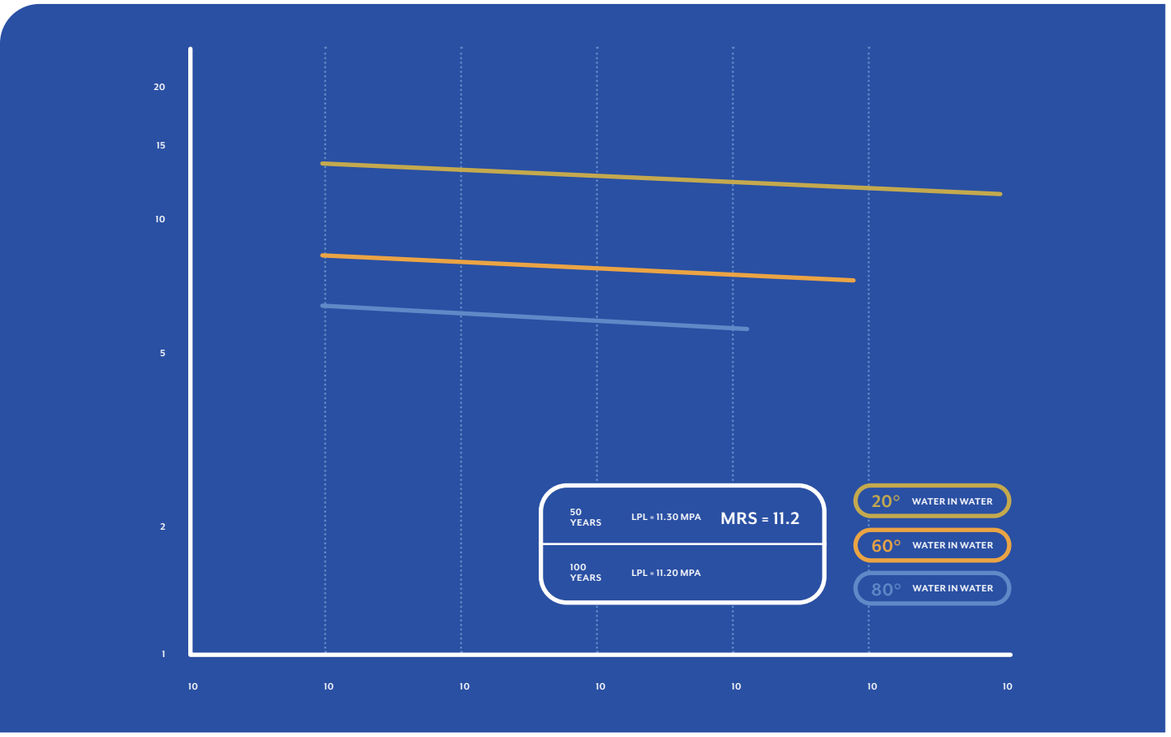
$$MOP = \frac{20\ (MRS)}{C \times (SDR - 1)} \qquad SDR = \frac{D_a}{E_n}$$



MOP	Maximum Operating Pressure (bar)
MRS	Minimum Required Strength
Da	Diameter (mm)
SDR	Standard Dimension Ration
C	Safety Factor
en	Nominal Wall Thickness (mm)

Utilising advanced resin grades, users can achieve a larger bore and greater hydraulic capacity by specifying Damos NexGen Wear-Tuff.

(MPA) HOOP STRESS



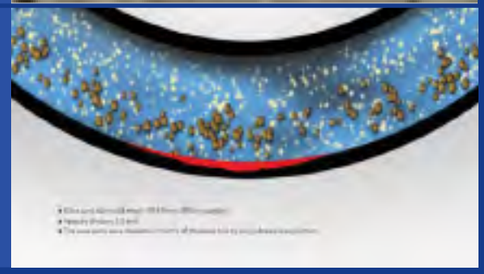
50% HIGHER ABRASION RESISTANCE

HDPE is used in a range of pipeline applications within the mining industry, most commonly for tailings and water management pipelines in not open pit and underground mining.
Tailings pipelines are used to transfer highly abrasive sedimentary slurry, hence a great deal of focus is placed on a high level of abrasion resistance in these applications.

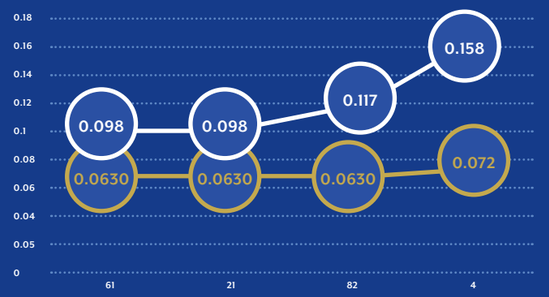
From technical studies and mining simulation software analysis, Damos NexGen Wear-Tuff shows a 50% greater abrasion resistance than traditional PE 100.

SAND SLURRY TEST

Method modified from the Saskatchewan Erosion Studies
Silica sand slurry (48 mesh, 0.5-1.0mm, 25% by weight) Velocity of slurry 4.0 m/s The wear rates were measured in terms of thickness loss by using ultrasonic equipment

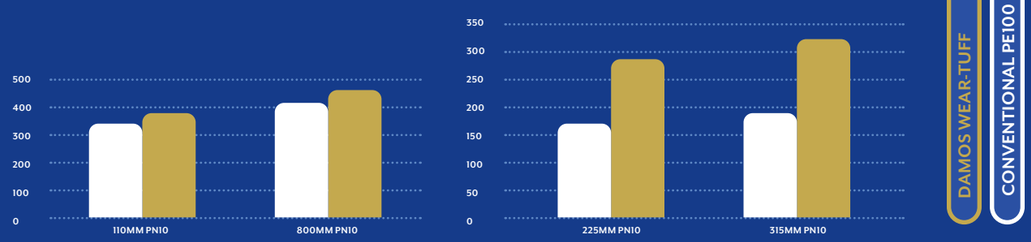


AVERAGE THICKNESS LOSS WITH TIME



Damos NexGen Wear-Tuff is able to achieve higher production efficiencies, through being able to produce a 10% greater output of material, thus leading to shorter project times and higher capital savings.

COMPARISON OF OUTPUT



TECHNICAL INFORMATION

GRADE	DAVID MOSS WEAR-TUFF	METHOD
Colour	6	
Classification	MRS 11.2MPa	ISO 9080:2012 ISO 9080:2012
Melt flow rate (190°c, 5kg)	0.17 g/10min	ISO 1133:2011
Density compound	0.960 g/cm	ISO 1183-1:204(A)
Tensile strength at yield	24MPa	ISO 527-2:2012
Resistance to slow crack growth	>1,000 HOURS	ISO 13477:2009
Resistance to rapid crack propagation (RCP)	>10 BAR	ISO 13477:2008
Standard Compliance	ISO 4427-1 / EN 12201-1 ISO4437-1 / EN 1555-1 AS/NZ 4131 / ASTM D3350	

WALL THICKNESS TABLE

NOM O.D	SDR 19 / PN 10			SDR 15 / PN 12.5			SDR 12.2 / PN 16			SDR 10 / PN 20			SDR 8 / PN 25		
	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M	MEAN ID	MIN WALL	MEAN KG/M
225	201.0	11.9	8.08	195.1	14.7	9.84	187.2	18.4	12.12	178.5	22.6	14.52	168.1	27.5	17.24
250	223.3	13.2	9.98	216.8	16.3	12.14	208.0	20.5	14.96	198.3	25.1	17.93	186.8	30.6	21.27
280	250.1	14.8	12.50	242.9	18.3	15.18	233.0	23.0	18.73	222.2	28.1	22.44	209.2	34.3	26.66
315	281.4	16.6	15.82	273.2	20.5	19.25	262.1	25.8	23.73	249.9	31.6	28.44	235.4	38.6	33.75
355	317.1	18.8	20.06	307.9	23.1	24.40	295.4	29.1	30.08	281.7	35.6	36.05	265.2	43.5	42.85
400	357.3	21.1	25.47	346.9	26.1	30.99	332.8	32.8	38.22	317.4	40.2	45.77	298.9	49.0	54.36
450	402.0	23.8	32.26	390.3	29.3	39.25	374.5	36.9	48.36	357.1	45.2	57.96	336.3	55.1	68.83
500	446.7	26.4	39.78	433.7	32.6	48.41	416.1	41.0	59.69	396.7	50.2	71.58	373.6	61.2	84.99
560	500.2	29.6	49.92	485.7	36.5	60.70	466.0	45.9	74.83	444.3	56.2	89.72	418.4	68.6	106.57
630	562.8	33.3	63.20	546.5	41.1	76.83	524.3	51.6	94.75	499.9	63.3	113.59	470.8	77.1	134.89
710	634.3	37.5	80.16	615.9	46.3	97.50	590.9	58.2	120.25	563.4	71.3	144.18	530.6	86.9	171.24
800	714.7	42.3	101.77	694.0	52.2	123.75	665.8	65.6	152.66	634.8	80.3	183.06	597.8	97.9	217.45
900	804.1	47.6	128.79	780.7	58.7	156.75	749.0	73.8	193.31	714.2	90.4	231.70	672.6	110.2	275.20
1000	893.4	52.9	158.98	867.5	65.2	193.36	832.3	82.0	238.48	793.6	100.4	285.92	747.3	122.4	339.71
1200	1071.7	63.4	228.81	1040.6	78.2	278.34	998.3	98.4	343.37	951.9	120.5	411.60	896.4	146.9	488.94

Damos NexGen Weartuff is available from DN225 to DN1200, from PN10 to PN35.

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Damos RC

PE100 WITH EXCEPTIONAL STRESS CRACK RESISTANCE

Damos RC is a PE100 resin with high stress crack resistance and is a superior class of PE100 material. Damos RC has many times greater stress crack resistance than standard PE100 resin. Damos RC enables you to work with your designer to achieve more efficient pipelines, longer lasting pipe networks or reduced installation costs.

REDUCED WALL THICKNESS

Slow crack growth initiation can lead to brittle failure. Damos RC has increased resistance to slow crack growth initiation.

The potential to downgauge pipe (reduce wall thickness) can be made possible with the appropriate use of design factors and “fit-for-purpose” design methodology.

Downgauging decreases costs while increasing efficiency. Reduced material usage lowers pipe costs, while improved flow decreases pumping costs.

LOWER INSTALL COST

Damos RC has increased resistance to slow crack growth initiation which can be caused by scratches and notches during installation.

Damos RC can withstand deeper notches reducing the risk of impacting upon pipe service life when compared to standard PE100 grades.

Damos RC can enable installation using lower cost backfill. The high stress crack resistance of Damos RC reduces the risk of crack initiation due to point loads associated with these installation methods.

INCREASED SERVICE LIFE

The exceptional resistance to slow crack growth of Damos RC can lead to increased pipe service life, lower maintenance costs and reduced replacement rates.

There is the potential for stress concentration to initiate slow crack growth wherever “squeeze-off” is used to manage pipeline flows for planned or emergency maintenance.

Damos RC increases resistance to the initiation of slow crack growth wherever these stress concentrators are present.

STRESS CRACK RESISTANCE PERFORMANCE - HESSEL ACCELERATED CREEP TEST

DAMOS RC

DAMOS HDPE 100

Damos RC, is a specialty grade PE100 resin featuring superior slow crack growth properties.

David Moss offer a full range of Damos RC grade butt welded fittings and EF fittings to complement our pipe range.

Damos RC is designed to meet or exceed the key performance requirements for hydrostatic strength (MRS10), slow crack growth resistance (SCGR) and resistance to rapid crack propagation (RCP). Over many years, the mining, water and gas industries have taken advantage of the proven world class performance of Damos RC, using it in pressure pipe in large volumes.

BEYOND MINIMUM REQUIRED STRENGTH (MRS)

For Damos pipe grades, we maintain Pipe Pressure data beyond the minimum requirements of the PE100 standard. Working with Damos Technical Service, your pipe design can be optimised to achieve;

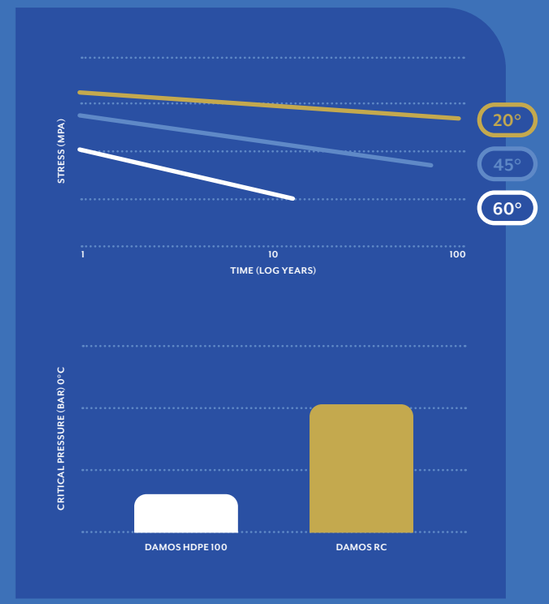
- Maximum lifetime design
- Elevated usage temperature

HIGH RESISTANCE TO RAPID CRACK PROPAGATION (RCP)

Damos RC has passed Rapid Crack Propagation (RCP) tests at critical pressures well above the requirements of the standard. RCP performance data for sub-zero application temperature is also available.

RCP performance enables pipe designers to specify:

- Lower in-use temperatures
- Higher safety margins for fluid containment



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Damos low slump/ Anti sag resins

David Moss has a proud and long standing reputation for the production of large diameter thick walled pipe (≥ 60mm).
Using advanced manufacturing processes and modern extrusion technology, Damos NexGen Low slump resins allow us to expand our range of applications for HDPE pipes into new markets and industry segments, whilst utilising our 50 years of experience and track record of manufacturing large bore, heavy wall pipe for major projects.

ULTRA LOW SAG PERFORMANCE

The exceptional melt strength performance means Damos Low Slump/ Anti Sag Resins is capable of producing pipe with wall thickness greater than 80mm. This opens up new applications to PE100 pipe and allows manufacturers to access new markets. Designers are able to consider using PE100 in applications usually reserved for steel and concrete.

EXCELLENT PIPE DIMENSIONAL STABILITY

High melt strength results in excellent pipe dimensional stability. Damos Low Slump/ Anti Sag Resins minimises wall thickness variation and reduces rework resulting in:

— Raw material saving
— Optimal pipe installation efficiency

HIGHER SPECIFIC OUTPUT AND COOLER MELT TEMPERATURES

The market leading extrusion performance of DAMOS Low slump/Anti sag resins allows DAMOS to increase both outputs and efficiency. DAMOS's production facilities all feature advanced cooling systems, thus allowing DAMOS to achieve even higher outputs and a tighter wall thickness tolerance.

David Moss utilise premium HDPE resins to achieve wall thicknesses greater than 71mm.

NEXGEN SYSTEMS

Damos HDR

Damos HDR (Damos RC + Disinfectant Resistant) is a high density polyethylene (HDPE) PE 100 compound for pipes and fittings. Developed to tackle the ever changing challenges faced by water distribution network asset owners, Damos HDR is designed to cope with elevated temperatures and more aggressive chemical disinfection systems.

Working in conjunction with the major water utilities across ANZ, Damos HDR aids the water utilities to preserve the quality of drinking water, whilst also improving the performance and lifespan of the pipes and fittings delivering the end product to the rate payer.

In addition, Damos HDR offers excellent resistance to slow crack growth, meaning it is also an ideal choice for HDD, and trenchless installations. Damos HDR is fully compliant with existing standards for drinking water pipelines (ISO 4427).

Manufactured using modern extrusion technology, David Moss currently manufacture Damos HDR pipe from DN25 to DN1200, from SD41 to SDR 7.4. To complement the David Moss manufactured HDR pipe, we also manufacture HDR fittings, including Stub flanges, Long spigot Stub flanges, Wye Junctions, Sweep bends, Pull Tees, Fabricated equal tees, and Inverted (Scour) Tees. All Damos HDR products are manufactured to AS/NZS 4130 and AS/NZS 4131.

ADVANTAGES

- ✓ Heightened resistance to chlorinated disinfectants, when compared to standard HDPE100
- ✓ High resistance to slow crack growth
- ✓ Enhanced Durability
- ✓ Improved Service life
- ✓ Copes well with external point loads
- ✓ Reduced installation costs by embracing HDD and Trenchless installation
- ✓ Excellent Weld ability

NOL RING TEST AFTER AGING IN CLO2 UNDER STRESS

Cond.:40°C / 2ppm clo2 / 7mpa circumferential stress

PHYSICAL PROPERTIES	TEST METHOD	HOSTALEN CRP100 RCD BLACK
Melt Flow Rate (190°C/5kg)	ISO 1133-1	0.23 g/10min
Density	ISO 1183-1	0.958 g/cm3
Tensile Modulus (23°C)	ISO 527-1,2	1100 MPa
MRS Classification	ISO 9080	10 MPa
FNCT (80°C/4MPa/2%N100)	ISO 16770	> 8760 h
NPT (80°C/9.2 bar)	ISO 13479	> 5000 h
S4-Test @ 0°C, Ø250x22.8mm	ISO 13477	> 10 bar

✓ Well Suited
✓✓ Very Well Suited
✓✓✓ Exceptional Performance

PRODUCT APPLICATION GUIDE

INSTALLATION	APPLICATION	DAMOS WEAR-TUFF	DAMOS RC	DAMOS HDR	DAMOS FRAS	DAMOS VHAR
TRENCH	Water Distribution	✓	✓✓	✓✓✓	✓	✓
	Gas Distribution	✓	✓✓	✓	✓✓	✓
	Mining Slurry	✓✓	✓	✓	N/A	✓✓✓
	Large bore, thick wall	✓✓	✓	✓	N/A	✓✓
TRENCHLESS	Slip lining	✓	✓✓✓	✓	✓	✓✓
	Plough In	✓	✓✓	✓	N/A	✓
	HDD	✓	✓✓✓	✓	✓	✓✓
	HDD Large Bore	✓✓✓	✓✓	✓	N/A	✓✓✓

Categories are based on the typical performance requirements of the application listed and serve as a guide only.

David Moss NexGen range allows the asset owner to utilise the right resin, with specific properties for their application. Its no longer a “one shoe fits all".

Damos Fras

David Moss range of FRAS (Fire Resistant Anti Static) was developed in conjunction with the off shore oil and gas industry, and is a product specifically developed to tackle the key safety elements experienced on off shore oil installations. Damos Fras pipe features industry leading standards in both surface and volumetric resistivity, which both comply and exceed the requirements of ASTM D257; as well as displaying exceptionally high fire resistivity levels, as classified in DIN 4102-1 B1, EN13501-1 B (low contribution to spread fire, medium smoke protection index level, low level burning droplets/particles).

The Damos Fras product is particularly suitable when considering hazardous applications, and has been used extensively in the off shore oil and gas industry, underground mining, water based suppression systems and the transport of non-flammable liquids. Damos offer the Fras range of pipe in a solid black or a coloured/striped jacket; a full range of Damos Fras HDPE fittings manufactured locally in Australia are also available, including stub flanges, reducers, elbows, sweep bends, equal and reducing tees, and barrel union adaptors.

With superior anti-static properties the Damos FRAS pipe is manufactured locally in Australia, for a range of hazardous applications.

	UNIT	TEST METHOD	VALUE
MATERIAL PROPERTIES			
Melt Flow Rate (190°C /21.6 kg)	g/10min	ASTM D 1238	8.00±1
Specific Gravity	-	-	1.30±3
Tensile Strength at Yield	Kgf/cm^3	ASTM D 638	190±60
Izod Impact (N), Notched	Kg.cm/cm	ASTM D 256	21.00±3
Moisture Content	%	ASTM D 6980	0.09
Flexural Strength	Kgf/cm^2	ASTM D 790	188±10
Flexural Modulus	Kgf/cm^2	ASTM D 790	8000min
Flammability	-	UL94	V-0
Moisture Content	ppm	ISO-15512	111
Surface Resistivity	Ohm/Sq.	ASTM D 257	103 - 106
PRODUCT PROPERTIES			
Minimum Required Strength	MPa	ISO/TR 9080	10
Resistance to internal pressure (80°C)	Hour	AS/NZS 1462.6	>165
			>1000
Tensile Yield Stress	MPa	ISO-13953	24
Allowable Compressive Strength	MPa		7.93
Resistance to Slow Crack (80°C @ 920 KPa)	Hour	AS/NZS 1462.24	500
Oxidation Induction Test	Min	ISO-11357-6	>20
			>40
Reversion (110°C)	%	AS/NZS 1462.4	<3

Sourced reference Resin Suppliers database.

DESIGN

Allowable operation Pressure

Hydrostatic Design Basis: Wall thickness and pressure rating determined by Barlow Formula:

T = PD / 2S +P; Where T- minimum Wall thickness (mm)

P – Normal working pressure of pipe (MPa)

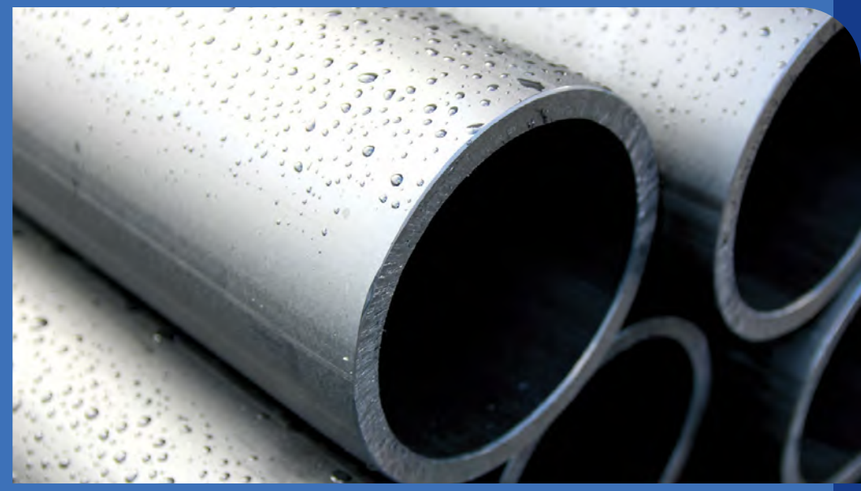
D – Minimum mean OD (mm)

S – Hydrostatic design stress at 20DC (MPa); For PE100 10.0 MPa

HYDROSTATIC DESIGN STRESS AND MINIMUM REQUIRED STRENGTH - VALUES		
PE100 (MPa)	Minimum Required Strength 8.0	Hydrostatic Design stress 10.0

OD	SDR17/PN10			SDR13.6/PN12.5			SDR11/PN16			SDR9/PN20			SDR7.4/PN25		
	MEAN BORE	MIN W/T	KG/M	MEAN BORE	MIN W/T	KG/M	MEAN BORE	MIN W/T	KG/M	MEAN BORE	MIN W/T	KG/M	MEAN BORE	MIN W/T	KG/M
25	21.5	1.6	0.12	20.9	1.9	0.14	20.0	2.3	0.17	19.0	2.8	0.20	17.5	3.5	0.24
63	54.9	3.8	0.72	53.0	4.7	0.87	50.7	5.8	1.05	47.9	7.1	1.26	44.8	8.6	1.5
110	96.0	6.6	2.17	92.8	8.1	2.63	88.9	10.0	3.16	84.0	12.3	3.80	78.1	15.1	4.52
125	109.3	7.4	2.77	105.5	9.2	3.39	100.9	11.4	4.10	95.5	14.0	4.90	88.9	17.1	5.82
160	139.9	9.5	4.55	135.1	11.8	5.54	129.2	14.6	6.72	122.3	17.9	8.02	113.9	21.9	9.52
180	157.4	10.7	5.75	151.9	13.3	7.03	145.4	16.4	8.49	137.6	20.1	10.15	128.2	24.6	12.04
225	196.7	13.4	9.00	190.0	16.6	10.95	181.8	20.5	13.25	172.1	25.1	15.84	160.2	30.8	18.82
250	218.8	14.8	11.03	211.2	18.4	13.49	202.2	22.7	16.30	191.3	27.9	19.53	178.0	34.2	23.23

SDR – SIZE DIMENSIONAL RATIO, PN – PRESSURE RATING AT 20 DEGREES C AS/NZS 4130:2018



Specifically designed in conjunction with key clients in the off shore gas and Australian underground mining industry, Damos Fras is a quantum leap forward in terms of safety and performance.

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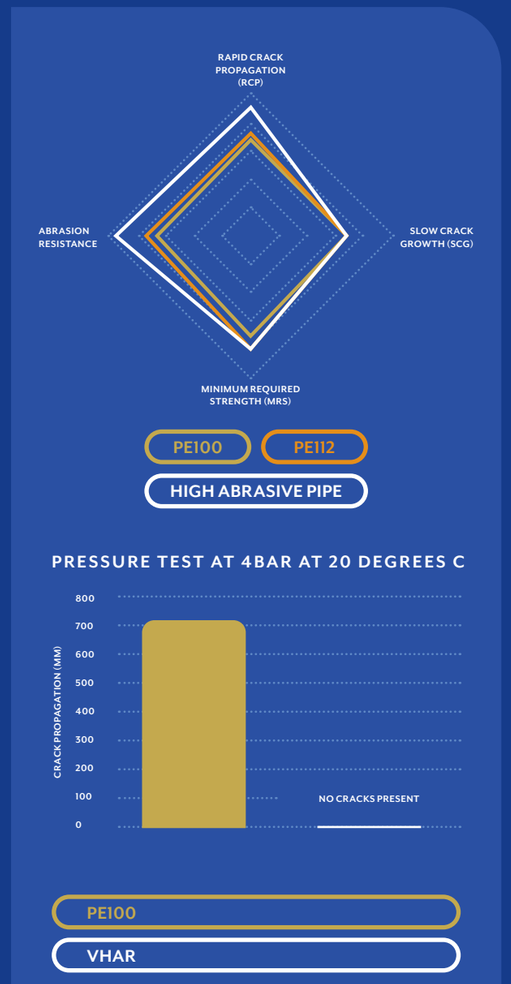
Damos Ultra Wear

David Moss range of VHAR Pipes and Fittings, represents a leap forward in abrasion resistivity, the VHAR (Very High Abrasion Resistance) product has been developed in conjunction with key asset owners in the global mining industry in order to tackle the problems associated with service life when considering abrasive and/or course slurry's traveling through HDPE pipe lines. Featuring never before seen abrasion resistance levels of 2.4X those associated with standard PE100 grade materials and 1.6x those associated with Damos Wear-Tuff, the VHAR product is a versatile product that offers unmatched durability, allowing the service life to be doubled or in some cases tripled. Damos VHAR is a fully weldable product, and can be butt fusion welded with any butt fusion welding machine; a full range of VHAR fittings is also available which are produced locally in Australia by Damos and include stub flanges, billet reducing tees, billet eccentric tees and billet equal tees, elbows, sweep bends and concentric and eccentric reducers.

ADVANTAGES & BENEFITS

- ✓ **Unmatched Abrasion Resistance**
  Mining operations involve the transportation of abrasive materials such as ores, rocks, and slurry. Standard polyethylene pipes often fail to withstand the intense abrasion. This attribute makes VHAR suitable for applications where abrasion resistance is critical.
- ✓ **Cost-efficiency**
  VHAR remains a cost-effective solution. Its longevity reduced maintenance requirements, and minimal downtime contributes to long-term cost savings.
- ✓ **Environmental Guardian**
  Say good-bye to microplastic worries. S999PC is designed to minimize wear and tear, preventing the release of microplastic into our precious ecosystems.
- ✓ **Extrudable in current extrusion machinery**
  Very high molecular weight normally cannot be extruded. However, with our polymer design. VHAR exhibits good processability, opening up a whole new realm of possibilities for harsh applications.
- ✓ **Compatibility with existing PE100 infrastructure**
  Minimise the need for extensive system upgrades,making it an attractive option for retrofitting and expanding existing pipelines.



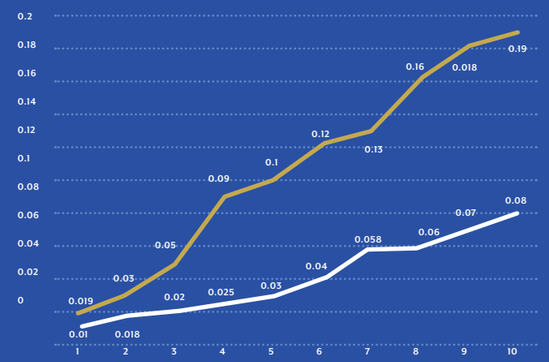
PRESSURE TEST AT 4BAR AT 20 DEGREES C

VHAR displays a great ability to withstand crack formation or propagation even at extreme conditions and temperatures.

MATERIAL PROPERTIES	UNIT	PE100	VHAR
PHYSICAL PROPERTIES			
Material form		Black Pellet	Black Pellet
Melt flow index, Load 21kg, 190°C	g/10min	6.5	1.5-1.7
Density	g/cm^3	0.960	0.963
Molecular weight (Mv)	g/mol	250,000	600,000
MECHANICAL PROPERTIES			
Charpy impact ISO179	kJ/m2	22	45
Abrasion wear resistance by sand slurry method ISO15527 [1400 rpm, 48 hours] means it has an excellence in wear resistance property. Using PE100 as reference material.	%	100	70
Strain Hardeing Modulus <Gp> ISO18488	MPa	42	50
Tensile strength at yield ISO527	MPa	22	23
Tensile strength at break ISO527	MPa	31	38
PIPE PERFORMANCE			
Pressure test, 12.4 Mpa, 20 C	Hour	>150	>1238
Slow crack growth	Hour	>500	>500
Rapid crack propagation test crack arrest at 10 Bar, 0°C	mm	>129	0
Rapid crack propagation test crack arrest at 4 Bar, -30°C	mm	>704	0

VHAR displays
2.4 times less
thickness loss of wall mass v traditional PE100 grade material.

THICKNESS LOSS OVER TIME V STANDARD PE100



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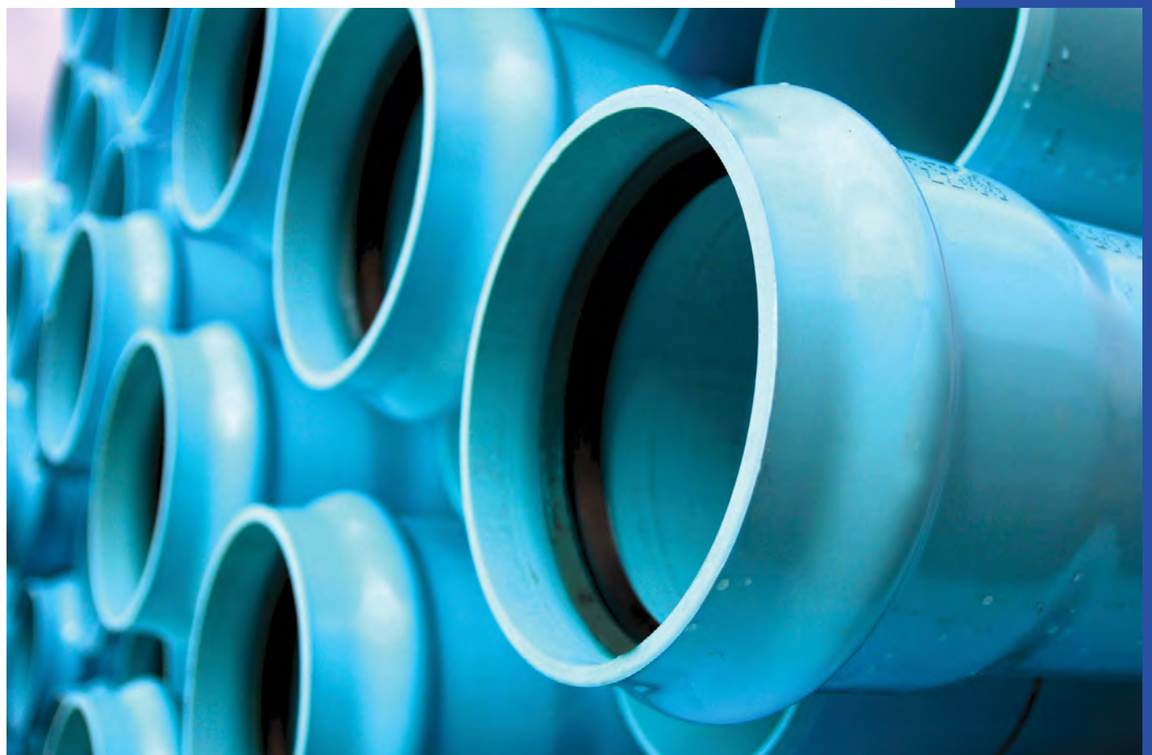
PVC Pressure Pipe Systems

David Moss manufacture and supply PVC pipes from 50mm OD to 250mm OD in both U-PVC and M-PVC, featuring class 9, 12, 16, 18 and 20. David Moss produce PVC pipes in standard 6M lengths and are approved by all Australian State Network providers. David Moss PVC pipes are manufactured to AS/NZS 1477and AS/NZS 4765, and in the case of series 2 PVC come as standard with a Rubber Ring Joint (RRJ) style socket. David Moss PVC pipes are the go to pipes for any of Australia's water authorities, and are ideal for trench style installations, due to their simplicity and ease of installation and their extremely low rates of leaks and failure.

David Moss PVC pipes are sturdy, robust and reliable.



PVC Pressure Pipe

ADVANTAGES

- ✓ Lightweight
- ✓ Leak free Joints
- ✓ Invulnerable to external or internal corrosion
- ✓ Excellent Chemical resistance
- ✓ Low coefficient of friction
- ✓ Reduced risk of internal blockages
- ✓ Quick installation time
- ✓ Long Service Life (50+ years)
- ✓ Material Flexibility

UPVC SERIES 1 PRESSURE PIPES AS/NZS 1477

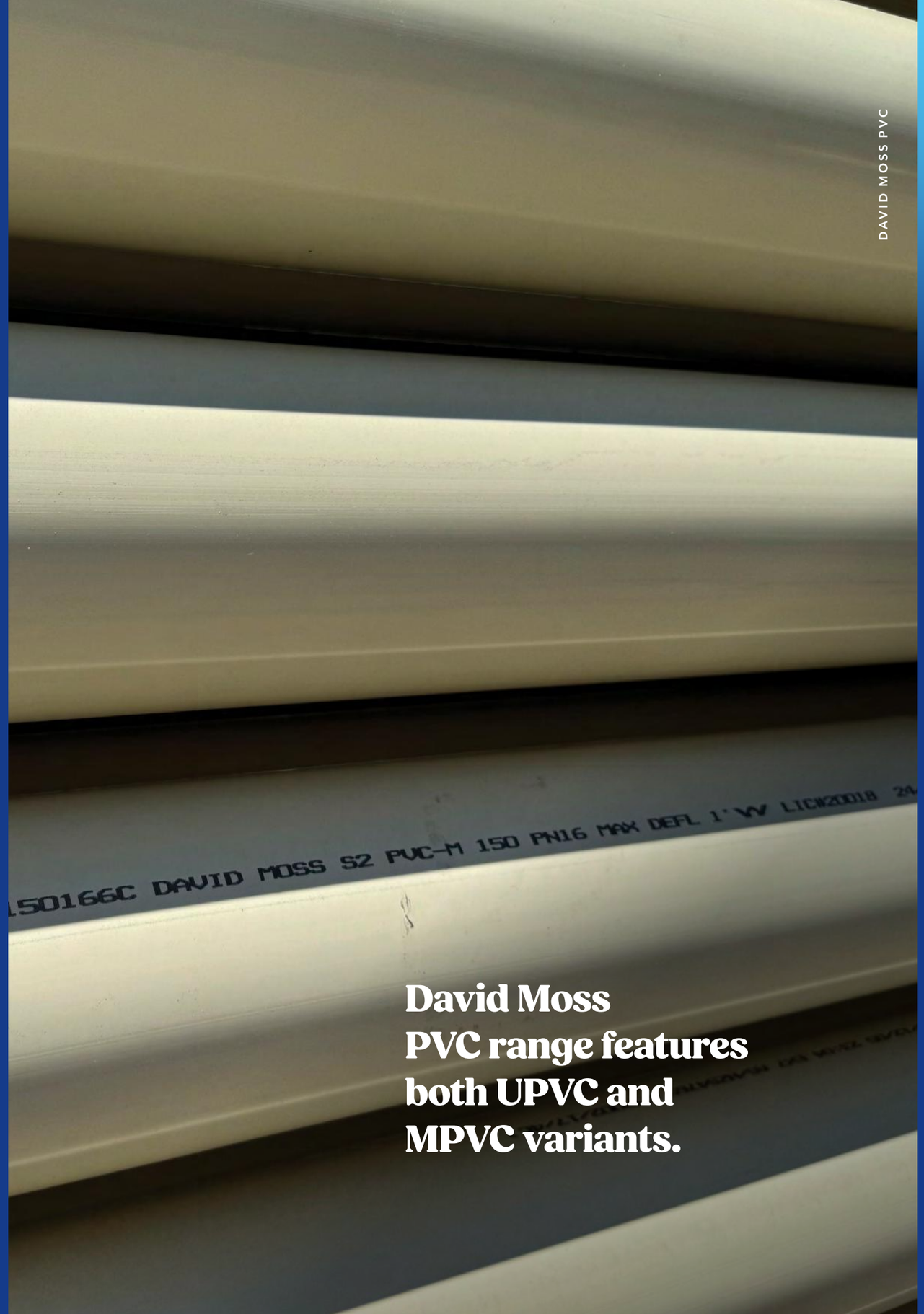
BORE CASING	NOM BORE	OD	COLOUR	MIN WALL	MAX WALL	WGHT KG/M	PRODUCT CODE
PN 6	80	89	WHITE	2.4	2.8	1	QS180066
	100	114.2	WHITE	3.0	3.5	1.6	QS1100066
	125	134	WHITE	3.6	4.0	1.9	QS1125066
	150	160.2	WHITE	4.2	4.8	2.2	QS1150066
PN 9	80	89	WHITE	3.5	4.1	1.4	QS180096
	100	114.2	WHITE	4.5	5.2	2.4	QS1100096
	125	134	WHITE	5.5	6.2	3.5	QS1125096
	150	160.2	WHITE	6.3	7.1	4.7	QS1150096
PN 12	80	89	WHITE	4.6	5.3	1.9	QS180126
	100	114.2	WHITE	5.9	6.7	3.2	QS1100126
	125	134	WHITE	7.1	7.9	4.7	QS1125126
	150	160.2	WHITE	8.3	9.3	6.2	QS1150126

UPVC - SERIES 1 BORE CASING

NOM BORE	OD	COLOUR	MIN WALL	MAX WALL	WGHT KG/M	PRODUCT CODE
100	114	WHITE	4.7	5.1	3	QS1100091.1
125	140	WHITE	5.7	6.1	3.8	QS1125091.1
150	160	WHITE	6.5	7.1	4.5	QS1150091.1
175	200	WHITE	7.4	8.1	5.4	QS1175091.1
225	240	WHITE	8.4	9.1	10.4	QS1225091.1

MPVC SERIES 2 PRESSURE PIPES AS/NZS 4765 COMPLETE WITH RRJ

NOM BORE	OD	COLOUR	MEAN BORE	MIN WALL	MAX WALL	PRODUCT CODE
PN 16						
100	121.9	BLUE	5.4	6.1	3.1	QRS2M100166
150	177.3	BLUE	7.8	8.8	6.4	QRS2M150166
200	232	BLUE	10.3	11.4	11	QRS2M200166
250	286.2	BLUE	12.5	14	16.6	QRS2M250166
PN 20						
100	121.9	BLUE	6.6	7.5	3.7	QRS2M100206
150	177.4	BLUE	7.8	8.8	6.4	QRS2M150206
200	232.3	BLUE	12.5	14	13.3	QRS2M200206
250	286.2	BLUE	15.4	17.1	20.2	QRS2M250206



David Moss PVC range features both UPVC and MPVC variants.

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David Moss Fittings

David Moss Fittings portfolio allows customers to select the most suitable fittings for their chosen connection type from a vast range of connection methods, from mechanical, through electrofusion to butt welded fittings; we stock all fittings in a wide range of SDR's and DN's in both our Perth and Brisbane Warehouses.

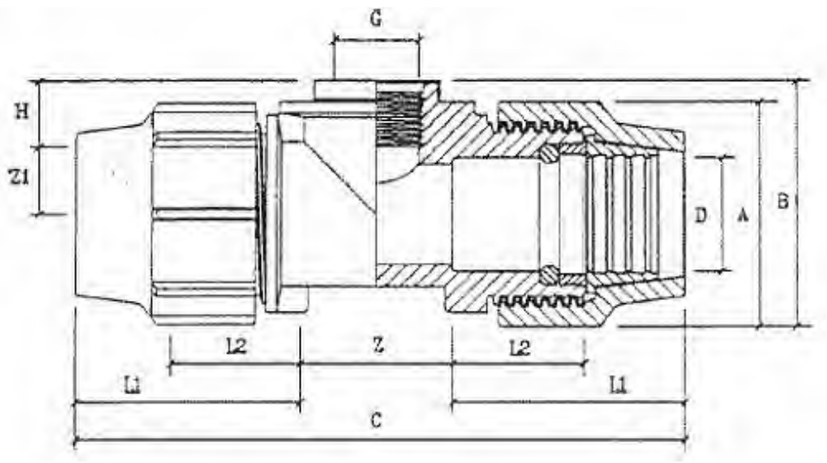
David Moss offer a comprehensive range of over 400,000 individual fittings, from both our Perth and Brisbane warehouses.

David Moss fittings range covers off mechanical, electrofusion, butt welded, compression, threaded and transition fittings.

Compression Fittings

David Moss range of compression couplings is a strong and lightweight coupling for HDPE pipes, these innovative couplings are rated to SDR11 PN16. Utilising an O-ring, grip ring and gasket and screw cap configuration, the fitting works together to secure the pipe within the fitting assembly allowing the user to join 2 ends together quickly and easily. Available in rural and metric sizes, compression fittings are the first choice for irrigation, water and gas network operators and asset owners, and are particularly effective when securing pipe with smaller OD's; Available in a variety of configurations David Moss Compression fittings range includes couplers, end caps, tapping saddles and transition pieces.

David Moss compression fitting portfolio is comprehensive and features our in house range of SAB compression fittings, as well as Plasson and various other brand name products.



COMPRESSION COUPLING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16	16	10	CC16
20	16	10	CC20
25	16	10	CC25
32	16	5	CC32
40	16	1	CC40
50	16	1	CC50
63	16	1	CC63
75	16	1	CC75
90	16	1	CC90
110	16	1	CC110
125	16	1	CC125
160	16	1	CC160

COMPRESSION COUPLING BODY

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16	16	1	CCB16
20	16	1	CCB20
25	16	1	CCB25
32	16	1	CCB32
40	16	1	CCB40
50	16	1	CCB50
63	16	1	CCB63

COMPRESSION COUPLING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	-	10	CPC20
25	-	10	CPC25
32	-	10	CPC32
40	-	5	CPC40
50	-	5	CPC50
63	-	2	CPC63

COMPRESSION SLIP / REPAIR COUPLING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	16	10	CSRC20
25	16	10	CSRC25
32	16	5	CSRC32
40	16	1	CSRC40
50	16	1	CSRC50
63	16	1	CSRC63
75	16	1	CSRC75
90	16	1	CSRC90
110	16	1	CSRC110
125	16	1	CSRC125
160	16	1	CSRC160

COMPRESSION REDUCING COUPLING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 16	16	10	CR2016
25 x 16	16	10	CR2516
25 x 20	16	10	CR2520
32 x 20	16	5	CR3220
32 x 25	16	5	CR3225
40 x 25	16	1	CR4025
40 x 32	16	1	CR4032
50 x 25	16	1	CR5025
50 x 32	16	1	CR5032
50 x 40	16	1	CR5040
63 x 25	16	1	CR6325
63 x 32	16	1	CR6332
63 x 40	16	1	CR6340
63 x 50	16	1	CR6350
75 x 50	16	1	CR7550
75 x 63	16	1	CR7563
90 x 63	16	1	CR9063
90 x 75	16	1	CR9075
110 x 63	16	1	CR11063
110 x 90	16	1	CR11090

COMPRESSION UNIVERSAL ADAPTOR

SIZE	MAIN SIZE	PN	PACK QUANTITY	PRODUCT CODE
15 - 22	25PE	16	1	CUC251522
20 - 27	25PE	16	1	CUC252027
20 - 27	32PE	16	1	CUC322027
27 - 35	25PE	16	1	CUC252735
27 - 35	32PE	16	1	CUC322735
*35 - 50	50PE	16	1	CUC503550

COMPRESSION FEMALE ADAPTOR

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 1/2"	16	10	CAF1616
16 x 3/4"	16	10	CAF1620
20 x 1/2"	16	10	CAF2016
20 x 3/4"	16	10	CAF2020
20 x 1"	16	10	CAF2025
25 x 1/2"	16	10	CAF2516
25 x 3/4"	16	10	CAF2520
25 x 1"	16	10	CAF2525
32 x 1/2"	16	5	CAF3216
32 x 3/4"	16	5	CAF3220
32 x 1"	16	5	CAF3225
32 x 1.1/4"	16	5	CAF3232
40 x 1"	16	1	CAF4025
40 x 1.1/4"	16	1	CAF4032
40 x 1.1/2"	16	1	CAF4040
50 x 1.1/4"	16	1	CAF5032
50 x 1.1/2"	16	1	CAF5040
50 x 2"	16	1	CAF5050
63 x 1.1/4"	16	1	CAF6332
63 x 1.1/2"	16	1	CAF6340
63 x 2"	16	1	CAF6350
63 x 2.1/2"	16	1	CAF6363
75 x 2"	16	1	CAF7550
75 x 2.1/2"	16	1	CAF7563
75 x 3"	16	1	CAF7575
90 x 2"	16	1	CAF9050
90 x 2.1/2"	16	1	CAF9063
90 x 3"	16	1	CAF9075
90 x 4"	16	1	CAF90100
110 x 2"	16	1	CAF11050
110 x 3"	16	1	CAF11075
110 x 4"	16	1	CAF110100

COMPRESSION MALE ADAPTER

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 1/2"	16	10	CAM1616
16 x 3/4"	16	10	CAM1620
20 x 1/2"	16	10	CAM2016
20 x 3/4"	16	10	CAM2020
20 x 1"	16	10	CAM2025
25 x 1/2"	16	10	CAM2516
25 x 3/4"	16	10	CAM2520
25 x 1"	16	10	CAM2525
32 x 1/2"	16	5	CAM3216
32 x 3/4"	16	5	CAM3220
32 x 1"	16	5	CAM3225
32 x 1.1/4"	16	5	CAM3232
32 x 1.1/2"	16	5	CAM3240
40 x 1"	16	1	CAM4025
40 x 1.1/4"	16	1	CAM4032
40 x 1.1/2"	16	1	CAM4040
40 x 2"	16	1	CAM4050
50 x 1"	16	1	CAM5025
50 x 1.1/4"	16	1	CAM5032
50 x 1.1/2"	16	1	CAM5040
50 x 2"	16	1	CAM5050
63 x 1.1/4"	16	1	CAM6332
63 x 1.1/2"	16	1	CAM6340
63 x 2"	16	1	CAM6350
63 x 2.1/2"	16	1	CAM6363
75 x 2"	16	1	CAM7550
75 x 2.1/2"	16	1	CAM7563
75 x 3"	16	1	CAM7575
90 x 2"	16	1	CAM9050
90 x 2.1/2"	16	1	CAM9063
90 x 3"	16	1	CAM9075
90 x 4"	16	1	CAM90100
110 x 2"	16	1	CAM11050
110 x 3"	16	1	CAM11075
110 x 4"	16	1	CAM110100

COMPRESSION MALE ADAPTER WITH BRASS MALE THREAD

SIZE	PN	PACK QUANTITY	PRODUCT CODE
32 x 1"	16	1	CAMB3225
32 x 1.1/4"	16	1	CAMB3232
32 x 1.1/2"	16	1	CAMB3240
40 x 1"	16	1	CAMB4025
40 x 1.1/4"	16	1	CAMB4032
40 x 1.1/2"	16	1	CAMB4040
50 x 1"	16	1	CAMB5025
50 x 1.1/4"	16	1	CAMB5032
50 x 1.1/2"	16	1	CAMB5040
63 x 1.1/4"	16	1	CAMB6332
63 x 1.1/2"	16	1	CAMB6340
63 x 2"	16	1	CAMB6350

COMPRESSION BARREL UNION ADAPTER WITH MALE THREAD

SIZE	PN	PACK QUANTITY	PRODUCT CODE
25 x 1/2"	16	1	CBU2516
25 x 3/4"	16	1	CBU2520
32 x 1"	16	1	CBU3225
32 x 1.1/4"	16	1	CBU3232
32 x 1.1/2"	16	1	CBU3240
40 x 1"	16	1	CBU4025
40 x 1.1/4"	16	1	CBU4032
40 x 1.1/2"	16	1	CBU4040
50 x 1"	16	1	CBU5025
50 x 1.1/4"	16	1	CBU5032
50 x 1.1/2"	16	1	CBU5040
63 x 1.1/4"	16	1	CBU6332
63 x 1.1/2"	16	1	CBU6340
63 x 2"	16	1	CBU6350

COMPRESSION BARREL UNION ADAPTER WITH BRASS MALE THREAD

SIZE	PN	PACK QUANTITY	PRODUCT CODE
32 x 1"	16	2	CBUB3225
40 x 1"	16	2	CBUB4025
40 x 1.1/4"	16	2	CBUB4032
40 x 1.1/2"	16	2	CBUB4040
50 x 1.1/4"	16	2	CBUB5032
50 x 1.1/2"	16	2	CBUB5040
63 x 1.1/4"	16	2	CBUB6332
63 x 1.1/2"	16	2	CBUB6340
63 x 2"	16	2	CBUB6350

COMPRESSION 90° ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16	16	10	CE16
20	16	10	CE20
25	16	10	CE25
32	16	5	CE32
40	16	1	CE40
50	16	1	CE50
63	16	1	CE63
75	16	1	CE75
90	16	1	CE90
110	16	1	CE110
160	10	1	CE160

COMPRESSION 90° REDUCING ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
25 x 20	16	10	CER2520

COMPRESSION UNIVERSAL ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
15 - 22 x 25 PE	16	1	CEU251522
20 - 27 x 25 PE	16	1	CEU252027
27 - 35 x 25 PE	16	1	CEU252735

COMPRESSION 90° ELBOW ADAPTOR

SIZE	PN	PACK QUANTITY	PRODUCT CODE
40 x 40 (SPIGOT)	16	1	CEA4040
50 x 40 (SPIGOT)	16	1	CEA5040
63 x 40 (SPIGOT)	16	1	CEA6340
40 x 50 (SPIGOT)	16	1	CEA4050
50 x 50 (SPIGOT)	16	1	CEA5050
63 x 40 (SPIGOT)	16	1	CEA6340

COMPRESSION 90° MALE ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 1/2"	16	10	CEM2016
20 x 3/4"	16	10	CEM2020
25 x 1/2"	16	10	CEM2516
25 x 3/4"	16	10	CEM2520
25 x 1"	16	5	CEM2525
32 x 3/4"	16	5	CEM3220
32 x 1"	16	5	CEM3225
32 x 1.1/4"	16	1	CEM3232
40 x 1"	16	1	CEM4025
40 x 1.1/4"	16	1	CEM4032
40 x 1.1/2"	16	1	CEM4040
50 x 1"	16	1	CEM5025
50 x 1.1/4"	16	1	CEM5032
50 x 1.1/2"	16	1	CEM5040
50 x 2"	16	1	CEM5050
63 x 1.1/4"	16	1	CEM6332
63 x 1.1/2"	16	1	CEM6340
63 x 2"	16	1	CEM6350
63 x 2.1/2"	16	1	CEM6363
75 x 2.1/2"	16	1	CEM7563
75 x 3"	16	1	CEM7575
90 x 3"	16	1	CEM9075
110 x 4"	16	1	CEM110100

COMPRESSION 90° MALE ELBOW WITH BRASS MALE THREAD

SIZE	PN	PACK QUANTITY	PRODUCT CODE
32 x 3/4"	16	1	CEMB3220
32 x 1"	16	1	CEMB3225
32 x 1.1/4"	16	1	CEMB3232
32 x 1.1/2"	16	1	CEMB3240
40 x 1"	16	1	CEMB4025
40 x 1.1/4"	16	1	CEMB4032
40 x 1.1/2"	16	1	CEMB4040
50 x 1"	16	1	CEMB5025
50 x 1.1/4"	16	1	CEMB5032
50 x 1.1/2"	16	1	CEMB5040
63 x 1.1/4"	16	1	CEMB6332
63 x 1.1/2"	16	1	CEMB6340
63 x 2"	16	1	CEMB6350

COMPRESSION 90° ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 1/2'	16	10	CEF1616
20 x 1/2"	16	10	CEF2016
20 x 3/4"	16	10	CEF2020
25 x 1/2"	16	10	CEF2516
25 x 3/4"	16	10	CEF2520
25 x 1"	16	10	CEF2525
32 x 3/4"	16	5	CEF3220
32 x 1"	16	5	CEF3225
32 x 1.1/4"	16	5	CEF3232
40 x 1"	16	1	CEF4025
40 x 1.1/4"	16	1	CEF4032
40 x 1.1/2"	16	1	CEF4040
40 x 2"	16	1	CEF4050
50 x 1"	16	1	CEF5025
50 x 1.1/4"	16	1	CEF5032
50 x 1.1/2"	16	1	CEF5040
50 x 2"	16	1	CEF5050
63 x 1.1/4"	16	1	CEF6332
63 x 1.1/2"	16	1	CEF6340
63 x 2"	16	1	CEF6350
75 x 2"	16	1	CEF7550
75 x 2.1/2"	16	1	CEF7563
75 x 3"	6.3	1	CEF7575

COMPRESSION WALLPLATE ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 1/2"	16	1	CWE1616
20 x 1/2"	16	1	CWE2016
25 x 3/4"	16	1	CWE2520

COMPRESSION 45° ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
32	16	5	CE3245
40	16	1	CE4045
50	16	1	CE5045
63	16	1	CE6345
75	16	1	CE7545
90	16	1	CE9045
110	16	1	CE11045

COMPRESSION 45° MALE ELBOW

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 1/2"	16	10	CEM201645
20 x 3/4"	16	10	CEM202045

COMPRESSION TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16	16	10	CT16
20	16	10	CT20
25	16	5	CT25
32	16	5	CT32
40	16	1	CT40
50	16	1	CT50
63	16	1	CT63
75	116	1	CT75
90	16	1	CT90
110	16	1	CT110

COMPRESSION REDUCING TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 16	16	10	CTR2016
25 x 20	16	5	CTR2520
32 x 25	16	5	CTR3225
40 x 25	16	1	CTR4025
40 x 32	16	1	CTR4032
50 x 25	16	1	CTR5025
50 x 32	16	1	CTR5032
50 x 40	16	1	CTR5040
63 x 32	16	1	CTR6332
63 x 40	16	1	CTR6340
63 x 50	16	1	CTR6350
75 x 63	16	1	CTR7563
110 x 63	16	1	CTR11063

COMPRESSION SLIP/REPAIR TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	16	10	CSRT20
25	16	5	CSRT25
32	16	5	CSRT32
40	12.5	1	CSRT40
50	12.5	1	CSRT50
63	12.5	1	CSRT63

COMPRESSION COUPLING WITH RISER

SIZE	PN	PACK QUANTITY	PRODUCT CODE
40 x 3/4"	16	1	CRTM4020
50 x 3/4"	16	1	CRTM5020
50 x 1"	16	1	CRTM5025
63 x 3/4"	16	1	CRTM6320
75 x 3/4"	16	1	CRTM7520
75 x 1"	16	1	CRTM7525

COMPRESSION MALE TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 1/2"	16	10	CTM2016
20 x 3/4"	16	10	CTM20020
25 x 1/2"	16	5	CTM25016
25 x 3/4"	16	5	CTM25020
32 x 1"	16	5	CTM32025
40 x 1.1/4"	16	1	CTM40032
40 x 1.1/2"	16	1	CTM40040
50 x 1.1/4"	16	1	CTM50032
50 x 1.1/2"	16	1	CTM50040
50 x 2"	16	1	CTM50050
63 x 1.1/4"	16	1	CTM63032
63 x 1.1/2"	16	1	CTM63040
63 x 2"	16	1	CTM63050

COMPRESSION FEMALE TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 1/2"	16	10	CTFI1616
16 x 3/4"	16	10	CTFI1620
20 x 1/2"	16	10	CTF2016
20 x 3/4"	16	10	CTF2020
25 x 1/2"	16	5	CTF2516
25 x 3/4"	16	5	CTF2520
25 x 1"	16	5	CTF2525
25 x 1.1/4"	16	5	CTF2532
32 x 3/4"	16	5	CTF3220
32 x 1"	16	5	CTF3225
32 x 1.1/4"	16	5	CTF3232
32 x 1.1/2"	16	5	CTF3250
40 x 1"	16	1	CTF4025
40 x 1.1/4"	16	1	CTF4032
40 x 1.1/2"	16	1	CTF4040
40 x 2"	16	1	CTF4050
50 x 1.1/2"	16	1	CTF5040
50 x 2"	16	1	CTF5050
63 x 1.1/2"	16	1	CTF6340
63 x 2"	16	1	CTF6350
75 x 2"	16	1	CTF7550
75 x 2.1/2"	16	1	CTF7563
75 x 3"	6.3	1	CTF7575
90 x 3"	6.3	1	CTF9075
110 x 4"	6.3	1	CTFI10100

Stainless Steel Reinforcing Ring From 1.1/2" To 4"

COMPRESSION SLIP TEE WITH THREADED FEMALE OFFTAKE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
40 x 1"	12.5	-	CSRTF4025
50 x 1.1/2"	12.5	-	CSRTF5040
63 x 1.1/4"	12.5	-	CSRTF6332

Stainless Steel Reinforcing Ring From 1.1/2" To 4"

COMPRESSION REDUCING TEE WITH THREADED FEMALE OFFTAKE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 16 x 3/4"	16	10	CTRF201620
25 x 20 x 3/4"	16	5	CTRF252020
32 x 25 x 1"	16	5	CTRF322525

Stainless Steel Reinforcing Ring From 1.1/2" To 4"

COMPRESSION 45° TEE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
63	8	1	CT6345
75	8	1	CT7545
90	8	1	CT9045
110	8	1	CT11045

COMPRESSION MALE Y FITTING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
16 x 3/4"	16	1	CYM1620
20 x 3/4"	16	1	CYM2020
25 x 3/4"	16	1	CYM2520

COMPRESSION CROSS WITH FEMALE OFFTAKE

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20 x 20 x 20 x 20 x ¾	16	1	CCP2020

COMPRESSION SHOULDERED ADAPTER

SIZE	PN	PACK QUANTITY	PRODUCT CODE
50 x 2"	16	1	CSA5050
63 x 2"	16	1	CSA6350
90 x 4"	16	1	CSA90100
110 x 4"	16	1	CSA110100
160 x 6"	16	1	CSA160160

COMPRESSION END CAPS

SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	16	10	CCAP20
25	16	10	CCAP25
32	16	5	CCAP32
40	16	1	CCAP40
50	16	1	CCAP50
63	16	1	CCAP63
75	16	1	CCAP75
90	16	1	CCAP90
110	16	1	CCAP110

COMPRESSION BLANKING PLUG

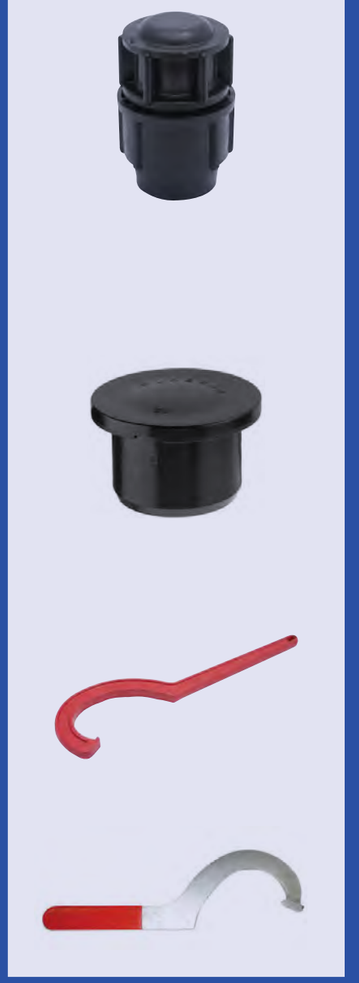
SIZE	PN	PACK QUANTITY	PRODUCT CODE
20	12.5	10	CPLUG20
25	12.5	10	CPLUG25
32	12.5	10	CPLUG32
40	12.5	10	CPLUG40
50	12.5	10	CPLUG50
63	12.5	10	CPLUG63

COMPRESSION WRENCH 1

SIZE	PACK QUANTITY	PRODUCT CODE
16 x 40	16 x 40	CW1640P
40 x 75	40 x 75	CW4075P
63 x 125	63 x 125	CW063125P

COMPRESSION WRENCH 2

SIZE	PACK QUANTITY	PRODUCT CODE
16 x 40	16 x 40	CW1640
40 x 63	40 x 63	CW4063
75 x 110	75 x 110	CW75110



COMPRESSION FLANGED COUPLING WITH METAL BACKING RING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
40 x 1/2" ISO	16	1	CFC4040
50 x 1.1/2" ISO	16	1	CFC5040
50 x 2" ISO	16	1	CFC5050
63 x 2" ISO	16	1	CFC6350
63 x 2.1/2" ISO	16	1	CFC6363
63 4" ISO	16	1	CFC63100
75 x 2.1/2 ISO	16	1	CFC75063
90 x 4" ISO	16	1	CFC90100
110 x 4" ISO	16	1	CFC110100
125 x 5" ISO	12.5	1	CFC125125
125 x 6" ISO	12.5	1	CFC125160
160 x 5" ISO	10	1	CFC160125
160 x 6" ISO	10	1	CFC160160

FLANGED ADAPTOR WITH METAL BACKING RING

SIZE	PN	PACK QUANTITY	PRODUCT CODE
50 x 1.1/2" ISO	16	1	CFA5040
50 x 2" ISO	16	1	CFA5050
63 x 2" ISO	16	1	CFA6350
63 x 2.1/2" ISO	16	1	CFA6363
75 x 2" ISO	16	1	CFA7550
75 x 2.1/2" ISO	16	1	CFA7563
90 x 2.1/2" ISO	16	1	CFA9063
90 x 4" ISO	16	1	CFA90100
110 x 4" ISO	16	1	CFA110100
125 x 5" ISO	12.5	1	CFA125125
125 x 6" ISO	12.5	1	CFA125160
160 x 5" ISO	10	1	CFA160125
160 x 6" ISO	10	1	CFA160160

DAMOS Range of compression fittings are stocked locally in Perth and Brisbane warehouses and are ideal for temporary or semi-permanent jointing applications.

Threaded Fittings

David Moss range of threaded fittings, or socket welded fittings are premium grade fittings, manufactured and supplied to conform with ASME B1.20.1; this traditional method of joining piping systems, is mainly used for smaller bore piping. A highly cost effective method of joining pipe, this method requires no specialist equipment to join the pipe together, and is commonly utilised in domestic, and commercial applications; threaded fittings can be made from HDPE, iron, bronze, alloys, and carbon steel.

David Moss offer a broad range of threaded fittings, and couplings designed for use with David Moss HDPE Pipe.

THREADED PLUGS

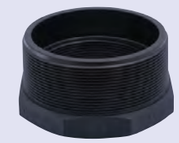
SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CPTI6
3/4"	10	CPT20
1"	10	CPT25
1.1/4"	10	CPT32
1.12"	10	CPT40
2"	5	CPT50

THREADED SOCKETS

SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CSTI6
3/4"	10	CST20
1"	10	CST25
1.1/4"	10	CST32
1.12"	10	CST40
2"	5	CST50

THREADED NIPPLE

SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CNIP16
3/4"	10	CNIP20
1"	10	CNIP25
1.1/4"	10	CNIP32
1.12"	10	CNIP40
2"	10	CNIP50
2.1/2"	10	CNIP63
3"	10	CNIP75



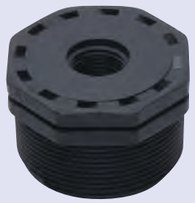
Stainless Steel Reinforcing Ring Available From 1.1/2" To 4"

THREADED REDUCING NIPPLE

SIZE	PACK QUANTITY	PRODUCT CODE
3/4" x 1/2"	10	CNR2016
1" x 1/2"	10	CNR2516
1" x 3/4"	10	CNR2520
1.1/4" x 1/2"	10	CNR3216
1.1/4" x 3/4"	10	CNR3220
1.1/4" x 1"	10	CNR3225
1.1/2" x 1/2"	5	CNR4016
1.1/2" x 3/4"	5	CNR4020
1.1/2" x 1"	5	CNR4025
1.1/2" x 1.1/4"	5	CNR4032
2" x 1/2"	5	CNR5016
2" x 3/4"	5	CNR5020
2" x 1"	5	CNR5025
2" x 1.1/4"	5	CNR5032
2" x 1.1/2"	5	CNR5040

THREADED REDUCING BUSHES

SIZE	PACK QUANTITY	PRODUCT CODE
3/4" x 1/2"	10	CBR2016
1 x 1/2"	10	CBR2516
1 x 3/4"	10	CBR2520
1.1/4" x 1/2"	10	CBR3216
1.1/4" x 3/4"	10	CBR3220
1.1/4" x 1"	10	CBR3225
1.1/2" x 1/2"	10	CBR4016
1.1/2" x 3/4"	10	CBR4020
1.1/2" x 1"	10	CBR4025
1.1/2" x 1.1/4"	10	CBR4032
2" x 1/2"	5	CBR5016
2" x 3/4"	5	CBR5020
2" x 1"	5	CBR5025
2" x 1.1/4"	5	CBR5032
2" X 1.1/2"	5	CBR5040
2.1/2" x 2"	5	CBR6350
3" x 1"	1	CBR7525
3" x 1.1/4"	1	CBR7532
3" x 1.1/2"	1	CBR7540
3" x 2"	1	CBR7550
3 x 2.1/2"	1	CBR7563
4" x 2"	1	CBR10050
4" x 3"	1	CBR10075



THREADED REDUCING SOCKETS

SIZE	PACK QUANTITY	PRODUCT CODE
3/4" x 1/2"	10	CST2016
1" x 1/2"	50	CST2516
1' x 3/4"	50	CST2520
1.1/4" x 1"	50	CST3225
1.1/2" x 1"	20	CST4032
1.1/2" x 1.1/4"	20	CST4032
2" x 1"	10	CST5025
2" x 1.1/4"	10	CST5032
2' x 1.1/2"	10	CST5040

THREADED 90° ELBOW

SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CEFT16
3/4"	10	CEFT20
1"	10	CEFT25
1.1/4"	10	CEFT32
1.1/2"	5	CEFT40
2"	5	CEFT50

Stainless Steel Reinforcing Ring Available From 1.1/2" To 4"

THREADED 90° ELBOW - FEMALE - MALE

SIZE	PACK QUANTITY	PRODUCT CODE
1/2" x 1/2"	10	CEMF16
3/4" x 3/4"	10	CEMF20
1" x 1"	10	CEMF25

THREADED TEE

SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CTT16
3/4"	10	CTT20
1"	10	CTT25
*1.1/4"	5	CTT32
*1.1/2"	5	CTT40
*2"	5	CTT50

Stainless steel reinforcing ring available from 1.1/2" to 4".

THREADED RISER

SIZE	PACK QUANTITY	PRODUCT CODE
1/2" x 1/2" x 150 L	10	CRIS161650
3/4" x 1/2" x 112 L	10	CRIS2016112
3/4" x 3/4" x 150 L	10	CRIS2020150
1" x 1" x 150 L	10	CRIS2525150
1.1/4" x 1.1/4" x 112 L	5	CRIS3232112
1.1/2" x 1.1/4" x 150 L	5	CRIS4032150
1.1/2" x 1.1/2" x 150 L	5	CRIS4040150

THREADED CAP

SIZE	PACK QUANTITY	PRODUCT CODE
1/2"	10	CCAPT16
3/4"	10	CCAPT20
1"	10	CCAPT25
1.1/4"	10	CCAPT32
1.1/2"	10	CCAPT40
2"	10	CCAPT50

David Moss fittings portfolio allows the customer to identify the best fitting for their particular application.

Electrofusion Fittings

David Moss range of Electrofusion or EF couplers present the installer and asset owners with a unique method of installing pipelines.
Utilising an electrical current via a hand held welding machine, the electro fusion fittings come with heating elements embedded within fitting sockets, which fuse the pipe to the coupling when an electrical current is passed through the fitting, thus creating a leak free seal. Electro fusion couplings are quick, and safe methods of joining pipelines and offer the installer a visual sign to confirm when the weld is complete.
Specifically suited to smaller bore pipelines, electrofusion couplings and fittings, are available in a range of styles and OD's. David Moss supply electrofusion couplers and fittings in standard HDPE100 and also as an option in HDPE100 RC (Resistant to Cracking), this later style of fitting is designed to be paired with a RC (High Strength Crack Resistant) Pipe. Available in a range of OD's from 20mm up to 1200mm, Electrofusion fittings are available as SDR17, SDR11 and SDR7.4.

David Moss EF fittings portfolio is comprehensive, in terms of scope and scale, and features both standard and Low Pressure EF fittings.

LOW PRESSURE ELECTROFUSION COUPLERS

FITTING SIZE	SDR	PN	PRODUCT CODE
40	17	10	EFC4017
50	17	10	EFC5017
63	17	10	EFC6317
75	17	10	EFC7517
90	17	10	EFC9017
110	17	10	EFC11017
125	17	10	EFC12517
140	17	10	EFC14017
160	17	10	EFC16017
180	17	10	EFC18017
200	17	10	EFC20017
225	17	10	EFC22517
250	17	10	EFC28017
280	17	10	EFC5017
315	17	10	EFC31517
355	17	10	EFC35517
400	17	10	EFC40017
450	17	10	EFC45017
500	17	10	EFC50017
560	17	10	EFC56017
630	17	10	EFC63017
710	17	10	EFC71017
800	17	10	EFC80017

ELECTROFUSION COUPLERS

FITTING SIZE	SDR	PN	PRODUCT CODE
20	11 - 17	10 - 16	EFC20
25	11 - 17	10 - 16	EFC25
32	11 - 17	10 - 16	EFC32
40	11 - 17	10 - 16	EFC40
50	11 - 17	10 - 16	EFC50
63	11 - 17	10 - 16	EFC63
75	11 - 17	10 - 16	EFC75
90	11 - 17	10 - 16	EFC90
110	11 - 17	10 - 16	EFC110
125	11 - 17	10 - 16	EFC125
140	11 - 17	10 - 16	EFC140
160	11 - 17	10 - 16	EFC160
180	11 - 17	10 - 16	EFC180
200	11 - 17	10 - 16	EFC200
225	11 - 17	10 - 16	EFC225
250	11 - 17	10 - 16	EFC250
280	11 - 17	10 - 16	EFC280
315	11 - 17	10 - 16	EFC315
355	11 - 17	10 - 16	EFC355
400	11 - 17	10 - 16	EFC400
450	11 - 17	10 - 16	EFC450
500	11 - 17	10 - 16	EFC500
560	11 - 17	10 - 16	EFC560
630	11 - 17	10 - 16	EFC630
710	11 - 17	10 - 16	EFC710
800	11 - 17	10 - 16	EFC800
900	11 - 17	10 - 16	EFC900
1000	11 - 17	10 - 16	EFC1000
1200	11 - 17	10 - 16	EFC1200

HIGH PRESSURE ELECTROFUSION COUPLERS

SIZE	SDR	PN	PRODUCT CODE
50	7.4	25	EFC507
63	7.4	25	EFC637
75	7.4	25	EFC757
90	7.4	25	EFC907
110	7.4	25	EFC110
125	7.4	25	EFC125
140	7.4	25	EFC1407
160	7.4	25	EFC1607
180	7.4	25	EFC1807
200	7.4	25	EFC2007
225	7.4	25	EFC2257
250	7.4	25	EFC2507
280	7.4	25	EFC2807
315	7.4	25	EFC3157

END CAP

SIZE	SDR	PN	PRODUCT CODE
20	11	16	EFCAP20
25	11	16	EFCAP25
32	11	16	EFCAP32
40	11	16	EFCAP40
50	11	16	EFCAP50
63	11	16	EFCAP63
75	11 - 17	16	EFCAP75
90	11 - 17	16	EFCAP90
110	11 - 17	16	EFCAP110
125	11 - 17	16	EFCAP125
140	11 - 17	16	EFCAP140
160	11 - 17	16	EFCAP160
180	11 - 17	16	EFCAP180
200	11 - 17	16	EFCAP200
225	11 - 17	16	EFCAP225
250	11 - 17	16	EFCAP250

ELECTROFUSION REDUCER

SIZE	SDR	PN	PRODUCT CODE
25 x 20	11	16	EFR2520
32 x 20	11	16	EFR3220
32 x 25	11	16	EFR3225
40 x 32	11	16	EFR4032
50 x 32	11	16	EFR5032
50 x 40	11	16	EFR5040
63 x 32	11	16	EFR6332
63 x 40	11	16	EFR6340
63 x 50	11	16	EFR6350
75 x 63	11 - 17	16	EFR7563
90 x 63	11 - 17	16	EFR9063
110 x 63	11 - 17	16	EFR11090
110 x 90	11 - 17	16	EFR11090
125 x 90	11 - 17	16	EFR12590
160 x 90	11 - 17	16	EFR16090
160 x 110	11 - 17	16	EFR160110
180 x 125	11 - 17	16	EFR180125

90° ELBOW

SIZE	SDR	PN	PRODUCT CODE
20	11	16	EFE2090
25	11	16	EFE2590
32	11	16	EFE3290
40	11	16	EFE4090
50	11	16	EFE5090
63	11	16	EFE6390
75	11 - 17	16	EFE7590
90	11 - 17	16	EFE9090
110	11 - 17	16	EFE11090
125	11 - 17	16	EFE12590
160	11 - 17	16	EFE16090
180	11 - 17	16	EFE18090

45° ELBOW

SIZE	SDR	PN	PRODUCT CODE
32	11	16	EFE3245
40	11	16	EFE4045
50	11	16	EFE5045
63	11	16	EFE6345
75	11	16	EFE7545
90	11	16	EFE9045
110	11	16	EFE11045
125	11	16	EFE12545
140	11	16	EFE14045
160	11	16	EFE16045
180	11	16	EFE18045
200	11	16	EFE18045
225	11	16	EFE22545
250	11	16	EFE25045

22.5° ELBOW

SIZE	SDR	PN	PRODUCT CODE
90	11 - 17	16 - 10	EFE90225
110	11 - 17	16 - 10	EFE110225
125	11 - 17	16 - 10	EFE125225
160	11 - 17	16 - 10	EFE160225
180	11 - 17	16 - 10	EFE180225

90° EQUAL TEE

SIZE	SDR	PN	PRODUCT CODE
20 x 20 x 20	11 - 17	16 - 10	EFT20
25 x 25 x 25	11 - 17	16 - 10	EFT25
32 x 32 x 32	11 - 17	16 - 10	EFT32
40 x 40 x 40	11 - 17	16 - 10	EFT40
50 x 50 x 50	11 - 17	16 - 10	EFT50
63 x 63 x 63	11 - 17	16 - 10	EFT63
75 x 75 x 75	11 - 17	16 - 10	EFT75
90 x 90 x 90	11 - 17	16 - 10	EFT90
110 x 110 x 110	11 - 17	16 - 10	EFT110
125 x 125 x 125	11 - 17	16 - 10	EFT125
160 x 160 x 160	11 - 17	16 - 10	EFT160
180 x 180 x 180	11 - 17	16 - 10	EFT180
200x200x200	11 - 17	16 - 10	EFT200
225x225x225	11 - 17	16 - 10	EFT225
250x250x250	11 - 17	16 - 10	EFT250

90° REDUCING TEE

SIZE	SDR	PN	PRODUCT CODE
25 x 25 x 20	11 - 17	16 - 10	EFTR2520
25 x 25 x 32	11 - 17	16 - 10	EFTR2532
50 x 50 x 40	11 - 17	16 - 10	EFTR5040
63 x 63 x 40	11 - 17	16 - 10	EFTR6340
63 x 63 x 50	11 - 17	16 - 10	EFTR6350
90 x 90 x 63	11 - 17	16 - 10	EFTR9063
110 x 110 x 63	11 - 17	16 - 10	EFTRI1063
110 x 110 x 90	11 - 17	16 - 10	EFTRI1090
125 x 125 x 125	11 - 17	16 - 10	EFTRI2563
125 x 125 x 90	11 - 17	16 - 10	EFTRI2590
125 x 125 x 110	11 - 17	16 - 10	EFTRI25110
160 x 160 x 63	11 - 17	16 - 10	EFTRI6063
160 x 160 x 90	11 - 17	16 - 10	EFTRI6090
160 x 160 x 110	11 - 17	16 - 10	EFTRI60110
160 x 160 x 125	11 - 17	16 - 10	EFTRI60125
180 x 180 x 125	11 - 17	16 - 10	EFTRI80125
200x200x90	11 - 17	16 - 10	EFTR20090
200x200x110	11 - 17	16 - 10	EFTR200110
225x225x90	11 - 17	16 - 10	EFTR22590
225x225x110	11 - 17	16 - 10	EFTR225110
250x250x90	11 - 17	16 - 10	EFTR25090
250x250x110	11 - 17	16 - 10	EFTR250110

FLANGED TEE

SIZE	SDR	PN	PRODUCT CODE
63 x 50	11 - 17	16 - 10	EFFT6350
90 x 50	11 - 17	16 - 10	EFFT9050
90 x 80	11 - 17	16 - 10	EFFT9080
110 x 100	11 - 17	16 - 10	EFFTI10100
125 x 80	11 - 17	16 - 10	EFFTI25080
125 x 100	11 - 17	16 - 10	EFFTI25100
160 x 100	11 - 17	16 - 10	EFFTI60100
160 x 150	11 - 17	16 - 10	EFFTI60150
180 x 80	11 - 17	16 - 10	EFFTI80080
180 x 100	11 - 17	16 - 10	EFFTI80100
180 x 150	11 - 17	16 - 10	EFFTI80150

MULTISEAL TAPPING TEE S/L

SIZE	SDR	PN	PRODUCT CODE
63 x 20	11 - 17	16 - 10	EFTTS6320
63 x 25	11 - 17	16 - 10	EFTTS6325
63 x 32	11 - 17	16 - 10	EFTTS6332
75 x 20	11 - 17	16 - 10	EFTTS7520
75 x 32	11 - 17	16 - 10	EFTTS7532
90 x 20	11 - 17	16 - 10	EFTTS9020
90 x 32	11 - 17	16 - 10	EFTTS9032
110 x 20	11 - 17	16 - 10	EFTTSI1020
110 x 25	11 - 17	16 - 10	EFTTSI1025
110 x 32	11 - 17	16 - 10	EFTTSI1032
125 x 20	11 - 17	16 - 10	EFTTSI2520
125 x 25	11 - 17	16 - 10	EFTTSI2525
125 x 32	11 - 17	16 - 10	EFTTSI2532
160 x 20	11 - 17	16 - 10	EFTTSI6020
160 x 25	11 - 17	16 - 10	EFTTSI6025
160 x 32	11 - 17	16 - 10	EFTTSI6032
180 x 20	11 - 17	16 - 10	EFTTSI8020
180 x 32	11 - 17	16 - 10	EFTTSI8032
200 x 20	11 - 17	16 - 10	EFTTS20020
200 x 25	11 - 17	16 - 10	EFTTS20025
200 x 32	11 - 17	16 - 10	EFTTS20032
225 x 20	11 - 17	16 - 10	EFTTS22520
225 x 25	11 - 17	16 - 10	EFTTS22525
250 x 20	11 - 17	16 - 10	EFTTS25020
250 x 25	11 - 17	16 - 10	EFTTS25025
250 x 32	11 - 17	16 - 10	EFTTS25032
280 x 32	11 - 17	16 - 10	EFTTS28032
315 x 32	11 - 17	16 - 10	EFTTS31532
355 x 32	11 - 17	16 - 10	EFTTS35532

MULTISEAL TAPPING TEE U/P

SIZE	SDR	PN	PRODUCT CODE
40 x 20	11 - 17	16 - 10	EFTTU4020
40 x 25	11 - 17	16 - 10	EFTTU4025
40 x 32	11 - 17	16 - 10	EFTTU4032
50 x 20	11 - 17	16 - 10	EFTTU5020
50 x 25	11 - 17	16 - 10	EFTTU5025
50 x 32	11 - 17	16 - 10	EFTTU5032
63 x 20	11 - 17	16 - 10	EFTTU6320
63 x 25	11 - 17	16 - 10	EFTTU6320
63 x 32	11 - 17	16 - 10	EFTTU6332
75 x 20	11 - 17	16 - 10	EFTTU7520
75 x 25	11 - 17	16 - 10	EFTTU7525
75 x 32	11 - 17	16 - 10	EFTTU7532
90 x 20	11 - 17	16 - 10	EFTTU9020
90 x 32	11 - 17	16 - 10	EFTTU9032
110 x 20	11 - 17	16 - 10	EFTTUI1020
110 x 25	11 - 17	16 - 10	EFTTUI1025
110 x 32	11 - 17	16 - 10	EFTTUI1032
125 x 20	11 - 17	16 - 10	EFTTUI2520
125 x 25	11 - 17	16 - 10	EFTTUI2525
125 x 32	11 - 17	16 - 10	EFTTUI2532
160 x 20	11 - 17	16 - 10	EFTTUI6020
160 x 25	11 - 17	16 - 10	EFTTUI6025
160 x 32	11 - 17	16 - 10	EFTTUI6032
180 x 20	11 - 17	16 - 10	EFTTUI8020
180 x 25	11 - 17	16 - 10	EFTTUI8025
180 x 32	11 - 17	16 - 10	EFTTUI8032
200 x 20	11 - 17	16 - 10	EFTTU20020
200 x 25	11 - 17	16 - 10	EFTTU20025
200 x 32	11 - 17	16 - 10	EFTTU20032
225 x 20	11 - 17	16 - 10	EFTTU22520
225 x 25	11 - 17	16 - 10	EFTTU22525
225 x 32	11 - 17	16 - 10	EFTTU22532

MULTISEAL TAPPING TEE U/P

SIZE	SDR	PN	PRODUCT CODE
63 x 40	11 - 17	16 - 10	EFTTU6340
63 x 50	11 - 17	16 - 10	EFTTU6350
63 x 63	11 - 17	16 - 10	EFTTU6363
75 x 40	11 - 17	16 - 10	EFTTU7540
75 x 50	11 - 17	16 - 10	EFTTU7550
75 x 63	11 - 17	16 - 10	EFTTU7563
90 x 40	11 - 17	16 - 10	EFTTU9040
90 x 50	11 - 17	16 - 10	EFTTU9050
90 x 63	11 - 17	16 - 10	EFTTU9063
110 x 40	11 - 17	16 - 10	EFTTUI1040
110 x 50	11 - 17	16 - 10	EFTTUI1050
110 x 63	11 - 17	16 - 10	EFTTUI1063
125 x 40	11 - 17	16 - 10	EFTTUI2540
125 x 50	11 - 17	16 - 10	EFTTUI2550
125 x 63	11 - 17	16 - 10	EFTTUI2563
160 x 40	11 - 17	16 - 10	EFTTUI6040
160 x 50	11 - 17	16 - 10	EFTTUI6050
160 x 63	11 - 17	16 - 10	EFTTUI6063
180 x 20	11 - 17	16 - 10	EFTTUI8020
180 x 25	11 - 17	16 - 10	EFTTUI8025
180 x 32	11 - 17	16 - 10	EFTTUI8032
200 x 20	11 - 17	16 - 10	EFTTU20020
200 x 25	11 - 17	16 - 10	EFTTU20025
200 x 32	11 - 17	16 - 10	EFTTU20032
225 x 20	11 - 17	16 - 10	EFTTU22520
225 x 25	11 - 17	16 - 10	EFTTU22525
225 x 32	11 - 17	16 - 10	EFTTU22532

BRANCH SADDLE U/P

SIZE	SDR	PN	PRODUCT CODE
90 x 90	11 - 17	16	EFBS9090
110 x 90	11 - 17	16	EFBS11090
125 x 90	11 - 17	16	EFBS12590
160 x 90	11 - 17	16	EFBS16090
180 x 90	11 - 17	16	EFBS18090
200 x 90	11 - 17	16	EFBS20090
225 x 90	11 - 17	16	EFBS22590
250 x 90	11 - 17	16	EFBS25090
160 x 110	11 - 17	16	EFBS160110
180 x 110	11 - 17	16	EFBS180110
180 x 125	11 - 17	16	EFBS180125
225 x 125	11 - 17	16	EFBS225125
250 x 125	11 - 17	16	EFBS250125

FLEXTEE TAPPING TEE U/P

SIZE	SDR	PN	PRODUCT CODE
63 x 20	11	16	EFFTTU6320
63 x 25	11	16	EFFTTU6325
63 x 32	11	16	EFFTTU6332
75 x 20	11 - 17	16	EFFTTU7520
75 x 25	11 - 17	16	EFFTTU7575
75 x 32	11 - 17	16	EFFTTU7532
90 x 20	11 - 17	16	EFFTTU9020
90 x 32	11 - 17	16	EFFTTU9032
110 x 20	11 - 17	16	EFFTTU11020
110 x 25	11 - 17	16	EFFTTU11025
110 x 32	11 - 17	16	EFFTTU11032
125 x 20	11 - 17	16	EFFTTU12520
125 x 25	11 - 17	16	EFFTTU12525
125 x 32	11 - 17	16	EFFTTU12532
160 x 20	11 - 17	16	EFFTTU16020
160 x 25	11 - 17	16	EFFTTU16025
160 x 32	11 - 17	16	EFFTTU16032
180 x 20	11 - 17	16	EFFTTU18020
180 x 25	11 - 17	16	EFFTTU18025
180 x 32	11 - 17	16	EFFTTU18032

BRANCH SADDLE S/L

SIZE	SDR	PN	PRODUCT CODE
63 x 40	11	16	EFBSS6340
63 x 50	11	16	EFBSS6350
63 x 63	11	16	EFBSS6363
75 x 40	11 - 17	16	EFBSS7540
75 x 50	11 - 17	16	EFBSS7550
75 x 63	11 - 17	16	EFBSS7563
90 x 40	11 - 17	16	EFBSS9040
90 x 50	11 - 17	16	EFBSS9050
90 x 63	11 - 17	16	EFBSS9063
110 x 40	11 - 17	16	EFBSS11040
110 x 50	11 - 17	16	EFBSS11050
110 x 63	11 - 17	16	EFBSS11063
125 x 40	11 - 17	16	EFBSS12540
125 x 50	11 - 17	16	EFBSS12550
125 x 63	11 - 17	16	EFBSS12563
160 x 40	11 - 17	16	EFBSS16040
160 x 50	11 - 17	16	EFBSS16050
160 x 63	11 - 17	16	EFBSS16063
180 x 40	11 - 17	16	EFBSS18040
180 x 50	11 - 17	16	EFBSS18050
180 x 63	11 - 17	16	EFBSS18063
200 x 40	11 - 17	16	EFBSS20040
200 x 50	11 - 17	16	EFBSS20050
200 x 63	11 - 17	16	EFBSS20063
225 x 40	11 - 17	16	EFBSS22540
225 x 50	11 - 17	16	EFBSS22550
225 x 63	11 - 17	16	EFBSS22563

BRANCH SADDLE U/P

SIZE	SDR	PN	PRODUCT CODE
40 x 20	11	16	EFBS4020
40 x 25	11	16	EFBS4025
40 x 32	11	16	EFBS4032
63 x 20	11	16	EFBS6320
63 x 25	11	16	EFBS6325
63 x 32	11	16	EFBS6332
63 x 40	11	16	EFBS6340
63 x 50	11	16	EFBS6350
63 x 63	11	16	EFBS6363
90 x 20	11 - 17	16	EFBS9020
90 x 25	11 - 17	16	EFBS9025
90 x 32	11 - 17	16	EFBS9032
90 x 40	11 - 17	16	EFBS9040
90 x 50	11 - 17	16	EFBS9050
90 x 63	11 - 17	16	EFBS9063

Transition Fittings

David Moss supply a range of transition fittings, allowing the installer to transition one variant of pipe to another seamlessly and easily, transition fittings are available as both straight couplings, elbows and saddles. Supplied as SDR11 and SDR17 as standard, David Moss offer a range of OD's to suit your needs.

Whether transitioning from HDPE to Steel, HDPE to Copper or HDPE to PVC David Moss transition fitting range covers off every possible scenario.

MALE TRANSITION COUPLER

SIZE	SDR	PN	PRODUCT CODE
25 x 3/4"	11	16 - 10	EFTC2520MA
32 x 1/2"	11	16 - 10	EFTC3215MA
32 x 3/4"	11	16 - 10	EFTC3220MA
32 x 1"	11	16 - 10	EFTC3225MA
32 x 1.1/4"	11	16 - 10	EFTC3232MA
32 x 1.1/2"	11	16 - 10	EFTC3240MA
40 x 1"	11	16 - 10	EFTC4025MA
40 x 1.1/4"	11	16 - 10	EFTC4032MA
40 x 1.1/2"	11	16 - 10	EFTC4040MA
40 x 2"	11	16 - 10	EFTC4050MA
50 x 1"	11	16 - 10	EFTC5025MA
50 x 1.1/4"	11	16 - 10	EFTC5032MA
50 x 1.1/2"	11	16 - 10	EFTC5040MA
50 x 2"	11	16 - 10	EFTC5050MA
63 x 1.1/4"	11	16 - 10	EFTC6332MA
63 x 1.1/2"	11	16 - 10	EFTC6340MA
63 x 2"	11	16 - 10	EFTC6350MA

FEMALE TRANSITION COUPLER

SIZE	SDR	PN	PRODUCT CODE
25 x 3/4"	11	16 - 10	EFTC2520FE
32 x 1"	11	16 - 10	EFTC3225FE
40 x 1"	11	16 - 10	EFTC4025FE
40 x 1.1/4"	11	16 - 10	EFTC4032FE
40 x 1.1/2"	11	16 - 10	EFTC4040FE
50 x 1.1/2"	11	16 - 10	EFTC5040FE
50 x 2"	11	16 - 10	EFTC5050FE
63 x 1.1/2"	11	16 - 10	EFTC6340FE
63 x 2"	11	16 - 10	EFTCF6350FE

MALE TRANSITION 90° ELBOW

SIZE	SDR	PN	PRODUCT CODE
25 x 3/4"	11	16 - 10	EFTE252090MA
32 x 1/2"	11	16 - 10	EFTE321590MA
32 x 3/4"	11	16 - 10	EFTE325090MA
32 x 1"	11	16 - 10	EFTE322590MA
32 x 1.1/4"	11	16 - 10	EFTE323290MA
32 x 1.1/2"	11	16 - 10	EFTE324090MA
40 x 1"	11	16 - 10	EFTE402590MA
40 x 1.1/4"	11	16 - 10	EFTE403290MA
40 x 1.1/2"	11	16 - 10	EFTE404090MA
50 x 1"	11	16 - 10	EFTE502590MA
50 x 1.1/4"	11	16 - 10	EFTE503290MA
50 x 1.1/2"	11	16 - 10	EFTE505090MA
63 x 1.1/4"	11	16 - 10	EFTE633290MA
63 x 1.1/2"	11	16 - 10	EFTE634090MA
63 x 2"	11	16 - 10	EFTE634090MA

FEMALE TRANSITION 90° ELBOW

SIZE	SDR	PN	PRODUCT CODE
25 x 3/4"	11	16	EFTE252090FE
32 x 1"	11	16	EFTE322590FE
40 x 1"	11	16	EFTE402590FE
40 x 1.1/4"	11	16	EFTE403290FE
40 x 1.1/2"	11	16	EFTE404090FE
50 x 1.1/2"	11	16	EFTE504090FE
50 x 2"	11	16	EFTE505090FE
63 x 1.1/2"	11	16	EFTE634090FE
63 x 2"	11	16	EFTE635090FE

MALE TRANSITION 45° ELBOW

SIZE	SDR	PN	PRODUCT CODE
32 x 1"	11	16	EFTE322545MA
32 x 1.1/4"	11	16	EFTE323245MA
32 x 1.1/2"	11	16	EFTE324045MA
40 x 1"	11	16	EFTE402545MA
40 x 1.1/4"	11	16	EFTE403245MA
40 x 1.1/2"	11	16	EFTE404045MA
50 x 1"	11	16	EFTE502545MA
50 x 1.1/4"	11	16	EFTE503245MA
50 x 1.1/2"	11	16	EFTE504045MA
63 x 1.1/4"	11	16	EFTE633245MA
63 x 1.1/2"	11	16	EFTE634045MA
63 x 2"	11	16	EFTE635045MA

FEMALE TRANSITION 45° ELBOW

SIZE	SDR	PN	PRODUCT CODE
32 x 1"	11	16	EFTEF322545FE
40 x 1"	11	16	EFTEF402545FE
40 x 1.1/4"	11	16	EFTEF403245FE
40 x 1.1/2"	11	16	EFTEF404045FE
50 x 1.1/2"	11	16	EFTEF504045FE
63 x 1.1/2"	11	16	EFTEF634045FE
63 x 2"	11	16	EFTEF635045FE

TRANSITION SADDLE

SIZE	SDR	PN	PRODUCT CODE
63 x 1.1/4"	11	16	EFTS6332
63 x 1.1/2"	11	16	EFTS6340
90 x 1.1/4"	11 - 17	16	EFTS9032
90 x 1.1/2"	11 - 17	16	EFTS9040
90 x 2"	11 - 17	16	EFTS9050
110 x 1.1/4"	11 - 17	16	EFTS11032
110 x 1.1/2"	11 - 17	16	EFTS11040
110 x 2"	11 - 17	16	EFTS11050
125 x 1.1/4"	11 - 17	16	EFTS12532
125 x 1.1/2"	11 - 17	16	EFTS12540
125 x 2"	11 - 17	16	EFTS12550
160 x 1.1/4"	11 - 17	16	EFTS16032
160 x 1.1/2"	11 - 17	16	EFTS16040
160 x 2"	11 - 17	16	EFTS16050
180 x 1.1/4"	11 - 17	16	EFTS18032
180 x 1.1/2"	11 - 17	16	EFTS18040
180 x 2"	11 - 17	16	EFTS18050
200 x 2"	11 - 17	16	EFTS20050
225 x 2"	11 - 17	16	EFTS22550
250 x 2"	11 - 17	16	EFTS25050

TRANSITION PIECE - PE TO PVC

SIZE	SDR	PN	PRODUCT CODE
20 PE x 20 UPVC	11	16	TRANPEPVC2020
25 PE x 25 UPVC	11	16	TRANPEPVC2525
32 PE x 25 UPVC	11	16	TRANPEPVC3225
40 PE x 40 UPVC	11	16	TRANPEPVC4040
63 PE x 50 UPVC	11	16	TRANPEPVC6350
90 PE x 80 UPVC	11	16	TRANPEPVC9080
110 PE x 100 UPVC	11	16	TRANPEPVC110100
225 PE x 150 UPVC	11	16	TRANPEPVC225150

Moulded & Fabricated Fittings

David Moss supply a range of injection moulded fittings, available in Standard HDPE100 and HDPE100 RC, these moulded fittings are manufactured in accordance with AS/NZS 4129 and allow the installer or asset owner to be able to install pipelines with great confidence. David Moss moulded fittings are available in PE100, Wear-Tuff, RC, HDR, Fras and VHAR grade materials. Moulded fittings are available in a range of OD's from 20mm up to 630mm, and as a standard in SDR17/PN10, SDR11/PN16 and SDR7.4/PN25; moulded fittings are available in a range of tees, elbows, stub flange, reducers, multibends, wye Junctions, concentric and eccentric reducers and shouldered ends. David Moss also offer all moulded fittings with the option of short or long spigot, allowing the installer the simplest and most efficient installation possible.

David Moss offer a comprehensive range of Moulded fittings in all SDR's from SDR26 to SDR7.4, which is complemented by our equally vast range of in house fabricated fittings manufactured locally in both Perth and Brisbane.

Product tables in this section are all based on standard SDR11/PN16 dimensions.

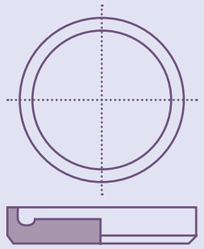
Long spigot fittings.
Electro fusion + butt welding.
SDR rating to be specified.

MOULDED PE END CAPS - PE 100

OD	OVERALL LENGTH	PRODUCT CODE
25	38	EC2511L
32	47	EC3211L
40	58	EC4011L
50	64	EC5011L
63	78	EC6311L
75	72	EC7511L
90	100	EC9011L
110	93	EC11011L
125	114	EC12511L
140	126	EC14011L
160	125	EC16011L
180	146	EC18011L
200	138	EC20011L
225	142	EC22511L
250	150	EC25011L
280	138	EC28011L
315	175	EC31511L
355	145	EC35511L
400	160	EC40011L

PE END CAPS

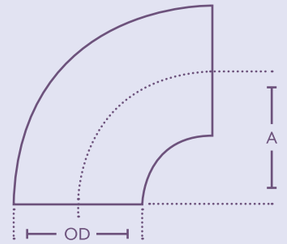
SIZE	PRODUCT CODE
20	EC2011S
25	EC2511S
32	EC3211S
40	EC4011S
50	EC5011S
63	EC6311S
75	EC7511S
90	EC9011S
110	EC11011S
125	EC12511S
140	EC14011S
160	EC16011S
180	EC18011S
200	EC20011S
225	EC22511S
250	EC25011S
280	EC28011S
315	EC31511S
355	EC35511S
400	EC40011S
450	EC45011S
500	EC50011S
560	EC56011S
630	EC63011S
710	EC71011S
800	EC80011S
900	EC90011S
1000	EC100011S
1200	EC120011S



Short spigot fittings for butt welding.
SDR rating to be specified.

SHORT RADIUS ELBOW 90º

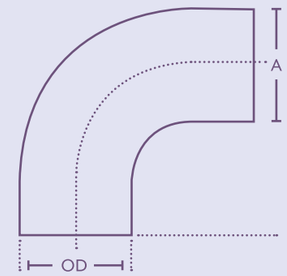
OD	A	PRODUCT CODE
20	38	E209011SSR
25	32	E259011SSR
32	37	E329011SSR
40	44	E409011SSR
50	51	E509011SSR
63	66	E639011SSR
75	87	E759011SSR
90	100	E909011SSR
110	118	E1109011SSR
125	138	E1259011SSR
140	155	E1409011SSR
160	178	E1609011SSR
180	195	E1809011SSR
200	210	E2009011SSR
225	236	E2259011SSR
250	279	E2509011SSR
280	316	E2809011SSR
315	352	E3159011SSR
355	380	E3559011SSR
400	424	E4009011SSR
450	450	E4509011SSR
500	450	E5009011SSR



SDR rating to be specified.

SHORT RADIUS LONG SPIGOT ELBOW 90º

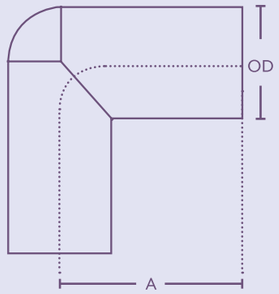
OD	A	PRODUCT CODE
25	79	E259011LSR
32	92	E329011LSR
40	107	E409011LSR
50	131	E509011LSR
63	153	E639011LSR
75	173	E759011LSR
90	195	E909011LSR
110	216	E1109011LSR
125	237	E1259011LSR
140	262	E1409011LSR
160	294	E1609011LSR
180	317	E1809011LSR
200	351	E2009011LSR
225	382	E2259011LSR
250	432	E2509011LSR
280	471	E2809011LSR
315	340	E3159011LSR



SDR rating to be specified.

ELBOW 90º - LONG SPIGOT FITTING

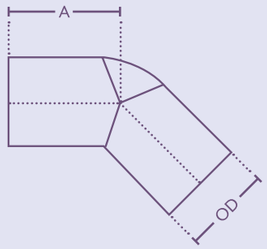
OD	A	PRODUCT CODE
20	41	E209011L
25	41	E259011L
32	44	E329011L
40	110	E409011L
50	125	E509011L
63	146	E639011L
75	169	E759011L
90	184	E909011L
110	202	E1109011L
125	226	E1259011L
140	267	E1409011L
160	271	E1609011L
180	290	E1809011L
200	360	E2009011L
225	234	E2259011L
250	402	E2509011L
280	450	E2809011L
315	498	E3159011L
355	545	E3559011L
400	597	E4009011L
450	202	E4509011L
500	222	E5009011L
630	277	E6309011L



SDR rating to be specified.

ELBOW 45º - LONG SPIGOT FITTING

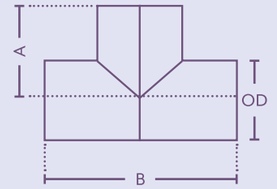
OD	A	PRODUCT CODE
20	70	E204511L
25	73	E254511L
32	79	E324511L
40	99	E404511L
50	95	E504511L
63	120	E634511L
75	142	E754511L
90	165	E904511L
110	175	E1104511L
125	200	E1254511L
140	230	E1404511L
160	230	E1604511L
180	315	E1804511L
200	286	E2004511L
225	399	E2254511L
250	346	E2504511L
280	404	E2804511L
315	320	E3154511L
355	486	E3554511L
400	428	E4004511L
450	375	E4504511L
500	410	E5004511L
630	517	E6304511L



SDR rating to be specified.

MOULDED EQUAL TEE - PE100 - LONG SPIGOT FITTING

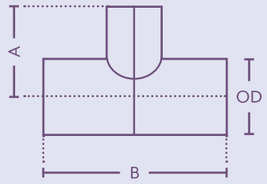
OD	A	B	PRODUCT CODE
20	74	148	T2011L
25	78	158	T2511L
32	84	166	T3211L
40	87	168	T4011L
50	100	201	T5011L
63	114	228	T6311L
75	112	222	T7511L
90	135	280	T9011L
110	142	302	T11011L
125	160	325	T12511L
140	180	335	T14011L
160	191	384	T16011L
180	200	400	T18011L
200	216	457	T20011L
225	259	507	T22511L
250	249	550	T25011L
280	259	490	T28011L
315	272	511	T31511L
355	374	403	T35511L
400	344	595	T40011L
450	470	984	T45011L
500	515	1090	T50011L
630	565	1230	T63011L
630	618	1320	TLS630



SDR rating to be specified.

MOULDED REDUCING TEE - PE100 - LONG SPIGOT FITTING

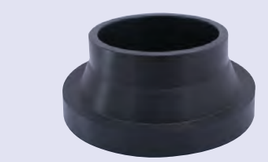
SIZE	A	B	PRODUCT CODE
50/40	84	176	TR50401IL
63/32	92	177	TR63321IL
63/40	89	180	TR63401IL
63/50	113	227	TR63501IL
75/40	107	213	TR75401IL
75/50	112	222	TR75501IL
75/63	109	220	TR75631IL
90/40	120	250	TR90401IL
90/50	121	249	TR90501IL
90/63	121	250	TR90631IL
90/75	139	286	TR90751IL
110/40	133	258	TR110401IL
110/50	135	245	TR110501IL
110/63	133	259	TR110631IL
110/75	154	290	TR110751IL
110/90	155	300	TR110901IL
125/90	155	250	TR125901IL
125/110	155	250	TR125110IL
140/110	160	260	TR1401101IL
160/63	176	297	TR160631IL
160/75	176	352	TR160751IL
160/90	176	352	TR160901IL
160/110	176	355	TR1601101IL
160/125	178	328	TR1601251IL
180/110	185	388	TR1801101IL
180/160	185	388	TR1801601IL
200/63	198	366	TR200631IL
200/90	196	365	TR200901IL
200/110	200	365	TR200110IL
200/160	229	430	TR2001601IL
225/110	241	458	TR225110IL
225/160	241	458	TR2251601IL
250/90	225	386	TR250901IL
250/110	225	386	TR250110IL
280/110	243	472	TR280110IL
280/160	302	690	TR2801601IL
280/200	316	690	TR2802001IL
280/250	331	690	TR2802501IL
315/90	293	712	TR315901IL
315/110	293	712	TR315110IL
315/160	303	712	TR3151601IL
315/200	317	712	TR3152001IL
315/250	332	712	TR3152501IL
355/110	410	690	TR355110IL
355/160	410	690	TR3551601IL
355/200	410	690	TR3552001IL
355/250	410	690	TR3552501IL
355/315	410	690	TR3553151IL
400/200	460	755	TR4002001IL
400/250	460	755	TR4002501IL
400/315	460	755	TR4003151IL
450/200	485	765	TR4502001IL
450/315	485	765	TR4503151IL
500/355	525	815	TR5003551IL
500/160	525	815	TR500160IL
500/200	525	815	TR5002001IL
500/250	525	815	TR5002501IL
500/315	525	815	TR5003151IL
560/200	580	960	TR5602001IL
560/315	580	960	TR5603151IL
630/200	645	800	TR6302001IL
630/250	645	875	TR6302501IL
630/315	645	875	TR6303151IL
630/400	645	875	TR6304001IL

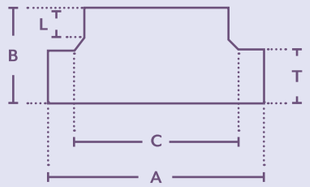


SDR rating to be specified.

STUB FLANGE SHORT SPIGOT FITTING

SIZE	B	L	T	A	C	PRODUCT CODE
75	67	25	16	122	89	SF751IS
90	70	26	17	138	105	SF901IS
110	74	25	18	158	125	SF1101IS
125	71	31	25	158	132	SF1251IS
140	86	30	25	188	155	SF1401IS
160	84	32	25	212	175	SF1601IS
180	97	34	30	212	180	SF1801IS
200	120	50	32	268	232	SF2001IS
225	120	53	32	268	238	SF2251IS
250	120	45	35	320	288	SF2501IS
280	120	45	35	375	288	SF2801IS
315	120	45	35	435	338	SF3151IS
355	120	45	45	485	376	SF3551IS
400	140	47	50	545	430	SF4001IS
450	160	47	66	585	465	SF4501IS
500	134	47	60	590	530	SF5001IS
560	180	43	80	690	618	SF5601IS
630	140	45	65	690	645	SF6301IS
710	150	35	75	800	737	SF7101IS
800	150	30	80	800	840	SF8001IS
900	158	28	80	1006	944	SF9001IS
1000	170	28	90	1110	1041	SF10001IS
1200	185	28	90	1240	1163	SF12001IS

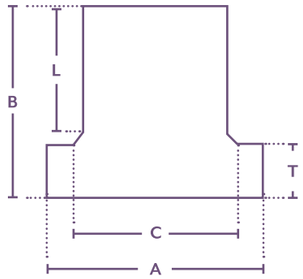




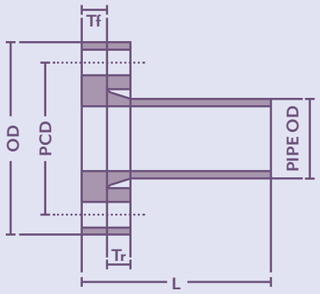
SDR rating to be specified.

STUB FLANGE LONG SPIGOT FITTING

SIZE	B	L	T	A	C	PRODUCT CODE
63	60	22	20	102	78	SF6311L
75	60	22	20	122	92	SF7511L
90	60	22	20	128	103	SF9011L
110	60	22	20	160	124	SF11011L
125	65	23	25	192	128	SF12511L
140	65	23	25	192	155	SF14011L
160	65	23	25	217	168	SF16011L
180	65	23	25	217	180	SF18011L
200	75	24	30	270	225	SF20011L
225	80	24	30	270	230	SF22511L
250	80	24	35	334	276	SF25011L
280	85	25	35	334	290	SF28011L
315	90	29	40	3830	330	SF31511L
355	100	30	40	444	364	SF35511L
400	100	28	40	495	417	SF40011L
450	110	30	60	545	470	SF45011L
500	125	30	60	596	520	SF50011L
560	130	30	60	657	582	SF56011L
630	130	30	60	710	640	SF63011L
710	130	30	60	800	735	SF71011L
800	150	30	92	904	840	SF80011L



SDR rating to be specified.



Full Face Syub Flange and Backing Ring Assembly.

FULL FACE STUB FLANGE

NOMINAL PIPE OD	OD	MIN. THICKNESS (TF)	MIN. THICKNESS (TR)	PCD	LENGTH (L)	BOLT SIZE	PRODUCT CODE
63	150	14	11	114	125	M16	SFFF6311
75	165	16	11	127	130	M16	SFFF7511
90	185	17	11	146	130	M16	SFFF9011
110	215	18	13	178	130	M16	SFFF11011
160	280	25	13	235	140	M16	SFFF16011
200	335	30	19	292	150	M16	SFFF20011
225	370	30	19	324	150	M16	SFFF22511
250	405	35	19	356	150	M20	SFFF25011
315	455	35	23	406	160	M20	SFFF31511
355	525	40	30	470	170	M24	SFFF35511
400	580	45	30	521	180	M24	SFFF40011
450	640	45	30	584	180	M24	SFFF45011
500	705	60	38	641	200	M24	SFFF50011
630	825	60	48	756	220	M27	SFFF63011

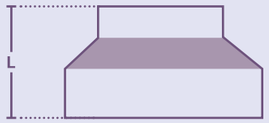
LONG SPIGOT REDUCER CONCENTRIC - PE100

SIZE	LENGTH	PRODUCT CODE
25/20	87	R252011LC
32/20	92	R322011LC
32/25	92	R322511LC
40/20	102	R402011LC
40/25	102	R402511LC
40/32	101	R403211LC
50/25	118	R502511LC
50/32	122	R503211LC
50/40	126	R504011LC
63/32	136	R633211LC
63/40	129	R634011LC
63/50	151	R635011LC
75/40	115	R754011LC
75/50	148	R755011LC
75/63	149	R756311LC
90/50	125	R905011LC
90/63	159	R906311LC
90/75	163	R907511LC
110/63	181	R1106311LC
110/75	140	R1107511LC
110/90	179	R1109011LC
125/63	187	R1256311LC
125/75	150	R1257511LC
125/90	190	R1259011LC
125/110	200	R1251101LC
140/125	211	R1401251LC
160/90	217	R1609011LC
160/110	225	R1601101LC
160/125	231	R1601251LC
160/140	229	R1601401LC
180/125	274	R1801251LC
180/160	276	R1801601LC
200/160	252	R2001601LC
225/140	295	R2251401LC
225/160	270	R2251601LC
225/180	290	R2251801LC
250/160	314	R2501601LC
250/180	295	R2501801LC
250/200	314	R2502001LC
250/225	315	R2502251LC
280/200	333	R2802001LC
280/225	335	R2802251LC
280/250	355	R2802501LC
315/200	380	R3152001LC
315/225	375	R3152251LC
315/250	375	R3152501LC
315/280	375	R3152801LC

Long spigot fitting for electro fusion.
SDR rating to be specified.

SHORT SPIGOT REDUCER CONCENTRIC - PE100

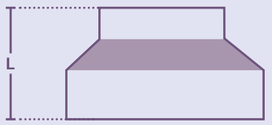
SIZE	LENGTH	PRODUCT CODE
63/32	60	R603211SC
75/63	85	R756311SC
90/63	75	R906311SC
90/75	75	R907511SC
110/63	105	R1106311SC
110/75	95	R1107511SC
110/90	100	R1109011SC
125/63	120	R1256311SC
125/75	100	R1257511SC
125/90	110	R1259011SC
125/110	102	R12511011SC
140/75	110	R1407511SC
140/90	110	R1409011SC
140/110	110	R14011011SC
140/125	110	R14012511SC
160/90	140	R1609011SC
160/110	128	R16011011SC
160/125	122	R16012511SC
160/140	120	R16014011SC
180/160	130	R18016011SC
200/140	120	R20014011SC
200/160	120	R20016011SC
225/140	115	R22514011SC
225/160	115	R22516011SC
225/200	115	R2252011SC
250/200	115	R25020011SC
250/225	115	R2502251ISC
280/200	115	R28020011SC
280/225	115	R28022511SC
280/250	115	R28025011SC
315/200	120	R31520011SC
315/250	120	R31525011SC
315/280	120	R31528011SC
355/110	120	R35511011SC
355/125	120	R3551251ISC
355/140	120	R35514011SC
355/160	120	R35516011SC
355/200	120	R35520011SC
355/225	120	R35522511SC
355/250	120	R35525011SC
355/280	120	R35528011SC
355/315	120	R35531511SC
400/200	125	R4002011SC
400/250	125	R4002501ISC
400/280	125	R4002801ISC



SDR rating to be specified.

SHORT SPIGOT REDUCER CONCENTRIC - PE100 (CONT.)

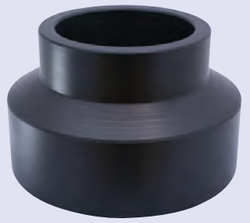
SIZE	LENGTH	PRODUCT CODE
400/315	125	R4003151ISC
450/315	125	R4503151ISC
450/355	125	R4503551ISC
450/400	125	R4504011SC
500/355	125	R5003551ISC
500/400	125	R5004011SC
500/450	125	R5004501ISC
630/400	125	R6304011SC
630/450	125	R6304501ISC
630/500	125	R6305001ISC
710/500	125	R7105001ISC
710/560	125	R7105601ISC
710/630	125	R7106301ISC
800/560	125	R8005601ISC
800/630	125	R8006301ISC
800/710	125	R8007101ISC
1000/630	125	R10006301ISC
1000/710	125	R1000710ISC
1000/800	125	R10008001ISC
1000/900	125	R10009001ISC

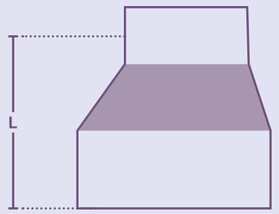


SDR rating to be specified.

LONG SPIGOT REDUCER ECCENTRIC - PE100

SIZE	LENGTH	PRODUCT CODE
50/32	100	R503211LE
50/40	100	R504011LE
63/32	100	R633211LE
63/40	100	R634011LE
63/50	100	R635011LE
75/50	100	R755011LE
75/63	100	R756311LE
90/63	100	R906311LE
90/75	100	R907511LE
11063	100	R1106311LE
110/90	100	R1109011LE
125/63	100	R1256311LE
125/90	100	R1259011LE
125/110	100	R12511011LE
140/125	100	R14012511LE
160/90	110	R1609011LE
160/110	110	R16011011LE
160/125	110	R16012511LE
160/140	110	R16014011LE
180/90	110	R1809011LE
180/125	110	R18012511LE
180/160	110	R18016011LE
200/160	115	R20016011LE
200/180	115	R20018011LE
225/160	115	R22516011LE
225/180	115	R22518011LE
225/200	115	R22520011LE
250/200	120	R25020011LE
250/225	120	R25022511LE





Long spigot fitting for electro fusion.
SDR rating to be specified.

SHOULDERED ENDS - PE100

OD	A	B	PRODUCT CODE
63	68	65	SE6311S
75	97	75	SE7511S
90	97	75	SE9011S
110	122	75	SE11011S
125	176	75	SE12511S
140	176	75	SE14011S
160	176	75	SE16011S
200	235	75	SE20011S
225	235	75	SE22511S
250	287	75	SE25011S
280	338	75	SE28011S
315	338	75	SE31511S
355	370	75	SE35511S
400	420	100	SE40011S
450	472	100	SE45011S
500	522	100	SE50011S

Short spigot fittings for butt welding.
SDR rating to be specified.

Butterfly valve nominal bore size. Pipe outside diameter, PN and SDR rating to be specified when ordering. SDR rating to be specified.

PE BUTTERFLY VALVE SPACERS

BUTTERFLY VALVE NB	PIPE OD	SDR9				PRODUCT CODE	SDR11				PRODUCT CODE
		A	B	C	D°		A	B	C	D°	
100	110	84	160	14	30	SP1009S	89	160	14	20	SP10011S
125	125	96	192	25	30	SP1259S	102	192	25	25	SP12511S
125	140	106	192	25	25	SP1409S	114	192	25	20	SP14011S
150	160	123	213	25	30	SP1609S	130	213	25	25	SP16011S
200	200	154	270	40	35	SP2009S	163	270	40	30	SP20011S
200	225	173	270	40	25	SP2259S	183	270	25	25	SP22511S
250	250	192	334	60	30	SP2509S	203	334	60	25	SP25011S
250	280	215	334	40	30	SP2809S	228	334	30	30	SP28011S
300	315	242	380	60	35	SP3159S	256	380	60	30	SP31511S
350	355	273	444	100	25	SP3559S	289	444	60	30	SP35511S
400	400	308	495	100	25	SP4009S	325	492	100	25	SP40011S
450	450	346	545	100	30	SP4509S	366	545	100	25	SP45011S
500	500	385	602	100	30	SP5009S	407	602	100	25	SP50011S
600	630	-	-	-	-	SP6309S	513	708	55	20	SP63011S
700	710	-	-	-	-	SP7109S	-	-	-	-	SP71011S
800	800	-	-	-	-	SP8009S	-	-	-	-	SP80011S
1000	1000	-	-	-	-	SP10009S	-	-	-	-	SP100011S

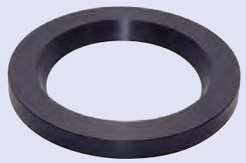
Butterfly valve nominal bore size. Pipe outside diameter, PN and SDR rating to be specified when ordering.

PE BUTTERFLY VALVE SPACER CONT.

BUTTERFLY VALVE NB	PIPE OD	SDR13.6				PRODUCT CODE	SDR17				PRODUCT CODE
		A	B	C	D°		A	B	C	D°	
100	110	-	-	-	-	SP10013S	-	-	-	-	SP10017S
125	125	106	192	25	25	SP12513S	110	192	25	25	SP12517S
125	140	106	192	25	25	SP12513S	-	-	-	-	SP12517S
150	160	119	192	25	15	SP15013S	141	213	25	20	SP15017S
200	200	136	213	25	20	SP20013S	176	270	25	30	SP20017S
200	225	170	270	40	25	SP20013S	-	-	-	-	SP20017S
250	250	191	270	25	20	SP25013S	220	334	30	30	SP25017S
250	280	212	334	30	35	SP25013S	246	334	30	20	SP25017S
300	315	238	334	30	25	SP30013S	277	380	30	30	SP30017S
350	355	268	380	40	30	SP35013S	312	444	40	30	SP35017S
400	400	302	444	60	25	SP40013S	352	495	40	30	SP40017S
450	450	340	495	60	30	SP45013S	396	545	60	30	SP45017S
500	500	382	545	60	30	SP50013S	440	602	50	25	SP50017S
600	630	425	602	50	30	SP60013S	-	-	-	-	SP60017S
700	710	535	708	55	25	SP70013S	625	812	100	25	SP70017S
800	800	603	812	100	35	SP80013S	704	948	100	30	SP80017S
900	1000	680	948	140	30	SP90013S	880	1136	140	30	SP90017S
1000	1000	904	1156	140	30	SP100013S	924	1136	100	30	SP100017S

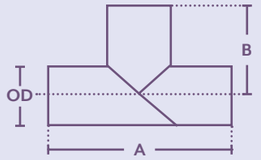
BUTTERFLY VALVE NB	PIPE OD	SDR21				PRODUCT CODE	SDR26				PRODUCT CODE
		A	B	C	D°		A	B	C	D°	
100	110	-	-	-	-	SP10021S	-	-	-	-	SP10026S
125	125	112	192	25	20	SP12521S	-	-	-	-	SP12526S
125	140	-	-	-	-	SP12521S	-	-	-	-	SP12526S
150	160	-	-	-	-	SP15021S	-	-	-	-	SP15026S
200	200	180	270	25	25	SP20021S	185	270	25	25	SP20026S
200	225	-	-	-	-	SP20021S	-	-	-	-	SP20026S
250	250	225	334	30	25	SP25021S	231	334	30	25	SP25026S

BUTTERFLY VALVE NB	PIPE OD	SDR33				PRODUCT CODE
		A	B	C	D°	
100	110	-	-	-	-	SP10033S
125	125	-	-	-	-	SP12533S
125	140	-	-	-	-	SP12533S
150	160	-	-	-	-	SP15033S
200	200	188	270	25	20	SP20033S
200	225	-	-	-	-	SP20033S
250	250	235	334	30	25	SP25033S
250	280	-	-	-	-	SP25033S
300	315	-	-	-	-	SP30033S
350	355	334	444	40	20	SP35033S
400	400	376	495	40	20	SP40033S
450	450	423	545	40	20	SP45033S
500	500	-	-	-	-	SP50033S
600	630	-	-	-	-	SP60033S
700	710	667	812	60	20	SP70033S
800	800	752	948	60	30	SP80033S
1000	1000	940	1136	100	25	SP100033S



FABRICATED TEE

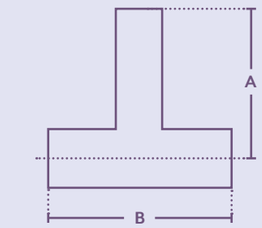
FITTING SIZE	SDR	PN	PRODUCT CODE
90	400	200	T9011BKF
110	500	250	T11011BKF
125	500	250	T12511BKF
140	500	500	T14011BKF
160	600	500	T16011BKF
200	650	500	T20011BKF
225	650	550	T22511BKF
250	700	650	T28011BKF
280	700	650	T28011BKF
315	800	700	T31511BKF
355	800	700	T35511BKF
400	1000	1100	T40011BKF
450	1000	1100	T45011BKF
500	1200	1200	T50011BKF
560	1200	1200	T56011BKF
630	1200	1200	T63011BKF
710	1500	1700	T71011BKF
800	1600	1700	T80011BKF
900	1700	1700	T90011BKF
1000	1800	1700	T100011BKF
1200	2400	2100	T120011BKF



SDR rating to be specified.

FABRICATED REDUCING TEE

FITTING SIZE	A	B	PRODUCT CODE
200/75	355	710	TR2007511BKF
200/90	550	600	TR2009011BKF
200/110	550	600	TR20011011BKF
200/125	550	600	TR20012511BKF
200/140	550	600	TR20014011BKF
200/160	550	600	TR20016011BKF
225/75	550	600	TR2257511BKF
225/90	550	600	TR2259011BKF
225/110 5	50	600	TR22511011BKF
225/140	550	600	TR22514011BKF
225/160	550	600	TR22516011BKF
250/90	650	600	TR2509011BKF
250/110	650	600	TR25011011BKF
250/125	650	600	TR25012511BKF
250/140	650	600	TR25014011BKF
250/160	650	600	TR25016011BKF
250/200	650	600	TR25020011BKF



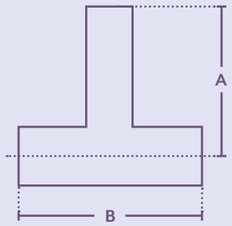
SDR rating to be specified.

FABRICATED REDUCING TEE (CONT.)

SIZE	A	B	PRODUCT CODE
280/110	650	600	TR28011011BKF
280/125	650	600	TR28012511BKF
280/140	650	600	TR28014011BKF
280/160	650	600	TR28016011BKF
280/200	650	600	TR28020011BKF
280/225	650	600	TR28022511BKF
315/110	700	600	TR31511011BKF
315/90	700	600	TR3159011BKF
315/125	700	600	TR31512511BKF
315/140	700	600	TR31514011BKF
315/160	700	650	TR31516011BKF
315/200	700	650	TR31520011BKF
315/225	700	650	TR31522511BKF
315/250	700	650	TR31525011BKF
355/90	700	650	TR3559011BKF
355/110	700	650	TR35511011BKF
355/125	700	650	TR35512511BKF
355/140	700	650	TR35514011BKF
355/160	700	650	TR35516011BKF
355/200	700	700	TR35520011BKF
355/225	700	700	TR35522511BKF
355/250	700	700	TR35525011BKF
355/280	700	700	TR35528011BKF
400/90	750	800	TR4009011BKF
400/110	750	800	TR40011011BKF
400/125	750	800	TR40012511BKF
400/140	750	800	TR40014011BKF
400/160	750	800	TR40016011BKF
400/200	750	900	TR40020011BKF
400/225	750	900	TR4002511BKF
400/250	750	900	TR40025011BKF
400/280	750	900	TR40028011BKF
400/315	750	900	TR40031511BKF
450/90	750	900	TR4509011BKF
450/110	750	900	TR45011011BKF
450/140	750	900	TR45014011BKF
450/160	750	900	TR45016011BKF
450/200	750	1000	TR45020011BKF
450/225	750	1000	TR45022511BKF
450/250	800	1000	TR45025011BKF
450/280	800	1000	TR45028011BKF
500/315	900	1000	TR50031511BKF
500/355	900	1000	TR500/35511BKF
500/400	900	1000	TR50040011BKF
560/200	900	1000	TR56020011BKF
560/225	900	1000	TR5602511BKF
560/250	900	1000	TR56025011BKF

FABRICATED REDUCING TEE (CONT.)

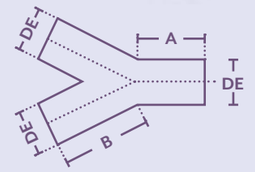
SIZE	A	B	PRODUCT CODE
560/280	1200	1000	TR56028011BKF
560/315	1200	1000	TR56031511BKF
560/355	1200	1000	TR56035511BKF
560/400	1200	1000	TR56040011BKF
630/200	1200	1000	TR63020011BKF
630/225	1200	1000	TR63022511BKF
630/250	1200	1000	TR63025011BKF
630/280	1200	1000	TR63028011BKF
630/315	1200	1100	TR63031511BKF
630/355	1200	1100	TR63035511BKF
630/400	1200	1200	TR63040011BKF
630/450	1200	1200	TR63045011BKF
710/200	1100	1200	TR7102011BKF
710/225	1100	1200	TR7102211BKF
710/250	1100	1200	TR71025011BKF
710/280	1200	1200	TR71028011BKF
710/315	1200	1200	TR71031511BKF
710/355	1200	1200	TR71035511BKF
710/400	1300	1500	TR71040011BKF
710/450	1300	1500	TR71045011BKF
710/500	1300	1500	TR71050011BKF
800/200	1100	1200	TR80020011BKF
800/225	1100	1200	TR8002211BKF
800/250	1200	1200	TR80025011BKF
800/280	1200	1200	TR80028011BKF
800/315	1200	1200	TR8003151 1BKF
800/355	1300	1200	TR8003551 1BKF
800/400	1300	1600	TR80040011BKF
800/450	1400	1600	TR80045011BKF
800/500	1400	1600	TR80050011BKF
800/560	1500	1600	TR80056011BKF
800/630	1500	1600	TR80063011BKF
1000/200	1400	1200	TR100020011BKF
1000/225	1400	1200	TRP10002251 1BKF
1000/250	1400	1200	TR10002501 1BKF
1000/280	1400	1200	TR10002801 1BKF
1000/315	1500	1200	TR10003151 1BKF
1000/355	1500	1200	TR10003551 1BKF
1000/400	1500	1700	TR10004001 1BKF
1000/450	1600	1700	TR10004501 1BKF
1000/500	1600	1700	TR10005001 1BKF
1000/560	1700	1700	TR1000560 BKF
1000/630	1700	1700	TR10006301 1BKF
1200/250	1500	1300	TR12002501 1BKF
1200/280	1500	1300	TR12002801 1BKF
1200/315	1600	1300	TR12003151 1BKF
1200/355	1600	1300	TR12003551 1BKF
1200/400	1700	1800	TR12004001 1BKF
1200/450	1700	1800	TR12004501 1BKF
1200/500	1800	1800	TR12005001 1BKF
1200/560	1800	1800	TR12005601 1BKF
1200/630	1800	1800	TR12006301 1BKF



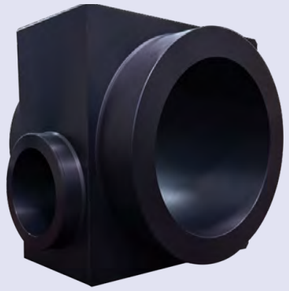
SDR rating to be specified.

BUTT WELDED Y PIECES

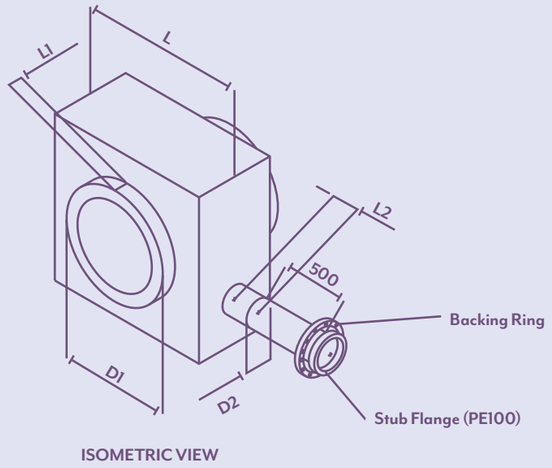
OD	A	B	PRODUCT CODE
90	400	450	Y9011BKF
110	400	450	Y11011BKF
125	400	450	Y12511BKF
140	400	600	Y14011BKF
160	400	600	Y16011BKF
180	500	750	Y18011BKF
200	400	750	Y20011BKF
225	400	750	Y22511BKF
250	400	900	Y25011BKF
280	400	900	Y28011BKF
315	400	1050	Y31511BKF
355	500	1180	Y35511BKF
400	500	1250	Y40011BKF
450	600	1300	Y45011BKF
500	600	1400	Y50011BKF
560	800	1400	Y56011BKF
630	800	1400	Y63011BKF
710	1700	1500	Y71011BKF
800	1700	1500	Y80011BKF
900	1700	1500	Y90011BKF
1000	1700	1500	Y100011BKF



Made to order fabricated for butt welding.
DE-ratings apply please advise angle.
SDR rating to be specified



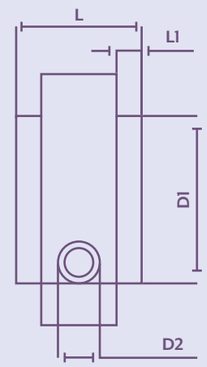
1. All dimensions are in "mm"
2. XX - colour code
3. Available in DAMOS RC, DAMOS HDR & DAMOS Wear Tuff material variants.
4. Available in all "SDR" ratings.



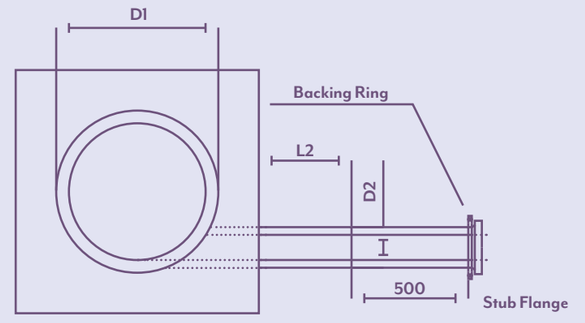
ISOMETRIC VIEW

DAMOS BILLET SCOUR TEE

D1	D2	L	L1/L2	PRODUCT CODE
63	40	90	50/50	STB634011XXSF
63	50	90	50/50	STB635011XXSF
90	50	110	50/50	STB905011XXSF
90	63	110	50/50	STB906311XXSF
110	40	140	30/50	STB1104011XXSF
110	50	140	30/50	STB1105011XXSF
110	63	140	30/50	STB1106311XXSF
110	90	140	30/50	STB1109011XXSF
125	63	140	30/50	STB1256311XXSF
125	90	140	30/50	STB1259011XXSF
125	110	140	30/50	STB12511011XXSF
140	90	160	30/50	STB1409011XXSF
140	110	160	30/50	STB1401011XXSF
140	125	160	30/50	STB14012511XXSF
160	90	180	30/50	STB1609011XXSF
160	110	180	30/50	STB16011011XXSF
160	125	180	30/50	STB16012511XXSF
160	140	180	30/50	STB16014011XXSF
180	90	200	30/50	STB1809011XXSF
180	110	200	30/50	STB18011011XXSF
180	125	200	30/50	STB18012511XXSF
180	140	200	30/50	STB18014011XXSF
180	160	200	30/50	STB18016011XXSF
200	90	225	30/50	STB2009011XXSF
200	110	225	30/50	STB20011011XXSF
200	125	225	30/50	STB20012511XXSF
200	140	225	30/50	STB20014011XXSF
200	160	225	30/50	STB20016011XXSF
200	180	225	30/50	STB20018011XXSF
225	90	250	30/50	STB2259011XXSF
225	110	250	30/50	STB22511011XXSF
225	125	250	30/50	STB22512511XXSF
225	140	250	30/50	STB22514011XXSF
225	160	250	30/50	STB22516011XXSF
225	180	250	30/50	STB22518011XXSF



SIDE VIEW



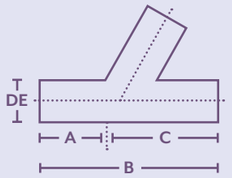
FRONT VIEW

DAMOS BILLET SCOUR TEE (CONT.)

D1	D2	L	L1/L2	PRODUCT CODE
250	90	315	30/50	STB2509011XXSF
250	110	315	30/50	STB25011011XXSF
250	125	315	30/50	STB25012511XXSF
250	140	315	30/50	STB25014011XXSF
250	160	315	30/50	STB25016011XXSF
250	180	315	30/50	STB25018011XXSF
250	200	315	30/50	STB25020011XXSF
280	90	315	30/50	STB2502511XXSF
280	110	315	30/50	STB2809011XXSF
280	125	315	30/50	STB28011011XXSF
280	140	315	30/50	STB28012511XXSF
280	160	315	30/50	STB28014011XXSF
280	180	315	30/50	STB28016011XXSF
280	200	315	30/50	STB28018011XXSF
280	225	315	30/50	STB28020011XXSF
315	90	315	30/50	STB2802511XXSF
315	110	355	30/50	STB28025011XXSF
315	125	355	30/50	STB3159011XXSF
315	140	355	30/50	STB31511011XXSF
315	160	355	30/50	STB31512511XXSF
315	180	355	30/50	STB31514011XXSF
315	200	355	30/50	STB31516011XXSF
315	225	355	30/50	STB31518011XXSF
315	250	355	30/50	STB31520011XXSF
315	280	355	30/50	STB31522511XXSF
355	90	355	30/50	STB31525011XXSF
355	110	400	30/50	STB31528011XXSF
355	125	400	30/50	STB3559011XXSF
355	140	400	30/50	STB35511011XXSF
355	160	400	30/50	STB35512511XXSF
355	180	400	30/50	STB35514011XXSF
355	200	400	30/50	STB35516011XXSF
355	225	400	30/50	STB35518011XXSF

BUTT WELDED JUNCTIONS 45°/60°

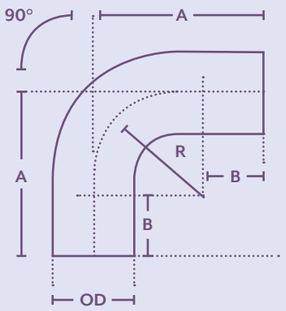
SIZE	A	B	C	PRODUCT CODE
90	275	700	425	J9011BKF
110	275	700	425	J11011BKF
125	290	745	455	J12511BKF
140	306	781	475	J14011BKF
160	330	842	512	J16011BKF
180	360	950	590	J18011BKF
200	372	959	587	J20011BKF
225	425	1080	655	J22511BKF
250	450	1155	705	J25011BKF
280	490	1245	755	J28011BKF
315	525	1340	815	J31511BKF
355	575	1455	880	J35511BKF
400	600	1550	950	J40011BKF
450	625	1625	1000	J45011BKF
500	650	1700	1050	J50011BKF
560	800	2200	1400	J56011BKF
630	800	2300	1500	J63011BKF
710	900	2600	1700	J71011BKF
800	1000	2800	1800	J80011BKF
900	1100	3000	2000	J90011BKF
1000	1200	3400	2200	J100011BKF



Made to order fabricated for butt welding.
DE-ratings apply please advise angle.
SDR rating to be specified

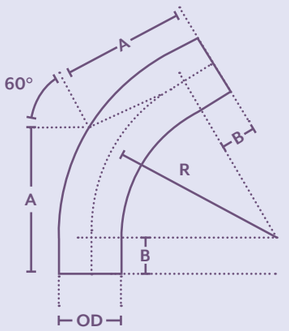
SWEEP BEND 90°

OD	A	B	R	PRODUCT CODE
20	170	70	100	SB209011BKF
25	170	70	100	SB259011BKF
32	198	70	128	SB329011BKF
40	230	70	160	SB409011BKF
50	255	70	175	SB509011BKF
63	300	75	225	SB639011BKF
75	405	100	305	SB759011BKF
90	405	100	305	SB909011BKF
110	480	100	380	SB1109011BKF
125	530	150	380	SB1259011BKF
140	610	150	460	SB1409011BKF
160	610	160	460	SB1609011BKF
200	735	200	535	SB2009011BKF
225	735	200	535	SB2259011BKF
250	865	200	615	SB2509011BKF
280	865	250	615	SB2809011BKF
315	965	250	715	SB3159011BKF
355	1130	250	780	SB3559011BKF
400	1420	350	1070	SB4009011BKF
450	1450	350	1100	SB4509011BKF
500	1650	400	1250	SB5009011BKF
560	1682	400	1282	SB5609011BKF
630	1715	400	1315	SB6309011BKF
710	2897	710	2100	SB7109011BKF
800	3000	1000	1900	SB8009011BKF
900	3300	1000	2200	SB9009011BKF
1000	3500	1000	2500	SB10009011BKF



SWEEP BEND 60°

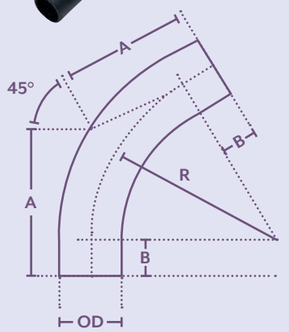
OD	A	B	R	PRODUCT CODE
20	155	100	100	SB206011BKF
25	155	100	100	SB256011BKF
32	170	100	128	SB326011BKF
40	190	100	160	SB406011BKF
50	200	100	175	SB506011BKF
63	230	100	225	SB636011BKF
75	320	150	305	SB756011BKF
90	320	150	305	SB906011BKF
110	400	180	380	SB1106011BKF
125	400	180	380	SB1256011BKF
140	465	200	460	SB1406011BKF
160	465	200	460	SB1606011BKF
200	560	250	535	SB2006011BKF
225	560	250	535	SB2256011BKF
250	655	300	615	SB2506011BKF
280	705	350	615	SB2806011BKF
315	810	400	715	SB3156011BKF
355	950	500	780	SB3556011BKF
400	1160	550	1070	SB4006011BKF
450	1185	550	1100	SB4506011BKF
500	1420	700	1250	SB5006011BKF
560	1440	700	1282	SB5606011BKF
630	1460	700	1315	SB6306011BKF
710	1800	900	1562	SB7106011BKF
800	1920	900	1760	SB8006011BKF
900	2140	980	2100	SB9006011BKF
1000	2210	1000	2100	SB10006011BKF



SDR rating to be specified.

SWEEP BEND 45°

OD	A	B	R	PRODUCT CODE
20	112	70	100	SB204511BKF
25	112	70	100	SB254511BKF
32	123	70	128	SB324511BKF
40	136	70	160	SB404511BKF
50	153	70	175	SB504511BKF
63	175	75	225	SB634511BKF
75	229	100	305	SB754511BKF
90	229	100	305	SB904511BKF
110	254	100	380	SB1104511BKF
125	304	150	380	SB1254511BKF
140	343	150	460	SB1404511BKF
160	343	150	460	SB1604511BKF
200	420	200	535	SB2004511BKF
225	420	200	535	SB2254511BKF
250	507	200	615	SB2504511BKF



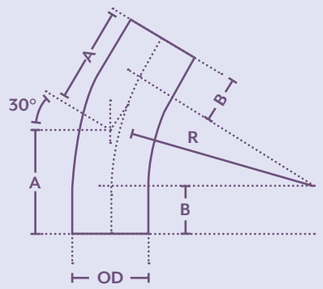
SDR rating to be specified.

SWEEP BEND 45º (CONT.)

OD	A	B	R	PRODUCT CODE
280	507	250	615	SB2804511BKF
315	528	250	715	SB3154511BKF
355	650	250	780	SB3554511BKF
400	690	250	1070	SB4004511BKF
450	750	250	1100	SB4504511BKF
500	830	300	1250	SB5004511BKF
560	860	300	1282	SB5604511BKF
630	920	300	1315	SB6304511BKF
710	1608	797	2100	SB7104511BKF
800	1728	1000	1900	SB8004511BKF
900	1860	1000	2300	SB9004511BKF
1000	1957	1000	2500	SB10004511BKF
1200	2348	1200	3000	SB12004511BKF

SWEEP BEND 30º

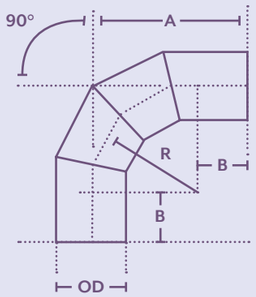
OD	A	B	R	PRODUCT CODE
20	130	100	100	SB203011BKF
25	130	100	100	SB253011BKF
32	134	100	128	SB323011BKF
40	140	100	160	SB403011BKF
50	146	100	175	SB503011BKF
63	160	100	225	SB633011BKF
75	230	150	305	SB753011BKF
90	230	150	305	SB903011BKF
110	280	180	380	SB1103022BKF
125	280	180	380	SB1253011BKF
140	320	200	460	SB140311BKF
160	320	200	460	SB1603011BKF
200	320	250	535	SB2003011BKF
225	400	250	535	SB2253011BKF
250	460	300	615	SB2503011BKF
280	510	350	615	SB2803011BKF
315	605	400	715	SB3153011BKF
355	710	500	780	SB3553011BKF
400	830	550	1070	SB4003011BKF
450	840	550	1100	SB4503011BKF
500	1030	700	1250	SB5003011BKF
560	1040	700	1282	SB5603011BKF
630	1050	700	1315	SB6303011BKF
710	1310	900	1562	SB7103011BKF
800	1360	900	1760	SB8003011BKF
900	1480	960	2040	SB9003011BKF
1000	1550	1000	2100	SB10003011BKF
1200	1860	1200	2520	SB12003011BKF



SDR rating to be specified.

SEGMENTED BENDS 90º - PE100

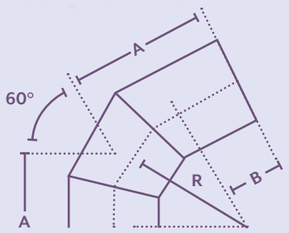
OD	A	B	R	PRODUCT CODE
90	235	100	135	MB909011BKF
110	265	100	165	MB1109011BKF
125	338	150	188	MB1259011BKF
140	360	150	210	MB1409011BKF
160	390	150	240	MB1609011BKF
200	450	150	300	MB2009011BKF
225	488	150	338	MB2259011BKF
250	625	250	375	MB2509011BKF
280	670	250	420	MB2809011BKF
315	777	300	477	MB3159011BKF
355	833	300	533	MB3559011BKF
400	900	300	600	MB4009011BKF
450	975	300	675	MB4509011BKF
500	1100	350	750	MB5009011BKF
560	1190	350	840	MB5609011BKF
630	1295	350	945	MB6309011BKF
710	1415	350	1065	MB7109011BKF
800	1550	350	1200	MB8009011BKF
900	1732	400	1350	MB9009011BKF
1000	1900	400	1500	MB10009011BKF
1200	2200	400	1800	MB12009011BKF



Full range of angles from 5° to 180° available on request. Please note: DE-ratings applies. SDR rating to be specified

SEGMENTED BENDS 60º - PE100

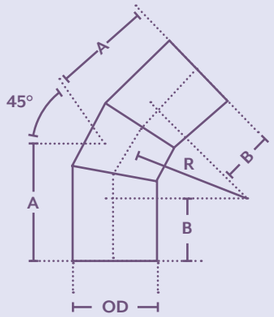
OD	A	B	R	PRODUCT CODE
90	178	100	135	MB906011BKF
110	195	100	165	MB1106011BKF
125	258	150	188	MB1256011BKF
140	275	150	210	MB1406011BKF
160	288	150	240	MB1606011BKF
200	323	150	300	MB2006011BKF
225	345	150	338	MB2256011BKF
250	466	250	375	MB2506011BKF
280	492	250	420	MB2806011BKF
315	576	300	477	MB3156011BKF
355	608	300	533	MB3556011BKF
400	646	300	600	MB4006011BKF
450	689	300	675	MB4506011BKF
500	783	350	750	MB5006011BKF
560	835	350	840	MB5606011BKF
630	896	350	945	MB6306011BKF
710	965	350	1065	MB7106011BKF
800	1043	350	1200	MB8006011BKF
900	1174	400	1350	MB9006011BKF
1000	1267	400	1500	MB10006011BKF
1200	1440	400	1800	MB12006011BKF



Full range of angles from 5° to 180° available on request. Please note: DE-ratings applies. SDR rating to be specified

SEGMENTED BENDS 45º - PE100

OD	A	B	R	PRODUCT CODE
90	156	100	135	MB904511BKF
110	168	100	165	MB1104511BKF
125	227	150	188	MB1254511BKF
140	237	150	210	MB1404511BKF
160	249	150	240	MB1604511BKF
200	274	150	300	MB2004511BKF
225	290	150	338	MB2254511BKF
250	412	250	375	MB2504511BKF
280	474	250	420	MB2804511BKF
315	498	300	477	MB3154511BKF
355	520	300	533	MB3554511BKF
400	548	300	600	MB4004511BKF
450	580	300	675	MB4504511BKF
500	665	350	750	MB5004511BKF
560	698	350	840	MB5604511BKF
630	741	350	945	MB6304511BKF
710	791	350	1065	MB7104511BKF
800	847	350	1200	MB8004511BKF
900	920	400	1350	MB9004511BKF
1000	1022	400	1500	MBS1000451IBKF
1200	1146	400	1800	MBS1200451IBKF

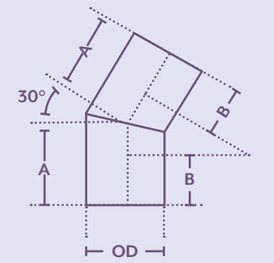


SDR rating to be specified.

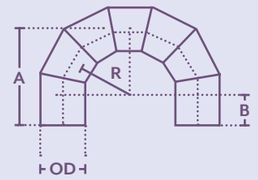
Full range of angles from 5° to 180° available on request.

SEGMENTED BENDS 30º - PE100

OD	A	B	R	PRODUCT CODE
90	135	100	135	MB903011BKF
110	143	100	165	MB1103011BKF
125	199	150	188	MB1253011BKF
140	205	150	210	MB1403011BKF
160	213	150	240	MB16030 BKF
200	230	150	300	MB2003011BKF
225	241	150	338	MB2253011BKF
250	350	250	375	MB2503011BKF
280	362	250	420	MB2803011BKF
315	428	300	477	MB3153011BKF
355	443	300	533	MB3553011BKF
400	461	300	600	MB4003011BKF
450	580	300	675	MB4504511BKF
500	665	350	750	MB5004511BKF
560	698	350	840	MB5604511BKF
630	741	350	945	MB6304511BKF
710	791	350	1065	MB7104511BKF
800	847	350	1200	MB8004511BKF
900	920	400	1350	MB9004511BKF
1000	1022	400	1500	MB10004511BKF
1200	1146	400	1800	MB12004511BKF



Full range of angles from
5° to 180° available on request.
SDR rating to be specified



SEGMENTED BENDS 180°

OD	A	B	R	PRODUCT CODE
90	235	100	135	MB9018011BKF
110	265	100	165	MB11018011BKF
125	338	150	188	MB12518011BKF
140	360	150	210	MB14018011BKF
160	390	150	240	MB16018011BKF
200	450	150	300	MB20018011BKF
225	488	150	338	MB22518011BKF
250	625	150	375	MB25018011BKF
280	670	150	420	MB28018011BKF
315	777	300	477	MB31518011BKF
355	833	300	533	MB35518011BKF
400	900	300	600	MB40018011BKF
450	975	300	675	MB45018011BKF
500	1100	350	750	MB50018011BKF
560	1190	350	840	MB56018011BKF
630	1295	350	945	MB63018011BKF
710	1415	350	1065	MB71018011BKF
800	1550	350	1200	MB80018011BKF
900	1732	400	1350	MB90018011BKF
1000	1900	400	1500	MB100018011BKF
1200	2200	400	1800	MB120018011BKF

Victaulic Couplers

David Moss range of mechanical couplings are spearheaded by the Victaulic brand of products, these mechanical couplings are an industry standard for mechanically connecting HDPE pipelines to each other and also for connecting HDPE pipelines to pipelines in other materials (i.e. steel). Utilising a 2 piece external housing, and an inner rubber ring, the Victaulic coupling is secured over the pipe via a bolting system, this allows for fast assembly, with no specialty equipment needed to install the fitting. Specifically suited to smaller bore pipe, the Victaulic couplings are available in all OD's up to 1000mm, and SDR is matched to the pipe the coupling is securing.

David Moss stock a full range of Victaulic couplers from DN32 to DN630, with other sizes available upon request.

VICTAULIC SHOULDERED STEEL CLAMP SC77

NOMINAL	PRODUCT CODE
50	VCOUPGNSC7750.8
80	VCOUPGNSC7788.9
100	VCOUPGNSC77114.3
200	VCOUPGNSC77219.1

Designed to join shouldered steel pipe, shouldered fittings and/or valves. Provides a flexible joint which allows for some expansion, contraction and deflection.

VICTAULIC HDPE PIPE 905 BLACK ENAMEL NITRILE

ISO NOMINAL	SDR	PRODUCT CODE
63	7 - 17	VCOUPBN90563
75	7 - 17	VCOUPBN90575
90	7 - 17	VCOUPBN90590
110	7 - 17	VCOUPBN905110
125	7 - 17	VCOUPBN905125
140	7 - 17	VCOUPBN905140
160	7 - 17	VCOUPBN905160
180	7 - 17	VCOUPBN905180
200	7 - 17	VCOUPBN905200
225	7 - 17	VCOUPBN905225

VICTAULIC HDPE PIPE 905 ORANGE ENAMEL NITRILE

NOMINAL	SDR	PRODUCT CODE
63	7 - 17	VCOUPON90563
75	7 - 17	VCOUPON90575
90	7 - 17	VCOUPON90590
110	7 - 17	VCOUPON905110
125	7 - 17	VCOUPON905125
140	7 - 17	VCOUPON905140
160	7 - 17	VCOUPON905160
180	7 - 17	VCOUPON905180
200	7 - 17	VCOUPON905200
225	7 - 17	VCOUPON905225

VICTAULIC HDPE PIPE 907 BLACK ENAMEL NITRILE

ISO END TO GROOVED END	SDR	PRODUCT CODE
63 x 60.3	7 - 17	VCOUPBN90763
75 x 73.0	7 - 17	VCOUPBN90775
90 x 88.9	7 - 17	VCOUPBN90790
110 x 114.3	7 - 17	VCOUPBN907110
125 x 114.3	7 - 17	VCOUPBN907125
140 x 141.3	7 - 17	VCOUPBN907140
160 x 168.3	7 - 17	VCOUPBN907160
180 x 168.3	7 - 17	VCOUPBN907180
200 x 219.1	7 - 17	VCOUPBN907200
225 x 219.1	7 - 17	VCOUPBN907225

VICTAULIC HDPE PIPE 907 ORANGE ENAMEL NITRILE

ISO END TO GROOVED END	SDR	PRODUCT CODE
63 x 60.3	7 - 17	VCOUPON90763
75 x 73.0	7 - 17	VCOUPON90775
90 x 88.9	7 - 17	VCOUPON90790
110 x 114.3	7 - 17	VCOUPON907110
125 x 114.3	7 - 17	VCOUPON907125
140 x 141.3	7 - 17	VCOUPON907140
160 x 168.3	7 - 17	VCOUPON907160
180 x 168.3	7 - 17	VCOUPON907180
200 x 219.1	7 - 17	VCOUPON907200
225 x 219.1	7 - 17	VCOUPON907225

VICTAULIC CLAMP HDPE PIPE 908 ORANGE ENAMEL

ISO NOMINAL	SDR	PRODUCT CODE
250	7 - 17	VCOUPON908250
280	7 - 17	VCOUPON908280
315	7 - 17	VCOUPON908315
355	7 - 17	VCOUPON908355
400	7 - 17	VCOUPON908400
450	7 - 17	VCOUPON908450
500	7 - 17	VCOUPON908500
560	7 - 17	VCOUPON908560
630	7 - 17	VCOUPON908630
710	7 - 17	VCOUPON908710
800	7 - 17	VCOUPON908800
900	7 - 17	VCOUPON908900

VICTAULIC HDPE PIPE 995 ORANGE ENAMEL EPDM

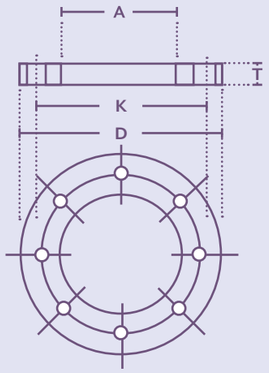
NOMINAL DIA.	PRODUCT CODE
50	VCOUPOE995N50
63	VCOUPOE995N63
80	VCOUPOE995N80
90	VCOUPOE995N90
100	VCOUPOE995N100
110	VCOUPOE995N110
125	VCOUPOE995N125
140	VCOUPOE995N140
125	VCOUPOE995N125
150	VCOUPOE995N150
160	VCOUPOE995N160
180	VCOUPOE995N180
200	VCOUPOE995N200
250	VCOUPOE995N250
280	VCOUPOE995N280
300	VCOUPOE995N300
315	VCOUPOE995N315
335	VCOUPOE995N335
350	VCOUPOE995N350
400	VCOUPOE995N400
450	VCOUPOE995N450
500	VCOUPOE995N500

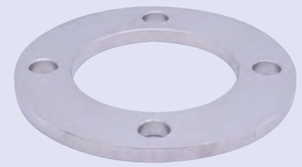
Designed for plain end coupling for HDPE pipe with an SDR from 32.5 - 7.3.

Backing Rings

David Moss stock and supply a vast array of backing rings, and are set up to support any project, regardless of the size or style required. With a range of product featuring galvanised and stainless steel, we supply backing rings from 20mm OD to 1200mm OD. Available in a range of styles from Table D and E AS4087 PN16, as well as ANSI 150 and full specification ANSI, David Moss also offer blind flanges and custom fabrication services, to provided specialty steel rings for all your project needs. Working with our national and international supply chain partners, David Moss stock all major styles and sizes in our Perth and Brisbane facilities.

David Moss stock a wide range of Galvanised, SS316, and epoxy coated rings available from both Perth and Brisbane warehouses.

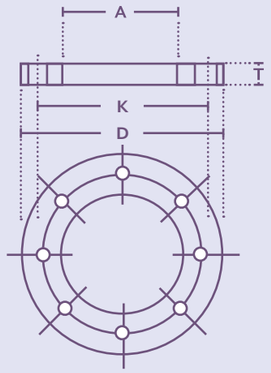


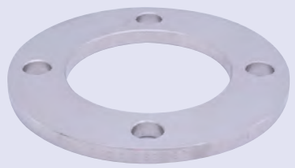


Stainless steel & coated rings are available on request.

GALVANISED MILD STEEL BACK UP PLATE - TABLE D

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	28	6	67	4	14	M12	BR20TDE
25	100	34	6	73	4	14	M12	BR25TDE
32	115	42	7	83	4	14	M12	BR32TDE
40	120	51	8	87	4	14	M12	BR40TDE
50	135	62	9	98	4	14	M12	BR50TDE
63	150	78	11	114	4	18	M16	BR63TDEAS4087
75	165	92	11	127	4	18	M16	BR75TDEAS4087
90	185	108	11	146	4	18	M16	BR90TDEAS4087
110	215	128	13	178	4	18	M16	BR110TDAS4087
125/110	215	140	13	178	4	18	M16	BR125110TDAS4087
125	255	140	14	210	8	18	M16	BR125TDE
140	255	158	14	210	8	18	M16	BR140TDE
160	280	178	13	235	8	18	M16	BR160TDAS4087
180	280	195	13	235	8	18	M16	BR180TDAS4087
200	335	235	13	292	8	18	M16	BR200TD
225	335	238	13	292	8	18	M16	BR225TD
250	405	288	19	356	8	22	M20	BR250TDAS4087
280	405	294	16	356	8	22	M20	BR280TD
315	455	338	23	406	12	22	M20	BR315TDAS4087
355	525	376	22	470	12	26	M24	BR355TD
400	580	430	22	521	12	26	M24	BR400TD
450	640	470	25	584	12	26	M24	BR450TD
500	705	533	29	641	16	26	M24	BR500TD
560	760	590	29	699	16	30	M27	BR560TD
630	825	660	32	756	16	30	M27	BR630TD
710	910	740	35	845	20	30	M27	BR710TD
800	1060	843	41	984	20	36	M33	BR800TD
900	1175	947	48	1092	24	36	M33	BR900TD
1000	1255	1050	51	1175	24	36	M33	BR1000TD
1200	1490	1240	60	1410	32	36	M33	BR1200TD





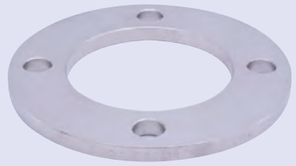
GALVANISED MILD STEEL BACK UP PLATE - TABLE E

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	28	6	67	4	14	M12	BR20TDE
25	100	34	6	73	4	14	M12	BR25TDE
32	115	42	7	83	4	14	M12	BR32TDE
40	120	51	8	87	4	14	M12	BR40TDE
50	135	62	9	98	4	14	M12	BR50TDE
63	150	78	11	114	4	18	M16	BR63TDEAS4087
75	165	92	11	127	4	18	M16	BR75TDEAS4087
90	185	108	11	146	4	18	M16	BR90TDEAS4087
110	215	128	13	178	8	18	M16	BR110TE
125/110	215	140	13	178	8	18	M16	BR125110TDE
125	255	140	14	210	8	18	M16	BR125TDE
140	255	158	14	210	8	18	M16	BR140TDE
160	280	178	17	235	8	22	M20	BR160TE
180	280	195	17	235	8	22	M20	BR180TE
200	335	235	19	292	8	22	M20	BR200TE
225	335	238	19	292	8	22	M20	BR225TE
250	405	288	22	356	12	22	M20	BR250TE
280	405	294	22	356	12	22	M20	BR280TE
315	455	338	25	406	12	26	M24	BR315TE
355	525	376	30	470	12	26	M24	BR355TEAS4087
400	580	430	32	521	12	26	M24	BR400TEAS4087
450	640	470	35	584	16	26	M24	BR450TE
500	705	533	35	641	16	26	M24	BR500TEAS4087
560	760	590	44	699	16	30	M27	BR560TE
630	825	660	48	756	16	33	M30	BR630TE
710	910	740	51	845	20	33	M30	BR710TE
800	1060	843	54	984	20	36	M33	BR800TE
900	1175	947	64	1092	24	36	M33	BR900TE
1000	1255	1050	67	1175	24	39	M36	BR1000TE
1200	1490	1240	79	1410	32	39	M36	BR1200TE

GALVANISED MILD STEEL BACK UP PLATE - TABLE A.N.S.I 150

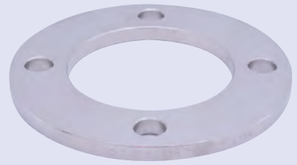
PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
63	152	78	11	120.5	4	20	5/8"	BR63A16
75	178	92	11	139.5	4	20	5/8"	BR75A16
90	191	108	11	152	4	20	5/8"	BR90A16
110	229	128	13	190.5	8	20	5/8"	BL110A16
125	254	135	14	216	8	22	3/4"	BR125A16
140	254	158	14	216	8	22	3/4"	BR140A16
160	279	178	17	241	8	22	3/4"	BR160A16
180	279	195	17	241	8	22	3/4"	BR180A16
200	343	235	19	298.5	8	22	3/4"	BR200A16
225	343	238	19	298.5	8	22	3/4"	BR225A16
250	406	288	22	362	12	26	7/8"	BR250A16
280	406	294	22	362	12	26	7/8"	BR280A16
315	482	345	25	432	12	26	7/8"	BR315A16
355	533	376	30	476	12	30	1"	BR355A16
400	600	430	32	540	16	30	1"	BR400A16
450	635	480	35	578	16	33	1 1/8"	BR450A16
500	700	533	38	635	20	33	1 1/8"	BR500A16
560	760	590	44	692	20	36	1 1/4"	BR560A16
630	815	660	48	750	20	36	1 1/4"	BR630A16
710	927	745	52	863.5	28	36	1 1/4"	BR710A16
800	1060	840	57	978	28	41	1 1/2"	BR800A16
1000	1289	1040	64	1200	36	41	1 3/4"	BR1000A16
1200	1510	1240	70	1422.5	44	41	1 3/4"	BR1200A16

Designed for plain end jointing of HDPE pipe from SDR17 to SDR7.4.



GALVANISED BACKING RINGS PN16 AS4087

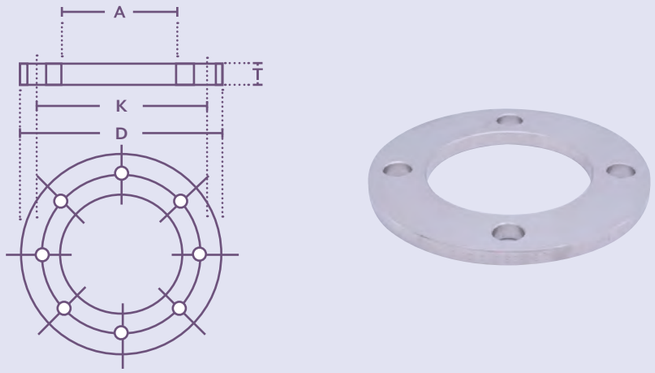
PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
63	150	78	11	114	4	18	M16	BR63TDEAS4087
75	165	92	11	127	4	18	M16	BR75TDEAS4087
90	185	108	11	146	4	18	M16	BR90TDEAS4087
110	215	128	13	178	4	18	M16	BR110TDAS4087
125/110	215	140	13	178	8	18	M16	BR125110TEAS4087
160	280	178	13	235	8	18	M16	BR160TDAS4087
180	280	195	13	235	8	18	M16	BR180TDAS4087
200	335	235	19	292	8	18	M16	BR200AS4087
225	335	238	19	292	8	18	M16	BR225AS4087
250	405	288	19	356	8	22	M20	BR250TDAS4087
315	455	338	23	406	12	22	M20	BR315TDAS4087
355	525	376	30	470	12	26	M24	BR355TEAS4087
400	580	430	32	521	12	26	M24	BR400TEAS4087
450	640	470	38	584	12	26	M24	BR450AS4087
500	705	533	48	641	16	26	M24	BR500TEAS4087
630	825	660	56	756	16	30	M27	BR630AS4087
710	910	745	56	845	20	30	M27	BR710AS4087
800	1060	843	56	984	20	36	M33	BR800AS4087
900	1175	950	66	1092	24	36	M33	BR900AS4087
1000	1255	1068	66	1175	24	36	M33	BR1000AS4087



GALVANISED BACK UP PLATE PN20 A.N.S.I 150

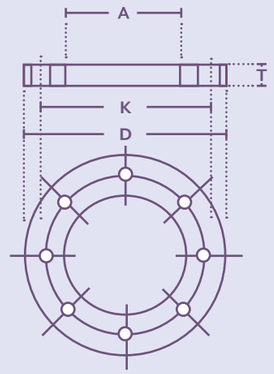
PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	90	32	6	60.5	4	16	1/2"	BR20A150
25	98	37	8	70	4	16	1/2"	BR25A150
32	108	44	8	79.5	4	16	1/2"	BR32A150
40	117	52	8	89	4	16	1/2"	BR40A150
50	127	62	10	98.5	4	16	1/2"	BR50A150
63	152	78	10	120.5	4	20	5/8"	BR63A150
75	178	92	10	139.5	4	20	5/8"	BR75A150
90	191	108	12	152	4	20	5/8"	BR90A150
110	229	128	12	190.5	8	20	5/8"	BR110A150
125	254	140	16	216	8	23	3/4"	BR125A150
140	254	158	16	216	8	23	3/4"	BR140A150
160	279	178	16	241	8	23	3/4"	BR160A150
180	279	195	16	241	8	23	3/4"	BR180A150
200	343	235	20	298.5	8	23	3/4"	BR200A150
225	343	240	20	298.5	8	23	3/4"	BR225A150
250	406	290	20	362	12	26	7/8"	BR250A150
280	406	300	20	362	12	26	7/8"	BR280A150
315	483	345	25	432	12	26	7/8"	BR315A150
355	535	376	28	476	12	29	1"	BR355A150
400	600	430	32	540	16	29	1"	BR400A150
450	635	480	36	578	16	32	1 1/8"	BR450A150
500	700	533	40	635	20	32	1 1/8"	BR500A150
560	750	590	46	692	20	35	1 1/4"	BR560A150
630	813	660	50	749	35	47.8	1 1/4"	BR630A150
710	927	745	71	863.5	28	35	1 1/4"	BR710A150
800	1060	835	81	978	28	41	1 1/2"	BR800A150
900	1170	950	90	1085.8	32	41	1 1/2"	BR900A150
1000	1290	1030	108	1200.2	36	41	1 3/4"	BR1000A150

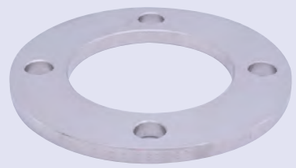
AS2129 compliant. Damos can supply gaskets, bolts and washers if required.



STAINLESS STEEL BACK UP PLATE - TABLE D

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	32	6	67	4	14	M12	BR20TDESS
25	100	37	6	73	4	14	M12	BR25TDESS
32	115	44	6	83	4	14	M12	BR32TDESS
40	120	52	6	87	4	14	M12	BR40TDESS
50	135	62	8	98	4	14	M12	BR50TDESS
63	150	78	8	114	4	18	M16	BR63TDEAS4087SS
75	165	92	8	127	4	18	M16	BR75TDEAS4087SS
90	185	108	10	146	4	18	M16	BR90TDESS
110	215	128	10	178	4	18	M16	BRI10TDAS4087SS
125	255	140	13	210	8	18	M16	BRI25TDSS
140	255	158	13	210	8	18	M16	BR140TDESS
160	280	178	13	235	8	18	M16	BRI60TDAS4087SS
180	280	195	13	235	8	18	M16	BRI80TDAS4087SS
200	335	235	13	292	8	18	M16	BR200TDSS
225	335	240	13	292	8	18	M16	
250	405	290	16	356	8	22	M20	BR250TDAS4087SS
280	405	300	16	356	8	22	M20	BR280TDSS
315	455	345	19	406	12	22	M20	BR315TDSS
355	525	376	22	470	12	26	M24	BR355TDSS
400	580	430	22	521	12	26	M24	BR400TDSS
450	640	480	25	584	12	26	M24	BR450TDSS
500	705	533	29	641	16	26	M24	BR500TDSS
560	760	590	32	699	16	30	M27	BR560TDSS
630	825	660	32	756	16	30	M27	BR630TDSS
710	910	745	35	845	20	30	M27	BR710TDSS
800	1060	835	41	984	20	36	M33	BR800TDSS
900	1175	950	48	1092	24	36	M33	BR900TDSS
1000	1255	1035	51	1175	24	36	M33	BRI000TDSS
1200	1490	1240	60	1410	32	36	M33	BRI200TDSS





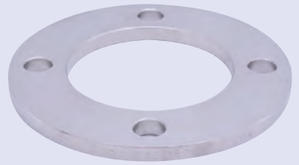
STAINLESS STEEL BACK UP PLATE - TABLE E

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	32	6	67	4	14	M12	BR20TDESS
25	100	37	6	73	4	14	M12	BR25TDESS
32	115	44	7	83	4	14	M12	BR32TDESS
40	120	52	8	87	4	14	M12	BR40TDESS
50	135	62	9	98	4	14	M12	BR50TDESS
63	150	78	10	114	4	18	M16	BR63TDEAS4087SS
75	165	92	10	127	4	18	M16	BR75TDESS
90	185	108	12	146	4	18	M16	BR90TDESS
110	215	128	13	178	8	18	M16	BRI10TESS
125	255	140	14	210	8	18	M16	BRI25TDSS
140	255	158	14	210	8	18	M16	BR140TDESS
160	280	178	17	235	8	22	M20	BR160TESS
180	280	195	17	235	8	22	M20	BRI80TESS
200	335	235	19	292	8	22	M20	BR200TESS
225	335	240	19	292	8	22	M20	BR225TESS
250	405	290	22	356	12	22	M20	BR250TESS
280	405	300	22	356	12	22	M20	BR280TESS
315	455	345	25	406	12	26	M24	BR315TESS
355	525	376	29	470	12	26	M24	BR355TEAS4087SS
400	580	430	32	521	12	26	M24	BR400TEAS4087SS
450	640	480	32	584	16	26	M24	BR450TESS
500	705	533	38	641	16	26	M24	BR500TEAS4087SS
560	760	590	44	699	16	30	M27	BR560TESS
630	825	660	48	756	16	33	M30	BR630TESS
710	910	745	51	845	20	33	M30	BR710TESS
800	1060	835	54	984	20	36	M33	BR800TESS
900	1175	950	64	1092	24	36	M33	BR900TESS
1000	1255	1035	67	1175	24	39	M36	BRI000TESS
1200	1490	1240	79	1410	32	39	M36	BRI200TESS

STAINLESS STEEL BACK UP PLATE - TABLE A.N.S.I 150

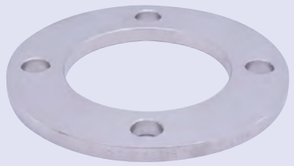
PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	90	32	6	60.5	4		1/2"	
25	98	37	8	70	4		1/2"	
32	108	44	8	79.5	4		1/2"	BR32A16SS
40	117	52	8	89	4		1/2"	BR40A16SS
50	127	62	10	98.5	4		1/2"	BR50A16SS
63	152	78	10	120.5	4	11	5/8"	BR63A16SS
75	178	92	10	139.5	4	11	5/8"	BR75A16SS
90	191	108	12	152	4	11	5/8"	BR90A16SS
110	229	128	12	190.5	8	13	5/8"	BR110A16SS
125	254	140	16	216	8	14	3/4"	BR125A16SS
140	254	158	16	216	8	14	3/4"	BR140A16SS
160	279	178	16	241	8	17	3/4"	BR160A16SS
180	279	195	16	241	8	17	3/4"	BR180A16SS
200	343	235	20	298.5	8	19	3/4"	BR200A16SS
225	343	240	20	298.5	8	19	3/4"	BR225A16SS
250	406	290	20	362	12	22	7/8"	BR250A16SS
280	406	300	20	362	12	22	7/8"	BR280A16SS
315	483	345	25	432	12	25	7/8"	BR315A16SS
355	535	376	28	476	12	30	1"	BR355A16SS
400	600	430	32	540	16	32	1"	BR400A16SS
450	635	480	36	578	16	33	1 1/8"	BR450A16SS
500	700	533	40	635	20	33	1 1/8"	BR500A16SS
560	750	590	46	692	20	36	1 1/4"	BR560A16SS
630	813	660	50	749	20	36	1 1/4"	BR630A16SS
710	927	745	71	863.5	28	36	1 1/4"	BR710A16SS
800	1060	835	81	978	28	41	1 1/2"	BR800A16SS
900	1170	950	90	1085.8	32	41	1 1/2"	BR900A16SS
1000	1290	1030	90	1200.2	36	41	1 1/2"	BR1000A16SS
1200	1510	1235	108	1422.5	44	41	1 3/4"	BR1200A16SS

AS2129 compliant. Damos can supply gaskets, bolts and washers if required.



STAINLESS STEEL BACKING RINGS PN16 AS4087

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
63	150	78	11	114	4	18	M16	BR63TDEAS4087SS
75	165	92	11	127	4	18	M16	BR75TDEAS4087SS
90	185	108	11	146	4	18	M16	BR90TDEAS4087SS
110	215	128	13	178	4	18	M16	BR110TDAS4087SS
125/110	215	140	13	178	8	18	M16	BR125110TDAS4087SS
125	215	140	13	178	4	18	M16	BR125TDAS4087SS
160	280	178	13	235	8	18	M16	BR160TDAS4087SS
180	280	195	13	235	8	18	M16	BR180TDAS4087SS
200	335	235	19	292	8	18	M16	BR200AS4087SS
225	335	240	19	292	8	18	M16	BR225AS4087SS
250	405	290	19	356	8	22	M20	BR250TDAS4087SS
315	455	345	23	406	12	22	M20	BR315TDAS4087SS
355	525	376	30	470	12	26	M24	BR355TEAS4087SS
400	580	430	30	521	12	26	M24	BR400TEAS4087SS
450	640	480	30	584	12	26	M24	BR450AS4087SS
500	705	533	38	641	16	26	M24	BR500TEAS4087SS
630	825	660	48	756	16	30	M27	BR630AS4087SS
710	910	745	56	845	20	30	M27	BR710AS4087SS
800	1060	835	56	984	20	36	M33	BR800AS4087SS
900	1175	950	66	1092	24	36	M33	BR900AS4087SS
1000	1255	1035	66	1175	24	36	M33	BR1000AS4087SS
1200	1490	1240	76	1410	32	36	M33	BR1200AS4087SS



STAINLESS STEEL BACK UP PLATE PN20 A.N.S.I 150

PIPE OD	D	A	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	90	32	6	60.5	4	16	1/2"	BR20A150SS
25	98	37	8	70	4	16	1/2"	BR25A150SS
32	108	44	8	79.5	4	16	1/2"	BR32A150SS
40	117	52	8	89	4	16	1/2"	BR40A150SS
50	127	62	10	98.5	4	16	1/2"	BR50A150SS
63	152	78	10	120.5	4	20	5/8"	BR63A150SS
75	178	92	10	139.5	4	20	5/8"	BR75A150SS
90	191	108	12	152	4	20	5/8"	BR90A150SS
110	229	128	12	190.5	8	20	5/8"	BR110A150SS
125	254	140	16	216	8	23	3/4"	BR125A150SS
140	254	158	16	216	8	23	3/4"	BR140A150SS
160	279	178	16	241	8	23	3/4"	BR160A150SS
180	279	195	16	241	8	23	3/4"	BR180A150SS
200	343	235	20	298.5	8	23	3/4"	BR200A150SS
225	343	240	20	298.5	8	23	3/4"	BR225A150SS
250	406	290	20	362	12	26	7/8"	BR250A150SS
280	406	300	20	362	12	26	7/8"	BR280A150SS
315	483	345	25	432	12	26	7/8"	BR315A150SS
355	535	376	28	476	12	29	1"	BR355A150SS
400	600	430	32	540	16	29	1"	BR400A150SS
450	635	480	36	578	16	33	1 1/8"	BR450A150SS
500	700	533	40	635	20	33	1 1/8"	BR500A150SS
560	750	590	46	692	20	36	1 1/4"	BR560A150SS
630	813	660	50	749	20	26	1 1/4"	BR630A150SS
710	927	745	71	863.5	28	36	1 1/4"	BR710A150SS
800	1060	835	81	978	28	41	1 1/2"	BR800A150SS
900	1170	950	90	1085.8	32	41	1 1/2"	BR900A150SS
1000	1290	1030	90	1200.2	36	41	1 1/2"	BR1000A150SS
1200	1510	1235	108	1422.5	44	41	1.1/2"	BR1200A150SS

AS2129 compliant. Damos can supply gaskets, bolts and washers if required

Custom backing rings are available upon request

GALVANISED BL FLANGES TABLE D

PIPE OD	D	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	6	67	4	14	M12	BL20D
25	100	6	73	4	14	M12	BL25D
32	115	7	83	4	14	M12	BL32D
40	120	8	87	4	14	M12	BL40D
50	135	9	98	4	14	M12	BL50D
63	150	11	114	4	18	M16	BL63D
75	165	11	127	4	18	M16	BL75D
90	185	11	146	4	18	M16	BL90D
110	215	13	178	4	18	M16	BL100D
125/110	215	13	178	4	18	M16	BL125110D
125	255	14	210	8	18	M16	BL125D
140	255	14	210	8	18	M16	BL140D
160	280	13	235	8	18	M16	BL160D
180	280	13	235	8	18	M16	BL180D
200	335	13	292	8	18	M16	BL200D
225	335	13	292	8	18	M16	BL225D
250	405	19	356	8	22	M20	BL250D
280	405	16	356	8	22	M20	BL280D
315	455	23	406	12	22	M20	BL315D
355	525	22	470	12	26	M24	BL355D
400	580	22	521	12	26	M24	BL400D
450	640	25	584	12	26	M24	BL450D
500	705	29	641	16	26	M24	BL500D
560	760	29	699	16	30	M27	BL560D
630	825	32	756	16	30	M27	BL630D
710	910	35	845	20	30	M27	BL710D
800	1060	41	984	20	36	M33	BL800D
900	1175	48	1092	24	36	M33	BL900D
1000	1255	51	1175	24	36	M33	BL1000D
1200	1490	60	1410	32	36	M33	BL1200D

GALVANISED BL FLANGES TABLE E

PIPE OD	D	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	6	67	4	14	M12	BL20E
25	100	6	73	4	14	M12	BL25E
32	115	7	83	4	14	M12	BL32E
40	120	8	87	4	14	M12	BL40E
50	135	9	98	4	14	M12	BL50E
63	150	11	114	4	18	M16	BL63E
75	165	11	127	4	18	M16	BL75E
90	185	11	146	4	18	M16	BL90E
110	215	13	178	8	18	M16	BL100E
125/110	215	13	178	8	18	M16	BL125110E
125	255	14	210	8	18	M16	BL125E
140	255	14	210	8	18	M16	BL140E
160	280	17	235	8	22	M20	BL160E
180	280	17	235	8	22	M20	BL180E

GALVANISED BL FLANGES TABLE E (CONT.)

PIPE OD	D	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
200	335	19	292	8	22	M20	BL200E
225	335	19	292	8	22	M20	BL225E
250	405	22	356	12	22	M20	BL250E
280	405	22	356	12	22	M20	BL280E
315	455	25	406	12	26	M24	BL315E
355	525	30	470	12	26	M24	BL355E
400	580	32	521	12	26	M24	BL400E
450	640	35	584	16	26	M24	BL450E
500	705	35	641	16	26	M24	BL500E
560	760	44	699	16	30	M27	BL560E
630	825	48	756	16	33	M30	BL630E
710	910	51	845	20	33	M30	BL710E
800	1060	54	984	20	36	M33	BL800E
900	1175	64	1092	24	36	M33	BL900E
1000	1255	67	1175	24	39	M36	BL1000E
1200	1490	79	1410	32	39	M36	BL1200E

GALVANISED BL FLANGES A.N.S.I

PIPE OD	D	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
63	152	11	120.5	4	20	5/8"	BL63A150
75	178	11	139.5	4	20	5/8"	BL75A150
90	191	11	152	4	20	5/8"	BL90A150
110	229	13	190.5	8	20	5/8"	BL110A150
125	254	14	216	8	22	3/4"	BL125A150
140	254	14	216	8	22	3/4"	BL140A150
160	279	17	241	8	22	3/4"	BL160A150
180	279	17	241	8	22	3/4"	BL180A150
200	343	19	298.5	8	22	3/4"	BL200A150
225	343	19	298.5	8	22	3/4"	BL225A150
250	406	22	362	12	26	7/8"	BL250A150
280	406	22	362	12	26	7/8"	BL280A150
315	482	25	432	12	26	7/8"	BL315A150
355	533	30	476	12	30	1"	BL355A150
400	600	32	540	16	30	1"	BL400A150
450	635	35	578	16	33	1 1/8"	BL450A150
500	700	38	635	20	33	1 1/8"	BL500A150
560	760	44	692	20	36	1 1/4"	BL560A150
630	815	48	750	20	36	1 1/4"	BL630A150
710	927	52	863.5	28	36	1 1/4"	BL710A150
800	1060	57	978	28	41	1 1/2"	BL800A150
1000	1289	64	1200	36	41	1 3/4"	BL1000A150
1200	1510	70	1422.5	44	41	1 3/4"	BL1200A150

GALVANISED BL FLANGES 4087

PIPE OD	D	T GALV	K	HOLE QTY	HOLE DIA	BOLT	PRODUCT CODE
20	95	6	67	4	14	M12	BL20AS4087
25	100	6	73	4	14	M12	BL25AS4087
32	115	7	83	4	14	M12	BL32AS4087
40	120	8	87	4	14	M12	BL40AS4087
50	135	9	98	4	14	M12	BL50AS4087
63	150	11	114	4	18	M16	BL63AS4087
75	165	11	127	4	18	M16	BL75AS4087
90	185	11	146	4	18	M16	BL90AS4087
110	215	13	178	4	18	M16	BL100AS4087
125/110	215	13	178	4	18	M16	BL125110AS4087
125	255	14	210	8	18	M16	BL125AS4087
140	255	14	210	8	18	M16	BL140AS4087
160	280	13	235	8	18	M16	BL160AS4087
180	280	13	235	8	18	M16	BL180AS4087
200	335	13	292	8	18	M16	BL200AS4087
225	335	13	292	8	18	M16	BL225AS4087
250	405	19	356	8	22	M20	BL250AS4087
280	405	16	356	8	22	M20	BL280AS4087
315	455	23	406	12	22	M20	BL315AS4087
355	525	22	470	12	26	M24	BL355AS4087
400	580	22	521	12	26	M24	BL400AS4087
450	640	25	584	12	26	M24	BL450AS4087
500	705	29	641	16	26	M24	BL500AS4087
560	760	29	699	16	30	M27	BL560AS4087
630	825	32	756	16	30	M27	BL630AS4087
710	910	35	845	20	30	M27	BL710AS4087
800	1060	41	984	20	36	M33	BL800AS4087
900	1175	48	1092	24	36	M33	BL900AS4087
1000	1255	51	1175	24	36	M33	BL1000AS4087
1200	1490	60	1410	32	36	M33	BL1200AS4087

Standard backing rings, split rings and blind flanges are all available and stocked in our Perth and Brisbane warehouses.

David Moss Services

David Moss Services, is the rental division of David Moss, focusing on supporting installers and contractors with essential equipment and tooling to enable them to ensure the project is installed as smoothly as possible. David Moss offer a comprehensive fleet of products for both short and long term rental, encompassing fast fusion butt welding machines, fusion welding machines, extrusion welders, Electrofusion Welders, Vac Lifts and coil trailers. Featuring some of the world's leading brand name manufacturers

David Moss hire fleet includes products from OEMS such as McElroy, Dixon, and Worldpoly; all our coil trailers feature the patented Line Tamer de coiling system, making for a speedier and safer installation of coils.

David Moss offer butt fusion and fast fusion welding machines capable of welding from 32mm to 1200mm pipe and fittings, we also offer a comprehensive range of accessories, and attachments for these machines to aid in the installation of bends, sweeps and various fittings.
Our coil trailers are capable of handling pipe from 25mm to 160mm OD, operating from SDR 21 to SDR 7.4.

David Moss Services, offers a range of machinery and equipment hire solutions directly to contractors and asset owners, to help and support site installation.

POLYWELDING MACHINES

BRAND	MODEL	PIPE (MM)	WHEELED	TRACKED	STATIONARY
DIXON	LH110	110-32			✓
	HF225	225-90	✓		
	HF350	355-110	✓		
	HF350	355-200	✓		
	HF350	355-200	✓		
	HF450	455-200			✓
	HF630	630-355			✓
	HF630	630-355	✓		
WORLDPOLY	WHDS 160	160-63			✓
	WHD160	160-63			✓
	WHD250	250-90			✓
	WHD315	315-90			✓
	WHD1000	1000-500			✓
	WHD1200	1200-630			✓

FAST FUSION WELDING MACHINES

BRAND	MODEL	PIPE (MM)	WHEELED	TRACKED	STATIONARY
MCELROY	T500	200-500		✓	✓
	T630	250-630		✓	✓
	T900	450-900		✓	✓
	T900 i Series	450-900		✓	✓

EXTRUSION WELDERS

BRAND	DESCRIPTION	WIRE CAPACITY (MM)
LEISTER	Extrusion Welder	4,5,6

VACUUM LIFTS

BRAND	MODEL	WEIGHT (KG)	LIFT CAPACITY (TONNES)TRACKED	VACULOK SAFETY SYSTEM ENABLED
VACUWORX	RCI0	967	25	✓

DE COILING TRAILERS

BRAND	PIPE OD	SDR	LINE TAMER UNIT	WHEELED
David Moss	32-110	21, 17, 13.6, 11, 9	✓	✓
	90-160	21, 17, 13.6, 11, 9	✓	✓

GENERATORS

BRAND	MODEL
KUBOTA	Low Boy GL6000 KJ-TX130DX

Additional equipment is available including torque wrenches, pipe rollers, roller slings and accessories. Please contact our sales department for further information.

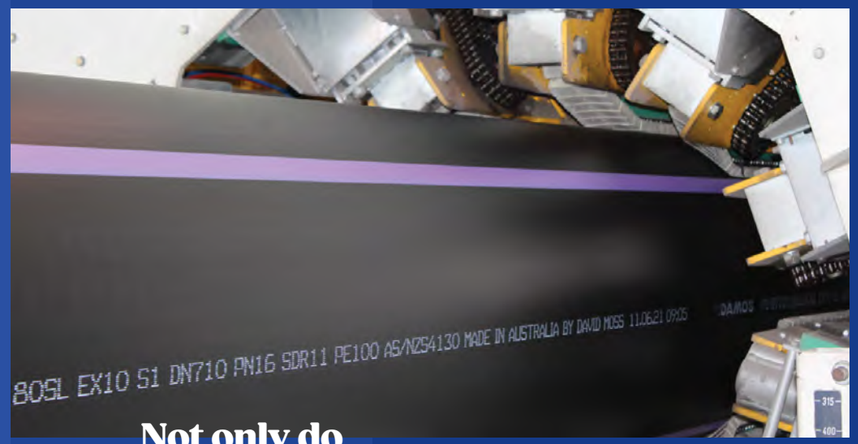
Fabrication

David Moss offer a comprehensive range of fabrication services, and spool fabrication, from within our custom built state of the art fabrication facilities in both Perth and Brisbane; compliant to all relevant AS/NZS standards, the fabrication section of the business aids and supports installers and asset owners for a speedier installation, whilst at the same time mitigating risk on site. Utilising our team of highly skilled technicians and welding specialists, David Moss fabrication are able to provide custom assembles, spool work, tank fabrication, proprietary assemblies, strainers and complex fabrication work.

Working within the AS/NZS 4131, AS/NZS 4130 and AS/NZS 4129 standards, David Moss pride ourselves, on our ability to save contractors precious time on major projects, whist producing work to the highest possible quality standards. David Moss fabrication offer a range of custom products and services in both HDPE and Steel, and are able to produce full isometric drawings and details.

Having operated in the HDPE and PVC pipe manufacturing industry for over 50 years, David Moss fabrication team of skilled engineers and technicians are here to work closely with asset owners and contractors, in order to deliver complex pipeline solutions to the highest possible standard.

From complex spool packages to simple stub flange extensions, David Moss Fabrication services is here to support any project



Speak to David Moss fabrication about how we can support your site installation, to save time and money

Not only do David Moss provide welding services, we also provide custom pieces and specialty products designed to order.

David Moss have been manufacturing pipe and fittings for over 60 years and are proud to be a wholly Australian owned family business.

Employing over 60 staff in our fabrication departments in both Perth and Brisbane, our facilities are here to help and support our customers.

Polyethylene Pipe installation guidelines and procedures.

REFERENCED STANDARD

a. AS2033:2008 (Installation of polyethylene pipe system): The objective of this standard is to provide uniform procedures for the installation of PE pipes systems for both above and below ground applications.
b. AS/NZS 3500: The objective of this standard to provide installation of Plumbing and drainage for above ground application using structured wall pipes.
c. AS 5601: The objective of this standard to provide installation of Gas pipelines and AS3723; refers to installation and maintenance of plastic pipe systems for gas, in New Zealand NZS 5258, Gas distribution.
d. WSAA is the peak industry body that supports the Australian urban water industry, refer for water supply and sewerage network infrastructure involving the design and installation of PE pipe systems.
e. AS/NZS 2566.1 is standard for design and installation of buried flexible pipeline; Part 1 should refer for Structural design and AS/NZS 2566.2, Buried flexible pipeline Part 2 for Installation.

Section 1 Scope, definitions and material requirements

SCOPE

This standard AS2033:2008, sets out methods for handling, storage, installation, testing and commissioning of PE pipelines, above or below ground for both pressure and non-pressure applications conveying fluids. Where PE pipe systems are to be installed underground the safe installation depth are calculated as per AS/NZS 2566.2.

AS2033 Standard applied to PE pipe systems that carry liquids under either pressure or gravity flow situations and the components of which comply with followings:

1. AS 2698.2 – PE rural pipe (Red stripe pipe 1000KPa and Green Stripe pipe 800KPa).
2. AS/NZS 4129 – Fittings for PE pipes for pressure applications.
3. AS/NZS 4130 – PE pipes for pressure applications.
4. AS 4176 – PE /Aluminium and cross-linked PE / aluminium macro composite pipes for pressure applications.
5. AS/NZS 4401 - PE pipe for soil and waste discharge.
6. AS/NZS 4798 9 (int) – PE maintenance shafts.
7. AS 4799 – Underground installation within railway boundaries.
8. AS/NZS 5065 – PE and PP pipes for drainage and sewerage.

DEFINITIONS

For the purpose of this standard the definitions in AS/NZS 3500.0.

Embankment and trench zones:

Embankment and trench zones as figured in AS/NZS 2566.2 (Buried flexible pipeline Part 2).

Fixed Point:

A point at where axial movement of the pipe or fittings is restrained. For example, at the fixed clipped part of expansion joints fittings; at junction and bends except where alternative provision for expansion is made; at connections to fixtures and drains.

Permeation:

The passage or diffusion of a gas, vapour, liquid or solid through a product without the product being physically or chemically affected.

Section 2 Products and materials

SCOPE

This section specified requirements for products and materials used for the installation of PE pipe systems.

Pipe and fittings:

Pipes and fittings installed in accordance with standard comply with relevant standard specified in Section 1.

Chemical resistance:

Where the application is for the conveyance of chemicals, information on the suitability of PE pipes for that application may be found in ISO / TR 10358 or provided my David Moss. For installations in contaminated ground, the suitability of PE for that service should be determined. Such contamination may take the form of actual attack on the PE material affecting the system's structural integrity or it may permeate the pipe systems, not adversely affecting structural strength but potentially tainting pipe contents. Such permeation might not be an issue for pipes that do not convey drinking water. In drainage applications, the tables of chemical resistance may need to be varied to take account of the concentration of chemicals, temperature of liquid, and the duration of contact. For pipes joined with elastomeric seals consideration shall be given to the chemical resistance of the seals. Mechanical joint fittings and their components may also need to consider.

Permeation:

Permeation of pipes and fittings by chemicals may be a consideration arising from the fluid to be transported, or an external influence such as ground contamination. For PE, as with other materials, including those used for jointing, permeation depends upon the concentration of the contaminant and its nature.

Elastomeric seals:

Elastomeric seals shall comply with the applicable parts of the AS1646 series of standards and shall be in accordance with the recommendations of the manufacturer of the socketed pipe or fitting. AS/NZS 4020 approved Elastomer seals should be used.

Lubricants for elastomeric seals and expansion joints:

Lubricants used in conjunction with elastomeric seal shall be as per manufacture recommendation and should comply with AS/NZS 4020 requirements.

Hangers and Clips:

Sliding joints, pipe hangers and clips constructed in way when fully tightened longitudinal movement of the pipe is possible without damage to the pipe or fittings. Anchor clips for fixed points constructed in way when it fully tightened the fittings or pipe is securely and evenly clamped to prevent movement.

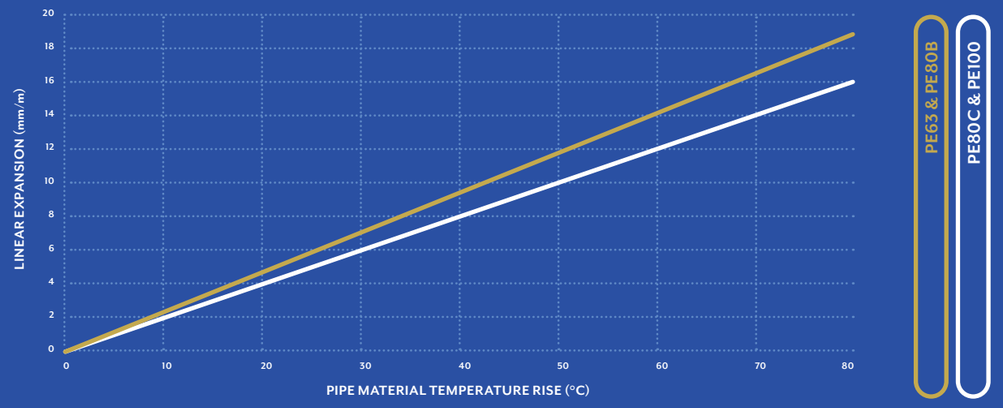
Pipe Embedment and Trench-fill materials:

Shall comply with the AS/NZS 3500 series, AS/NZS 2566 part 1 & 2 or specific industry standard as requested.

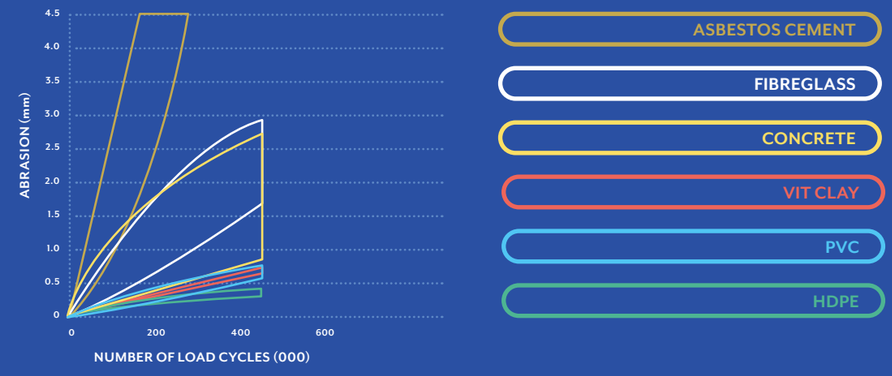
Tools and Equipment:

Recommended by pipe and fittings manufacturers.

THERMAL LINEAR EXPANSION OF POLYETHYLENE PIPE



COMPARATIVE ABRASION RATES OF PIP MATERIALS



Wherever possible, expansion and contraction should be taken up by changes in direction. Careful positioning of fixed points will enable the direction of expansion and contraction to be controlled. Expansion bellows and O-ring slip joints should be used only as a last resort; the pipes must then be suitably protected against separation. Care must be taken in the positioning of loose brackets, as these can sometimes create conditions in which there may be a risk of shearing. Valves and heavy components must be independently supported so that no stresses are imposed on the pipeline.

Toughness

In practice it is recognised that PE is a tough, resilient material capable of withstanding the normal rigours of pipe laying and service conditions.
The many years of successful installation and service of HDPE pipe in the water industry confirms this confidence.

Abrasion

PE pipes have high resistance to abrasion due to suspended particles being carried in the water, however the external surface can be scratched and gouged by sharp objects. Careful handling is required for pressure pipes but provided the depth of any surface notch is no greater than 10% of the wall thickness, there is no significant loss in the stress rupture performance of the pipe. The properties of PE pipes including flexibility, ease of handling and robustness have led to their widespread use for abrasive applications such as mine tailings and slurry transportation. Abrasion occurs as a result of friction between the pipe wall and the transported particles. The actual amount and rate of abrasion of the pipe wall is determined by a combination of:

— the specific gravity of the solids
— the solids content in the slurry
— solid particle shape, hardness and size
— fluid velocity
— pipe material

In general terms PE pipes have superior abrasion resistance compared to steel, cast and ductile iron, asbestos and fibre reinforced cement pipes, and provide a more cost effective solution for abrasive slurry installations. Laboratory test programs have been performed in the UK, Germany and the USA on standardised slurries to obtain relative wear comparisons for various materials using sliding and rotating pipe surfaces. The results of test programs using the Darmstadt method of Kirschmer and reported by Meldt (Hoechst AG) for a slurry of quartz sand/gravel water with a solids content 46% by volume and a flow velocity of 0.36 m/s are shown. These were performed across a range of materials and show the excellent abrasion resistance of HDPE.

Conductivity

PE pipes are poor conductors. At all times PE pipe should be protected against radiant heat that could raise its surface temperature above 60C. PE pipes are also poor conductors of electricity and no attempt should, therefore, be made to use pipework constructed of the material as means of earthing electrical equipment. Because of their electrical resistivity, caution is required in the handling and use of PE pipes where the generation of high levels of static electricity may present a hazard.

Hydraulic Properties

The smooth bore of PE pipes enables them to be treated as `hydraulically smooth` when used for the conveyance of potable water. The smooth surface discourages the formation of scale in hard water areas, but certain waters may, at times, give rise to slime and silt deposits, particularly at joints or fittings and this may increase frictional losses. For the purpose of calculation of flow rates in new plastics pipelines, the Colebrook-White formula may be used in which the value of the hydraulic roughness factor Ks is 0.003 mm to 0.015 mm for clean water / stormwater. Further details of hydraulic constants, flow charts and frictional losses are given in Table 1.

Fire Rating

PE pipe systems will support combustion and as such are not suitable for use in fire rated zones in buildings without protection. In Multi-storey buildings PE systems penetrating floor cavities must be enclosed in fire rated service ducts.

Section 4: Design considerations and Installation considerations

Design Considerations

1. PE Pipes are normally joined using fusion techniques. Butt fusion jointing is usually carried out above ground and after cooling, long lengths of pipe are snaked into the trench. This procedure requires consideration of appropriate storage areas, jointing canopies and working space at the trench side away from the spoil areas. Attention must be given to the additional inconvenience caused to both pedestrian and vehicular traffic. Extra signs and protection barriers will be required.
2. Installation: PE systems are ideally suited to directional drilling and a variety of other innovative installation techniques which can reduce disruption to the public, buildings, roading and public property with lower labour and reinstatement cost compared to normal open trenching.
3. The flexual properties of PE make pipelines particularly suitable for areas subject to ground movement due to seismic forces, mining subsidence, compaction of filled sites or the disturbance caused by the activities of other utilities in the vicinity.
4. Where PE is to be used in environments with temperatures greater than 20°C for prolonged periods, the allowable operating pressure should be reduced in accordance with our recommendations, to maintain the expected life of the pipe.
5. Corrosive ground (e.g. ground with low pH or high sulphate characteristics) has no known effect upon PE but all metal fittings, ancillary equipment, bolts etc. should be carefully protected against corrosion in the normal way.
6. Contaminated ground, however, must be considered carefully. PE is resistant to most chemicals, but is vulnerable to petroleum products and certain solvents which can permeate through the wall of potable water pipe. In this instance PE should NOT be used unless suitably protected. Where any doubt exists, soil sampling should be undertaken and specialist advice sought.
7. Where the natural ground water table is high, or the construction trench is liable to flooding, special consideration should be given to the possibility of flotation of the pipe. This particularly applies to the larger diameters where special anchoring or weighting may be necessary prior to the backfill being installed.
8. Direct connection of MDPE PE80B and PE100 to sources of high frequency such as pump outlet flanges should be avoided and a flexible joint should be used to isolate such vibration.
9. The sub surface material to be excavated should be assessed for its suitability as backfill material, i.e. free from large sharp stones, heavy clay, etc. If the material is unsuitable for bedding and surround to the pipe then imported material should be utilised and the surplus spoil removed from site.

Installation Considerations

1. Gradual changes in direction of PE pipelines can be accommodated by pipe deflection, but every effort should be made to keep the pipe as central as possible within the trench to enable correct side-fill compaction. Similar care should be taken when any distortion of coiled pipe has occurred.
2. During the pipelaying of continuous fusion joint systems, allowance should be made for the movement likely to occur due to the thermal expansion contraction of the material. This effect is most pronounced at the end connections to fixed positions and at branch connections.
3. For summertime installations, with two fixed connection points, a slightly longer length of polyethylene may be required to compensate for contraction of the pipe in the cooler trench bottom. The snaking of the pipe in the trench which naturally occurs with pipe sized 90mm and below, is normally sufficient to compensate for this anticipated thermal contraction.
4. During a winter installation, the exact length of pipe should be used. Pipe which is too short or not aligned must not be drawn up by the bolts of a flanged connection because of potential overstressing of the stub end, flanged adaptor and ultimately the valve or fixture to which it is connected.
5. It is advisable to defer the final tie-in connections until thermal stabilisation of the pipeline has occurred. Once a pipeline is installed and in service, the temperature variation is usually small, occurring over an extended period of time and is not likely to induce any significant stress or movement in the pipe system.
6. Whenever possible, a minimum distance of 300mm from obstructions and other services should be maintained. This distance is often possible when laying parallel to other services but not always practicable when crossing other services. A separation distance of 75mm may be allowed for a square crossing but suitable protection should be provided from possible joint loading, interference, damage or contamination.
7. Polyethylene is not a conductor of electricity and no attempt should be made to use PE pipework as a means of earthing electrical equipment. Similarly, because of its high electrical resistivity, caution is required in the use of the material where the avoidance of static electricity may be an important consideration.
8. The bending of polyethylene is permissible and the properties of fusion jointed systems enable changes of direction without recourse to the provision of special bends or anchor blocks. However, the pipe should not normally be cold bent to a radius smaller than 20 times the diameter. For push-fit or mechanical non endload resistant jointing systems, anchor blocks to withstand the resultant thrusts must be provided in the traditional manner.
9. Although the hot bending of PE pipe is possible under carefully controlled conditions, under no circumstances should hot bending be attempted on site.
10. Polyethylene is a poor conductor of heat, but is flammable and should not be exposed to naked flame.
11. The installation of flanged fittings such as sluice valves, hydrant tees, end caps etc. usually requires the use of polyethylene stub flanges complete with backing rings and gaskets. Care should be taken when tightening these flanges to provide even and balanced torque. Provision should be made where heavy fittings are installed for concrete support both for the weight and to resist the turning moments associated with valves and hydrants.
12. Where there are large diameter fabricated fittings installed in the main, similar concrete support may be necessary to counteract the imbalance of forces under working conditions. Consideration should be given to introducing a flanged connection on the branch outlet of the tee so that the branch main joint can be made in a separate operation.
13. Polyethylene pipes and fittings may be partially or completely surrounded by concrete, but the pipe should be protected by a heavy duty polyethylene membrane to avoid possible damage during pouring or compaction and to prevent high localised stresses. All concrete bedding should be at least 100mm thick.
14. After completion of an installation, pipework and fittings should be inspected and made ready for testing to ensure the safety and efficiency of the system. If the system is a large one it should be made ready to be tested in sections of convenient length.
15. The degree to which the trench is backfilled prior to testing will be influenced by:

— the prevailing site and/or traffic conditions;

— the potential risk of flotation;

— the unbalanced forces due to configuration and imposed test pressure.

16. Where practical, it is advisable to consider leaving at least the mechanical joints exposed throughout the test.
17. As part of the preparation for the hydrostatic pressure test, all anchorages and struts should be checked to ensure they are adequate to withstand the excess pressure and it is advisable to retighten all bolted flanged joints and to check that all intermediate control valves are open.
18. Complete and accurate records should be taken of the installation. It is useful for records to be taken before the pipes are buried whilst memories are fresh and key elements are still visible. Photographic records of important or complex features should be considered.
19. The marker tape and detection wires should be laid along the line of the water main and connected at each end to either a sluice valve or hydrant. The recommended position of the indicators is 350mm below the surface directly above the crown of the pipe.

Section 5. Material properties, dimensions & flow charts

Material properties of PE pipe @ 20°C

David Moss Group ensures products under certification of AS/NZS 4130 are manufactured in accordance with the standard requirements. All product tests are to be conducted according to the agreed minimum sampling and testing frequency plan with the certification body (SAI Global). All Polyethylene compounds used in David Moss products are pre-compounded resins by approved raw material manufacturers. These materials are manufactured in compliance with AS/ NZS 4131. David Moss ensures the conformance of each batch of material that arrives is checked by conducting the melt flow rate, moisture content and oxidation induction time test.

		UNIT	TEST METHOD	VALUE
MATERIAL PROPERTIES				
Melt Flow Rate (190°C / 5.0kg)		g/10min	ISO-1133	0.21 -0.27
Density		Kg/m^3	ISO-1183	959
Tensile Strength at Yield		Kg/cm^3	ISO-527	246.4
Tensile Strength at Break		Kg/cm^3	ISO-527	360
Elongation at Break		%	ISO-527	772
Carbon Black Content		%	ISO-6964	2.3
Dispersion/Carbon Black		-	ISO-18553	1.6
Oxidation Induction Time (210°C)		Min	ISO-11357	>60
Moisture Content		ppm	ISO-15512	111
Total Volatiles		ppm	EN12099	170
PRODUCT PROPERTIES				
Minimum Required Strength		MPa	ISO/TR 9080	10
Resistance to internal pressure (80°C)		Hour	AS/NZS 1462.6	>165 >1000
Tensile Yield Stress		MPa	ISO-13953	24
Allowable Compressive Strength		MPa		7.93
Resistance to Slow Crack (80°C @ 920 KPa)		Hour	AS/NZS 1462.24	500
Oxidation Induction Test	Black	Min	ISO-11357-6	>20
	Stripe			>40
Reversion (110°C)		%	AS/NZS 1462.4	<3

Design

Allowable operation Pressure

Hydrostatic Design Basis: - Wall thickness and pressure rating determined by Barlow Formula:-

T = PD / 2S +P;

Where:

T- minimum Wall thickness (mm)

P – Normal working pressure of pipe (MPa)

D – Minimum mean OD (mm)

S – Hydrostatic design stress at 20DC (MPa); For PE100 10.0 MPa

HYDROSTATIC DESIGN STRESS AND MINIMUM REQUIRED STRENGTH - VALUES		
PE100 (MPa)	Minimum Required Strength 8.0	Hydrostatic Design stress 10.0

ELECTRICAL PROPERTIES	
Dielectric Strength	22-53 KV/mm
Specific volume resistivity	1015 Ohm/cm
Surface Resistivity	> 1015 Ohm
Dissipation factor	5.5 (50Hz) & 2.5 (106 Hz)

THERMAL PROPERTIES	
Vicat Softening Point	116-124 °C
Thermal Conductivity	0.4W/m°K
Specific Heat	2.6KJ/[kg.K]
Linear Thermal Expansion	2.3×10-4 K

Section 6. MAOP PE100 – Temperature Deration

MAXIMUM ALLOWABLE OPERATING PRESSURE – PE100

TEMP (°C)	MIN LIFE (YR)	DESIGN FACTOR	PN4/ SDR41	PN6.3/ SDR26	PN8/ SDR21	PN10/ SDR17	PN12.5/ SDR13.6	PN16/ SDR11	PN20/ SDR9	PN25/ SDR7.4
20	100	1.0	40	64	80	100	127	160	200	250
25	100	1.1	36	58	73	91	115	145	182	227
30	100	1.1	36	58	73	91	115	145	182	227
35	50	1.2	33	53	67	83	106	133	167	208
40	50	1.2	33	53	67	83	106	133	167	208
45	35	1.3	31	49	62	77	99	123	154	192
50	22	1.4	29	46	57	71	91	114	143	179
55	15	1.4	29	46	57	71	91	114	143	179
60	7	1.5	27	43	53	67	85	107	133	167
80	1	2.0	20	32	40	50	63	80	100	125

Section 7. Handling & Storage

David Moss PE pipes are available in a range of sizes ranging from 20mm to 1200mm in configurations complying with AS/NZS4130. Pipes may be supplied to customer requirements in either small diameter pipe in coil lengths up to 9500m, or in straight lengths up to 21m. David Moss PE pipes are robust, flexible, and offer the installer many cost saving advantages. Whilst they are resistant to site damage, normal care and good housekeeping practices are necessary to ensure trouble free operations.

Handling

Handling of David Moss PE pipes is made easier due to the light weights of both coiled and straight length pipe. Care must be exercised however, to avoid damage to the pipe walls, pre-assembled end fittings, or sub-assemblies. Safety aspects need to be addressed, as the nature of PE pipes is such that in cold and wet weather the pipes become slippery and difficult to handle. In these circumstances, additional care should be exercised when handling coils or bundles of pipe. In hot weather, especially with black pipes, the pipe surface may reach 70°C, when the ambient temperatures reach 40°C. Handling PE pipes at these temperatures requires gloves, or other protection, to prevent the possibility of skin burns. Fabric slings are recommended for lifting and handling PE pipe in order to prevent damage. Where wire ropes or chains are used, then all of the contact points between the slings and the pipe must be protected by suitable padding. Where pipes are in coils, the slings must be placed evenly around the entire coil. Similarly, where coils or straight lengths are lifted by fork lift the contact points must be protected. When lifting coils, the lifting must be performed on the entire coil, and the fork lift tynes not inserted into the coil winding. When lifting packs of pipes, the tynes must be placed under the entire pack, and the tynes not pushed into the pack. Pipes must not be lifted by placing metal hooks into the ends of straight lengths. In conditions approaching freezing, the impact resistance of PE reduces, and care must be exercised to prevent damage during handling. Pipe lengths greater than 6 metres should be lifted using a spreader bar, and wide band slings. PE pipes will flex during lifting, and care needs to be exercised to prevent damage to pipes or end fittings arising from contact with the ground. Care needs to be taken to centre the pipe in the slings. A reduction in the pipe wall thickness of up to 10% may be tolerated. However, sections with sharp notches should be rejected, or the damaged area buffed out to remove the sharp edges.

Transport

PE pipes stacked for transport must be evenly supported in order to prevent distortion. All bearing surfaces must be free from contact with sharp objects. Any protruding sections such as stub flanges must be supported to prevent damage. For straight lengths of pipe, suitable support beneath the pipes is provided by beams of minimum width 75 mm, spaced horizontally at 1.5 m centres. For rectangular stacks, additional vertical supports at 3 metre spacing should be used. For pyramid stacks, the bottom pipe layers also need to be chocked to prevent stack collapse. For large diameter pipes (DN 630 and above) it may be necessary to tom, or internally support the ends of the pipe in order to prevent distortion. Where end treatments such as flanges are applied in the factory, these treatments must be protected from damage. Where coils are stacked vertically the stacks may need to be restrained in order to prevent the bottom section of the coil being flattened or distorted.

Storage

Straight length pipes must be supported by timber spacers of minimum width 75mm placed at 1.5 metre centres. The recommended maximum height of long term stacks is as listed in Table 5.1. Where pipes are crated, the crates may be stacked on timber to timber, in stacks up to 3 metres high. PE pipes are capable of supporting combustion, and need to be isolated from ignition sources. PE pipes must be kept away from high temperature sources, and not be in contact with objects of temperature higher than 70° C. Storage of PE pipes in field locations may be subject to fire regulations, and the requirements of the local authorities must be observed. Black pipes do not need protection from the effects of UV exposure, but coloured pipes, if potentially exposed for longer than 6 months, may need protection. In selecting the method of protection consideration may need to be given to temperature effects, as elevated temperatures may lead to pipe distortion.

TABLE 1.1: STORAGE HEIGHT

STRAIGHT LENGTHS		
PE Material	Height (m) up to SDR21	Height (m) above SDR 21
HDPE (PE 80, PE100, RCD, RC, PE112)	2.0	2.50

COILS

PIPE DIAMETER (MM)	COIL STACKS (NUMBER)
Up to 32	5
HDPE (PE 80, PE100, RCD, RC, PE112)	4
90, 110	2

Section 8. Site Preparation

Trench Preparation

Prior to commencing any trench preparation or excavation, all services must be located (such as telephone conduits, gas , water-main, sewers, electrical conduits, and cable TV conduits) in the proposed area of the PE pipeline. This may require some localised excavation, and all safety requirements must be observed.

When pipes are installed on the natural surface, the pipeline route must be clear of obstructions and where required, sufficient space must be allowed for expansion/contraction movement. PE pipes may be joined outside the trench, allowing narrower trenches and consequent reduced excavation cost. PE pipes have a density less than that of water, and may float if water is present in the trench, and the pipes are not restrained. Trench excavations need to be kept free of water, and if necessary, dewatering equipment installed. Trench Widths Table 1.2 lists recommended trench widths. These values are consistent with the principles that trench width should be as narrow as possible in order to minimise external loads and installation costs, whilst also affording sufficient space to provide the specified compaction. The actual trench width adopted will be influenced by the soil conditions, the jointing systems, and whether joints are made in the trench.

TABLE 1.2 – RECOMMENDED TRENCH WIDTHS

PIPE DIAMETER (MM)	MINIMUM TRENCH WIDTH (MM)
16 to 63	150
75 to 110	250
125 to 315	500
355 to 500	700
630 to 710	910
800 to 1000	1200

Poor soil conditions may necessitate a wider trench to accommodate support structures or dewatering equipment, and the ready removal of this equipment after the pipes have been laid. Where such supports are used, they must be removed with care, in order to prevent disturbance of pipe, bedding or trench walls. Pressure pipes, especially in rural areas, may be installed in narrow trenches with sufficient space to allow the backfill of the trench. No additional compaction may be necessary, and the natural soil consolidation allowed to occur with time. Where PE pipes are installed with other services in common trench situations, the trench width may be specified by Local Authority regulations in order to permit later maintenance activities.

TABLE 1.3 – MINIMUM COVER

INSTALLATION CONDITION		COVER OVER PIPE CROWN (MM)
Open Country		3000
Traffic Loading	No pavement	450
	Sealed pavement	600
	Unsealed pavement	750
	Construction equipment	750
	Embankment	750

Trench Depths

Where the PE pipe grade line is not specified, the cover over the top of the PE pipes needs to be set so that adequate protection from external loads, third party damage, and construction traffic is provided. Where possible, pipes should be installed under minimum depth conditions and, as a guide, the values listed in Table 1.3 above should be adopted. Trench walls in poor soil conditions may need to be excavated in steps, or be battered, to prevent collapse of the trench wall materials. For embankment installations, a sub trench may be excavated once the embankment has been partly built up, in order to help protect the PE pipes from construction vehicles, and also lessen the external loads acting on the pipe.

Bedding Material

The excavated trench floors must be trimmed even, and be free from all rocks, and hard objects. In poor soil conditions, an additional layer of imported bedding material may need to be introduced, and a geofabric restraint of bedding/backfill material may be required. The bedding materials used in both trenches and embankments shall follow the guidelines of AS2033, and should be one of the following:

1. Sand or soil, free from rocks greater than 15 mm, and any hard clay lumps greater than 75 mm in size.
2. Crushed rock, gravel, or graded materials of even grading with a maximum size of 15 mm.
3. Excavated material free from rocks or vegetable matter.
4. Clay lumps which can be reduced to less than 75 mm in size.

Excavated materials in accordance with 3. and 4. above are often used for pressure pipelines and in rural areas. However, in areas of high loading, such as under roads, imported materials may need to be used. In the majority of PE pipe applications, a minimum of 75 mm of bedding material is used in both trenches and embankments in soil excavations. For excavations in rock, 150 mm bedding depth may be required. Where fittings or mechanical joints are used, the bedding material may need to be excavated to prevent point loading. All pegs and markers used in aligning and leveling the pipes must be removed from the trench floor prior to bedding materials being placed.

Side Support & Overlay

PE pipes act as flexible pipes to resist external loading, and the side support materials must be evenly added to the same compaction standards as the bedding materials so that the installed PE pipe is not disturbed. Side fill materials should be built up equally on both sides of the pipes in layers of 150mm, and compacted evenly to the AS/NZS 2566 design level. The side fill materials must be carefully placed around the haunches of the pipes to ensure that the PE pipes are evenly supported. Vibrating plate compactors must not be used until there is a 300mm layer of overlay soil over the crown of the PE pipe. Detector tapes, or marker strips, should be laid on top of the overlay once a layer of 150mm soil has been compacted. The overlay materials should be built up in compacted layers until the overlay material is to a level of a minimum of 150 mm above the top of the PE pipes. (See Figure 1.1). Large diameter (450 mm and above) PE pipes require the overlay materials to be carried to a cover of 300mm above the top of the PE pipes.

Backfill

The remainder of the trench, or embankment fill may be made with the previously excavated native materials. These must be free from large rocks, vegetable matter, and contaminated materials, and all materials must have a maximum particle size less than 75 mm. Where PE pipelines are installed in areas with high external loads, then the backfill materials must be of the same standard as the bedding and overlay materials.

Thrust Blocks & Pipe Restraint

Thrust blocks are required for David MossPE pipes in pressure applications where the joints do not resist longitudinal loads. The thrust blocks must be provided at all changes in direction. The standard methods of calculating the size of thrust blocks for all pipeline materials are those used with PE pipes and are contained in the Design section of this manual. Where concrete blocks are used, the contact points between the PE pipe, or fitting and the thrust block must be protected to prevent abrasion of the PE. Rubber or malthoid sheeting may be used for this purpose. All fittings and heavy items such as cast iron valves must be supported in order to prevent point loading on the PE materials. In addition, where valves are used, the torque loads arising from the opening/closing operations must be resisted with block supports.

Pipeline Curvature

All PE pipes installed on a curved alignment must be drawn evenly over the entire curve length, and not over a short section. This can lead to kinking in small diameter, and/or thin wall pipes. Large diameter PE pipes (450mm and above) must be joined together, and then drawn evenly to the desired radius. Care must be exercised during construction to prevent over stressing of joints and fittings. Where mechanical joints are used, any joint deflection limitations must be observed. During installation, minimum radii of 20 x DN for MDPE (PE63 and PE80B) and 33 x DN for HDPE (PE80C and PE100) may be used. In addition, evaluation of buckling resistance of thin wall pipes may be necessary.

FIG 1.1 – TRENCH INSTALLATIONS

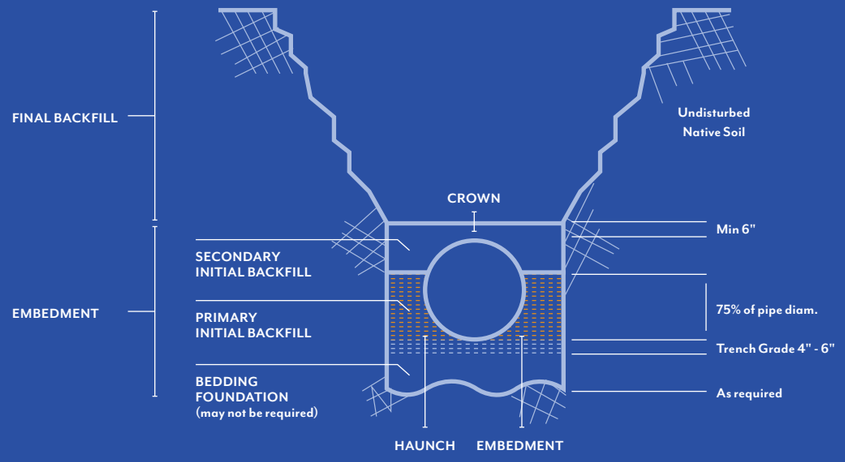
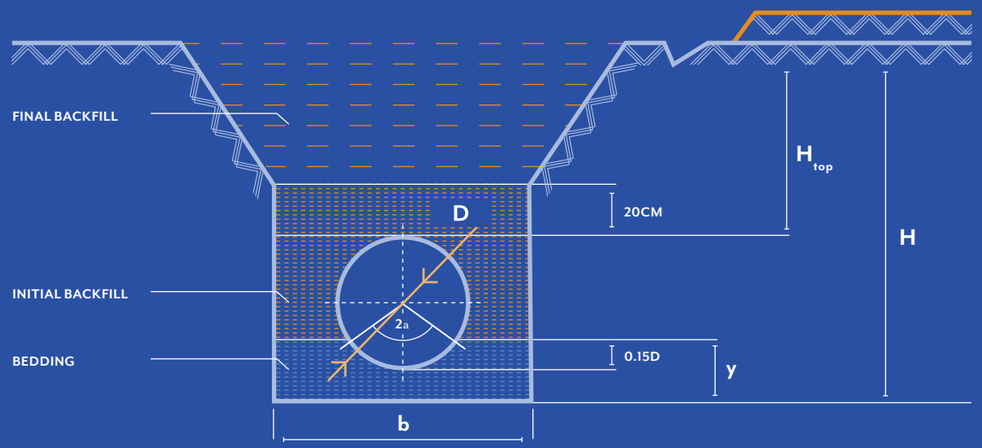


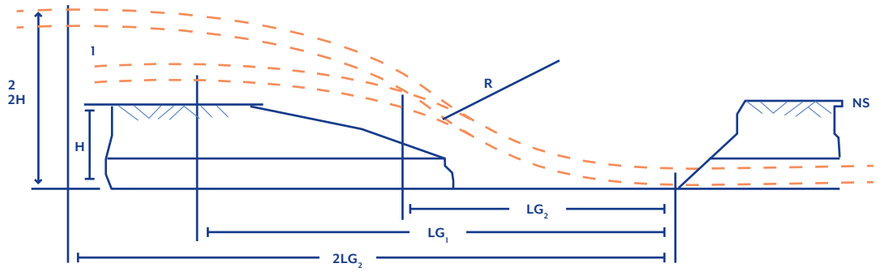
FIG 1.2



Relining & Sliplining

David Moss PE pipes have the chemical resistance properties and longitudinal flexibility to provide an ideal solution for relining existing corroded or damaged pipelines in water supply, sewers, and drain applications. Existing pipelines used to transport aggressive and dangerous fluids may be restored by relining techniques, and cost effective solutions are provided by eliminating the need for open cut trenches in urban and heavily built up areas. Installations can be planned around off peak traffic periods to minimise disruption and reduce installation times. Existing pipelines can be renovated by inserting David Moss PE pipes into the old pipes. Insertion pipes can be pulled into position by mechanical winches. Although insertion of the PE pipes will reduce the internal diameter of the pipeline, the effective flow capacity of the renovated line may in fact be greater than the existing installation due to the improved pipe wall friction factors of PE as compared to the existing pipe with heavily corroded or damaged internal surfaces. Inspection of the existing line should be performed by CCTV to provide data as to the actual likely flow friction factors. Relining with PE pipes provides a structural element that is capable of withstanding either internal pressure or external loading without relying on the residual strength of the original degraded pipe elements.

FIG 1.3



The PE pipes require short length inlet and exit trenches to accommodate the PE pipe radius to lead into the existing pipeline, and the winch assembly used to pull the PE liner along the pipeline. The minimum bending radius of the PE liner can be calculated as described under Pipeline Curvature in this section of the manual.

The dimensions (Refer to Figure 1.3) of excavations required for slip lining are:

1. Where the PE insert pipe is on the natural surface level

$$LG_1 = \sqrt{H(4R - H)}$$

2. Where the PE insert pipe is at a height H above the natural surface level

$$LG_2 = \sqrt{H(2R - H)}$$

where

H = depth to invert of existing pipeline R = radius of liner pipe

Section 9. Grouting

Grouting of the gap between the outside diameter of the PE liner, and the inside of the existing pipe is necessary only when the original pipe has been damaged to the extent that there is no residual external load capacity, or where manhole connections cannot be sealed off to prevent groundwater infiltration. Where grouting is applied, the pressure should not exceed 50 kPa, and depending on the PN rating of the PE liner pipe, external collapse calculations should be carried out. Where cement based grouts are used, the temperature rise in the PE liner due to the heat of hydration must be taken into account. The PE liner pipes may be filled with water prior to grouting to increase the external pressure resistance, and to provide additional line weight to prevent the PE liner pipe floating during grouting, and losing the final grade line.

Section 10. Excavation

Sliplining existing pipes using David Moss PE pipes allows for a reduction of excavation in built up areas. Only the excavation necessary to feed the PE liner pipe into the existing line is required and depending on the total length of the line and the location of existing manholes, a liner length of approximately 100 metres may be drawn along the line in each section. For small diameter pipes, the PE can be supplied in David Moss pipe reels. This allows for a single run of PE to be inserted into existing pipe without the need for intermediate jointing. Where the existing service cannot be taken out of service, or temporarily blocked off during the relining process, extra excavation may be required to allow for the installation of a temporary diversion line.

Section 11. Jointing the Liner

Depending on the diameter of the pipe, a single length of PE pipe can be installed to provide a single length of seamless liner. For larger (160mm and above) PE pipes can be butt welded above ground on site to provide a continuous length pipe which can be inspected for joint integrity before installation. The butt weld process provides a joint which resists longitudinal load and has the same chemical resistance properties as the pipe. The external diameter weld bead sections may be mechanically removed prior to insertion to prevent any possibility of snagging on damaged sections, or protrusions, in the bore of the existing pipe to be relined. Where weld beads are removed, care must be taken not to notch the PE pipe wall. Butt welded joints must be allowed to cool to ambient temperature prior to drawing into the final position so as to prevent any damage to the joint section.

Section 12. Pipeline Detection

David Moss PE pipes are electrically non-conductive and cannot be detected by metallic detection devices in underground installations. Several techniques are available to detect buried PE pipelines.

Metal Detector Tapes

Foil based tapes may be located in the trench on top of the PE pipe overlay material (150 - 300 mm above the PE pipe crown), and these tapes can be detected at depths up to 600 mm by metal detection equipment operating in the 4 - 20 MHz frequency range. The tape backs may also be colour coded and printed in order to provide early warning of the presence of the PE pipeline during later excavation.

Tracer Wires

PE pipes installed deeper than 600 mm may be detected by the use of tracer wires placed on, or taped to, the top of the PE pipes. Application of a suppressed current allows the detection of pipes up to a depth of 3 metres. However, both ends of the tracer wire must be accessible, and a complete electrical circuit present over the entire length of the pipeline.

Audio Detection

Acoustic, or ultra-sonic, noise detection devices are available which use either the noise from water flowing in the pipes, or an introduced noise signal, to detect the presence of buried PE pipelines.

Section 13. Above Ground Installation

David Moss PE pipes may be installed above ground for pressure and non-pressure applications in both direct exposure and protected conditions. Black PE pipes made to AS/NZS 4130 requirements may be used in direct sunlight exposure conditions without any additional protection. Where PE pipes of colours other than black are used in exposed conditions, then the pipes may need to be protected from sunlight. Where PE pipes are installed in direct exposure conditions, then the increased in material temperature due to exposure must be taken into account in establishing the operational pressure rating of the PE pipes. Localised temperature build up conditions such as proximity to steam lines, radiators, or exhaust stacks must be avoided unless the PE pipes are suitably protected. Where lagging materials are used, these must be suitable for external exposure applications.

Section 14. Supports

Pipe hangers, or supports, should be located evenly along the length of the PE pipeline, and additionally at localised points with heavy items such as valves, and fittings. The supports should provide a bearing surface of 120° under the base of the pipes. The PE pipes may need to be protected from damage at the supports. This protection may be provided by a membrane of PE, PVC or rubber. Location and type of support must take into account provision for thermal movement, if required. If the supports are to resist thermal movement, an assessment of the stress induced in pipes, fittings and supports may need to be made.

Support Spans

Support spans depend on the pipe material and dimensions, nature of flow medium, operating temperature, and arrangement of the pipes. In calculating support spans, a maximum deflection of spans/500 between supports has been adopted as the basis. The spans in Table 1.4 are based on the use of PE100 (HDPE), full of water, support over multiple spans, and operating at 20°C for 50 years. For other service temperatures, the spans should be reduced as follows:

30°C 5%

40°C 9%

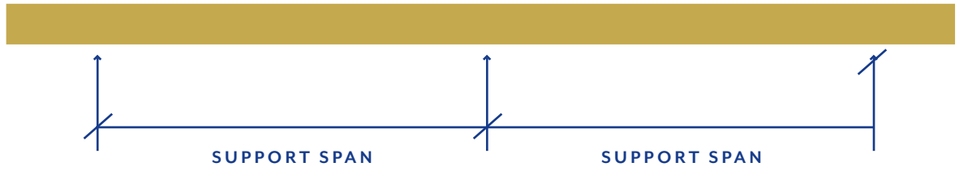
50°C 13%

For fluids with density between 1000 kg/m3 and 1250 kg/m3, decrease spans by 4%. For detailed spacing of supports please refer to AS/NZS 2033 Table 6.1.

TABLE 1.4 GUIDANCE TO SPAN LENGTHS (SIMPLY SUPPORTED)

PIPE NOMINAL DIAMETER (MM)	SPAN (MM)
25	2.0
40	2.4
50	2.6
80	2.9
100	3.1
150	3.5
200	3.7
250	4.0
300	4.2
350	4.8
400	4.8
450	4.8
500	5.5
600>	6.0

FIG 1.4



Section 15. Service Connections

Tapping Saddles Service connections may be provided in PE pipe systems using tapping saddles which are either electrofusion or mechanically connected. Tapping saddles should not be installed closer than 100mm to prevent reduction in pressure capacity in the pipeline. A range of tapping saddles suitable for use with David Moss PE pipes are listed in the Product Data section of David Moss marketing manual. Tapping saddles may be used for tappings up to 30% of the size of the main pipe or a maximum diameter of 50mm. Where larger offtake sizes are required, then a reducing tee section should be used. Tapping saddles of the mechanical strap type should not be used on curved pipes. Tapping saddles of the saddle fusion, or electrofusion type should only be used on the top of curved lines, and not be closer to the end of the pipe than 500mm. Connection may then be made without loss of the operating service. Alternatively, tapping may be performed on new main lines prior to pressurisation, and entry into service using the same techniques.

Direct Tapping

The tapping of services directly into the pipe wall by drilling and tapping a thread in the wall material is not recommended in PE pipes. This practice may lead to premature failure of the system. Concrete Encasement at entry and exit points of concrete slabs or walls, a flexible joint must be provided in the PE pipeline to cater for movements due to soil settlement, or seasonal expansion/contraction of the soil. Where expansion joints are provided in the concrete slab, expansion joints should be provided at the same point in the pipeline. At these points a flexible membrane should be provided to prevent shear stresses developing across the joint. PE pipes behave as flexible structures when externally loaded, and care needs to be exercised by the designer when using concrete encasement so that the effective strength of the pipeline is not reduced.

Fire Rating

PE pipe systems will support combustion and as such are not suitable for use in fire rated zones in buildings without suitable protection. The individual fire rating indices for PE materials may be established by testing to the requirements of AS1530. In multiple storey buildings PE systems penetrating floor cavities must be enclosed in fire rated service ducts appropriate to the Class of the building concerned.

Section 16. Testing & Commissioning

Pressure Installations

Pre test precautions prior to testing, the entire PE pipeline should be checked to ensure all debris and construction materials are removed from contact with the pipes and fittings. Where concrete anchor or thrust blocks are used no pressure testing should take place within 7 days of casting the blocks. All mechanical ring seal joints must be restrained either by sand bags, or by partial backfilling of the line leaving the joints open for visual inspection. All valves must be placed in the open position, and a valve provided at the end of the line to allow air to be vented from the line during filling. Where thermal fusion jointing has been used, no testing should take place until the joints have completely cooled to ambient temperature. Local authority regulations may differ between each other in the pressure testing routines, and individual requirements must be followed at all times.

Pressure Testing

Test water should be slowly introduced into the PE pipeline until all air is purged from the line and water flows freely at the end of the line. The water should preferable be introduced into the pipeline at the lowest point to assist the removal of air. It is essential that all air is removed from the line prior to commencing the test procedure. Entrapped air can result in erroneous pressure/time recordings. Test sections may be either the complete line, or, in large installations, in sections such that the test section can be filled with water within 5 hours to allow pressure observations. Pressure should be built up evenly in the line without pressure shock. A test pressure of 1.25 times the maximum working pressure should be applied for pipelines up to 110 mm in diameter and 100 metres in length and also for testing valve anchorages. The test pressure in these instances should be held for a minimum period of 15 minutes, and the pressure gauges inspected for pressure drop readings. In addition, all joints must be visually inspected for evidence of weeping or leakage. For large diameter pipes, and for pipeline lengths up to 800 metres, the elastic properties of PE are such that the introduction of test pressures will cause expansion in the line and require make up pressure to restore gauge readings. This volume make up will generally be in the order of 1%, and may be applied at the time of initial pressurisation. The test pressure of 1.25 times the maximum working pressure should be maintained or a maximum period of 24 hours, or for the time necessary to visually inspect all joints in the line. A smaller drop in pressure may be observed due to thermal expansion. However, this does not indicate leakage in the pipeline. Where the installation consists of small additions to existing pipelines the test pressure period may be 15 minutes. The maximum test pressure to be applied must not exceed 1.25WP. Test pressure in excess of this value may strain the pipe material and damage control appliance s connected to the pipeline. High pressure testing using air must not be carried out. Note: Where the time of pressure testing exceeds 15 minutes, increases in pipe temperature above 20°C may occur. In these cases the test pressure must be derated.

Section 17. Non Pressure Installations

Above Ground

All sections of the installation should be sealed off and water introduced through a stand pipe to provide a static head of 3 metres above the top point in the PE pipeline. All openings in the PE pipeline must be sealed, or plugged, before starting testing. Either water or air testing may be performed on non-pressure PE pipelines, depending on the availability of test water, or the ability to drain the test water away from the pipeline alignment after the testing is completed.

Below Ground

(a) Water Testing for PE drain lines, a riser pipe should be fitted at the top point in the pipeline to allow a minimum water head of 1 metre to be applied. For waste water applications, a water test pressure of a maximum of 1.25 WP (maximum head at the lowest point) should be applied by either a stand pipe connection, or using a test pump. The test water should be introduced evenly into the pipeline, and brought up to pressure after allowing all entrapped air to be purged out of the line. All joints and connections should be inspected for leakage, and the test pressure maintained for a minimum period of 15 minutes after the final joint has been inspected, or for a period of 30 minutes. No leakage or loss of pressure should take place in this period.

(b) Air testing where water is unavailable, or undesirable, for testing then air testing may be performed. All openings must be sealed prior to testing, and air pumped slowly into the PE pipeline until a test pressure of 50KPa is reached. This test pressure should be maintained for a minimum time of 3 minutes, and if no leaks are detected, or pressure loss observed on the gauge, the air supply control valve should be turned off and the test pressure held for a minimum time of 1 minute. If the test gauge pressure reading has not fallen below 35KPa after this time, then the test should be discontinued. Should the test pressure drop below 35KPa after 1 minute, then the pressure should be returned to 50KPa and maintained until a full inspection of the PE pipeline has been completed. All joints and connections need to be individually inspected for leakage using a solution of water and detergent poured over any suspect joint. If a leak is present, it will cause the detergent solution to bubble, and foam.

Section 18. Deflection Testing

PE drainage pipelines are designed to support external loading within the acceptable limits of diameter deflection for structural reasons. Where this is a critical feature of the installation, then a plug, or proving tool, can be pulled along the PE pipeline between manholes, or other entry points. For joints without any protrusions into the pipe bore, the proving plug can be sized to the minimum internal dimension allowed in the design. For butt welded pipes, unless the internal beads are removed, the plug needs to be reduced in size to allow for the weld bead. In both cases, the plug must be able to be pulled completely through the PE pipeline.

Section 19. Flushing and Disinfection

Where David Moss PE pipes are used for potable water applications, standard flushing and disinfection procedures must be followed. Some pipe materials require additional flushing or disinfection in order to purge contamination rising from the pipe material itself. David Moss PE pipes, however, are made from PE grades that comply with water quality requirements without the need for additional treatment. For potable water applications, the following procedure may be used:

1. Flush out all construction debris from the pipes by running water through the line for 15 minutes.
2. Carry out the hydrostatic pressure testing.
3. Introduce a chlorine, or chloramine, solution into the line at a concentration of 50 mg/l, and allow to stand for 24 hours.
4. Flush out the pipeline for 15 minutes to remove all disinfectant and biological residues from the water.

DAVID MOSS GROUP

DAVIDMOSS.COM.AU

Perth

P (08) 9306 3344
F (08) 9306 3443
E sales@davidmoss.com.au

26 Turnbull Road,
Neerabup,WA 6031
PO Box 577, Wanneroo, WA 6946

Brisbane

P (07) 3865 8318
F (07) 3169 2449
E brisales@davidmoss.com.au

60 Prosperity Place,
Geebung, QLD 4034
PO Box 577, Wanneroo, WA 6946

Kalgoorlie

P (08) 9091 8559
F (08) 9091 1998
E sales@davidmoss.com.au

280-282 Hay Street,
Kalgoorlie, WA 6430
PO Box 577, Wanneroo, WA 6946

Sydney

P 0474 552 295
F (07) 3169 2449
E nswsales@davidmoss.com.au

PO Box 6019
Silverwater, Sydney, NSW 2126