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DEF PIPELINE

HDPE PIPES & FITTINGS

DN20-2000mm(1/2 inch-80 inch)
SDR6 to SDR41

CONNECTING THE WORLD WITH QUALITY

Def Pipeline is a modern emerging enterprise integrating research, development, production, sales and after-sale service of HDPE, PVC, pipe and fittings. Def Pipeline is committed to working with its customers to understand their needs and deliver the highest level of customer service and product quality. Def Pipeline aims to supply quality, safe, reliable and cost-effective products that fit its customers' requirements and are delivered promptly.

Our company has a modern standard workshop, a modern 8S enterprise management mechanism, and covers an area of 70,000 square meters. There are 386 employees, 30 senior engineers and technicians, and 6 laboratory staff. Def Pipeline won the "National Authoritative Inspection Qualified Products". It has passed ISO9001, ISO14001, ISO45001, OHSAS18001 national laboratory accreditation certificate, water saving certification, China environmental label certification and many other certifications, and has passed the international third-party 1SO4427, ASTM D3350 AS/NZ 4130, EN 12201 standard tests.

Def Pipeline has 67 high-speed pipe extrusion lines, 16 high-speed injection molding machines and 6 custom pipe lathes. The equipment of Def Pipeline production line has a high level of automatic production. The production process is fully automated through computer control. The annual production capacity is: 250,000 tons of HDPE pipes and fittings, 150,000 tons of PVC-U pipes and fittings, and 120,000 tons of double-wall corrugated pipes.

At present, Def Pipeline can provide more than 210 different plastic pipe and pipe products, mainly used in water, gas and dredging systems, in 6 categories:
1. HDPE pipe: PN4--PN32, DN20-2000mm (1/2 inch-80 inch)
2. HDPE fittings: HDPE butt fusion fittings, HDPE electrofusion fittings, HDPE socket fittings.
3. HDPE pipe welding machine, including: HDPE pipe socket welding machine, HDPE pipe butt fusion machine, HDPE electrofusion machine.
4. PVC pipe: DN20-1200mm (1/2 inch-48 inch)
5. PVC pipe fittings: DN20-1200mm (1/2 inch-48 inch)

All Def products are inspected in strict accordance with international standards, even exceeded international standards. The complete product supply chain system, one-stop service concept and strict product production quality control system can fully meet the requirements of various industries and fields at home and abroad.

Def pipeline products have become the priortity choice of our clients from more than 30 countries. Been satifitied with our quality and service, they have established close and long-term business partnerships with us. And we are receiving all the positive feedback from every new clients.Def's business policy is "Quality is life, Technology is the leading force, and Client satisfaction is the ultimate goal". We are striving to build "win-win" business relationships with clients all over the world. Please do not hesitate to contact us for the quality pipes and professional service.

Company Culture

Company mission: to lead the development of the industry, to provide customers with excellent products and services, to give back to the society, to shareholders and employees.

Company Vision: Grasp the development trend of the industry and build Def Pipeline into a large-scale enterprise with international competitiveness.

Company tenet: Satisfy customers, promote enterprise development, and be responsible to the society.

Core values: dedication, sincerity, responsibility, efficiency, excellence.

Def Pipeline pays attention to the innovation of products and the durability of service life in the design and development.

We pay attention to the safety of the production process and the precision of processing in the production process.

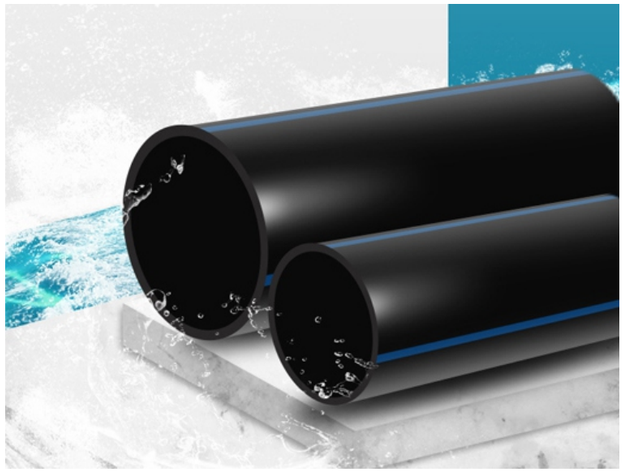
And pays attention to excellence and high-end product quality in the inspection process.

Def Pipeline focuses on the future needs of the market. With our rich product portfolio of plastic pipe & fittings and professional technical knowledge, Def Pipeline provides product technical and price support at every customer project stage. Def Pipeline helps customers make the plan to reduce the procurement cost and installation costs reasonably.

Factory Showing

CONTENTS

HDPE Water Supply Pipe



Polyethylene water supply pipe is a new type of product made of high-quality polyethylene resin as the main material, added with necessary antioxidants, ultraviolet absorbers and other additives, and processed by extrusion. Widely used in various pipeline projects such as municipal water supply, drainage, petrochemical industry, mines, farmland irrigation, sewage, mortar transportation, landfills, etc. The pipes are produced in strict accordance with national standards, and DEF PIPELINE polyethylene water supply pipes fully meet or exceed national standards Claim.

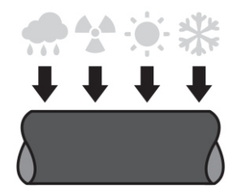
Applications

1. Pressure-rated potable water distribution.
2. Drainage and sewerage.
3. Fire fighting networks.
4. Industrial and water treatment systems.
5. Agricultural irrigation pipes.
6. Electrical Conduit and Fiber-optic ducts.
7. Mine mortar conveying pipeline, etc.

Benefits of HDPE Pipes for Water Applications:

Impact-resistant and tough:
Unbreakable at temperatures above 5°C

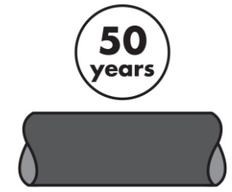
Chemical resistant:
Suitable for transport of polluted waste water



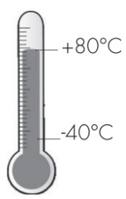
UV & weather resistant:
Unrestricted outside use through carbon black additives

Elastic and flexible:
Adjusts to local ground movement for underground use

Light in weight:
Cost saving in transport and handling



Wear resistant:
Lower cost due to long lifetime



Thermal resistant:
Applications possible between -40°C and 80°C. Up to 100°C for short periods of tim

Low heat conductivity:
No condensation insulation required during short periods of cooling

Non-toxic:
100% recyclable and environmental friendly

DEF Pipeline HDPE pipes and fittings for water, supply, for drainage and sewerage under pressure are manufactured in accordance with the different standards: ISO 4427; GB/T 13663; EN 12201; AS/NZS 4130; DIN8074; GOST 18599; ASTM D3035; ASTMF714; DIPS; IPS, etc.

ISO4427-2 Pipe Series

ISO 4427 Pipe Series		S 3.2	S 4	S 5	S 6,3	S 8	S 10	S 12,5	S 16
ASTM F714 DR		DR 7.4	DR 9	DR 11	DR 13.6	DR 17	DR 21	DR 26	DR 33
Nominal Pressure PE100		PN25	PN20	PN16	PN12.5	PN10	PN8	PN6	PN5
Nominal Size DN(mm)	Equiv Size (in)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)	Min T.W. (mm)
20	0.79	3	2.3	2	1.5	1.2	1	0.6	0.61
25	0.98	3.5	3	2.3	2	1.5	1.2	0.8	0.76
32	1.26	4.4	3.6	3	2.4	2	1.5	1	0.97
40	1.57	5.5	4.5	3.7	3	2.4	2	1.2	1.21
50	1.97	6.9	5.6	4.6	3.7	3	2.4	2	1.52
63	2.48	8.6	7.1	5.8	4.7	3.8	3	2.5	1.91
75	2.95	10.3	8.4	6.8	5.6	4.5	3.6	2.9	2.27
90	3.54	12.3	10.1	8.2	6.7	5.4	4.3	3.5	2.73
110	4.33	15.1	12.3	10	8.1	6.6	5.3	4.2	3.33
125	4.92	17.1	14	11.4	9.2	7.4	6	4.8	3.79
140	5.51	19.2	15.7	12.7	10.3	8.3	6.7	5.4	4.24
160	6.3	21.9	17.9	14.6	11.8	9.5	7.7	6.2	4.85
180	7.09	24.6	20.1	16.4	13.3	10.7	8.6	6.9	5.45
200	7.87	27.4	22.4	18.2	14.7	11.9	9.6	7.7	6.06
225	8.86	30.8	25.2	20.5	16.6	13.4	10.8	8.6	6.82
250	9.84	34.2	27.9	22.7	18.4	14.8	11.9	9.6	7.58
280	11.02	38.3	31.3	25.4	20.6	16.6	13.4	10.7	8.48
315	12.4	43.1	35.2	28.6	23.2	18.7	15	12.1	9.7
355	13.98	48.5	39.7	32.2	26.1	21.1	16.9	13.6	10.9
400	15.75	54.7	44.7	36.3	29.4	23.7	19.1	15.3	12.3
450	17.72	61.5	50.3	40.9	33.1	26.7	21.5	17.2	13.8
500	19.69	67.6	55.8	45.4	36.8	29.7	23.9	19.1	15.3
560	22.05	75.7	62.5	50.8	41.2	33.2	26.7	21.4	17.2
630	24.8	85.1	70.3	57.2	46.3	37.4	30	24.1	19.3
710	27.95	95.9	79.3	64.5	52.2	42.1	33.9	27.2	21.8
800	31.5		89.3	72.6	58.8	47.4	38.1	30.6	24.5
900	35.43			81.7	66.2	53.3	42.9	34.4	27.6
1000	39.37			90.2	72.5	59.3	47.7	38.2	30.6
1200	47.24				88.2	67.9	57.2	45.9	36.7
1400	55.12				102.9	82.4	66.7	53.5	42.9

This product flyer is intended for reference purposes. It should not be used in place of the advice from a licensed Professional Engineer. Nominal pressure (PN) is based on C = 1,25 and an operating temperature of 20°C. Weight is calculated using DN and Minimum wall plus 6% for use in estimating fluld flow. Actual ID will vary. When designing components to fit the pipe ID, refer to pipe dimensions and tolerances in the applicable pipe manufacturing specification. To obtain pressure in psi, multiply bar by 14.5 (1 bar ~ 14.5 psi).

EN 12201-2:2011 Pipe Series

(The Specification of the Standard DIN8074/8075, GOST 18599 are same with EN12201)

	SDR6	SDR7.4	SDR9	SDR11	SDR13.6	SDR17	SDR21	SDR26	SDR33	SDR41
	S2.5	S3.2	S4	S5	S6.3	S8	S10	S12.5	S16	S20
	Norminal Pressure, PN [a] in Bar									
PE80	PN25	PN20	PN16	PN12.5	PN10	PN8	PN6	PN5	PN4	PN3.2
PE100	PN32	PN25	PN20	PN16	PN12.5	PN10	PN8	PN6	PN5	PN4
Nom. Size DN/OD	Wall Thickness [b]									
	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}
16	3	2.3	2	-		-	-	-	-	-
20	3.4	3	2.3	2	2	-	-	-	-	-
25	4.2	3.5	3	2.3	2.4	-	-	-	-	-
32	5.4	4.4	3.6	3	3	2	-	-	-	-
40	6.7	5.5	4.5	3.7	3.7	2.4	2	-	-	-
50	8.3	6.9	5.6	4.6	4.7	3	2.4	2	-	-
63	10.5	8.6	7.1	5.8	5.6	3.8	3	2.5	-	-
75	12.5	10.3	8.4	6.8	6.7	4.5	3.6	2.9	-	-
90	15	12.3	10.1	8.2	8.1	5.4	4.3	3.5	-	-
110	18.3	15.1	12.3	10	9.2	6.6	5.3	4.2	-	-
125	20.8	17.1	14	11.4	10.3	7.4	6	4.8	-	-
140	23.3	19.2	15.7	12.7	11.8	8.3	6.7	5.4	-	-
160	26.6	21.9	17.9	14.6	13.3	9.5	7.7	6.2	-	-
180	29.9	24.6	20.1	16.4	14.7	10.7	8.6	6.9	-	-
200	33.2	27.4	22.4	18.2	16.6	11.9	9.6	7.7	-	-
225	37.4	30.8	25.2	20.5	18.4	13.4	10.8	8.6	-	-
250	41.5	34.2	27.9	22.7	20.6	14.8	11.9	9.6	-	-
280	46.5	38.3	31.3	25.4	23.2	16.6	13.4	10.7	-	-
315	52.3	43.1	35.9	28.6	26.1	18.7	15	12.1	9.7	7.7
355	59	48.5	39.7	32.2	29.4	21.1	16.9	13.6	10.9	8.7
400	-	54.7	44.7	36.6	33.1	23.7	19.1	15.3	12.3	9.8
450	-	61.5	50.3	40.9	36.8	26.7	21.5	17.2	13.8	11
500	-	67.6	55.8	45.4	41.2	29.7	23.9	19.1	15.3	12.3
560	-	75.7	62.5	50.8	46.3	33.2	26.7	21.4	17.2	13.7
630	-	85.1	70.3	57.2	52.2	37.4	30	24.1	19.3	15.4
710	-	95.9	79.3	64.5	58.8	41.2	33.9	27.2	21.8	17.4
800	-	-	89.3	72.6	66.1	47.4	38.1	30.6	24.5	19.6
900	-	-	-	81.7	73.4	53.3	42.9	34.4	27.6	22
1000	-	-	-	90.8	88.2	59.3	47.7	38.2	30.6	24.5
1200	-	-	-	-	102.9	71.1	57.2	45.9	36.7	29.4
1400	-	-	-	-	117.5	83	66.7	53.5	42.9	34.3
1600	-	-	-	-	-	94.8	76.2	61.2	49	39.2
1800	-	-	-	-	-	106.6	85.5	68.8	55.1	44
2000	-	-	-	-	-	118.4	95.3	76.4	61.2	48.9
2250	-	-	-	-	-	-	107.2	86	70	55
2500	-	-	-	-	-	-	119.1	95.6	77.7	61.2

a PN Values are based on C=1.25.

b Tolerance in accordance with grade V of ISO11922-7

Standard Dimension Ratios (SDRs) for AS/NZS 4130: 2009 Pipe Series

PE80 / PE100 / Nom. Size DN/OD	Mean Outside diameter(Dm)		Maximum out of roundness	PN25 / - / SDR7.4	PN20 / SDR7.4 / SDR9	PN16 / SDR9 / SDR11	PN12.5 / SDR11 / SDR13.6	PN10 / SDR13.6 / SDR17	PN8 / SDR17 / SDR21	PN6.3 / SDR21 / SDR26	PN4 / SDR33 / SDR41	PN3.2 / SDR41 / -
	Min.	Max.		Wall Thickness(*T*)								
16	16	16.3	1.2	2.2	1.8	1.6		-	-	-	-	-
20	20	20.3	1.2	2.8	2.3	1.9	1.6	-	-	-	-	-
25	25	25.3	1.2	3.5	2.8	2.3	1.9	1.6		-	-	-
32	32	32.3	1.3	4.4	3.6	2.9	2.4	1.9	1.6	-	-	-
40	40	40.4	1.4	5.5	4.5	3.7	3	2.4	1.9	-	-	-
50	50	50.5	1.4	6.9	5.6	4.6	3.7	3	2.4	2	-	-
63	63	63.6	1.5	8.6	7.1	5.8	4.7	3.8	3	2.4	-	-
75	75	75.7	1.6	10.3	8.4	6.8	5.5	4.5	3.6	2.9	2.3	-
90	90	90.9	1.8	12.3	10.1	8.2	6.6	5.4	4.3	3.5	2.8	-
110	110	111	2.2	15.1	12.3	10	8.1	6.6	5.3	4.3	3.4	2.7
125	125	126.2	2.5	17.1	14	11.4	9.2	7.4	6	4.8	3.9	3.1
140	140	141.3	2.8	19.2	15.7	12.7	10.3	8.3	6.7	5.4	4.3	3.5
160	160	161.5	3.2	21.9	17.9	14.6	11.8	9.5	7.7	6.2	4.9	4
180	180	181.7	3.6	24.6	20.1	16.4	13.3	10.7	8.6	6.9	5.5	4.4
200	200	201.8	4	27.4	22.4	18.2	14.7	11.9	9.6	7.7	6.2	4.9
225	225	227.1	4.5	30.8	25.2	20.5	16.6	13.4	10.8	8.6	6.9	5.5
250	250	252.3	5	34.2	27.9	22.7	18.4	14.8	11.9	9.6	7.7	6.2
280	280	282.6	9.8	38.3	31.3	25.4	20.6	16.6	13.4	10.7	8.6	6.9
315	315	317.9	11.1	43.1	35.9	28.6	23.2	18.7	15	12.1	9.7	7.7
355	355	358.2	12.5	48.5	39.7	32.2	26.1	21.1	16.9	13.6	10.9	8.7
400	400	403.6	14	54.7	44.7	36.6	29.4	23.7	19.1	15.3	12.3	9.8
450	450	454.1	15.6	61.5	50.3	40.9	33.1	26.7	21.5	17.2	13.8	11
500	500	504.5	17.5	67.6	55.8	45.4	36.8	29.6	23.9	19.1	15.3	12.3
560	560	565	19.6	75.7	62.5	50.8	41.2	33.2	26.7	21.4	17.2	13.7
630	630	635.7	22.1	85.1	70.3	57.2	46.3	37.3	30	24.1	19.3	15.4
710	710	716.4	24.9	95.9	79.3	64.5	52.2	41.2	33.9	27.2	21.8	17.4
800	800	807.2	28	-	89.3	72.6	58.8	47.4	38.1	30.6	24.5	19.6
900	900	908.1	31.5	-	-	81.7	66.1	53.3	42.9	34.4	27.6	22
1000	1000	1009	35	-	-	90.2	73.4	59.3	47.7	38.2	30.6	24.5
1200	1200	1210	42	-	-	-	88.2	67.9	57.2	45.9	36.7	29.4
1400	1400	1410	49	-	-	-	102.9	82.4	66.7	53.2	42.9	34.4
1600	1600	1610.2	56	-	-	-	117.6	91.4	76.2	61.3	49	39.3
1800	1800	1816.2	-	-	-	-	-	105.9	85.5	69.1	54.5	43.8
2000	2000	2018	-	-	-	-	-	117.6	95.2	76.9	60.6	48.8

AS/NZS 4130: 2009 Pipe Series are classi?ed in terms of the nominal pressure rating (PN). The number used to describe PN is 10 times the value of the maximum allow able operating pressure (MAOP) at 20°C based on C = 1.25 and given in megapascals.

Iron Pipe Size (IPS) and Dimension Data

ASTM D-3035-03, Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter.

ASTM F-714-03, Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter.

PRESSURE RATING 3408			DR7.3	DR9	DR11	DR13.5	DR17	DR21	DR26	DR32.5
			255 PSI	200 PSI	160 PSI	128 PSI	100 PSI	80 PSI	65 PSI	50 PSI
PRESSURE RATING 4710			DR7.3	DR9	DR11	DR 13.5	DR17	DR 21	DR26	DR 32.5
			320 PSI	252 PSI	202 PSI	160 PSI	125 PSI	100 PSI	80 PSI	63 PSI
IPS Pipe Size (In)	Nominal OD (in)	Nominal OD(mm)	Minimum Wall (in)							
1/2	0.84	21.34	0.12	0.093	0.076	0.062	0.062	0.062	0.062	0.062
3/4"	1.05	26.67	0.15	0.117	0.095	0.078	0.062	0.062	0.062	0.062
1"	1.315	33.4	0.188	0.146	0.12	0.097	0.077	0.062	0.062	0.062
1 1/4"	1.66	42.16	0.227	0.184	0.151	0.123	0.098	0.079	0.064	0.062
1 1/2"	1.9	48.26	0.26	0.211	0.173	0.141	0.112	0.09	0.073	0.062
2"	2.375	60.33	0.325	0.264	0.216	0.176	0.14	0.113	0.091	0.073
3"	3.5	88.9	0.479	0.389	0.318	0.259	0.206	0.167	0.135	0.108
4"	4.5	114.3	0.616	0.5	0.409	0.333	0.265	0.214	0.173	0.138
5"	5.563	141.3	0.762	0.618	0.506	0.412	0.327	0.265	0.214	0.171
6"	6.625	168.28	0.908	0.736	0.602	0.491	0.39	0.315	0.255	0.204
8"	8.625	219.08	1.182	0.958	0.784	0.639	0.507	0.411	0.332	0.265
10"	10.75	273.05	1.473	1.194	0.977	0.796	0.632	0.512	0.413	0.331
12"	12.75	323.85	1.747	1.417	1.159	0.944	0.75	0.607	0.49	0.392
14"	14	355.6	1.918	1.556	1.273	1.037	0.824	0.667	0.538	0.431
16"	16	406.4	2.192	1.778	1.455	1.185	0.941	0.762	0.615	0.492
18"	18	457.2	2.466	2	1.636	1.333	1.059	0.857	0.692	0.554
20"	20	508	2.74	2.222	1.818	1.481	1.176	0.952	0.769	0.615
22"	22	558.8	3.014	2.444	2	1.63	1.294	1.048	0.846	0.677
24"	24	609.6	3.288	2.667	2.182	1.778	1.412	1.143	0.923	0.738
26"	26	660.4		2.889	2.364	1.926	1.529	1.238	1	0.8
28"	28	711.2		3.111	2.545	2.074	1.647	1.333	1.077	0.862
30"	30	762		3.333	2.727	2.222	1.765	1.429	1.154	0.923
32"	32	812.8			2.909	2.37	1.882	1.524	1.231	0.985
34"	34	863.6			3.091	2.519	2	1.619	1.308	1.046
36"	36	914.4			3.273	2.667	2.118	1.714	1.385	1.108
42"	42	1066.8				3.111	2.471	2	1.615	1.292
48"	48	1219.2					2.824	2.286	1.846	1.477
54"	54	1371.6						2.571	2.077	1.662
63"	63	1600.2						3	2.423	1.938
65"	65	1651						3.095	2.5	2

Pressure Ratings are calculated using 0.63 design factor for HDS at 73°F as listed in PPI TR-4 for PE 4710 materials. HDPE can accomodate up to 1.5 times the pipe pressure rating for a recurring surge and up to 2.0 times the pipe pressure rating for an occasional surge. Temperature, Chemical, and Environmental use considerations may require use of additional design factors.

Ductile Iron Pipe Size (DIPS) and Dimension Data PE4710 (Pe3408)

Pressure Rating		335 psi		250 psi		200 psi		160 psi		PE4710
		DR 7.0		DR 9.0		DR 11.0		DR 13.5		(PE3408)
Nominal Pipe Size	DIPS OD (in)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Nominal
4"	4.8	0.686	3.87	0.533	3.13	0.436	2.62	0.356	2.18	4"
6"	6.9	0.986	8	0.767	6.47	0.627	5.42	0.511	4.5	6"
8"	9.05	1.293	13.76	1.006	11.13	0.823	9.32	0.67	7.75	8"
10"	11.1	1.586	20.7	1.233	16.74	1.009	14.03	0.822	11.66	10"
12"	13.2	1.886	29.27	1.467	23.67	1.2	19.84	0.978	16.48	12"
14"	15.3	2.186	39.33	1.7	31.8	1.391	26.65	1.133	22.15	14"
16"	17.4	2.486	50.87	1.933	41.13	1.582	34.47	1.289	28.64	16"
18"	19.5	2.786	63.89	2.167	51.66	1.773	43.29	1.444	35.97	18"
20"	21.6			2.4	63.38	1.964	53.12	1.6	44.14	20"
24"	25.8			2.867	90.43	2.345	75.78	1.911	62.97	24"
30"	32					2.909	116.58	2.37	96.87	30"
36"	38.3					3.482	167.01	2.837	138.77	36"
42"	44.5							3.296	187.33	42"
Pressure Rating		125 psi		100 psi		80 psi		63 psi		PE4710
		DR 17.0		DR 21.0		DR 26.0		DR 32.5		(PE3408)
Nominal Pipe Size	DIPS OD (in)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Minimum Wall (in)	Weight (lbs/ft)	Nominal
4"	4.8	0.282	1.76	0.229	1.45					4"
6"	6.9	0.406	3.64	0.329	2.99	0.265	2.43	0.212	1.96	6"
8"	9.05	0.532	6.26	0.431	5.13	0.348	4.19	0.278	3.37	8"
10"	11.1	0.653	9.42	0.529	7.73	0.427	6.3	0.342	5.09	10"
12"	13.2	0.776	13.31	0.629	10.93	0.508	8.91	0.406	7.19	12"
14"	15.3	0.9	17.89	0.729	14.68	0.588	11.96	0.471	9.66	14"
16"	17.4	1.024	23.15	0.829	18.98	0.669	15.48	0.535	12.48	16"
18"	19.5	1.147	29.07	0.929	23.84	0.75	19.44	0.6	15.69	18"
20"	21.6	1.271	35.68	1.029	29.25	0.831	23.86	0.665	19.26	20"
24"	25.8	1.518	50.89	1.229	41.73	0.992	34.03	0.794	27.46	24"
30"	32	1.882	78.26	1.524	64.18	1.231	52.37	0.985	42.26	30"
36"	38.3	2.253	112.13	1.824	91.93	1.473	75	1.178	60.49	36"
42"	44.5	2.618	151.39	2.119	124.09	1.712	101.28	1.369	81.68	42"

Pressure Ratings are calculated using 0.63 design factor for HDS at 73°F as listed in PPI TR-4 for PE 4710 materials. HDPE can accomodate up to 1.5 times the pipe pressure rating for a recurring surge and up to 2.0 times the pipe pressure rating for an occasional surge. Temperature, Chemical, and Environmental use considerations may require use of additional design factors.

This size and dimension chart is intended for reference purposes. It should not be used in place of the advice from a licensed Professional Engineer. Pipe weights are calculated in accordance with PPI TR-7. Average inside diameter is calculated using DIPS OD and Minimum wall plus 6% for use in estimating ?uid ?ows. Actual ID will vary. When designing components to fit the pipe ID, refer to pipe dimension and tolerances in the applicable pipe manufacturing specification.

ISO 8772: 2006 Plastics piping systems for non-pressure underground drainage and sewerage — Polyethylene (PE)

PE100	-		SN2		SN4		SN8	
Nominal Size DN (mm)	SDR41		SDR33		SDR26		SD21	
	Thickness (mm)	Weight (kg/m)	Thickness (mm)	Weight (kg/m)	Thickness (mm)	Weight (kg/m)	Thickness (mm)	Weight (kg/m)
110	2.7	0.86	3.3	1.18	4.2	1.45	5.3	1.8
125	3	1.11	3.8	1.53	4.8	1.87	6	2.31
160	3.9	1.82	4.9	2.46	6.2	3.09	7.7	3.77
200	4.9	2.84	6.2	3.89	7.7	4.76	9.6	5.86
250	6.1	4.44	7.7	6	9.6	7.4	11.9	9.05
315	7.7	7.04	9.7	9.49	12.1	11.74	15	14.38
355	8.7	8.95	10.9	12	13.6	14.83	16.9	18.63
400	9.8	11.36	12.3	15.27	15.3	18.8	19.1	23.69
450	11	14.37	13.8	19.22	17.2	24.27	21.5	29.88
500	12.2	17.75	15.3	23.7	19.1	29.93	23.9	36.79
630	15.4	28.17	19.3	38.49	24.1	47.57	30	58.47
800	19.5	45.43	24.5	61.87	30.6	76.54	38.1	94.32
1000	24.4	70.98	30.6	96.49	38.2	119.73	47.7	147.44
1200	29.3	102.21	36.7	138.77	45.9	172.04	57.2	212.02
1400	34.1	139.12	42.9	173.67	53.5	226.2	66.7	279.24
1600	39	181.71	49	226.71	62.1	284.89	76.2	346.37
1800	43.9	229.98	54.5	283.77	69.1	356.78	85.7	438.25
2000	48.8	283.93	60.6	350.58	76.9	441.15	95.2	540.93

ISO 8772:2006 specifies the requirements for polyethylene (PE) pipes, fittings and piping systems intended for use for non-pressure underground drainage and sewerage for the conveyance of soil and waste discharge of domestic and industrial origin, as well as surface water.
It covers buried pipework, as well as piping systems buried within the building structure.
In the case of industrial discharge, it is necessary that the chemical and temperature resistance be taken into account, but this will need to be done separately.
ISO 8772:2006 is applicable to PE pipes with or without an integral socket.

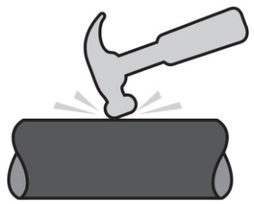
HDPE Pipe for Natural Gas & Oil

Almost all raw materials used in HDPE gas pipes use imported raw materials, the main grades are PE100 and PE80. At present, HDPE is mainly used as a special material for gas pipes. In the relevant international standards ISO04437-1997 and GB15558.1, the materials used for gas pipes lower than HDPE have strict performance index requirements to ensure that the service life is 50 years under normal conditions. The special material for gas pipe is much slower than ordinary hdpe. It not only has excellent long-term compressive strength, but also has excellent resistance to slow stress crack growth and rapid stress propagation, and also has excellent anti-drape performance.

Applications

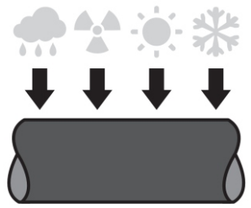
1. Oil and gas collection
2. Natural gas distribution
3. Petroleum Products Lines
4. Compressed air
5. Gathering Lines for Oilfields
6. Coal Seam Gas (CSG) gathering and transmission of oil and gas mixtures

Benefits of the HDPE Pipes for Gas & Oil Applications:



Impact-resistant and tough:
Unbreakable at temperatures above 5°C

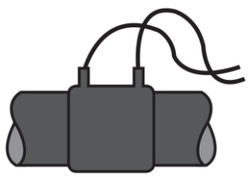
Chemical resistant:
Suitable for transport of polluted waste water



UV & weather resistant:
Unrestricted outside use through carbon black additives

Light in weight:
Cost saving in transport and handling

Elastic and flexible:
Adjusts to local ground movement for underground use



Welded system:
Simple and secure installation using butt-welding and electrofusion

Proper Specification of HDPE pipe for Oil & Gas applicationsWhen specifying a polyethylene pipe for oil and gas applications it is critical to specify the quali-fied materials and to ensure that the pipe is sourced from a manufacturer that has a demon- strated capability to produce pipe that meets or exceeds industry standards.HDPE pipe should be manufactured to the requirements of the following industry standards: ISO4437, EN1555, AS/NZS 4130, ASTM D2513, etc..

ISO4437-2: Plastics piping systems for the supply of gaseous fuels-Polyethylene (PE)

Nominal Out-side diameter DN(mm)	Maximum out of roundness for straight pipes	*Minimum Wall Thickness* e_{min} [a]						
		SDR9	SDR11[b]	SDR13.6	SDR17[b]	SDR17.6[c]	SDR21	SDR26
16	1.2	3	2.3[d]					
20	1.2	3	2.3[d]					
25	1.2	3	2.3[d]	2.3[d]				
32	1.3	3.6	3	2.4[d]	2.3[d]	2.3[d]		
40	1.4	4.5	3.7	3	2.4[d]	2.3[d]	2.3[d]	
50	1.4	5.6	4.6	3.7	3	2.9	2.4[d]	2.3[d]
63	1.5	7.1	5.8	4.7	3.8	3.6	3	2.5[d]
75	1.6	8.4	6.8	5.6	4.5	4.3	3.6	2.9[d]
90	1.8	10.1	8.2	6.7	5.4	5.2	4.3	3.5
110	2.2	12.3	10	8.1	6.6	6.3	5.3	4.2
125	2.5	14	11.4	9.2	7.4	7.1	6	4.8
140	2.8	15.7	12.7	10.3	8.3	8	6.7	5.4
160	3.2	17.9	14.6	11.8	9.5	9.1	7.7	6.2
180	3.6	20.1	16.4	13.3	10.7	10.3	8.6	2.9
200	4	22.4	18.2	14.7	11.9	11.4	9.6	7.7
225	4.5	25.2	20.5	16.6	13.4	12.8	10.8	8.6
250	5	27.9	22.7	18.4	14.8	14.2	11.9	9.6
280	9.8	31.2	25.4	20.6	16.6	15.9	13.4	10.7
315	11.1	35.2	28.6	23.2	18.7	17.9	15	12.1
355	12.5	39.7	32.2	26.1	21.1	20.2	16.9	13.6
400	14	44.7	36.3	29.4	23.7	22.8	19.1	15.3
450	15.6	50.3	40.9	33.1	26.7	25.6	21.5	17.2
500	17.5	55.8	45.4	36.8	29.7	28.4	23.9	19.1
560	19.6	62.5	50.8	41.2	33.2	31.9	26.7	21.4
630	22.1	70.3	57.2	46.3	37.4	35.8	30	24.1

a $e_{min}=e_n$

b Preferred series.

c SDR17.6 series can be removed at the next revision of this Internation Standard.

d Minimum wall thickness values greater than limits of 2.3mm, 2.4mm, 2.5mm and 2.9mm can be imposed for practical reasons in accordance with national requirements. See maunfacturer's files or national specification.

AS/NZS 4130 Series Pipes -Gas(Nominal Outside Diameter Series)

Nominal Out-side diameter DN (mm)	Mean Outside Diameter Dm		Maximum out of roundness	Minimum Wall Thickness(T)											
				SDR9		SDR11		SDR13.6		SDR17		SDR21		SDR26	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	16	16.3	1.2	3	3.4	3	3.4	3	3.4	2.4	2.8	2.4	2.8	2.5	2.9
20	20	20.3	1.2	3	3.4	3	3.4	3	3.4	2.4	2.8	2.4	2.8	2.5	2.9
25	25	25.3	1.2	3	3.4	3	3.4	3	3.4	2.4	2.8	2.4	2.8	2.5	2.9
32	32	32.3	1.3	3.6	3.4	3	3.4	3	3.4	2.4	2.8	2.4	2.8	2.5	2.9
40	40	40.4	1.4	4.5	4.2	3.7	4.2	3	3.4	2.4	2.8	2.4	2.8	2.5	2.9
50	50	50.4	1.4	5.6	5.2	4.6	5.2	3.7	4.2	3	3.4	2.4	2.8	2.5	2.9
63	63	63.4	1.5	7.1	6.5	5.8	6.5	4.7	5.3	3.8	4.3	3	3.4	2.5	2.9
75	75	75.5	1.6	8.4	7.6	6.8	7.6	5.6	6.2	4.5	5.1	3.6	4.1	2.9	3.3
90	90	90.6	1.8	10.1	9.2	8.2	9.2	6.6	7.4	5.4	6.1	4.3	4.9	3.5	4
110	110	110.7	2.2	12.3	11.1	10	11.1	8.1	9.1	6.6	7.4	5.3	6	4.2	4.8
125	125	125.8	2.5	14	12.7	11.4	12.7	9.2	10.3	7.4	8.3	6	6.7	4.8	5.4
140	140	140.9	2.8	15.7	14.1	12.7	14.1	10.3	11.5	8.3	9.3	6.7	7.5	5.4	6.1
160	160	161	3.2	17.9	16.2	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7
180	180	181.1	3.6	20.1	18.2	16.4	18.2	13.3	14.8	10.7	11.9	8.6	9.6	6.9	7.7
200	200	201.2	4	22.4	20.2	18.2	20.2	14.7	16.3	11.9	13.2	9.6	10.7	7.7	8.6
225	225	226.4	4.5	25.2	22.7	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12	8.6	9.6
250	250	251.5	5	27.9	25.1	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7
280	280	282.6	9.8	31.2	28.1	25.4	28.1	20.6	22.8	16.6	18.4	13.4	14.9	10.7	11.9
315	315	317.9	11.1	35.2	31.6	28.6	31.6	23.2	25.7	18.7	20.7	15	16.6	12.1	13.5
355	355	358.2	12.5	39.7	35.6	32.2	35.6	26.1	28.9	21.1	23.4	16.9	18.7	13.6	15.1
400	400	403.6	14	44.7	40.1	36.3	40.1	29.4	32.5	23.7	26.2	19.1	21.2	15.3	17
450	450	454.1	15.6	50.3	45.1	41	45.1	33.1	36.6	26.7	29.5	21.5	23.8	17.2	19.1
500	500	504.5	17.5	55.8	50.1	45.5	50.1	36.8	40.6	29.7	32.8	23.9	26.4	19.1	21.2
560	560	565	19.6	62.5	56.2	51	56.2	41.2	45.5	33.2	36.7	26.7	29.5	21.4	23.7
630	630	635.7	22.1	70.3	63.1	57.3	63.1	46.3	51.1	37.4	41.3	30	33.1	24.1	26.7

1.The pipes series is based on ISO sizes.

2. In the interest of pipe serviceability and irrespective of the calculated wall thickness, this Standard does not provide for a wall thickness of less than 2.4mm for SDR26, SDR21 and SDR17, and 3.0mm for SDR13.6, SDR11 and SDR9.

EN1555-2: Plastics piping systems for the supply of gaseous fuels- Polyethylene (PE).

Safety Factor: C=2.0.

Nominal Out-side Diameter DN/OD	Mean Outside Diameter dem		Maximum out of roundness for straight pipes [b c]	PE80 Material		PE100 Material			
				SDR11/ PN4 Bar		SDR17.6/ PN4 Bar		SDR11/ PN10 Bar	
	Min.	Max. [a]		T.(mm)	Weight (kg/m)	T.(mm)	Weight (kg/m)	T.(mm)	Weight (kg/m)
16	16	16.3	1.2	-	-	-	-	-	-
20	20	20.3	1.2	2.3	0.12	2.3	0.13	3	0.16
25	25	25.3	1.2	2.3	0.15	2.3	0.17	3	0.21
32	32	32.3	1.3	2.9	0.27	2.3	0.22	3	0.28
40	40	40.4	1.4	3.7	0.43	2.3	0.28	3.7	0.43
50	50	50.4	1.4	4.6	0.67	2.9	0.44	4.6	0.67
63	63	63.4	1.5	5.8	1.05	3.9	0.69	5.8	1.06
75	75	75.5	1.6	6.8	1.47	4.3	0.98	6.8	1.48
90	90	90.6	1.8	8.2	2.12	5.2	1.39	8.2	2.13
110	110	110.7	2.2	10	3.14	6.3	2.08	10	3.18
125	125	125.8	2.5	11.4	4.08	7.1	2.67	11.4	4.11
140	140	140.9	2.8	12.7	5.08	8	3.36	12.7	5.14
160	160	161	3.2	14.6	6.67	9.1	4.35	14.6	6.81
180	180	181.1	3.6	16.4	8.42	10.3	5.56	16.4	8.49
200	200	201.2	4	18.2	10.4	11.4	6.79	18.2	10.5
225	225	226.4	4.5	20.5	13.1	12.8	8.6	20.5	13.26
250	250	251.5	5	22.7	16.2	14.2	10.63	22.7	16.37
280	280	282.6	9.8	25.4	20.3	15.9	13.29	25.4	20.43
315	315	317.9	11.1	28.6	25.6	17.9	61.82	28.6	25.9
355	355	358.2	12.5	32.2	32.5	20.2	21.41	32.2	32.85
400	400	403.6	14	36.3	41.3	22.8	27.2	36.3	41.8
450	450	454.1	15.6	40.9	52.3	25.6	34.4	40.9	52.96
500	500	504.5	17.5	45.4	64.5	28.4	42.45	45.4	66.15
560	560	565	19.6	50.8	80.8	31.9	53.2	50.8	81.53
630	630	633.8	22.1	57.2	102	35.8	67.35	57.2	103.3

Max. [a]Grade B according to ISO11922-1

Maximum out of roundness for straight pipes [b c]

measurement of out-of-roundness shall be made at the point of manufacturing.

If other values for the out-of- roundness than those given in this table are necessary(eg coiled pipes), they shall be agreed between the manufacturer and the end user.

Other size on request.

Color: Black with yellow lines or Yellow.

ASTM D2513 “Standard Specification Polyethylene (PE) Gas Pressure Pipe, Tubing and Fitting

IPS HDPE Gas Distribution Pipe

PRESSURE RATING 4710			DR7	DR9	DR11	DR11	DR	DR17	DR 21	DR26	DR
Design Factor(DF)=0.4			125psi	125psi	125psi	122psi	102psi	80psi	64psi	NA	NA
Design Factor(DF)=0.32			125psi	125psi	102psi	98psi	82psi	64psi	51psi	41psi	33psi
IPS Pipe Size (In)	Nominal OD (in)	Nominal OD (mm)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)	Min.Wall (in)
1/2	0.84	21.336	0.12	0.093	0.076	0.073	0.062	-	-	-	-
3/4"	1.05	26.67	0.15	0.117	0.095	0.091	0.078	0.062	-	-	-
1"	1.315	33.401	0.188	0.146	0.12	0.114	0.097	0.077	-	-	-
1 1/4"	1.66	42.164	0.237	0.184	0.151	0.144	0.123	0.098	-	-	-
1 1/2"	1.9	48.26	0.271	0.211	0.173	0.165	0.141	0.112	-	-	-
2"	2.375	60.325	0.339	0.264	0.216	0.207	0.176	0.14	0.113	-	-
3"	3.5	88.9	0.5	0.389	0.318	0.304	0.259	0.206	0.167	-	-
4"	4.5	114.3	0.643	0.5	0.409	0.391	0.333	0.265	0.214	0.173	0.138
5"	5.563	141.3	-	0.618	0.506	-	0.412	0.327	0.265	-	-
6"	6.625	168.275	0.946	0.736	0.602	0.576	0.491	0.39	0.315	0.255	0.204
8"	8.625	219.075	1.232	0.958	0.784	0.75	0.639	0.507	0.411	0.332	0.265
10"	10.75	273.05	1.536	1.194	0.977	0.935	0.796	0.632	0.512	0.413	0.331
12"	12.75	323.85	1.821	1.417	1.159	1.109	0.944	0.75	0.607	0.49	0.392
PRESSURE RATING 4710		DF=0.32	100psi	100psi	100psi	100psi	82psi	64psi	51psi	41psi	33psi
14"	14	355.6	2	1.556	1.273	1.217	1.037	0.824	0.667	0.538	0.431
16"	16	406.4	2.286	1.778	1.455	1.391	1.185	0.941	0.762	0.615	0.492
18"	18	457.2	2.571	2	1.636	1.565	1.333	1.059	0.857	0.692	0.554
20"	20	508	2.857	2.222	1.818	1.739	1.481	1.176	0.952	0.769	0.615
22"	22	558.8	3.143	2.444	2	1.913	1.63	1.294	1.048	0.846	0.677
24"	24	609.6	3.429	2.667	2.182	2.087	1.778	1.412	1.143	0.923	0.738

Product Standard: ASTM D2513

Pipe Compound: ASTM D3350 PPI PE 4710/PE100 (Virgin Material Only)

PE4710/PE100 gas distribution pipe is manufactured in accordance with ASTM D 2513 for the underground distribution of natural gas, gaseous LPG, and yard gas.

Design Factor (DF) of 0.4 may be used for 12” and smaller PE4710 pipe produced. The maximum operating pressure for PE3408/PE4710/PE100 gas distribution pipe 12” and smaller is 125psig and 100psig for pipe larger than 12”, and 100psi for all pipe sizes.

High quality HDPE pipe requires that all PE materials used in gas distribution service meet a minimum of at least 100 hours for two tests before failure when tested per ASTM F1473. DEF Pipeline gas products are tested to over twenty times these minimum testing requirements.
The charts below show material physical properties, ASTM test methods for the property, and nominal values for Performance Pipe materials used for gas pipe.

PE4710-PE100 / (PE3408)			
Typical Physical Property Pipe Data Sheet			
Property	Unit	Test Procedure	Typical Value
Material Designation		PPI TR-4	PE4710 PE100
Cell Classi?cation		ASTM D3350	445574C
			YGH041T
Pipe Properties			
Density	gms / cm3	ASTM D1505	0.961 (black)
Melt Index (MI)	gms / 10	ASTM D1238	0.08
Condition 190/2.16	minutes		
Melt Index (HLMI)	gms / 10	ASTM D1238	7.5
Condition 190/21.6	minutes		
Hydrostatic Design Basis, (73°F)	psi	ASTM D2837	1,600
Hydrostatic Design Basis, (140°F)	psi	ASTM D2837	1,000
Minimum Required Strength	Mpa (psi)	ISO 9080	>10 (>1450)
Rapid Crack Propagation	Bar (psi)	ISO 13477	>12 bar (>174)
Critical Pressure (Pc), 0°C (32°F)(1)			
Color; UV Stabilizer	%	ASTM D3350	Min. 2% Carbon Black
			UV stabilized 10 years
Pipe Test Category		ASTM D2513	CEE
Material Properties			
Flexural Modulus @2% strain	psi	ASTM D790	>150,000
Tensile Strength at Yield	psi	ASTM D638 (Type IV)	>3,500
Elongation at Break	%	ASTM D638	>800
2 in/min., Type IV bar			
Hardness	Shore D	ASTM D2240	65
PENT	hrs	ASTM F1473	>2,000
Manufactured to ASTM D2513 for pipe. Fittings comply with ASTM D2513 and ASTM D3261.			
Thermal Properties			
Vicat Softening Temperature	oF	ASTM D1525	255
Brittleness Temperature	oF	ASTM D746	-180
Thermal Expansion	in / in / oF	ASTM D696	1.0 x 10-4
(1) Determination made using Small-Scale Steady state. Pc calculated in accordance with ISO 13477			
(2) NOTICE: This data sheet provides typical physical property information for polyethylene resins used to manufacture DEF Pipeline polyethylene piping products. It is intended for comparing polyethylene piping resins. It is not a product speci?cation, and it does not establish minimum or maximum values or manufacturing tolerances for resins or for piping products. Some of these typical physical property values were determined using compression molded plaques. Values obtained from tests of specimens taken from piping products can vary from these typical values. This data sheet may be changed from time to time without notice. Contact DEF Pipeline to determine if you			

At present, Def Pipeline can provide more than 210 different plastic pipe and pipe products, mainly used in water, gas and dredging systems, Fittings in 6 categories:

1. HDPE Butt Fusion welding Fittings.
2. HDPE Socket Fusion Fittings.
3. High Pressure HDPE Fittings
4. HDPE Electrofusion Fittings .
5. HDPE Fabricated Segments Fittings
6. Polypropylene(PP) Compression Fittings

All Def Pipeline products are inspected in strict accordance with international standards, even exceeded international standards. The complete product supply chain system, one-stop service concept and strict product production quality control system can fully meet the requirements of various industries and fields at home and abroad.

HDPE Butt Fusion welding Fittings

Def Pipeline provides HDPE fittings together with the HDPE pipes. We keep a variety of on-demand HDPE fittings in stock. Including the Socket fusion fittings, butt fusion fittings, electrofusion fittings, compression fittings, fabricated segments fittings and steel or metal backing rings, all related accessories from the diameter 20mm to 1200mm.

Fitting Type	Specified Fitting	Diameter(mm)	Pressure Rates
HDPE Butt Fusion Fitting	Reducing Coupler	DN75-800mm	PN10, PN12.5, PN16, PN20, PN25
	Tee	DN63-800mm	PN10, PN12.5, PN16, PN20, PN25
	Reducer Tee	DN75-800mm	PN10, PN12.5, PN16, PN20, PN25
	22.5 deg elbow	DN110-800mm	PN10, PN12.5, PN16, PN20, PN25
	30 deg elbow	DN63-800mm	PN10, PN12.5, PN16, PN20, PN25
	45 deg elbow	DN63-800mm	PN10, PN12.5, PN16, PN20, PN25
	90 deg elbow	DN63-800mm	PN10, PN12.5, PN16, PN20, PN25
	End Cap	DN75-1200mm	PN10, PN12.5, PN16, PN20, PN25
	Cross Tee	DN63-800mm	PN10, PN12.5, PN16, PN20, PN25
	Reducer Cross Tee	DN90-800mm	PN10, PN12.5, PN16, PN20, PN25
	Flange Adaptor/Stub End	DN50-1200mm	PN10, PN12.5, PN16, PN20, PN25
	Lateral Tee(45 deg Tee)	DN63-315mm	PN10, PN12.5, PN16, PN20, PN25
	Male Union	DN20-63mm 1/2'-2'	PN10, PN12.5, PN16, PN20, PN25
Other diameter (800-1200mm） and pressure rates(PN20, PN25) could be customized accordingly			

HDPE Socket Fusion Fittings

Def Pipeline can provide Socket fusion fitting including the elbow, tee, coupler, reducer, end caps, and stub ends, ball valves.

Fitting Type	Specified Fitting	Diameter(mm)	Pressure Rates
Socket Fusion Fitting	Coupler/Coupling	DN20-110mm	PN10, PN16
	Reducer/ Reducing Coupler	DN32*20 to DN110*90	PN10, PN16
	Tee	DN20-110mm	PN10, PN16
	Reducer Tee	DN25*20 to DN110*90	PN10, PN16
	Stub End	DN20-110mm	PN10, PN16
	End Cap	DN20-110mm	PN10, PN16
	45 deg elbow	DN20-110mm	PN10, PN16
	90 deg elbow	DN20-110mm	PN10, PN16
Threaded- Socket Fusion Fitting	Female coupler	DN20-110mm (1/2'-4')	PN10, PN16
	Male coupler	DN20-110mm (1/2'-4')	PN10, PN16
	Lifting Stop Valve	DN20-110mm (1/2'-4')	PN10, PN16
	Female Tee	DN20-63mm(1/2'-2')	PN10, PN16
	Male Tee	DN20-63mm(1/2'-2')	PN10, PN16
	Female Elbow 90 Deg	DN20-63mm(1/2'-2')	PN10, PN16
	PP Ball Valves	DN20-63mm(1/2'-2')	PN10, PN16
	Male Elbow 90 Deg	DN20-63mm (1/2'-2')	PN10, PN16
	Stop Valve	DN20-63mm	
	Female Union	DN20-63mm (1/2'-2')	PN10, PN16

High Pressure HDPE Fittings

DEF Pipeline It can be produced and processed according to ASTM, ISO 4427, EN12201, EN1555 and other standards, concentric reducer, eccentric reducer, tee, mud tee, pipe cap flange and other customized pipe fittings, etc., can be customized according to drawings. Range: 50-2000mm, pressure sdr17-sdr6, the pipe fittings produced by our company have been widely used in the field of gas and water supply.

Fitting	Specified Fitting	Diameter(mm)	Pressure Rates
High Pressure HDPE Fittings	Flange Adaptor/Stub End	DN50-2000mm(2 inch-80 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Concentric Reducer	DN50-1600mm(2 inch-64 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Eccentric Reducer	DN50-1600mm(2 inch-64 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Equal Tee	DN75-1000mm(3 inch-40 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Mud tee	DN75-1000mm(3 inch-40 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Reducer Tee	DN75-1000mm(3 inch-40 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	90 deg elbow	DN75-1200mm(3 inch-48 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Spigot End Cap	DN50-1600mm(2 inch-64 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Flnges and HDPE Blind	DN75-1600mm(3 inch-64 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Sweep Bends	DN75-1200mm(3 inch-48 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Hollow Bar	DN50-2300mm(2 inch-92 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32
	Solid Rod	DN50-1450mm(2 inch-58 inch)	PN10, PN12.5, PN16, PN20, PN25，PN32

HDPE Electrofusion Fittings

Electrofusion is most commonly used for jointing pipes up to 250mm diameter but there is no technical upper limit. It is nevertheless most commonly used for smaller diameter pipes because the cost of fittings increases with diameter. Electrofusion is equally suited to both coiled and straight pipe lengths, and can be used to joint pipes of different nominal diameters and SDR's using suitable fittings.

Fittings Type	Specified Fitting	Diameter(mm)	Pressure Rates
Electrofusion Fitting	EF Coupler/Coupling	DN50-1200mm	PN10, PN16, PN20
	EF Reducer/ Reducing Coupler	DN50-1200mm	PN10, PN16, PN20
	EF 45 deg elbow	DN50-800mm	PN10, PN16, PN20
	EF 90 deg elbow	DN50-800mm	PN10, PN16, PN20
	EF End Cap	DN50-800mm	PN10, PN16, PN20
	EF Stub End	DN50-1200mm	PN10, PN16, PN20
	EF Tee	DN50-800mm	PN10, PN16, PN20
	EF Reducer Tee	DN50-800mm	PN10, PN16, PN20

HDPE Fabricated Segments Fittings

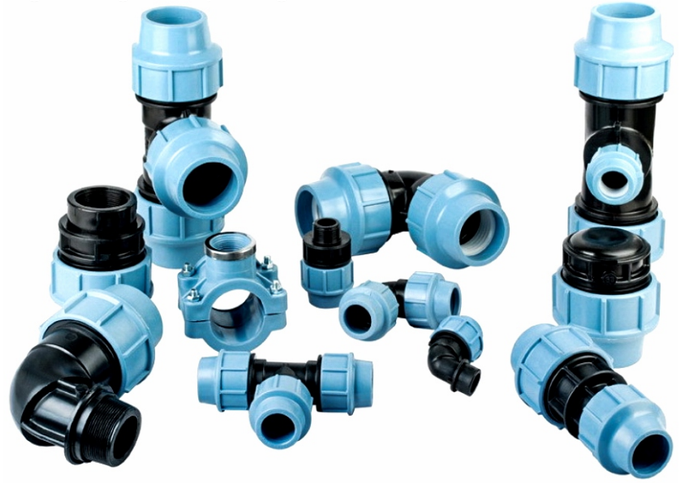
Fabricates segments PE fittings are made by the HDPE pipes according to international standards DIN 16963 or other specifications to meet the specific demands of the customer. Fabricated fittings are suitable for butt-fusion and electro- fusion joints, and it could be connected by the flanges.

Our fabricated HDPE fittings include fabricated elbows by short radius with 45 deg, 30deg, 60 deg 90 deg, 22.5, deg, 11.25deg elbows and other customized non-traditional angles (degree elbows) as clients' requirement, fabricated tees, fabricated reducing tees, fabricated sweep bends by R1.5D, R3D, lateral 45 deg tees, and other fabricated fittings as requirements from 50mm to 1600mm. All these fabricated fittings are produced and test in accordance with the standard DIN16963.

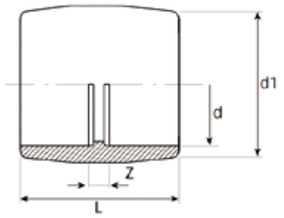
Fitting Types	Specified Fittings	Diameter(mm)	Pressure Rates
Fabricated Segments Fitting-Butt Fusion End	Elbow: 11.25 Deg, 30Deg, 45Deg, 60Deg，90Deg and other required degrees	DN110-1800mm	PN8, PN10, PN12.5, PN16
	Tee	DN110-1600mm	PN8, PN10, PN12.5, PN16
	Reducer Tee	DN110-1600mm	PN8, PN10, PN12.5, PN16
	Lateral Tee(45 deg Tee)	DN110-1200mm	PN8, PN10, PN12.5, PN16
	Cross Tee	DN110-1200mm	PN8, PN10, PN12.5, PN16
	Reducer Cross Tee	DN110-1200mm	PN8, PN10, PN12.5, PN16
	Special-shaped Stube, etc	DN110-1200mm	PN8, PN10, PN12.5, PN16
	Sweep Bend R1.5D, R3D	DN110-1200mm	PN8, PN10, PN12.5, PN16

Polypropylene(PP) Compression Fittings

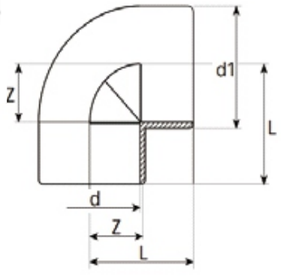
For small bore pipe connections up to size 125MM OD, compression type joints are satisfactory. The installation process started with the cutting of pipe ends square or 90º in relation to its axis. Fit the collar and clinching ring into the pipe and place the rubber O-ring at the tip of the pipe. Then push the body of the fitting until the pipe ends reaches its full stop. Slide the clinching ring and Collar(Nut) until it catches the fitting and tight fully using a belt or chain wrench.



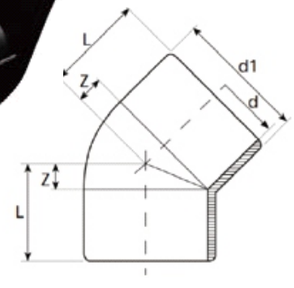
Fittings Type	Specified Fitting	Diameter(mm)	Pressure Rates
PP Compression Fitting	Coupling/Coupler	DN20-110mm	PN10, PN16
	Reducer/ Reducing Coupler	DN20-110mm	PN10, PN16
	Tee	DN20-110mm	PN10, PN16
	Reducer Tee	DN20-110mm	PN10, PN16
	45 deg elbow	DN20-110mm	PN10, PN16
	90 deg elbow	DN20-110mm	PN10, PN16
	Female coupler	DN20-110mm	PN10, PN16
	Male coupler	DN20-110mm	PN10, PN16
	Female 90 deg elbow	DN20-110mm	PN10, PN16
	Male 90 deg elbow	DN20-110mm	PN10, PN16
	Female Tee	DN20-110mm	PN10, PN16
	Male Tee	DN20-110mm	PN10, PN16
	Flanges	DN20-110mm	PN10, PN16
	Ball Valves	DN20-63mm	PN10, PN16
	Saddle Clamp	DN20-315mm	PN10, PN16



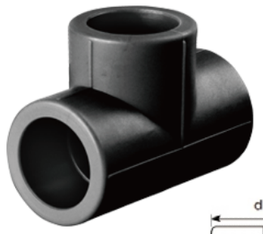
Equal Coupler			
d(mm)	d1(mm)	z(mm)	L(mm)
20	30.5	7	35
25	36	7	39
32	43.5	7	43
40	53.5	8	48
50	66	8	54
63	82	8	62
75	93	8	69.5
90	112	10.5	80.5
110	134.5	14	96

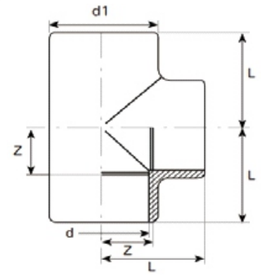


90 Deg Elbow			
d(mm)	d1(mm)	z(mm)	L(mm)
20	30.5	14	28
25	36	16	32
32	43.5	20	38
40	53.5	24	44
50	66	28	51
63	82	35	62
75	92.5	44.5	75.5
90	110	53	88
110	134	65	106

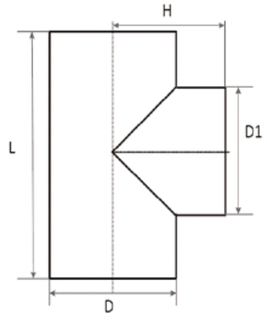


45 Deg Elbow			
d(mm)	d1(mm)	z(mm)	L(mm)
20	30.5	7	21
25	36	8	24
32	43.5	10	28
40	53	13	33
50	64	13	36
63	82	16	43
75	92.5	20	51
90	114	23	58
110	134	27	68

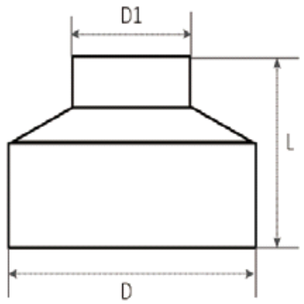




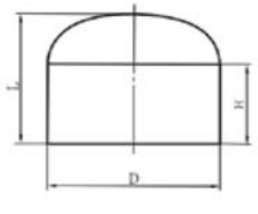
Equal Tee			
d(mm)	d1(mm)	z(mm)	L(mm)
20	30.5	14	28
25	36	16	32
32	43.5	20	38
40	53.5	24	44
50	66	28	51
63	82	35	62
75	92.5	44.5	75.5
90	110	53	88
110	134	65	106



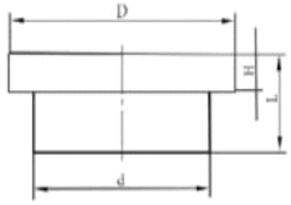
Reducing Tee				
Size	D (mm)	L (mm)	D1 (mm)	H (mm)
25 x 20	33	58	27	31
32 x 20	42	63	27	33
32 x 25	42	69	33	36
40 x 20	50	59	26	36
40 x 25	50	65	30	38
40 x 32	50	70	41	40
50 x 20	61	68	26	42
50 x 25	61	77	34	45
50 x 32	61	83	42	45
50 x 40	61	91	50	46
63 x 20	77	70	26	48
63 x 25	77	76	31	50
63 x 32	77	82	41	52
63 x 40	77	91	50	53
63 x 50	77	100	61	58
75 x 20	87	80	29	56
75 x 25	87	87	34	58
75 x 32	87	91	40	57
75 x 40	87	100	50	62
75 x 50	87	112	61	65
75 x 63	87	130	76	67
90 x 40	105	132	70	70
90 x 50	107	120	61	70
90 x 63	107	147	76	80
90 x 75	107	151	90	81
110 x 40	132	136	48	77
110 x 50	132	137	60	88
110 x 63	132	159	76	100
110 x 75	132	161	90	101
110 x 90	132	177	107	91



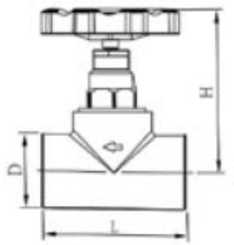
Reducing Coupler			
Size(mm)	D(mm)	D1(mm)	L (mm)
25 x 20	33	27	38
32 x 20	42	27	43
32 x 25	42	33	44
40 x 20	51	28	44
40 x 25	51	33	44
40 x 32	51	41	44
50 x 20	61	28	48
50 x 25	61	34	48
50 x 32	61	42	48
50 x 40	61	51	48
63 x 20	76	28	57
63 x 25	76	34	57
63 x 32	76	42	57
63 x 40	76	51	57
63 x 50	76	62	58
75 x 25	87	32	65
75 x 32	87	41	64
75 x 40	87	50	67
75 x 50	87	60	68
75 x 63	87	75	68
90 x 40	104	50	63
90 x 50	104	60	63
90 x 63	104	76	71
90 x 75	104	87	71
110 x 50	127	60	70
110 x 63	127	76	74
110 x 75	127	87	76
110 x 90	127	104	77



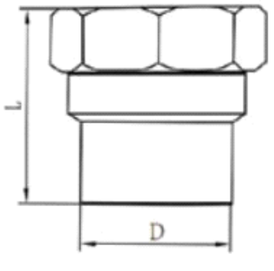
End Cap			
Size	D (mm)	H (mm)	L (mm)
20	27	18	20
25	33	20	23
32	42	23	25
40	51	27	28
50	63	29	31
63	76	31	41
75	91	32	51
90	108	51	69
110	126	45	59



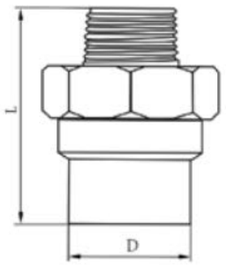
StubStub End (Flange Adapter)				
Size	D (mm)	d (mm)	H (mm)	L (mm)
50	85	63	30	14
63	98	78	34	14
75	121	94	40	15
90	125	110	44	17
110	160	126	50	20



Stop Valve			
Size	D (mm)	H (mm)	L (mm)
20	28	56	54
25	34	73	61
32	43	80	63
40	51	85	60
50	63	96	68
63	75	115	74

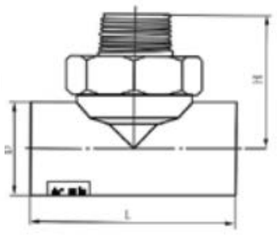


Female Threaded Coupling		
Size	D (mm)	L (mm)
20 x ½"	27	41
20 x ¾"	27	43
25 x ½"	33	44
25 x ¾"	33	46
32 x ½"	41	39
32 x ¾"	41	43
32 x 1"	41	50
40 x 1¼"	50	52
50 x 1½"	60	54
63 x 2"	77	64
75 x 2½"	90	70
90 x 3"	108	82
110 x 4"	131	85

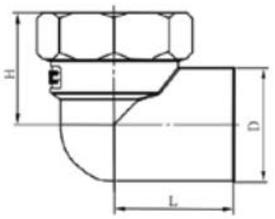


Male Threaded Coupling		
Size	D (mm)	L (mm)
20 x ½"	27	58
20 x ¾"	27	55
25 x ½"	33	58
25 x ¾"	33	60
32 x ½"	41	52
32 x ¾"	41	55
32 x 1"	41	65
40 x 1¼"	51	70
50 x 1½"	60	72
63 x 2"	76	83
75 x 2½"	90	94
90 x 3"	107	105
110 x 4"	131	115

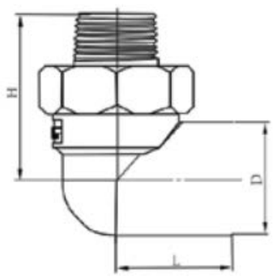
Female Threaded Tee			
Size	D (mm)	H (mm)	L (mm)
20 x ½"	27	31	51
25 x ½"	33	33	58
25 x ¾"	33	34	60
32 x ½"	41	37	61
32 x 3/4"	41	40	67
32 x 1"	41	41	72



Male Threaded Tee			
Size	D (mm)	H (mm)	L (mm)
20 x ½"	27	45	52
25 x ½"	33	47	58
25 x ¾"	33	48	60
32 x ½"	41	51	61
32 x 3/4"	41	52	67
32 x 1"	41	55	72

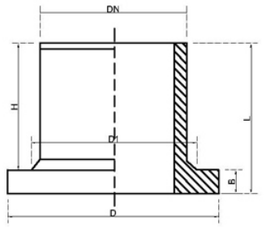


Female Threaded Elbow			
Size	D (mm)	H (mm)	L (mm)
20 x ½"	27	32	32
20 x ¾"	27	32	30
25 x ½"	33	34	33
25 x ¾"	33	36	35
32 x ½"	41	39	30
32 x ¾"	41	39	35
32 x 1"	41	40	36
40 x 1¼"	50	47	45
50 x 1½"	63	54	52
63 x 2"	77	67	61



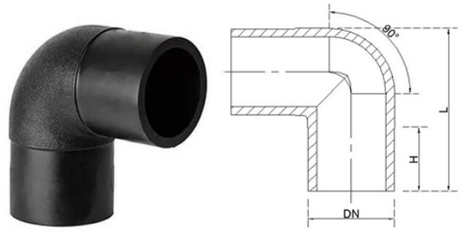
Male Threaded Elbow			
Size	D (mm)	H (mm)	L (mm)
20 x ½"	27	46	32
20 x ¾"	27	46	32
25 x ½"	33	48	33
25 x ¾"	33	48	35
32 x ½"	41	51	31
32 x ¾"	41	52	34
32 x 1"	41	55	36
40 x 1¼"	50	67	45
50 x 1½"	63	69	52
63 x 2"	77	79	61

HDPE Butt Fusion Flange Adapter (Stub End)



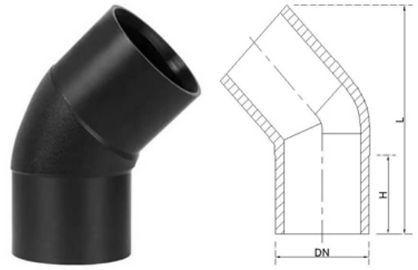
DN(mm)	L	H	D1	D
50	73	64	55	80
63	82	70	68	96
75	86	74	80	110
90	95	80	95	127
110	97	83	115	138
125	113	93	130	158
140	110	90	145	182
160	110	90	165	197
180	135	110	190	212
200	125	105	205	243
225	134	108	230	268
250	150	125	255	305
280	150	125	285	315
315	150	125	320	365
355	165	135	360	408
400	170	135	410	473
450	175	135	465	522
500	200	155	515	590
560	213	172	570	595
630	230	175	645	590
710	215	172	725	800
800	220	172	815	900
900	230	170	920	1000
1000	260	200	1020	1100
1200	300	225	1220	1300

HDPE Butt Fusion 90 Degree Elbow



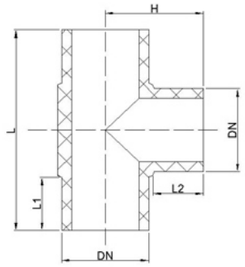
DN(mm)	L	H
63	133	65
75	150	75
90	160	65
110	170	58
125	215	80
140	225	80
160	240	70
180	280	90
200	290	80
225	350	110
250	360	100
280	395	108
315	415	100
355	460	100
400	525	110
450	590	120
500	660	135
560	720	140
630	790	145
710	900	170
800	990	170

HDPE Butt Fusion 45 Degree Elbow



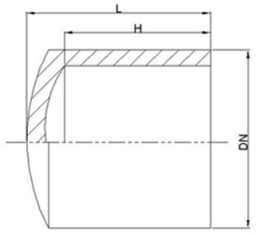
DN(mm)	L	H
63	170	65
75	190	70
90	195	65
110	190	58
125	238	80
140	255	80
160	255	70
180	300	90
200	300	80
225	365	110
250	365	100
280	400	108
315	405	100
355	430	100
400	490	110
450	560	130
500	610	135
560	650	135
630	710	145
710	830	170
800	900	170

HDPE Butt Fusion Tee



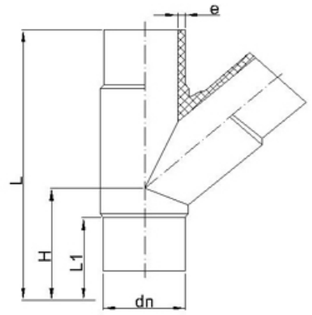
DN(mm)	L	L1	L2	H
63	182	58	56	90
75	232	70	70	117
90	240	70	70	120
110	238	57	57	118
125	305	80	80	150
140	320	80	80	160
160	325	75	75	163
180	400	90	90	197
200	385	85	85	195
225	400	85	80	200
250	430	90	95	230
280	535	110	110	267
315	500	90	95	275
355	555	90	110	295
400	600	90	110	320
450	750	135	150	405
500	800	135	170	455
560	910	140	170	475
630	970	150	160	485
710	1140	210	210	570
800	1260	230	230	630

HDPE Butt Fusion End Ca



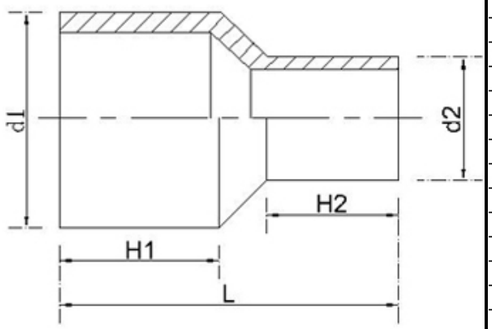
DN(mm)	L	H
63	52	43
75	45	35
90	70	60
110	70	55
125	60	48
140	85	70
160	85	70
180	105	90
200	90	75
225	130	115
250	95	85
280	140	120
315	115	90
355	140	115
400	130	100
450	140	115
500	140	115
560	150	115
630	150	115
710	160	125
800	160	125
900	160	125
1000	160	125
1200	200	155

HDPE Y Tee



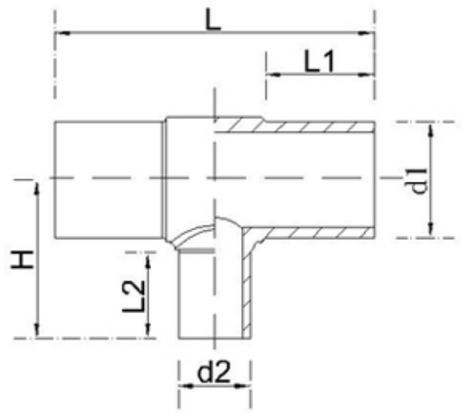
Name	dn(mm)	SDR	L(mm)	H	L1(m
Y Tee	63*45°	11	230	85	58
Y Tee	75*45°	11	280	90	68
Y Tee	90*45°	11	315	100	70
Y Tee	110*45°	11	400	130	90
Y Tee	110*45°	17	400	130	90
Y Tee	125*45°	11	420	135	95
Y Tee	160*45°	11	485	150	105
Y Tee	160*45°	17	485	150	105
Y Tee	200*45°	11	605	180	115
Y Tee	200*45°	17	605	180	115
Y Tee	225*45°	11	700	200	125
Y Tee	225*45°	17	700	200	125
Y Tee	250*45°	11	700	200	125
Y Tee	250*45°	17	700	200	125
Y Tee	280*45°	11			
Y Tee	280*45°	17			
Y Tee	315*45°	11			
Y Tee	315*45°	17			

HDPE Butt Fusion Reducing Coupler



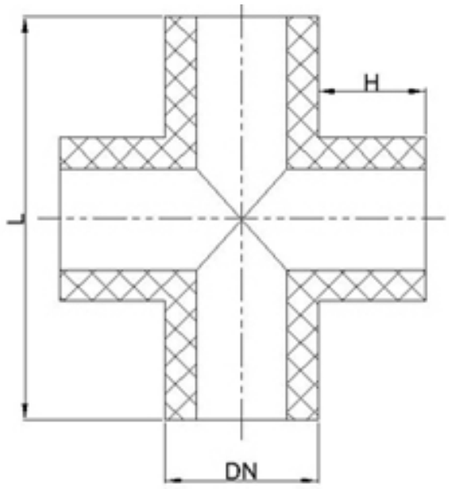
DN(mm) SIZE(dn1-dn2)	L	H1	H2	DN(mm) SIZE(dn1-dn2)	L	H1	H2
S75-50	130	56	58	S450-280	255	105	110
S75-63	130	59	64	S450-315	250	105	110
S90-50	132	55	55	S450-355	245	105	120
S90-63	132	55	56	S450-400	245	105	120
S90-75	132	55	62	S500-200	280	98	105
S110-50	130	58	50	S500-225	280	98	105
S110-63	130	58	52	S500-250	280	98	110
S110-75	130	58	54	S500-280	280	98	110
S110-90	130	58	56	S500-315	275	98	110
S125-63	183	78	70	S500-355	275	98	110
S125-75	183	78	68	S500-400	275	98	120
S125-90	183	78	68	S500-450	275	98	120
S125-110	183	78	72	S560-315	280	105	110
S140-63	180	80	65	S560-355	265	105	110
S140-75	180	80	70	S560-400	260	105	120
S140-90	180	80	70	S560-450	250	105	120
S140-110	180	80	75	S560-500	240	105	120
S140-125	180	80	70	S630-315	285	110	100
S160-63	203	85	67	S630-355	285	110	110
S160-75	208	85	67	S630-400	275	110	120
S160-90	214	85	83	S630-450	275	110	120
S160-110	214	85	83	S630-500	260	110	120
S160-125	214	85	85	S630-560	255	110	130
S180-110	200	80	100	S710-315	330	120	120
S180-125	200	80	100	S710-355	330	120	120
S180-140	20	80	100	S710-400	314	120	120
S180-160	170	80	80	S710-450	300	120	120
S200-63	218	75	67	S710-500	287	120	120
S200-75	218	75	75	S710-560	277	120	120
S200-90	218	75	93	S710-630	260	120	120
S200-110	218	75	97	S800-315	348	120	120
S200-160	210	75	100	S800-355	335	120	120
S200-180	210	75	108	S800-400	328	120	120
S225-110	218	80	87	S800-450	320	120	120
S225-160	218	80	80	S800-500	305	120	120
S225-200	218	80	90	S800-560	290	120	120
S250-110	260	90	100	S800-630	282	120	120
S250-160	230	90	93	S800-710	268	120	120
S250-200	230	90	97	S900-315			
S250-225	230	90	100	S900-355			
S280-110	255	105	95	S900-400			
S280-125	245	105	100	S900-450			
S280-140	245	105	100	S900-500			
S280-160	245	105	105	S900-560			
S280-180	245	105	105	S900-630			
S280-200	245	105	120	S900-710			
S280-225	245	105	120	S900-800			
S280-250	245	105	130	S1000-315			
S315-110	235	90	87	S1000-355			
S315-160	235	90	85	S1000-400			
S315-200	240	90	90	S1000-450			
S315-225	240	90	105	S1000-500			
S315-250	240	90	100	S1000-560			
S315-280	240	90	110	S1000-560			
S355-110	270	105	100	S1000-710			
S355-160	275	105	110	S1000-800			
S355-200	260	105	110	S1000-900			
S355-225	255	105	110	S1200-315			
S355-250	240	105	110	S1200-355			
S355-280	235	105	110	S1200-400			
S355-315	230	105	110	S1200-450			
S400-200	270	100	110	S1200-500			
S400-225	265	100	110	S1200-560			
S400-250	250	100	110	S1200-630			
S400-315	230	100	110	S1200-710			
S400-355	225	100	110	S1200-800			
S450-200	270	105	100	S1200-900			
S450-250	270	105	105	S1200-1000			

HDPE Butt Fusion Reducing Tee



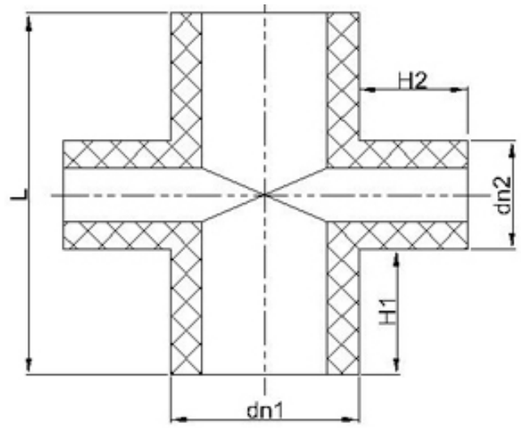
DN(mm) SIZE(dn1-dn2)	L	L1	L2	H	DN(mm) SIZE(dn1-dn2)	L	L1	L2	H
T75-50	199	70	55	94	T400-90	290	90	100	310
T75-63	220	70	65	107	T400-110	310	90	100	310
T90-50	213	75	60	110	T400-160	360	90	100	310
T90-63	213	70	60	110	T400-200	400	90	100	310
T90-75	238	80	70	118	T400-250	450	90	100	310
T110-50	178	58	60	120	T400-315	515	90	100	310
T110-63	178	58	60	120	T400-355	555	90	100	310
T110-75	206	60	65	120	T450-110	375	120	120	365
T110-90	206	60	60	120	T450-125	464	150	120	365
T125-63	305	80	70	145	T450-160	464	130	120	365
T125-75	305	80	70	145	T450-200	464	120	120	365
T125-90	305	80	75	150	T450-225	545	150	130	375
T125-110	305	80	75	150	T450-250	545	140	130	375
T140-63	253	75	70	150	T450-280	600	140	140	385
T140-75	253	75	75	155	T450-315	600	130	140	385
T140-90	253	75	75	155	T450-355	660	140	160	405
T140-110	253	70	80	160	T450-400	670	120	160	405
T140-125	320	80	80	160	T500-110	398	130	135	420
T160-50	205	74	61	150	T500-160	495	140	135	420
T160-63	205	71	61	150	T500-200	495	135	135	420
T160-75	232	71	66	155	T500-225	545	150	135	420
T160-90	232	71	66	155	T500-250	545	135	135	420
T160-110	275	75	80	170	T500-280	630	155	145	430
T160-125	380	98	100	195	T500-315	635	145	145	430
T160-140	383	100	100	195	T500-355	700	150	160	445
T180-63	270	85	75	180	T500-400	705	140	160	445
T180-75	270	85	75	180	T500-450	800	150	170	455
T180-90	270	85	80	180	T560-110	410	135	140	445
T180-110	270	85	85	185	T560-125	430	135	140	445
T180-160	400	90	85	185	T560-160	450	135	140	445
T200-63	248	86	66	175	T560-200	508	135	140	445
T200-75	248	86	66	175	T560-225	545	150	140	445
T200-90	283	86	71	180	T560-250	545	135	140	445
T200-110	283	86	71	180	T560-280	600	150	145	450
T200-160	353	85	85	200	T560-315	605	135	145	450
T225-63	250	85	70	200	T560-355	710	150	160	465
T225-75	250	85	70	200	T560-400	720	135	160	465
T225-90	285	90	75	200	T560-450	825	150	170	475
T225-110	285	85	75	200	T560-500	825	140	170	475
T225-160	335	85	75	200	T630-110	475	145	135	480
T225-200	400	85	75	200	T630-160	475	140	140	485
T250-63	257	90	95	228	T630-200	550	150	145	490
T250-75	255	90	95	228	T630-225	555	150	145	490
T250-90	283	90	95	228	T630-250	555	140	145	490
T250-110	285	90	95	228	T630-280	660	160	145	490
T250-160	342	90	95	228	T630-315	665	160	145	490
T250-200	380	90	95	228	T630-355	720	150	160	505
T280-63	300	100	90	240	T630-400	725	145	160	505
T280-75	300	100	90	240	T630-450	800	150	180	525
T280-90	300	100	90	240	T630-500	808	140	180	525
T280-110	300	100	100	240	T710-110	505	190	160	520
T280-160	387	100	100	250	T710-160	545	190	160	520
T280-200	387	100	105	250	T710-200	585	190	160	520
T280-250	530	110	105	260	T710-250	630	190	160	520
T315-63	255	90	95	275	T710-315	710	195	160	520
T315-75	255	90	95	275	T710-400	790	195	175	535
T315-90	280	90	95	275	T710-500	890	195	200	560
T315-110	280	90	95	275	T710-630	1020	195	200	560
T315-160	336	90	95	275	T800-110	500	180	160	570
T315-200	378	90	95	275	T800-160	590	200	160	570
T315-250	428	90	95	275	T800-200	590	180	160	570
T355-90	290	90	100	287	T800-250	630	170	160	570
T355-110	310	90	100	287	T800-315	720	190	160	570
T355-160	360	90	100	287	T800-355	720	180	180	590
T355-200	400	90	100	287	T800-400	800	190	180	590
T355-250	450	90	100	287	T800-500	890	190	210	620
T355-315	515	90	100	287	T800-630	1020	190	210	620
					T800-710	1100	195	210	620

HDPE Butt Fusion Cross



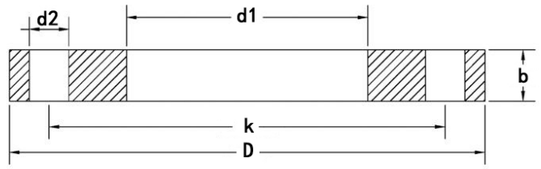
DN(mm)	L	H
63	184	60
75	203	65
90	240	75
110	275	85
125	295	85
160	370	105
200	435	110
225	442	110
250	493	120
315	558	120
355	640	140
400	685	140
450	740	140
500	810	150
560	875	150
630	960	160
710	1140	210
800	1280	235

HDPE Butt Fusion Reducing Cross



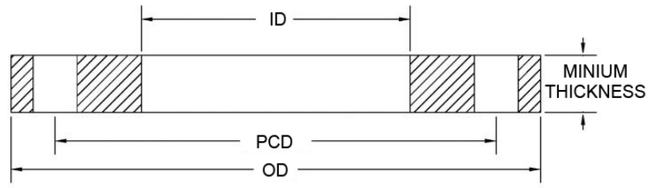
DN(mm)	L	H1
SIZE(dn1-dn2)		
90-63	240	85
110-63	225	80
125-75	295	110
160-110	370	105
200-110	433	110
200-160	435	110
225-160	380	110
250-110	355	110
250-160	405	105
250-200	408	100
280-110	300	100
315-200	445	120
355-200	485	140
400-200	490	140
450-200	490	140
450-315	605	140
500-110	420	150
500-160	470	150
500-200	510	150
500-250	565	150
500-315	625	150
560-200	515	150
560-315	625	150
630-200	530	160
630-315	660	160
710-200	630	210
710-315	745	210
800-200	630	210
800-400	845	220
800-630	1020	190

Flanges and blind flanges according to standard ANSI B16.5/150 PSI and 300 PSI



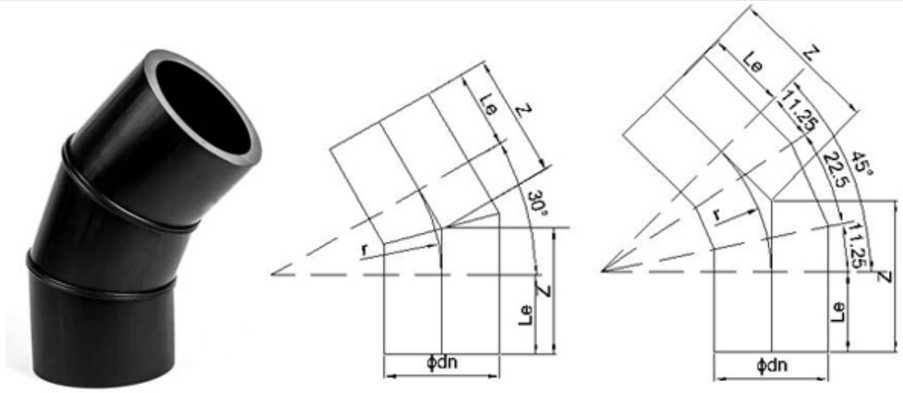
DIAMETER PIPE		NORMA ANSI B16.5 150 PSI						NORMA ANSI B16.5 300 PSI				
		DIMENSIONS				BOLTS		DIMENSIONS			BOLTS	
NOMINAL	EQUIVALENTE	D	k	d1	b	N°	d2	D	k	b	N°	d2
mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	1/2	88.9	60.3	32	10	4	15.9	95.3	66.6	14.2	4	15.75
25	3/4	98.6	69.8	38	11	4	15.9	117.4	82.6	15.7	4	19.05
32	1	108	79.4	45	13	4	15.9	124	88.9	17.5	4	19.05
40	1 1/4	117.3	88.9	55	14	4	15.9	133.4	98.6	19.1	4	19.05
50	1 1/2	127	98.4	66	16	4	15.9	155.5	114.3	20.6	4	19.05
63	2	152.4	120.8	78	17	4	19.1	165.1	127	22.4	8	19.05
75	2 1/2	177.8	139.7	92	21	4	19.1	180.5	149.4	25.4	8	22.35
90	3	190.5	152.4	108	22	4	19.1	209.6	168.2	28.4	8	22.35
110	4	228.6	190.5	128	22	8	19.1	254	200.2	31.8	8	22.35
125	5	254	215.9	135	22	8	22.2	279.4	235	35.1	8	22.35
140	5 1/2	254	215.9	158	22	8	22.2	279.4	235	35.1	8	22.35
160	6	279.4	241.3	178	24	8	22.2	317.5	269.8	36.6	12	22.35
180	6	279.4	241.3	188	24	8	22.2	317.5	269.8	36.6	12	22.35
200	8	342.9	298.4	235	27	8	22.2	371	330.2	41.1	12	25.4
225	8	342.9	298.4	238	27	8	22.2	381	330.2	41.1	12	25.4
250	10	406.4	362	288	29	12	25.4	444.5	387.4	47.8	16	28.45
280	10	406.4	362	294	29	12	25.4	444.5	387.4	47.8	16	28.45
315	12	482.6	431.8	338	30	12	25.4	520.7	450.9	50.8	16	31.75
355	14	533.4	476.2	376	33	12	28.6	584.2	514.4	53.8	20	31.75
400	16	596.9	539.7	430	35	16	28.6	647.7	571.5	57.2	20	35.05
450	18	635	577.8	497	38	16	31.7	711.2	628.7	60.5	24	35.05
500	20	698.5	635	533	41	20	31.7	774.7	685.8	63.5	24	35.05
560	22	748	692.2	585	44	20	34.9	838.2	742.9	65	24	38.1
630	24	812	749.3	645	46	20	34.9	914.4	812.8	68.4	24	41.15
710	28	927	864	740	50	28	34.9	1035.1	939.8	79.5	28	50.8
800	32	1060.0	977.9	843	56	28	41.3	1092.2	997	82.6	28	50.8
900	36	1168.0	1086.0	947	59	32	41.3	1270	1168.4	87.9	32	57.15
1000	40	1289.0	1200.1	1050	62	36	41.3	1378	1276.4	92.2	36	57.15
1200	48	1511.0	1422.0	1260	69	44	41.3	1651	1543.1	114.3	40	57.15

PP Coated Backing Ring/PP Fiber Backing Ring with HDPE flange adaptors



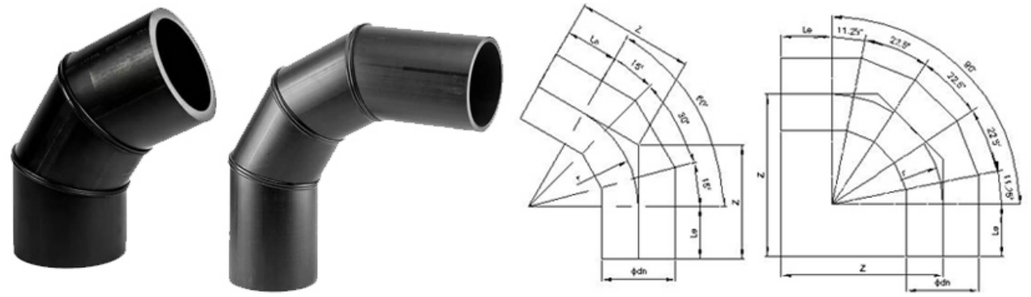
PP FIBER BACKINNG RING										
Butt fusion systems inch/ANSI										
Connection dimensions according to ANSI B 16.5,ASTM D 4024;bolt circle class 150										
d	DN	PN	OD	PCD	ID	Bolt Hole Dia	Thickness	Bolt No.	SC	kg
1 1/4"	32	16	140	89	51	16	20	4	M16	0.25
1 1/2"	40	16	150	98	62	16	22	4	M16	0.31
2“	50	16	165	121	78	19	24	4	M16	0.38
2 1/2”	65	16	185	140	92	19	26	4	M16	0.51
3“	80	16	200	152	108	19	27	4	M16	0.59
4”	100	16	229	190	128	19	28	8	M16	0.76
6“	150	16	285	241	178	22	32	8	M20	1.2
8”	200	16	340	296.5	238	22	34	8	M20	1.55
10“	250	16	406	362	294	26	38	12	M20	2.23
12”	300	16	483	432	338	26	42	12	M20	3.9
Socket fusion systems inch/ANSI										
Connection dimensions according to ANSI B 16.5,ASTM D 4024;bolt circle class 150										
d	DN	PN	OD	PCD	ID	Bolt Hole Dia	Thickness	Bolt No.	SC	kg
1 1/4"	32	16	140	89	51	16	20	4	M16	0.25
1 1/2"	40	16	150	98	62	16	22	4	M16	0.31
2“	50	16	165	121	78	19	24	4	M16	0.38
2 1/2”	65	16	185	140	92	19	26	4	M16	0.51
3“	80	16	200	152	110	19	27	4	M16	0.58
4”	100	16	229	190	133	19	28	8	M16	0.73
6“	150	16	285	241	190	22	32	8	M20	1.09
8”	200	16	340	296.5	250	22	34	8	M20	1.39
10“	250	16	406	362	310	26	38	12	M20	1.91
12”	300	16	483	432	348	26	42	12	M20	3.66

HDPE Fabricated Segments Sweep Bend



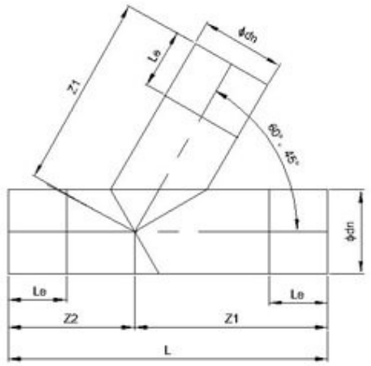
Φdn	Φdn	r	Le min	Z min(mm)	
mm	inch	mm	mm	45°	30°
90	3	135	100	156	136
110	4	165	150	218	194
125	5	188	150	228	200
140	5.5	210	150	237	206
160	6	240	150	249	214
180	6	270	150	262	222
200	8	300	150	274	230
225	8	338	150	290	241
250	10	375	250	412	350
280	10	420	250	424	362
315	12	473	300	498	428
355	14	533	300	520	443
400	16	600	300	548	461
450	18	675	300	580	481
500	20	750	350	665	551
560	22	840	350	698	575
630	24	945	350	741	603
710	28	1065	350	792	636
800	32	1200	350	847	672
900	36	1350	400	960	762
1000	40	1500	400	1022	802
1200	48	1800	400	1146	882
1400	54	2100	400	1270	963
1600	64	2400	400	1394	1043
r=1,5d					

HDPE Fabricated Segments Sweep Bend



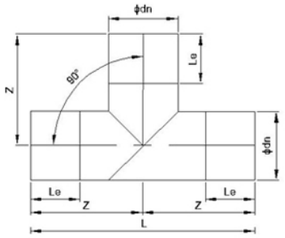
Φdn	Φdn	r	Le min	Z min(mm)	
mm	inch	mm	mm	90°	60°
90	3	135	100	235	178
110	4	165	150	315	245
125	5	188	150	338	258
140	5 1/2	210	150	360	271
160	6	240	150	440	288
180	6	270	150	470	305
200	8	300	150	500	323
225	8	338	150	538	345
250	10	375	250	625	466
280	10	420	250	670	492
315	12	473	300	773	576
355	14	533	300	833	608
400	16	600	300	900	646
450	18	675	300	975	689
500	20	750	350	1100	783
560	22	840	350	1190	835
630	24	945	350	1295	896
710	28	1065	350	1415	965
800	32	1200	350	1550	1043
900	36	1350	400	1750	1179
1000	40	1500	400	1900	1266
1200	48	1800	400	2200	1439
1400	54	2100	400	2500	1612
1600	64	2400	400	2800	1786
r=1,5d					

Fabricated HDPE Y Tee



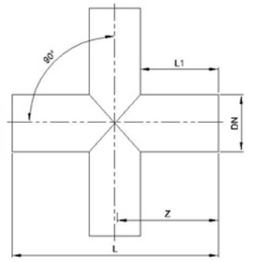
Φdn	Φdn	Le min	L min	Z1 min	Z2 min
mm	inch	mm	mm	mm	mm
90	3	100	650	385	265
110	4	150	700	425	275
125	5	150	745	455	290
140	5 1/2	150	781	475	306
160	6	150	842	512	330
180	6	150	900	550	350
200	8	150	959	587	375
225	8	150	1030	630	400
250	10	250	1305	780	525
280	10	250	1395	830	565
315	12	300	1490	890	600
355	14	300	1555	930	625
400	16	300	1650	1000	650
450	18	300	1725	1050	675
500	20	350	1900	1150	750
560	22	350	1980	1200	780
630	24	350	2045	1250	795
710	28	350	2170	1340	830
800	32	350	2310	1430	880
900	36	400	2310	1620	970
1000	40	400	2590	1660	1010
1200	48	400	2680	1750	1100
1400	54	400	3000	1800	1200
1600	64	400	3000	1800	1200

Fabricated HDPE Tee



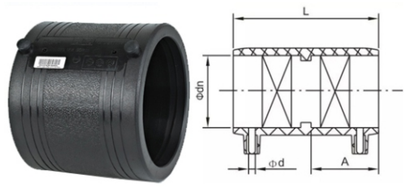
Φdn	Φdn	Le min	L min	Z min
mm	inch	mm	mm	mm
90	3	100	590	295
110	4	150	610	305
125	5	150	630	315
140	5.5	150	640	320
160	6	150	660	330
180	6	150	680	340
200	8	150	700	350
225	8	150	730	365
250	10	250	1150	575
280	10	250	1180	590
315	12	300	1320	660
355	14	300	1360	680
400	16	300	1400	700
450	18	300	1450	725
500	20	350	1600	800
560	22	350	1660	830
630	24	350	1730	865
710	28	350	1810	905
800	32	350	1900	950
900	36	400	2100	1050
1000	40	400	2200	1100
1200	48	400	2400	1200
1400	54	400	2400	1200
1600	64	400	2400	1200

Fabricated HDPE Cross Tee



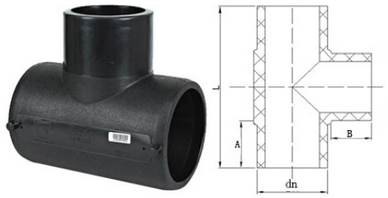
DN	DN	L	L1
mm	inch	mm	mm
50	1 1/2	390	170
63	2	403	170
75	2 1/2	415	170
90	3	430	170
110	4	670	280
125	5	685	280
140	5 1/2	700	280
160	6	720	280
180	6	780	300
200	8	800	300
225	8	825	300
250	10	850	300
280	10	880	300
315	12	915	300
355	14	1155	400
400	16	1200	400
450	18	1750	650
500	20	1800	650

Electrofusion Coupler



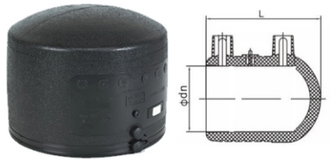
Φdn	L	A	Φd
20	85	40	4.7
25	90	43	4.7
32	90	43	4.7
40	97	47	4.7
50	95	45	4.7
63	110	50	4.7
75	120	55	4.7
90	135	65	4.7
110	155	75	4.7
125	169	83	4.7
140	170	80	4.7
160	195	95	4.7
180	210	103	4.7
200	220	105	4.7
225	230	110	4.7
250	240	115	4.7
280	226	109	4.7
315	285	135	4.7
355	290	140	4.7
400	315	150	4.7
450	320	155	4.7
500	330	160	4.7
560	340	160	4.7
630	420	200	4.7

Electrofusion Equal Tee



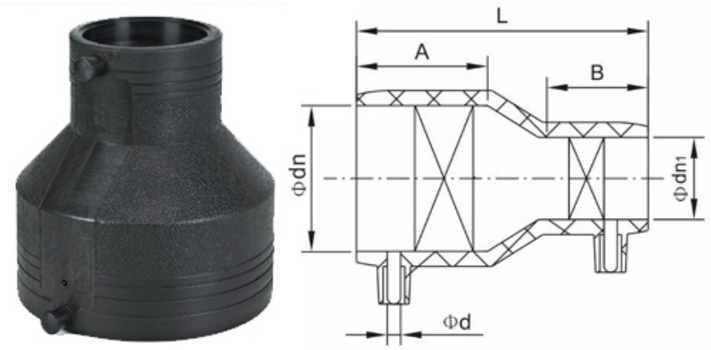
Φdn	L	A	B
20	100	40	44
25	105	42	50
32	120	45	55
40	126	45	60
50	145	55	60
63	175	50	55
75	205	55	60
90	230	65	70
110	265	75	75
125	255	80	85
140	320	80	80
160	365	95	100
180	340	95	105
200	435	105	110
225	460	110	110
250	485	125	140
315	575	140	145
355	660	140	140
400	740	150	150
450	785	155	155
500	845	160	160

End Cap



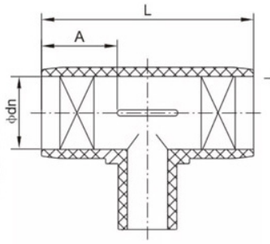
Φdn	L
20	82
25	82
32	84
40	97
50	101
63	115
75	125
90	133
110	164
125	175
140	236
160	202
180	214
200	215
225	222
250	220

HDPE Electrofusion Reducing Coupler



Φdn × Φdn1	L	A	B	Φd	Φdn × Φdn1	L	A	B	Φd
25×20	92	42	37	4.7	200×160	250	105	90	4.7
32×20	94	42	40	4.7	225×110	260	105	76	4.7
32×25	94	42	40	4.7	225×160	260	115	85	4.7
40×25	100	50	40	4.7	225×200	260	115	94	4.7
40×32	102	50	40	4.7	250×110	280	115	80	4.7
50×25	112	55	40	4.7	250×160	280	120	90	4.7
50×32	112	55	42	4.7	250×200	280	120	100	4.7
50×40	115	55	50	4.7	250×225	280	120	89	4.7
63×25	121	60	40	4.7	315×160	310	140	90	4.7
63×32	122	60	40	4.7	315×200	310	140	100	4.7
63×40	120	60	45	4.7	315×225	310	140	100	4.7
63×50	120	50	50	4.7	315×250	310	140	112	4.7
75×50	135	55	50	4.7	355×250	310	140	98	4.7
75×63	135	55	50	4.7	400×250	310	160	114	4.7
90×50	155	65	55	4.7	400×315	310	160	112	4.7
90×63	155	65	55	4.7	450×110	360	170		4.7
90×75	175	65	60	4.7	450×160	360	170		4.7
110×63	163	79	55	4.7	450×250	360	170		4.7
110×75	155	73	63	4.7	450×315	360	170		4.7
110×90	156	77	65	4.7	450×400	360	170		4.7
125×63	160	80	60	4.7	500×110	350	180		4.7
125×90	168	83	70	4.7	500×140	350	180		4.7
125×110	168	88	69	4.7	500×160	350	180		4.7
160×90	230	75	75	4.7	500×250	350	180		4.7
160×110	230	95	75	4.7	500×315	350	180		4.7
160×125	193	95	75	4.7	500×355	350	180		4.7
200×90	210	90	75	4.7	500×400	350	180		4.7
200×110	290	105	80	4.7	500×450	350	180		4.7

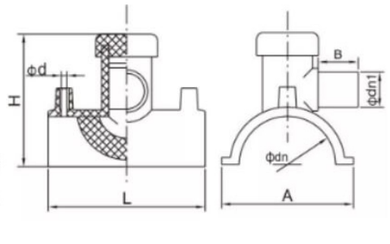
HDPE Electrofusion Reducing Tee



Φdn × Φdn1	L	A	B
25×20	105	42	50
32×20	120	45	50
32×25	120	45	50
40×20	125	45	55
40×25	125	45	55
40×32	125	45	55
50×25	145	50	50
50×32	145	50	55
50×40	145	50	55
63×25	130	50	55
63×32	135	50	55
63×40	140	50	55
63×50	165	50	60
75×32	195	70	60
75×40	195	70	65
75×50	195	70	65
75×63	195	70	70
90×32	210	70	60
90×40	210	70	60
90×50	210	70	60
90×63	210	70	65
90×75	210	70	70
110×32	240	75	63
110×40	240	75	63
110×50	240	75	63
110×63	240	75	63
110×75	240	75	70
110×90	240	75	80
125×90	255	80	85

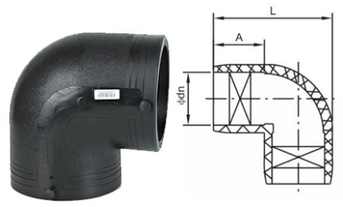
Φdn × Φdn1	L	A	B
140×90	280	85	80
160×40	305	90	50
160×63	230	90	75
160×75	305	90	75
160×90	250	90	95
160×110	270	90	95
160×125	285	90	95
200×63	360	95	63
200×90	360	95	63
200×110	360	95	70
200×160	360	95	90
225×110	395	100	85
225×160	395	100	100
250×90	405	100	80
250×110	405	100	95
250×160	405	100	110
250×200	405	98	110
315×110	525	134	95
315×160	525	134	95
315×200	525	134	95
315×250	525	134	102
355×160			
355×250			
355×315			
400×110	600	121	98
400×160	600	127	99
400×200	600	127	119
400×250	600	127	108
400×315	600	127	124

HDPE Tapping Tee



Φdn × Φdn1	L	A	B	H
63×20	115	100	50	120
63×25	115	100	50	120
63×32	115	100	65	120
90×20	130	140	55	145
90×25	130	140	55	145
90×32	130	140	55	145
90×50	140	130	75	185
90×63	140	140	85	140
110×20	130	155	55	130
110×25	130	155	55	130
110×32	130	155	60	130
110×40	145	160	60	145
110×50	145	160	60	145
110×63	145	160	70	145
160×25	142	195	65	142
160×32	142	195	70	142
160×50	190	240	85	190
160×63	190	240	85	190
160×90	190	240	120	190
200×63	190	250	85	190
200×90	190	250	120	190
225×32	190	250	65	190
225×63	190	250	85	190
225×90	190	250	120	190
250×63	190	305	90	190
250×90	190	305	115	190
315×63	190	315	85	190
315×90	190	315	155	190

90 Degree Elbow

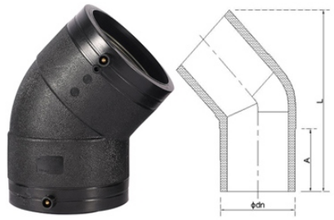


Φdn × 90°	L	A
25×90°	86	42
32×90°	94	43
40×90°	95	48
50×90°	112	52
63×90°	130	54
75×90°	152	64
90×90°	173	64
110×90°	200	73
125×90°	225	79
140×90°	238	79
160×90°	265	80
180×90°	295	85
200×90°	330	100
225×90°	355	104
250×90°	395	114
315×90°	482	128
355×90°	523	126
400×90°	590	139
450×90°	650	155
500×90°	705	160

Electrofusion Stub End

Φdn	L	A
50	115	90
63	120	105
75	130	125
90	145	140
110	150	160
140	155	190
160	160	215
200	180	270
225	175	315
250	130	325
315	135	380
355	170	450
400	160	495
450	190	560
500	230	580
560	240	650
630	270	750

45 Elbow Fittings



Φdn × 45°	L	A
50×45°	135	50
63×45°	180	63
75×45°	167	63
90×45°	230	84
110×45°	285	90
125×45°	245	80
140×45°	270	85
160×45°	285	85
200×45°	330	100
225×45°	350	104
250×45°	420	114
315×45°	470	130
355×45°	495	128
400×45°	580	138

PVC-U Water Supply Pipe

Unplasticized polyvinyl chloride(PVC-U) pipe for water supply is an all-plastic product made of high-molecular material—polyvinyl chloride as the main material, added with high-performance processing aids, and formed by high-speed extrusion, which is similar to traditional pipes. Compared with, it has the advantages of light weight, corrosion resistance, low water flow resistance, energy saving, quick installation and low cost.

Pipes are added with high-efficiency and excellent heat stabilizers in the process of processing and forming, which are environmentally friendly and ensure the sanitary performance of pipes. They are widely used in municipal buried water supply and drainage, water supply and drainage in buildings, township water supply, agricultural irrigation and drainage, electricity, Various pipelines such as communication sheath, chemical corrosion protection and conveying other media.

Applications

1. Municipal buried water supply and drainage
2. Water supply and drainage in the building
3. Township water supply
4. Agricultural irrigation and drainage
5. Jacket for power communication
6. Chemical corrosion protection and transportation of other media, etc.

PVC-U Drainage Pipe

Benefits of PVC-U Pipes for Water Applications:

1. Easy to install, long service life, service life up to 50 years under normal working conditions.
2. Excellent physical properties, corrosion resistance, chemical resistance, temperature resistance, high impact strength, it is an ideal material for building drainage and sewage.
3. The fluid resistance is small, the inner wall of the pipe is smooth, and it does not scale. The head loss of the pipe with the same diameter is lower than that of the cast iron pipe by more than 30%, and the conveying is efficient.
4. High mechanical strength, the tensile strength of the pipe can reach more than 45Mpa, water pressure resistance, external pressure resistance, and high impact resistance.

5. Light weight, convenient handling and unloading, PVC pipe is light in weight, the weight is only 1/6 of cast iron pipe, transportation and installation costs are low, and the total project cost is 30% less than cast iron pipe.
6. It is non-toxic and sanitary, meets drinking water standards, and the transported water is not subject to secondary pollution, and is widely used in tap water pipelines.

PVC-M High Impact Pipe

Rigid polyvinyl chloride (PVC-U) pipe fittings for building drainage use polyvinyl chloride resin as the main material, add high-performance processing aids, and a full-plastic product through high-speed extrusion or injection molding, and traditional pipes In comparison, it has the advantages of light weight, corrosion resistance, low water flow resistance, energy saving, quick installation and low cost. On the basis of rigid polyvinyl chloride (PVC-U) pipe fittings used in traditional building drainage, the process formula is improved to improve the anti-ultraviolet performance of the pipe, which can avoid the aging and discoloration caused by light exposure.

Applications

1. Drainage inside and outside the building or buried
2. UV resistant PVC rain downspout
3. Industrial sewage
4. Ventilation pipes, etc.

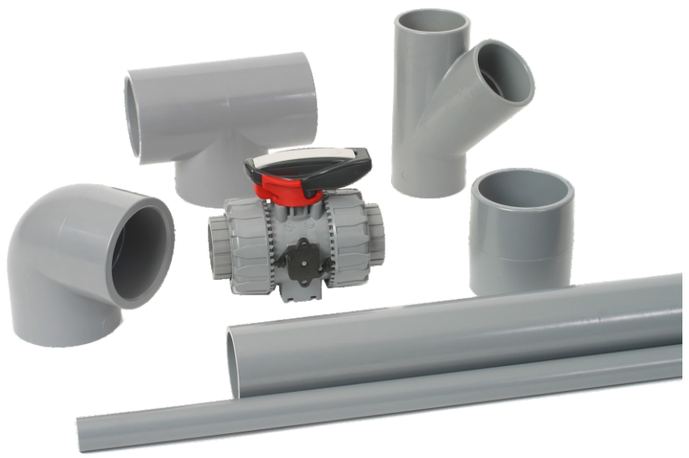
PVC-M High Impact Pipe

Benefits of PVC-U Pipes for drainage Applications:

1. Using domestic and foreign high-quality raw materials, it can effectively prevent aging and other chemical corrosion caused by environmental factors such as ultraviolet light, thermal stability, and improve the service life of the product.
2. Excellent physical properties, corrosion resistance, chemical resistance, temperature resistance, high impact strength, it is an ideal material for building drainage and sewage.
3. The inner and outer walls of the pipe fittings are smooth, the friction coefficient is small, no scaling, the fluid resistance is small, and the fluid conveying efficiency is improved.
4. The pipe fittings are light and durable, convenient for transportation, installation, maintenance and maintenance, which can effectively accelerate the progress of the project and reduce the construction cost.
5. The product is complete, the design is reasonable, the structure is compact, and the connection reliability is good, which fully meets various design and construction requirements.
6. The product is beautiful in color, bright and smooth, which can make the environment in the building feel clean and relaxed.

PVC-M High Impact Pipe

Water supply high-impact pipes (PVC-M) absorb foreign advanced technology, while maintaining the high-strength characteristics of PVC materials, through physical modification, the ductility and crack resistance of the materials are enhanced, and they have better toughness and High pressure bearing capacity. The products have been tested by authoritative organizations such as the National Plastic Products Quality Supervision and Testing Center and the Chinese Center for Disease Control and Prevention, and meet the requirements of relevant product national standards and corporate standards, reaching the domestic advanced level.



Applications

1. Reclaimed water system for indoor water supply system of civil and industrial buildings.
2. Buried water supply system in residential area.
3. Water treatment plant piping system .
4. Marine aquaculture.
5. Garden irrigation, well sinking and other projects.

PVC-M High Impact Pipe

Benefits of PVC-M High Impact Pipe:

1. Excellent toughness and impact resistance, can effectively resist point loads and uneven foundation settlement.
2. Strong chemical resistance, acid resistance, alkali resistance, and corrosion resistance.
3. The fluid resistance is small, the inner wall of the pipe is smooth, and it does not scale.
4. The construction is simple, the pipe has superior impact resistance and good toughness, which can effectively adapt to the construction environment and reduce the cost of the project.
5. Light weight, convenient handling, saving construction costs.
6. It has good water tightness, and the pipe adopts looper socket or TS socket joint.

PVC-UH Water Supply Pipe

The high-performance rigid polyvinyl chloride pipe (PVC-UH) for water supply is made of polyvinyl chloride (PVC compound) with a minimum required strength (MRS) greater than or equal to 25MPa, which is extruded and has an integrated steel skeleton seal ring bearing Pipes with mouth structure. The PVC-UH pipes produced by DEF Pipeline use high-efficiency and excellent heat stabilizers and advanced production technology to ensure the quality and sanitary performance of the pipes.

Applications

1. Water supply in pipe gallery.
2. Municipal water supply, drainage and sewage .
3. Building water supply .
4. Township water supply .
5. Chemical medium transportation.

PVC-UH Water Supply Pipe

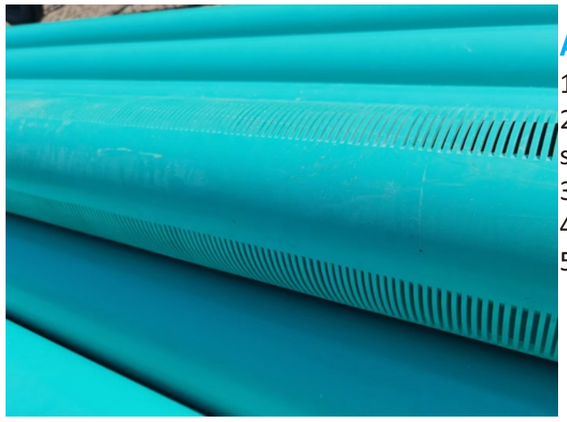
Benefits of PVC-UH Pipes for Water Applications:

1. Excellent quality, life can be more than 50 years, advanced production technology.
2. It has good water pressure resistance, high ring stiffness, good impact resistance and water hammer resistance. The distance between the two plates in the flattening experiment reaches 40% of the outer diameter of the pipe.
3. Excellent chemical resistance, good acid resistance, alkali resistance, and chemical resistance.
4. The construction is simple, the pipe has superior impact resistance and good toughness, which can effectively adapt to the construction environment and reduce the cost of the project.

5. Light weight, convenient handling, saving construction costs.
6. The pipes are connected by a steel frame integrally formed rubber ring or large-diameter all-plastic pipe fittings, making the connection more stable and ensuring water tightness.

PVC Casing Pipe&Filter Pipe

The PVC-U water well piping system is a new type of plastic piping product developed by Def Pipeline in the course of decades of production practice based on the characteristics of the PVC-U series of water supply piping and market demand. The "Def Pipeline" brand PVC-U water well piping system consists of a special PVC-U well wall pipe and a PVC-U water filter pipe, and the connection adopts a high-strength threaded connection. PVC-U water filter pipe is processed by Def Pipeline's patented slitting equipment.



Applications

1. Water supply in pipe gallery.
2. Municipal water supply,drainage and sewage.
3. Building water supply.
4. Township water supply .
5. Chemical medium transportation.

PVC Casing Pipe&Filter Pipe

Benefits of PVC Casing Pipe&Filter Pipe Applications:

1. Excellent quality, life can be more than 50 years, advanced production technology.
2. It has good water pressure resistance, high ring stiffness, good impact resistance and water hammer resistance. The distance between the two plates in the flattening experiment reaches 40% of the outer diameter of the pipe
3. PVC-U is a very stable macromolecular polymer, which hardly reacts with chemical substances such as acid, alkali, salt, etc. It is suitable for wells of various water quality, especially in recent years, the wide application of submersible electric pumps
4. The density of PVC-U pipe is greater than 1, between 1.35-1.46. The weight of the pipe is slightly greater than the buoyancy of the mud. When the pipe is run in sequence, the pipe can be run smoothly without great lifting force. It is safe and reliable, with low labor intensity. The transportation is labor-saving and convenient.
5. Light weight, convenient handling, saving construction costs, compared with steel well pipes of the same specification, the price of PVC-U well wall pipe is 1/3 lower than that of steel pipe.
6. The pipes are connected by a steel frame integrally formed rubber ring or large-diameter all-plastic pipe fittings, making the connection more stable and ensuring water tightness.

CPVC Power Pipe

CPVC power pipe is usually used as a cable protection pipe. The product has the characteristics of high strength, good flexibility, high temperature resistance, corrosion resistance, flame retardant, good insulation performance, no pollution, not easy to age, light weight, and convenient construction. The performance indicators have reached or exceeded the level of similar products in China through national and provincial testing, identification and certification. Product performance is better than traditional asbestos cable pipe and ordinary PVC pipe.

Applications

1. Construction and transformation of urban power grids.
2. Urban municipal renovation project.
3. Civil aviation airport engineering construction.
4. Construction of engineering parks and communities.
5. Traffic, road and bridge engineering construction, urban street lamp cable laying.

CPVC Power Pipe

Benefits of CPVC Power Pipe Applications:

1. The CPVC power pipe has good heat resistance, can maintain no deformation in an environment above 93℃, and has sufficient strength.
2. Good insulation performance, CPVC power pipes can withstand high voltages above 30,000 volts.
3. PVC-C material has good flame-retardant properties and can be extinguished immediately after leaving the fire.
4. The construction is simple, the pipe has superior impact resistance and good toughness, which can effectively adapt to the construction environment and reduce the cost of the project.
5. Light weight, convenient handling, saving construction costs.
6. CPVC power pipes can withstand 1kg heavy hammer and 2m height impact at 0℃, which fully reflects the low temperature impact performance of the material is fully suitable for the requirements of construction environmental conditions.

Specification of PVC Pipes

DIN 8061/62 :2009 : PVC-U Pressure Pipes (SF=2.5)

SF	2.5		2.5		2.5		2.5		2.5		2.5		2.5		2.5		2.5		2.5	
PN	1.6		4		5		6		8		10		12.5		16		20		25	
S	S 63		S 25		S 20		S 16.7		S 12.5		S 10		S 8		S 6.3		S 5		S 4	
SDR	SDR 127		SDR 51		SDR 41		SDR 34.4		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9	
Nominal Outside Diameter DN(mm)	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.	e Min.	e Max.
	Wall Thickmess (mm)																			
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	1.6	1.5	1.9	1.8	2.2
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.9	1.9	2.3	2.3	2.8
25	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.9	1.9	2.3	2.3	2.8	2.8	3.3
32	-	-	-	-	-	-	-	-	-	-	1.6	2	1.9	2.3	2.4	2.9	2.9	3.4	3.6	4.2
40	-	-	-	-	-	-	-	-	1.6	2	1.9	2.3	2.4	2.9	3	3.5	3.7	4.3	4.5	5.2
50	-	-	-	-	-	-	1.5	1.9	2	2.4	2.4	2.9	3	3.5	3.7	4.3	4.6	5.3	5.6	6.4
63	-	-	-	-	1.6	2	1.9	2.3	2.5	3	3	3.5	3.8	4.4	4.7	5.4	5.8	6.6	7	7.9
75	-	-	1.5	1.9	1.9	2.3	2.2	2.7	2.9	3.4	3.6	4.2	4.5	5.2	5.6	6.4	6.8	7.7	8.4	9.5
90	-	-	1.8	2.2	2.2	2.7	2.7	3.2	3.5	4.1	4.3	5	5.4	6.2	6.7	7.6	8.2	9.3	10.1	11.4
110	1.8	2.2	2.2	2.7	2.7	3.2	3.2	3.8	4.2	4.9	5.3	6.1	6.6	7.5	8.1	9.2	10	11.2	12.3	13.8
125	1.8	2.2	2.5	3	3.1	3.7	3.7	4.3	4.8	5.5	6	6.8	7.4	8.4	9.2	10.4	11.4	12.8	14	15.6
140	1.8	2.2	2.8	3.3	3.5	4.1	4.1	4.8	5.4	6.2	6.7	7.6	8.3	9.4	10.3	11.6	12.7	14.2	15.7	17.5
160	1.8	2.2	3.2	3.8	4	4.6	4.7	5.4	6.2	7.1	7.7	8.7	9.5	10.7	11.8	13.2	14.6	16.3	17.9	19.9
180	1.8	2.2	3.6	4.2	4.4	5.1	5.3	6.1	6.9	7.8	8.6	9.7	10.7	12	13.3	14.9	16.4	18.3	20.1	22.4
200	1.8	2.2	3.9	4.5	4.9	5.6	5.9	6.7	7.7	8.7	9.6	10.8	11.9	13.3	14.7	16.4	18.2	20.3	22.4	24.9
225	1.8	2.2	4.4	5.1	5.5	6.3	6.6	7.5	8.6	9.7	10.8	12.1	13.4	15	16.6	18.5	20.5	22.8	25.2	28
250	2	2.4	4.9	5.6	6.2	7.1	7.3	8.3	9.6	10.8	11.9	13.3	14.8	16.5	18.4	20.5	22.7	25.2	27.9	30.9
280	2.2	2.7	5.5	6.3	6.9	7.8	8.2	9.3	12	13.4	13.4	15	16.6	18.5	20.6	22.9	25.4	28.2	31.3	34.7
315	2.5	3	6.2	7.1	7.7	8.7	9.2	10.4	13.5	15.1	15	16.7	18.7	20.8	23.2	25.8	28.6	31.7	-	-
355	2.8	3.3	7	7.9	8.7	9.8	10.4	11.7	15.2	17	16.9	18.8	21.1	23.5	26.1	29	-	-	-	-
400	3.2	3.8	7.9	8.9	9.8	11	11.7	13.1	17.1	19.1	19.1	21.3	23.7	26.3	29.4	32.6	-	-	-	-
450	3.6	4.2	8.8	9.9	11	12.3	13.2	14.8	19.2	21.4	21.5	23.9	26.7	29.6	-	-	-	-	-	-
500	4	4.6	9.8	11	12.3	13.8	14.6	16.3	21.4	23.8	23.9	26.5	29.7	32.9	-	-	-	-	-	-
560	4.4	5.1	11	12.3	13.7	15.3	16.4	18.3	23.9	26.5	26.7	29.6	-	-	-	-	-	-	-	-
630	5	5.7	12.3	13.8	15.4	17.2	18.4	20.5	26.9	29.8	30	33.2	-	-	-	-	-	-	-	-
710	5.6	6.4	13.9	15.5	17.4	19.4	20.7	23	30.3	33.6	-	-	-	-	-	-	-	-	-	-
800	6.3	7.2	15.7	17.5	19.6	21.8	23.3	25.9	-	-	-	-	-	-	-	-	-	-	-	-
900	7.1	8.1	17.6	19.6	22	24.4	26.3	29.2	-	-	-	-	-	-	-	-	-	-	-	-
1000	7.9	8.9	19.6	21.8	24.5	27.2	29.2	32.4	-	-	-	-	-	-	-	-	-	-	-	-
1200	9.5	10.7	23.5	26.1	29.4	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1400	11.1	12.5	27.4	30.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1600	12.6	14.1	31.3	34.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: S = pipe series, SF = safety factor2.5, PN = working pressure at 20℃ for 50 years of service

Suitable for water supply , sewerage and ducting applications.

DIN 8061/62 :2009 : PVC-U Pressure Pipes (SF=2.0)

SF	2		2		2		2		2		2		2		2		2		2	
PN	2		5		6		8		10		12.5		16		20		25		32	
S	S 63		S 25		S 20		S 16.7		S 12.5		S 10		S 8		S 6.3		S 5		S 4	
SDR	SDR 127		SDR 51		SDR 41		SDR 34.4		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9	
Nominal Outside Diameter DN(mm)	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max	e Min	e Max
	Wall Thickmess (mm)																			
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	1.6	1.5	1.9	1.8	2.2
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.9	1.9	2.3	2.3	2.8
25	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.9	1.9	2.3	2.3	2.8	2.8	3.3
32	-	-	-	-	-	-	-	-	-	-	1.6	2	1.9	2.3	2.4	2.9	2.9	3.4	3.6	4.2
40	-	-	-	-	-	-	-	-	1.6	2	1.9	2.3	2.4	2.9	3	3.5	3.7	4.3	4.5	5.2
50	-	-	-	-	-	-	1.5	1.9	2	2.4	2.4	2.9	3	3.5	3.7	4.3	4.6	5.3	5.6	6.4
63	-	-	-	-	1.6	2	1.9	2.3	2.5	3	3	3.5	3.8	4.4	4.7	5.4	5.8	6.6	7	7.9
75	-	-	1.5	1.9	1.9	2.3	2.2	2.7	2.9	3.4	3.6	4.2	4.5	5.2	5.6	6.4	6.8	7.7	8.4	9.5
90	-	-	1.8	2.2	2.2	2.7	2.7	3.2	3.5	4.1	4.3	5	5.4	6.2	6.7	7.6	8.2	9.3	10.1	11.4
110	1.8	2.2	2.2	2.7	2.7	3.2	3.2	3.8	4.2	4.9	5.3	6.1	6.6	7.5	8.1	9.2	10	11.2	12.3	13.8
125	1.8	2.2	2.5	3	3.1	3.7	3.7	4.3	4.8	5.5	6	6.8	7.4	8.4	9.2	10.4	11.4	12.8	14	15.6
140	1.8	2.2	2.8	3.3	3.5	4.1	4.1	4.8	5.4	6.2	6.7	7.6	8.3	9.4	10.3	11.6	12.7	14.2	15.7	17.5
160	1.8	2.2	3.2	3.8	4	4.6	4.7	5.4	6.2	7.1	7.7	8.7	9.5	10.7	11.8	13.2	14.6	16.3	17.9	19.9
180	1.8	2.2	3.6	4.2	4.4	5.1	5.3	6.1	6.9	7.8	8.6	9.7	10.7	12	13.3	14.9	16.4	18.3	20.1	22.4
200	1.8	2.2	3.9	4.5	4.9	5.6	5.9	6.7	7.7	8.7	9.6	10.8	11.9	13.3	14.7	16.4	18.2	20.3	22.4	24.9
225	1.8	2.2	4.4	5.1	5.5	6.3	6.6	7.5	8.6	9.7	10.8	12.1	13.4	15	16.6	18.5	20.5	22.8	25.2	28
250	2	2.4	4.9	5.6	6.2	7.1	7.3	8.3	9.6	10.8	11.9	13.3	14.8	16.5	18.4	20.5	22.7	25.2	27.9	30.9
280	2.2	2.7	5.5	6.3	6.9	7.8	8.2	9.3	12	13.4	13.4	15	16.6	18.5	20.6	22.9	25.4	28.2	31.3	34.7
315	2.5	3	6.2	7.1	7.7	8.7	9.2	10.4	13.5	15.1	15	16.7	18.7	20.8	23.2	25.8	28.6	31.7	-	-
355	2.8	3.3	7	7.9	8.7	9.8	10.4	11.7	15.2	17	16.9	18.8	21.1	23.5	26.1	29	-	-	-	-
400	3.2	3.8	7.9	8.9	9.8	11	11.7	13.1	17.1	19.1	19.1	21.3	23.7	26.3	29.4	32.6	-	-	-	-
450	3.6	4.2	8.8	9.9	11	12.3	13.2	14.8	19.2	21.4	21.5	23.9	26.7	29.6	-	-	-	-	-	-
500	4	4.6	9.8	11	12.3	13.8	14.6	16.3	21.4	23.8	23.9	26.5	29.7	32.9	-	-	-	-	-	-
560	4.4	5.1	11	12.3	13.7	15.3	16.4	18.3	23.9	26.5	26.7	29.6	-	-	-	-	-	-	-	-
630	5	5.7	12.3	13.8	15.4	17.2	18.4	20.5	26.9	29.8	30	33.2	-	-	-	-	-	-	-	-
710	5.6	6.4	13.9	15.5	17.4	19.4	20.7	23	30.3	33.6	-	-	-	-	-	-	-	-	-	-
800	6.3	7.2	15.7	17.5	19.6	21.8	23.3	25.9	-	-	-	-	-	-	-	-	-	-	-	-
900	7.1	8.1	17.6	19.6	22	24.4	26.3	29.2	-	-	-	-	-	-	-	-	-	-	-	-
1000	7.9	8.9	19.6	21.8	24.5	27.2	29.2	32.4	-	-	-	-	-	-	-	-	-	-	-	-
1200	9.5	10.7	23.5	26.1	29.4	32.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1400	11.1	12.5	27.4	30.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1600	12.6	14.1	31.3	34.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: S = pipe series, SF = safety factor 2.0, PN = working pressure at 20℃ for 50 years of service

Suitable for water supply , sewerage and ducting applications.

EN ISO 1452-2 : Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure - Unplasticized poly(vinyl chloride) (PVC-U)

Nominal Outside Diameter	Pipe Series S						
	S 20	S 16	S 12.5	S 10	S 8	S 6.3	S 5
	SDR 41	SDR 33	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11
	Nominal Pressure PN based on disign coefficient C = 2.5						
DN	Nominal (minimum) Wall Thickness						
mm		PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20
12	-	-	-	-	-	-	1.5
16	-	-	-	-	-	-	1.5
20	-	-	-	-	-	1.5	1.9
25	-	-	-	-	1.5	1.9	2.3
32	-	-	1.5	1.6	1.9	2.4	2.9
40	-	1.5	1.6	1.9	2.4	3	3.7
50	-	1.6	2	2.4	3	3.7	4.6
63	-	2	2.5	3	3.8	4.7	5.8
75	-	2.3	2.9	3.6	4.5	5.6	6.8
90	-	2.8	3.5	4.3	5.4	6.7	8.2
DN	Nominal Pressure PN based on disign coefficient C = 2.0 [a]						
mm	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
110	2.7	3.4	4.2	5.3	6.6	8.1	10
125	3.1	3.9	4.8	6	7.4	9.2	11.4
140	3.5	4.3	5.4	6.7	8.3	10.3	12.7
160	4	4.9	6.2	7.7	9.5	11.8	14.6
180	4.4	5.5	6.9	8.6	10.7	13.3	16.4
200	4.9	6.2	7.7	9.6	11.9	14.7	18.2
225	5.5	6.9	8.6	10.8	13.4	16.6	-
250	6.2	7.7	9.6	11.9	14.8	18.4	-
280	6.9	8.6	10.7	13.4	16.6	20.6	-
315	7.7	9.7	12.1	15	18.7	23.2	-
355	8.7	10.9	13.6	16.9	21.1	26.1	-
400	9.8	12.3	15.3	19.1	23.7	29.4	-
450	11	13.8	17.2	21.5	26.7	33.1	-
500	12.3	15.3	19.1	23.9	29.7	36.8	-
560	13.7	17.2	21.4	26.7	-	-	-
630	15.4	19.3	24.1	30	-	-	-
710	17.4	21.8	27.2	-	-	-	-
800	19.6	24.5	30.6	-	-	-	-
900	22	27.6	-	-	-	-	-
1000	24.5	30.6	-	-	-	-	-

[a] To apply a design coe? cient of 2.5 (instead of 2.0) for pipes with normal diameters above 90mm, the next higher pressure rating, PN , shall be chosen.
The nominal wall thickness conform to ISO 4065.
The PN6 values for S 20 and S 16 are calculated with the preferred number 6.3.

ISO 4422-2 Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply - Specifications

Nominal outside diameters (DN) and nominal wall thickness en based on an overall service (design) coefficient of C = 2.5								
Nominal Outside Diameter DN(mm)	Pipe Series S , SDR Series and Nominal Pressure PN Equivalents							
	S 20	S 16.7	S 16	S 12.5	S 10	S 8	S 6.3	S 4
	SDR 41	SDR 34.4	SDR 33	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 9
	PN 5	PN 6	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 25
	Nominal Wall Thickness e_n							
10	-	-	-	-	-	-	-	1.5
12	-	-	-	-	-	-	-	1.5
16	-	-	-	-	-	-	1.5	1.8
20	-	-	-	-	-	-	1.5	2.3
25	-	-	-	-	-	1.5	1.9	2.8
32	-	-	-	-	1.6	1.9	2.4	3.6
40	-	-	1.5	1.6	1.9	2.4	3	4.5
50	-	-	1.6	2	2.4	3	3.7	5.6
63	1.6	1.9	2	2.5	3	3.8	4.7	7.1
75	1.9	2.2	2.3	2.9	3.6	4.5	5.6	8.4
90	2.2	2.7	2.8	3.5	4.3	5.4	6.7	10.1

Nominal outside diameters (DN) and nominal wall thickness en based on an overall service (design) coefficient of C = 2.0							
Nominal Outside Diameter DN(mm)	Pipe Series S , SDR Series and Nominal Pressure PN Equivalents						
	S 20	S 16	S 12.5	S 10	S 8	S 6.3	S 5
	SDR 41	SDR 33	SDR 21	SDR 21	SDR 17	SDR 13.6	SDR 11
	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
	Nominal Wall Thickness en						
110	2.7	3.4	4.2	5.3	6.6	8.1	10
125	3.1	3.9	4.8	6	7.4	9.2	11.4
140	3.5	4.3	5.4	6.7	8.3	10.3	12.7
160	4	4.9	6.2	7.7	9.5	11.8	14.6
180	4.4	5.5	6.9	8.6	10.7	13.3	16.4
200	4.9	6.2	7.7	9.6	11.9	14.7	18.2
225	5.5	6.9	8.6	10.8	13.4	16.6	-
250	6.2	7.7	9.6	11.9	14.8	18.4	-
280	6.9	8.6	10.7	13.4	16.6	20.6	-
315	7.7	9.7	12.1	15	18.7	23.2	-
355	8.7	10.9	13.6	16.9	21.1	26.1	-
400	9.8	12.3	15.3	19.1	23.7	29.4	-
450	11	13.8	17.2	21.5	26.7	33.1	-
500	12.3	15.3	19.1	23.9	29.7	36.8	-
560	13.7	17.2	21.4	26.7	-	-	-
630	15.4	19.3	24.1	30	-	-	-
710	17.4	21.8	27.2	-	-	-	-
800	19.6	24.5	30.6	-	-	-	
900	22	27.6	-	-	-	-	-
1000	24.5	30.6	-	-	-	-	-

To apply an overall design (service) coe? cient C of 2.5 for pipes with normal diameters in this table, the next higher pressure rating, PN , shall be selected, e.g an S10 series pipes rated at PN 12.5 will be selected for PN10 applications when a C of 2.5 is required.

BS 3505: Specification for unplasticized polyvinyl chloride (PVC-U) pressure pipes for cold potable water*

Nominal Size	Outside Diameter (mm)		Wall Thickness (mm)					
			Class C		Class D		Class E	
			9 bar		12 bar		15 bar	
inch	Min	Max	Min	Max	Min	Max	Min	Max
1/2	21.2	21.5	-	-	-	-	1.7	2.1
3/4	26.6	26.9	-	-	-	-	1.9	2.5
1	33.4	33.7	-	-	-	-	2.2	2.7
1 1/4	42.1	42.4	-	-	2.2	2.7	2.7	3.2
1 1/2	48.1	48.4	-	-	2.5	3	3.1	3.7
2	60.2	60.5	2.5	3	3.1	3.7	3.9	4.5
3	88.7	89.1	3.5	4.1	4.6	5.3	5.7	6.6
4	114.7	114.5	4.5	5.2	6	6.9	7.3	8.4
5	140	140.4	5.5	6.4	7.3	8.4	9	10.4
6	168	168.5	6.6	7.6	8.8	10.2	10.8	12.5
8	218.8	219.4	7.8	9	10.3	11.9	12.6	14.5
10	272.6	273.4	9.7	11.2	12.8	14.8	15.7	18.1
12	323.4	324.3	11.5	13.3	15.2	17.5	18.7	21.6
14	355	356	12.6	14.5	16.7	19.2	20.5	23.6
16	405.9	406.9	14.5	16.7	19	21.9	23.4	27
18	456.7	457.7	16.3	18.8	21.4	24.6	-	-
20	507.5	508.5	18.1	20.9	-	-	-	-
24	609.1	610.1	21.7	25	-	-	-	-

Pressure ratings for working pressures at 20℃

BS 3506: Specification for unplasticized PVC pipe for industrial uses*

Nominal Size	Outside Diameter (mm)		Wall Thickness (mm)									
			Class O		Class B		Class C		Class D		Class E	
			non pressure		6 bar		9 bar		12 bar		15 bar	
			Individual Value		Individual Value		Individual Value		Individual Value		Individual Value	
inch	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)
1/2	21.2	21.5	-	-	-	-	-	-	-	-	1.7	2.1
3/4	26.6	26.9	-	-	-	-	-	-	-	-	1.9	2.5
1	33.4	33.7	-	-	-	-	-	-	-		2.2	2.7
1 1/4	42.1	42.4	-	-	-	-	-	-	2.2	2.7	2.7	3.2
1 1/2	48.1	48.4	1.8	2.2	-		-	-	2.5	3	3.1	3.7
2	60.2	60.5	1.8	2.2	-		2.5	3	3.1	3.7	3.9	4.5
2 1/2	75	75.3	1.8	2.2	-		3	3.5	3.9	4.5	4.8	5.5
3	88.7	89.1	1.8	2.2	2.9	3.4	3.5	4.1	4.6	5.3	5.7	6.6
4	114.7	114.5	2.3	2.8	3.4	4	4.5	5.2	6	6.9	7.3	8.4
5	140	140.4	2.6	3.1	3.8	4.4	5.5	6.4	7.3	8.4	9	10.4
6	168	168.5	3.1	3.7	4.5	5.2	6.6	7.6	8.8	10.2	10.8	12.5
7	193.5	194	3.1	3.7	5.2	6	7.7	8.9	10.1	11.7	12.4	14.3
8	218.8	219.4	3.1	3.7	5.3	6.1	7.8	9	10.3	11.9	12.6	14.5
9	244.1	244.8	3.1	3.7	5.9	6.8	8.7	10	11.5	13.3	14.1	16.3
10	272.6	273.4	3.1	3.7	6.6	7.6	9.7	11.2	12.8	14.8	15.7	18.1
12	323.4	324.3	3.1	3.7	7.8	9	11.5	13.3	15.2	17.5	18.7	21.6
14	355	356	3.6	4.2	8.5	9.8	12.6	14.5	16.7	19.2	20.5	23.6
16	405.9	406.9	4.1	4.8	9.7	11.2	14.5	16.7	19	21.9	23.4	27
18	456.7	457.7	4.6	5.3	11	12.7	16.3	18.8	21.4	24.6	-	-
20	507.5	508.5	5.1	5.9	12.2	14.1	18.1	20.9	-	-	-	-
22	558.3	559.3	5.6	6.5	13.4	15.5	19.9	22.9	-	-	-	-
24	609.1	610.1	6.1	7.1	14.6	16.8	21.7	25	-	-	-	-

*1 bar=105 N/M2 + Pipes to theses nominal sizes are not normally available from stock.

Note 1 : The Pressure given at the top of the columns for Classes B,C,D and E are the maximum sustained working pressure for which the pipes are suitable and are based on water at a temperature of 20 ℃

ASTM D1785 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80*

Nominal Size	Outside Diameter (mm)			SCH 40			SCH 80		
				Wall Thickness (mm)		Pressure Rating (bar)	Wall Thickness (mm)		Pressure Rating (bar)
inch	Min (mm)	Max (mm)	Max (mm)	Min (mm)	Max (mm)		Min (mm)	Max (mm)	
1/2	21.34	0.01	21.35	2.77	3.28	41.4	3.73	4.24	58.6
3/4	26.67	0.01	26.68	2.87	3.38	33.1	3.91	4.42	47.6
1	33.4	0.13	33.53	3.38	3.89	31	4.55	5.08	43.4
1 1/4	42.16	0.13	42.29	3.56	4.07	25.5	4.85	5.43	35.9
1 1/2	48.26	0.15	48.41	3.68	4.19	22.8	5.08	5.69	32.4
2	60.32	0.15	60.47	3.91	4.42	19.3	5.54	6.2	27.6
2 1/2	73.02	0.18	73.2	5.16	5.77	20.7	7.01	7.85	29
3	88.9	0.2	89.1	5.49	6.15	17.9	7.62	8.53	25.5
4	114.3	0.23	114.53	6.02	6.73	15.2	8.56	9.58	22.1
5	141.3	0.25	141.55	6.55	7.34	13.1	9.52	10.66	20
6	168.28	0.28	168.56	7.11	7.97	12.4	10.97	12.29	19.3
8	219.08	0.38	219.46	8.18	9.17	11	12.7	14.22	17.2
10	273.05	0.38	273.43	9.27	10.39	9.7	15.06	16.87	15.9
12	323.85	0.38	324.23	10.31	11.55	9	17.45	19.53	15.9
14	355.6	0.38	355.98	11.1	12.45	9.1	19.05	21.34	15.4
16	406.4	0.48	406.88	12.7	14.22	9.1	21.41	23.98	15.4
18	475.2	0.48	475.68	14.27	15.97	9.1	23.8	26.64	15.4
20	508	0.58	508.58	15.06	16.86	8.4	26.19	29.34	15.4
24	609.6	0.79	610.39	17.45	19.53	8.4	30.94	34.65	14.7

Pressure rating based on water at 23℃ for unthreaded pipes.

Nominal Size	Outside Diameter (Inch)			SCH 40				SCH 80			
				Wall Thickness (in)		Internal Diameter	Pressure Rating	Wall Thickness (in)		Internal Diameter	Pressure Rating
inch	Min (in)	Max (mm)	Max (in)	Min (in)	Max (in)	ID (in)	(PSI)	Min (in)	Max (in)	ID (in)	(PSI)
1/2	0.84	0.004	0.844	0.109	0.226	0.622	600	0.147	0.167	0.546	850
3/4	1.05	0.004	1.054	0.113	0.233	0.824	480	0.154	0.174	0.742	690
1	1.315	0.005	1.32	0.133	0.268	1.049	450	0.179	0.2	0.957	630
1 1/4	1.66	0.005	1.665	0.14	0.281	1.38	370	0.191	0.214	1.278	520
1 1/2	1.9	0.006	1.906	0.145	0.289	1.61	330	0.2	0.224	1.5	470
2	2.375	0.006	2.381	0.154	0.305	2.067	280	0.218	0.244	1.939	400
2 1/2	2.875	0.007	2.882	0.203	0.398	2.469	300	0.276	0.309	2.323	420
3	3.5	0.008	3.508	0.216	0.424	3.068	260	0.3	0.336	2.9	370
4	4.5	0.009	4.509	0.237	0.464	4.026	220	0.337	0.377	3.826	320
5	5.563	0.01	5.573	0.258	0.289	5.047	190	0.375	0.42	4.813	290
6	6.625	0.011	6.636	0.28	0.55	6.065	180	0.423	0.484	5.779	280
8	8.625	0.015	8.64	0.322	0.632	7.981	160	0.5	0.56	7.625	250
10	10.75	0.015	10.765	0.365	0.717	10.02	140	0.593	0.664	9.564	230
12	12.75	0.015	12.765	0.406	0.797	11.938	130	0.687	0.769	11.376	230
14	14	0.015	14.015	0.437	0.859	13.126	130	0.75	0.84	12.5	220
16	16	0.019	16.019	0.5	0.981	15	130	0.843	0.944	14.314	220
18	18	0.019	18.019	0.562	1.101	16.876	130	0.937	1.049	14.126	220
20	20	0.023	20.023	0.593	1.163	18.814	120	1.031	1.155	17.938	220
24	24	0.031	24.031	0.687	1.347	22.626	120	1.218	1.364	21.564	210

Pressure rating based on water at 23℃ for unthreaded pipes.

ASTM D2241 : Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe. (SDR Series)*

Nominal Size	Outside Diameter (mm)		Wall Thickness (mm)													
			PN 4.3 bar		PN 6.9 bar		PN 8.6 bar		PN 11 bar		PN 13.8 bar		PN 17.2 bar		PN 21.7 bar	
			SDR 64		SDR 41		SDR 32.5		SDR 26		SDR 21		SDR 17		SDR 13.5	
inch	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)
1/2	21.24	21.44	-	-	-	-	-	-	-	-	-	-	-	-	1.575	2.083
3/4	26.57	26.77	-	-	-	-	-	-	-	-	1.524	2.032	1.575	2.083	1.981	2.489
1	33.27	33.53	-	-	-	-	-	-	1.524	2.032	1.6	2.108	1.956	2.464	2.464	2.972
1 1/4	42.03	42.29	-	-	-	-	1.524	2.032	1.626	2.134	2.007	2.515	2.489	2.997	3.124	3.632
1 1/2	48.11	48.41	-	-	-	-	1.524	2.032	1.854	3.362	2.286	2.794	2.845	3.353	3.581	4.089
2	60.17	60.47	-	-	-	-	1.854	2.362	2.311	2.819	2.87	3.378	3.556	4.064	4.47	4.978
2 1/2	72.84	73.2	-	-	-	-	2.236	2.743	2.794	3.302	3.48	3.988	4.293	4.801	8.41	6.071
3	88.7	89.1	-	-	2.159	2.667	2.743	3.251	3.429	3.937	4.242	4.75	5.232	5.867	6.579	7.366
3 1/2	101.4	101.8	-	-	2.489	2.997	3.124	3.632	3.912	4.42	4.826	5.41	5.969	6.68	7.518	8.433
4	114.07	114.53	1.778	2.286	2.794	3.302	3.505	4.013	4.394	4.902	5.426	6.096	6.731	7.544	8.458	9.474
5	141.05	141.55	2.21	2.718	3.454	3.962	7.343	4.877	5.436	6.121	6.731	7.544	8.306	9.296	10.465	11.709
6	168	168.56	2.642	3.15	4.115	4.623	5.182	5.791	6.477	7.264	8.026	8.992	9.906	11.1	12.471	13.97
8	218.7	219.46	3.429	3.937	5.334	5.969	6.731	7.544	8.433	9.449	10.414	11.659	12.903	14.453	-	-
10	272.67	273.43	4.267	4.775	6.655	7.442	8.407	9.423	10.49	11.76	12.979	14.529	16.053	17.983	-	-
12	323.47	324.23	5.055	5.664	7.899	8.839	9.957	11.151	12.446	13.945	15.392	17.247	19.05	21.336	-	-
14	355.22	355.98	-	-	8.661	9.881	10.922	12.243	13.666	15.291	16.916	18.948	20.904	23.419		-
16	405.92	406.88	-	-	9.906	11.303	12.497	13.995	15.521	17.501	19.365	21.666	23.901	26.772	-	-
18	456.72	457.68	-	-	11.151	12.7	14.072	15.748	17.577	19.685	21.768	24.384	26.899	30.124	-	-
20	507.42	508.58	-	-	12.396	14.122	15.621	17.501	19.533	21.869	24.181	27.076	29.87	33.452	-	-
24	608.81	610.39	-	-	14.859	16.942	18.745	20.98	23.444	26.264	29.032	32.512	35.865	40.157	-	-
30	760.96	763.04	-	-	18.593	21.184	23.444	26.264	29.312	32.817	36.271	40.615	44.831	50.216	-	-
36	913.13	915.67	-	-	22.301	25.425	28.143	31.521	35.179	39.396	43.536	48.743	53.797	60.249	-	-

*Suitable for water supply, sewerage and ducting applications.

BS EN 1401-1 Plastics piping systems for non-pressure underground drainage and sewerage. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes, fittings and the system.

Outside Diameter(mm)		S 2		S 4		S 8	
		SDR 51		SDR 41		SDR 34	
min	max	^{e}min	^{e}max	^{e}min	^{e}max	^{e}min	^{e}max
110	110.3	-	-	3.2	3.8	3.2	3.8
125	125.3	-	-	3.2	3.8	3.7	4.3
160	160.4	3.2	3.8	4	4.6	4.7	5.4
200	200.5	3.9	4.5	4.9	5.6	5.9	6.7
250	250.5	4.9	5.6	6.2	7.1	7.3	8.3
315	315.6	6.2	7.1	7.7	8.7	9.2	10.4
355	355.6	7	7.9	8.7	9.8	10.4	11.7
400	400.7	7	8.9	9.8	11	11.7	13.1
450	450.8	8.8	9.9	11	12.3	13.2	14.8
500	500.9	9.8	11	12.3	13.8	14.6	16.3
630	631.1	12.3	13.8	15.4	17.2	18.4	20.5
710	711.2	13.9	15.5	17.4	19.4	-	-
800	801.3	15.7	17.5	19.6	21.8	-	-
900	901.5	17.6	19.6	22	24.4	-	-
1000	1001.6	19.6	21.8	24.5	27.2	-	-

*Pipes to these nominal sizes are not normally available from stock.

SDR 51 is applicable for application area code "U" only.

ASTM F 441 Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe-Schedules 40 and 80

Nom. Pipe Size (in.)	O.D. (in.)	Schedule 40 Dimensions(in)				Schedule 80 Dimensions(in)			
		Average I.D.	Min. Wall	Nom. Wt./Ft.	Max. W.P	Average I.D.	Min. Wall	Nom. Wt./Ft.	Max. W.P
1/4	0.54	0.344	0.088	0.096	780	0.282	0.119	0.117	1130
3/8	0.675	0.473	0.091	0.128	620	0.403	0.126	0.162	920
1/2	0.84	0.602	0.109	0.19	600	0.526	0.147	0.238	850
3/4	1.05	0.804	0.113	0.253	480	0.722	0.154	0.322	690
1	1.315	1.029	0.133	0.371	450	0.936	0.179	0.473	630
1-1/4	1.66	1.36	0.14	0.502	370	1.255	0.191	0.654	520
1-1/2	1.9	1.59	0.145	0.599	330	1.476	0.2	0.793	470
2	2.375	2.047	0.154	0.803	280	1.913	0.218	1.097	400
2-1/2	2.875	2.445	0.203	1.267	300	2.29	0.276	1.674	420
3	3.5	3.042	0.216	1.66	260	2.864	0.3	2.242	370
3-1/2	4	3.521	0.226	1.996	240	3.326	0.318	2.735	350
4	4.5	3.998	0.237	2.363	220	3.786	0.337	3.277	320
5	5.563	5.016	0.258	2.874	190	4.768	0.375	4.078	280
6	6.625	6.031	0.28	4.164	180	5.709	0.432	6.258	280
8	8.625	7.942	0.322	6.268	160	7.565	0.5	9.506	250
10	10.75	9.976	0.365	8.886	140	9.493	0.593	14.095	230
12	12.75	11.889	0.406	11.751	130	11.294	0.687	19.392	230
14	14	13.073	0.437	13.916	130	12.41	0.75	23.261	220
16	16	14.94	0.5	18.167	130	14.213	0.843	29.891	220
18	18	16.809	0.562	22.965	130	16.014	0.937	37.419	220
20	20	18.743	0.593	29.976	120	17.814	1.031	45.789	220
24	24	22.544	0.687	37.539	120	21.418	1.218	64.959	210

Maximum Operating Pressure is applied to 23°C.

Cable Conduits Of Chlorinated Polyvinyl Chloride(CPVC)-SCJ end

Speci?cation dn*e_n(mm)	Mean Outside Diameter d_e(mm)		Nominal wall thickness e_n(mm)		Minimum socket length A_{min}(mm)	First stage minimum length of socket B_{min}(mm)	Minimum ID of socket in second stage d_{min}(mm)
	DN	Limit Deviation	Thickness	Limit Deviation			
110*5.0	110	0.8	5	0.5	100	60	111
139*6.0	139	0.8	6	0.5	120		140.2
167*6.0	167	0.8	6	0.5	140		168.5
167*8.0	167	1	8	0.6			
192*6.5	192	1	6.5	0.5	160		193.8
192*8.5	192	1	8.5	0.6			
219*7.0	219	1	7	0.5	180		221
219*9.5	219	1	9.5	0.8			

Note: Other speci?cations can be produced according to customer requirements. The color is usually orange red.

ISO 16422 Pipes and joints made of oriented unplasticized poly(vinyl chloride) (PVC-O) for the conveyance of water under pressure - Specifications

PVC-O Pipes Specification									
Material Classification	Nominal Pressure PN(C=1. 6), MPa								
400	1.0		1.25		1.6		2.0		2.5
450		1.25		1.6		2.0		2.5	
500	1.25		1.6		2.0		2.5		
Pipe Series S and Standard Size Ratio SDR									
S	25	22.4	22	18	16	14	12.5	11.2	10
SDR	51	45.8	41	37	33	29	26	23.4	21
DN(mm)	Nominal wall thickness e_n (mm)								
63			1.6	1.8	2	2.2	2.5	2.7	3
75	1.5	1.7	1.9	2.1	2.3	2.6	2.9	3.2	3.6
90	1.8	2	2.2	2.5	2.8	3.1	3.5	3.9	4.3
110	2.2	2.4	2.7	3.1	3.4	3.8	4.2	4.7	5.3
125	2.5	2.8	3.1	3.5	3.9	4.3	4.8	5.1	6
140	2.8	3.1	3.5	3.9	4.3	4.8	5.4	6	6.7
160	3.2	3.5	4	4.4	4.9	5.5	6.2	6.9	7.7
180	3.6	4	4.4	5	5.5	6.2	6.9	7.7	8.6
200	3.9	4.4	4.9	5.5	6.2	6.9	7.7	8.6	9.6
225	4.4	5	5.5	6.2	6.9	7.7	8.6	9.6	10.8
250	4.9	5.5	6.2	6.9	7.7	8.6	9.6	10.7	11.9
280	5.5	6.2	6.9	7.7	8.6	9.7	10.7	12	13.4
315	6.2	6.9	7.7	8.7	9.7	10. 8	12.1	13.5	15
355	7	7.8	8.7	9.8	10.9	12.2	13.6	15.2	16.9
400	7.9	8.8	9.8	11	12.3	13.7	15.3	17.1	19.1
450	8.8	9.9	11	12.3	13.8	15.4	17.2	19.2	21.5
500	9.8	11.1	12.3	13.7	15.3	17.1	19.1	21.4	23.9
560	11	12.3	13.7	15.4	17.2	19.2	21.4	23.9	26.7
630	12.3	13.8	15.4	17.3	19.3	21.6	24.1	26.9	30

1. The theoretical calculation of ring stiffness of SDR51 and SDR45. 8 series pipes generally does not exceed 4kN/m^2. Measures should be taken during buried construction to avoid pipe buckling instability.
2. The color of the pipe is generally blue.
3. Unusual speci?cations are in brackets.

GB/T32018.1-2015 Modified impact resistance poly(vinyl choride)(PVC-M) pipe system for water

Nominal Outside Diameter DN(mm)	Pipe Series S and Nominal Pressure PN					Rubber Ring Joints Minimum Socket Depth m_{min}(mm)	Solvent Cement Joints Minimum Socket Depth m_{min}(mm)
	S20	S16	S12.5	S10	S8		
	SDR41	SDR33	SDR26	SDR21	SDR17		
	PN8	PN10	PN12.5	PN16	PN20		
	Nominal Wall Thickness e_n (mm)						
63	2	2	2.5	3	3.8	64	37.5
75	2	2.3	2.9	3.6	4.5	67	43.5
90	2.2	2.8	3.5	4.3	5.4	70	51
110	2.7	3.4	4.2	5.3	6.6	75	61
125	3.1	3.9	4.8	6	7.4	78	68.5
140	3.5	4.3	5.4	6.7	8.3	81	76
160	4	4.9	6.2	7.7	9.5	86	86
180	4.4	5.5	6.9	8.6	10.7	90	96
200	4.9	6.2	7.7	9.6	11.9	94	106
225	5.5	6.9	8.6	10.8	13.4	100	118.5
250	6.2	7.7	9.6	11.9	14.8	105	-
280	6.9	8.6	10.7	13.4	16.6	112	-
315	7.7	9.7	12.1	15	18.7	118	-
355	8.7	10.9	13.6	16.9	21.1	124	-
400	9.8	12.3	15.3	19.1	23.7	130	-
450	11	13.8	17.2	21.5	26.7	138	-
500	12.3	15.3	19.1	23.9	29.7	145	-
560	13.7	17.2	21.4	26.7	-	154	-
630	15.4	19.3	24.1	30	-	165	-
710	17.4	21.8	27.2	-	-	177	-
800	19.6	24.5	30.6	-	-	190	-

1. The minimum required strength of the pipe is not less than 24.5MPa, the nominal wall thickness (en) is determined according to the design stress (as) 16MPa, and the minimum wall thickness of the pipe is 2.0mm.
2. “-” Indicates not recommended.
3. When the length of the pipe is longer than 12 m, the rubber ring joints socket depth m_{min}(mm) needs to be designed separately.

Other standards and dimensions not listed could be customized according to requirements.

DEF Pipeline supplys full ranges of PVC fittings to match our U PVC, M PVC, O PVC, C PVC pipes, duct, from basic to advance pipes and fittings in the markets, plays an important roles in piping industry. These fittings used in a wide range of applications, including hot corrosive liquids, chemical processing, chilled water distribution, chemical drainage, waste water treatment, and plating.

Solvent Cement Joints(SCJ) Type PN10 & PN16

Threaded End Joints Type PN10 & Pn16

Rubber Ring Joints(RRJ) Type PN10

Rubber Ring Joints(RRJ) Type PN10

PVC Valves

Socket Fusion Welding Machine

Manual Operation Butt Fusion Welding Machine

Hydraulic Semi-Automatic Butt Fusion Welding Machine

Hydraulic Automatic Butt Fusion Welding Machine

HDPE Electrofusion Welding Machine

Welding Gun

Introduction to Plastic Pipe Research and Test Center

Plastic Pipe Research and Test Center of HENAN DEF PIPELINE TECHNOLOGY CO., LTD covers an area of about 900 square meter, and equipped with Germany Netzsch Differential Scanning Calorimeter, Germany I PT Carbon Content tester, I PT hydrostatic testing machine, I PT rapid crack propagation (RCP) testing machine, IPT slow crack growth (SCG) test device and slotting machine, IPT 3D sample preparation machine, IPT pipe thickness gauge, Japan Mitsubish Carl Fischer moisture titrator, France Setaram DSC, U.S MTS electronic universal testing machine, melt flow rate test device, density instrument, microscope for testing carbon black dispersion, valve beam bending resistance airtightness testing machine, valve seal torque testbed, electronic balance,and so on more than 20 sets, meanwhile equipped with electrofusion automatic welding machine, all types of butt fusion machine, vertical sawing machine, vertical milling machine and other auxiliary testing equipment 11 sets. Which also established a 56 square meter laboratory with constant temperature and humidity, the lab is the unique one built by plastic pipe manufacturer in China.




According to the temperature and humidity requirements of the test items, different test rooms were set up. Especially the RCP test can meet DN500mm test requirement with a leading position in the world.
Test Center achieved CNAS certification in 2012, and adhere to the quality policy of science, justice, accuracy, preciseness, satisfactory, which carry out test strictly accordance to relevant international, national and enterprise standards, and provide accurate test data and high quality service for the company and the customers.