SIFFO

SIFFO BROCHURE

SIFFO PIPE MAKES THE WORLD A BETTER PLACE

SHANDONG SIFFO PLASTIC TECHNOLOGY CO.,LTD

www.siffopipeline.com

COMPANY PROFILE

Shandong SIFFO Plastic Technology Co., Ltd. is a company specializing in the research, development, production and sales of HDPE pipes, PVC pipes, SRTP (SRPE) wire mesh skeleton composite high-pressure composite pipes, pipe fittings and pipeline series products. It is located in Linyi City, Shandong Province, China, with a construction area of more than 150,000 square meters. It currently has two production bases in Shandong and Jiangsu. It has a complete R&D quality control and after-sales system, and can provide customers with high-quality products and technical after-sales services in a timely and efficient manner.

SIFFO has successively introduced the most advanced production equipment at home and abroad such as KraussMaffei and Dekumo in Germany, fully automated production processes, advanced production processes, and strict quality control to ensure the high quality and reliability of products. It currently has more than 60 production lines for various types of pipes and fittings from φ 16mm to φ2500mm, and 20 sets of injection molding machines. Mainly produces and sells: HDPE water supply and drainage, gas, mining pipes and fittings and HDPE irrigation pipes; PVC water supply and drainage pipes, farmland irrigation pipes; PPR cold and hot water pipes and fittings; SRPT (SRPE) wire mesh skeleton composite high-pressure composite pipes and fittings; HDPE double-wall corrugated pipes, steel belt reinforced composite pipes and matching pipe fittings. The product specifications are complete and the supply is timely. It has close cooperative relations with more than 50 countries and regions around the world.

SIFFO has passed ISO system certification, CE certification, WRAS, NSF and other certifications. SIFFO attaches great importance to the research and development and application of new products. It has established its own product research and development center, equipped with advanced inspection and testing equipment, and regularly conducts performance tests for various products to ensure that the quality of all links from raw materials to finished products meets national standards. It has established long-term cooperative research and development relationships with many domestic universities and scientific research institutions.

SIFFO adheres to the concept of "technological innovation, service first", and provides customers with high-quality products and services with advanced technology, production capacity and service capabilities to achieve win-win cooperation.

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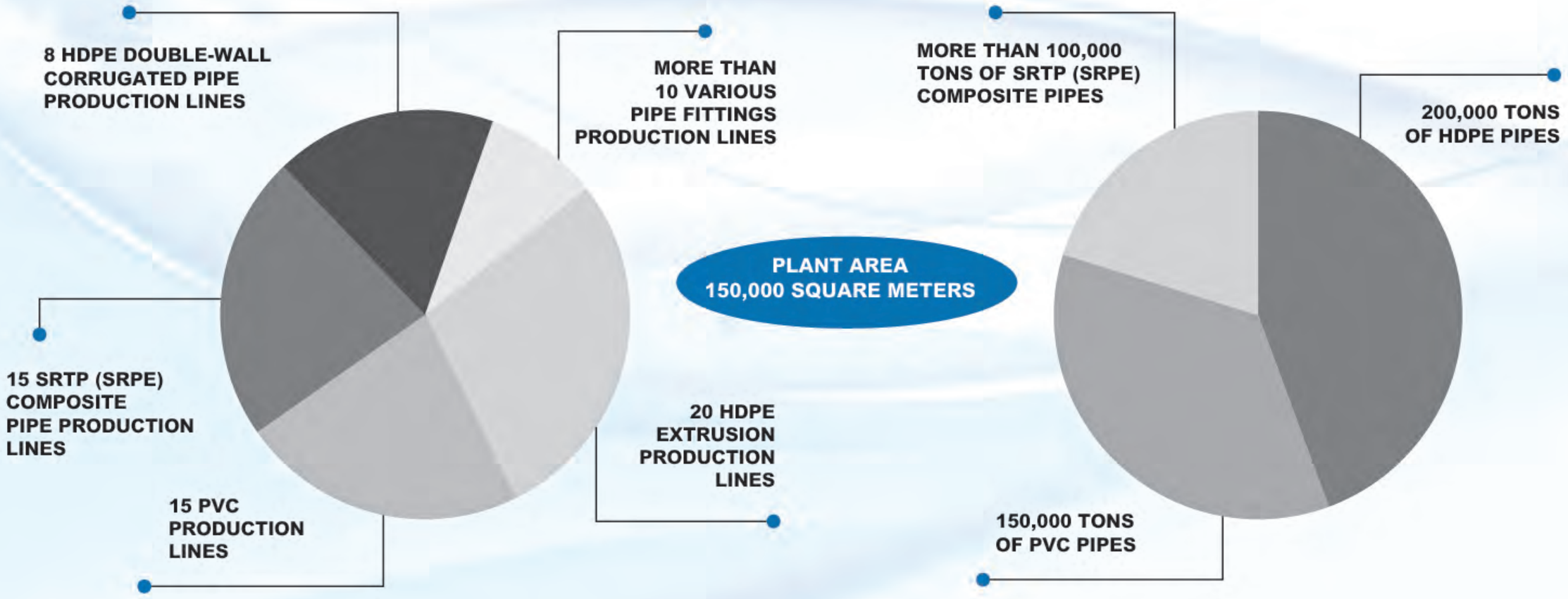
SIFFO CULTURE

SIFFO always adheres to the enterprise spirit of "integrity, dedication, innovation and win-win", and pursues the business philosophy of "professional focus on quality and wholehearted service". With a scientific and rigorous attitude, strict quality standards, and high-quality, efficient and convenient service methods, it provides users with comprehensive and thoughtful services in all aspects. SIFFO's product sales network has spread all over the country, and has successfully opened up the international market, exported to Australia, Europe, Brazil, South Korea, Chile, Vietnam, the Philippines, Maldives, Malaysia, Bangladesh, Cyprus, Albania, Poland, Panama, Jamaica, Puerto Rico, Ghana, Angola, South Africa, Sudan, etc. More than 50 countries and regions, well received by users and foreign businessmen! We warmly welcome people from all walks of life to visit the company and give us guidance! SIFFO will work with you to create a better future!

SIFFO Production Base

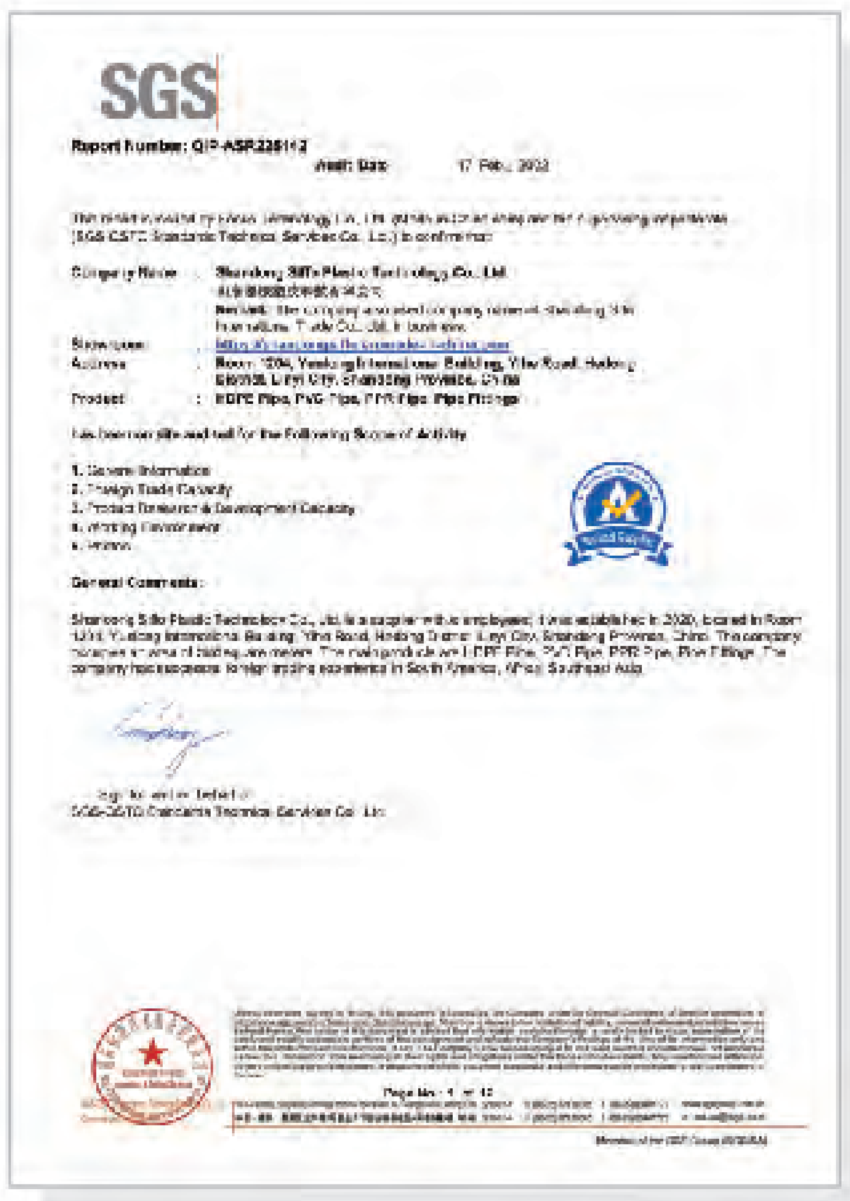


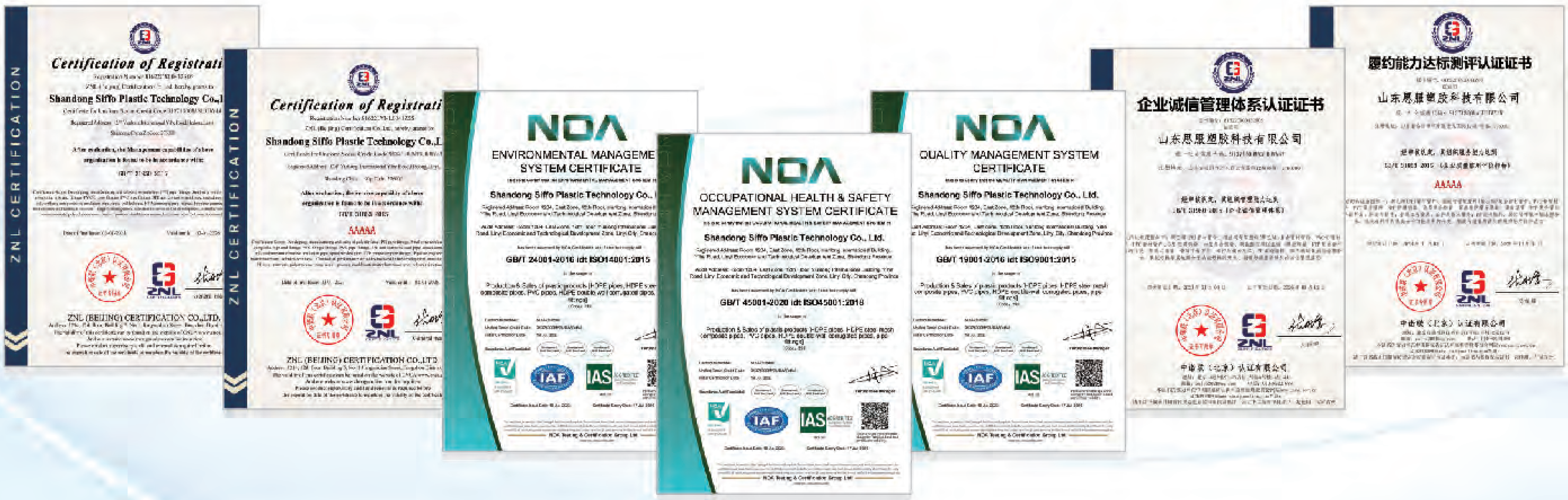
Plant area: 150,000 square meters

Number of production lines: 20 HDPE extrusion production lines, 15 PVC production lines, 15 SRTP (SRPE) composite pipe production lines, 8 HDPE double-wall corrugated pipe production lines, more than 10 various pipe fittings production lines

Annual production capacity: 200,000 tons of HDPE pipes, 150,000 tons of PVC pipes, more than 100,000 tons of SRTP (SRPE) composite pipes

SIFFO Certifications

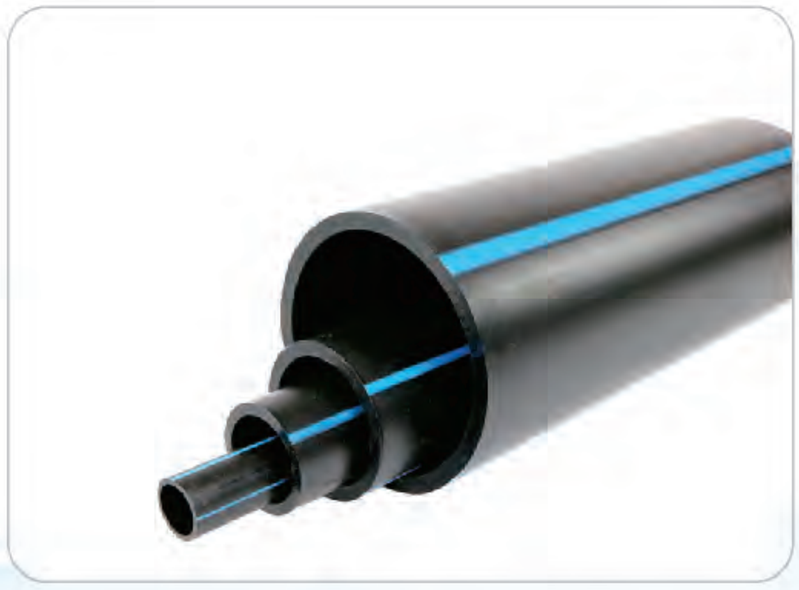




HDPE PRESSURE PIPE SERIES

HDPE Pipe for Water Supply

★Product Characteristics



HDPE (High-Density Polyethylene) water supply pipes are pipe systems manufactured primarily from PE100,PE80 high-density polyethylene through an extrusion molding process. Their core characteristics include:

High Corrosion Resistance: Excellent resistance to chemicals such as acids, alkalis, and salts, making them suitable for various complex environments.

Superior Flexibility: Can be laid with bends, adapting to terrain changes, reducing the need for joints, and minimizing leakage risks.

Long Service Life: Designed to last over 50 years, far exceeding traditional metal pipes.

Lightweight and High Strength: Density is only 1/8 that of steel pipes, making them easy to transport and install.

Hygienic and Safe: Complies with drinking water hygiene standards, non-toxic, and resistant to bacterial growth.

★Production Standards

HDPE water supply pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ISO 4427: Plastics piping systems - Polyethylene (PE) pipes and fittings

EN 12201: European standard for polyethylene piping systems for water supply

AS/NZS 4130: Australia/New Zealand Standard for Polyethylene Pipes for Water Supply

ASTM F714: Standard by the American Society for Testing and Materials

Chinese Standards:

GB/T 13663: Polyethylene (PE) pipes for water supply

CJ/T 250: Polyethylene pipes for urban water supply

★Connection Type

Butt Fusion Connection

Electrofusion Connection

Flange Connection

★ Specifications

(This specification table is based on PE100 raw material, ISO4427, GB/T 13663, AS/NZS 4130 standards)

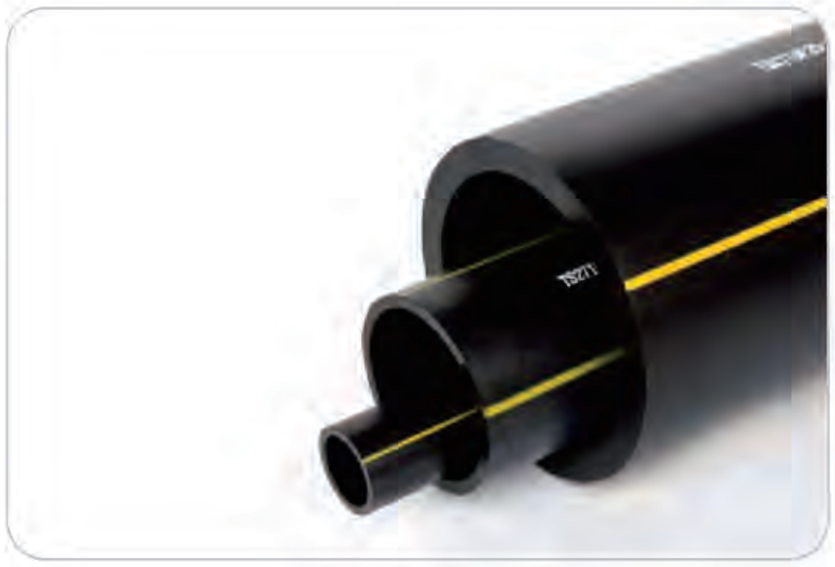
Pressure	PN 6	PN 8	PN 10	PN 12.5	PN16	PN 20	PN 25
SDR	SDR26	SDR21	SDR17	SDR13.6	SDR11	SDR9	SDR7.4
OD	Min Wall Thickness						
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
Φ20					2.3	2.3	3
Φ25				2.3	2.3	3	3.5
Φ32			2.3	2.4	3	3.6	4.4
Φ40		2.3	2.4	3	3.7	4.5	5.5
Φ50	2.3	2.4	3	3.7	4.6	5.6	6.9
Φ63	2.5	3	3.8	4.7	5.8	7.1	8.6
Φ75	2.9	3.6	4.5	5.6	6.8	8.4	10.3
Φ90	3.5	4.3	5.4	6.7	8.2	10.4	12.3
Φ110	4.2	5.3	6.6	8.1	10	12.3	15.1
Φ125	4.8	6	7.4	9.2	11.4	14	17.1
Φ140	5.4	6.7	8.3	10.3	12.7	15.7	19.2
Φ160	6.2	7.7	9.5	11.8	14.6	17.9	21.9
Φ180	6.9	8.6	10.7	13.3	16.4	20.1	24.6
Φ200	7.7	9.6	11.9	14.7	18.2	22.4	27.4
Φ225	8.6	10.8	13.4	16.6	20.5	25.2	30.8
Φ250	9.6	11.9	14.8	18.4	22.7	27.9	34.2
Φ280	10.7	13.4	16.6	20.6	25.4	31.3	38.3
Φ315	12.1	15	18.7	23.2	28.6	35.2	43.1
Φ355	13.6	16.9	21.1	26.1	32.2	39.7	48.5
Φ400	15.3	19.1	23.7	29.4	36.3	44.7	54.7
Φ450	17.2	21.5	26.7	33.1	40.9	50.3	61.5
Φ500	19.1	23.9	29.7	36.8	45.4	55.8	
Φ560	21.4	26.7	33.2	41.2	50.8	62.5	
Φ630	24.1	30	37.4	46.3	57.2	70.3	
Φ710	27.2	33.9	42.1	52.2	64.5	79.3	
Φ800	30.6	38.1	47.4	58.8	72.6	89.3	
Φ900	34.4	42.9	53.3	66.2	81.7		
Φ1000	38.2	47.7	59.3	72.5	90.2		
Φ1200	45.9	57.2	67.9	88.2			
Φ1400	53.5	66.7	82.4	102.9			
Φ1600	61.2	76.2	94.1	117.6			

★ Performance Index

Item		Index
Elongation at break,%		>=350
Longitudinal reversion (110℃),%		=<3
Oxidation induction time (200℃),min		>=20
Hydrostatic strength	20℃,100h	No cracking,no leakage
	PE80 10.0MPa	
	PE100 12.4MPa	
	80℃,165h	No cracking,no leakage
	PE80 4.6MPa	
	PE100 5.5MPa	
	80℃,1000h	No cracking,no leakage
	PE80 4.0MPa	
	PE100 5.0MPa	

HDPE Pipe for Gas

★ Product Characteristics



HDPE (high-density polyethylene) gas pipe is a pipe system made of high-density polyethylene as the main raw material and manufactured by extrusion molding process, which is specially designed for gas transportation. Its core features include:

High corrosion resistance: It has excellent tolerance to chemicals and electrochemical corrosion in the soil, and no additional anti-corrosion treatment is required.

Excellent flexibility: It can be laid in a bent manner to adapt to complex terrain, reduce the number of joints, and reduce the risk of leakage.

Long life: The designed service life is more than 50 years, and the maintenance cost is low.

Lightweight and high strength: The density is only 1/8 of that of steel pipe, which is easy to transport and install.

High safety: It has good impact resistance and cracking resistance, suitable for high-pressure gas transportation.

★ Production Standards

HDPE gas pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ISO 4437: Polyethylene piping systems for gas supply

EN 1555: European standard for polyethylene piping systems for gas supply

ASTM D2513: Standard by the American Society for Testing and Materials

Chinese Standards:

GB 15558.1: Polyethylene pipes for buried gas supply

CJ/T 125: Polyethylene pipes for urban gas supply

★ Connection Type

Butt Fusion Connection

Electrofusion Connection

Flange Connection

★ Specifications

Nominal Outer Diameter (mm)	Nominal Wall Thickness (mm)			
OD	SDR11	SDR17	SDR21	SDR26
16	3	-	-	-
20	3	-	-	-
25	3	-	-	-
32	3	-	-	-
40	3.7	3	-	-
50	4.6	3	3	-
63	5.8	3.8	3	-
75	6.8	4.5	3.6	3
90	8.2	5.4	4.3	3.5
110	10	6.6	5.3	4.2
125	11.4	7.4	6	4.8
140	12.7	8.3	6.7	5.4
160	14.6	9.5	8.6	6.9
180	16.4	11.9	9.6	7.7
200	18.2	11.9	9.6	7.7
225	20.5	13.4	10.8	8.6
250	22.7	14.8	11.9	9.6
280	25.4	16.6	13.4	10.7
315	28.6	18.7	15	12.1
355	32.2	21.1	16.9	13.6
400	36.4	23.7	19.1	15.3
450	40.9	26.7	21.5	17.2
500	45.5	29.7	23.9	19.1
560	50.9	33.2	26.7	21.4
630	57.3	37.4	30	24.1
For SDR21&SDR26 are usually used for trenchless pipe repair				

★ Performance Index

HDPE Gas Pipe Pr operties		
Longitudinal Reversion % (110℃)		≤3
Oxidation Induction Time min (200℃)		720
Extension Rate at Break %		≥350
Carbon Black Content(Mass Fraction) % (Only Applies to Black Mixed Ingredients)		2.0-2.5
Melt Mass Flow Rate g/10min(195℃ 5kg)		Chang of MFR by processing < 20
Hydrostatic Strength	20℃, Hoop Stress PE100 12.4Mpa PE80 9.0Mpa 100h	NO Failure
	80℃ Hoop Stress PE100 5.4Mpa PE80 4.5Mpa 165h	NO Failure
	80℃ Hoop Stress PE100 5.0Mpa PE80 4.0Mpa 100h	NO Failure

HDPE Steel Mesh Reinforced Pipe ,SRTP Pipe

★Product Characteristics

HDPE steel wire mesh reinforced polyethylene composite pipes (SRTP ,SRPE Pipe) are composite pipes with high-density polyethylene (HDPE) as the inner and outer layers and high-strength steel wire mesh embedded in the middle. Their core characteristics include:

High Strength: The steel wire mesh provides excellent tensile strength and ring stiffness, making it suitable for high-pressure and large-diameter applications.

High Corrosion Resistance: The HDPE layer protects the steel wire mesh from chemical and electrochemical corrosion, extending its service life.

Superior Flexibility: Combines the flexibility of HDPE with the strength of steel wire mesh, adapting to complex terrains and geological conditions.

Long Service Life: Designed to last over 50 years with low maintenance costs.

Lightweight and High Strength: Lighter than traditional steel pipes, making them easy to transport and install.

Impact Resistance: Maintains high toughness even in low-temperature environments, with excellent impact resistance.

Hygienic and Safe: The HDPE layer complies with drinking water hygiene standards, is non-toxic, and resists bacterial growth.

★Production Standards

HDPE steel wire reinforced polyethylene composite pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ISO 21003: Multilayer piping systems - Polyethylene (PE) pipes and fittings

EN 1555: European standard for polyethylene piping systems for gas supply

ASTM F714: Standard by the American Society for Testing and Materials

Chinese Standards:

GB/T 32439: Steel wire reinforced polyethylene composite pipes

CJ/T 189: Steel wire reinforced polyethylene composite pipes for urban gas supply

★ Connection Type

Electrofusion Connection

Flange Connection

★ Application Fields

City gas: municipal gas pipeline network, community gas supply
Industrial gas: gas transportation for chemical plants and power plants
Long-distance transportation: high-pressure gas long-distance pipelines
Water supply system: municipal water supply, agricultural irrigation
Special environment: highly corrosive soil, earthquake-prone areas
Petrochemical: chemical medium transportation, oil field water injection
Mining engineering: slurry transportation, tailings discharge
Power generation engineering: high-pressure brine transportation

★ Specifications

Pressure Rate	0.8 Mpa	1 Mpa	1.25 Mpa	1.6 Mpa	2 Mpa	2.5 Mpa	3 Mpa	3.5 Mpa	4 Mpa	5 Mpa	6.3 Mpa	7 Mpa
Diameter (mm)	Wall thickness(mm)											
50	-	4.5	4.5	4.5	5	5.5	5.5	5.5	6	8.5	9	9
63	-	4.5	4.5	4.5	5	5.5	5.5	5.5	6.5	8.5	9	9
75	-	5	5	5	5	5.5	6	6	9.5	9.5	9.5	9.5
90	-	5.5	5.5	5.5	5.5	5.5	6	6	10	10.5	10.5	10.5
110	-	5.5	5.5	7	7	7.5	8.5	8.5	11	12	12	12
125	-	5.5	5.5	7.5	8	8.5	9.5	9.5	11	12	12	12
140	-	5.5	5.5	8	8.5	9	9.5	9.5	11	12	13	13
160	-	6	6	9	9.5	10	10.5	10.5	11	12	14	14
200	-	6	6	9.5	10.5	11	12	12	13	13	15	15
225	-	8	8	10	10.5	11	12	12	13	13		
250	8	10.5	10.5	12	12	12.5	14	14	14	15		
280	9.5	11	11	12	13	15	15	17	18			
315	9.5	11.5	11.5	13	13	15	15	18				
355	10	12	12	14	14	17	17	19				
400	10.5	12.5	12.5	15	16	17	17	-				
450	11.5	13.5	13.5	16	18	18	-	-				
500	12.5	15.5	15.5	18	19	22	-	-				
630	20	23	23	26	26	-	-	-				
710	23	26	26	30	-	-	-	-				
800	27	30	30	34	-	-	-	-				
900	29	33.5	33.5	38	-	-	-	-				
1000	34	37	-	-	-	-						

Steel Skeleton Reinforced HDPE Pipe ,SRPE Pipe

★Product Characteristics

HDPE steel skeleton polyethylene composite pipe,the SRPE Pipe, is a composite pipe with high-density polyethylene (HDPE) as the inner and outer layers and a steel skeleton embedded in the middle. The skeleton is often welded by longitudinal and transverse high-strength steel wires, or welded by perforated steel plate. Its core features include:

Ultra-high strength: The steel skeleton provides extremely high tensile strength and ring stiffness, suitable for ultra-high pressure and large-diameter applications.

High corrosion resistance: The HDPE layer protects the steel skeleton from chemical and electrochemical corrosion, extending the service life.

High temperature resistance: The inner layer can be made of heat-resistant PERT material, which has good temperature resistance and the maximum working temperature can reach 80 ℃.

Excellent pressure resistance: The steel skeleton structure gives the pipeline excellent resistance to external pressure, suitable for deep burial and heavy load environments.

Long life: The designed service life exceeds 50 years, and the maintenance cost is low.

Lightweight and high strength: lighter than traditional steel pipes, easy to transport and install.

Impact resistance: It still maintains high toughness in low temperature environments and has excellent impact resistance.

Sanitary safety: The HDPE layer meets the sanitation standards for drinking water, is non-toxic, and does not breed bacteria.

★Production Standards

HDPE steel skeleton polyethylene composite pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ISO 21003: Multilayer piping systems - Polyethylene (PE) pipes and fittings

EN 1555: European standard for polyethylene piping systems for gas supply

ASTM F714: Standard by the American Society for Testing and Materials

Chinese Standards:

GB/T 32439: Steel skeleton polyethylene composite pipes

CJ/T 123: Steel skeleton polyethylene composite pipes for urban gas supply

★ Connection Type

Electrofusion Connection

Flange Connection

★ Application Fields

City gas: municipal gas pipeline network, community gas supply
Industrial gas: gas transportation for chemical plants and power plants
Long-distance transportation: high-pressure gas long-distance pipelines
Water supply system: municipal water supply, agricultural irrigation
Special environment: highly corrosive soil, earthquake-prone areas
Petrochemical: chemical medium transportation, oil field water injection
Mining engineering: slurry transportation, tailings discharge
Power generation engineering: high-pressure brine transportation

★ Specifications

Nominal Diameter (ID)	Allowable Deviation of Mean Inner Diameter (mm)	Nominal Pressure (PN, Bar)				
		PN10	PN16	PN20	PN25	PN40
		Pipe Main Body Thickness and Allowable Deviation (mm)				
50	±1	-	-	-	9.0 +1.4	10.6 +1.6
63	±1	-	-	-	9.0 +1.4	10.6 +1.6
80	±1	-	-	-	9.0 +1.4	11.7 +1.8
100	±1	-	9.0 +1.4	9.0 +1.4	11.7 +1.8	11.7 +1.8
125	±1	-	10.0 +1.5	10.0 +1.5	11.8 +1.8	12.3 +1.8
150	±1	12.0 +1.8	12.0 +1.8	12.0 +1.8	12.0 +2.4	15.5 +2.6
200	±1	12.0 +1.8	12.0 +1.8	12.5 +1.9	12.5 +1.9	-
250	±0.8	12.0 +1.8	12.5 +1.9	12.5 +1.9	13.0 +2.0	-
300	±0.8	12.5 +1.9	12.5 +1.9	12.5 +2.2	-	-
350	±0.8	15.0 +2.4	15.0 +2.4	15.5 +2.5	-	-
400	±0.5	15.0 +2.4	15.0 +2.4	15.5 +2.6	-	-
450	±0.5	15.5 +2.6	16.0 +2.6	16.5 +2.6	-	-
500	±0.5	15.5 +2.6	16.0 +2.6	16.5 +2.6	-	-
600	±0.5	19.0 +3.0	20.0 +3.0	-	-	-

HDPE SERIES PIPE FITTINGS

HDPE Buttfusion Molded Fittings

★ Size Range : DN20-DN800 Pressure Range: PN6-PN20










HDPE Electrofusion Fittings

★ Size Range : DN20-DN800 Pressure Range: PN6-PN40








HDPE Fabricated Fittings

★ Size Range : DN20-DN1600 Pressure Range: PN6-PN25








HDPE Compression Fittings

★ Size Range : DN20-DN110 Pressure Range: PN6-PN16










PVC PIPE SERIES

UPVC Pipe for Water

★ Product Characteristics

UPVC (Unplasticized Polyvinyl Chloride) pressure water pipes are pipe systems manufactured primarily from polyvinyl chloride resin through an extrusion molding process, specifically designed for water supply systems. Their core characteristics include:

High Corrosion Resistance: Excellent resistance to chemicals such as acids, alkalis, and salts, making them suitable for various complex environments.

Excellent Mechanical Properties: High strength and rigidity, suitable for high-pressure water supply systems.

Long Service Life: Designed to last over 50 years with low maintenance costs.

Lightweight and High Strength: Density is only 1/5 that of steel pipes, making them easy to transport and install.

Hygienic and Safe: Complies with drinking water hygiene standards, non-toxic, and resistant to bacterial growth.

Low Fluid Resistance: Smooth inner wall with a low friction coefficient, ensuring high transport efficiency.

★ Production Standards

The production of UPVC pressure water pipes strictly follows the following international and national standards:

International standards:

ISO 4422: PVC-U pipes for water supply

EN 1452: European standard for rigid polyvinyl chloride (PVC-U) piping systems for water supply

ASTM D1785: American Society for Testing and Materials standards

Chinese standards:

GB/T 10002.1: PVC-U pipes for water supply

CJ/T 272: PVC-U pipes for urban water supply

★ Connection Type

Solvent Cement Connection: It is recommended for pipes with a diameter of DN≤200mm, which is easy to operate and has high connection strength.

Rubber ring socket connection: It is suitable for pipes with a diameter of DN≥75mm, which is quick to install and has good sealing performance.

Flange connection: It is used for connection with valves and equipment

★ Application Fields

Municipal Water Supply and Sewage Drainage: Main urban water supply networks, secondary water supply systems and drainage system.
Agricultural Irrigation: Drip and sprinkler irrigation systems
Industrial Water Use: Cooling water transportation in chemical plants, wastewater treatment
Building Water Supply: High-rise building water supply systems
Mining Water Supply: Corrosion-resistant and impact-resistant, suitable for complex terrains
Power cable protection: can be used to protect cables and used as power conduit.

★ Specifications

DN(mm)	Wall thickness(mm)					
Nominal pressure	PN6	PN8	PN10	PN12.5	PN16	PN20
20	-	-	-	-	-	2
25	-	-	-	-	2	2.3
32	-	-	-	2	2.4	2.9
40	-	-	2	2.4	3	3.7
50	-	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	6.9
90	2.8	3.5	4.3	5.4	6.7	8.2
110	2.7	3.4	4.2	5.3	6.6	8.1
125	3.1	3.9	4.8	6	7.4	9.2
140	3.5	4.3	5.4	6.7	8.3	10.3
160	4	4.9	6.2	7.7	9.5	11.8
180	4.4	5.5	6.9	8.6	10.7	13.3
200	4.9	6.2	7.7	9.6	11.9	14.7
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	-	-	-	-

*EN ISO 1452-2 & ISO 4422-2 Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure - Unplasticized Polyvinyl Chloride (PVC-U)

ASTM D1785 - Standard Specification for PVC Pipe SCH40 SCH80

Nominal Size	Outside Diameter (mm)			SCH40 Wall Thickness (mm)		SCH80 Wall Thickness (mm)	
inch	Min (mm)	Tolerance (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)
1/4	21.34	0.01	21.35	2.77	3.28	3.73	4.24
1/2	26.67	0.01	26.68	2.87	3.38	3.91	4.42
1	33.4	0.13	33.53	3.38	3.89	4.55	5.08
1 1/4	42.16	0.13	42.29	3.56	4.07	4.85	5.43
1 1/2	48.26	0.15	48.41	3.68	4.19	5.08	5.69
2	60.32	0.15	60.47	3.91	4.42	5.54	6.2
2 1/2	73.02	0.18	73.2	5.16	5.77	7.01	7.85
3	88.9	0.2	89.1	5.49	6.15	7.62	8.53
4	114.3	0.23	114.53	6.02	6.73	8.56	9.58
5	141.3	0.25	141.55	6.55	7.34	9.52	10.66
6	168.28	0.28	168.56	7.11	7.97	10.97	12.29
8	219.08	0.38	219.46	8.18	9.17	12.7	14.22
10	273.05	0.38	273.43	9.27	10.39	15.06	16.87
12	323.85	0.38	324.23	10.31	11.55	17.45	19.53
14	355.6	0.38	355.98	11.1	12.45	19.05	21.34
16	406.4	0.48	406.88	12.7	14.22	21.41	23.98
18	475.2	0.48	475.68	14.27	15.97	23.8	26.64
20	508	0.58	508.58	15.06	16.86	26.19	29.34
24	609.6	0.79	610.39	17.45	19.53	30.94	34.65

CPVC Pipe for Water Supply and Chemical

★ Product Characteristics

CPVC (Chlorinated Polyvinyl Chloride) pressure water pipes are pipe systems manufactured primarily from chlorinated polyvinyl chloride resin through an extrusion molding process, specifically designed for water supply systems. Their core characteristics include:

High Corrosion Resistance: Excellent resistance to chemicals such as acids, alkalis, and salts, making them suitable for various complex chemical environments.

Excellent Heat Resistance: Can be used long-term at temperatures up to 93℃, suitable for hot water systems.

High Strength and Rigidity: High tensile strength and ring stiffness, suitable for high-pressure water supply systems.

Long Service Life: Designed to last over 50 years with low maintenance costs.

Lightweight and High Strength: Density is only 1/5 that of steel pipes, making them easy to transport and install.

Hygienic and Safe: Complies with drinking water hygiene standards, non-toxic, and resistant to bacterial growth.

Low Fluid Resistance: Smooth inner wall with a low friction coefficient, ensuring high transport efficiency.

★ Production Standards

CPVC pressure water pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ASTM F441: Standard for Chlorinated Polyvinyl Chloride (CPVC) Pressure Water Pipes

ISO 15877: Plastics piping systems - Chlorinated polyvinyl chloride (CPVC) pipes and fittings

Chinese Standards:

GB/T 18993: Chlorinated polyvinyl chloride (CPVC) piping systems for hot and cold water

★ Application Fields

Municipal Water Supply: Main urban water supply networks, secondary water supply systems

Hot Water Systems: Hot water supply for residential and commercial buildings

Industrial Water Use: Cooling water transportation in chemical plants, wastewater treatment

Building Water Supply: High-rise building water supply systems

Mining Water Supply: Corrosion-resistant and impact-resistant, suitable for complex terrains

★ Specifications

Pipe Size (in.)	O.D. (in.)	Schedule 40 Dimensions (in)		Schedule 80 Dimensions (in)	
		Average I.D.	Min . Wall	Average I.D.	Min. Wall
1/4	0.54	0.344	0.088	0.282	0.119
3/8	0.675	0.473	0.091	0.403	0.126
1/2	0.84	0.602	0.109	0.526	0.147
3/4	1.05	0.804	0.113	0.722	0.154
1	1.315	1.029	0.133	0.936	0.179
1 1/4	1.66	1.36	0.14	1.255	0.191
1 1/2	1.9	1.59	0.145	1.476	0.2
2	2.375	2.047	0.154	1.913	0.218
2 1/2	2.875	2.445	0.203	2.29	0.276
3	3.5	3.042	0.216	2.864	0.3
3 1/2	4	3.521	0.226	3.326	0.318
4	4.5	3.998	0.237	3.786	0.337
5	5.563	5.016	0.258	4.768	0.375
6	6.625	6.031	0.28	5.709	0.432
8	8.625	7.942	0.322	7.565	0.5
10	10.75	9.976	0.365	9.493	0.593
12	12.75	11.889	0.406	11.294	0.687
14	14	13.073	0.437	12.41	0.75
16	16	14.94	0.5	14.213	0.843
18	18	16.809	0.562	16.014	0.937
20	20	18.743	0.593	17.814	1.031
24	24	22.544	0.687	21.418	1.218

*ASTM F 441 Standard Specification for CPVC Pipe SCH40 SCH80

PVC FITTINGS

★ Szie Range: DN20-DN450

★ Pressure Range: PN6-PN16
















HDPE DRAINAGE PIPE SERIES

HDPE Double Wall Corrugated Pipe

★Product Characteristics

HDPE double wall corrugated pipes are pipe systems manufactured primarily from high-density polyethylene (HDPE) through a co-extrusion molding process, featuring a double-layer structure. Their core characteristics include:

High Ring Stiffness: Unique corrugated structure design provides excellent compression resistance, suitable for deep burial and heavy-load environments.

Superior Flexibility: Can be laid with bends, adapting to complex terrains and geological conditions, reducing the need for joints.

Lightweight and High Strength: Density is only 1/10 that of concrete pipes, making them easy to transport and install.

Long Service Life: Designed to last over 50 years with low maintenance costs.

Corrosion Resistance: Excellent resistance to chemicals such as acids, alkalis, and salts, suitable for various complex environments.

Low Fluid Resistance: Smooth inner wall with a low friction coefficient, ensuring high transport efficiency.

Eco-Friendly and Recyclable: 100% recyclable material, aligning with green environmental principles.

★Production Standards

HDPE double wall corrugated pipes are strictly produced in accordance with the following international and national standards:

International Standards:

ISO 9969: Plastics piping systems - Determination of ring stiffness for polyethylene (PE) pipes

EN 1401: Plastics piping systems for non-pressure underground drainage and sewerage

Chinese Standards:

GB/T 19472: Polyethylene (PE) double wall corrugated pipes for buried drainage

CJ/T 225: Polyethylene (PE) double wall corrugated pipes for urban drainage

★ Application Fields

Municipal Drainage: Urban rainwater and sewage discharge systems
Agricultural Irrigation: Farmland drainage and irrigation systems
Industrial Drainage: Factory wastewater discharge systems
Mining Drainage: Mine drainage and tailings discharge
Road Drainage: Highway and railway drainage systems
Underground Cable Protection: Protective sleeves for cables and optical fibers

★ Connection Type

Socket Connection: Suitable for pipes with DN⩽600mm, easy operation, high connection strength.
Heat Fusion Connection: Suitable for pipes with DN⩾600mm, high connection strength, good sealing.

★ Key Performance Indicators

Indicator	Standard Value	Test Method
Ring Stiffness	≥4kN/m² (SN4 grade)	ISO 9969
	≥8kN/m² (SN8 grade)	ISO 9969
Hydrostatic Burst Pressure	≥2.5 times working pressure	ASTM D1599
Longitudinal Reversion	≤3%	ISO 2505
Falling Weight Impact Resistance	No breakage	ISO 3127
Oxidation Induction Time	≥20 minutes (200℃)	ISO 11357-6

★ Specifications

Nominal Inside Dia. (mm)	Min Average Inside Dia. (mm)	Min Outside Thicknessmin (mm)	Min Inside Thicknessmin (mm)	Connection Lenght (mm)
200	195	1.1	1.5	54
300	294	1.7	2	64
400	392	2.3	2.5	74
500	490	3	3	85
600	588	3.5	3.5	96
800	785	4.5	4.5	118
1000	985	5	5	140

HDPE Steel Belt Reinforced Spiral Corrugated Pipe

★ Product Characteristics

The HDPE Steel Belt Reinforced Spiral Corrugated Pipe is a new type of pipe made from high-density polyethylene (HDPE) and steel belt composite. By embedding high-strength steel belts into HDPE, a spiral corrugated structure is formed, significantly enhancing the pipe's ring stiffness and compressive performance. This pipe is widely used in drainage, sewage, ventilation, and other fields.

High Strength: The addition of steel belts significantly improves the pipe's ring stiffness and compressive performance.

Corrosion Resistance: HDPE material has excellent chemical corrosion resistance, making it suitable for various harsh environments.

Lightweight: Compared to traditional concrete pipes, HDPE steel belt reinforced spiral corrugated pipes are lightweight, facilitating transportation and installation.

★ Production Standards

National Standard: GB/T 19472.2-2004
International Standard: ISO 9969
Industry Standard: CJ/T 225-2011

★ Application Fields

Municipal engineering: urban drainage and sewage systems
Industrial field: wastewater discharge from chemical, pharmaceutical, food and other industries
Agricultural irrigation: farmland drainage and irrigation systems
Mining engineering: mine drainage and ventilation systems
Construction engineering: building drainage and ventilation systems

★ Connection Type

Socket connection: suitable for small diameter pipes, easy to install.
Hot melt extrusion welding connection: suitable for medium and large diameter pipes, high connection strength.
Electrofusion belt connection: suitable for pipes of various diameters, reliable connection.

★ Specifications

Nominal Inside Dia. (mm)	Min Average Inside Dia. (mm)	Min Outside Thicknessmin (mm)	Min Inside Thicknessmin (mm)	Max Corrugate Distance	Min Steel Belt Thickness
300	294	4	2.5	75	0.4
400	392	4.5	3	85	0.4
500	490	5	3.5	100	0.5
600	588	6	4	110	0.5
700	685	6	4	115	0.5
800	785	7.5	4.5	120	0.7
1000	985	8	5	150	0.7
1200	1185	8	5	180	0.7
2000	1985	9	5	235	1

PPR PIPE SERIES

★Product Characteristics

PPR pipe (Polypropylene Random Copolymer pipe) is a high-performance plastic pipe with the following characteristics:

High Temperature Resistance: PPR pipe can withstand hot water up to 95° C, with a long-term use temperature of 70° C.

Corrosion Resistance: PPR pipe has excellent resistance to most chemicals, making it suitable for various liquid transportation.

Low Thermal Conductivity: PPR pipe has low thermal conductivity, providing good insulation and reducing heat loss.

Environmentally Friendly and Non-Toxic: PPR pipe material is non-toxic and odorless, meeting drinking water hygiene standards, making it suitable for drinking water systems.

Lightweight and High Strength: PPR pipe is lightweight but has high strength, making it easy to transport and install.

★Production Standards

The production and inspection of PPR pipes comply with the following international and domestic standards:

ISO 15874: International standard for plastic piping systems.

GB/T 18742: Chinese national standard, specifying the technical requirements and test methods for PPR pipes.

DIN 8077/8078: German standards, covering the dimensions and performance requirements of PPR pipes.

★ Application Fields

PPR pipes are widely used in the following fields:

Building Water Supply and Drainage: Used in cold and hot water supply systems for residential and office buildings.

Heating Systems: Suitable for floor heating and radiator heating systems.

Industrial Piping: Used for liquid transportation in industries such as chemical, food, and pharmaceutical.

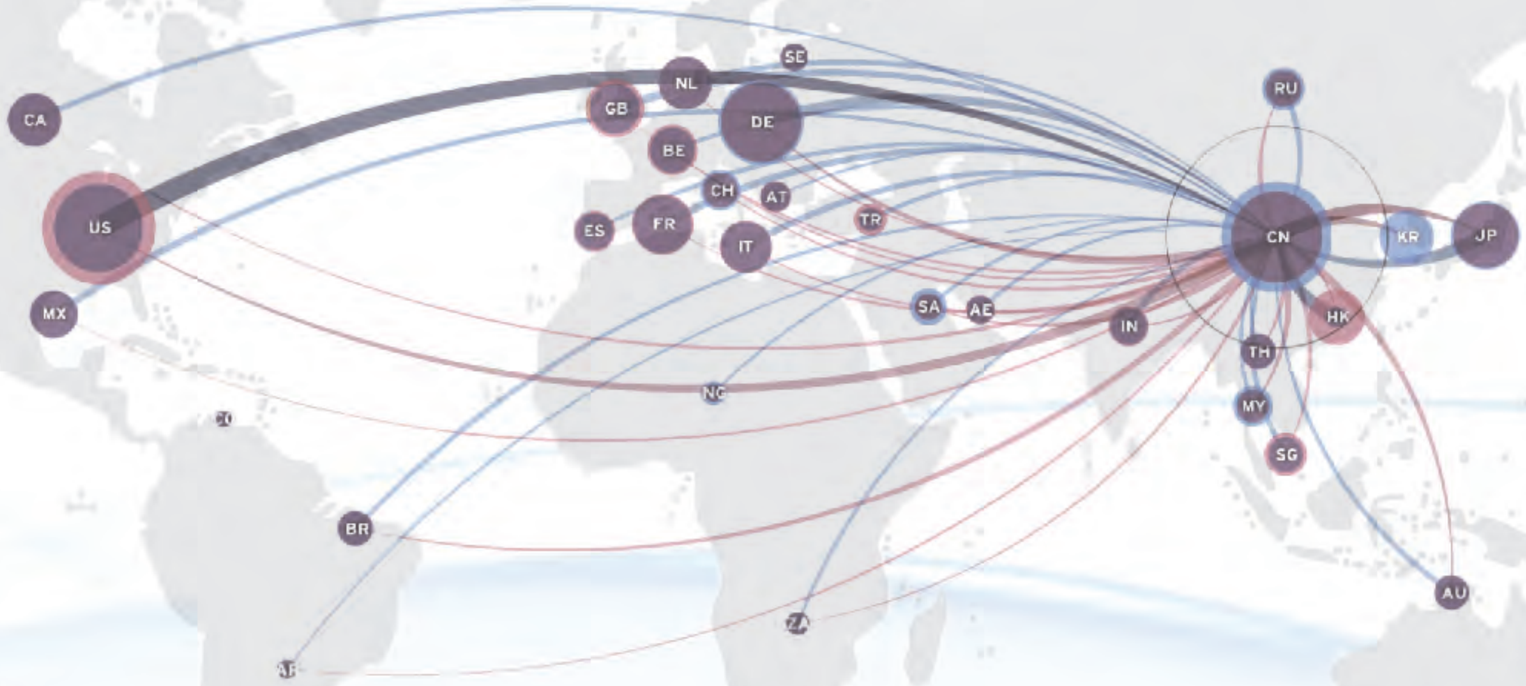
Agricultural Irrigation: Used in irrigation systems for farmland and greenhouses.

Air Conditioning Systems: Used in central air conditioning systems for cold and hot water circulation.

★ Specifications

Diameter (MM)	Wall Thickness(mm)			
	1.25Mpa	1.6Mpa	2.0Mpa	2.5Mpa
16	-	2	2.2	-
20	2	2.3	2.8	3.4
25	2.3	2.8	3.5	4.2
32	2.9	3.6	4.4	5.4
40	3.7	4.5	5.5	6.7
50	4.6	5.6	6.9	8.3
63	5.8	7.1	8.6	10.5
75	6.8	8.4	10.3	12.5
90	8.2	10.1	12.3	15
110	10.1	12.3	15.1	18.3
160	14.6	17.9	23.3	26.6

GLOBAL PRESENCE



Africa (Senegal, Uganda, Tanzania, South Africa, Egypt)
North America (USA, Canada)
South America (Brazil, Argentina, Chile)
Europe (Britain, Germany, France, Poland, Denmark)
Oceania (Australia, New Zealand)
Asia (Southeast Asian countries, Japan, South Korea, Russia, India, Central Asian countries, Middle East)

SIFFO has established good and long-term cooperation with more than 50 countries and regions in Southeast Asia, Australia, Africa, Europe, South America, Russia, etc., and is committed to providing high-quality pipeline solutions for municipal water supply and drainage, agricultural irrigation, mining, energy generation, aquaculture, chemical industry and other fields.

★ Project Cases

Municipal Engineering: Water Supply Improvement in Dakar, Senegal DN710 HDPE Pipe

Municipal Engineering: New Zealand Municipal Drinking Water Project HDPE PIPE

Municipal Engineering: New Zealand Municipal Drinking Water Project HDPE PIPE

Chemical Engineering: Brazilian chemical plant pipeline reconstruction project ,CPVC & UPVC Pipe

Power Generation Project: Geothermal Energy Project in the Philippines， HDPE Pipe & SRPE Pipe

Mining Engineering: Eritrea Zinc Mine High-Pressure Water Delivery Project DN315 PN25 HDPE Pipe

Drainage Project: Bridge Drainage Project in the Philippines ,PVC Pipe

Petroleum Engineering: Corrosion-resistant piping system for UAE petrochemical plant DN1000, HDPE Pipe

SIFFO

SIFFO PIPE MAKES THE WORLD A BETTER PLACE

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