

Solutions that flow with
Precision for a *Lifetime*



SFMC[®]
PIPES & FITTINGS

Savoir Faire Manufacturing Company Pvt. Ltd.



AN ISO 9001:2015 CERTIFIED COMPANY

**HDPE PIPES / DWC PIPES
PLB DUCT PIPES / MDPE PIPES**



Savoir Faire Manufacturing Company Pvt. Ltd.

WHO? WE ARE

Established in the year 2000, SFMC was founded with a vision to deliver innovative, reliable, and high-quality piping solutions for India's rapidly growing infrastructure and construction sectors. Over the past 25 years, the company has evolved into one of India's trusted manufacturers of advanced polymer piping systems, driven by a commitment to engineering excellence, product quality, and customer satisfaction.

SFMC operates modern manufacturing facilities strategically located at **Haridwar, Dehradun, Sonipat, Delhi, and Bhiwani**, enabling efficient production and timely deliveries across the country. Supported by a robust nationwide distribution network, we ensure seamless product availability, even in the most remote regions of India.

With a highly experienced team of engineering, technical, and management professionals, SFMC specializes in complete plumbing solutions, plumbing pipes & fittings, and turnkey plumbing projects. Our integrated manufacturing capabilities, stringent quality control processes, and customer-centric approach have earned us the confidence of distributors, contractors, consultants, government departments, infrastructure developers, and industrial clients nationwide.

Today, SFMC is among India's leading manufacturers of **PP-R, CPVC, uPVC, PVC, SWR, HDPE, MDPE, PLB Duct, 4-Way Multi Duct, DWC Pipes & Fittings, Water Storage Tanks, and a comprehensive range of water management and infrastructure solutions**. Every product is manufactured to meet stringent national and international quality standards, ensuring superior performance, long service life, and complete customer confidence.





HDPE Pipes (High-Density Polyethylene) Pipes are engineered to deliver exceptional strength, durability & long-term performance across a wide range of pressure and non-pressure applications. Manufactured from premium-grade polyethylene, these pipes offer outstanding resistance to corrosion, chemicals, abrasion, impact, and environmental stress, making them an ideal choice for modern infrastructure. Their lightweight construction ensures easy handling, transportation, and installation while significantly reducing installation time and overall project costs. With superior flexibility, leak-proof jointing systems, & an extended service life, HDPE piping systems provide reliable performance even under demanding operating conditions. Available in various grades and pressure classes, HDPE pipes are widely used in water supply, irrigation, sewerage, industrial fluid transportation, gas distribution, telecom ducting, mining & other critical infrastructure projects where durability and reliability are paramount.

Our Product Range & Applications in HDPE :

● HDPE Pipes & Fittings- For Water And Drainage

● HDPE DWC Pipes & Fittings- Sewage, Storm Water

● HDPE DWC Pipe - Electrical Conduit

● HDPE PLB Duct Pipe

● HDPE Multi Duct Pipe

● MDPE Pipe

HDPE pipe as per IS - 4984 : 2016

Range : 16mm - 1200 mm OD in all pressure classes

Material Grades : PE 63, PE 80, PE 100

Pressure Rating : PN 2.5 - PN 20 Kg.

Specifications : As per BIS Standards

HDPE PIPES : IS 4984 : 2016

HDPE Pipe Applications

Public Utilities

- Pumping Mains for Water
- Potable Water Distribution System
- House Service Connections
- Waste Water Treatment Plants
- Aeration and Odour Control Ducting
- Landfill - Leachate Collection & Conveyance
- Landfill - Methane Gas Extraction & Conveyance

Mining Industry

- Leach Lines
- Coal Decant Systems
- Mine Drainage
- Coal Tailings
- Slurry and Sludge Transport
- De-watering
- Dust Suppression
- Sand Stowing

Infrastructure

- Untreated and Treated Effluent
- Stay Cable Pipe for Cable Stayed Bridges
- Desalination Plant
- Culverts and Storm Water Drains
- Thermal & Nuclear Power Station
- Hydel Power Plants
- Dredging & Sand Stowing
- Infiltration

Industrial

- Pulp & Paper
- Chemical Process Lines
- Corrosive Liquids
- Effluent Disposal
- Building & Construction
- Fertilizers
- Food Processing Industry
- Marine Intake and Outfall
- Salt Pan
- Fire Fighting Systems
- Material Handling - Pneumatic Conveyance of Particulate
- Fly-Ash Slurry and others

Irrigation & Agricultural

- Rising Main & Distribution Systems
- Lift and Gravity Irrigation
- Drip Irrigation
- Gated Pipe Irrigation
- Sprinkler Irrigation
- Sub Soil Drainage
- Aquaculture
- Canal Replacement



Gas & Air

- Natural and LP Gas Distribution
- Coal Bed Methane Gas Collection & Distribution
- Air: Chilled air conveyance
- Bio-gas conveyance
- Inert gas conveyance (argon, nitrogen, helium)

Ducting

- Electrical Cable Ducting
- Telecommunication Cable Ducting
- Optical Fibre Cable Ducting
- Micro Duct-House Connections

Sewerage

- Pumping Main for Sewerage
- Force Main for Sewer
- Gravity Main for Sewer
- Rehabilitation of Sewer Lines

Features of HDPE Pipes :

*** Light weight Construction :** HDPE pipes are significantly lighter than conventional metal and concrete pipes, ensuring easier handling, transportation, and faster installation.

*** Excellent Impact Strength :** Designed to withstand high impact loads during handling, transportation, and service, even under challenging site conditions.

*** Superior Flexibility :** High flexibility allows easy bending around obstacles, reduces the need for fittings, and simplifies installation, resulting in lower project costs.

*** Outstanding Chemical Resistance :** Resistant to a wide range of acids, alkalis, salts, and chemicals, making them suitable for industrial and aggressive environments.

*** Abrasion & Corrosion Resistance :** Highly resistant to corrosion, scaling, and abrasion, ensuring long service life and reliable performance when transporting abrasive fluids and slurries.

*** High Flow Efficiency :** The smooth inner surface minimizes friction loss, providing excellent flow characteristics and maintaining consistent hydraulic performance over time.

*** Excellent Low-Temperature Performance :** Retains its strength, toughness, and flexibility even at low temperatures, making it suitable for demanding climatic conditions.

*** Leak-Proof Jointing :** Compatible with advanced jointing methods that provide strong, leak-proof connections, ensuring safe and reliable pipeline performance.

*** Long Service Life :** Engineered for durability with high resistance to environmental stress, delivering dependable performance for decades with minimal maintenance.

*** Cost-Effective Installation :** Available in both coils and straight lengths, HDPE pipes enable faster installation, fewer joints, and reduced overall project costs.

Mechanical and Physical Properties of PE Pipe

Property	Value			Unit
Base density	930 to 960			Kg / m ³
MFR @ 190 Deg.C and 5 kg load	0.2 to 1.1			g / 10 min
Longitudinal Reversion Test	≤ 3			%
Carbon Black content	2.0 to 3.0			%
Carbon Black dispersion	Satisfactory dispersion			-
Anti-oxidant content in PE resin	Max 0.3			%
OIT of PE resin and Pipe @ 200 Deg.C	> 20			Minutes
Volatile content of PE resin	≤ 350			mg / kg
Water content of PE resin	≤ 300			mg / kg
Dimensional characteristics	As per IS 4984-2016			-
Hydraulic characteristics	PE63	PE80	PE100	-
27 Deg.C & 100 hrs Duration	6.9	8.6	10.7	MPa for
80 Deg.C & 48 hrs Duration	3.8	4.9	5.7	Induced
80 Deg.C & 165 hrs Duration	3.5	4.5	5.4	stress
80 Deg.C & 1000 hrs Duration	3.2	4.0	5.0	selected
Tensile strength of Butt fusion joint	Ductile failure			-
Elongation at break	≥ 350			%
Slow crack growth at 80+1 Deg.C, notched test specimen at below internal test pressure (Bar)	≥ 500			Hrs.
PE63	PE80	PE100		
6.4	8.0	9.2		



HDPE Pipe for Sewerage : IS - 14333 : 2022

To fulfill the various requirements of drainage, sewerage and industrial sector. These pipes are suitable for gravity and pressurized applications. PE pipes are considered to be the most useful for undulating terrains.

APPLICATIONS:

- Sewerage Treatment Plant (STP) ● Slurry Lines ● Chemical Applications
- Irrigation Sewer ● Paper Mills ● Sugar Mills ● Distilleries ● Farm Houses
- Housing Societies ● Jal Boards Corporations ● Breweries ● Residential Colonies



IS 4984 : 2016
IS 14333 : 2022

HDPE PIPE SIZES

SDR	SDR 41	SDR 33	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11	SDR 9	SDR 7.4	SDR 6										
Nominal Pressure (PN) Bar																				
PE 63	PN 2	PN 2.5	PN 3.2	PN 4	PN 5	PN 6	PN 8	-	-	-										
PE 80	PN 2.5	PN 3.2	PN 4	PN 5	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20										
PE 100	PN 3	PN 4	PN 5	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20	-										
Wall Thicknesses																				
Nominal OD <i>d_n</i> ,mm																				
	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm	<i>e</i> _{Min} mm	<i>e</i> _{Max} mm
16															1.8	2.1	2.2	2.5	2.7	3.1
20													1.9	2.2	2.3	2.6	2.7	3.1	3.4	3.8
25										1.9	2.2	2.3	2.6	2.8	3.2	3.4	3.8	4.2	4.7	
32								1.9	2.2	2.4	2.7	2.9	3.3	3.6	4.1	4.4	4.9	5.4	6.0	
40						1.9	2.2	2.4	2.7	3.0	3.4	3.7	4.2	4.5	5.1	5.4	6.0	6.7	7.5	
50				2.0	2.3	2.4	2.7	3.0	3.4	3.7	4.2	4.6	5.2	5.6	6.3	6.8	7.6	8.4	9.3	
63				2.5	2.9	3.0	3.4	3.7	4.2	4.7	5.3	5.8	6.5	7.0	7.8	8.6	9.6	10.5	11.7	
75	1.9	2.2	2.3	2.6	2.9	3.3	3.6	4.1	4.5	5.1	5.6	6.3	6.9	7.7	8.4	9.3	10.2	11.3	12.5	13.9
90	2.2	2.5	2.8	3.2	3.5	4.0	4.3	4.8	5.3	5.9	6.7	7.5	8.2	9.1	10.0	11.1	12.2	13.5	15.0	16.6
110	2.7	3.1	3.4	3.8	4.3	4.8	5.9	6.6	6.5	7.3	8.1	9.0	10.0	11.1	12.3	13.6	14.9	16.5	18.4	20.3
125	3.1	3.5	3.8	4.3	4.8	5.4	6.0	6.7	7.4	8.2	9.2	10.2	11.4	12.7	13.9	15.4	16.9	18.7	20.9	23.1
140	3.5	4.0	4.3	4.8	5.4	6.0	6.7	7.5	8.3	9.2	10.3	11.4	12.8	14.2	15.6	17.3	19.0	21.0	23.4	25.8
160	3.9	4.4	4.9	5.5	6.2	6.9	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.8	19.7	21.7	24.0	26.7	29.5
180	4.4	4.9	5.5	6.2	7.0	7.8	8.6	9.6	10.6	11.8	13.3	14.7	16.4	18.1	20.0	22.1	24.4	26.9	30.0	33.1
200	4.9	5.5	6.1	6.8	7.7	8.6	9.6	10.7	11.8	13.1	14.7	16.3	18.2	20.1	22.3	24.6	27.1	29.9	33.4	36.8
225	5.5	6.2	6.9	7.7	8.7	9.7	10.8	12.0	13.3	14.7	16.6	18.4	20.5	22.7	25.0	27.6	30.5	33.7	37.5	41.4
250	6.1	6.8	7.6	8.5	9.7	10.8	12.0	13.3	14.7	16.3	18.4	20.3	22.8	25.2	27.8	30.7	33.8	37.3	41.7	46.0
280	6.9	7.7	8.5	9.5	10.8	12.0	13.4	14.8	16.5	18.3	20.6	22.8	25.5	28.2	31.2	34.4	37.9	41.8	46.7	51.5
315	7.7	8.6	9.6	10.7	12.2	13.5	15.0	16.6	18.6	20.6	23.2	25.6	28.7	31.7	35.0	38.6	42.6	47.0	52.5	57.9
355	8.7	9.7	10.8	12.0	13.7	15.2	16.9	18.7	20.9	23.1	26.1	28.8	32.3	35.6	39.5	43.6	48.0	52.9	59.2	65.2
400	9.8	10.9	12.2	13.5	15.4	17.0	19.1	21.1	23.6	26.1	29.5	32.6	36.4	40.1	44.5	49.1	54.1	59.6	66.7	73.5
450	11.0	12.2	13.7	15.2	17.3	19.1	21.5	23.8	26.5	29.3	33.1	36.5	40.9	45.1	50.0	55.1	60.9	67.1	75.0	82.6
500	12.2	13.5	15.2	16.8	19.3	21.3	23.9	26.4	29.5	32.6	36.8	40.6	45.5	50.2	55.6	61.3	67.9	74.5	83.4	91.8
560	13.7	15.2	17.0	18.8	21.6	23.9	26.7	29.5	33.0	36.4	41.2	45.4	50.9	56.1	62.3	68.6	75.7	83.4	93.4	102.8
630	15.4	17.0	19.1	21.1	24.3	26.8	30.0	33.1	37.1	40.9	46.4	51.1	57.3	63.1	70.0	77.1	85.2	93.8	105.0	115.6
710	17.3	19.1	21.6	23.9	27.3	30.1	33.9	37.4	41.8	46.1	52.2	57.5	64.6	71.2	78.9	86.9	96.0	105.7	118.4	130.3
800	19.5	21.6	24.3	26.8	30.8	34.0	38.1	42.0	47.1	51.9	58.9	64.9	72.8	80.2	88.9	97.9	108.2	119.1		
900	22.0	24.3	27.3	30.1	34.7	38.3	42.9	47.3	53.0	58.4	66.2	72.9	81.9	90.2	100.0	110.1	121.7	134.0		
1000	24.4	26.9	30.3	33.4	38.5	42.5	47.7	52.6	58.9	64.9	73.6	81.1	90.9	100.1	111.2	122.4				
1200	29.3	32.3	36.4	40.1	46.2	50.9	57.2	63.0	70.6	77.8	88.3	97.2	109.1	120.1						



ISO DP 4427 Design Stress 8.0 N/MM² PE MRS 100

Pipe series Nominal pressure PN for 6s 8.0 Mpa O.D	S-8 (SDR 17)	S-6.3 (SDR 13.6)	S-5 (SDR 11)
	PN 10	PN 12.5	PN 16
	(All Dimension in mm) minimum wall thickness		
32	-	-	3.0
40	-	-	3.7
50	-	-	4.6
63	-	4.7	5.8
75	4.5	5.6	6.8
90	5.4	6.7	8.2
110	6.6	8.1	10.0
125	7.4	9.2	11.4
140	8.3	10.3	12.7
160	9.5	11.8	14.6
180	10.7	13.3	16.4
200	11.9	14.7	18.2
225	13.4	16.6	20.5
250	14.8	18.4	22.7
280	16.6	20.6	25.4
315	18.7	23.2	28.6
355	21.1	26.1	32.2
400	23.7	29.4	36.3
450	26.7	33.1	40.9
500	29.7	36.8	45.4
560	33.2	41.2	50.8
630	37.4	46.2	57.2

ISO DP 4427 Design Stress 5.0 N/MM² PE MRS 63

O.D	S-16 (SDR 32)	S-12.5 (SDR 26)	S-8 (SDR 17)	S-5 (SDR 11)	S-3.2 (SDR 7.5)
	Nominal Pressure PN for 6s 5.0 Mpa				
	PN 3.2	PN 4	PN 6*	PN 10	PN 16
16	-	-	-	2.0	2.2
20	-	-	-	2.0	2.8
25	-	-	2.0	2.3	3.8
32	-	-	2.0	2.9	4.4
40	-	2.0	2.4	3.7	5.5
50	-	2.0	3.0	4.6	6.9
63	2.0	2.4	3.8	5.8	8.6
75	2.3	2.9	4.5	6.8	10.3
90	2.8	3.5	5.4	8.2	12.3
110	3.4	4.2	6.6	10.0	15.1
125	3.9	4.8	7.4	11.4	17.1
140	4.3	5.4	8.3	12.7	19.2
160	4.9	6.2	9.5	14.6	21.9
180	5.5	6.9	10.7	16.4	24.6
200	6.2	7.7	11.9	18.2	27.3
225	6.9	8.6	13.4	20.5	30.8
250	7.7	9.6	14.8	22.7	34.2
280	8.6	10.7	16.6	25.4	38.3
315	9.7	12.1	18.7	28.6	43.0
355	10.9	13.6	21.2	32.2	48.5
400	12.3	15.3	23.7	36.3	54.7
450	13.8	17.2	26.7	40.9	61.5
500	15.3	19.1	29.6	45.4	-
560	17.2	21.4	33.2	50.8	-
630	19.3	24.1	37.3	57.2	-

ISO DP 4427 Design Stress 6.3 N/MM² PE MRS 80

O.D	S-10 (SDR 32)	S-8 (SDR 26)	S-6.3 (SDR 17)	S-5 (SDR 11)	S-4 (SDR 7.5)
	Nominal Pressure PN for 6s 6.3 Mpa				
	PN 6**	PN 8	PN 10	PN 12.5	PN 16
16	-	-	-	-	2
20	-	-	-	-	2.3
25	-	-	-	2.3	2.8
32	-	-	-	3.0	3.6
40	-	-	-	3.7	4.5
50	-	-	-	4.6	5.6
63	-	-	4.7	5.8	7.1
75	-	4.5	5.6	6.8	8.4
90	4.3	5.4	6.7	8.2	10.1
110	5.3	6.6	8.1	10.0	12.3
125	6.0	7.4	9.2	11.4	14.0
140	6.7	8.3	10.3	12.7	15.7
160	7.7	9.5	11.8	14.6	17.9
180	8.6	10.7	13.3	16.4	20.1
200	9.6	11.9	14.7	18.2	22.4
225	10.8	13.4	16.6	20.5	25.2
250	11.9	14.8	18.4	22.7	27.9
280	13.4	16.6	20.6	25.4	31.3
315	15.0	18.7	23.2	28.6	35.2
355	16.9	21.1	26.1	32.2	39.7
400	19.1	23.7	29.4	36.3	44.7
450	21.5	26.7	33.1	40.9	50.3
500	23.9	29.7	36.8	45.4	55.8
560	26.7	33.2	41.2	50.8	-
630	30.0	37.4	46.3	57.2	-



MDPE PIPE & FITTINGS

For Water, Gas and Electricity Cables

SFMC Medium Density Polyethylene pipe (MDPE) is light weight, flexible and durable piping system.

Product Range – 20 mm to 630 mm

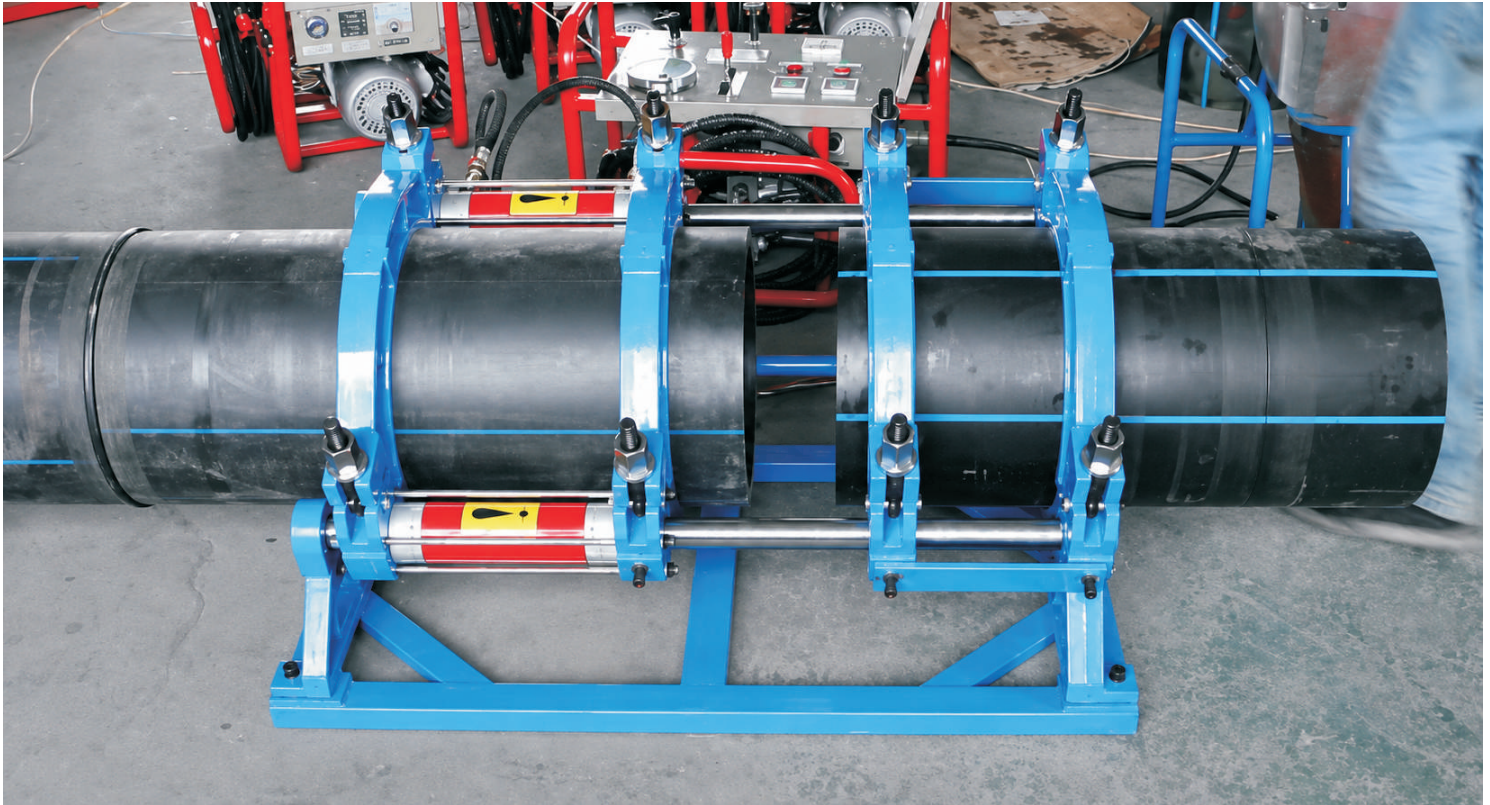
USES : Suitable for Gas Distribution Pipe & Potable Water supply.

BENEFITS

- | |
|---|
| ● Light Weight, Flexible And Durable. |
| ● Crack Resistant. |
| ● Robust Construction With High Impact Strength. |
| ● Suitable For Cold And Waste Water Distribution System. |
| ● Low Friction Losses Due To Excellent Smooth Internal Surface. |
| ● Resistant To Chemical Reaction, Bacterial Growth, Corrosion, Rusting Etc. |



Butt Fusion Jointing



Butt Fusion Procedure for HDPE Pipes & Fittings :

Butt Fusion is the most widely accepted and reliable jointing method for HDPE pipes of 110 mm diameter and above. The process involves heating the pipe ends to a specified temperature and joining them under controlled pressure to create a homogeneous, leak-proof joint. When performed correctly, the welded joint is as strong as the pipe itself.

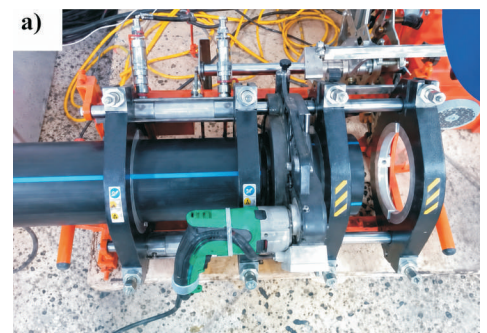
Preparation

Before starting the welding process:

- * Select the appropriate butt fusion machine according to the pipe size.
- * Secure the pipes or fittings firmly in the machine clamps.
- * Align both pipe ends accurately.
- * Clean the inner and outer pipe surfaces to remove dirt, moisture, or contaminants.

a) Facing (Milling) :

Use the facing tool (trimmer) to machine both pipe ends until they are clean, smooth, and perfectly parallel. Remove the trimmer and clean away all shavings. Inspect the pipe ends and repeat the process if necessary.



b) Heating :

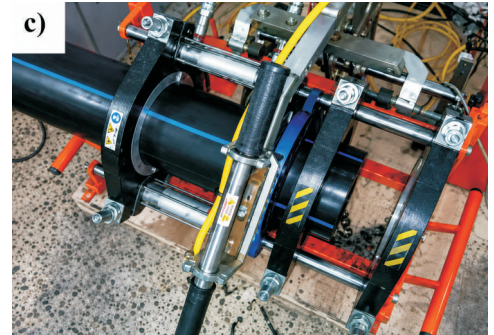
Ensure the heating plate is clean and maintained at the recommended temperature of 200–220°C. Place the heating plate between the aligned pipe ends and apply the specified pressure until a uniform melt bead forms around the entire circumference. Reduce the pressure and continue heating for the recommended soaking time.

c) Joining :

Carefully remove the heating plate within the specified changeover time, ensuring the molten surfaces are not contaminated. Immediately bring the pipe ends together and apply the required fusion pressure to form a uniform weld bead around the joint.

d) Cooling :

Maintain the prescribed fusion pressure throughout the cooling period until the joint has completely solidified. Allow the joint to cool naturally without applying water or any external cooling method. Once cooled, inspect the weld bead to ensure a strong, uniform, and leak-proof joint.



Electro Fusion Jointing

Electro Fusion Jointing for HDPE Pipes & Fittings :

Electro fusion is a reliable and efficient jointing method for HDPE piping systems, particularly where precision, accessibility, and leak-proof performance are essential. Electro fusion fittings such as couplers, elbows, tees, and saddles are manufactured with integrated electrical resistance coils. During installation, the pipe ends are cleaned, prepared, and accurately inserted into the electro fusion fitting. An electro fusion control unit then supplies a controlled electric current to the embedded heating coils, causing the inner surface of the fitting and the outer surface of the pipe to melt and fuse together. After the prescribed cooling period, the joint forms a permanent, homogeneous, and leak-proof connection with excellent mechanical strength and long-term reliability.



HDPE DREDGING SOLUTION

HDPE Pipes for Dredging Systems

HDPE Dredge Pipes are specially engineered for the transportation of abrasive slurries and fluids under pressure in demanding dredging applications. Their exceptional abrasion resistance, corrosion resistance, flexibility, and high impact strength make them an ideal solution for conveying mixtures of water, sand, silt, clay, gravel, and other suspended solids. Manufactured from premium-grade High-Density Polyethylene (HDPE), these pipes are available in a wide range of sizes and pressure ratings to meet diverse project requirements. Each dredge pipe is supplied with HDPE flange adaptors and steel backing flanges, enabling quick installation, secure connections, and easy maintenance. HDPE Dredge Pipes are widely used in dredging operations, mining, river and canal desilting, marine applications, slurry transportation, irrigation projects, and other infrastructure applications where durability and long service life are essential.

Flange Ring Measurement								Bolt Specification	Washer Specification
SL	Size	MS Ring Plate (Ø D)	MS Ring Plate (Ø D)	MS Plate Thickness (Ø T)	No. of Hole	Hole (ØD)	Hole to Hole Distance (ØD)	Nut 7 Bolt Size (Full Thread) OD X Length (Free Length)	Washer Size OD X ID X Thick
01	450	595	464	25 ± 2	20	25 ± 1	551	22 x 180	45 x 23 x 2.5
02	500	678	520	25 ± 2	20	28 ± 1	624	25 x 200	50 x 25.5 x 2.5
03	560	738	580	25 ± 2	20	28 ± 1	684	25 x 200	50 x 25.5 x 2.5
04	630	808	650	25 ± 2	20	28 ± 1	754	25 x 200	50 x 25.5 x 2.5
05	710	888	730	25 ± 2	20	28 ± 1	834	25 x 200	50 x 25.5 x 2.5



HDPE PIPE FITTINGS & ACCESSORIES

HDPE Butt Fusion Welding Fittings



Tee



Elbow / Bend



Reducer



End Cap

HDPE Electro Fusion Fittings



Electro Fusion Coupler



Electro Fusion Elbow



Electro Fusion Tee



Electro Fusion Saddle

PLB Ducts Accessories



Push Fit Coupler



Eng Plug



Simplex Cable Sealing Plug

Compression Fittings



Elbow



FTA



MTA



Service Scddle



Savoir Faire Manufacturing Company Pvt. Ltd.



HDPE SPRINKLER PIPE & IRRIGATION SYSTEM

HDPE Sprinkler Pipes Efficient Irrigation for Higher Productivity Sprinkler irrigation is one of the most efficient methods of water application, enabling uniform distribution of water while significantly improving irrigation efficiency. By simulating natural rainfall, it minimizes water wastage through runoff and evaporation, ensuring optimum moisture reaches the root zone for healthier crop growth and higher yields. The system helps irrigate larger areas using the same quantity of water, reduces water logging, prevents moisture stress, and supports cultivation on uneven terrain. It also protects crops from adverse weather conditions, reduces the risk of frost during winters, and minimizes evaporation losses during hot weather, making it a reliable solution for modern agriculture.

CONSTRUCTION

SFMC Sprinkler Pipes are manufactured from premium-grade High-Density Polyethylene (HDPE), a material renowned for its strength, durability, and long service life. Designed to withstand high operating pressures, these pipes offer excellent resistance to corrosion, chemicals, UV exposure, and harsh weather conditions. Their lightweight construction, superior flexibility, and smooth internal surface ensure easy installation, efficient water flow, and dependable performance in agricultural irrigation systems.

PRODUCT RANGE:

- Size Range : 63 mm - 200 mm OD
- Pressure Class : PN 2.5, PN 3.2, PN 4.0, PN 6.0 with complete range of fittings
- PE Grades: PE-63, PE-80, PE-100

PROPERTIES:

Properties	Value
M.E1(190°C, 5kg load).	0.20 to 1.1gm/10mins.
Specified base density	940.0kg/m3 to 958.0kg/m3
Material Grade	PE-63, PE-80
Carbon Black	(2.5±0.5%)
Reversion	<3%
Hydraulic Characteristics	No sign of localized swelling, leakage or weeping (at 80°C for 165 & 48 hrs.)



IS:17425



HDPE SPRINKLER PIPE & IRRIGATION SYSTEM

DIMENSIONS OF POLYETHYLENE PIPES FOR SPRINKLER IRRIGATION
(All sizes in mm) : as per IS : 14151-1999 (Part 1) with Latest amendments.

Nominal Diameter	Outside Diameter	Nominal Tolerance on outside diameter	Ovality	Wall Thicknesses							
				Class-1 (2.5 kgf/cm ²)		Class-2 (3.2 kgf/cm ²)		Class-3 (4 kgf/cm ²)		Class-4 (6 kgf/cm ²)	
				Min	Max	Min	Max	Min	Max	Min	Max
40	40.0	+0.4	1.4	—	—	—	—	—	—	2.3	2.8
50	50.0	+0.5	1.4	—	—	—	—	2.0	2.4	2.9	3.4
63	63.0	+0.6	1.5	—	—	2.0	2.4	2.5	2.9	3.8	4.4
75	75.0	+0.7	1.6	2.0	2.4	2.5	2.9	3.0	3.4	4.5	5.2
90	90.0	+0.8	1.8	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	110.0	+1.0	2.2	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	125.0	+1.2	2.5	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	140.0	+1.3	2.8	3.5	4.1	4.3	5.0	5.4	6.1	8.3	9.3
160	160.0	+1.5	3.2	3.9	4.5	4.9	5.5	6.2	7.0	9.4	10.2
180	180.0	+1.7	3.6	4.4	5.0	5.5	6.3	6.9	7.8	10.6	11.2
200	200.0	+1.8	4.0	4.9	5.6	6.1	7.0	7.7	8.7	11.8	13.2



1



2



3



4

ACCESSORIES :

1. Coupled Bend
2. Coupled Tee
3. Pump Connecting Nipple (P.C.N)
4. End Cap
5. Sprinkler attachment with Foot Batten
6. Riser Pipe
7. Sprinkler Nozzle





Savoir Faire Manufacturing Company Pvt. Ltd.

NON-PRESSURE DRAINAGE & SEWERAGE PIPES

IS:16205



IS:16098



SFMC Double Wall Corrugated (DWC) Pipes are manufactured from premium-grade High-Density Polyethylene (HDPE) and are designed for underground non-pressure drainage and sewerage applications. The pipes feature a smooth inner surface for efficient flow with minimal friction and a corrugated outer surface that provides superior ring stiffness, enabling them to withstand heavy static and dynamic loads as well as soil movement. Engineered for long-term performance, SFMC DWC Pipes offer excellent resistance to corrosion, chemicals, and gases commonly found in drainage and sewerage systems. Their lightweight construction, high durability, and rubber ring socket jointing ensure quick installation, leak-proof performance, and minimal maintenance. Available in SN 4 and SN 8 stiffness classes, the pipes are supplied in standard 6-metre lengths to meet diverse infrastructure and utility requirements.



DWC PIPE & FITTINGS

DOUBLE WALL CORRUGATED

Standard

SFMC DWC Pipes are manufactured in accordance with the relevant Indian and international standards, including IS 14930 (Part 2), IS 16205 (Part 24): 2018, and EN 50086, ensuring consistent quality, dimensional accuracy, strength, and long-term performance.

Testing

- Ring Flexibility
- Creep Ratio
- Tensile Testing
- Impact Test
- Oxidation Induction Time
- Ring Stiffness
- Water Tightness Test
- Melt Flow Index Test
- Environmental Stress Cracking Resistance Test

Size Range IS : 16098 : 2013

Double Wall Corrugated Sewerage Pipe (mm)					
Nominal ID	Socket Length	Minimum Wall Thickness		Stiffness Class	Length (Mtr.)
		$e_{4, Min}$ mm	$e_{5, Min}$ mm		
75	27	1.0	0.85	Sn4 or SN8	6 Mtr.
100	32	1.0	1.0	SN4 or SN8	6 Mtr.
125	38	1.2	1.0	SN4 or SN8	6 Mtr.
135	39	1.2	1.0	Sn4 or SN8	6 Mtr.
150	43	1.3	1.0	SN4 or SN8	6 Mtr.
170	48	1.4	1.0	SN4 or SN8	6 Mtr.
200	54	1.5	1.1	SN4 or SN8	6 Mtr.
225	55	1.7	1.4	SN4 or SN8	6 Mtr.
250	59	1.8	1.5	SN4 or SN8	6 Mtr.
300	64	2.0	1.7	SN4 or SN8	6 Mtr.
400	74	2.5	2.3	SN4 or SN8	6 Mtr.
500	85	3.0	3.0	SN4 or SN8	6 Mtr.
600	96	3.5	3.5	SN4 or SN8	6 Mtr.
800	118	4.5	4.5	SN4 or SN8	6 Mtr.
1000	140	5.0	5.0	SN4 or SN8	6 Mtr.
1200	162	5.0	5.0	SN4 or SN8	6 Mtr.



COMPARISON BETWEEN DWC & RCC PIPES

Parameters	DWC (HDPE Double-wall Corrugated) Pipes	RCC Pipes
Length Of Pipes Available	6.0 m	2.0 - 2.5 m
Pipe Diameters Available	100 - 1000 mm	150 - 2200 mm
Pipe Material Property	Flexible Pipe	Rigid pipe
Pipe Design (Structural Property)	Due To Its Flexibility It Allows Deformation In Diameter As Well As In Joints Under External Load & Soil Natural Movement And Hence Operates Years After Years Without Affecting The Environment	Due To Its Rigid Nature It Could Not Deform & Hence Gets Damaged Under External Load or Leaks Due To Natural Soil Movement At Joint. Sewer Water Could Also Leach In Ground Water Harming The Environment
Pipe Jointing	Socket & Spigot Joint With Elastomeric Sealing Ring	1. Collar Joint With Help Of Cement Mortar 2. Socket & Spigot Joint With Rubber Ring And Cement Mortar
Pipe Weight	Very Light	Heavy ; 19-20 Times Heavy Than DWC Pipes
Pipe Roughness Coefficient	0.009 ; Much Higher Flow Rate Due To Less Roughness Coefficient And Hence During Design, Pipe Diameter Requirement Is Less As Compared To Concrete & Di Pipes	0.014 ; Lesser Flow Rate Due To More Roughness Coefficient And Hence During Designing, Pipe Diameter Requirement Will Be Higher Than DWC* Pipe
Handling Of Pipe	Easy Due To Its Light Weight	Difficult Due To Its Heavy Weight
Corrosion Resistance	High Corrosion Resistance	Not Resistant To Hydrogen Sulfide Gas Which Is Present In All Sewer Pipes, Hence Sulphate Resistant Cement Is Used During Manufacture
Installation	Good Flexibility, Low Requirements For Foundation Base For Laying, Good Bending	High Rigidity, High Requirement For Foundation Base For Laying, Not Easy To Handle & Bend, Difficult To Connect With Other Pipe
Pipe Class	Stiffness Class SN 4, SN 8 (Non-Internal Pressure Applications)	NP 1, NP 2, NP 3, NP 4 (Non-Internal Pressure Applications)
Pipe Stacking On Site	Stacked On Plain Ground. Smaller Diameter Pipes Can Be Nested In Bigger Diameter Pipes	Stacked On Plain Ground Separately. Can Not Be Nested Due To Its Heavy Weight
Pipe Handling On Field	Light Weight Hence Safe In Manual Handling, Has High Impact Resistance And Is Non-Breakable Due To Mishandling	Heavy Weight Hence Poor Safety During Handling, May Lead To Damage Due To Mishandling
Working Features	High Safety Under Buried Installation	Low Safety Under Buried Installation
Life	More Than 50 Years	Around 15-20 Years

Features of DWC Pipes

- FLEXIBLE
- LONG LIFE
- EASY TO HANDLE
- LONG PIPES
- COST EFFECTIVE
- ANTI-RODENT MATERIAL
- CORROSION & ABRASION RESISTANT
- ENVIRONMENT FRIENDLY
- LEAK PROOF
- EASY TO INSTALL

Application of DWC Pipes

- SEWERAGE
- STORM WATER & SURFACE WATER DRAINAGE
- UNDERGROUND DRAINAGE
- UNDERGROUND CABLE PROTECTION
- HIGHWAY & ROAD DRAINAGE

DWC PIPE & FITTINGS

Double Wall Corrugated

Excavation

- Sewer trenches should be in straight lines as much as possible
- Excavated spoils should not be deposited in the proximity to prevent the collapse of the side of the trenches
- The sides of the trench should be supported by shoring (wherever necessary) to ensure proper and speedy excavations and concurrently ensuring necessary protection to contiguous structures
- Dewatering: Sewer installations in trenches should be adequately dewatered for the placement of the pipe at proper gradient till the pipe is integrated through socket and spigot joint with the already laid segment

Bedding

- For maximum combined loading (Wheel Load + Backfill), any form of cement, concrete structural bedding would not be necessary
- For maintenance of sewer slopes the initial backfill should be enveloped with sand or gravel (as computed through structural design of buried flexible conduit) over a single BFS (Brick Flat Soling)

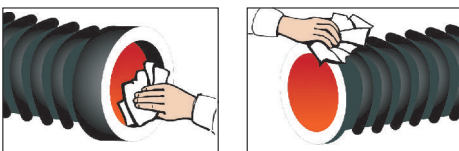
Laying

- For shallow trenches, place the pipe manually on the initial backfill envelop, directly
 - For deep trenches with shoring / mild steel sheet piling
- a) Make the trench reasonably free from ground water and other liquids
 - b) Place the pipe on the top level cross-struts of the timber shoring / mild steel sheet piling framework
 - c) Dismantle one / two cross struts and lower layer of the cross-struts and re-fix the struts immediately
 - d) In the same manner, reach up to the initial back filling and place the pipe at proper slope
 - e) Ensure anchorage, if any, after laying

Jointing Procedure

DWC* pipes are manufactured with built in socket / bell.

- Clean the surface of the spigot socket using a cloth

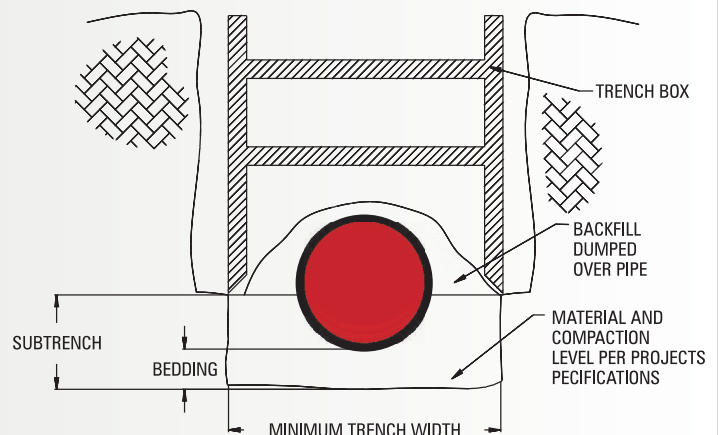


- Insert the rubber ring on the spigot end in between first corrugated valley
- Carefully insert the spigot end into the socket end of pipe.

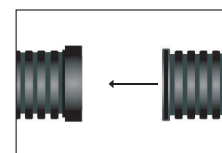
Installation of DWC Pipes

Trench Preparation

Sewer Trench width depends on the soil condition, type of side protection and the working space required at the bottom of the trench for smooth installations. Considering all the above factors, minimum trench width as per IS 16098 Part 2 is -



The trench depth should be minimum 1.5 mtr onwards





DWC PIPE & FITTINGS

Electrical Conduit Systems

Unique Feature For Double Walled Corrugated (DWC Pipes) (Electrical Conduit Systems)

SFMC DWC PIPES are designed as technically superior and cost-effective solution for the replacement of GI, RCC pipes in the field of optic fiber cable, Railway Signaling cable, electric cable and Telecom cable networks.

SFMC DWC PIPES are manufactured from virgin High Density Polyethylene (HDPE) in double walled Construction. The Outer Corrugated wall while making it light weight. gives excellent mechanical properties like high ring Stiffness, Impact strength and Crush Resistance. The inner smooth wall facilitates easy insertion of ducts and cables easily.

SFMC DWC PIPES with its excellent mechanical properties and ability to withstand heavy external loads when properly buried and back filled, is ideally suited for usage for usage as jacket/ casing duct in those environments where direct placement of duct and cable is note safe

Advantages Of DWC

- Very Good Resistance To Corrosion
- Chemically Inert
- Good Impact Strength
- Good Abrasion Resistance
- Good Abrasion Resistance
- No Weathering Effect
- Environmentally Safe
- Recyclable
- Available In Colours On Demand

Standard Lengths

- 40 mm / 50 mm / 63 mm Upto 500 mtr. Coils
- 75 mm and Above Sizes - 6 mtrs Straight Pipes.

Size Range IS : 16205 : 2018

Serial No.	Double Wall Corrugated Pipe (mm)			
	Duct Size	Nominal O.D	Nominal I.D	Nominal Delivery Length (Mtr.)
01	40/32	40	32	100
02	50/38	50	38	100
03	63/50	63	50	100
04	75/63	75	63	6
05	90/76	90	76	6
06	110/96	110	96	6
07	120/103.5	120	103.5	6
08	160/136	160	136	6
09	180/152	180	152	6
10	200/176	200	176	6
11	250/217	250	217	6
12	300/260	300	260	6
13	315/275	315	275	6

Standard

SFMC DWC Pipes are manufactured in accordance with the relevant Indian and international standards, including IS 14930 (Part 2), IS 16205 (Part 24): 2018, and EN 50086, ensuring consistent quality, dimensional accuracy, strength, and long-term performance.



SFMC HDPE Permanent Lubricated Bore (PLB) Duct Pipes are manufactured from premium virgin High-Density Polyethylene (HDPE) using advanced manufacturing technology to ensure superior quality, durability, and consistent performance. Designed for the safe and efficient installation of Optical Fiber Cables (OFC), these ducts provide a reliable underground conduit solution for modern telecommunication networks. Manufactured in compliance with applicable IS, ASTM, TEC, and RDSO standards, SFMC PLB Ducts can also be customized to meet specific project requirements. Designed for Optical Fiber Networks Engineered for high-performance cable installation, SFMC PLB Ducts provide excellent mechanical strength, flexibility, impact resistance, and long service life. Their smooth, permanently lubricated inner surface minimizes friction during cable blowing and pulling operations, enabling faster installation while reducing the risk of cable damage.

Designed for Optical Fiber Network

Engineered for high-performance cable installation, SFMC PLB Ducts provide excellent mechanical strength, flexibility, impact resistance, and long service life. Their smooth, permanently lubricated inner surface minimizes friction during cable blowing and pulling operations, enabling faster installation while reducing the risk of cable damage.

Permanent Lubrication

The inner surface of SFMC PLB Ducts is permanently coated with a specially formulated lubricating layer that is molecularly bonded to the HDPE. This ensures that the lubricant does not peel, wear off, or migrate over time, maintaining consistent performance throughout the service life of the duct. With an exceptionally low coefficient of friction (≤ 0.06), the ducts allow effortless installation of optical fiber cables over longer distances with reduced pulling force, making them ideal for telecom, broadband, FTTH, and other underground communication infrastructure projects.

Fittings & Accessories

- Plastic Couplers to join two Duct lengths air tight & water tight.
- End plugs to seal Duct ends prior to the installation of cable.
- Cable sealings plugs to seal Ducts ends after insertion of the cable.
- End caps mad of hard rubber, fitted on both the ends of ducts coil upon manufacturing.

SPECIFICATIONS

Size Range	32/26 mm, 40/33 mm, 40/34.2 mm, 50/42 mm, 75/67 mm and 110/98.7
Color	Yellow, Red, Violet, Green, Blue, Grey, Orange And Brown.
Lengths	Available in Length & Coils of 1000 / 500 / 200 Meters Length.
Material Grades	HDPE Telecom Ducts Are Manufactured With The Superior Grade Material Grades Of High-density Polyethylene Materials. HDPE Pipes Manufactured Meets All The Requirements Of Tec Specifications As Well As Is 4984 : 2016



PERFORMANCE RATINGS :

Co-Efficient Of Friction : Max. 0.06

Temperature Resistance Range : -5°C To + 50°C

Anticipated Life Time : 50

Bending Radius : Minimum Ten Times Of O.D.



Benefits

- **Advanced Silicon Lubrication** : A permanently lubricated silicon inner layer significantly reduces friction, enabling faster cable blowing speeds and effortless cable installation.
- **Easy & Efficient Installation** : The smooth internal surface and flexible HDPE construction simplify cable laying, reducing installation time and labour costs.
- **Superior Cable Protection** : Provides a secure conduit for optical fiber cables, minimizing the risk of cable damage and ensuring long-term network reliability.
- **Exceptional Durability** : Manufactured from premium-grade HDPE, offering excellent resistance to corrosion, abrasion, UV exposure, impact, and harsh environmental conditions.
- **Versatile Applications** : Ideal for telecom, FTTH, broadband, utility, and communication networks across urban, rural, industrial, and infrastructure projects.
- **Cost-Effective Solution** : Low installation and maintenance requirements, combined with extended service life, result in reduced lifecycle costs.
- **Environmentally Friendly** : Manufactured using high-quality, recyclable materials that comply with applicable national and international quality standards, supporting sustainable infrastructure development.

Product Properties

Size (mm)	O.D (Average)	I.D (Average)	Average Thickness
32/26	32	26	3.00 mm
40/33	40	33	3.5 mm
40/34.2	40	34.2	2.8 mm
50/42	50	42	4 mm
75/67	75	67	4 mm
110/98.7	110	98.7	5.7 mm

APPLICATIONS :

- Telecommunication
- Underground Optical Fibre Cables
- Railways Information Network
- Cable Service Providers
- Computer Networking
- Defense Network

HDPE Multi Duct Pipes are advanced cable management solutions made from High-Density Polyethylene (HDPE) that combine multiple micro ducts within a single outer jacket. These ducts are specifically designed to house and protect fibre optic cables or other communication lines in a compact and organized manner.

Why HDPE Multi Duct Pipes Are Useful:

- Space Efficiency
- Efficient Route Planning
- Environmental Resistance
- Cost-Effective Installation
- Future-Proofing Infrastructure
- Durability & Protection
- Ease of Cable Management



Available Size

Pipe Configuration	Sizes OD (MM)	Sizes ID (MM)
3 Way	32	26
	40	33
	50	42
4 Way	32	26
	40	33
	50	42
7 Way	32	26
	40	33
	50	42

Installation Method :

- Duct Installation:** Ducts are installed, and then optical fiber cables are pulled or blown through them.
- Pulling Method:** Cables are pulled through the plastic pipe using a pulling rope or cable.
- Blowing Method:** Cables are blown through the plastic pipe using compressed air.
- Direct Burial:** Optical fiber cables are buried directly in the ground, often using a trenching machine.
- Aerial Installation:** Optical fiber cables are installed aerially, often using existing infrastructure like power poles.

PRODUCTION & IN HOUSE LAB

Laboratory Testing Facilities :

At SFMC, quality is ensured through advanced in-house laboratory testing facilities equipped with modern testing instruments and stringent quality control systems. Every product undergoes rigorous testing at various stages of manufacturing to ensure compliance with applicable national and international standards, delivering consistent performance, reliability, and long service life. The following tests are conducted in accordance with the relevant Indian and international standards:

- Tensile Test
- Hydrostatic pressure test. (Result show in computerize).
- Opacity Test.
- Impact Test.
- Density Test.
- Heat Reversion Test



SFMC is a Member of Internationally Reputed Organisations

- Indian Plumbing Association
- World Plumbing Council
- FIEO (Federation of Indian Export Organizations)

Government Approvals of SFMC Products

- | | | |
|--------------|---------------------------|-----------------------------------|
| ■ Railways | ■ MHADA | ■ UPRNN |
| ■ CPWD | ■ CIDCO | ■ Royal Govt. of Bhutan |
| ■ MES | ■ Engineers India Limited | ■ PWD of Various State |
| ■ PWD | ■ DDA | ■ Municipal Corporation of Mumbai |
| ■ PHED (JJM) | | |

OUR PRESTIGIOUS CLIENTS





Savoir Faire Manufacturing Company Pvt. Ltd.

1st time
in **India**
with **3 Layer**
technology



**MANUFACTURER OF PPR, CPVC, UPVC, SWR, ASTM,
DWC, MDPE, HDPE PIPES & FITTINGS, WATER TANK & SMC PANEL TANKS**

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