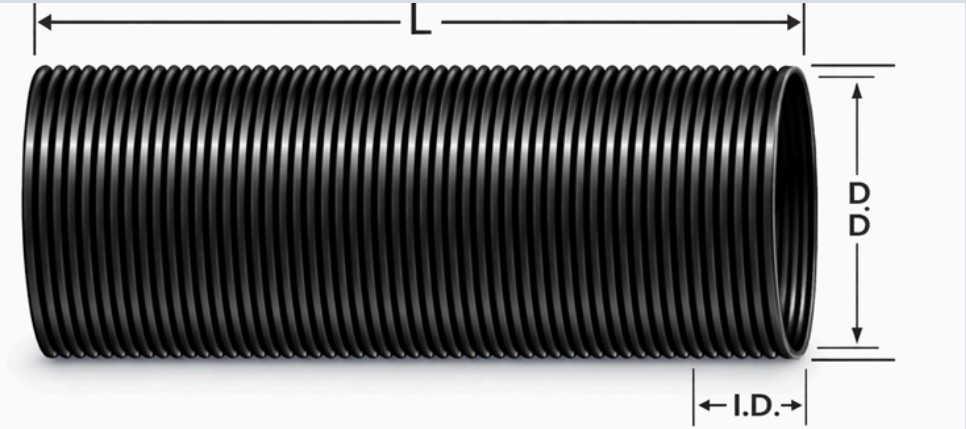
STANDARD LENGTH



The standard length ranges from 6 to 12 meters, allowing for easier storage, handling, and transportation.







FOR INQUIRIES

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5DRAGON
Construction Corporation

HDPE STRUCTURED WALL PIPE



HDPE STRUCTURED WALL PIPE

WHAT IS STRUCTURED WALL PIPE?

HDPE Structured Wall pipe is a high-performance, spirally wound HDPE solution that combines exceptional strength and flexibility, making it the modern replacement for traditional piping systems such as concrete, corrugated metal pipe (CMP), and PVC.

FOR MULTIPLE USES:



TANK APPLICATION

HDPE Structured Pipes offers a safe, non-toxic HDPE solution for potable water storage, providing strong corrosion resistance and long-lasting,hygienic performance.



CULVERTS

Durapipe delivers a durable, leak-resistant HDPE sewerage solution that ensures long-lasting, efficient wastewater flow.



DRAINAGE SYSTEMS

provides a lightweight, high-capacity HDPE drainage solution designed for fast installation and efficient water management across all project types.



PENSTOCK PIPELINES

HDPE Structured Pipes deliver high-strength, smooth-flow performance forefficient, low-maintenance hydropower operation.



SEWERAGE SYSTEMS

delivers a durable, leak-resistant HDPE system that prevents corrosion, chemical damage, and root intrusion—ideal for long-term sewerage reliability.



LANDFILL

chemical-resistant HDPE construction ensures safe, durable leachate and gas management, built to perform in harsh landfill environments.

LOAD BEARING AND NON-LOAD BEARING:

NON-LOAD BEARING (NLB)

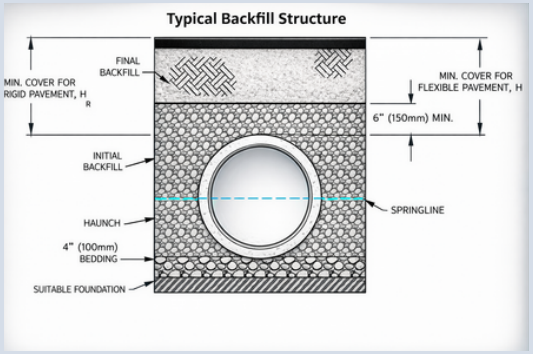
Designed to support earth loads and permanent surcharge loads.

LOAD BEARING (LB)

Designed to support earth loads, permanent surcharge loads, and live loads, including traffic from heavy vehicles.

PIPE DIAMETER SIZES

DN / ID	DN / OD Range
300 mm	310 – 460 mm
400 mm	510 – 560 mm
500 mm	610 – 660 mm
600 mm	610 – 760 mm
800 mm	810 – 960 mm
1000 mm	1010 – 1160 mm
1200 mm	1210 – 1360 mm
1500 mm	1510 – 1360 mm
1800 mm	1810 – 1960 mm
2000 mm	2010 – 2160 mm
3000 mm	3010 – 3160 mm
3000 mm	3010 – 3160 mm
3500 mm	3510 – 3660 mm
3500 mm	3510 – 3660 mm
3500 mm	3510 – 3660 mm



BACKFILL SELECTION

- Only native soils classified as Class I, II, or III are permitted for use as backfill material.
- Class I materials may be placed by dumping and lightly tamped or knifed to remove any voids.
- Class II and Class III materials (such as sand, sand–gravel mixtures, and other non-cohesive soils) must be properly compacted to eliminate air pockets and ensure stability.

STRUCTURED WALL HDPE EMBEDMENT

These guidelines provide recommended practices for the installation of subsurface drainage systems, focusing on proper backfill selection, placement, and compaction to ensure long-term structural performance. The recommendations follow the design criteria outlined in ASTM F449 and ASTM F2648.

Description	Soil Classification		Min. Compaction Required (Std. Proctor Density (%)
	ASTM D2321	ASTM D2487	
Graded or crushed stone Crushed Gravel	Class I	-	Dumped
Well-graded sand, gravels, and gravelsand mixtures: Poorly graded sand, gravels, and gravel/sand mixtures; Little or no fines	Class II	GW GP SW SP	85%
Silty or clayey gravels, Gravels/ sand/silt or gravels and clay mixtures: Silty or clayey sands, sand/ clay or sand/silt mixtures	Class III	GM GC SM SC	80%
Silty or clayey gravels, Gravels/ sand/silt or gravels and clay mixtures: Silty or clayey sands, sand/ clay or sand/silt mixtures	Class III	GM GC SM SC	90%

BENEFITS AND FEATURE:

Lightweight

Easier to transport and install than concrete or steel.

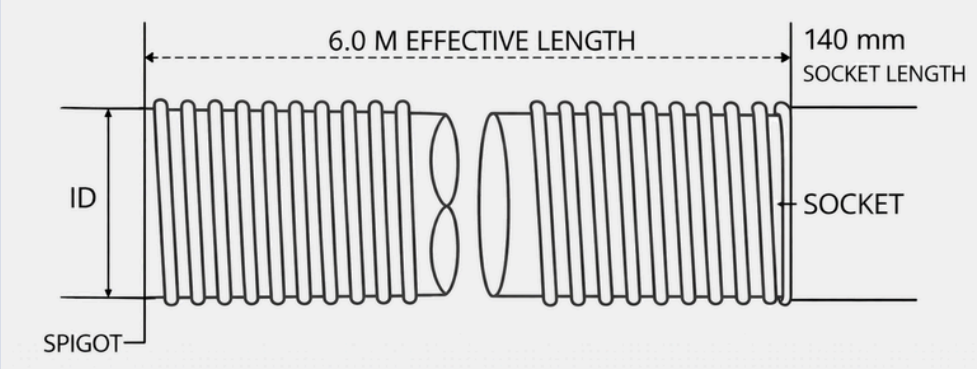
Corrosion-resistant

Built to withstand chemicals and harsh environments.

Long-lasting

Durable up to 100 years, cutting replacement costs.

STANDARD LENGTH



Pipes are offered in diameters from 300 mm up to 3500 mm, with various ring stiffness options available to meet different application requirements.







FOR INQUIRIES

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HDPE DUAL WALL PIPE

STRENGHT BENEATH GROUND



HDPE DUAL WALL PIPE

FOR MULTIPLE USES:

- Sewage and Storm Drainage Systems
- Sewage Treatment Plant
- Industrial Waste discharge
- Mixed water channel
- Irrigation, Mines and Building
- Road/Highway Cross drainage



WHAT IS HDPE DUAL WALL PIPE?

HDPE dual-wall corrugated pipes are made from high-density polyethylene with a corrugated outer wall for strength and a smooth inner wall for efficient flow. Available in sizes from 150 mm to 2000 mm, they are ideal for sewer and drainage systems.

BENEFITS AND FEATURE:



EASY TO INSTALL



HIGH FLOW CAPACITY



MODERN FINISH



ECO-FRIENDLY



CHEMICAL AND ABRASION RESISTANT



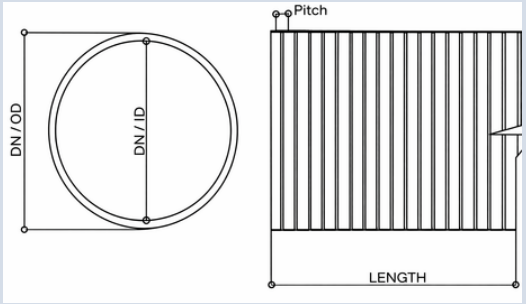
LIGHTWEIGHT

TECHNICAL DATA

PIPE DIAMETER

SIZE	DN / ID (mm)	DN / OD (mm)	PITCH (mm)
150 mm	150 mm	167 mm	17.5 mm
200 mm	217 mm	224 mm	17.5 mm
250 mm	247 mm	287 mm	27 mm
300 mm	297 mm	333 mm	27 mm
400 mm	396 mm	442 mm	30 mm
500 mm	495 mm	556 mm	47.5 mm
600 mm	594 mm	650 mm	34.5 mm
700 mm	693 mm	739 mm	46.3 mm
800 mm	792 mm	868 mm	46.3 mm
900 mm	891 mm	958 mm	47.5 mm
1000 mm	990 mm	1092 mm	52.3 mm
1200 mm	1188 mm	1235 mm	59.1 mm
1300 mm	1287 mm	1353 mm	65.9 mm
1400 mm	1386 mm	1452 mm	65.9 mm
1500 mm	1485 mm	1563 mm	87.5 mm
1600 mm	1584 mm	1672 mm	87.5 mm
1800 mm	1782 mm	1867 mm	87.5 mm
2000 mm	1980 mm	2062 mm	87.5 mm

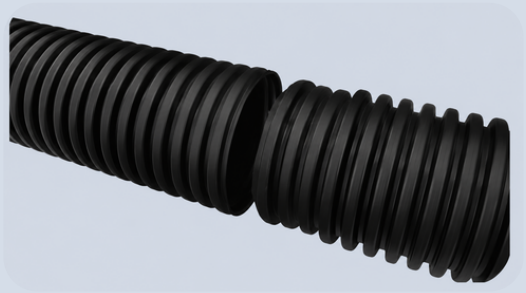
Approximate Measument but minimal tolerance mm.

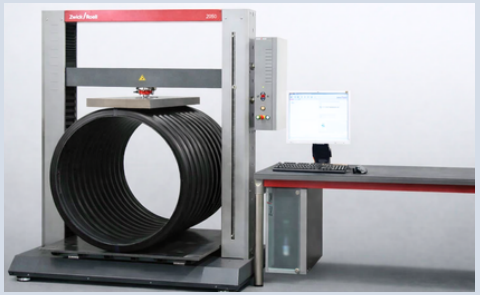


Our pipes come in **150–2000** mm diameters and durable **SN 4 and SN 8** classes. Available in plain-end or integral-socket designs with complete fittings, they also include an assembly jig for quick, hassle-free installation.

HDPE HOLLOW WOUND DRAINAGE PIPE CONNECTION

- Socket and Socket type electric hot melt connection
- Flaring socket type gasket connection
- Connection of thermal shrinking sleeve





RING STIFFNESS TESTING

Ring stiffness measures a pipe's resistance to deformation under external radial load and is indicated by the slope of the force–deformation curve. **HDPE dual-wall corrugated pipe** is tested for ring stiffness at the 5Dragon Construction Plant.