

Sclairpipe[®]

HDPE Solid Wall Pressure Pipe



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Extreme weather, aging infrastructure, and rapid population growth are overwhelming our water piping systems, leading to failures, increased maintenance costs, and health risks. To combat these challenges, North American communities demand durable infrastructure that is built to last. With thousands of installations and a 100+ year design life, Sclairpipe® stands as the trusted choice for municipal infrastructure that endures.

Applications

As a versatile HDPE pipe, Sclairpipe®'s versatility is engineered for peak performance in demanding municipal and industrial applications. With pipe sizes ranging from 3" to 63", choose the Sclairpipe that suits your needs.

Potable Water

Sclairpipe® is an optimal solution for pressurized potable water systems, suitable for both new water main installations and the restoration of aging or compromised pipelines. Sclairpipe's high cyclic surge tolerance enables it to withstand frequent pressure surges that exceed its static pressure, thereby minimizing the risk of main breaks due to pressure spikes.

Applications: Potable Water, Freshwater Transfer, Marine Inlet & Outfall, River Crossings

SCLAIRPIPE® APPLICATIONS

- Pressure Water
- Sewage Systems
- Water Mains
- Sliplining
- Fire Mains
- Conduit
- Landfill
- Biofilters
- Gas Gathering
- Marine Pipelines & Crossings
- Deep Water Intakes & Outfalls



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Industrial & Mining

Sclairpipe® is ideal for use in tailings disposal and water management applications. Its high resistance to corrosion, abrasion, UV rays, and acids or salts ensures a 100+ year design life, making it the pipe of choice when superior operational performance is demanded.

Applications: Pulp & Paper Mills, Power Plants, Hydro Penstocks, Desalination Plants, Water Treatment, Manufacturing Plants, River Water Diversion, Reclamation lines, and Slurry transport

Irrigation & Agriculture

Sclairpipe® is a cost-effective solution for irrigation and agricultural applications. Unique joining methods provide a continuous length of pipe, eliminating all potential leak points and ensuring that a Sclairpipe irrigation system will stand the test of time.

Applications: Canal Piping, Turnouts, Culverts, Inverted Siphons, Flumes, Pipe Mains, Surface Irrigation, Drag Lines, Tail Water Return, Canals, Laterals, Center Pivot Piping

Deep Water Heating and Cooling

Sclairpipe® can be assembled on shore in a continuous flexible length, floated on the water's surface and then sunk by a controlled process. The pipe can also be manufactured in specific lengths and connected on site by flanges with the aid of marine divers.



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Sclairpipe® Advantages

Corrosion Resistance

Superior resistance to corrosion, tuberculation, harsh chemicals, including hydrogen sulfide, zebra mussel fouling, and biological growth enables a design life of over 100 years, delivering one of the lowest life cycle costs in the industry - a characteristic that other piping materials cannot match.

Abrasion Resistance

Polyethylene (PE) pipe is the preferred choice for transporting slurry solutions commonly encountered in mining and similar abrasive applications. Its exceptional abrasion resistance stems from the pipe's inherent elasticity, which allows slurry particles to rebound off the interior surface rather than cause wear. Combined with the material's high toughness, this property enables PE slurry pipelines to significantly outlast traditional metal piping. Laboratory testing has demonstrated that PE pipes can offer three to five times the service life of metal alternatives in comparable conditions.

Leak-Resistant Joints

Heat fusion (butt, electrofusion, socket and saddle) provides a continuous leak-free system that eliminates the risk of joint leakage. Fused joints are fully restrained and therefore reduce or eliminate the need for expensive thrust blocks.

100+ Year Design Life

The Plastics Pipe Institute (PPI), of which Infra Pipes is a proud member, estimates that the service life of HDPE pipe is 100+ years due to the advanced characteristics and properties of Sclairpipe®, thereby offering unmatched performance and durability compared to other piping materials.

Superior Flow Characteristics

A hydrophobic, smooth interior surface and a consistent Hazen-Williams roughness coefficient (C) factor of 150 ensures flow is maintained over the 100+ year design life of Sclairpipe®, resulting in a flexible and resilient pipe.

SCLAIRPIPE® ADVANTAGES

- Light Weight
- Eco-Friendly
- Corrosion Resistant
- Abrasion Resistant
- Leak-Resistant Joints
- 100+ Year Design Life
- Resistant to Seismic Acceleration
- High Cyclic Surge Tolerance

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Light Weight

At 1/8th the weight of similarly sized steel pipe, Sclairpipe® allows for easy and efficient installation and transportation, delivering significant cost savings as minimal machinery and labour are required.

Eco-Friendly

Sclairpipe® has the lowest projected environmental impact compared to other common piping materials due to its high corrosion resistance, flexibility, ease of transportation and installation, and century-long service life, as per the PPI.

Flexibility

Sclairpipe® can be installed in a curvilinear fashion to a radius as small as 25 times the pipe's nominal diameter. Sclairpipe performs exceptionally well in high-volume and high-pressure systems, serving a variety of municipal and industrial applications.

QUALITY ASSURANCE

All Infra Pipes products are manufactured from special, high-strength resins, with complete quality control maintained throughout the entire production process, from raw materials to finished pipe products.

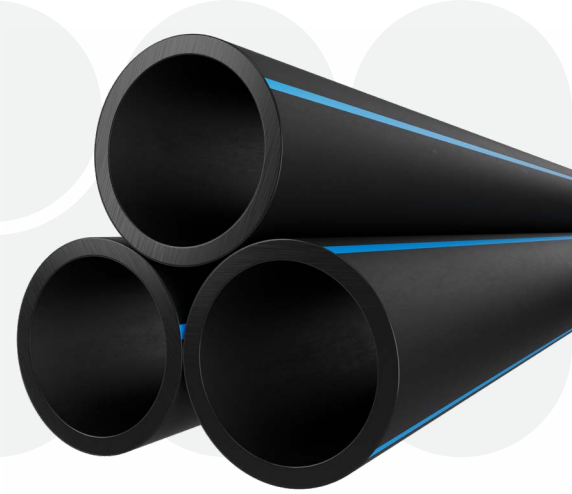
Our strict manufacturing specifications are verified daily, using precise dimensional controls and accelerated long-term hydrostatic testing. A continuous quality control process ensures longterm pipe performance. Sclairpipe resins are classified according to ASTM D3350.

Sclairpipe's material classification is based on PPI's method of determining and validating the Long-Term Hydrostatic Stress (LHTS) of polyethylene pipe. The pipe resin used to extrude bi-modal PE4710 Sclairpipe® has a minimum cell classification of PE445574C and a minimum PENT of 2,000 hours.



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Shipping Information

Infra Pipes welcomes your inquiries for sizes, lengths, and pressure ratings of Sclairpipe®. The standard stocked length of Sclairpipe is 40 to 50 feet, in sizes above 4". Other pipe lengths, including 60 feet, are available upon request.

We can meet most special packaging requirements and provide custom pipe fusing. The charts below outline standard shipment sizes for straight length and coiled pipe.

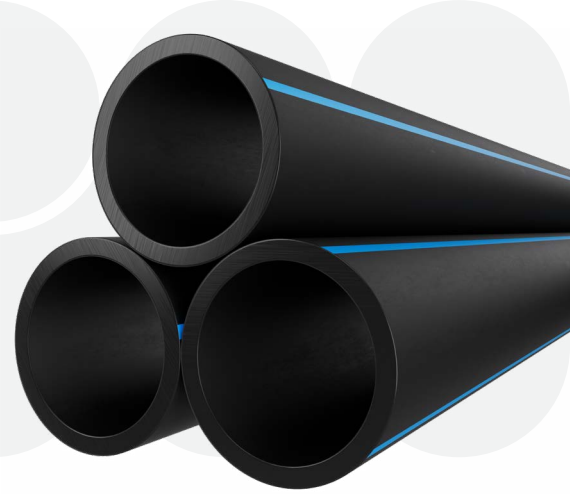
STANDARD SHIPMENTS - SL				
Pipe Size	Avg OD	Bundle Qty	Truck Load Qty	Container Qty
4"	4.500	38	380	480
5"	5.563	23	276	320
6"	6.625	20	200	208
7"	7.125	17	136	180
8"	8.625	14	112	120
10"	10.750	11	66	80
12"	12.750	4	56	52
13"	13.375	42		48
14"	14.000	42		42
16"	16.000	30		30
18"	18.000	25		25
20"	20.000	20		20
22"	22.000	16		16
24"	24.000	16		4
26"	26.000	9		9
28"	28.000	9		9
30"	30.000	9		9
32"	32.000	9*		8
36"	36.000	4		6
42"	42.000	4		4
48"	48.000	4*		3
54"	54.000	2*		2
63"	63.000	2*		2

*Bunks required

**Drop deck trailer - maximum 42' length

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General Specifications & Material Standards

Reference Specifications

- ASTM: F714: Standard Specification for Polyethylene Plastic Pipe Based on Outside Diameter
- ASTM D3035: Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
- ISO 9001:2015: Model for Quality Assurance in Production and Installation
- AWWA C906: Polyethylene (PE) Pressure Pipe and Fittings 4 In. (100 mm) Through 63 In. (1,600 mm) for Water Distribution and Transmission
- NSF / ANSI 61 Drinking Water System Components–Health Effects
- BNQ 3624-027 Polyethylene Pipe for the Transport of Fluids Under Pressure

General Requirements

The pipe manufacturer shall provide, upon request, an outline of quality control procedures performed on polyethylene system components.

Qualification of the Manufacturer

The general quality assurance practices and methods shall be in accordance with ISO 9001:2015.

Material

The pipe shall be made from an HDPE material having a minimum material designation code of PE4710. The material shall have a minimum cell classification of 445574C as defined in ASTM D3350. PE4710 resins shall have a minimum PENT value of 2,000 hours. The Hydrostatic Design Stress (HDS) at 23°C (73.4°F) shall be 1,000 psi for PE4710 resin and shall be listed in the name of the pipe manufacturer in PPI TR-4. In addition, the material shall be listed as meeting NSF/ANSI 61. The pipe material shall contain 2% - 3% well-dispersed carbon black. Additives that can be conclusively proven not to be detrimental to the pipe may also be used, provided the pipe produced meets the requirements of this specification.



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Pipe

The pipe shall be manufactured in accordance with ____ [User specified] [AWWA C906, ASTM F714, ASTM D3035, BNQ 3624-027]. HDPE pipe shall be rated for use at a pressure class of ____ [User specified] psi. [The specifier chooses the pressure class from the table below.] The outside diameter of the pipe shall be based upon the IPS or DIPS sizing system. [User to specify the appropriate sizing system.]

Pipe Standard Dimensions Ratio (DR)	Pressure Rating (PR) or, Pressure Class (PC) for water @ 73°F, psig	Allowable Total Pressure During Recurring Surge	Allowable Total Pressure During Occasional Surge
32.5	63	95	126
26	80	120	160
21	100	150	200
17	125	188	250
13.5	160	240	320
11	200	300	400
9	250	375	500
7.3	320	480	640

Marking

The pipe shall be marked in accordance with the standards to which it is manufactured.

Joining Methods

The preferred method for joining pipes shall be the butt fusion procedure outlined in ASTM F2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Qualified fusion technicians, as per PPI TN-42 and ASTM F3190, shall make fusion joints. The mechanical connection of HDPE to auxiliary equipment, such as valves, pumps, and fittings, shall utilize mechanical joint adapters and other devices as outlined in the PPI Handbook of Polyethylene Pipe (2nd Edition), Chapter 9, and AWWA Manual of Practice M55, Chapter 6.

Installation

Buried HDPE pressure pipe and fittings shall be installed in accordance with ASTM D2774 or AWWA M55.

Our Locations

Saskatoon, SK

Huntsville, ON

Mississauga, ON
(Headquarters)

Rockaway, NJ

Pryor, OK

Greenville, TN

Jacksonville, FL



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