

# Stream PE 100 Pipe System

## System Data Sheet



### System description

Stream is a PE100 polyethylene pipe system. Stream finds a broad range of applications in the Industrial, Mechanical, Commercial Plumbing, Mining, and Utilities markets. Stream's toughness, immunity from corrosion, excellent resistance to chemicals and light weight have contributed to its continued appeal for use in situations where cost-effective and reliable systems are required. The Stream range is particularly suited to chilled water and glycol applications, being crack resistant down to -30°C. This tough and durable PE system offers an extraordinary chemical resistance in combination with a high flexibility level and great impact resistance. Stream PE pipes and fittings are joined by welding, making the joints resistant to tension. Because Polyethylene is so weldable, there are a number of methods of welding: Butt welding, Electrofusion, socket fusion, and extrusion welding.

### System benefits

- **Excellent chemical and corrosion resistance.**  
Stream is a durable, complete plastic system. It does not rust, corrode or break down. No need to have treatment systems.
- **High material flexibility**  
Options for rigid and flexible installation methods.
- **High impact resistance**  
Impact resistance is high even at low temperatures. Resistant to both external and internal impacts such as water hammer.
- **Earthquake resistant**  
Will not shatter or break with ground or building movement.
- **Easy to install**  
Welding techniques are very simple, testing can begin as quickly as 1 hour after the last weld, and it is much easier to handle and install than traditional materials.
- **UV Resistant**  
Suitable for outdoor installations. Stream PE100 is 100% UV resistant. No need to cover, paint or protect.
- **Smooth bore, free of incrustations**  
Maintains a smooth internal surface, preventing the build-up of deposits which could restrict flow.
- **Welded system**  
Secure homogenous welded joints. No glues, chemicals or flame.
- **Versatile**  
Single system with a wide range of applications.
- **Manufactured in New Zealand**  
Pipe extruded in New Zealand under strict AS/NZS standards.

## Documentation

Documentation on the Stream pipe system is also available. Please contact UPG Pipe Systems on the details below.

## Stream PE100 Pipe System



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## Stream PE 100 Pipe System

## System Specifications

### Applications

The Stream PE100 system is suitable for use in the following applications:

- Water supply and Sewer mains
- Chilled water, low temp water, and condenser reticulation, for mechanical services
- Large bore pipe systems and plant room piping
- Glycols, Acids, Alkalines, Diluted Chlorine, Gasses and Compressed Air
- Non pressure and pressure applications up to 25 Bar (360 PSI)
- Underground ducting and ventilation systems

### Range

Stream is available in a range of pipe sizes from 20 - 1000mm and in a range of different pressure ratings. The system consists of a large variety of electro-fusion, spigot & butt weld fittings including: couplers, elbows, tees, reducers, branches, flanges and many other products.

| Category           | Product                                                                                                                                                                                        | Dimensions (mm) |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Pipes</b>       | ➤ Plain ended                                                                                                                                                                                  | 20-1000         |
| <b>Bends</b>       | ➤ 5° – 180°<br>➤ Moulded bends<br>➤ Fabricated bends<br>➤ Short radius<br>➤ Sweep bends                                                                                                        | 20-1000         |
| <b>Off Takes</b>   | ➤ 90°, 45° saddles<br>➤ Under pressure<br>➤ Threaded tap-ins<br>➤ Tapping bands<br>➤ Fabricated to any angle<br>➤ Y fittings                                                                   | 20-1000         |
| <b>Reducers</b>    | ➤ Concentric and eccentric                                                                                                                                                                     |                 |
| <b>Couplers</b>    | ➤ Electrofusion<br>➤ Socket Fusion (20-110)<br>➤ Mechanical Couplers                                                                                                                           | 20-810          |
| <b>Accessories</b> | ➤ Electrofusion welding machines<br>➤ Butt fusion welding machines<br>➤ Socket fusion welding machines<br>➤ Scrapers and other installation tools<br>➤ Manifolds<br>➤ Full fabrication service |                 |

### Product Specifications

#### Raw Material

Polyethylene (PE100)

#### Density g/cm<sup>3</sup>

0.951 – 0.957

#### Tensile strength at yield

25 MPA

#### Flexural modulus

1000 MPA

#### Melting point

127 C°

#### Brittleness temperature

< -100 C°

#### Linear thermal expansion

1.0 x 10<sup>-4</sup>

#### Thermal conductivity

0.4 W/mK°

#### Pipe Friction Factor

0.007

#### Joining method

Electrofusion  
Butt fusion  
Socket fusion  
Extrusion welding  
Flange/Threads  
Mechanical couplers

#### Chemical resistance

According to EN 1519 and ISO TR 7474

#### SDR Ratios

SDR 33, 26, 21, 17, 13.6, 11, 9, 7.4

#### Standards

AS/NZS 4020  
AS/NZS 4129  
AS/NZS 4130  
AS/NZS 4131  
Watermark

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Fittings used for the Stream pipe system are used world-wide and have received various product quality marks from the most important international certification Institutes. UPG guarantees a strict and continuous control on raw materials, production, dimension and identification.

