

**PIPING | THE SIMPLE SOLUTION**

**NEW**

## **1" Conductive HDPE Double Wall Piping System** **Installer-Friendly | Conductive | Lightweight**

The KPS 1" piping product range has been expanded to meet demand for applications requiring a flow rate of up to 80 litres/minute (at 2.7 m/s velocity) including oil transfer, power supply, critical power and back generators and many more.



[www.kpsiping.com](http://www.kpsiping.com)

**PIPING | WHAT'S NEXT**

# 1" Conductive HDPE Double Wall Piping System

## Installer-Friendly | Conductive | Lightweight

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### Extra Layer, Extra Safety, No Leaks

Engineered for all current liquid fuels and many chemical products, KPS electrofusion piping is made from high-density polyethylene (HDPE) and includes a permeation layer for extra security.

For sensitive areas and fluids like fuel transfer, KPS' double wall (secondary contained) electrofusion piping system provides an extra layer of protection. All double wall KPS bends and electrofusion fittings have an interstitial space to contain any leakage from the primary pipe.

### Electrofusion

The complete range of fitting and components for the 1" conductive double wall pipe system are electrofusion welded, with no butt welds needed.

The system is tested according to EN 14125.

For a full list of certifications and approvals, visit the resources page on the KPS website at [www.kpspiping.com/resources](http://www.kpspiping.com/resources)

### Technical Support & Training

KPS offers technical support from the beginning to the end of each project, including drawings, site surveys, on-site training, and professional certifications.

### Flow Rate

The 1" double wall conductive pipe system provides a flow rate of up to 80 litres/minute at 2.7 m/s velocity.

### Local Service. Globally

Regionalised manufacturing, and a worldwide network of employees and distributors, ensures hands-on support, local service, and solutions, around the globe. KPS piping is manufactured in Sweden for the EMEA region under the watchful eye of the OPW technical team, ensuring consistent quality.

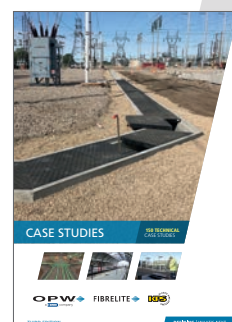
### Key Benefits

- Flow rates up to 80 litres/minute
- Engineered for pipefitters: reducing cost and build time
- Conductive (electrostatically safe)
- Extra permeation barrier to protect the environment
- Corrosion-free
- Technical support, training and certification (classroom and on-site)
- Leak detection & interstitial monitoring (secondary containment/multi-layer)
- Lightweight
- UV resistant
- Operating pressure 3.5 bar (test pressure 5 bar to 30 bar)
- Temperature rating -20°C to +50°C
- Suitable for above and below ground

### Fluid Compatibility

- Petrol
- Diesel
- Biodiesel
- Ethanol blends\*
- AdBlue
- Jet-A1
- Alcohols\*
- Acids\*
- Chemical products\*
- Other\*

*\*For full compatibility details, contact KPS at [info@kpspiping.com](mailto:info@kpspiping.com)*



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Public refuelling installation



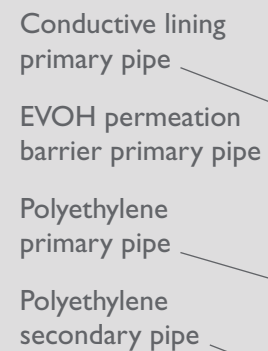
Public refuelling installation



## 1" Conductive HDPE Double Wall Piping System

### Technical Specifications

## Pipe Structure



## Mechanical & Physical Properties

Hydrostatic pressure testing is performed at 23°C after conditioning at 50°C. At 23°C piping is pressurised to the lower test pressure for 5 minutes and the higher test pressure for 1 minute, (see table overleaf). After conditioning at 50°C pipework is pressurised to the lower test pressure for 5 minutes.

Vacuum testing is performed on pipes intended for vacuum suction including vent, vapour recovery and secondary containment type C2. The test vacuum is specified in the table. Pipework is also (for positive pressure) subjected to cyclic pressure testing at 21.5°C. Pressure is varied between 1.0 and 4.0 bar for  $1.5 \times 10^6$  cycles.

## Drawings & System Definition

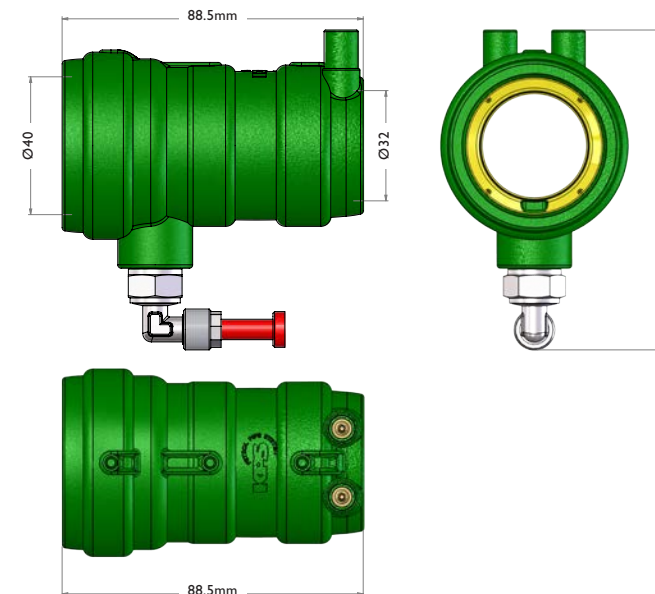
The 1" double wall pipe system is conductive and includes a comprehensive range of compact easy-install electrofusion fittings.

Custom solutions are also available.

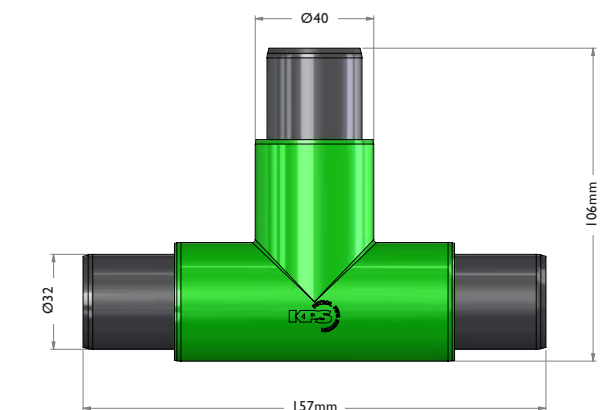
## Termination Fitting



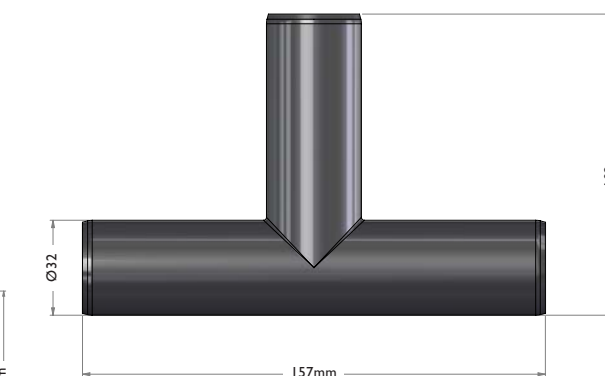
## Termination Fitting With Test Port



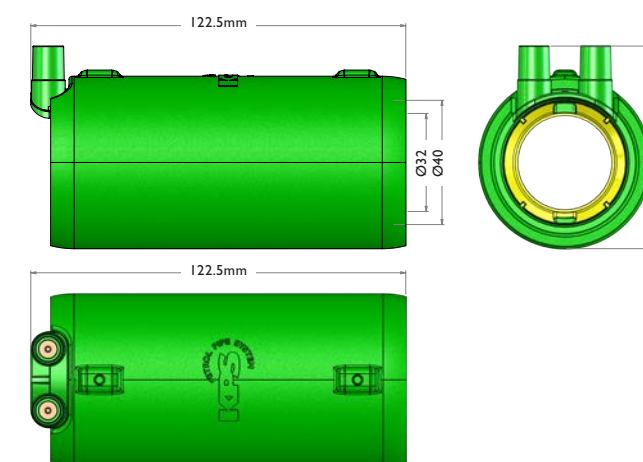
## Tee Double Wall



## Tee Single Wall

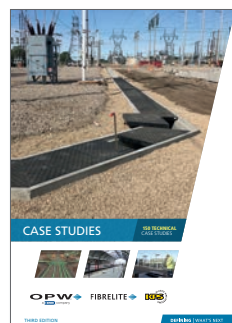
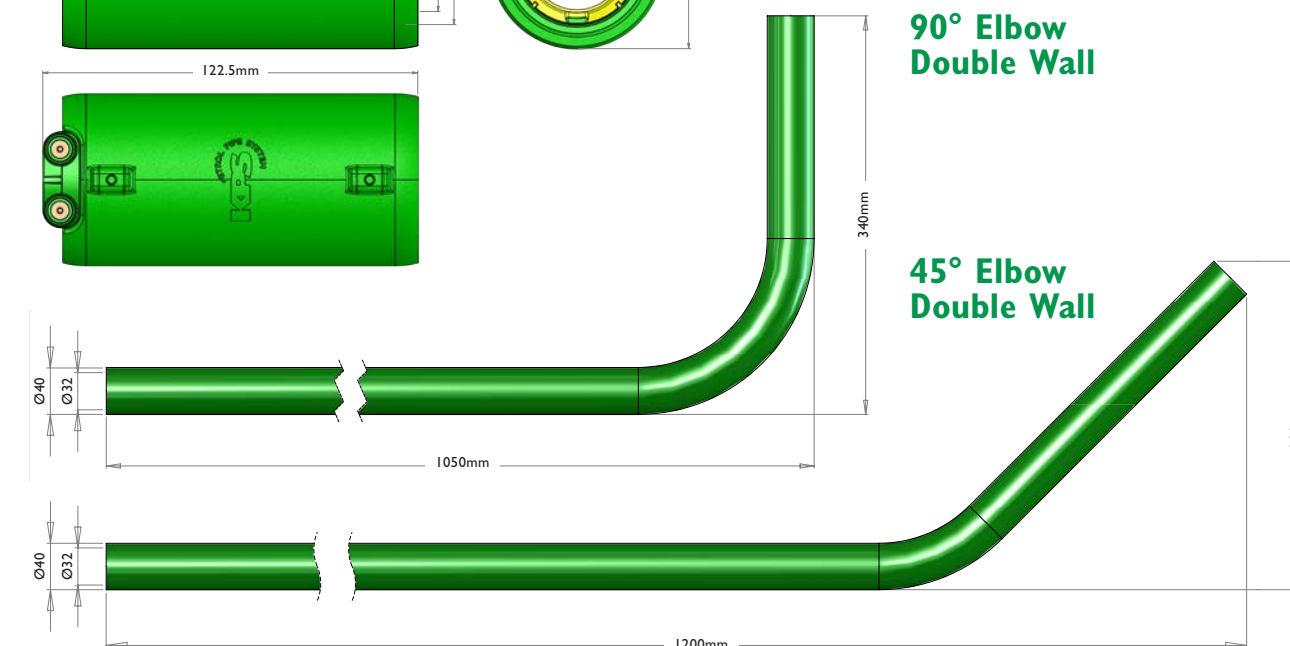


## Secondary Containment Welding Socket



## 90° Elbow Double Wall

## 45° Elbow Double Wall



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# 1" Conductive HDPE Double Wall Piping System

## Technical Specifications

The 1” piping range draws on KPS’ 40 years experience engineering and manufacturing fuel piping for the world’s leading oil companies. Full technical details below.

### Operating & Test Pressures According to EN 14125

All Measurements in [bar]	Operating Pressure	Test Vacuum	Lower Test Pressure	Higher Test Pressure
Primary Delivery Pipework (Positive Pressure)	3.5	-	5.0	30.0
Primary Delivery Pipework (Vacuum Suction)	-0.6	-0.9	5.0	30.0
Vent & Vapour Recovery Pipework	1.0	-0.9	5.0	30.0
Fill Pipework	1.0	-	5.0	30.0
Secondary Containment Type C1	0.5	-	1.0	5.0
Secondary Containment Type C2*	-0.5 to 4.5	-0.6	5.0	10.0

\*KPS approval includes secondary containment type C2

### Physical & Chemical Properties

	Value	Test Method
Temperature Range	-20 to 50°C	EN 14125
Bend Radius	20 × d	-
Crush Resistance	2000 N	EN 14125
Puncture Resistance	500 N	EN 14125
Fuel Compatibility	Wide range of commercially available fuels*	EN 14125, UL 971
Fuel Permeation	< 0.2 g/m2·d	EN 14125
Static Electricity	Insulative	EN 13463-1, CENELEC TR50404
Weathering (UV-stability)	> 3.5 GJ/m2	EN ISO 16871, EN ISO 4892-2
Estimated Working Life	30 years	EN 14125, ISO 9080

## Industries & Applications

The 1” KPS piping range is ideal for applications where a flow rate of 80 litres/minute is required including oil transfer, power supply, critical power and back generators and many more.

Oil Transfer & Lubricant Oil

Mining Fuel Transfer

Hydrocarbon Drainage

Data Centre Power Supply

Military

Depot Facilities

Power Supply: Critical Power & Backup Generators

Diesel Transfer & Storage Terminals

Fleet, Commercial & Public Transport Vehicle Refuelling

Chemical Processing

Residential & Industrial Heating

Polluted Water Transfer

AdBlue / Diesel Exhaust Fluid (DEF) Transfer

Marinas, Ports & Harbours

Airports

Other Fluid Distribution

Nuclear

**Other Industries & Applications**  
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Visit: [www.kpsping.com](http://www.kpsping.com)

#### Interested In Becoming A Distributor?

We are always looking to find new partners in countries where we don't currently have a partner please email us at [info@kpsping.com](mailto:info@kpsping.com)