KPS Petrol Pipe System™
Making fuel flow safely
Piping for all fuels - No leaks, no permeation

KPS Petrol Pipe System™ is suited for use with all current liquid fuels like petrols, diesels, ethanol (E85), biodiesels as well as with additives like AdBlue (DEF). The KPS petrol pipe is made of high density polyethylene with liners to prevent permeation of fuel and static charging by low conductivity fuels. The superior construction of the KPS petrol pipe makes it uniquely suited for conveyance of hazardous fuels in underground applications. You can rest assure that the KPS pipe you install today can be used for all conceivable future fuels and biofuel additives.

True secondary containment

We are passionate about providing a leak-free and permeation-free solution for all filling stations. This is why we have invested heavily in the development of secondary containment, which means that pipes, bends, tees and fittings have double walls and an interstitial space to contain any leakage from the primary, fuel conveying pipe.

To prevent permeation, we deliver the outer pipe with the same permeation protection liner featured in the primary pipe. In case of a leak from the primary pipe into the space in between the pipes, no fuel can permeate through the secondary pipe wall to the environment. All double wall KPS bends, fittings and tees used in fuel product lines also have permeation protection. This best-in-class practice exceeds the requirements of the current EN 14125 standard and sets KPS apart from competing PE pipe systems that use unlined secondary containment which will permeate 120 times more.

Permeation allowed by EN vs. actual KPS performance

<table>
<thead>
<tr>
<th></th>
<th>EN 14125 (g/m²/day)</th>
<th>KPS Pipe (g/m²/day)</th>
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</thead>
<tbody>
<tr>
<td>Pressure/suction line</td>
<td>0.2</td>
<td>0</td>
</tr>
<tr>
<td>Ventilation/VR line</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Fill line</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Secondary pipe</td>
<td>24.0</td>
<td>&lt;0.2</td>
</tr>
</tbody>
</table>
For retailers

Safe in hazardous areas
KPS conductive pipes prevent the accumulation of static electricity in and around piping in hazardous areas. The risk of incendive discharges due to fuel flow is completely eliminated and the safety at your stations less vulnerable to static electricity hazards due to changing conditions, such as alterations in fuel blends and introduction of new biofuel components.

With conductive piping, less time can be spent on installing, checking and maintaining grounding of items in fill boxes, tank and dispenser sumps.

The conversion to conductive piping can be done gradually. On stations with existing non-conductive piping, individual pipe runs can be replaced with conductive piping during repair or upgrades.

Quality installations
To promote high quality installations, KPS offers a structured installer training and certification program with both practical and theoretical content. To ensure complete consistency and reliability, the certification criteria are the same for all installers, in all countries. Since its launch in 2008, the KPS installer training and certification program has resulted in a drastic cut in complaints on installations from retailers and project managers alike.
Design service to ensure compliance

Today, fuel retailers may or may not have engineering departments that can develop technical specifications and provide input to building project managers. OPW can provide engineers and architects with best practice examples and product drawings. If you do not have inhouse resources we can supply complete station specific installation drawings. Our design team can also help you make sure that the equipment you select comply with relevant standards and regulations in your country.

Proven supplier

The KPS Petrol Pipe System™ is developed by KPS, the leading developer, manufacturer and supplier of plastic piping for petrol, diesel and ethanol filling stations, with a track record going back to 1981. KPS petrol piping has successfully been installed at countless filling stations in Europe, Asia, Africa and the Middle East.

KPS is now part of OPW, a global supplier of fuel retail equipment and a Dover company (NYSE: DOV). We are certified to ISO 9001 and 14001.

Approvals

The KPS Petrol Pipe System™ is approved to all major standards such as:

- EN 14125
- German DIBT approval
- ATEX 137
- EN 13463-1
- Cenelec TR-50404

In addition the KPS Petrol Pipe System™ is approved to various national and fuel specific standards. We do not market different pipes for different standards or markets. We supply the same pipe to all markets as the KPS Petrol Pipe System™ fulfills the requirements of all the above standards.
Specifications and drawings
OPW can provide designers and architects with support already from the initial stages of a project. We can assist with the specifications and drawings that you need for your project. We can even make detailed, station specific installation drawings ready to use for the building permit application or installation - or provide customized training for project managers, designers and architects.

Adaptable to local requirements
Although the KPS Petrol Pipe System™ is already a very complete product line we sometimes encounter new market requirements. Our product developers always work hard to find ways to match the requirements from different markets. Special requirements from the German market has resulted in a range of new products that have been incorporated in our standard product range.

Custom solutions
If we cannot find a standard solution to match customer requirements we will develop a tailored solution. Product developers and highly skilled production personnel will work together to find the most viable solution. The result can either be a new product or a pre-mounted factory-made assembly.
For installers

**Easy to install**

With input from installers, the KPS Petrol Pipe System™ has evolved over the years to be the most installer friendly on the market. Constant feedback has improved welding sockets, entry seals, tees and other fittings to be more compact so that they fit better in small sumps and require less time and effort to install. Our double wall piping system is unrivaled when it comes to ease of installation.

**Short delivery times**

We understand that once a contract has been awarded, retailers want installation, upgrade or maintenance work to start as soon as possible. If we have all items in stock we will ship from our Customer Service Centers within 24 hours of receiving your order. Items that are not in stock will be produced and shipped from our factory within 10 working days. OPW warehouses and local distributors create a tight knit distribution network across Europe, the Middle East and Africa.

**High service level**

From first enquiry to delivery on site we do our best to make your work move along as smoothly as possible. If you find yourself with an unforeseen problem on site, you can always ask for our help in finding a solution. If you end up short of something you need in order to complete the installation, we will ship the missing piece with highest priority.
For installers

**Quality training program**
For the KPS Petrol Pipe System™, OPW offers the industry’s most relevant and proven training program. Our installer training includes practical exercises as well as realistic problem solving cases. All of our trainers are technical specialists that have been trained to deliver consistent high quality training. The KPS certification database lists all certified installers by company and country.

**Responsive tech support**
KPS technical support is available from each of our OPW customer service centers. No matter what your question or problem is, we will make sure to supply you with an answer or a solution when you need it. When necessary we will come with you on site to provide installation support or to advise on best course of action. You can contact KPS technical support by phone, email or through the OPW web site.

**One pipe for everything - Less stock-keeping**
Although the KPS pipe is available in different dimensions, the construction of the pipe is the same for all dimensions and we do not market pipes of different quality for different markets or for different use on the station. A 63 mm pipe can just as well be used as a product line as for stage 2 vapor recovery. Larger dimensions function equally well for ventilation/stage 1 vapor recovery or as fill lines. The result is less hassle and fewer products to keep in stock.
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OPW Retail Fueling
Components and products to protect the environment and the consumer at retail fueling sites for conventional and alternative fuels.

OPW Electronic Systems
Innovative electronic tank gauges and fuel control systems to ensure customers know how much fuel they have and where it is going. Also, Automated Vehicle Wash Systems.

OPW Chemical & Industrial
Safe and efficient loading and unloading of critical hazardous chemicals: loading arms, swivel joints, sight flow indicators, quick and dry disconnect couplers, and safety breakaways.

OPW Transportation
Components and systems for use on Tank Trucks and Rail Tank Cars to ensure the safe handling, loading, transport and unloading of hazardous bulk products, including: petroleum, chemical and dry bulk cargo.