HOSE-PULL omnidirectional wheels for Fire Hoses



Facilitate the relocation of a fire station that has been flooded

Once a structure has been placed in the water, moving it can quickly become difficult. The weight of the pipe As the pipe length increases, friction against the ground slows down progress, and pipe joints can catch on a curb, an uneven spot in the ground, or another obstacle. These challenges become particularly significant when it is necessary to move a long section of pipe, change the route, or reposition a line that is already under pressure.

The system **HOSE-PULL** was designed to facilitate these maneuvers. Installed directly beneath the hose, it creates a rolling point that minimizes contact with the ground and supports the facility’s movement. The hose and its fittings are slightly raised, which makes it easier to move them forward and reduces the risk of them getting stuck when changing direction or navigating obstacles.

The system can therefore be used both when a line is being deployed and when a structure that is already in the water needs to be moved or rearranged during the operation.

Omnidirectional wheels to follow the hose's movements

What sets HOSE-PULL apart is its **omnidirectional wheels**. Unlike conventional casters, they do not restrict the device to a single direction of travel. The system can naturally follow the hose’s movements forward, to the side, or when changing direction. This freedom of movement is particularly useful in work areas where the path is not straight: going around a vehicle or piece of equipment, passing between various obstacles, maneuvering inside a building, or repositioning a line on an industrial site.

By keeping part of the hose above the ground, HOSE-PULL also limits direct friction against the hose’s outer casing and reduces the likelihood that the couplings will snag on obstacles along the route.

Reduce the effort required when handling pipes

Of course, HOSE-PULL does not reduce the actual weight of a hose filled with water. Its benefit lies elsewhere: by replacing some of the sliding motion on the ground with a rolling motion, it **makes it easier to pull and**

reposition the device.

This assistance is particularly valuable when several dozen meters of pipe need to be moved or when a pressurized line must be reoriented during the operation. By reducing resistance to movement, the system helps minimize the physical effort required of crews and can enable more efficient deployment of available personnel. The device is designed to be quickly installed around the pipe. Its wraparound cradle secures the line during movement, and it can be fastened—depending on the configuration—using either a ball-lock mechanism or a strap system. The manufacturer states that a **Set up in less than 5 seconds**, a significant advantage when the device needs to be installed directly in the field.

To ensure the safety of a school's campus ***:*** *When pipes need to cross a traffic lane, be sure to check out our*cross-over planks for fire hoses

Configurations for DN45, DN70, and DN100 fire hoses

We have selected three configurations to cover several diameters commonly encountered in fire stations: **DN45, DN70, and DN100**. Here, it is important to distinguish between the **nominal pipe diameter** of the HOSE-PULL hose clamp size. The DN corresponds to the nominal inside diameter of the hose, whereas the hose clamp must account for its actual outside diameter. The two values are therefore not necessarily the same.

Nominal pipe diameter	HOSE-PULL Configuration	Distinctive Feature
DN45	Configuration with adapter for DN45	Adapter designed for facilities using DN45 pipe
DN70	75 mm cradle	Configuration adapted to the pipe's outer diameter
DN100	110 mm cradle	Configuration for large-diameter facilities

The configuration intended for the **DN45 pipe** deserves special attention. It uses an adapter that allows the HOSE-PULL principle to be applied to this diameter, which is widely used in fire and rescue departments. This solution complements configurations designed for larger-diameter lines and allows the device to be adapted to a wider range of operational situations.

A design tailored to the demands of field operations

HOSE-PULL was designed as field equipment. Its cradle is made of **polyamide PA66**, a material with good mechanical strength that is suitable for use in environments exposed to water, dirt, and the stresses of handling.

The rolling elements combine different materials depending on their function, including polyurethane, aluminum, stainless steel, and reinforced polymer. The manufacturer's documentation also specifies a temperature resistance range for the cradle between **-20 to +180 °C**.

This design makes it suitable for use in a variety of environments: fire and rescue operations, water systems at industrial sites, sensitive facilities, or operations requiring the movement of hoses or transfer lines over long distances. HOSE-PULL is therefore not limited to conventional firefighting operations. Its design could also be of interest in industrial and nuclear sectors—or, more broadly, at sites where handling heavy or pressurized hoses is

a recurring challenge.

Moving the hose during the procedure and reconditioning it after use serve different purposes. See our full range of **Solutions for the handling and reconditioning of fire hoses**.

Technical Specifications of the HOSE-PULL System

Function	Assistance with moving and handling pipes
Type of travel	Omnidirectional
Compatibility Options Offered by MMF	DN45, DN70, and DN100
DN45 Configuration	With a special adapter for DN45 hoses
DN70 Cradle	75 mm
DN100 Cradle	110 mm
Crib Material	Polyamide PA66
Wheel	PA6GF30
Overmolding of rollers	Polyurethane
Hub and Bearings	Stainless steel
Spacer	Aluminum
Strap	Polyamide, 25 mm wide
Specified temperature range for the cradle	-20 to +180 °C

Frequently Asked Questions About HOSE-PULL

Can other pipe diameters be accommodated ?

Yes. The manufacturer provides **adapters for various diameters less than 110 mm**. The DN45, DN70, and DN100 versions correspond to the configurations we have selected for our product line, but other customizations can be considered depending on the pipe used and the intended application.

Can multiple HOSE-PULL devices be connected together ?

Yes. A **dedicated coupling ring** allows you to connect multiple HOSE-PULL cradles. This feature can be particularly useful when an installation requires multiple rolling points or a specific configuration on the same line.