

PRODUCT HANDLING GUIDELINES

PE Duct

PowerProtect+

EF450-021 (Rev2)



The Purpose of this document is to provide safety guidelines for handling, lifting and storing Polyethylene (PE) pipe.

This document raises potential hazards but cannot cover all eventualities. It is the sole responsibility of customers, installers and users alike to establish appropriate health and safety practices when handling PE pipe.

Good Working practice is vital to ensure personal safety and product integrity.

Personal Protective Clothing

Ementelle recommend wearing the following items of safety clothing when handling PE pipes and during the fusion welding process.

- Hard hats & Steel-toed safety shoes should be worn to help prevent injury from heavy falling objects and rolling pipe.
- Heavy duty work gloves help prevent injury from sharp or rough edges on duct, welding equipment and other objects. In addition gloves can help prevent burns from heat plates on welding equipment.
- It is recommended that safety glasses be worn during the fusion welding process.
- High visibility vests must be worn at all times.

General Handling & Storage

Whilst PE pipes are generally tough and durable, they should still be handled and treated with care, any excessive scuffing or gouging of the outer surfaces should be avoided.

Whilst it is preferable that pipes are lifted to prevent damage and not dragged over rough terrain, positioning the duct whilst on the ground for installation purposes is fine.

PE pipes (palletised & coiled) should be loaded / unloaded in a controlled manner; they should only be moved using Forklift trucks or other suitable lifting equipment. Ementelle recommend the following document for loading PE Pipes: Polyethylene Pipe Industry – UK BEST PRACTICE (Recommended Guidelines for the Safe Delivery and Unloading of Polyethylene Pipes).

On-site facilities can vary greatly; the user should assess the surroundings and take this into account when manoeuvring the pipes.

It is the sole responsibility of the user to ensure their equipment has sufficient capacity to handle the loads safely.

Pallets & Coils:

- Store on even, stable ground free from sharp objects which may damage the product.
- Must be stored away from intense heat sources.
- Black pipe will retain heat if left in direct sunshine, always use caution when handling pipe that has been exposed.
- Leave packaging intact until the product is required.
- PE pipe can get very slippery when wet, or frozen. Extra care is required in these circumstances.

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General Handling & Storage (cont.)

Pallets:

- They are primarily designed to be moved using Forklift trucks. FLT's need to enter the pallet squarely with forks fully widened. Forks should be extended fully underneath the pallet.
- They can be lifted using wide slings made from nylon or PP. Metal slings, hooks or chains should not be used as these can damage the product.
- Pallets (and single pipes) when lifted will bend downwards at either end, which is why Forks or slings must be at the widest possible position. Take note of this when driving the FLT.
- Pallets are not to be stored more than 3m high.

Single Pipes:

- Once unpackaged take great care when storing single pipes, or laying out on site; ensure they are chocked/secured at all times to prevent rolling.
- Single pipes can be stacked on top of each other for storage purposes, but only in triangular format with the bottom layer secured.
- Single pipes can be moved using the same methods used for a pallet, always lift never drag.
- Smaller single pipes 90mm & 110mm OD can be moved by hand using two people, one at either end, for longer 12m pipes one person in the middle of the pipe may be required.

Coils:

- All coils must be moved using Forklifts, do not unload from vehicles by rolling off.
- Forks can be placed inside the coil, lifting the coil upwards, or by attaching non metallic slings.
- Large coiled pipe should be stored flat, in particular during warm weather periods.
- Large coiled pipes can be stored vertically but only if they can be secured to special racking.
- Palletised coils can be stored on top of each other where space is limited. Do not stack coils more than 2m in height.
- Coils must be released in the correct manner, ensure all persons are at a safe distance, and remove the plastic banding layer by layer. Let the duct straighten out before cutting the next layer. Do Not remove all packaging at once
- Coils have stored energy and pipe can recoil quickly if not controlled. In extreme minus temperatures, this problem can get worse, extra care is required in these conditions.

Fusion Welding

PE pipe is designed to be fusion welded and Emtelle recommend the following safety guidelines during the process.

- The plates can reach temperatures above 230°C; care must be taken not to come in contact with the plates. Cold water should be used to cool any infected areas and medical treatment sought.
- During the process the PE becomes molten, this has high heat content and will remain hot after the process has finished, severe burns can be caused.
- Take great care to avoid sharp blades on welding equipment, when unused and when rotating.
- Guards should never be removed from equipment.
- Trained operators should only use the equipment.
- Clean up all cuttings and chippings from the process, small particles can become an eye irritant.
- Take standard precautions when handling electrical equipment.
- Remove any loose clothing that may get caught in the rotating equipment.
- At all times it is recommended that installers follow manufacturers operational guidelines at all times when using fusion welding equipment.