ElOFIT

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Drilling Machine for high volume branch saddles

nupi AMERICAS

ELOFIT SYSTEM

ELOFIT is a system of electro-weldable fittings and special parts made of High Denisity Polyethylene for conveying water and gas under pressure.

ELOFIT complies with the following standards: EN1555 - ASTMD2513 for gas and EN 12201 - AWWA C901, C906 for water.

ELOFIT IS MADE OF

non-toxic materials, according with the most important national rules for safety and potability.

FIELDS OF USE

ELOFIT is suitable for conveying and distributing:

- **DRINKING WATER AND FOOD LIQUIDS**
- **FUEL GAS**
- **CHEMICAL SUBSTANCES**

and for the following systems:

- **PURIFICATION PLANTS**
- **CENTRALISED IRRIGATION**
- **CHEMICAL PLANTS**
- **SEWERAGE FOR INDUSTRIAL AND CIVIL USE**
- **FIRE-PREVENTION NETWORKS**
- **RELINING (REFURBISHING OF OLD NETWORKS)**

PROPERTIES OF THE MATERIAL

ELOFIT fittings are made of High Density Polyethylene by injection moulding. This means they have excellent resistance to:

- **CORROSION** even on aggressive soils. HDPE can be laid underground without any protection
- **STRAY CURRENTS** since HDPE has very poor electrical conductivity
- **IMPACT** even at low temperatures (-20°C/-4°F)
- **CHEMICAL AGENTS** HDPE can withstand most chemical substances
- **ABRASION** HDPE allows high water speed without erosion problems
- **MICRO-ORGANISMS AND TOXICITY**
- **RELIABLE FOR OVER 50 YEARS**

ELOFIT

PRODUCT

To connect in new service lines to an existing PE distributions system, most of the time it will require the connection to be done while the pipeline is under full operating pressure. The interruption of any pipeline service, even for a short time, is a huge inconvenience, not just because of stopping the supply of gas or water to the final customer, but also it can be very costly for the company to shut everything down to do the work.

While for branches of small diameters the market provides tapping tees that can be easily connected under pressure without cutting the supply of the main pipeline, in general this is not possible for branches with diameters larger than 2" (63 mm) unless you use the proper tools and high volume branch saddles.

For drilling under pressure, The

"Drilling Machine for High Volume Branch Saddles"

(code 00FP) **has special sealed chambers suitable both for drilling pipe under pressure with gas or water, and also non-pressure pipe with ease.**

Because of **interchangeable cutters** (code 00FFxxx) and **adapters** (code 00FAxxx) it's possible to drill main pipes from 3" to 40" (90 mm to 1000 mm) for service lines from 2" to 6" (63 mm to 160 mm).

Adapters

During the drilling, a **manually controlled load cell helps regulate the amount of torque on the cutter** and make the task easier and faster.

Cutters

The cutters are designed to hold **both the cut piece and the shavings from the drilling**, even when the line has no internal pressure.

APPLICATIONS

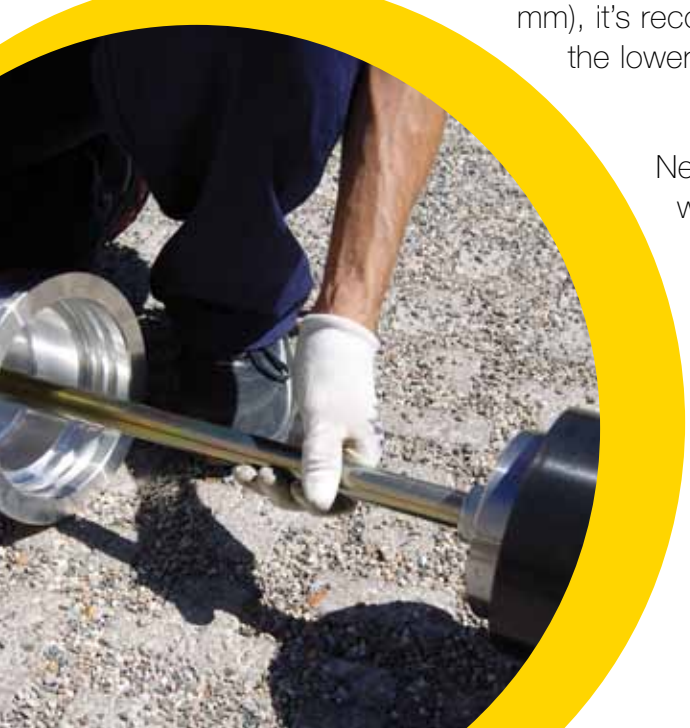
1 First a branch saddle must be installed onto the pipeline. If the line is under pressure, it is necessary to weld a full-bore ball valve of the proper size to the outlet of the branch saddle, or to install a branch saddle equipped with full-bore valve. The valve must be in the **OPEN** position during the entire operation.

2 Once the cooling time for the welds has elapsed, the drilling machine is then connected to the spigot of the ball valve with the special adapter for sealing.

3 The drilling is performed manually by turning clockwise (screw) the drive pivot of the cutter with the use of a ratchet wrench. At the same time, by turning the load cell it is possible to regulate the axial load of the cutter on the pipe.

The combined action of turning the cutter and controlling the axial load enables the operator to have the smallest effort and the fastest speed of drilling.

The completion of the drilling is easily detected by the noticeable decrease in the cutting torque; for main pipelines of diameter greater than 6" (160 mm), it's recommended to complete the operation all the way to the lower stopper (lock screw of the load cell).



Next, the cutter is brought back to the upper position; with the gauge connected to the vent valve it's possible to measure the pressure in the chamber to verify that the drilling was successful.

Lastly, the ball valve is closed and the pressure in the chamber is discharged through the vent valve; now the Drilling Machine can be removed with absolute safety and the installation of the branching line can be completed.

EloFIT

QUALITY

The quality of Elofit fittings has been granted by the most prestigious international certification marks and laboratories:

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