

PIPE PUSHING MACHINES

A safe cost effective alternative to the use of winches or excavators for sliplining/inserting new pipes into old



Each machine can be adapted to handle a range of pipe diameters

DESCRIPTION

A range of machines, either manual, pneumatic or hydraulic in operation, designed to insert polyethylene (PE) and other plastic pipes into carrier pipes with the minimum of effort.

APPLICATIONS

- Renewal of gas mains and services by insertion of PE pipe
- Sliplining old water, drainage and sewer pipes
- Feeding cable through ducting
- Removing cable from sleeving

125 Plus Pneumatic



180 Hydraulic



315 Hydraulic

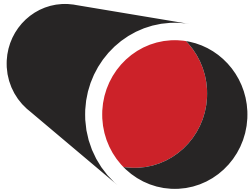


Insert Shells



180 Hydraulic

**HIRE
OR
BUY**



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Pushing action can be reversed if an obstruction is encountered

MODE OF OPERATION

Steve Vick International pushing machines are extremely simple to operate—just the touch of a lever is all that's needed to insert even large diameter PE. The machines work on the principle of grasping the pipe in a set of jaws, thrusting it forward and holding it in that position whilst the jaws return to the start position ready to push the pipe again.

BENEFITS OF PUSHING RATHER THAN WINCHING

- Lower equipment costs
- Improves on-site communication: pushing machine operator in close proximity to coil trailer operator
- Avoids the risk of stretching and exceeding the tensile loading of the PE
- When inserting gas pipes in the UK, complies with National Grid Transco's Engineering Procedures
- Action can be reversed to pull pipe back if an obstruction is met
- Avoids the need to first feed a winch wire through the host pipe
- Avoids the safety issues of winch cable under tension
- Avoids the waiting time before jointing (prescribed by pipe manufacturers) whilst PE relaxes back to its original dimensions
- Insertion can take place with only one excavation open
- Long sections can be inserted in one operation—100 to 500 metres are typical, 1000+ metres possible—at speeds up to 12 metre
- Avoids the uncontrolled force associated with using an excavator or backhoe shovel to push in pipe

FEATURES

- Shell inserts are fitted to accommodate different pipe diameters (see right)
- Machines are robust in construction and require low maintenance
- Simple to operate—no special labour required
- Safety features include safety cage and 'dead man's handle'
- Larger machines come with operator seat due to length of insertions possible
- Back clamp holds PE in place between pushes to prevent springback



STANDARD RANGE

- 125 Plus Pneumatic
- 180 Hydraulic
- 315 Hydraulic
- 355 Hydraulic
- 500 Hydraulic
- 630 Hydraulic

SERVICE PUSHING MACHINES

Manual service pushing machines are available for 20, 25, 32 and 40mm diameter pipes. In the Live Insertion Technique advocated by National Grid Gas, the use of a pushing machine is mandatory (left).



SPECIFICATION

Model	125 Plus	180	315/355	500	630
For use with pipe sizes	40 to 125mm	40 to 180mm	90 to 355mm	355 to 500mm	355 to 630mm
Mode of operation	Pneumatic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Max pushing speed	12 m/min	8 m/min	4 m/min	4 m/min	4 m/min
Compressed air supply	7 Bar from 3m ³	N/A	N/A	N/A	N/A
Hydraulic supply	N/A	140 Bar at 30 l/min	140 Bar at 30 l/min	200 Bar at 50 l/min	200 Bar at 50 l/min
Max pushing force	0.45 tonnes	2.5 tonnes	5.5 tonnes	11 tonnes	11 tonnes
Dimensions: Length	1200 mm	1200 mm	1005 mm	1200 mm	1200 mm
Width	350mm	420mm	650mm	1100mm	1200mm
Height	60mm	770mm	800mm	900mm	1030mm
Weight	78kg	118kg	260kg	560kg	600kg