FIBRE SYSTEMS

FREMCO

DUCTROD RAPID

Increase your productivity with Fremco DuctRod RAPID.

Fremcos DuctRod RAPID is designed to push Cable Rod through underground conduits, this removes the need for manual pulling, as the machine handles the heavy work for you.

Work Smarter – Not Harder

By utilising the DuctRod RAPID you can save on installation time by utilising hands free rodding with speeds up to 80 mtrs per minute.

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CONTACT: Call: +61 2 8553 0600 Email: sales@fibresystems.com.au **www.fibresystems.com.au**

Fibre Systems is an Australian-owned provider of ruggedised, high-performance fibre optic cable systems.

DUCTROD RAPID

Benefits of DuctRod Rapid

TOOL FREE INSTALLATION

When utilizing DuctRod RAPID, the configuration and installation can be deployed without any usage of tools. This makes every job more effective as the machine can quickly be adapted to the specific job saving you time.

ADAPTABLE TO VARIOUS MANHOLES

Equipped with a flexible clamping unit, allowing you to attach the machine to the sidewall of the manhole securing more stable installation.

EFFECTIVE ROD PUSHING

Each job is mechanized, which help you improve efficiency and minimizes the risk of costly errors. For rods up to 25 mm.

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DUCTROD RAPID

Product and Dimensions Overview

CABLE DIAMETER (MM)	FTTH			ACCESS NET		BACKBONE		RODDING
								
0-1	NanoFlow MAX Fibre OD: 0.8-4.5 mm Duct OD: 3-12.7 mm	MicroFlow TOUCH Fibre OD: 0.8-6.5 mm Duct OD: 4-16 mm	MicroFlow LOG Fibre OD: 0.8-6.5 mm Duct OD: 4-16 mm	MiniFlow RAPID Fibre OD: 3-12 mm Duct OD: 7-20 mm	EasyFlow SMART Fibre OD: 4-16 mm Duct OD: 8-40 mm	PowerFlow RAPID Fibre OD: 5.5-25 mm Duct OD: 10-63 mm	MultiFlow RAPID Fibre OD: 5.5-32 mm Duct OD: 10-63 mm	DuctRod RAPID ROD OD: 9-25 mm Duct OD: 10-40 mm
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DUCTROD RAPID

Designed to push a duct rod into an underground duct.

Tool Free Installation

When utilizing DuctRod RAPID, the configuration and installation can be deployed without any usage of tools.

DuctRod RAPID makes every job more effective as the machine can quickly be adapted to the specific job saving you time.

Adaptable to Various Manholes

It is equipped with a flexible clamping unit, allowing you to attach the machine to the sidewall of the manhole securing more stable installation.

Effective Rod Pushing

Each job is mechanized, which help you improve efficiency and minimizes the risk of costly errors. For rods up to 25 mm.

Adjustable Torque Distance and Speed measurement for complete rod control

Specifications

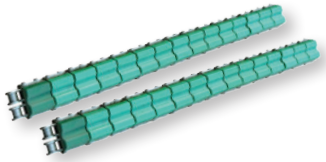
Item No	101-220106001
Rod diameter	9-25 mm
Duct diameter	10-40 mm
Installation speed	Up to 80 m/min
Pushing distance	Up to 500 m
Max. hydraulic pressure	110 bar
Pushing/pulling force	0-200 kg
Clamping unit range	475-900 mm
Weight	68 kg
Length[1]	1050 mm
Width	475 mm
Height	790 mm

1. Without clamping unit

INCLUDED

When purchasing DuctRod RAPID

Control valve for DuctRod RAPID



1 set of chains

25 mm duct holder inserts

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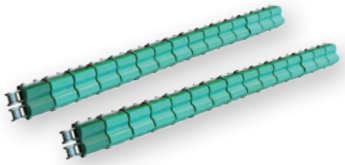
DUCTROD RAPID

Overview of DuctRod

Whats included with the DuctRod Rapid



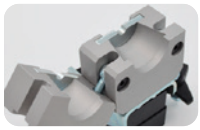
Chains for cable

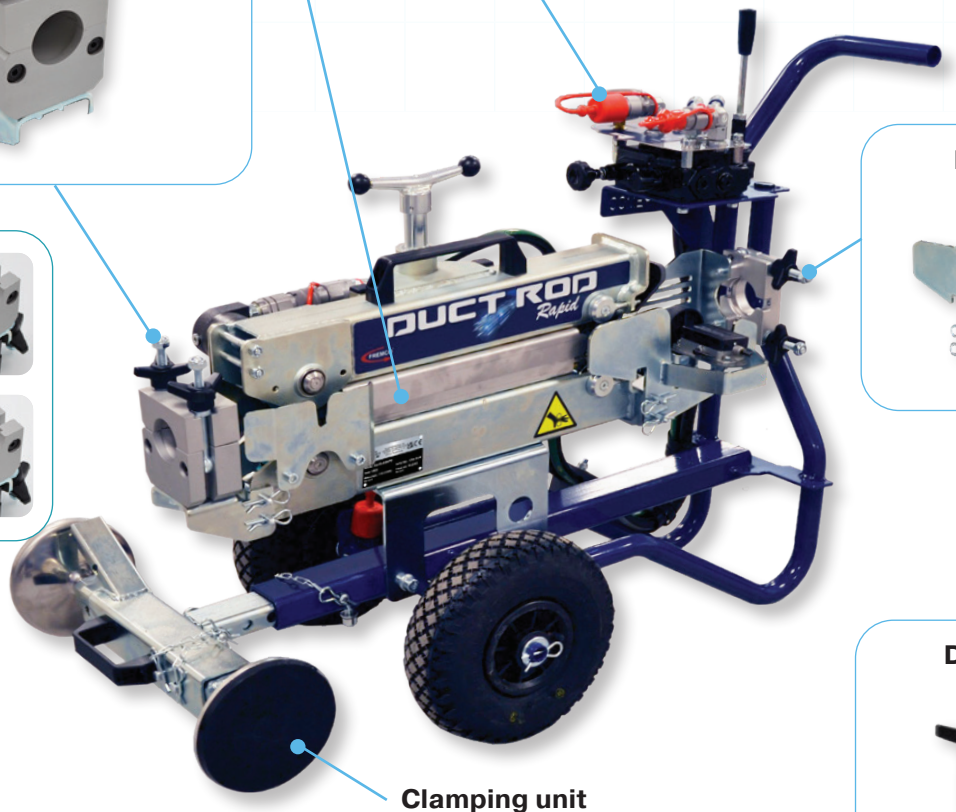
Control valve for DuctRod RAPID

Connection for hydraulic MultiPower Pack

Item no: 101-10102

Rod Connection



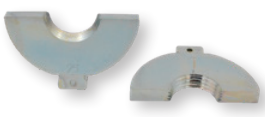


Clamping unit

Inlet Guide

Duct Holder

Rod Connection inserts



Duct clamps

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DUCTROD RAPID

HYDRAULIC MULTIPOWER PACK

The optimal power source for DuctRod RAPID to operate

FEATURES

- Equipped with a unique cooling system
- Engine Honda GX200QX7 6.5 HP (gross power)
- 4-stroke petrol with oil alert system
- Reliable and compact

INCLUDED

5-15 m extension hoses available.

Why a Hydraulic Machine?

Fremco's access network and backbone machines are hydraulic driven. Hydraulic driven fibre blowing machines are more effective and have a significantly lower total cost of ownership compared to an air driven machine.

Main advantages when using Fremco's hydraulic driven fibre blowing machines are:

- Rugged & dependable
- No performance loss
- Significantly lower maintenance costs and lower Total Cost of Ownership than air driven machines
- Can operate in forward & reverse
- Proven performance in extreme harsh environments and weather conditions (cold, hot, wet or dry)
- Installs fibre optic cable over long distances and produces maximum pushing force to the cable

Flexible Control Unit

- Stepless speed control and oil flow control I
- Instant forward and backward movement via the joystick
- Gauge for monitoring oil pressure
- Used with Fremco's hydraulic machines

Specifications

Item No	103-10041
Hydraulic connection	125 bar/ 17L min
Gauge	160 bar aire
Hose to fibre blowing machine	1,500 mm
Hose to hydraulic pump	1,500 mm
Weight	5 kg
Length	250 mm
Width	250 mm
Height	310 mm

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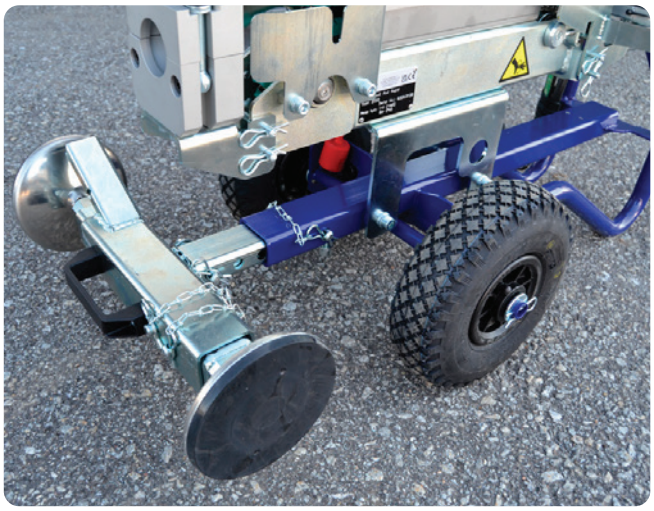
Clamping Unit

Clamp Unit and Clamping Feet



The clamping feet of the machine have a rubber sole on the base to ensure that the clamp does not slip out of place when in use, there are 2 different positions in which you can mount the clamping foot to the machine vertically and horizontally this allows the machine to clamp into larger chambers that are longer than usual.

The clamp has 2 adjustable feet that can be screwed out, this is used when securing the machine into place, sometimes you would need the machine to be situated more to the left of the chamber/manhole or more to the right of the chamber/manhole, these movable feet allow that to happen, These same clamping feet have a hole drilled in the neck as well as a flat spot machined out so you can use either a large screwdriver or an adjustable wrench to fasten the feet onto the chamber/manhole wall The max extension of the clamping unit is 900mm (35.4331”) with feet screwed out and the smallest is 43mm(1.69”) with feet screwed in.

Clamping unit used Horizontally with clamping feet screwed out to secure the machine to the manhole/chamber.

Clamping unit used vertically with clamping feet securely screwed out securing the machine into the smaller chamber/manhole.

Showing foot screwed out with hole drilled and flat surface for using an adjustable wrench or a screwdriver to turn the shaft that pushes the foot onto the chamber/manhole wall.

Accessories for DuctRod

Fixing Hook

This hook is used to mount the machine onto the frame or fixing point in applications that you cannot fit the clamping unit into or use the ground fixture, the unit fastens onto the front of the DuctRod RAPID and is secured in place by 2 Pins with split pins keeping it in place.

Fixing Hook mounted to the DuctRod Rapid.

This hook has a hand screw to fasten the hook down onto the frame of a manhole/chamber securing it into position and stopping the machine from moving backward when pushing a fiberglass rod into a duct. We are yet to get a successful use of this hook so this will probably be redesigned but no clear date as to when this will happen.

Item No.: 103-220106059

Ground Fixture

The Ground fixture is used to secure the machine when the clamping unit has nowhere to clamp or the space in which you need to clamp is too small. In some cases there is a hole dug into the ground that you need to push into leaving no manhole or chamber to secure the machine to. With the ground fixture screwed into the soil it securely fastens the machine from moving when pushing/pulling

Ground Fixture fully installed with machine connected.

Pros: This method allows you to secure your machine directly into the ground allowing you to get as close as possible to the duct entry point.

Cons: If the ground is too hard or too soft the ground fixture will either not be able to go into the hard ground or the ground is too soft to securely fasten the machine.

Item No.: 103-221027001

Sectors and Usage

Teleco Sector

It is used to push fiberglass duct rods into existing telecom ducting over long distances 300m+ generally used to pull through a draw rope/draw wire to haul telecoms micro duct and Subduct through existing ducting.

The DuctRod RAPID can also be used to help clean out existing ducting from debris that has built up inside the duct over time. By pushing the fiberglass rod through the debris in the duct the technician can then screw on a brush attachment and by pulling the rod back out of the duct it will in turn clean, as the duct takes most debris out.

This method can be used on semi-congested ducts where cables are in ducts already as the brushes can squeeze past smaller objects.

Utilities Sector Gas Water Sewerage

All these industries use a brush at the end of a rod and people manually clean every piece of pipe that is laid in the ground. The DuctRod RAPID can be used to do long stretches of installed pipes by pushing the rod to the end of the pipe, connecting a brush to the rod, and pulling back any debris or dirt left in the pipe after installation.

This process will have to be done more than once to ensure cleanliness, a brush should be the first step, and a sponge for the second step to ensure the best possible cleanliness of the pipes.

Previously this would have to be done by a method called “pigging”, where a Y-shaped cone was inserted into the pipe, and the air was used to push it along catching all the dirt in the cone. This could prove tricky on a larger diameter pipe and where there are valves installed.

With the DuctRod RAPID, we have over 200 kgs (440.925lbs) of pushing and pulling force so we can pull back any debris with ease even through valves and steps in the pipes. These 3 industries use a similar method for cleaning newly installed duct/piping work.

Case Studies

Using DuctRod RAPID to get through a blocked duct that could not be done by hand.

Scenario:

In United Kingdom it was impossible to got through a blocked duct by hand, however, the DuctRod allowed them to pass through. The technician pushed through the mud and out the other end using the machine's 200kg/440lbs of weight.

DuctRod RAPID set up with 14mm fibreglass rod in the machine, machine is clamped using the clamping feet and is angled for the best angle of insertion. 5m hydraulic hose extensions to ensure noise and Co2 levels are away from the workspace.

DuctRod RAPID is set up and clamped into place with the Flexible steel pipe exiting the head of the machine, the flexible pipe is clamped into place using a guide clamp.

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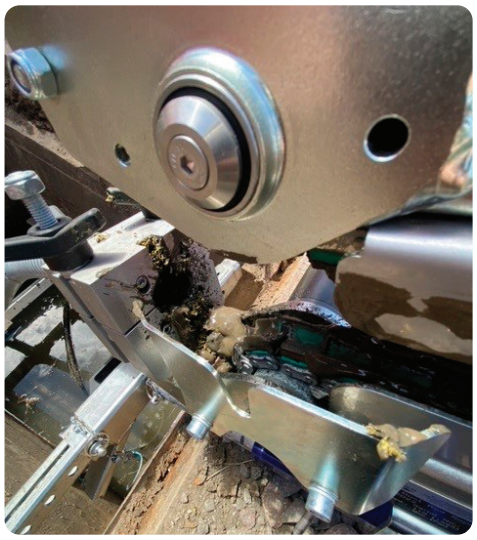

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DUCTROD RAPID

Case Studies

DuctRod RAPID was used to push micro duct into a concrete barrier.

Scenario:

In Columbia, a micro duct was pushed into a concrete barrier using the DuctRod RAPID. It has been proven that if you were to complete the task by hand, it would be difficult and time-consuming and might have required three times as much manpower.

DuctRod RAPID set up with micro duct between chains.

DuctRod RAPID set up with micro duct between chains being guided into the barrier by a technician.

DuctRod RAPID in use pushing the micro duct into the concrete barrier a distance of 280m/306yds.

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