

# DUCT RODDER INTRODUCTION

DCD offers the most comprehensive range of Duct Rodders available anywhere in the world. From the smallest 1/8" diameter Fish Rods to the rugged 1/2" Duct Rodders.

## The Rod

DCD rods are manufactured from materials formulated to offer the high performance & durability demanded by our customers.

The core of the rod is manufactured by the Pultrusion process. This involves impregnating high strength continuous glass fiber filaments with a liquefied resin. The fibers are drawn in to a heated die where the resin matrix is cured, bonding the fibers together and allowing mechanical loads to be transmitted through the matrix and distributed amongst the fibers.

Ultruded rod combines both the high stiffness required to push the rod through long distances of ducting, with the flexibility to handle tight bends without damage. This inner core is then coated with a highly durable, scratch resistant Polypropylene sheath which protects the core from mechanical damage.



## The Frames

The four largest sizes incorporate EZ-Tip™ feature; a larger footprint for stability; steel brake handles that will last forever; dual rod out-feeding positions and wheels inside the frame width. The two smallest frames have the feedout built into the handle.

## Rod Selection

Which is the right rod diameter for any given application? The rod selection is usually governed by several factors including:

- The size of ducting it is to be pushed through;
- The distance the rod is to be pushed;
- The number and tightness of bends in the ducting;
- If the ducting is already occupied by cable;

When being pushed through the duct, any rod will tend to form "sine waves", hitting the wall of the duct at certain intervals. Each time the rod comes in contact with the wall of the duct, it causes friction. The friction will build and eventually prevent the rod from being pushed any further. Small rod in large duct will make more frequent contact with the ducting; the same rod in smaller duct will make less frequent contact and therefore less friction so it can be pushed further. Large rod in small ducting is a good situation, but reduced flexibility of the rod may cause increased friction in the tighter bends.

The chart below is a rough guide as to rod diameter selection, but the above factors should all be taken into consideration before making the final selection.

Rod Diameter	Threaded Connection	Tensile Strength of Rod	Typical Strength of Glued Connection	Typical Strength of Screwed Connection	Minimum Bend Radius	Typical Max. Duct Diameter	Max. Length of Push or Pull
1/8"	#12 UNC	1,125 lb.	140 lb.	–	2"	1-1/4"	150 ft.
3/16"	#12 UNC	2,200 lb.	350 lb.	–	4"	2"	300 ft.
1/4"	5/16" UNC	4,070 lb.	800 lb.	1050 lb.	7"	2-1/2"	400 ft.
5/16"	5/16" UNC	7,700 lb.	850 lb.	1100 lb.	10"	3"	600 ft.
3/8"	3/8" UNC	8,580 lb.	1,150 lb.	1150 lb.	12"	4"	800 ft.
7/16"	3/8" UNC	11,000 lb.	1,750 lb.	1200 lb.	16"	8"	1,200 ft.
1/2"	3/8" UNC	13,000 lb.	1,900 lb.	1250 lb.	18"	10"	1,000 ft..

**NOTE! ALL Duct Rodders are custom built to order and are non-returnable except for warranty. Because the Detectable Rod is conductive, it should NEVER be used in situations where live electrical current could be encountered. Take the proper precautions with your rod in an unknown duct!**

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DUCT RODDERS & ACCESSORIES

