

# **MICRO CABLE FLEETER**



# Operation and Maintenance Model 89002

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### **1.0 SAFETY INSTRUCTIONS**

#### THIS EQUIPMENT MUST ONLY BE USED BY AUTHORIZED PERSONNEL, WHO HAVE BEEN SUITABLY TRAINED AND COMPETENT TO DO SO

# THESE INSTRUCTIONS ARE TO BE MADE AVAILABLE TO OPERATORS OF THIS EQUIPMENT AT ALL TIMES.

1. Read and understand the operation and maintenance manual supplied with this equipment. Keep it in a convenient place for future reference.

2. Keep children and untrained personnel away from this equipment while in operation.

3. Keep all guards and safety devices in place. Do not operate this equipment with guards removed or damaged.

4. Keep hands, feet and loose clothing away from moving parts.

5. Always stop the machine to carry out lubrication servicing.

6. Check machine before starting for worn or damaged parts. Check that all nuts and bolts are tight.

7. If machine is left unattended, ensure that unauthorized use is prevented.

8. Never leave the machine unattended while in use.

9. Consider the use of safety barriers, especially when used in public places.

10. Beware of pinch points involved with rotating components, e.g. rope/cable drums, capstans, bull wheels, shafts and chain drives.

11. Some component and assembly parts are in excess of 70lb (32kg). When lifting care must be taken, ensure sufficient man power/lifting gear is available, to prevent personal injury and damage to the machine.

# INTRODUCTION

Founded by engineer George M. Pfundt in 1936, GMP started operations in a downtown Philadelphia building as a specialty machine shop doing work for the local Bell Telephone company and for the electric utility company. GMP expanded to a produc-



tion shop after landing a contract with Western Electric Company and, subsequently, forming a close relationship with Bell Telephone Laboratories in Murray Hill, N.J., which enabled it to manufacture prototypes of products for experimental use within the Bell System.

Having outgrown the original factory building, the company built a 100,000 square foot plant in Trevose, PA (a Philadelphia suburb) and moved there in 1957. Today GMP is recognized as a premier worldwide supplier of specialty tools and equipment for the outside plant marketplace. The company's products are known for their robust design and durability to withstand many years of frequent use.





#### 2.0 General Description

The Micro Cable Fleeting Device has been developed to enable longer lengths of fiber optic cable to be deployed from a single drum.

With the increasing trend of longer cable installations with more efficient cable blowing techniques there is a need for a Micro Cable Fleeting device.

The need arises following the initial installation of the first half of the fibre optic cable from the drum.

The balance of the cable on the drum needs to be removed, stored safely, with the inner end of the cable ready to be placed in the cable duct. See section 4.0.

The traditional method to achieve this operation is to employ manual labor to rotate the drum while members of the team form the cable being removed into a figure 8 configuration on the ground.

By using the Micro Cable Fleeter this operation can be achieved in less time with less manual labor and with the cable safely stored in the cassette ensuring that the cable will not be damaged by passing vehicles or pedestrians.

The fleeter has been designed to Fleet micro cable safely without over tensioning, excessive bending or kinking of the cable.

It has a nominal capacity to store 6500 ft. (2000 meters) of 8.5mm diameter cable.

#### "WARNING"

The principle of operation and storage rate has been designed for major cable types. However, account should be made for miscellaneous cables, which have characteristics that do not always meet this standard. This may affect the volume of cable stored or the machine may have to be run at lower speeds. This could be curved cables, extremely soft cables or none symmetrical cables. The operator must establish the correct speed of operation and loading for the cable types being employed.

It is recommended that this should be assessed by trial on your particular cable prior to site operation.

# 3.0 Specification

Cable diameter Max Cable Length Microduct Size

Dimensions

5 – 8.5 mm (0.196" –0.334") OD 6500 Feet (2000 Meters ) 8 - 18mm ø

Basket Diameter	47.25" (1200 mm)
Max. Width	50.6" (1825 mm)
Height	55.9" (1420 mm)
Weight	99 lb (45 kg )

#### 4.0 Cable Threading and Operating Procedure

#### IT IS IMPERATIVE THAT ALL PERSONS USING, OPERATING OR MAINTAINING THIS DEVICE BE FULLY TRAINED AND COMPETENT TO DO SO, AND HAVE READ THE ENTIRE OPERATING MANUAL.

#### GMP CANNOT BE HELD RESPONSIBLE FOR MISUSE OF THIS EQUIPMENT.

**4.1** The first stage of the mid span installation should be to add 15' (5m) length of tube and connector between the blowing unit and the innerduct placed in the ground. (A suitable slave length of tube may at this stage be placed between the cable drum and the cable blower for use in installing the second length of cable). Installation should then be completed as per diagram (Figure 1). i.e. cable blown through first duct with cable for the second duct still on the drum.



**4.2** The Cable Fleeter should be positioned adjacent next to the manhole and levelled up by adjusting the feet until level. A level indicator is attached to the cable fleeter frame. **Note:** The innerduct connected to the blower should be disconnected at the manhole duct with sufficient cable being left between the manhole and the fleeting device to allow for any subsequent repositioning of the fleeting device when loaded with cable.

The GMP Breeze cable blower machine should be positioned in line with the tube clamp brackets on the fleeter.

The drum trailer or drum stand should be positioned approximately 15' (5m) from the cable blower, directly in line with the blower and the fleeter unit see (Figure 2).



Undo the tube clamp and tube guide brackets in the fixed quadrant and unscrew and retract the adjustable rollers on the rotating carousel.

Pull a suitable length of cable from the drum and through the 15' piece of innerduct and insert the loop through the gap in the fleeter and clockwise around the central frame of the cable storage basket. See Fig 2.

Clamp the innerduct, into tube clamp on the fixed quadrant. The tube can protrude through the clamp to within 1 to 1-1/2" (30-40 mm) of the rollers. **Note:** The correct size of clamp collets to suit the tube need to be fitted to the tube clamp. Various sizes are available, They must be made available for use prior to commencement of the installation. The tube needs to be located in the tube guides mounted on the fixed quadrant, unscrew the wing nut and slide the retaining plate out of the way, the tube is located in the guide bracket, the retaining plate is moved back into position and held in position by tightening the wing nut.

Adjust each cable guide roller in turn on the rotating quadrant ensuring the cable is located into the vee of the rollers. Ensure that each roller rotates when the securing wing nut is tightened, there should be a gap of approximately 1/32" (1 mm) between the rollers.

**Note:** Both rollers on the second set of guide rollers down from the top of the rotating carousel are adjustable, they need to be set up to suit the diameter and bending radius of the cable, ensure that when set there is a gap of 1/32" (1 mm) between the rollers, this will allow the rollers to rotate.

**4.3** When the cable has been placed in the fleeter an end will be available as per (Figure 3), remove the 15' piece of innerduct from blower and replace with a short length of innerduct, to protect the cable before installation into the second duct. (Note the slave tube attached to the cable at 4.1 may be used). The cable may now be blown into the second duct using the correct equipment to prevent over tensioning and sharp bending of the cable to complete the installation through the two ducts as per (Figure 4).



Figure 4



#### 5.0 Equipment Layout

- 1 Cable storage cassette
- 2 Fixed quadrant
- 3 Rotating cable guide carousel
- 4 Levelling foot5 Level indicator device
- 6 Tube clamp
- 7 Tube guide clamp



#### 6.0 Spare Parts

For spare parts contact: General Machine Products (KT), LLC 3111 Old Lincoln Hwy Trevose, PA 19053

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