

# The MGS Group



## ST1000 SINGLE TWIST MACHINE

The Single Twist ST1000 machine utilizes an aerodynamic rotor, rotating around a traversing take up drum mounted on a cantilever shaft.

This machine is ideally suited to manufacture the high specification data / communication cables required by today's cable manufacturers.

With the emphasis on aerodynamic components such as the rotor and the final guide pulley, the vibration and noise levels are kept to a minimum.



### Typical Range Of Products

Cabled Insulated LAN - UTP/STP/SSTP  
CAT 5/5e/6/7

With / Without Separator Control cables, Signal cables, Telephone Cable

**Max Cable Diameter** 20 mm (3/4")

### General Specifications

Max Rated Rotor Speed 885 rpm

### Take UP Reel Size

1000 mm to DIN 4639(36")

800 mm to DIN 4639(30")

Recommended bore diameter 127mm (5")

### Take Up Tension Range

10-200 N (2lbs – 40lbs)

Typical product tension for LAN 100-150 N

### Maximum Linear Speed

200 m/min (650) ft/min) Modifications can be made to better suit the customer needs.

**Lay Range** 50-200 mm (2" - 8")

**Direction of Lay** S or Z (Left or Right)

**Main Motor (Rotor)** AC

**Take-Up Motor** AC

**Reel Motor** AC

**PLC** Allen Bradley

**HMI** 10" Allen Bradley

**Drives** AC

**Approximate Weight** 14,000 kg - 31,300 pounds

**Dimensions (Unpacked)** Length 5,800mm – 19' 1"

Width 2,500mm – 8' 2"

Height 2,200mm – 7' 2"

**Braking** – Pneumatic Disc brakes are provided on both the rotor and the drum drive. Plus dynamic braking from the AC Drives.

**Machine Design** - Rotors, machine frame and loading system are all integrated in one unit. The safety / sound enclosure and integrated control cabinet can be isolated from mainframe.

**Machine Frame** - Stress relieved torsion-free steel fabrication.

**Rotor** - Statically and dynamically balanced with 2 x 300mm dia Guide Pulleys. Final guide pulley is cantilever mounted and gives minimal windage effects by using low profile spoked aluminum design.

In order to minimize noise and vibration the rotor has been designed as a cone, and encapsulates the two 300 mm (12") pulleys. The exit pulley has been designed to minimize windage effects by using a low area profile

**Rotor Lubrication** - Grease lubrication. Central grease lubrication to all major bearings is provided via a manifold positioned at the rear of the machine.

**Traverse** - The traversing carriage assembly is on precision ball slides. The traverse pitch and end stops can be adjusted via the HMI Panel.

Rotating Capstan Model RC1000



**Rotating Capstan** – Used in conjunction with the ST1000, where the need for accurate lay lengths are required. The main pulling force for the cable comes from the RC1000 and not the take-up reel.

**Take Up Drum Drive and Winding Tension** – By AC Motor and epicyclic gearbox. Adjustable from outside, constant tension as reel fills from barrel to flange.

**Reel Loading And Unloading** - Foundation free, powered loading platform.

**Safety / Sound** - Self-supporting construction.

**Enclosure** Machine starts running with closed door only. Door can only be opened if rotor is not in motion. Electrically locked during operation, operator door slides sideways, internal lighting, end access for service.

## *The MGS Group*

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