The MGS Group

MGS Manufacturing
HALL Industries

NORTHAMPTON

ST 1000 SINGLE TWIST MACHINE

The Single Twist ST 1000 machine utilizing 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	6" Monochrome
Drives	SSD 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"
Noise Level	85 dB/A

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.

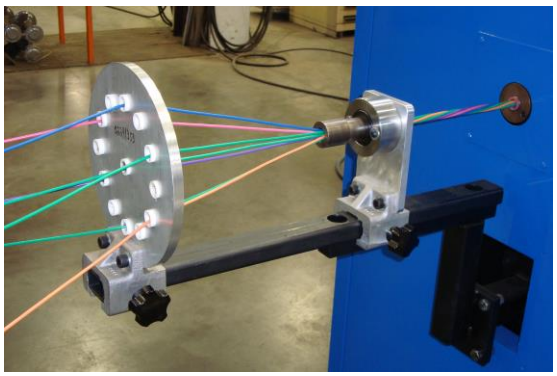
Rotor - Statically and dynamically balanced with 2 x 300mm dia Guide Pulleys. Final guide pulley is cantilever mounted and gives minimal windage effects by using low profile spoked aluminum design.

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.

Lay Plates – Flexible Lay Plate Adaptations.



Rotating Capstan
Model RC-1000

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.

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