The MGS Group

MGS Manufacturing
HALL Industries

NORTHAMPTON

SLB 1000 / 42” DOUBLE TWIST MACHINE

The SLB 1000 is available in two versions.

The **SLB 1000E** is a two motor version. One AC motor for the rotor and one DC motor for the takeup reel. Takeup tension is adjustable from the outside and is constant as reel fills from barrel to flange.

The **SLB 1000D** is the same size and construction as the SLB 1000E and includes an additional DC motor driving the capstans to provide digital lay control. The operator selects the desired lay length on the HMI Screen.

Typical Range Of Products

Soft Annealed Copper (Bare Wire)	7 & 18/19 wire constructions 1.5mm² to 50mm² 16 to 1/0 awg
Compacted Compressed Dies	Up to 35 mm² 2 awg
Compacted Rolls (Sector Shape)	Up to 35 mm² 2 awg
Insulated Cores	3, 4 and 5 cores
Maximum Finished Cable Diameter	17mm (0.67”)
Direction	Left-to-Right or Right-to-Left
Rotor (Bow) Speed	2800 twist per minute
Reel Size	1000 mm to DIN standard (42” flange)
Lay Range	25mm to 400mm (1” to 15¾”)
Capstan Diameter	2 x 300mm

Line Speed	300 meters per minute (1000 feet per minute)
Main Motor	AC
Reel Motor	DC
Capstan Motor (SLB 1000D only)	DC
PLC	Allen Bradley
HMI	Touch screen and push buttons
Drives	SSD
Approximate Weight	15,000 kg (33,600 pounds)
Dimensions (Unpacked)	Length 5800mm (19’ 0”) Width 2360mm (7’ 9”) Height 2250mm (7’ 4”)

Braking Time For The Bow

Normal stop – 30 to 75 seconds preset
‘E’ stop – 5 to 10 seconds preset

Rotor Lubrication	Grease Lubrication

CONSTRUCTION FEATURES:

Machine Design - Rotors, baseframe and loading system are all integrated in one unit. The Safety / Acoustic enclosure can be isolated from mainframe. Integrated control cabinet.

Machine Frame - Stress relieved torsion-free steel fabrication.

Safety / Acoustic Enclosure - Self-supporting construction, electrically locked during operation, operator door slides sideways, internal lighting, end access for servicing.

Bow - Carbon fibre with wear strip.

Take Up Tension - Adjustable from outside, constant as reel fills from barrel to flange.

Rotor Drive - By transmission shaft to both rotors.

Rotor - Statically and dynamically balanced and arranged for excellent wire path.

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

Capstan – Driven by change gears mechanically interlocked with rotor by timing belt drive. (SLB1000D driven by DC motor.)

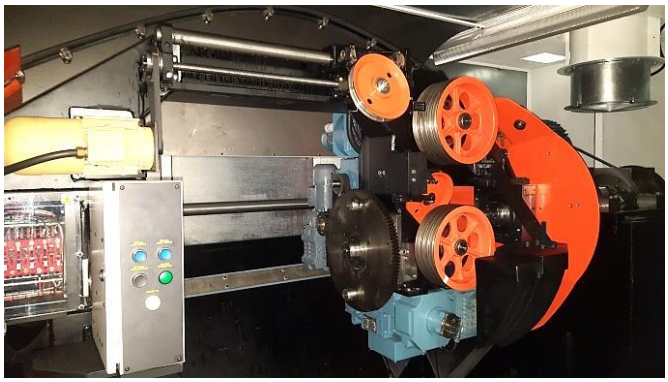
Traverse With Screw - By DC motor. End points adjust from outside during operation.

Layplate - 2 pieces mounted on stand, longitudinally adjustable.

Wire Break Monitoring - Contact strip on baseframe and detectors at Capstan.

Safety Installations - Machine starts running with closed door only. Door can only be opened if rotor is not in motion. Emergency stop occurs during excessive movements of the cradle. Wire breaks strip on the machine frame.

Operator Control Panel - By (HMI) with all necessary instruments and operator controls. Operating screen, motor performance screen, and length measurement screen.



Latest Enhancements

- Large touchscreen HMI with detailed maintenance diagnostics
- Digital traverse set points adjust from outside during operation
- Quick-change brush holder assemblies with constant tension brushes and holders to reduce maintenance down time.

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