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SFC EUROPE LTD – GENERAL OPERATIONS, CAPABILITIES AND EQUIPMENT.

MANUFACTURING

SFC Europe combines traditional fastener engineering skills with the latest CNC manufacturing processes. Our internal manufacturing structure is split into 2 main production units;

STANDARD STUDBOLT PRODUCTION

Thread Rolling (Through Rolling).
High Speed Automatic Sawing.
Automatic Chamfering.
Low Stress Vibro Etching.
Nut Over-Tapping (for different surface coatings).

SPECIAL BOLTING AND MACHINED PARTS PRODUCTION

CNC Turning Lathes.
CNC Vertical Machining Centres.
Hot Forging.
Thread Rolling (Plunge Rolling).
Screw Cutting.
Conventional Turning and Milling.
Cold Broaching.
Low Stress Vibro-etching.

As an overview, we can manufacture threaded components and turned parts to:
Diameter: 0.125" (M3) to 6.000" (M150) Length: up to 6M.
Thread forms: UNC, UNF, 8UN, Metric (coarse), Metric (fine), BSW, BSF. Other specialised thread form can be produced upon request.

SURFACE COATING & TREATMENTS

Zinc, Clear and Yellow passivation
Zinc Nickel (ES313)
Cadmium
Phosphate
Hot Dip Galvanising
Nickel
Sheradizing
PTFE (Xylan / Xylar)
Zinga
Sheraplex
Silver Plating, Copper Plating
Heat Treatment to specification

NON-DESTRUCTIVE EXAMINATION (NDE)

PMI (Positive Material Identification). – XRF Type.

UT (Ultrasonic Examination of barstock).

MPI (Magnetic Particle Inspection).

DPI (Dye Penetrant Inspection).

Hardness Testing. – HRB / HRC

Ferriscope

LABORATORY SERVICES (available but not limited to);

Tensile Testing.

Elevated Tensile

Finished Fastener Test

Wedge Test

Proof Load Testing. / Cross Sectional Hardness Testing.

Impact Testing (Room Temperature, Low Temperature.).

Stress Rupture Testing.

Hardness – HRB / HRC & HBW

Chemical Analysis.

Macrotech.

Microstructure.

Ferrite / Austinite Phase Balance

Corrosion Testing

De-carburisation.

Cleanliness Check

PLANT AND EQUIPMENT

CNC MACHINING

1 - Victor VTurn 26 CNC 2 Axis Lathe. 3" (75mm) dia. spindle / 10" (250mm) dia. Chuck / 44" (1130mm) between Centres

1 - Victor VTurn 26 CNC 2 Axis Lathe. 3.5" (90mm) dia. spindle / 10" (250mm) dia. Chuck / 44" (1130mm) between Centres

1 - Hwacheon Cutex 200 CNC 2 Axis Lathe. 2.5" (62mm) dia. Spindle / 10" (250mm) dia. chuck and 54mm dia. quick change collet chuck / 8" (200mm) max turning dia. / 11" (284mm) between Centres. Equipped with a Hydra feed MV65 multi-bar bar feed

2 - Victor VCentre 85A Vertical Machining Centre with 4th axis. Spindle BT40, 7.5kW. Table Capacity – 750kg. Axes – 33.5" (850mm) x 20" (520mm) x 22" (560mm)

1 – Tongtai TA20LMB CNC 2 Axis Lathe with sub spindle and live tooling. 2" (50mm) dia. Spindle / 8" (210mm) dia. Chuck / 26.5" (650mm) Max length. Equipped with Togtai 1M multi-bar bar feed

1 – Doosan S280 CNC 2 Axis Lathe. 2" (50mm) dia. Spindle / 8" (210mm) dia. Chuck / 13" (330mm) Max length. Equipped with 1M multi-bar bar feed

2- Trishul Polygon Turning Machines Machining flats, Squares, Hexagons and other even numbered polygons with chamfer, radius and contours.

TURNING - AUTOMATIC

2 – Emi-Mec Micro sprint 26. 1" (25mm) dia. Bar / 4" (100mm) in length. Complete with 1" (25mm) dia. 10ft (3000m) length capacity bar feeds.

2 – Emi-Mec Micro sprint 50. 2" (51mm) dia. Bar / 6" (150mm) in length. Complete with 2" (51mm) dia. 10ft (3000m) length capacity bar feeds

1 – Emi-Mec Micro sprint 50. 2" (51mm) dia. Bar / 6" (150mm) in length

TURNING - MANUAL

5 - Ward 2DB Capstan Lathe. 1.5/8" (41mm) dia. Bore / 8" (200mm) Turning Length

4 - Ward 3DB Capstan Lathe - 2" (51mm) dia. Bore / 12" (300mm) Turning Length. Complete with 2" (51mm) capacity bar feeds

1 - Ward 7E Turret Lathe. 5" (125mm) dia. Bore / 50" (1270mm) long billet

1 - Colchester Triumph 2000 Centre Lathe - 9½" (240mm) dia. Bar / 50" (1270mm) long

1 - GH 1660ZX Centre Lathe - 16" (406mm) Swing. 60" (1500mm) Between Centres. 3" (80mm) Spindle Bore.

Range of Thread Cutting Heads (Landis & Coventry Type) together with the associated thread cutting chasers for producing all Imperial and Metric threads up to M52/2" dia.

Range of Thread Rolling Heads (Fette Type) together with the associated thread rolling dies for producing threads up to ¾" (M20) dia.

A range of Polygon generating heads (Tangi-Flow) for the in-cycle production of Sockets.

THREAD ROLLING

1 - Jiangbei ZC70 700kN 2 Roll Thread Rolling Machine. For up to 6" (150mm dia.). Complete with semi-automatic bar feeding and bar take-off equipment. Extensive range of Imperial and Metric Thread Rolls

1 – 50 Ton ORT 2 Roll Thread Rolling Machine. For up to 3" (75mm dia.). Used for annular rolling and plunge rolling. Extensive range of Imperial and Metric Thread Rolls

THREAD TAPPING

4 – Tapping Machines. Range from ½" (M12) to 3.1/2" (M88)

HOT FORGING

1 x Wilkins & Mitchell 135 Ton Forging Press.

BANDSAWS - NC

1 – WH300AE Prowsaw. 12" (300mm) dia. automatic band saw with bundle clamps

3 - Cosen C-320NC - 12" (320mm) dia. Automatic Band saws with bundle clamps

1 - Cosen C-520NC - 20" (520mm) dia. Automatic Band saw with bundle clamps

2 - Cosen C-260NC - 10" (260mm) dia. Automatic Band saw with bundle clamps

BANDSAWS - MANUAL

2 - MH 210 M Bandsaw - 10" (260mm) dia. Manual Bandsaw

MILLING - MANUAL

1 - KVY 3000 Turret Milling Machine - Table size 850mm x 400mm

DRILLING

1 - Pedestal Drilling Machine - 1¼" (32mm) dia. Capacity

1 – 4 Post Drilling Bench - Morse 2 taper drill heads - 78" (2000mm) length of bed

BROACHING

1 - Marlco 50-ton Broaching Press - For pressing Hexagon Sockets

1 - 5-ton Broaching Press - For pressing Hexagon Sockets

1 - 15-ton Broaching Press - For pressing Hexagon Sockets

1 - 100-ton Broaching Press - For pressing Hexagon Sockets

GRINDING / LINISHING

1 - Beacon Surface Grinding Machine - Table size 20" (500mm) x 6" (150mm)

2 - Pedestal Grinding Machine - 2 x 8" (200mm) dia. x 1¼" (32mm) wide grinding wheels

1 - Pedestal Grinding Machine - 2 x 12" (300mm) dia. x 2" (50mm) wide

2 - Hydrafeed 44HD - 4in (100mm) Vertical Linishing Machine

1 - Draper HLM - 4" (100mm) Horizontal Linishing Machine

CHAMFERING

2 - MSI ChamferMate - 3in (75mm) dia. Chamfering and Centering Machine

2 - MSI ChamferMate - 5in (125mm) dia. Turning, Chamfering, and Centering Machine

PART MARKING

1 - MSI MarkMate - Double Ended Marking Machine 3" (M76) dia / 36" (900mm) long

2 - MSI MarkMate - Double Ended Marking Machine 3" (M76) dia. / 24" (600mm) long

2 - Propen P5000 - Dot Marking Machine

2 – SIC E9 - Dot Marking Machine

1 – SIC E8 - Dot Marking Machine

ASSEMBLY

4 - MSI NutMate - Twin Spindle Studbolt/Nut Assembly Machine 1½" (M39) capacity

MATERIAL IDENTIFICATION

2 - Delta XRF Analyzer - For the accurate identification of materials

1 - Nyton XRF Analyzer - For the accurate identification of materials

PART CLEANING

2 – Technowash - Component Cleaning Machine. Components up to 400kg / 1200mm lg

MATERIAL HANDLING

3 - Bendi Forklift Truck - 1500kg Capacity

1 – CombiLift - Side Loader 3000kg capacity

1 - Crown Forklift Truck - 2500kg Capacity. Fork length 1145mm

1 - Pallet Truck. Equipped with a load weighing facility - 1500Kg

4 - Hand operated pallet trucks - 1500Kg

2 - Weighing/Counting Scale pallet platforms

5 - Digital Bench Scales

INSPECTION EQUIPMENT

Extensive range of Thread Measuring Equipment, Calipers, Ring Gauges, Screw Plugs, Micrometers etc. All calibrated to UKAS Specifications.

Hardness testing equipment. All calibrated to UKAS specification.

Keyence Optical Measurement System