Manufacturing Capabilities

Located next to the Port of Felixstowe in the United Kingdom, **Cogent Technology's** pioneering 80,000 sq.ft smart factory is not only one of the largest CMO facilities in Europe - it is your gateway to the world. We manufacture your devices here to world-class quality standards before they are shipped around the globe.

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SECTION A - Surface Mount

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Jul 2026

1. SOLDER PASTE APPLICATION EQUIPMENT	
Type of solder printing machines	DEK Horizon 03ix automatic in-line printing machine
	Mycronic MY700jx automatic jet printing machine
Type of alignment requirements	Automatic fiducial alignment
Solder paste used	SAC305 (RoHS lead free)
Type of flux used	No clean
Type of screen used	Stainless steel

2. ADHESIVE APPLICATION CAPABILITY	
Type of dispensing machines	DIMA DD-500 *Dispense Master*
Type of alignment requirements	Automatic fiducial alignment
Glue dot sizes	0.3 - 2.0mm Dots
Dispense line sizes	0.3 - 2.5mm wide lines
Maximum PCB clearance/ work height	87mm
Dispensing media	SMT Adhesive, Epoxy, cyanoacrylate, etc adhesives Peelable masking, silicon sealant compounds, etc

3. PLACEMENT CAPABILITY	
Type of placement machines	Mycronic MY100DX14, MY200DX10, MY300DX13
Number of feeders per machine	Mycronic MY100/MY200 - 240 x 8mm tape
Finest pitch device placed	0.3mm (12thou) (capability for 0.2mm pitch)
Smallest component placed	0201 (capability for 01005)
Largest component placed	56mm^2
Alignment method used	On-the-fly Vision
BGA capabilities	BGA with 0.3mm pitch (min) x 56mm^2

4. SOLDERING	
Type of reflow	Convection
Type of machines	1 x BTU Pyramax100 (Convection reflow)
Minimum and Maximum PCB / Panel width	60 - 460mm
Profiling equipment and records	Solderstar SLX – 6 Channel Reflow Profiling System

5. PCB MARKING	
Type of marking machine	YJ Link YLM Laser Marking system
Type of marking	1D/2D barcodes, characters and logos

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SECTION B - Conventional

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1. SOLDERING	
Type of Wave soldering machines	Blundell CMS 400D
Type of wave	Dual Wave
Width of conveyor	60 - 400mm
Type of solder used	SN100SB (lead free)
Type of flux used	No Clean
Method of fluxing	Spray
Pre-heaters	Single zone & 2 zone Pre-heat tunnel
Type of Selective Wave soldering machines	Ersa EcoSelect2, Ersa SmartFlow 2020
Type of wave	Single point precision nozzle on X, Y, Z axis control
Width of conveyor	60 - 406mm
Type of solder used	SN100SB (lead free)
Type of flux used	No Clean
Method of fluxing	Precision spray fluxer
Pre-heaters	Top side convection, Bottom side IR

2. MANUAL ASSEMBLY	
Type of soldering irons, solder used	ERSA Digital 2000A, Pace ST45, Pace HW100/200
Solder/flux used	SN100 No Clean Solder Wire
Local cleaning	Isopropanol
Build aids used	Slide Line Assembly Stations Mascot Laser Guided Assembly Stations Manual Assembly Frames
Lead cropping and clinching	Blundell Cropmatic

3. COMPONENT FORMING CAPABILITIES	
Type of forming machines	ITECO 7915/100, Elite Engineering F125 90deg crop & bend
Smallest component formed at present	Body - 3 x 1.56mm Lead diameter - 0.8mm
Largest component formed at present	Body - 10 x 6mm Lead diameter - 1.5mm
Largest component capable of being formed	Body - 40 x 13mm Lead diameter - 1.5mm
Components types which can be formed	Axial, Radial (lead crop only)

4. TINNING CAPABILITIES	
Make of tinning machine	RS solder pot
Component types which can be tinned	Used only for tinning wire ends

5. CABLE FORMING CAPABILITIES	
Make of forming machine	Schleuniger E400 wire cut & Strip machine
	Schleuniger UniStrip 2300 wire stripping machine
	Gamma T12 semi-automatic crimping press
	WDT SSC-2FP safety loose piece crimping press
Wire Types which can be processed	Multiconductor cables from 0.8 – 12.5 mm (0.032 – 0.49") with cross-sections from 0.08 – 16 mm² (28 – 6 AWG)

Experience

Established for over 40 years, Cogent Technology has a reliable and growing team of specialists dedicated to world-class quality, DFM and competitive materials sourcing.

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SECTION C - Shielding

1. CONFORMAL COATING CAPABILITIES	
Type of coating	Humiseal 1B73 (acylic coating)
Application method	Spray (manual and automated) / Dipped Air
Inspection method	UV tracer in coating material
Masking requirements	All electrical contact areas and any unsealed components (e.g. switches and pots)
Automated coating machine	PVA650
Automated capabilities	Precision coating application 3mm to 9mm width
	Precision masking / coating gel barrier application

2. CABLE OVER MOULDING CAPABILITIES	
Type of moulding machine	Optimel OM1200
Moulding material	Henkel Macromelt OM646 (black polyamide)
Moulding applications	Over moulding of cables and PCB assemblies

3. POTTING CAPABILITIES	
Potting materials	Various Epoxy, Polyurethane, Silicone compounds
Potting applications	Encapsulation of electronic assemblies for electrical insulation, moisture / vibration proofing
De-gassing capability	Vacuum degassing vessel, to remove air bubbles from resins prior to use

SECTION D - Cleaning

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CLEANING CAPABILITIES	
Where possible we operate a 'No Clean' production process, but where customers require cleaning of their assemblies or Conformal Coating is required the following is employed	
Type of machine	CC Hydrosonics SOLVAC S2 1812 Co-Solvent
Method of cleaning	Solvent Wash, Solvent Rinse, Vapour Rinse
Agitation method	Solvent pumped flow
	High frequency ultrasonics (can be disabled)
Cleaning agent	Co-solvent: 3M HFE-71IPA, Topklean EL20A

SECTION E - Rework

1. REWORK CAPABILITIES	
Type of equipment	PDR IR-E3 BGA Rework Station
	ERSA HS800 Hot Air Pencils
	PACE MT-100 Rework tweezers
	PACE ST115 De-soldering stations

2. TEST CAPABILITIES
A full range of functional test services are available to meet customer requirements

MaPS

MaPS is one of the unique an outstanding aspects of Cogent Technology, enabling an unrivalled, centralised Monitoring and Planning System for our entire manufacturing operations. Additionally, it provides access to our QMS, change control, concession authority and capacity planning alongside close monitoring of vital KPIs, giving us the tools to deliver you confidence in quality for your project.

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SECTION F - Quality

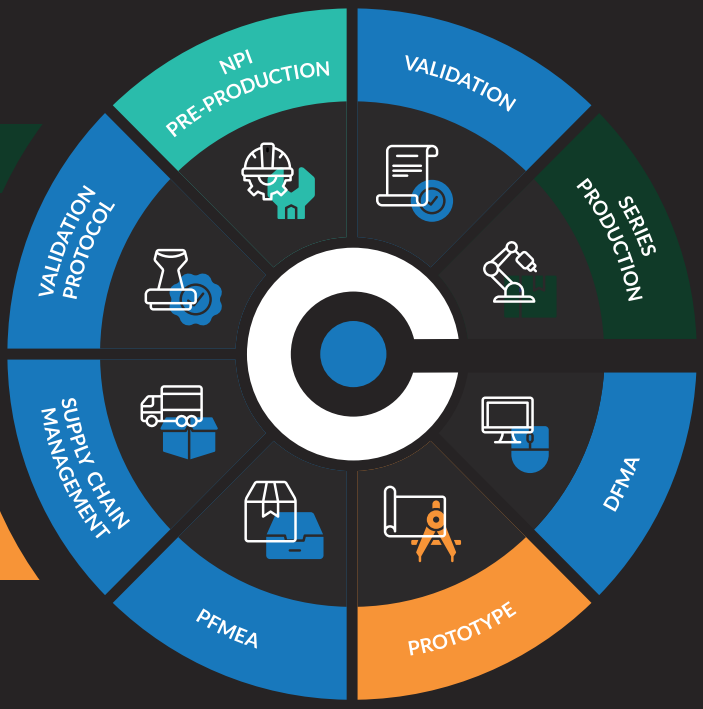
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1. QUALITY CONTROL CAPABILITIES	
Type of inspection	Manual, AOI
Magnification for visual inspection	X2, X4, X10, X20 and x40
Equipment used	2 x DCB Automation Ultravision AOI System
	VI Technology 5K 3D AOI System
	Optilia digital BGA inspection system
	Vision Engineering Mantis, Microscopes, and illuminated magnifiers, Force Systems Crimp Tester
	Sciencsope Xspection 3000
Software tools	Tracking system: controls progress of product through build process, including rework and customer returns, with traceability of operations and key materials, to provide a complete device history record
Standards adhered to	To meet all requirements, including: BS EN ISO9001, BS EN ISO13485, J-STD-001, IPC-A-A610E

2. MISCELLANEOUS	
Workmanship capabilities	IPC J-STD-001, IPC-A-610
Drawing packages used	PADS Power PCB, AutoCad LT, GC-Prevue plus, Aegis FactoryL-ogix, Controlled paper
Procurement capabilities	Electronic components, PCB's and mechanical piece parts, enclosures and packaging
Assembly area conditions	Climate controlled environment 21°C
	2 x Class 7 Cleanrooms
Anti-static precautions	Wrist, foot and floor
Component storage conditions	Dry temperate store
	<3% RH DryStore for moisture sensitive devices
Environmental issues	No toxic materials normally used
Despatch packaging	Populated PCB's in anti-static bags / boxes, and/or anti-static bubble wrap as required

From Concept to Fulfillment

- **Series production**
- **Productionisation**
- **NPI - Pre-production**
- **Fast track - prototype**
- **Prototype**



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