

Duplex clean rooms 2,500 sq ft; delivery straight to the sterile supply chain



Arrow Medical offers a complete medical manufacturing resource. This extends from engineering support for prototype design and pre-production, to production planning and engineering, right up to volume unit production at rates above 10,000 per month.



Arrow Medical maintains two Class 10,000 clean room assembly facilities. The latest unit includes over 1,500 sq. ft. of production space, adjacent to a new metrology and inspection suite.



The clean room facilities support Arrow Medical's production of laryngeal masks and allied products, including many different types of tubing sets, to a high and consistent standard to meet the needs of a global market.

Arrow Medical's clean rooms are designed for quality assembly of advanced devices, which may include combinations of optics and electronics, as well as precision moulded polymers and metal components.

Arrow Medical facilities are fully qualified for delivery straight into the sterile supply chain. This includes components,

sub-assemblies and complete products, fully assembled and packaged ready for use in clinical environments.

Complete facilities are provided for:

- Assembly of medical devices
- Sub-assemblies for advanced devices including implants
- Packaging ready for sterilisation using gamma or ETO methods

The clean rooms can accommodate ancillary and component processes, such as silicone moulding, gluing and bonding, depending upon the customer's requirements. All processes meet ISO 13485:2003 ISO 9001:2000 and other relevant standards, including FDA GMP.

As an Investor in People, Arrow Medical maintains stringent training standards. Clean room operations are regularly assessed to ensure all biological standards are maintained. This is supported by both careful selection and staff training throughout the business right from supplier selection to delivery to the sterile logistics chain.



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Contract Medical Manufacturing Services

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Silicone moulding, RF welding, clean room assembly, sterile chain packaging and delivery, and a full manufacturing service to ISO 13485:2003, ISO 9001:2000 and FDA GMP standards.



RF Welding

Welding, cutting and forming of PU and PVC to 900mm by 600m with complete assembly of multi-layers, leak-free pressure testing and process validation.

Silicone moulding

Facilities include liquid resin systems, compression and injection moulding for components and micro-parts with over-moulding and encapsulation and hard/soft combinations of materials including rubbers, silicones and a variety of other polymers and semi-rigid metals.

Textile assembly

Precision assembly with multi-layer shaping, punching, cutting, welding, sewing, gluing, bonding and sealing using clinical grade polymer-based films and advanced fabrics.

Sterile packaging

Complete sterile service. Printing, auto-packing, labelling, stock control, kit packing and consolidation for clinical assemblies, secure storage and known global shipper status.

Test Equipment List

| Item Description | Current location | Dimensions (m) | Services | Extras |
|--------------------------------|------------------|-------------------|---------------------------------|---|
| Dynascope | Quality office | 1.5 x 0.6 x 1.0 | Power supply | Measurement area 165mm ³ 10x 20x and 50x magnification |
| Video Dynascope | Unit 5 | 1.5 x 0.6 x 1.0 | Power supply | Measurement area 165mm ³ 10x 20x and 50x magnification |
| Tensile tester + PC | Unit 5 | 2.0 x 0.7 x 1.0 | Power supply | Max tensile force up to and including 2500N |
| Tensile tester + PC | Unit B1 | 2.0 x 0.7 x 1.0 | Power supply | Max tensile force up to and including 500N |
| Steam Autoclave | Unit 5 | 0.5 x 0.25 x 0.25 | Power supply | Capacity 0.03m ³ |
| Inflation testers (2 cabinets) | Unit B1 | 2.2 x 1.0 x 0.6 | Compressed air and power supply | |
| CMM + PC | Unit 3 | 2.0 x 1.2 x 1.5 | Compressed air and power supply | Capacity 3.6m ³ |
| Inspection tables x 3 | Unit 9 | 300mm x 300mm | None | No Extras |
| Microscope x 4 | Unit 3, 4, B1 | 0.2 x 0.3 x 0.15 | Power supply | 10x 20x and 35x magnification. Working distance 150mm. |

Silicone Injection Moulding

| Equipment | Manufacturer | Quantity |
|-------------------------------------|------------------|----------|
| Injection Press 40 ton: 10 inch | Maplan | 1 |
| Injection Press 80 ton: 17 inch x 3 | Maplan | 1 |
| Injection Press-221 25 ton: 8 inch | Arburg | 1 |
| Injection Press 35 ton: 8 inch | Arburg | 1 |
| Compression Press 40 ton: 17 inch | Bradley & Turton | 1 |
| LSR Pump Unit (20Kg Hopper) | Dopag | 1 |
| LSR Pump Unit (20Kg Hopper) | 2KM | 1 |
| Oven (Curing) 0.5 cubic metre. 3kw | | 1 |
| Oven (Curing) 0.7 cubic metre. 6kw | | 1 |
| Chiller x 2 | | 1 |
| Priming Cabinet x 2 | | 1 |
| Compressor (Rotary) | Fluidair | 1 |
| Shot Blaster & Roller | | 1 |
| 2 Roll Mill: 16 inch | | 1 |

RF Welding

| Equipment | Manufacturer |
|--|--------------|
| RF Welder TP15: 1,200mm x 900mm: 15kw | Stanelco |
| RF Welder 105CW: 900 mm x 600mm: 10kw | Radyne |
| RF Welder: 750mm x 600mm: 10kw | Thor |
| RF Welder SP40: 750mm x 550mm: 7kw | Stanelco |
| RF Welder: 750mm x 550mm: 1kw | Coaxil Power |
| RF Welder In Line: 550mm x 400mm: 8kw | Geaf |
| RF Welder SP40: 320mm x 230mm: 2.5kw | Stanelco |
| RF Welder: (Development): 220mm x 60mm: 3 kw | Stanelco |
| Chiller/Cooler x 2 | |
| Compressor | |
| Solvent Dispenser (Tube) 8mm dia' | |
| Solvent Dispenser (Tube) 8mm dia' | |
| Shot Blaster & Roller | |
| 2 Roll Mill: 16 inch | |

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