



# UV curing and clean room assembly unit

**UV curing, product assembly, and 100 per cent testing using a variety of plastic and metal sub-assemblies for gas and liquid handling and supply devices, including inflatable products, catheter assemblies, tubing sets and complete single use devices.**



Arrow Medical's investment in UV curing includes multiple high capacity lines for assembly of single use devices and other Class 2 and Class 3 products for use in anaesthetic, emergency and cardiac treatments, providing product volumes of 20,000 to 100,000 units a month.



Housed in a purpose built ISO 14644 Class 7 soft wall, energy efficient, bright light clean room, one of three on site totalling 3,100 sq ft, the UV curing facility includes complete product and component tracking and identification, 100 per cent testing of designated products and processes, and the highest standard of semi-automated and manual assembly.

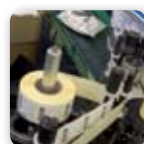


Multiple conveyerised assembly lines apply the latest technology of UV curing, using UV lamps and light guides, UV product conveyors, adhesive dispensing units and pouch sealing, supported by pad and inkjet printing as required.

The unit assembles a wide variety of components, materials and products,

including gas and liquid delivery devices, tubing assemblies and inflatable components. The unit uses many different components and materials, including related moulded soft and rigid polymers, metal components and allied PVC and other medical grade plastics. All assemblies are fully identified, marked and qualified for direct delivery to the sterile delivery chain, packaged and ready for use.

Arrow Medical's UV assembly processes are supported by other on-site capacity at Kington, including moulding, gluing and bonding depending on product design. All processes are qualified to meet ISO 13485:2003, ISO 9001:2000 and other European and international standards including United States FDA GMP. The entire unit is supported by investment in operator training, and regular assessment to assure the highest physical quality and biological standards, from supplier pre-qualification to material selection, assembly design & testing, and final delivery to clinicians and customers worldwide.



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**Contract Medical Manufacturing Services**

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**UV curing, silicone moulding, RF welding, clean room assembly, sterile chain packaging and delivery, and a full manufacturing service to ISO13485: 2003, ISO 9001:2000 and FDA GMP standards.**



## RF Welding

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

## Clean room assembly

Triple independent units; total capacity 3,100 sq ft ISO Class 7 units, with manual and semi-automated assembly, sterile packaging, labelling and logistics, product validation, and pre-production assembly trials.

## Textile assembly

Precision assembly with multilayer 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.

## UV Curing

Equipment	Manufacturer
Clean room 600 sq ft	Connect 2 Clean rooms
UV 300 Multiple conveyors	Intertronics
Multiple dispensing systems	Intertronics
Curing lamps	Dymax
Sealing system	Riverside Medical
Pad printing	MSI
Ink jet printing	Domino
Air conditioning (100 ch/hr)	Connect 2 clean rooms
Lighting (1,000 lux)	Connect 2 clean rooms

## Clean Rooms

Equipment	Facilities & processes
Clean room A 1,000 sq ft	General assembly
Clean room B 1,500 sq ft	General assembly
Clean room C 600 sq ft	UV curing
All clean rooms	Semi automated assembly
All clean rooms	Manual assembly
All clean rooms	Sterile packaging
All clean rooms	Packaging validation
All clean rooms	Glueing and bonding
All clean rooms	ISO 13485:2003
All clean rooms	FDA GMP

## 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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