



# **Beyonics Headquarters, Singapore**

Beyonics is headquartered in Singapore and provides Advanced Precision Engineering and Manufacturing Solutions for the Healthcare, Automotive and Technology sectors, with vertically integrated capabilities in tool design & fabrication, plastic injection molding, metal stamping, product assembly and associated value-adding services. Our customers rely on Beyonics to provide comprehensive solutions for mission-critical, zero-defect products and applications.





# Beyonics Precision. Driven.

### **Manufacturing Capabilities & Services**

#### **Tool Design & Fabrication**

- Advanced software for mold design: Siemens NX, Autodesk Moldflow, Solid Works – 2020, Magma
- High cavitation moulds up to 96 cavities
- Moulds with complex multiple axial movement (5 Axis)
- Vertical injection moulding
- Hot moulds for high-performance engineering plastics
- Sequential moulding
- Optimised cooling design with conformal cooling
- Insert moulding / Over moulding
- Unscrew moulds
- Aluminium die casting tools

#### **Deep Draw Stamping**

- Machine range from 25 tons to 300 tons
- State of art transfer stamping technology Transfer Stamping
- Highly complex & high precision metal stamping

#### **Box Build Assembly**

• Vertical integrated solution for customer, from mold making, stamping, molding upto box build level

#### **Clean Room Facilities**

- Manufacture Class 3 medical devices
- Bioburden control environment
- Capability of reagent filling
- Medical parts assembly

#### **Plastics Injection Molding**

- Plastics injection machines (15 to 550 tons)
- 2K molding/Over-mold/Insert molding (vertical and horizontal)
- Automated insert molded assembly by using scara robot/ 6 axis robot
- Fully automated assembly process which include pick and place, glue dispensing, vision inspection, tray loading & unloading
- 100% automated vision inspection

#### 2K Molding

- 500 ton machine with rotating mold and dual injection to mold products with 2 different materials /colors
- Adopting conformal cooling for achieving lower molding cycle time
- Capable of combining soft and hard plastic to improve product functionality /durability

#### **Clean Room Molding**

- Class 8, 100K cleanroom molding & assembly
- Machine range from 50 tons to 550 tons
- FDA audited production site
- Fast cycle injection molding upto 6 sec/cycle

#### **Controlled Environment Molding**

- Machine range from 15 tons to 450 tons
- Machine type range from fully electric, hybrid & hydraulic machine.
- Fully automated molding & inspection process
- High speed Injection up to 500mm/s
- Thin wall molding up to 0.2mm

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### **Manufacturing Capabilities & Services**

#### **Engineering Services**

- Early design improvements and reviews for sustainable manufacturing
- Real Time, collaborative CAD based design review and improvement
- Full DFM (Design for Manufacturability) review support and VAVE (Value Analysis/Value Engineering)

#### R&D Lab

- CMM (Wenzel)
- Stratasys Objek 30 Prime 3D Printer
- Roland MDX 540 Precision Desktop CNC
- Roughness surface test surface 1500DX
- Working tool box

#### Inspection

- CMM
- Spectrometer
- Surface roughness tester
- Melt flow index machine
- Impact tester
- Smartscope

#### Industries



Automotive



Industrial Automation

Technology

Healthcare & Medical

#### Certifications

- ISO 9001: 2015
- ISO 13485: 2016
- ISO 14001: 2015
- IATF 16949: 2016
- FDA-registered

#### **Beyonics Headquarters**

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Beyonics is headquartered in Singapore and provides Advanced Precision Engineering and Manufacturing Solutions for the Healthcare, Automotive and Technology sectors. Our in-house capabilities, ranging from engineering and design (material & process), tooling, automation, complex and precision components manufacturing (plastics & metals), to end product assembly, enable Beyonics to provide a full suite of services to meet customers' high value and

complex manufacturing needs with extensive automation and zero defect test solutions.

