

# Spectrum Plastics Group Minneapolis

The site renovation, cleanroom expansion and new equipment allow Spectrum to continue to be the preferred supplier of precise, tight-tolerance injection molding and assembly.



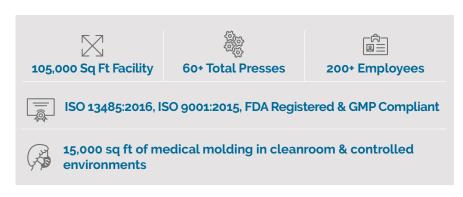


# **Expanded Class 8 Cleanroom**

- The Class 8 cleanroom manufacturing space was expanded to a total of 10,000 square feet to accommodate increased customer demands.
- The cleanroom is designed to manage the special challenges of cleanroom molding and workflow
- Real-time data capture, process quality monitoring, and in-cavity pressure monitoring are all part of the ultra-modern digital technology framework in the cleanroom
- 5 new presses in cleanroom; capable of accommodating up to 13 new presses, ranging in size from 14 166 ton.

# Office & Employee Amenity Spaces

Open, collaborative workspaces allowing **quality and engineering teams to work more closely with customers** on concepts, design for manufacturability, mold designs, and other manufacturing solutions.











## **Spectrum's Specialty Molding Solutions**

We have 60 years of experience with complex molding projects working with highly engineered performance medical plastics—creating premium, high-quality components and fully assembled medical devices.

## **Manufacturing Space**

- Plant Size: 105,000 sq. ft.
- ISO Class 8 Cleanroom: 10,000 sq ft, capable of Class 7
- Controlled Environmental Space: 5,200 sq. ft

## Core competencies

- Insert molding, over molding, and two-shot molding
- Bioresorbable and Implantable components
- Secondary assembly
- Automation systems
- Ultrasonic degating
- Finished device assembly, packaging and sterilization management

#### **Products Manufactured**

- · Surgical handles
- · Screws, anchors, and fasteners
- Fixation devices

- Burrs and shavers
- Drill guides
- Site preparation components
- Knee and hip trial / sizing components
- Bioabsorbable Implants

## **Engineered Materials**

- PLA/PLGA/PLLA
- Bio-Composites (TCP)
- PEEK/PEI/PPSU
- Polysulfone
- Ixef® PARA
- INCI FARA
- Polycarbonate
- PC-ABS
- Highly filled glass materials

## **Material Drying**

- Multiple stand alone and central drying systems
- Materials throughput ranges from 25 through 600 lbs./hour

# Assembly & Secondary Operations

- Automatic Assembly Machines
- Ultrasonic Welding
- Pad Printing
- Heat Staking
- Laser Marking
- Bar Code Printing
- Bonding and UV cure
- Blister Packaging

## Quality

- Enterprise QMS
- Continuous improvement programs
- In-house metrology lab
- Statistical process control

### **Technical Services**

- In-house Tooling
- · Design for Manufacturing
- Scientific Molding (IQ.OQ,PQ)



20+ engineers to support a product from concept to full-scale production.

Tooling | Project | Manufacturing | Process | Quality







## **Spectrum Minneapolis Equipment**

Total 60+ presses (medical and non-medical), ranging from 12 ton - 610 ton.

## **Metrology Equipment**

#### **CMM**

- Mitutoyo, CMM 3
- Zeiss O Inspect, VCMM 1
- Zeiss Contura, CMM 1 coming soon

#### **Optical Measuring Devices**

- OGP
- RAM Sprint
- Optical Comparator

## Wifi Hand Tools

- Height stand
- Caliper
- Micrometer

#### **Measurement Tools**

- Strain gage
- Profilometer
- · Pin gages
- Thread rings and plugs
- Temperature controller
- Torque wrenches
- · Pressure monitor
- · Vari-Roll Master Gear
- Flow meter

## **Controlled Environment**

- 35 Ton Toyo 0.88 oz shot
- 50 Ton VD 1.3 / 2.8 oz shot
- 50 Ton Cinc 0.76 oz shot
- 50 Ton Arburg (vertical) 3.70 oz shot
- 55 Ton Cinc 0.63 oz shot
- 55 Ton Arburg (vertical) 2.3 oz shot
- 55 Ton Niigata 0.71 oz shot (2)
- 80 Ton VD (2) 2.0 oz shot
- 110 Ton Arburg (2) 3.70 oz shot
- 240 Ton Arburg (2 shot) 2.0 oz/4.0 oz shot
- 4 Vertical Presses 50 Tons

#### Cleanroom

- 14 Ton Arburg Vertical (4) 0.50 oz shot
- 17 Ton Cinc 0.37 oz shot
- 30 Ton Sodick 0.42 g shot
- 33 Ton Cinc 0.37 oz shot
- 35 Ton Toyo 0.76 oz shot
- 38 Ton Arburg 0.70 oz shot
- 40 Ton Cinc 0.73 oz shot
- 55 Ton Cinc, 0.64 oz shot (2)
- NEW 38 Ton Arburg 0.7 oz Shot
- NEW 166 Ton Arburg 4.97 oz shot
- NEW 166 Ton Arburg 6.49 oz shot
- NEW 110 Ton Arburg 2.38 oz shot (2)
- 5 Vertical Presses 14-50 Tons

