

Bryan Bickhart

Development Engineer III - Merit Medical Inc

Ardmore, PA - Email me on Indeed: [indeed.com/r/Bryan-Bickhart/0f16120307ccf163](https://www.indeed.com/r/Bryan-Bickhart/0f16120307ccf163)

WORK EXPERIENCE

Development Engineer III

Merit Medical Inc - 2004 to Present

Interventional Cardiology, Radiology, EP device design and manufacturing

Component design:

Complex mechanism designs for multi-function steerable devices.

Plastic part design for high performance, single use delivery devices

Strong focus on elastomeric polymers and haemostasis valve design

Extensive knowledge of surface coatings, lubricants and absorption relationships between oils and elastomers

Designed, prototyped and validated five haemostasis valves which met FDA approval and are currently in clinical use

Worked closely with industry leading cardiologists to design specialized vascular access devices

Solid Modeling and CAD

Generation of complex, detailed models and drawings, using Solidworks.

Maintaining close relationship with machinists and suppliers.

Excellent drawing ability to quickly sketch and define complex areas in the design phase

Machine and Fixture Design:

Designed and built various machines to automate helical slicing processes and component assembly machines for high volume production lines

Mandrel bending and sheath tipping

Design optimization for machine repeatability and accuracy

Programming and troubleshooting electromechanical equipment.

Rapid Prototyping:

Experience with SLA, SLS, DMLS processes, including post processing and painting models for marketing use.

Proficiency in designing and machining molds and casting silicone and polyurethane rubber for concept development

Thermoforming and bonding plastics and foam.

Process Design:

Technical writing of general procedures, Installation, Operational, and Process Qualifications and Validation Protocols

Programming and fixture design for tensile testing, leak testing and vision system inspection equipment

Supporting production operations with creative solutions to reduce cost, maximize productivity and increase safety

Machining:

Proficiency machining prototypes and prototype molds, machine parts and fixture components

Experienced on CNC mill and lathe, surface grinding and helical grinding machines
Electropolishing and chemical etching

Quality:

Creation of design criteria, testing criteria, FMEA documents and I/O Matrix

Conducting highly controlled tests throughout design phase

Component design and testing based on product requirements per ISO and ASTM specifications

Technical writing of inspection procedures

Providing technical expertise on complaint investigations and reports

EDUCATION

B.F.A. in Industrial Design

Savannah College of Art and Design

2003

ADDITIONAL INFORMATION

Technical Knowledge:

AutoCad, Solidworks, Adobe Photoshop, Adobe Illustrator, Micro-Win, Microsoft Office, Oracle