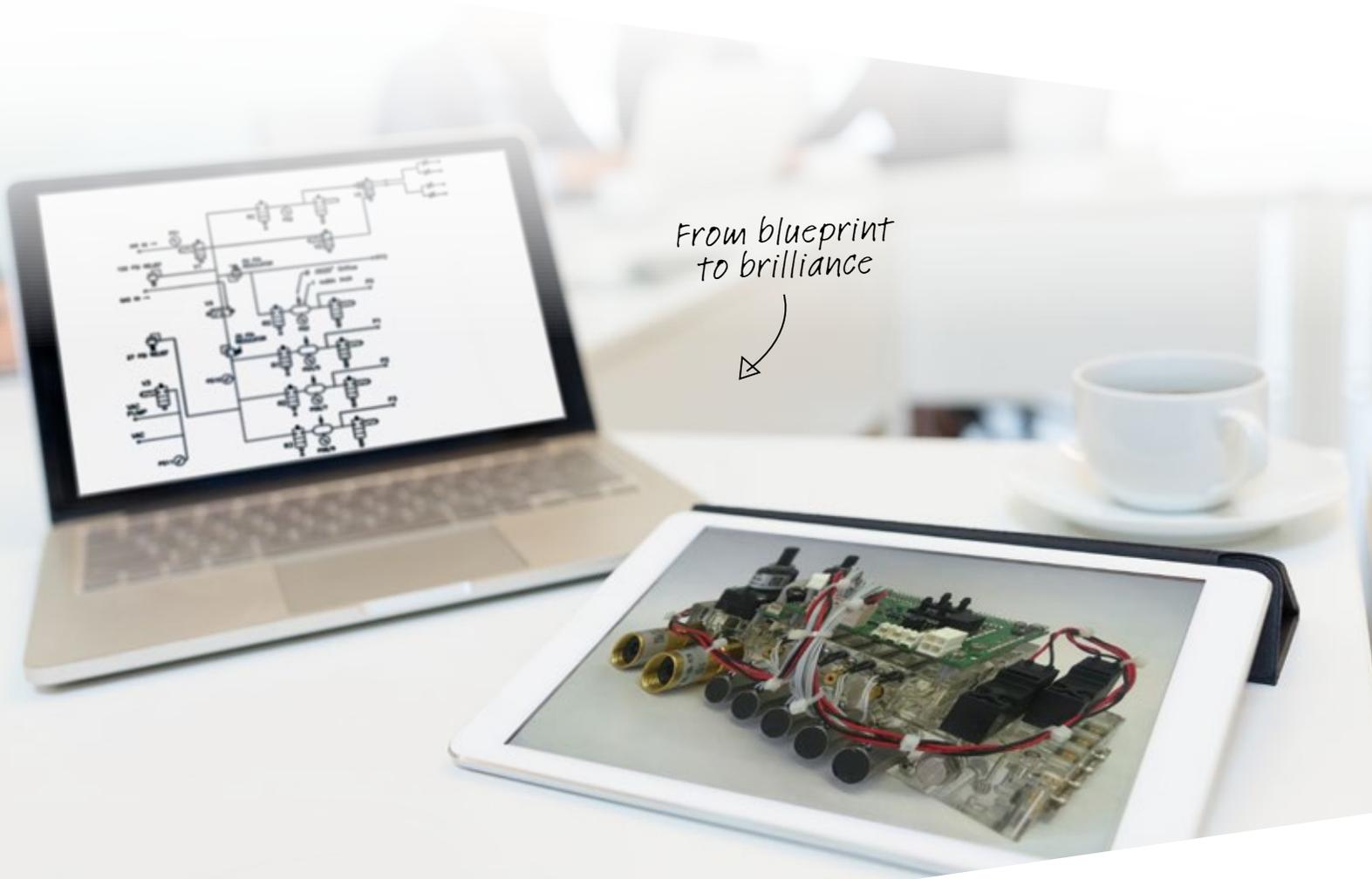


# Fluidic Subassemblies for Life Science & Medical Applications



*From blueprint  
to brilliance*



*Engineering  
GREAT  
Solutions*



 **IMI NORGREN**

 **IMI FAS**

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Innovation,  
products  
and service



# Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

## > Reliability

We deliver and support our high quality products through our global service network.

## > High performance products

Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

## > Partnership & Problem Solving

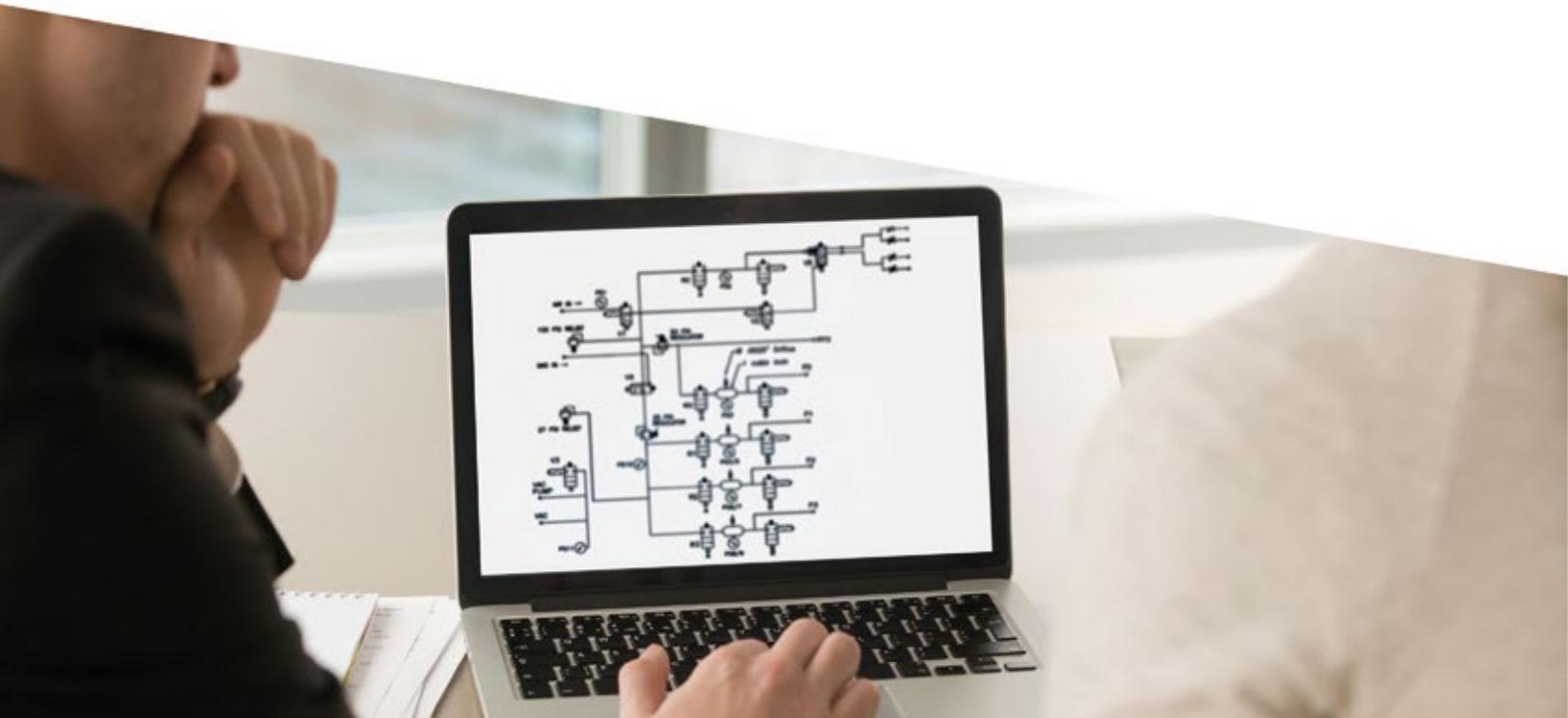
We get closer to our customers to understand their exact challenges.



# IMI Precision Engineering Subassemblies

Great engineering starts with a solid foundation. If your fluidic needs require precise fluid transfer, challenging flow paths, in a compact design, IMI Precision Engineering delivers market leading precision fluidic and motion control components and subassemblies for diagnostic, medical, biotech, and analytical instruments, backed by 40 years of engineering expertise.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

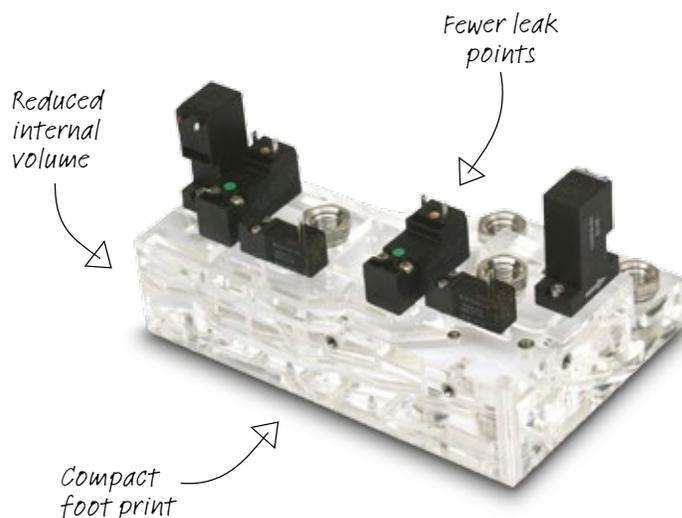


# Superior Subassemblies

Unlike designing a system with separate tubing and fittings, IMI Precision Engineering subassemblies provide an all-in-one, compact flow path for more reliable design with easier system integration and service. Subassembly design and engineering often enables lower reagent consumption, and easier instrument assembly and service when compared to discrete piping designs.

## IMI Precision Engineering subassemblies deliver:

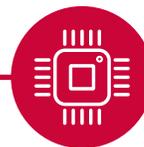
- > Fully integrated components (solenoid valves, pressure and flow sensors, check valves, regulators, control electronics) into a manifold, for one complete fluidic assembly. This approach enables optimized instrument reliability and operational efficiency through:
  - > Single plug and play assembly for easier and faster manufacturability and serviceability for both simple and complex pneumatic and/or fluidic circuits.
  - > Rapid prototyping to accelerate your time from design to production.
  - > Wide range of wetted path materials for superior chemical compatibility.
  - > Multilayer manifold technology that allows for complicated flow path design capabilities, and precisely controlled fluid movements.



**FULLY TESTED**



**CLEAN ROOM PRODUCTION**



**PCB INTEGRATION**

## Available manifold body materials:

### > **Plastics**

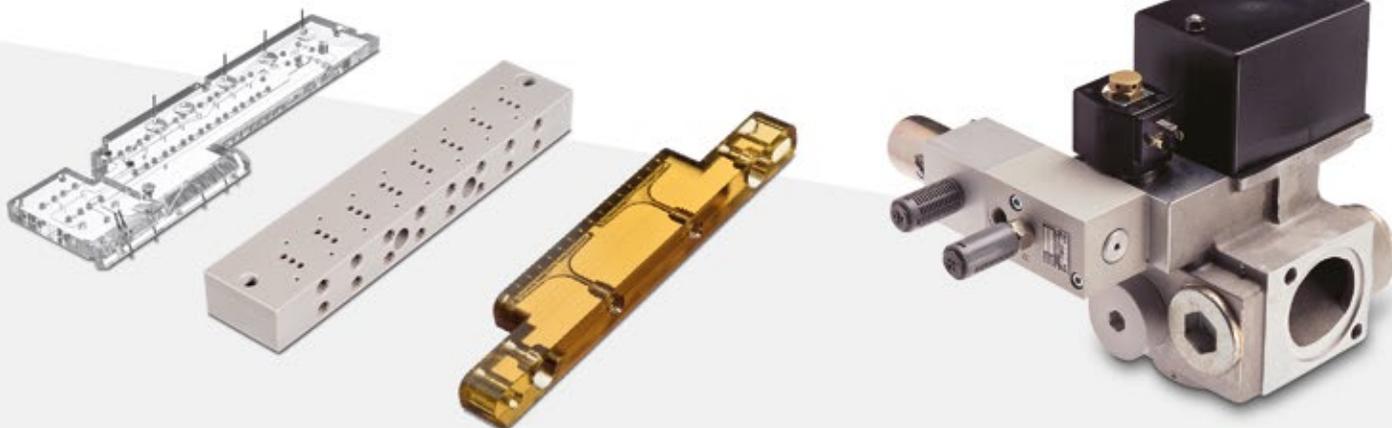
For applications requiring more complex flow paths with superior chemical resistance, thermal conductivity, optical clarity, and lowest carryover

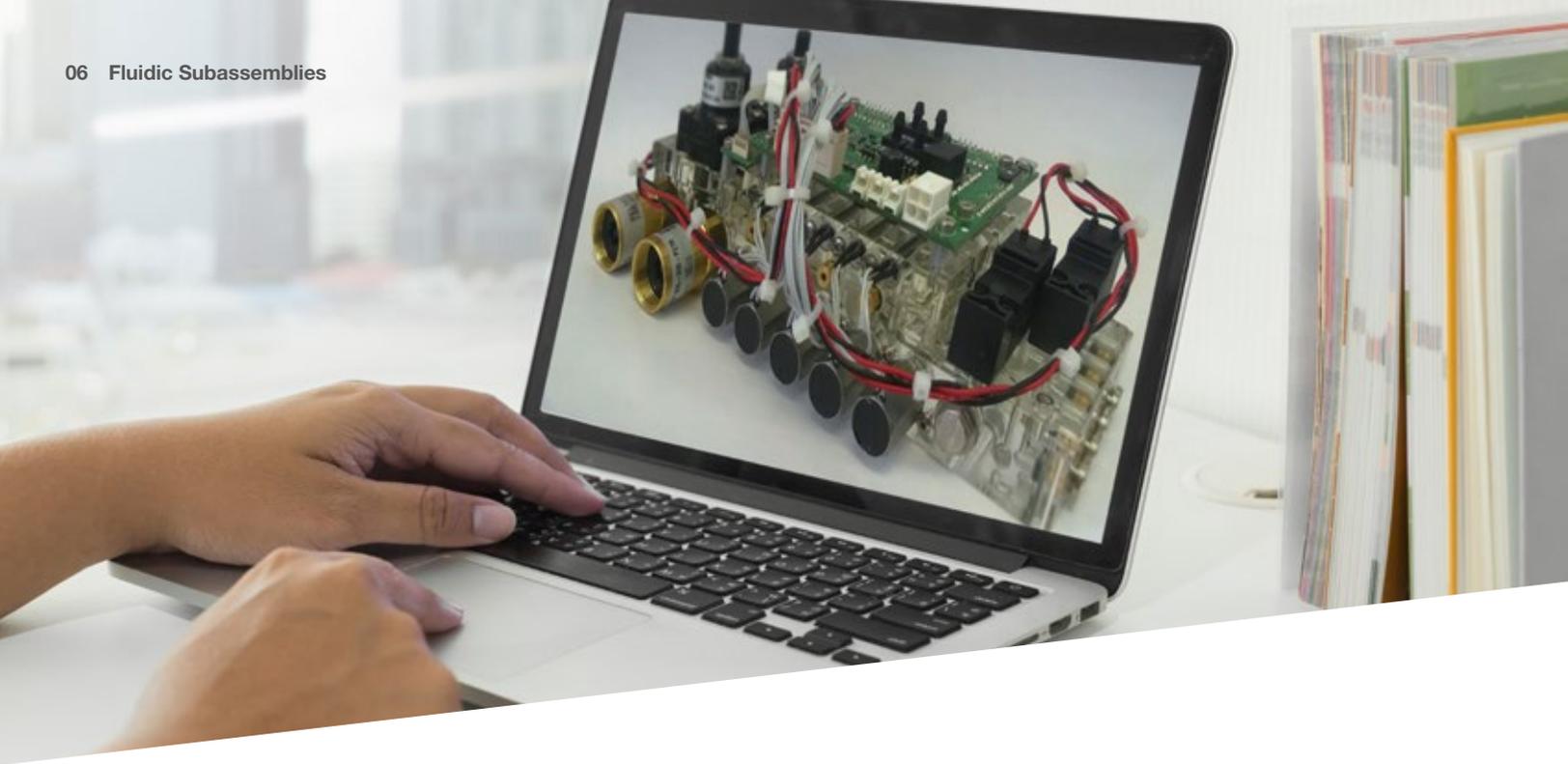
- > PVC
- > CPVC
- > Acrylic
- > Polycarbonate
- > Polyetherimide
- > PEEK
- > ULTEM
- > and more

### > **Metals**

For applications requiring high pressure or harsh environments

- > Aluminum
- > Stainless steel
- > Hastelloy®
- > Brass





# Discover the Benefits of Working with IMI Precision Engineering

## Engineering Expertise

At IMI Precision Engineering, we already deliver the highest standard of quality subassemblies for diagnostic and medical devices — diagnostics, biotech, medical and analytical devices. So why not let our expert engineers work with you to design that same precise, reproducible, and robust technology for your instrumentation?

Our engineers serve as experts across a broad range of applications such as point of care microfluidic devices, liquid biopsy, hematology, urinalysis, gas and liquid chromatography as well as medical devices such as insufflation, ventilation, anesthesia, dental applications, and hospital beds. We thoroughly understand the latest market trends, challenges, and regulatory standards to deliver complete, OEM-specific, integrated platforms that deliver value.

Our engineering expertise extends beyond design and into production through a variety of manifold body bonding methods that deliver the highest quality integrated subassemblies. From cutting-edge laser and thermal diffusion bonding methods to more traditional solvent and adhesive processes, our production expertise ensures superior and secure bonding no matter the application.



Laser bonding and flame polishing



Vapor polishing



Solvent bonding



Diffusion bonding

## Approvals & Certificates:

- > ISO 9001
- > Class 10000 Clean Rooms
- > RoHS, REACH, CE, UL, CSA Compliant
- > LEAN Certificates
- > Free of Conflict Materials
- > Made in America

# Manufacturing Advantage

As a single source for manifolds and components, our integrated manufacturing process can take your flow path design from blueprint to brilliance, reducing your time and cost associated with supplier research and management. This is value you can translate into a successful product launch.



## FLUIDIC SYSTEM IDEATION

Expert engineers provide technical support to guide custom subassembly designs through manufacturing and offer innovative solutions



## SYSTEM DESIGN

From defining and designing your fluidic flow path, our valves, regulators, fittings, and filters deliver flexibility to meet any application need



## RAPID 3D PROTOTYPING

Rapid 3D printing provides prototypes that shorten development time from months to just days



## REVIEW AND REVISE FEEDBACK LOOP

Prototype feedback, adjustments, and stress tests for performance specs ensure seamless integration and quality



## SHORT RUN OF ASSEMBLIES

Short-run production of working prototypes can deliver small batch (10 to 30) or up to 100 units for immediate quality tests and long-term cost-effective development



## PRODUCTION

Our 22 manufacturing sites and global production network that spans across 75 countries guarantee reduced assembly time and faster time to market



## ONGOING TECHNICAL SUPPORT

Ongoing technical support to guide you through market trends, engineering challenges, and regulatory standards

*Are you ready to take your fluidic system design from blueprint to brilliance? Contact a fluidic pioneer today*



Phone: 1-860-677-0272

or visit: <http://programs.norgren.com/subassemblies>

IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 75 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit

[www.imi-precision.com](http://www.imi-precision.com)

**Supported by distributors worldwide.**

# IMI

**Precision** Engineering

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Due to our policy of continuous development, IMI Precision Engineering reserve the right to change specifications without prior notice.

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*Engineering  
GREAT  
Solutions*



 **IMI NORGREN**

 **IMI BUSCHJOST**

 **IMI FAS**

 **IMI HERION**

 **IMI MAXSEAL**

For further information, scan this QR code or visit [www.imi-precision.com](http://www.imi-precision.com)

