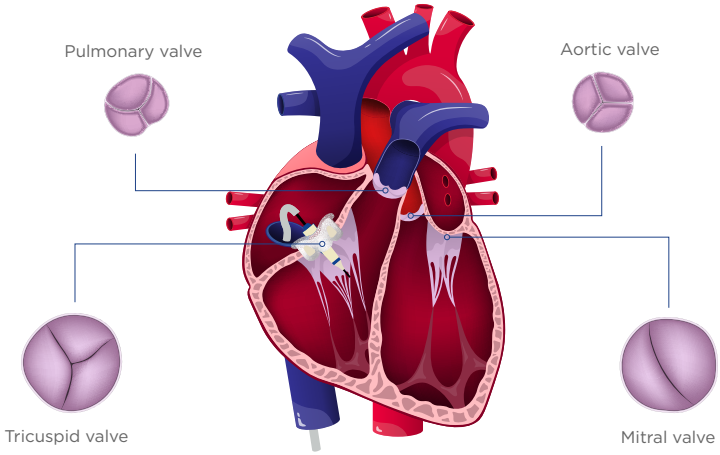
SAINT-GOBAIN MEDICAL

THVR Delivery Systems

For aortic, mitral, tricuspid heart valve replacement



Designing and manufacturing your next generation delivery system

With an extensive knowledge of the existing challenges in Transcatheter heart valve replacements, Saint-Gobain Medical can help you develop minimally invasive delivery systems that address the complexity and tortuosity of anatomy to reach the heart valves and properly deliver your state of the art valve.

We collaborate closely with our customer at every step of the process from design and prototyping to clinical trials and mass production. With over 20 years of experience in THVR delivery systems, we have designed and delivered catheter systems for several cardiovascular applications including left atrial appendage (LAA) closure, leadless pacemaker, coronary bifurcation stent delivery system, and more.

WHY WORK WITH US

- **Design** expertise taking into account heart valve challenges and surgeon's comfort
- **Prototypes** iterations to reach ideal design freeze
- **Clinical products** for your trials
- **Mass production** after quick and efficient industrialization
- **ISO 8 clean room** for prototypes and full-scale manufacturing
- **THVR 20+ years knowledge**
- Other **structural heart delivery system expertise**: Left atrial appendage closure, leadless pacemaker, coronary bifurcation stent, and more
- **Dedicated project team to support** your project

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Key challenges considered when conceiving a THVR delivery system

Anatomical challenges

Aortic valve

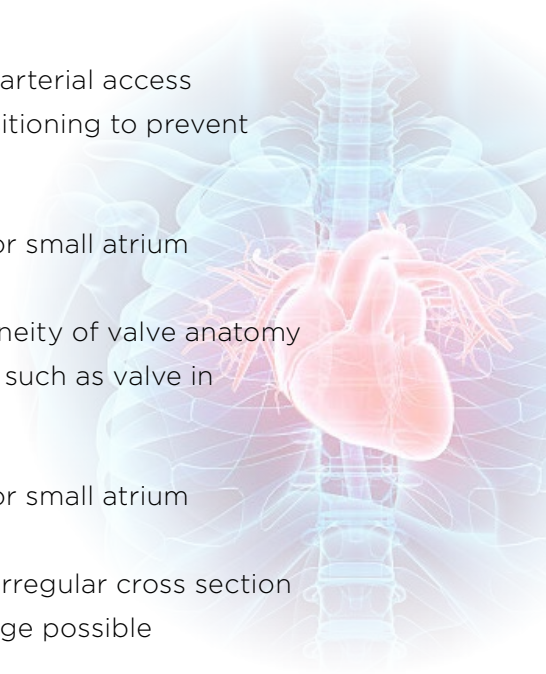
- High blood pressure with arterial access
- Necessity of accurate positioning to prevent artery obstruction

Mitral valve

- Large diameter sheaths for small atrium
- Chordae tendineae
- Complexity and heterogeneity of valve anatomy
- Challenging valve seating such as valve in ring or calcification

Tricuspid valve

- Large diameter sheaths for small atrium
- Chordae tendineae
- Non rounded shape, and irregular cross section
- Currently no ring anchorage possible



Valve implantation challenges

Facilitation of valve deployment

- Appropriate route
- Responsive handle & shaft

Protection and retention of valve

- Shaft design
- Shaft reinforcement (radial strength)

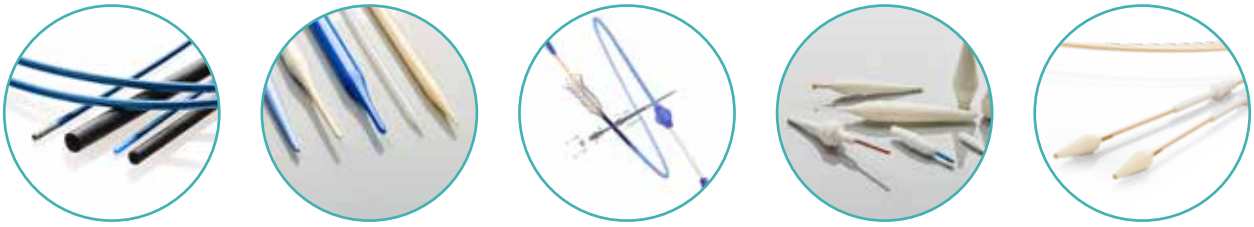
Accuracy of valve positioning

- Ease of use of imaging technology
- Steerability
- Ability to recapture valve

Device reliability

- Procedure standardization
- Quality by design

Leverage our deep expertise to design your optimal catheter solution:



- Engineered steerable shaft for easy navigation
- Implant delivering and retrieving
- Flow management
- Handle design and quick prototyping
- Balloon, sensor and optic fiber assembly
- Atraumatic distal tip

We design, develop and deliver custom medical components and engineered systems for medical devices

Silicone Molding • Filtration Technologies • Extrusion Solutions • Catheter Systems • High Purity Closures

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