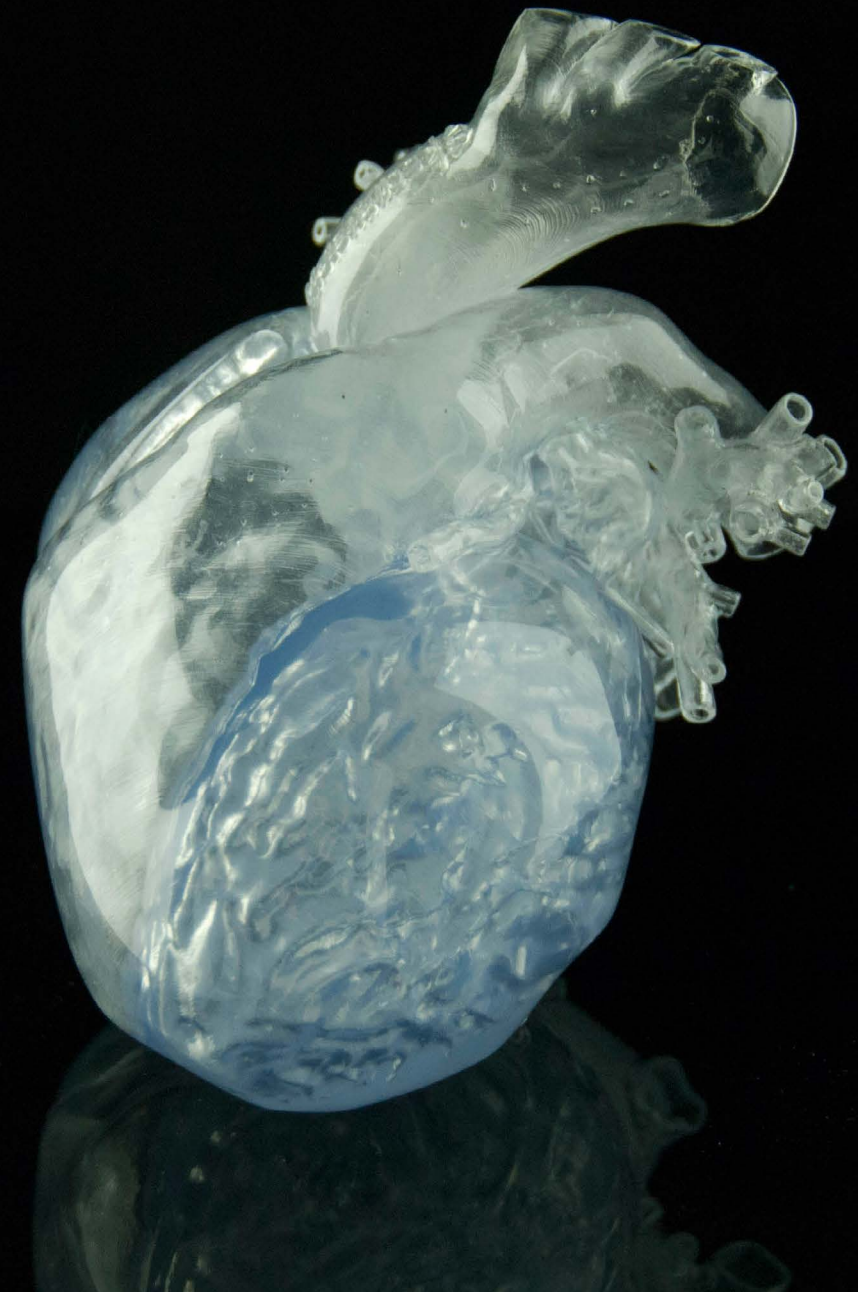


Materialise HeartPrint

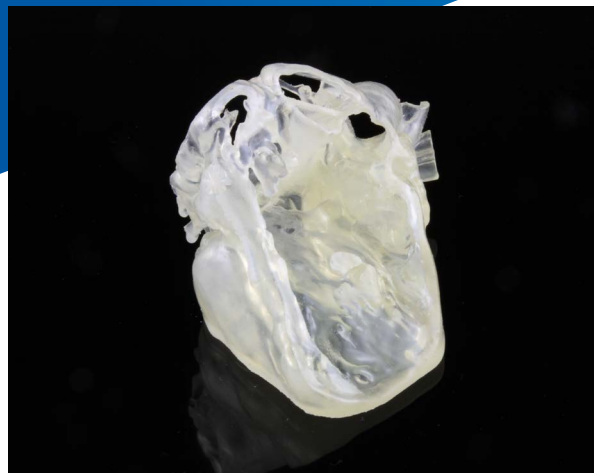
3D Printing Services
for Cardiovascular
Anatomy



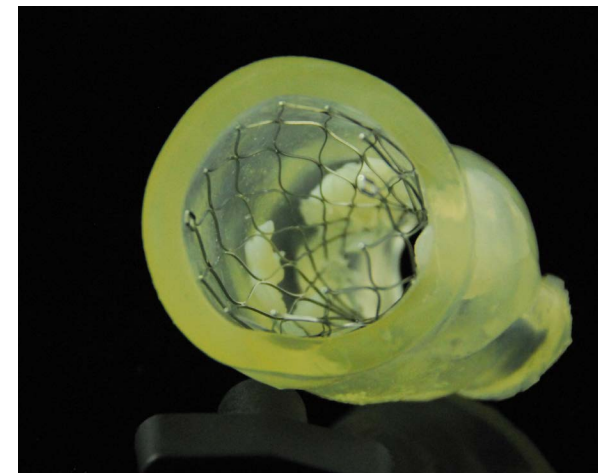
Select a category or browse the catalog
to see the HeartPrint Research models



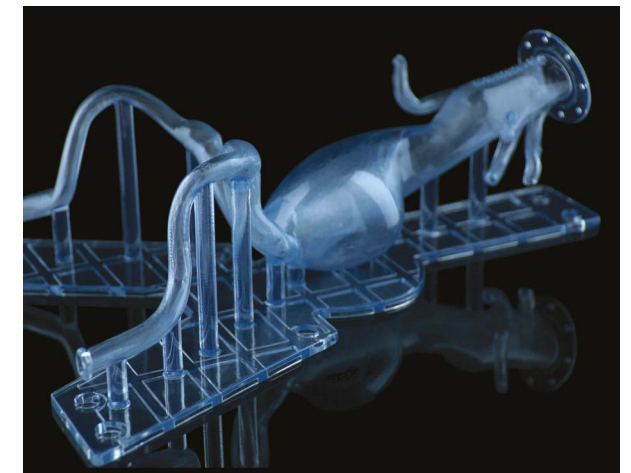
Cardiac Models



CHD Models

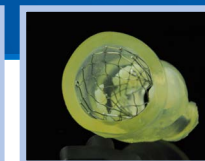


Valve Models

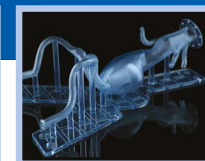
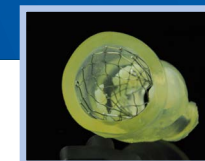


Vascular Models

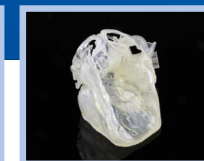
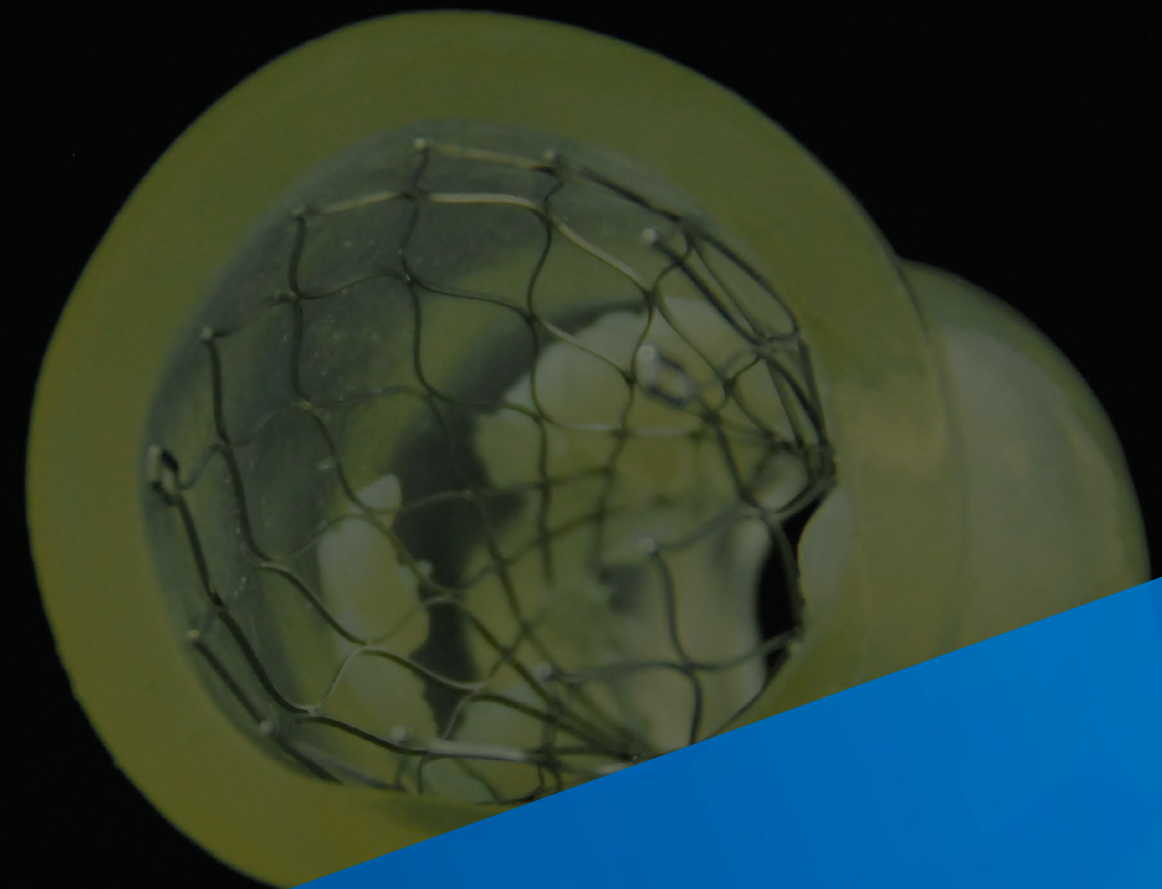
Cardiac Models



CHD Models



Valve Models

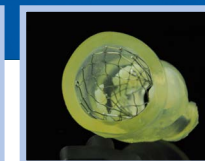


Vascular Models

<http://www.materialise.com/>



Cardiac Models



Hypertrophic Heart with Valve Calcifications

Application Examples

- R&D valve deployment testing
- Physician training demo model

Patient & Pathology

- 73y, female
- Ventricular hypertrophy, heavily calcified aortic and mitral valve
- 0.3 mm slice increment CTA

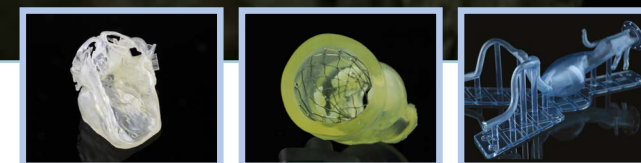
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid material
- Full heart cut in LA, RA/RV for visualization, cuts customizable
- Right heart side smoothed
- LV papillary muscles present, no chordae tendinae, no valve leaflets
- Size: 11 x 13 x 17 cm



CAR-001

**Request
a quote**



Heart with Atrial Cut, Smooth Right Side

Application Examples

- R&D mitral or tricuspid valve device deployment testing
- Heart anatomy education
- Atrial appendage closure testing and training

Patient & Pathology

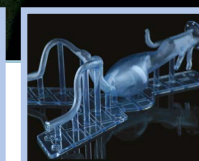
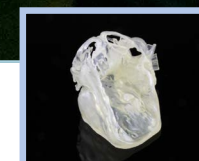
- 55y, male
- Calcified left and right coronaries
- IVC venous thrombosis
- 0.63 mm slice increment CTA

3D-Printed Characteristics

- Materialise HeartPrint Flex
- Detailed left heart with main papillaries, muscle trabeculations and mitral valve orifice
- Right heart side smoothed out, tricuspid valve annulus present
- Atrial appendages present
- Images show cut through LA and RA, cut location customizable
- Coronaries present, not hollow
- Size: 11 x 11 x 11 cm

CAR-002

**Request
a quote**



Heart with Detailed Chambers and Valve

Application Examples

- R&D valve deployment testing
- Physician training demo model

Patient & Pathology

- 79y, female
- Ventricular hypertrophy, heavily calcified aortic and mitral valve
- 0.3 mm slice increment CTA

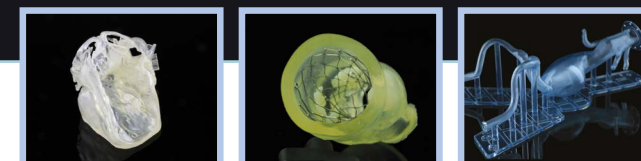
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid material
- Full heart cut in LA, RA/RV for visualization, cuts customizable
- Right heart side smoothed
- LV papillary muscles present, no chordae tendinae, no valve leaflets
- Size: 11 x 13 x 17 cm



CAR-003

**Request
a quote**



Full Transparent Heart with Muscle

Application Examples

- Marketing
- Gift model

Patient & Pathology

- 76y, male
- Coronary calcification
- 0.63 mm slice increment CTA

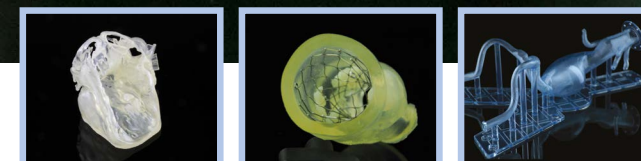
3D-Printed Characteristics

- PolyJet, tissue in transparent rigid material, blood in white rigid material
- Calcifications virtually removed
- LV trabeculations and papillary muscles
- Materialise logo, any logo possible
- Scaled to 70%, custom scaling possible
- Multiple patient data sets available
- Size: 15 x 13 x 9.5 cm



CAR-004

**Request
a quote**



Application Examples

- Marketing
- Gift model
- Anatomical training

Patient & Pathology

- 76y, male
- Coronary calcification
- 0.63 mm slice increment CTA

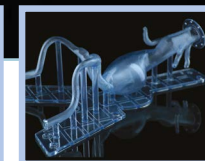
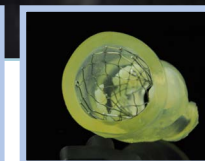
3D-Printed Characteristics

- High-end transparent stereolithography
- Full heart model with hollow chambers
- Valve annuli present
- Calcifications virtually removed
- Materialise logo, any logo possible
- 70% scaled version available as well as custom scaled
- Multiple patient data sets available
- Size: 19 x 18 x 13 cm



CAR-006

**Request
a quote**



Transparent Heart with Pedestal

Application Examples

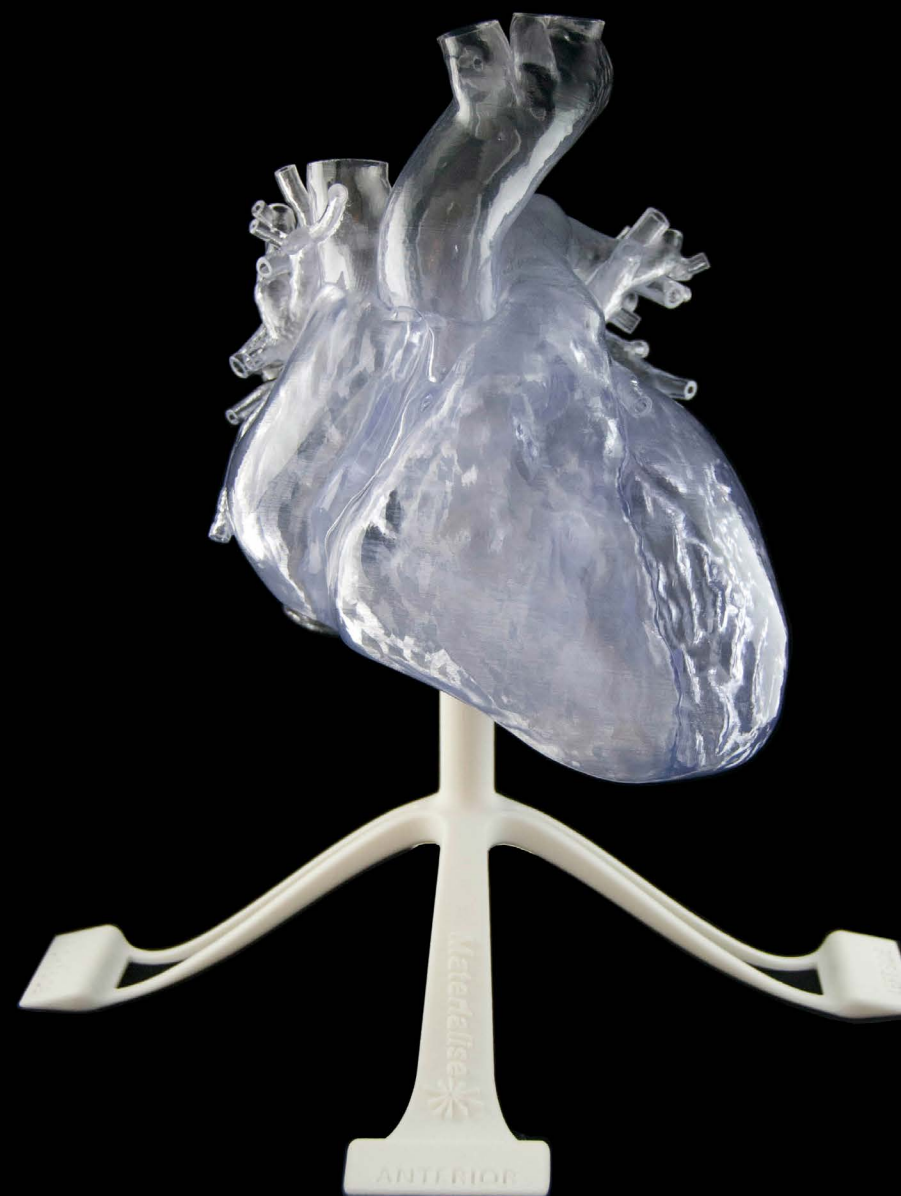
- R&D catheter motion testing
- Septum crossing training
- Marketing/training kit

Patient & Pathology

- 76y, male
- Coronary calcifications
- 0.63 mm slice increment CTA

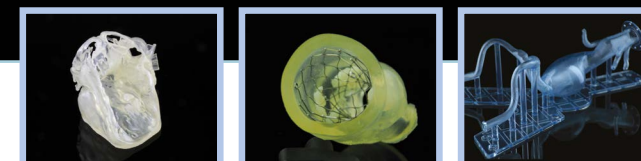
3D-Printed Characteristics

- High-end transparent stereolithography
- Pedestal in selective laser sintering
- Full heart model with hollow chambers
- Valve annuli present
- Calcifications virtually removed
- Materialise logo, any logo possible
- Size: 36 x 19 x 12 cm



CAR-007

**Request
a quote**



Left Coronary Model

Application Examples

- R&D stent deployment testing
- Guide wire physician training
- Device training/demo

Patient & Pathology

- 55y, male
- IVC venous thrombosis with IVC filter (outside the image range)
- 0.63 mm slice increment CTA

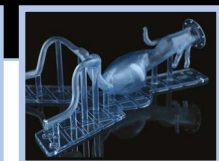
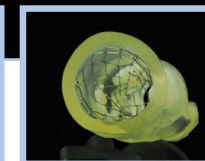
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Patent coronary arteries
- Left main, LAD and main diagonal branches
- Translucent to visualize device deployment
- Multiple patient data sets available
- Size: 11 x 5 x 4.5 cm



COR-010

**Request
a quote**



Atrial Septal Defect

Application Examples

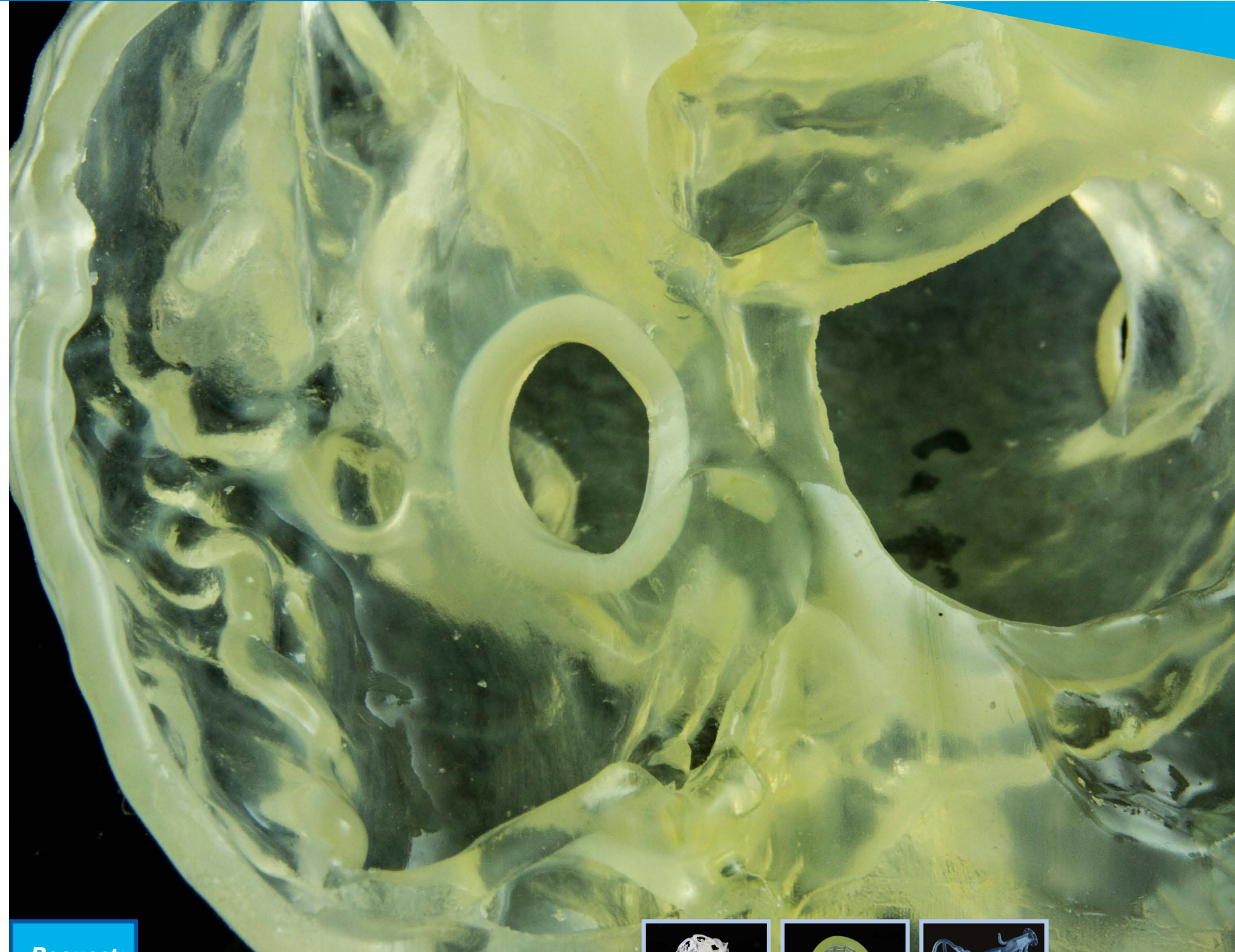
- ASD closure training
- Device deployment testing
- Closure device sales rep demo kit
- Patient communication

Patient & Pathology

- 15y, female
- Atrial septal defect
- 0.63 mm slice increment CTA

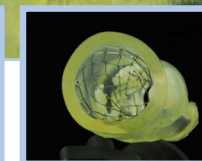
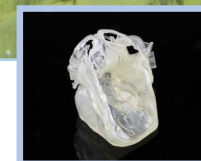
3D-Printed Characteristics

- Materialise HeartPrint Flex
- ASD support ring for increased durability
- Visualization cuts through LV, RV and RA, cuts customizable
- Size: 10.5 x 9.3 x 11.3 cm



CAR-022

**Request
a quote**



Patent Foramen Ovale

Application Examples

- PFO closure training
- Device deployment testing
- Closure device sales rep demo kit
- Ablation/LAA training
- Patient communication

Patient & Pathology

- 15y, female
- Patent foramen ovale
- 0.63 mm slice increment CTA

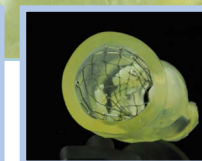
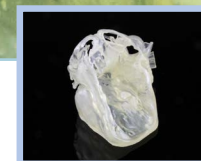
3D-Printed Characteristics

- Materialise HeartPrint Flex
- PFO ring for increased durability
- Visualization cuts through LV, RV and RA, cuts customizable
- Size: 10.5 x 9.3 x 11.3 cm



CAR-023

**Request
a quote**



Application Examples

- Atrial septal crossing training
- Device deployment testing
- Closure device sales rep demo kit
- Ablation/LAA training
- Patient communication

Patient & Pathology

- 15y, female
- Atrial fibrillation
- 0.625 mm slice increment CTA

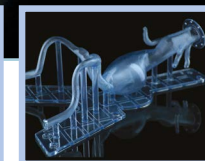
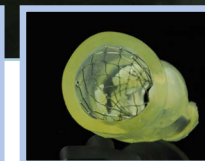
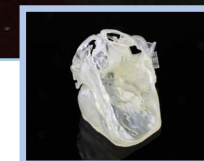
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Colored LAA
- Reinforced septal crossing location
- Size: 10.47 x 9.33 x 11.34 cm
- Visualization cuts through LV, RV and RA, cuts customizable



CAR-024

**Request
a quote**



Application Examples

- Coronary stent training and marketing
- R&D catheter motion testing
- Heart anatomy education
- Physician training demo model

Patient & Pathology

- 79y, female
- Coronary and aortic valve calcifications
- 0.3 mm slice increment CTA

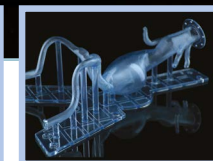
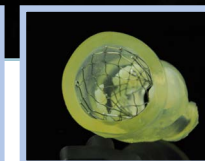
3D-Printed Characteristics

- High-end transparent stereolithography
- Hollow, cosmetic transparent coronaries
- Right and left ventricle trabeculations and main papillary muscles
- Size: 7.4 x 6.2 x 9.3 cm
- Visualization cuts in the ventricles, cuts customizable



CAR-026

**Request
a quote**



Application Examples

- Pathology training and education
- Patient communication

Patient & Pathology

- 16y, male
- Left Ventricular Outflow Tract Tumor
- 0.25 mm slice increment CTA

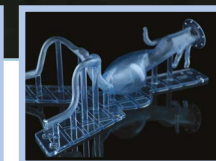
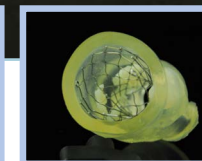
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Rigid material for tumor
- Right and left ventricle trabeculations and main papillary muscles
- Scaled, Size: 10.4 x 7.9 x 10.2 cm
- Visualization cuts to create 4 chamber view, cuts customizable



CAR-034

**Request
a quote**



Modular LAA model

Application Examples

- LAA Closure device demonstration
- Pathology training
- Patient communication

Patient & Pathology

- Multiple LAA anatomies available
- Cardiac CT

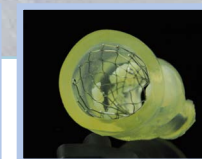
3D-Printed Characteristics

- High-end transparent stereolithography atria model
- HeartPrint flex modular LAA pieces
- Colored LAA
- Base plate to keep model in anatomical position
- Size: 15.8x14.4x15.2cm
- Visualization cuts through RA and LV, cuts customizable

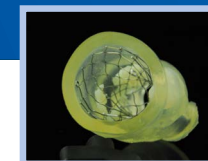


CAR-036

**Request
a quote**



CHD Models



L-TGA with Sub PS and VSD

Application Examples

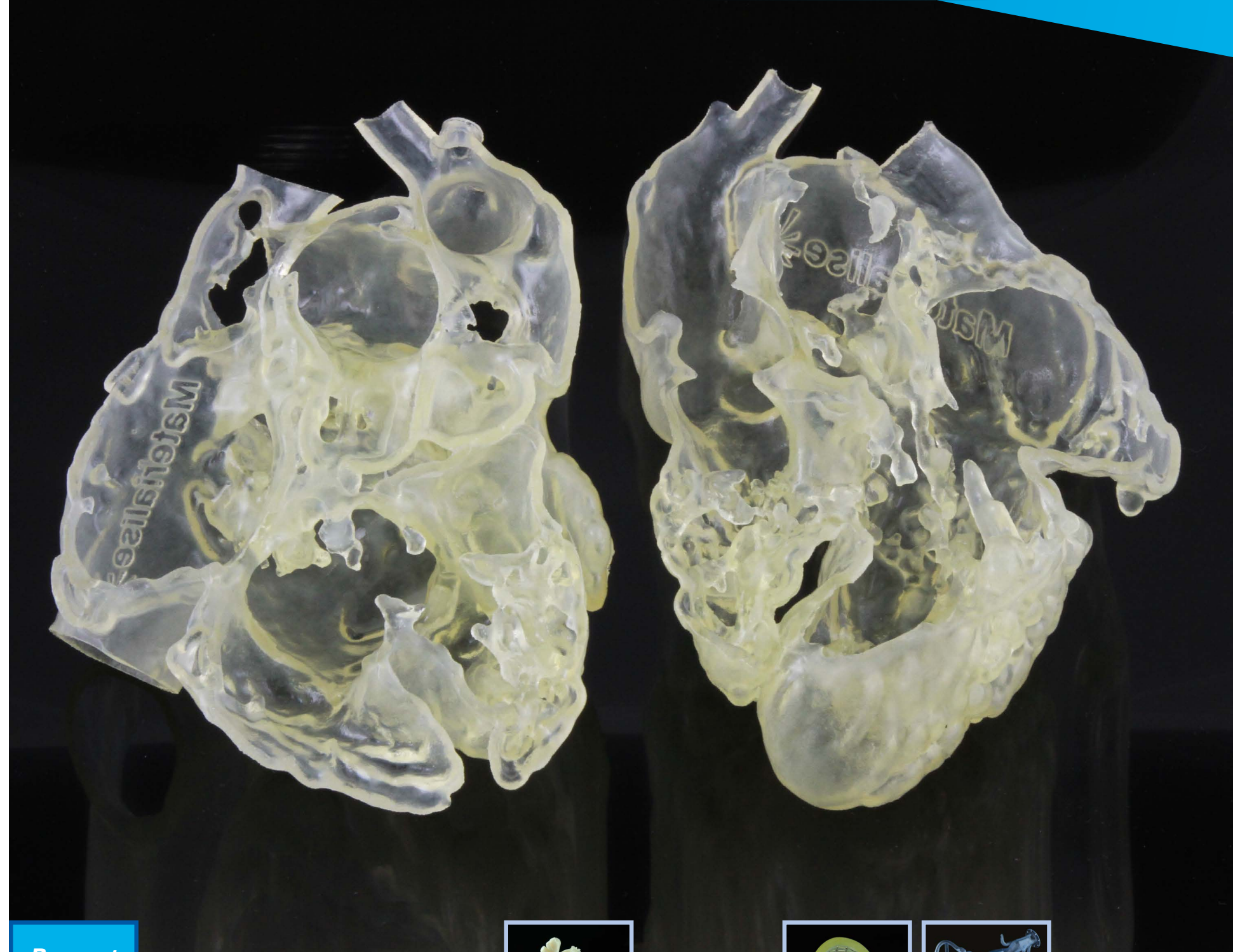
- Pathology training
- Congenital heart defects education
- Patient communication

Patient & Pathology

- 34y, female
- Levo transposition of great arteries, sub pulmonary valve stenosis and ventricular septal defect
- 1.2 mm slice increment cardiac MRI

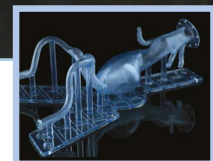
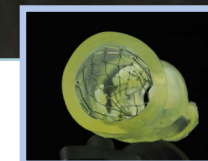
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Full heart cut in 2 parts for visualization
- Pulmonary valve calcifications optional
- Custom cuts possible
- Size: 18 x 11 x 8.5 cm



CHD-009

**Request
a quote**



Double Outlet Right Ventricle

Application Examples

- Pathology training
- Congenital heart defects education
- Patient communication

Patient & Pathology

- 1y, male
- Double outlet right ventricle with ventricular septal defect
- 0.3 mm slice increment CTA

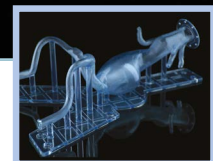
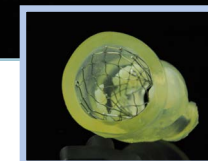
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Right and left ventricle trabeculations and main papillary muscles
- Visualization cuts through LV, RV and RA, cuts customizable LAA present
- Size: 8.8 x 5.4 x 8.9 cm



CHD-020

**Request
a quote**



Double Outlet Right Ventricle

Application Examples

- Pathology training
- Congenital heart defects education
- Patient communication

Patient & Pathology

- 1y, female
- Double outlet right ventricle with ventricular and atrial septal defect
- 1.3 mm slice increment MRA

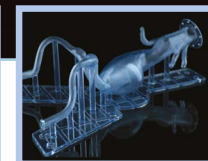
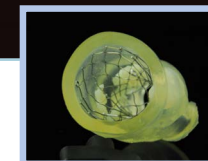
3D-Printed Characteristics

- Materialise HeartPrint Flex
- Right and left ventricle trabeculations and main papillary muscles
- Visualization cuts in the ventricles, cuts customizable
- Size: 7.5 x 6.2 x 9.3 cm

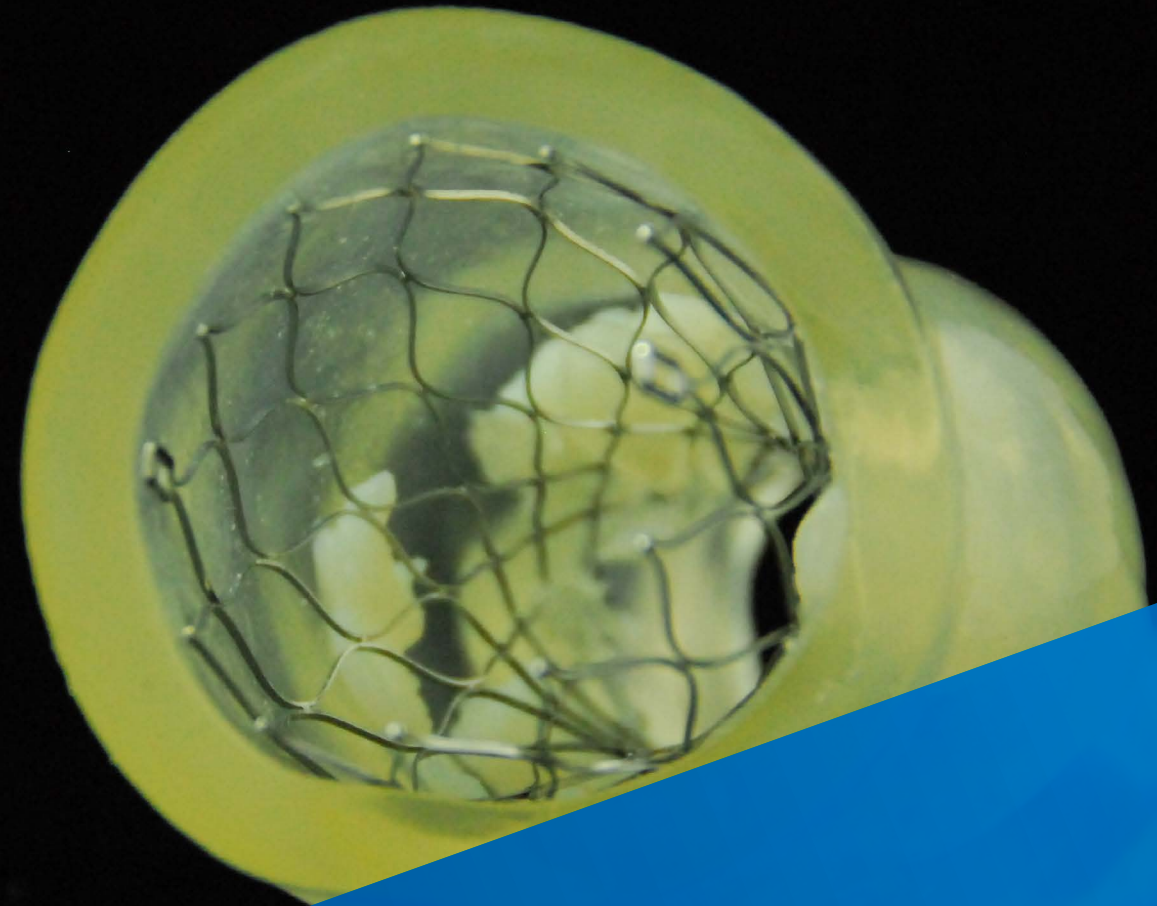


CHD-025

**Request
a quote**



Valve Models



Application Examples

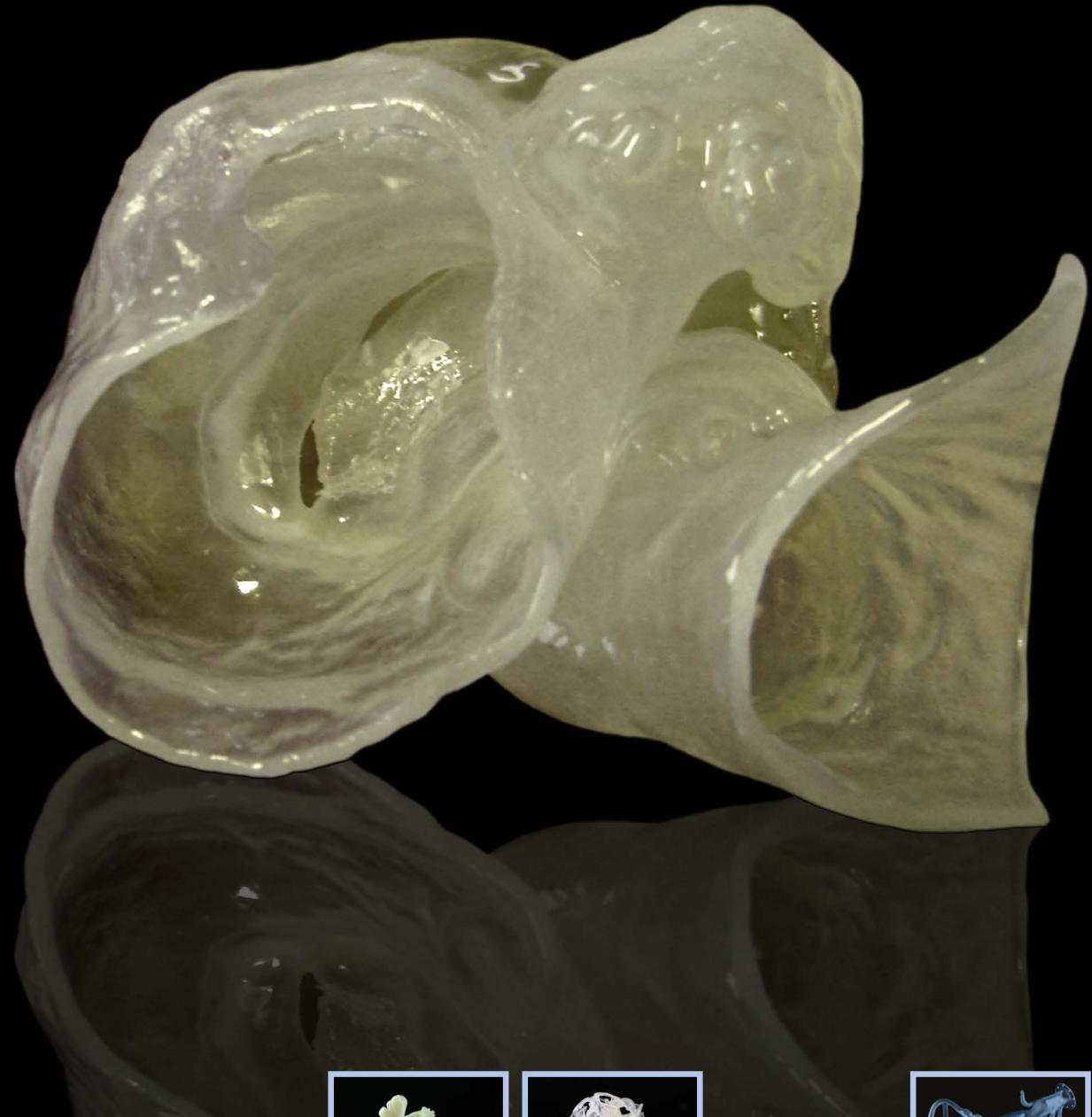
- Physician training demo model
- R&D valve device deployment testing
- Calcification movement studies

Patient & Pathology

- 71y, male
- Aortic and mitral valve calcifications
- 0.63 mm slice increment

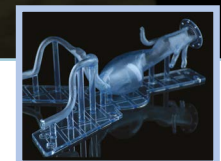
3D-Printed Characteristics

- Materialise HeartPrint Flex for the cardiac tissue
- Calcifications printed in rigid white material
- Aortic and mitral valve leaflets present
- Detailed left ventricle with main papillaries and muscle trabeculations
- Materialise logo, any logo possible
- Multiple patient data sets available
- Size: 11 x 12 x 12 cm



VAL-008

**Request
a quote**



Calcified Aortic Valve incl. Mitral Valve Orifice

Application Examples

- TAVI R&D
- Anatomy education

Patient & Pathology

- 82y, female
- Severely calcified aortic valve
- 0.63 mm slice increment CTA

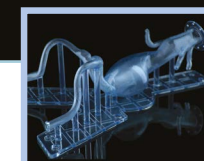
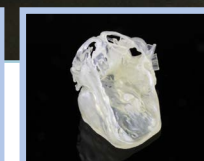
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid white material
- Aortic valve, mitral valve orifice
- Materialise logo, any logo possible
- Main LV papillary muscles
- LV muscle smoothed
- Size: 9 x 8 x 6 cm



VAL-011

**Request
a quote**



Calcified Aortic Valve

Application Examples

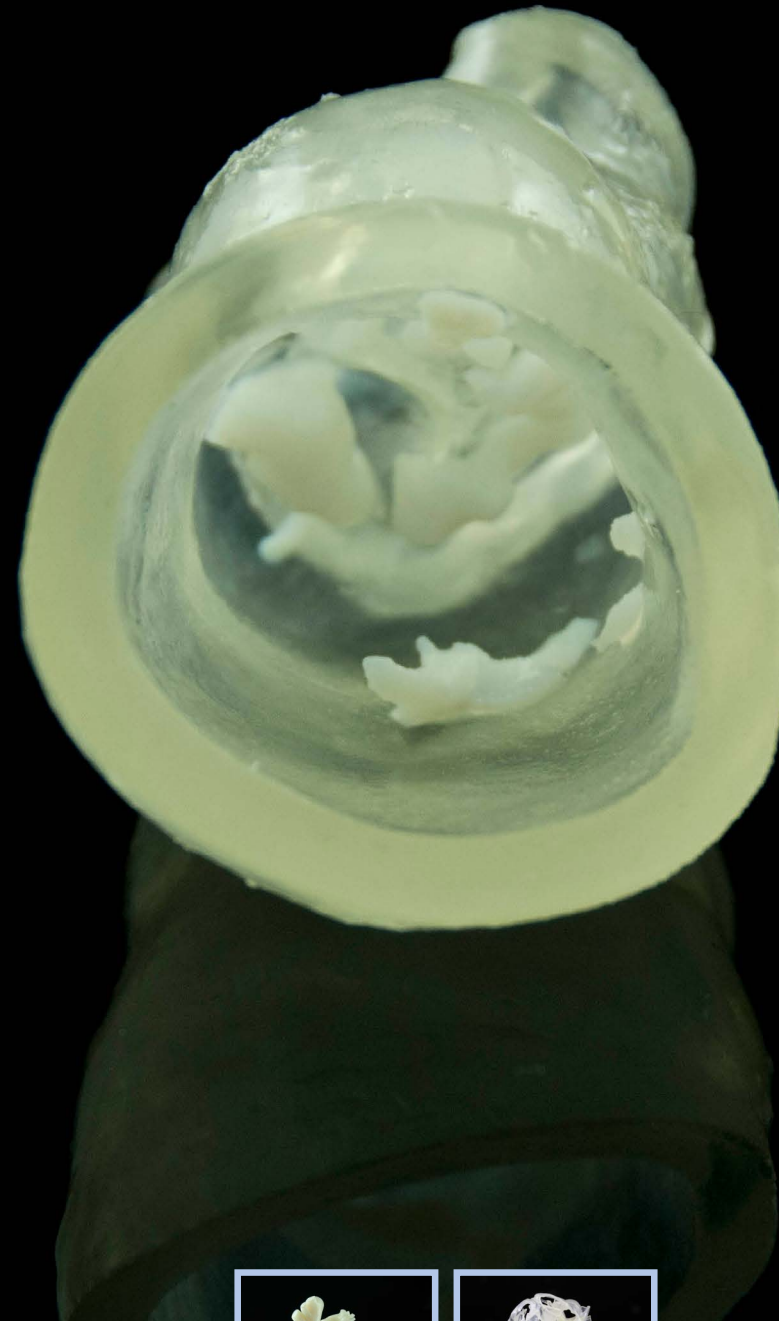
- Patient communication
- Marketing gift models
- Anatomy education

Patient & Pathology

- 82y, female
- Severely calcified aortic valve
- 0.63 mm slice increment CTA

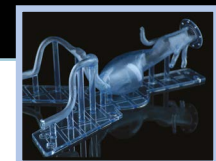
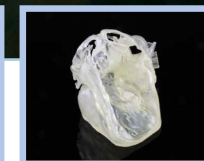
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid white material
- Aortic root and valve leaflets
- Materialise logo, any logo possible
- 3D printed fit container optional
- Multiple patient data sets available
- Size: 7 x 3.5 x 3 cm



VAL-012

**Request
a quote**



Calcified Aortic Valve (with Deployed TAVI Device)

Application Examples

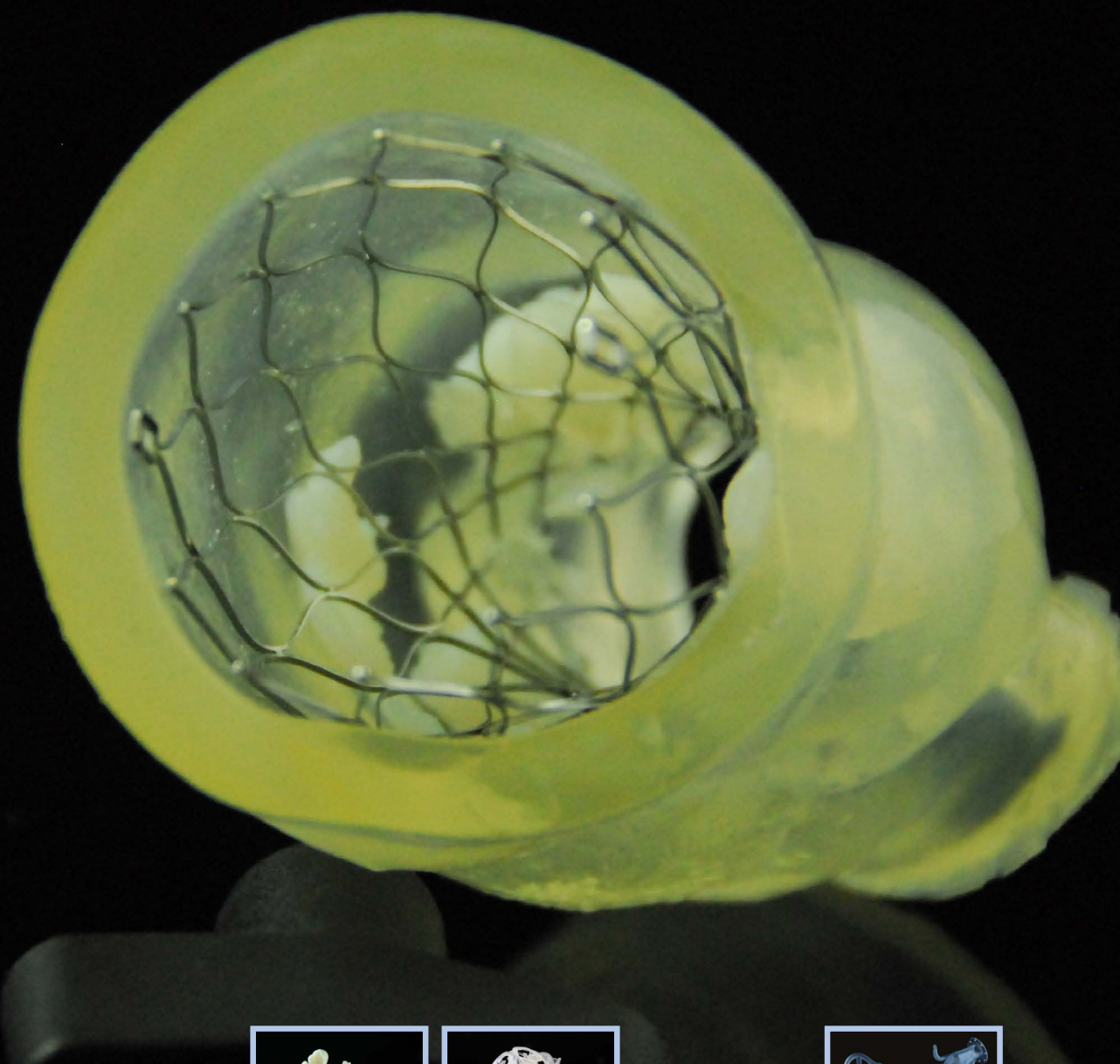
- TAVI R&D device deployment testing
- Calcification movement studies

Patient & Pathology

- 82y, female
- Severely calcified aortic valve
- 0.63 mm slice increment CTA

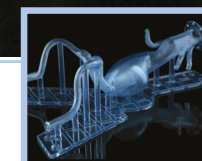
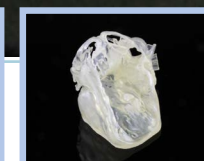
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid white material
- Aortic root and valve leaflets
- Materialise logo, any logo possible
- Family of models available
- Valve stent frame not included
- Multiple patient data sets available
- Size: 7 x 4 x 4 cm



VAL-014

**Request
a quote**



Bicuspid Calcified Aortic Valve

Application Examples

- Patient communication
- Physician training demo model
- R&D valve device deployment testing

Patient & Pathology

- 73y, female
- Severely calcified bicuspid aortic valve
- 0.5 mm slice increment

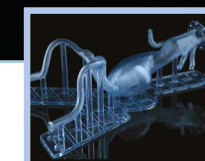
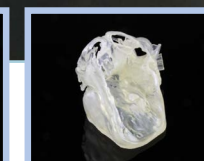
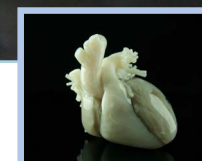
3D-Printed Characteristics

- Cardiovascular tissue printed in Materialise HeartPrint Flex
- Calcifications printed in rigid white material
- Aortic root and valve leaflets
- Materialise logo, any logo possible
- Size: 7 x 7 x 13 cm



VAL-019

**Request
a quote**



Right Ventricular Outflow Tract

Application Examples

- R&D device deployment testing
- Pulmonary valve replacement training/demo
- Pathology training
- Patient communication

Patient & Pathology

- 31y, female
- Pulmonary insufficiency, pulmonary valvestenosis 0.63 mm slice increment CTA
- 0.682 mm increment CTA

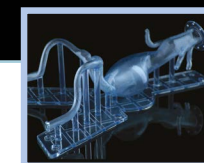
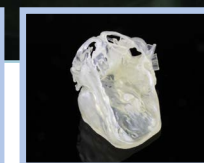
3D-Printed Characteristics

- High-end transparent stereolithography
- Model of RVOT and pulmonary artery
- Multiple patient data sets available
- Size: 7.1 x 9.8 x 7.1 cm



VAL-021

**Request
a quote**



Percutaneous Pulmonary Valve Implantation

Application Examples

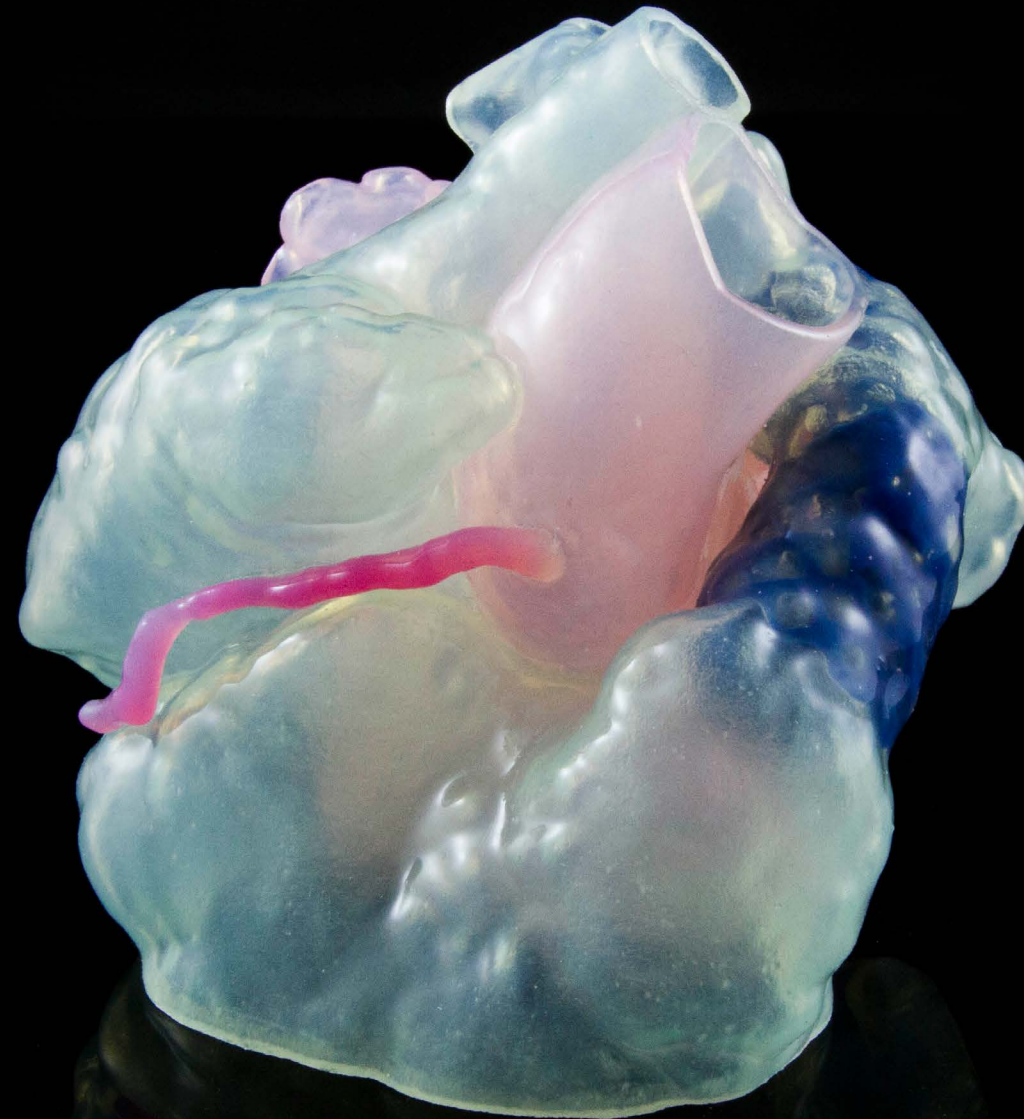
- R&D pulmonary valve device deployment
- Catheter motion testing and training
- PPVI education and training

Patient & Pathology

- 21y, female
- Complex congenital heart disease history
- Pulmonary valve degeneration, stents already in place
- 0.54 mm slice increment CTA

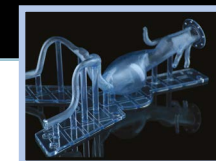
3D-Printed Characteristics

- Materialise HeartPrint Flex, chambers in pink and blue
- Semi-flexible coronary arteries in pink
- Rigid stents in blue
- Apex of the heart cut for visualization
- Size: 11.5 x 9.98 x 11.7 cm



VAL-027

**Request
a quote**



Tricuspid Valve Replacement

Application Examples

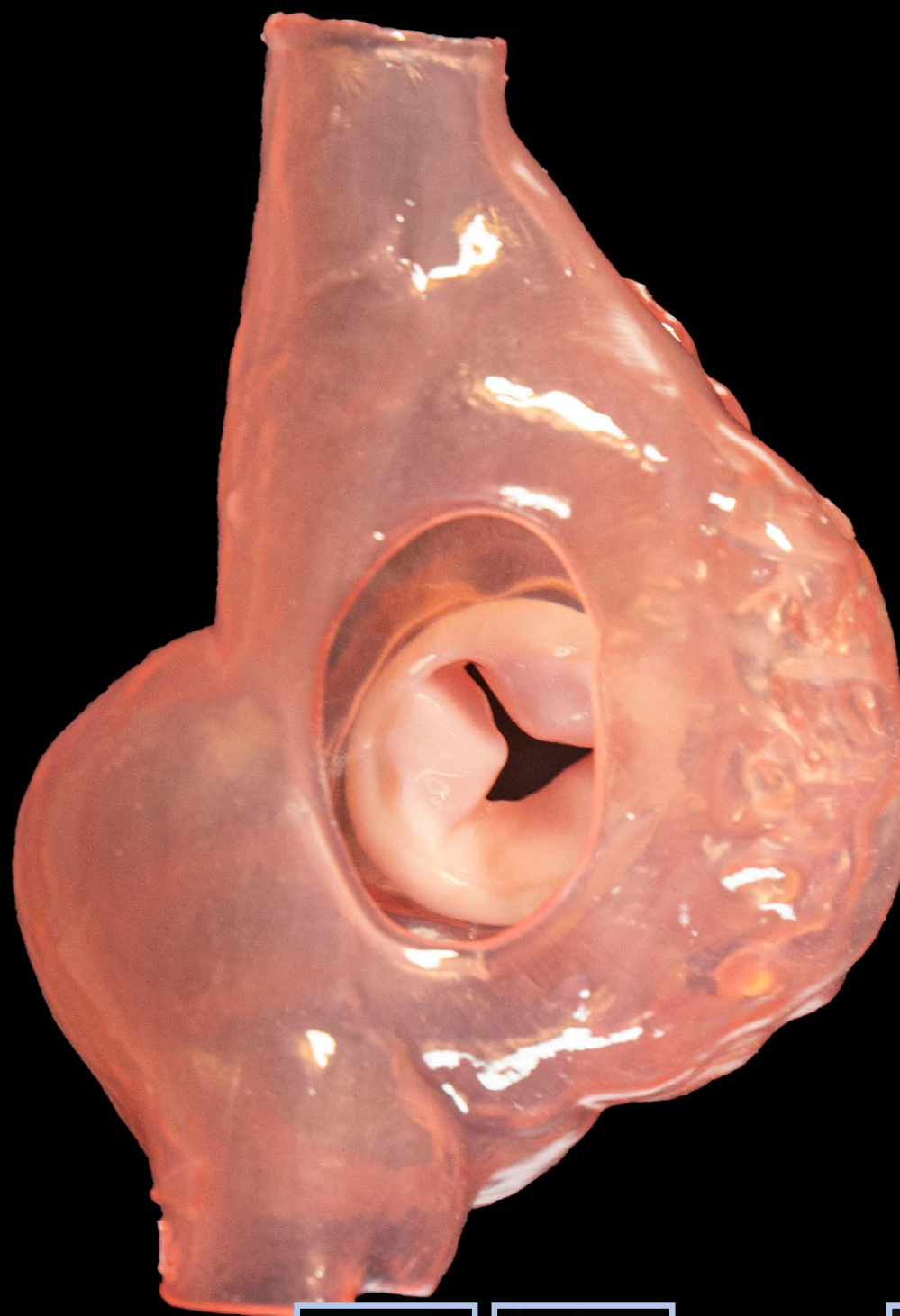
- Anatomy & pathology education
- TTVR R&D
- TTVR Clinical Planning

Patient & Pathology

- Age & gender unknown
- Tricuspid regurgitation treated with surgical tricuspid replacement valve
- 0.5 mm slice increment

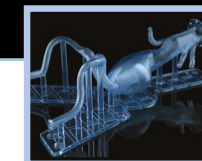
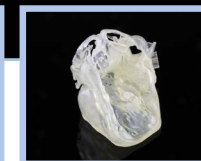
3D-Printed Characteristics

- Materialise HeartPrint Flex for cardiac tissue
- Surgical tricuspid replacement valve printed in rigid white material
- Right atrium with inferior and superior vena cava and coronary sinus ostium
- Right ventricle with detailed muscle trabeculations
- Materialise logo, any logo possible
- Size: 9 x 10 x 13 cm

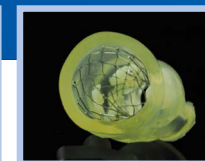
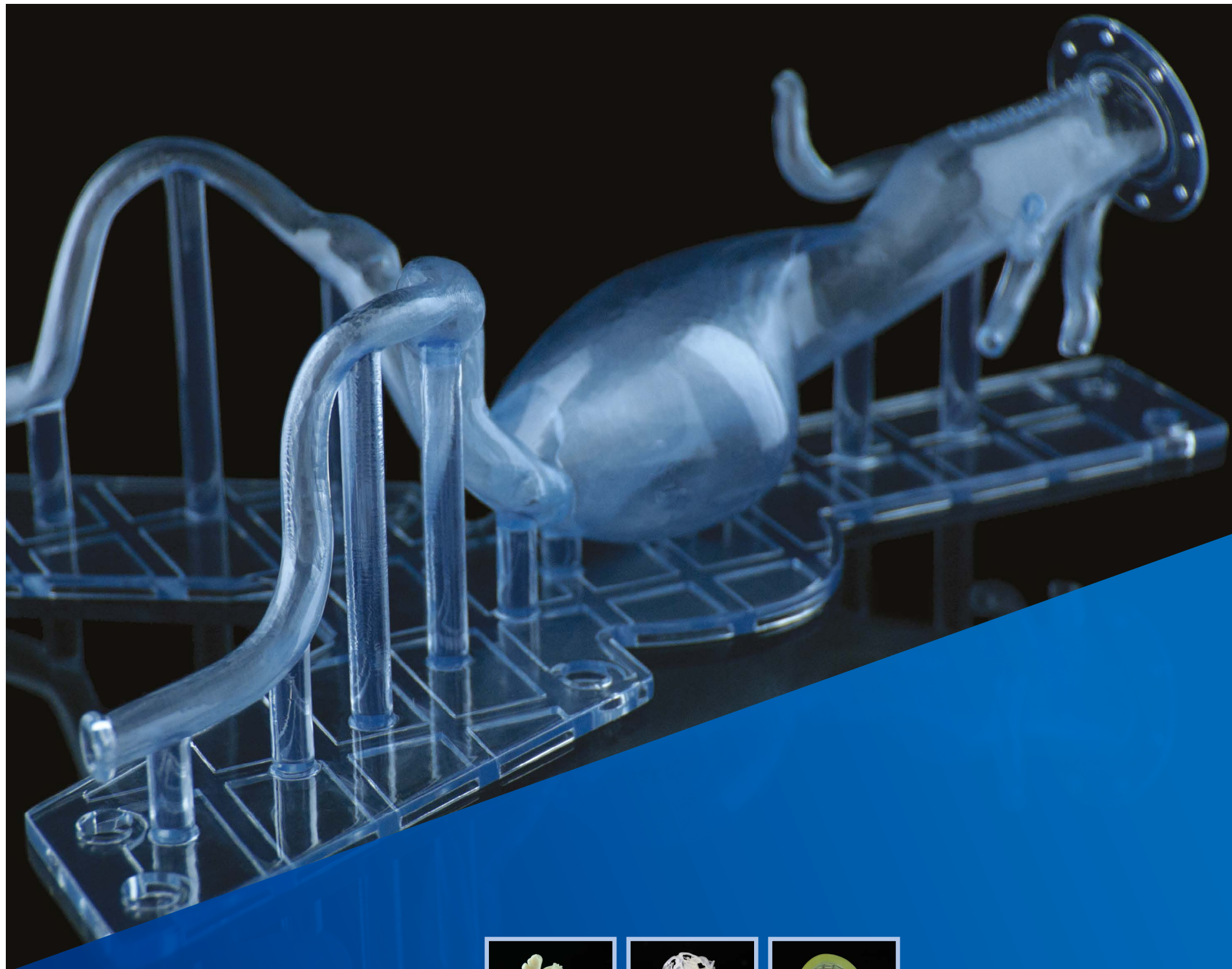


VAL-028

**Request
a quote**



Vascular Models



Carotid model with Left Bifurcation Calcification

Application Examples

- R&D device deployment testing
- Pulsatile flow analysis
- Physician training demo model

Patient & Pathology

- 39y, female
- Left carotid bifurcation calcification
- 0.6 mm slice increment CT

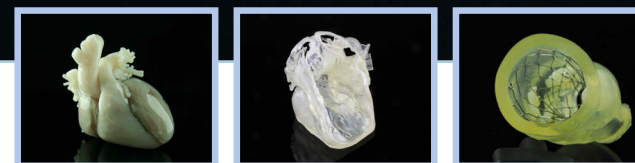
3D-Printed Characteristics

- Vascular tissue printed in Materialise HeartPrint Flex
- Calcification printed in rigid white material
- Aortic arch, brachiocephalic, right and left common carotid
- Left carotid bifurcation calcification
- Patent right carotid
- Size: 22 x 7.5 x 6 cm



VAS-016

**Request
a quote**



Transparent AAA without Baseplate

Application Examples

- Device bench top testing
- Fluid flow analysis

Patient & Pathology

- 65y, male
- Abdominal Aortic Aneurysm (AAA)
- 1.3 mm slice increment CTA

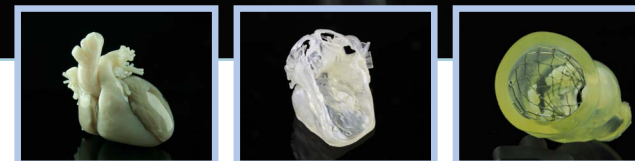
3D-Printed Characteristics

- High-end transparent stereolithography
- Supra-renal to femoral artery model
- Subrenal aorto-iliac abdominal aneurysm
- Flange CAD component for pump connection
- All visible vessels open
- Multiple patient data sets available
- Size: 28 x 18 x 12 cm



VAS-017

**Request
a quote**



Transparent AAA with Baseplate

Application Examples

- Device bench top testing
- Fluid flow analysis

Patient & Pathology

- 65y, male
- Abdominal Aortic Aneurysm (AAA)
- 1.3 mm slice increment CTA

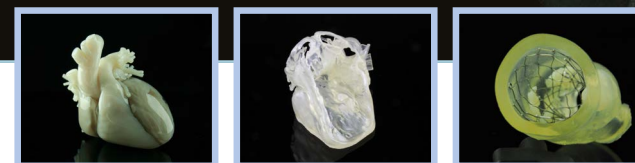
3D-Printed Characteristics

- High-end transparent stereolithography
- Supra-renal to femoral artery model
- Subrenal aorto-iliac abdominal aneurysm
- Flange CAD component for pump connection
- Base plate added for mounting in bench setup
- Scaled 90%, scaling optional
- All visible vessels open
- Multiple patient data sets available
- Size: 28 x 21 x 12 cm



VAS-018

**Request
a quote**



Aortic Arch Aneurysm

Application Examples

- Physician training demo model
- Device bench top testing
- Catheter motion testing and training

Patient & Pathology

- 72y, male
- Aortic arch aneurysm
- 0.8 mm slice increment CTA

3D-Printed Characteristics

- High-end transparent stereolithography
- Aortic root to femoral artery model
- Base plate for bench setup (optional)
- All visible vessels open
- Size: 21 x 15.3 x 54.2 cm



VAS-028

**Request
a quote**



Abdominal Aortic Aneurysm (AAA)

Application Examples

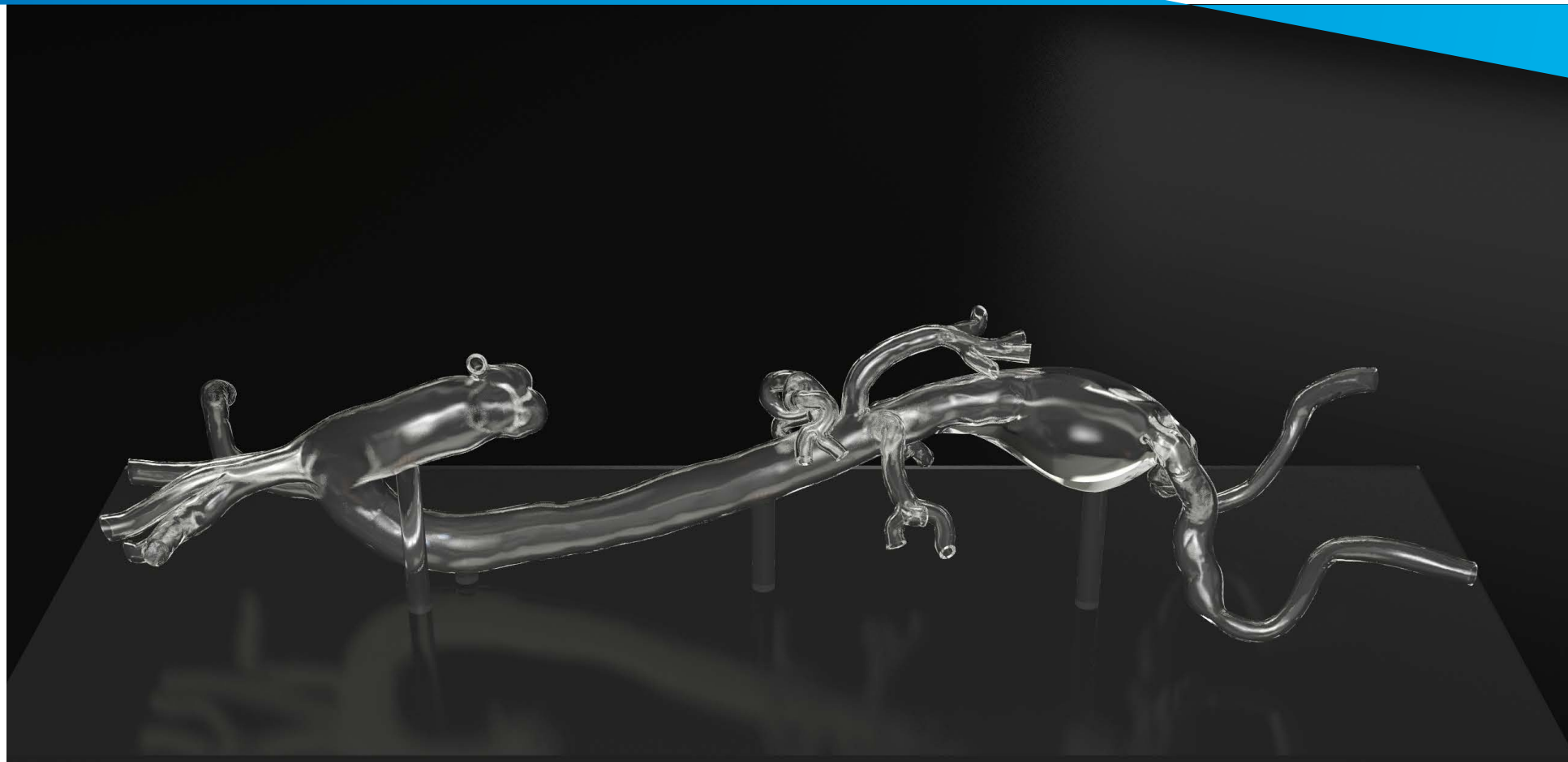
- Physician training demo model
- Device bench top testing
- Catheter motion testing and training

Patient & Pathology

- 65y, male
- Abdominal Aortic Aneurysm (AAA)
- 1.3 mm slice increment CTA

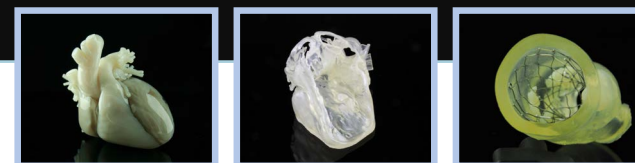
3D-Printed Characteristics

- High-end transparent stereolithography
- Aortic root to femoral artery model
- Subrenal aorto-iliac abdominal aneurysm
- Base plate for bench setup (optional)
- All visible vessels open
- Multiple patient data sets available
- Size: 20.3 x 11.2 x 55.4 cm



VAS-029

**Request
a quote**



Thoracic-Abdominal Aortic Aneurysm

Application Examples

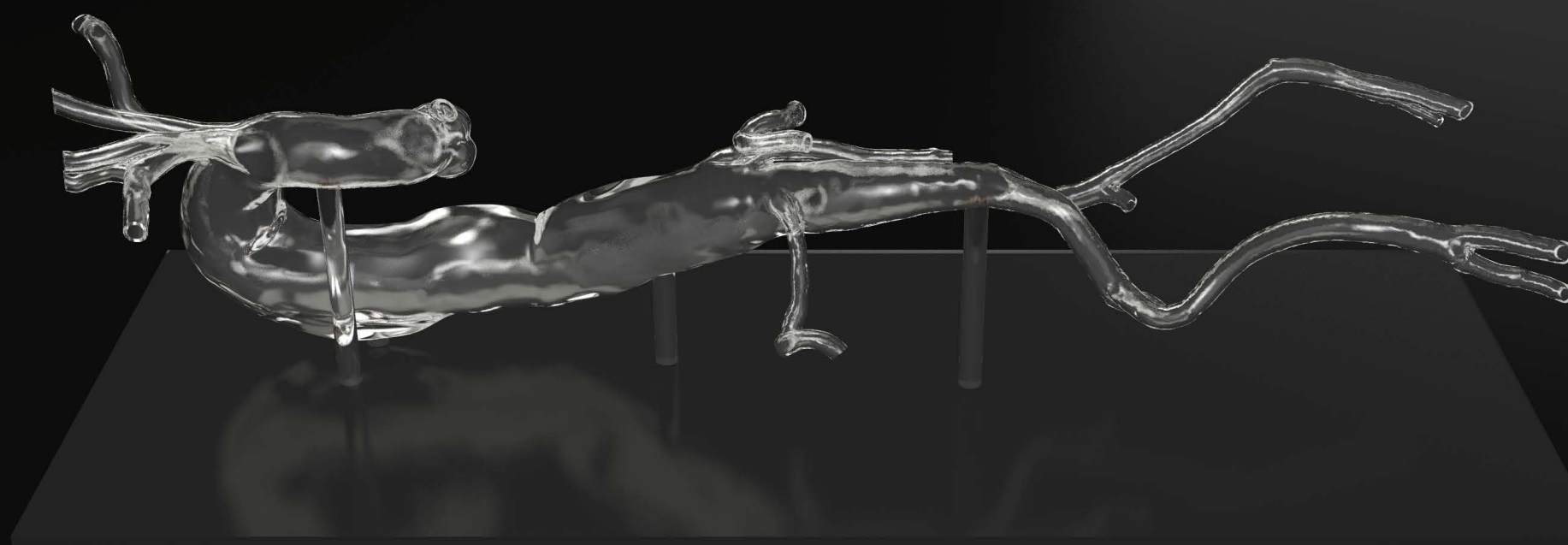
- Physician training demo model
- Device bench top testing
- Catheter motion testing and training

Patient & Pathology

- 55y, female
- Thoracic-Abdominal Aortic Aneurysm
- 1.25 mm slice increment CTA

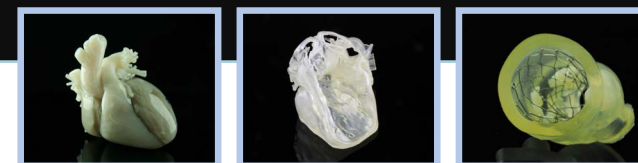
3D-Printed Characteristics

- High-end transparent stereolithography
- Aortic root to femoral artery model
- Base plate for bench setup (optional)
- All visible vessels open
- Size: 17.4 x 15 x 61.3 cm



VAS-030

**Request
a quote**



Application Examples

- Physician training demo model
- Device benchtop testing
- Catheter motion testing and training

Patient & Pathology

- 37y, male
- Healthy
- 0.625 mm slice increment CTA

3D-Printed Characteristics

- High-end transparent stereolithography
- Aortic root to femoral artery model
- Base plate with CT image
- Femoral artery endings open
- Size: 20.4 x 16.6 x 61.9 cm



VAS-031

**Request
a quote**



Application Examples

- Groin puncture training
- Closure device demonstration and training

Patient & Pathology

- 80y, female
- Calcified vessels
- 3 mm slice increment CTA

3D-Printed Characteristics

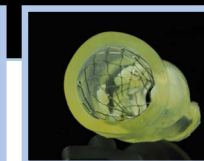
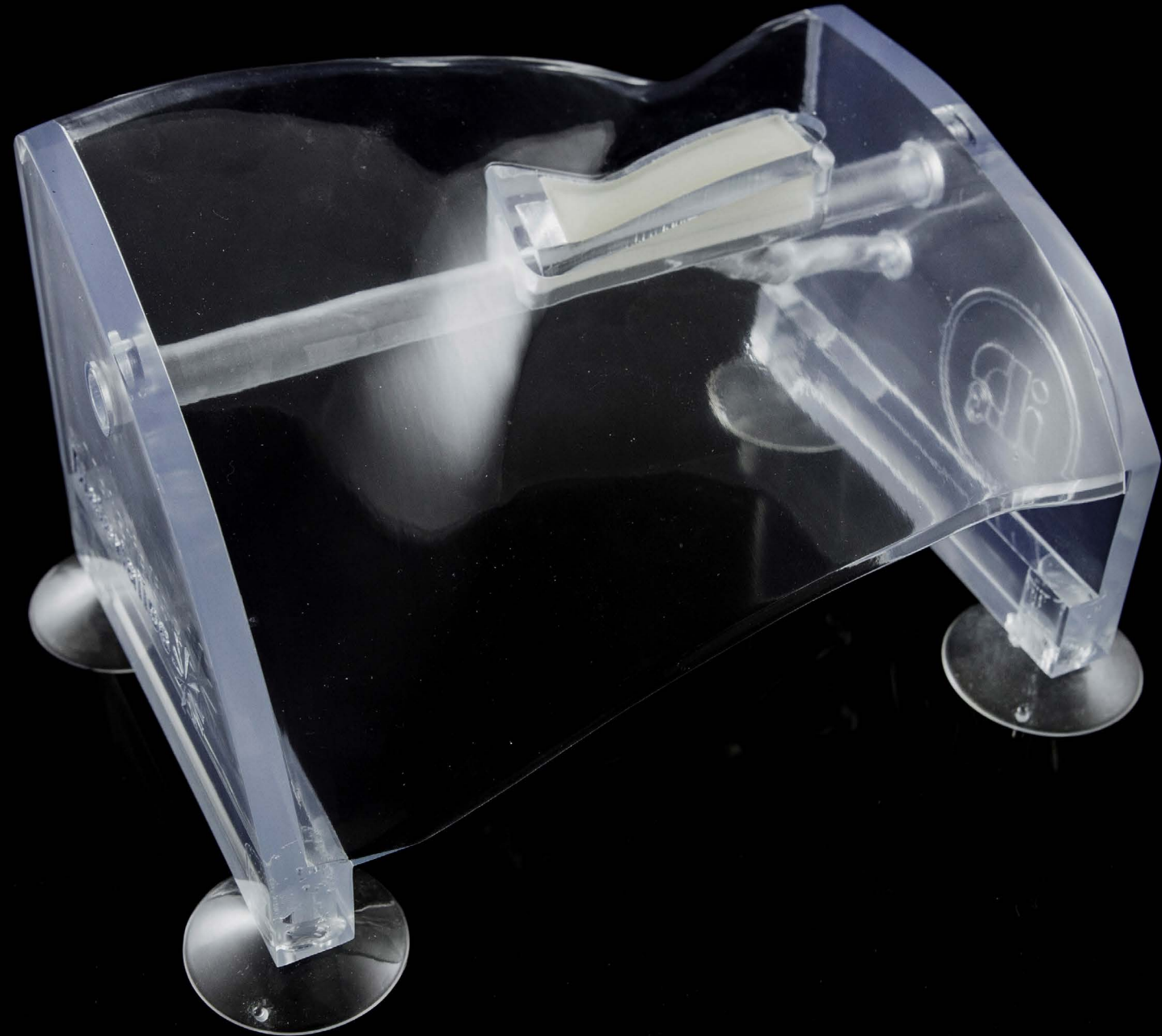
- High-end transparent stereolithography groin model
- Suction cups for stable positioning
- Flexible replaceable puncture piece
- Realistic touch developed with experienced vascular surgeon
- Rigid calcification (optional)
- Size: 12 x 10.8 x 18 cm
- Any logo possible

in cooperation with ID-3 Medical



VAS-032

**Request
a quote**



Application Examples

- R&D catheter motion testing
- Physician training demo model
- Anatomical training

Patient & Pathology

- 80y, female
- Cerebral aneurysm (outside model region)
- 0.312 mm slice increment

3D-Printed Characteristics

- Transparent stereolithography
- Neck vessels and circle of Willis
- Size: 6.5 x 7.1x 6.3 cm



VAS-033

**Request
a quote**



Aorta and heart – modular model

Application Examples

- Device bench top testing
- Catheter motion testing and training
- Physician training demo model

Patient & Pathology

- 37y, male
- Healthy
- 0.625 mm slice increment CTA

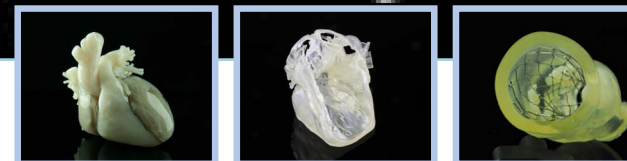
3D-Printed Characteristics

- High-end transparent Stereolithography
- Flexible valves in HeartPrint® flex
- Heart to femoral artery model
- Modular model with valve annuli, valves and viewing windows
- Size: 18.8 x 14 x 53.4 cm



VAS-034

**Request
a quote**



Endovascular Simulator Model

Application Examples

- Physician training model
- Catheter motion testing and training
- Device benchtop testing

Patient & Pathology

- 37y, male
- Healthy
- 0.625 mm slice increment CTA

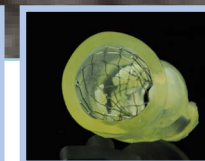
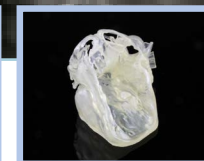
3D-Printed Characteristics

- Femoral artery model to aortic root
- Transparent Stereolithography
- Watertight
- Designed to use with standard 6Fr sheath
- Plexiglas baseplate with coronal CT image
- 50 x 16 x 70 cm



VAS-035

**Request
a quote**



Educational & Training Boxes



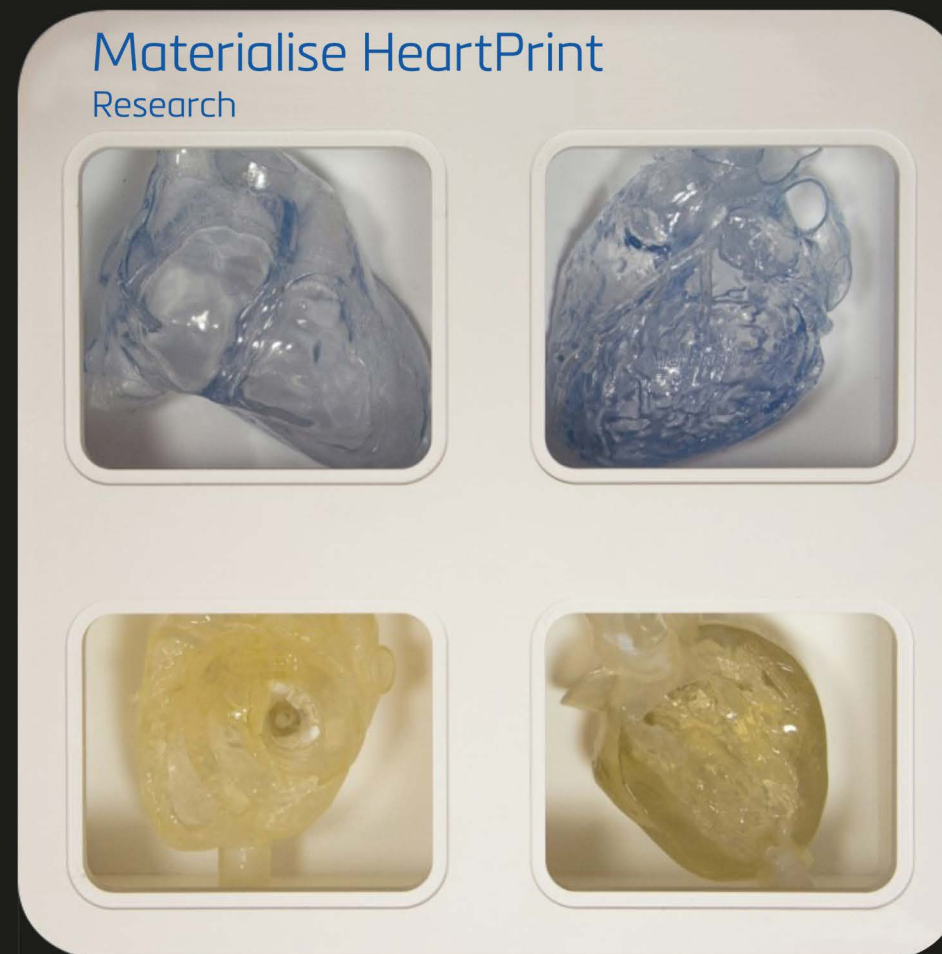
Realistic training is important for product managers, technical sales teams, interventionists and medical students alike. Materialise has the capability to 3D print accurate, anatomical models that can be used to showcase devices or practice procedures.

Our engineering services team is available to work with you to create the ideal custom simulation box for your needs. The boxes are constructed with holes in the side panels that access the anatomy in the most optimal way for your application.

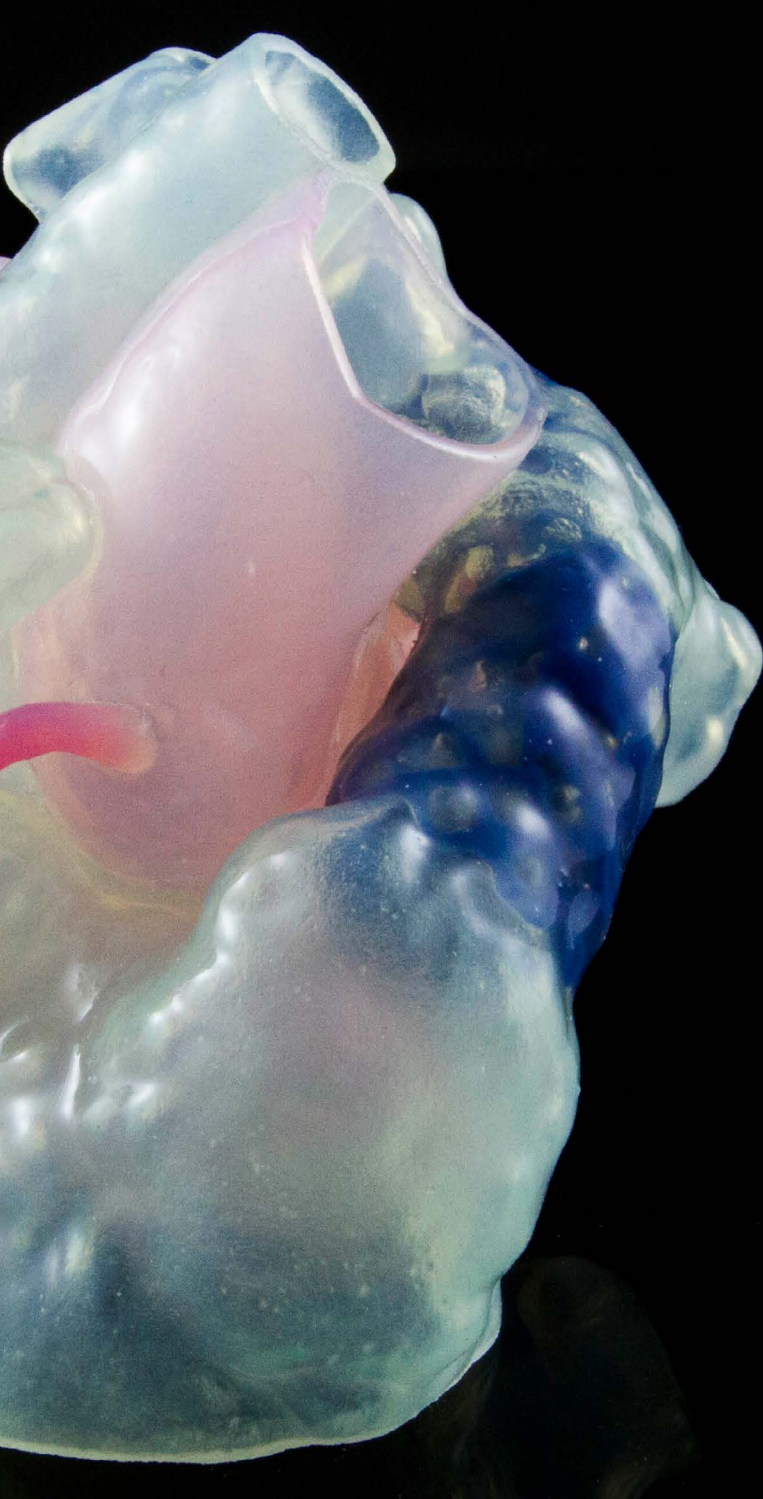
Your box can contain **one or multiple 3D-printed models** and be branded to promote your product or company.

We can even print your company logo or other text directly on the models. This kit shows examples for pacemaker lead placement, coronary stenting, atrial fibrillation ablation with LAA occlusion and transapical TAVI.

Whether your kit is intended for internal training or on-site demonstrations with physicians, the HeartPrint® Research boxes ensure the most realistic, professional and mobile training experience.



**Request
a quote**



What is HeartPrint?

HeartPrint is Materialise's service for providing 3D-printed cardiovascular models from medical image data for research or clinical applications. Our HeartPrint models are listed as a medical device in the USA and the EU.

How are HeartPrint models used?

Our **"HeartPrint Research"** models are not intended for clinical use but are ideal for benchtop models, training, education and marketing.

Our **"HeartPrint"** models are used to assist cardiovascular professionals to provide additional information on patient treatment.

What material options are available?

Materialise offers a large variety of the latest 3D printing technologies to meet your requirements. Our 3D-printed cardiovascular models come in (multi-)colors and (multi-)materials, ranging from rigid to flexible. Your model can be fully customized, here are a few examples:

- color distinctions between chambers and vessels; tissue and blood
- colored rings to indicate valve annuli, ASD and VSD
- flexible models with calcifications and/or tumors printed in rigid material
- custom cuts for optimal visualization
- any logo or reference code

We even have a proprietary 3D printing process called Materialise HeartPrint Flex that results in realistic, highly flexible models.

How does the HeartPrint service work?

It's easy! The models in our catalog can be ordered directly, adapted to your needs or based on your own data set. To order a model, please click on the 'Request a quote' button and provide us with the following information:

Standard models: Indicate the model reference code.

Standard models with custom features: Indicate the model reference code and the adaptations you require*.

Patient-specific models: Upload the CT or MRI DICOM files via the link you will receive by email. Our engineering services team will follow up to discuss your requirements.

Additional models: Request a consultation. We have an extensive medical image database we can access to find an ideal dataset for your needs.

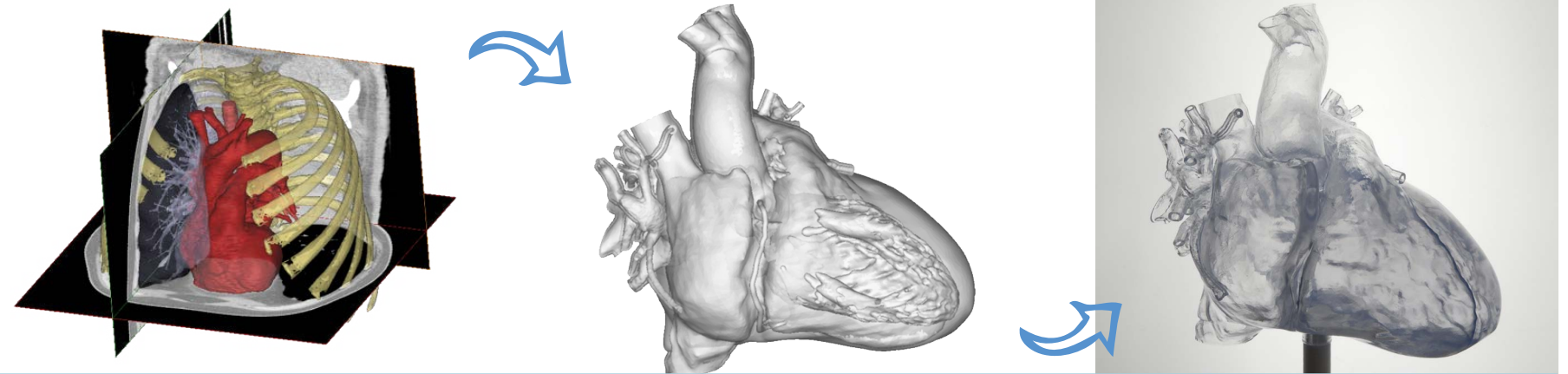
* Typical adaptations include: additional cuts, adding CAD components or flanges, branding models with a company logo, adding a septum hole and much more.

**Request
a quote**



Are you curious to know how a heart model is 3D printed?

[Watch our movie](#) to see all the steps involved.





Materialise HeartPrint Flex

The Materialise HeartPrint Flex process combines flexible and rigid materials in one high-resolution, durable print. These realistic and accurate models distinguish between calcifications and surrounding cardiovascular anatomy. The process is available for research and clinical applications.

[Click here](#) to read the white paper on the material characteristics of Materialise HeartPrint Flex.

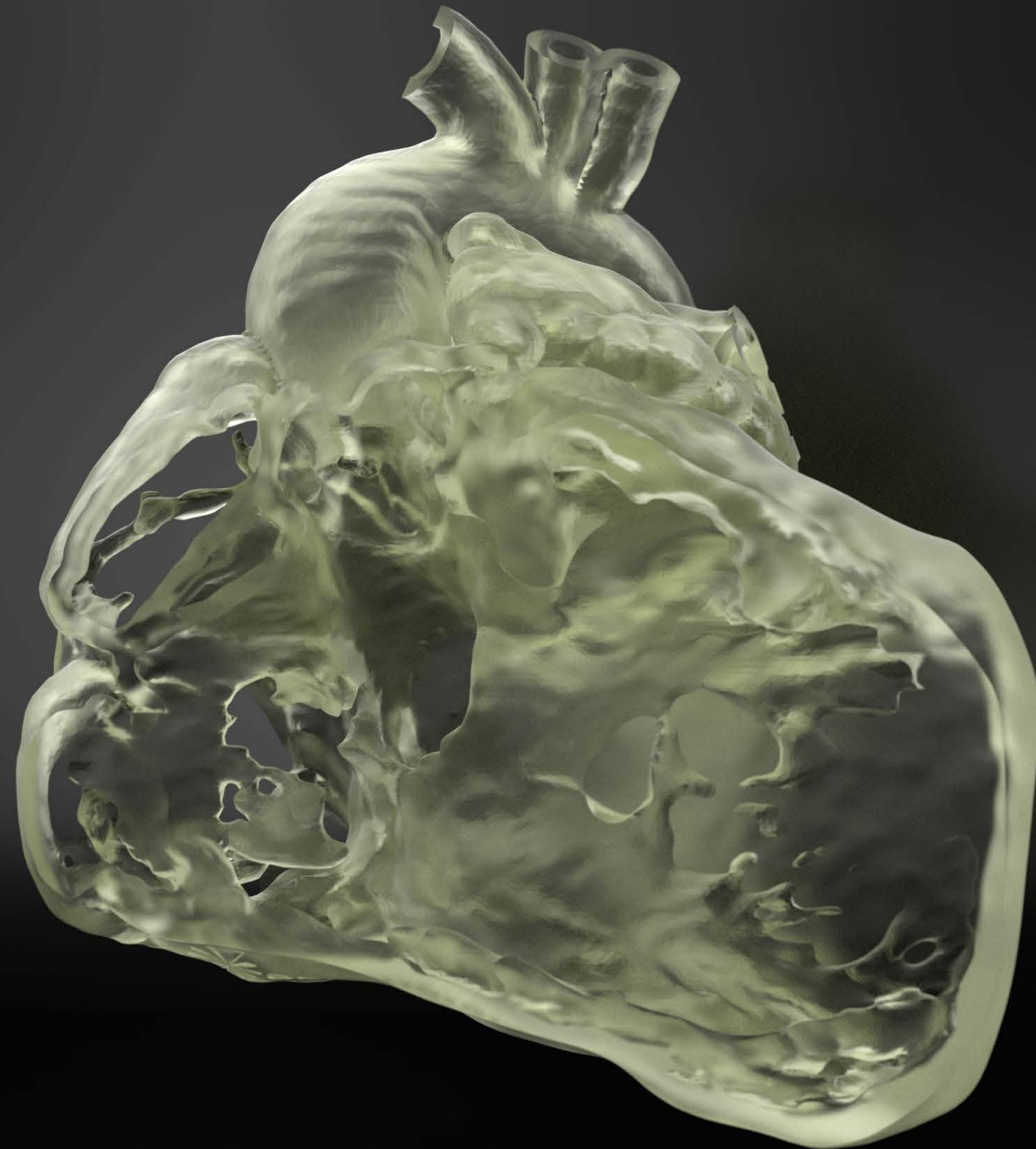
Stereolithography

Stereolithography machines use a liquid resin which is selectively cured by a computer controlled UV laser for highly accurate and transparent models. Our team ensures that your models are cleaned and post-processed expertly to provide the most transparent models available.

PolyJet

PolyJet machines combine a range of rigid, UV-curable materials for beautiful and accurate models that are ideal for training and marketing.

If a picture is worth
a thousand words,
a 3D-printed model is worth
a thousand pictures!



Materialise is a global 3D printing software and services company whose medical division is dedicated to enabling researchers, engineers and clinicians to revolutionize patient-specific treatment that improves and saves lives. Our open and flexible platform, Materialise Mimics, forms the foundation of certified Medical 3D Printing and incorporates a comprehensive range of software solutions and 3D printing services. With over 25 years of excellence, we work alongside our customers in healthcare, automotive, aerospace, consumer goods, art and design, to build groundbreaking 3D printing applications that make the world a better and healthier place.

[Please visit our website to learn more.](#)

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Regulatory Information

The Medical edition of the Materialise Mimics Innovation Suite currently consists of the following software components: Mimics Medical version 23.0 and 3-matic Medical version 15.0 (released 2020). Mimics Medical is intended for use as a software interface and image segmentation system for the transfer of imaging information from a medical scanner such as a CT scanner or a Magnetic Resonance Imaging scanner. It is also used as pre-operative software for simulating /evaluating surgical treatment options. 3-matic Medical is intended for use as software for computer assisted design and manufacturing of medical exo- and endo-prostheses, patient-specific medical and dental/orthodontic accessories and dental restorations.

The Research edition of the Materialise Mimics Innovation Suite currently consists of the following software components: Mimics Research version 23.0 and 3-matic Research version 15.0 (released 2020). Mimics Research is intended only for research purposes. It is intended as a software interface and image segmentation system for the transfer of imaging information from a variety of imaging sources to an output file. It is also used as software for simulating, measuring and modeling in the field of biomedical research. "Mimics Research" must not be used, and is not intended to be used, for any medical purpose whatsoever. 3-matic Research is intended for use as a software for computer assisted design and engineering in the field of biomedical research. "3-matic Research" must not be used, and is not intended to be used, for the design or manufacturing of medical devices of any kind.

HeartPrint Research models are not intended for medical use. Cleaning and sterilization can alter the material properties of HeartPrint medical and HeartPrint Research models and is not recommended.

Materialise Belgium – Technologielaan 15 – 3001 Leuven – Belgium

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Materialise HeartPrint

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