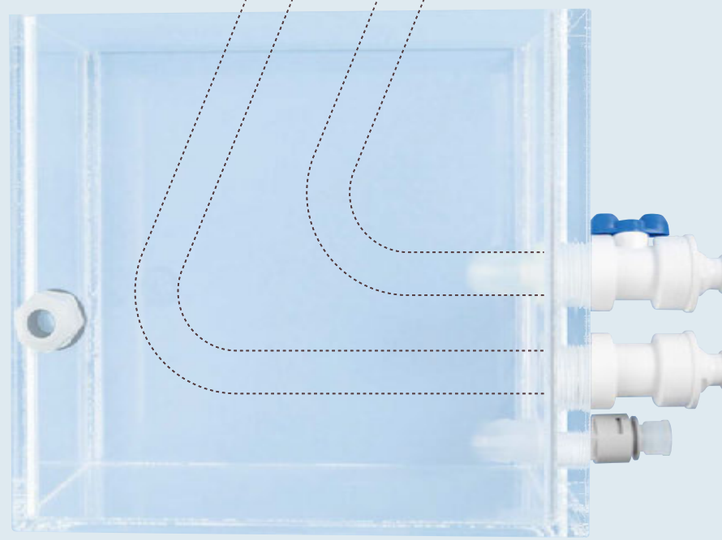
www.heartroid.com/

CE



HEARTROID® MEDICAL TRAINING SYSTEM

-Designed and Developed by

Osaka University
Graduate School of Medicine

Department of Cardiovascular Medicine

Keita OKAYAMA, MD, PhD
Yasuhiro ICHIBORI, MD, PhD
Isamu MIZOTE, MD, PhD
Yasumasa TSUKAMOTO, MD, PhD
Masaki AWATA, MD
Hiroya MIZUNO, MD, PhD, FESC
Shinsuke NANTO, MD, PhD, FACC
Yasushi SAKATA, MD, PhD, FACC, FESC, FJCC

-Contact details for inquiries

JMC Corporation

Sumitomofudosan Shinyokohama Bldg. IF,
2-5-5,Shinyokohama,Kohoku-ku,Yokohama-shi,Kanagawa,222-0033,Japan
Tel +81-45-477-5757　Fax +81-45-471-5270　Mail jmcltd@jmc-rp.co.jp

-Joint research and development

FYC FUYO CORPORATION

This product was developed through the national project “R&D for medical devices”, supported by the Japan Agency for Medical Research and Development (AMED).

GOOD DESIGN

HEARTROID wins “The Good Design Awards 2020”
presented by The Chicago Athenaeum

21040500

Do practice not on a patient but ...

“HEARTROID”

“HEARTROID” is a training system
with a heart model and a pulsatile pump for
interventional cardiologists
and medical students.

Train anywhere

In the cath lab, office,
conference hands-on
and anywhere

X-ray compatible

Practical training
under X-ray fluoroscopy

Fast & Easy preparation

Ready-to-use in just
a few minutes without
any technical knowledge

Compact design

Inflight carry-on
baggage compatible

MEDICAL TRAINING SYSTEM

HEARTROID®

Contents

HEARTROID®PROJECT

CORONARY

HEARTROID coronary series can facilitate many scenarios including simple CAG, PCI, Atherectomy, ACS, CTO, Bifucation strategy and some bail-out procedures under angiography visualized by camera and X-ray fluorosopy.

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart Model for Coronary

A heart model suitable for practical training in CAG and PCI under X-ray fluoroscopy in the cath lab. Stent deployment and guide wire manipulation can be simulated with this model.

2. Special Smart Tank

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、Ablation、Myocardial Biopsy Model

3. Pulsatile Pump

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、EVT、RDN、Myocardial Biopsy Model

4. Tubes with Sheath

Number of tubes : 2 (6・8Fr)

5. Lubricant

1 fl. oz.
(lasts for 20 coatings)

6. Hoses

▶ See P.20 in details

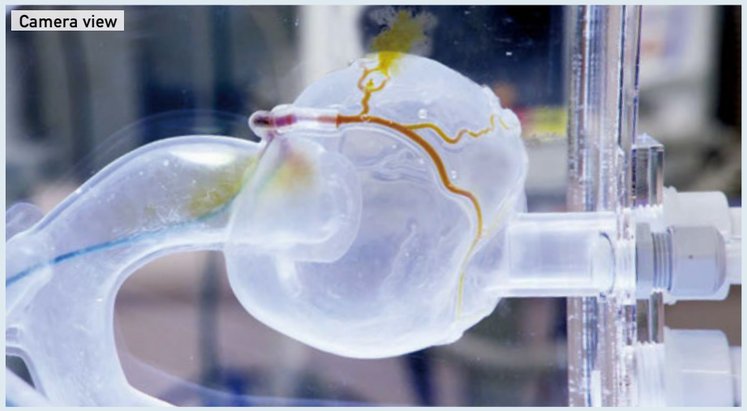
Standard Class

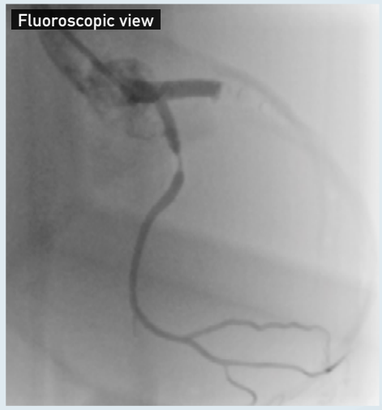
PCI Model

| Compatible Operating procedure |

CAG | CABG | ACS | IVUS / OCT | FFR | Stenting | Rotablation | DCA | Bifurcation | Vascular rupture | CTO

Web

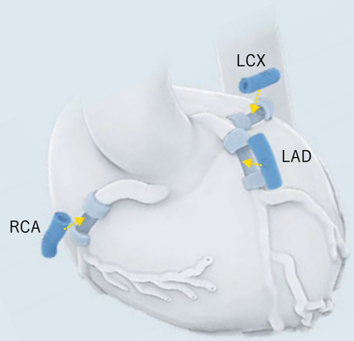




Replaceable “Disease parts” according to the procedures

HEARTROID Coronary series have sockets for attaching “Disease parts”(except for CAG model). You can perform various training by replacing the “Disease parts” according to the purpose.

▶ See P.8 in details

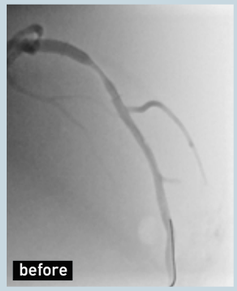


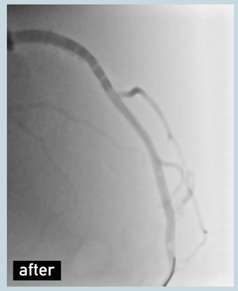
Easy to set up

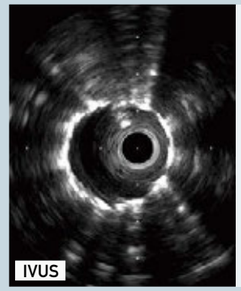
Recommended procedures

Stenting (Simple PCI procedure)

With “Soft Plaque” parts ▶See P.8



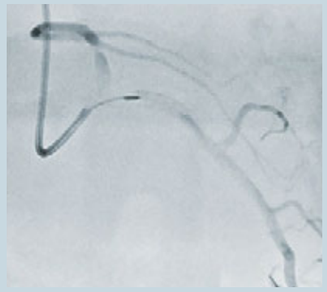




This scenario shows a simple PCI; that is balloon dilatation followed by stent deployment.
Imaging catheters (IVUS, OCT, Angioscopy) and FFR are also applicable. Training under X-ray fluoroscopy is more beneficial.

Atherectomy (Debulking procedures)

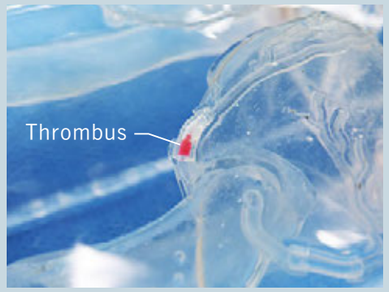
With “Concentric Calc” parts ▶See P.8



This scenario allows trainees to understand the strategy behind dealing with various lesions, especially severe calcification. With calcified vessel parts, one can practice the debulking technique with Rotablator and Directional Coronary Atherectomy (DCA) devices. Training under X-ray fluoroscopy is more beneficial.

ACS (Thrombectomy, balloon and stenting)

With “ACSc” parts ▶See P.8



This scenario facilitates emergent PCI strategy including thrombectomy followed by balloon dilatation and stent deployment. In successful case, you can see some thrombus in a syringe along with a nice final angiography.

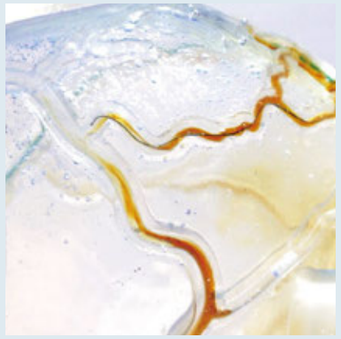
High-end Class

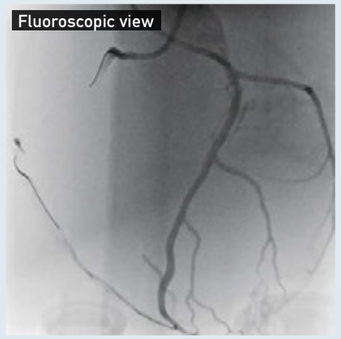
CTO Model

I Compatible Operating procedure I

CAG | CABG | ACS | IVUS / OCT | FFR | Stenting | Rotablation | DCA | Bifurcation | Vascular rupture | CTO

Web

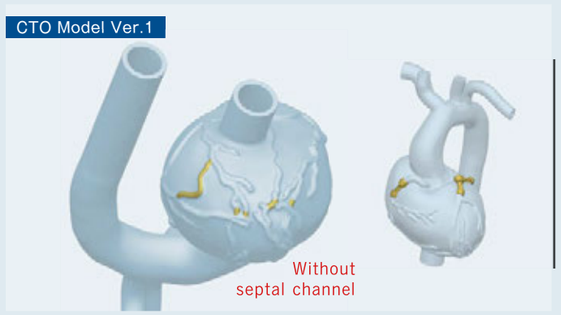


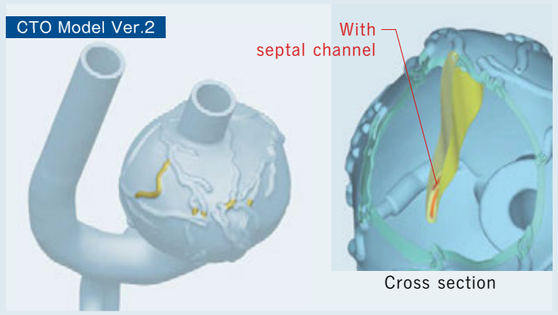


This is a chronic total occlusion (CTO) disease model. It features multiple collateral channels between LAD and RCA (including septal branch and apex routes), and between LCX and RCA (including AV groove and apex routes). The LAD, LCX and RCA have their own pockets, so that if the CTO vessel part is set in the RCA pocket, both the antegrade approach from RCA and the retrograde approach from LAD can be simulated, and vice versa.

With “CTO” parts ▶See P.8

CTO Model lineup





See P.8 in details

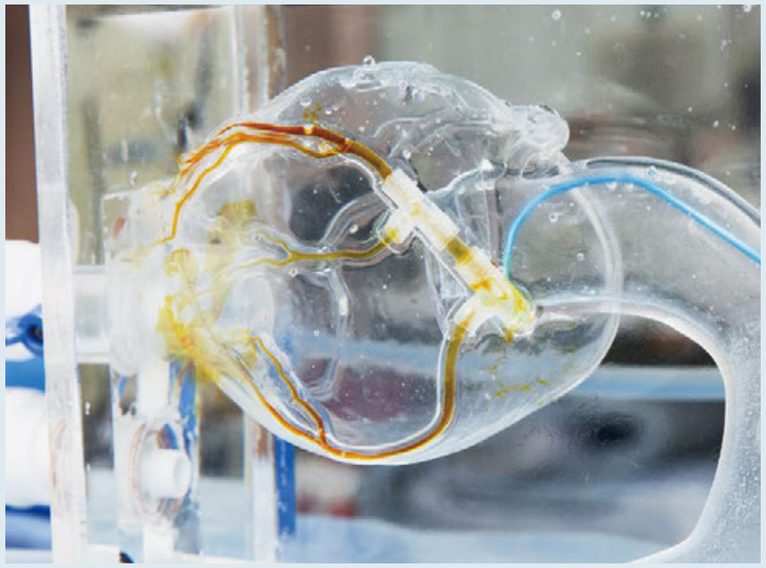
High-end Class

BIF Model

I Compatible Operating procedure I

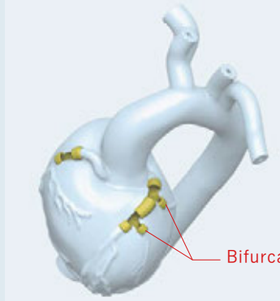
CAG | CABG | ACS | IVUS / OCT | FFR | Stenting | Rotablation | DCA | Bifurcation | Vascular rupture | CTO

Web

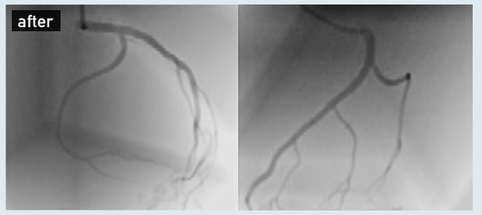


BIF model can facilitates the full procedures around LM (left main) bifurcation and LAD-Dx (diagonal branch) bifucarion strategies. Let’s try T-stenting, Culotte, Crush, KBT and whatever you want!

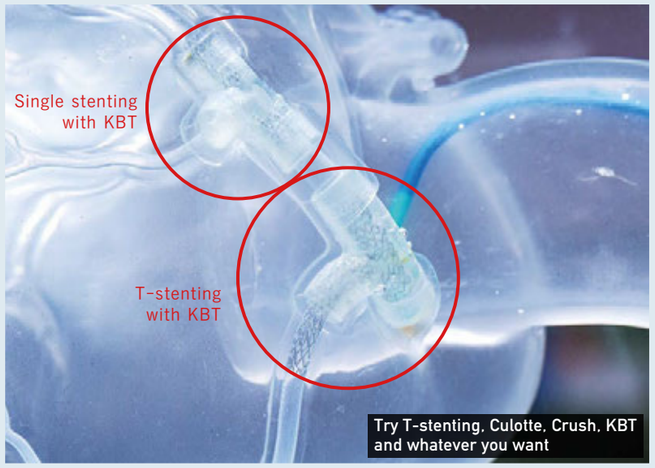
The features of BIF Model



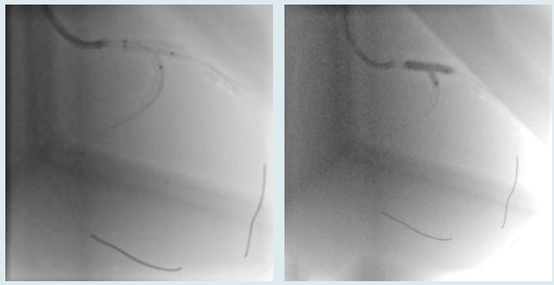
RAO CAU LAO CRA



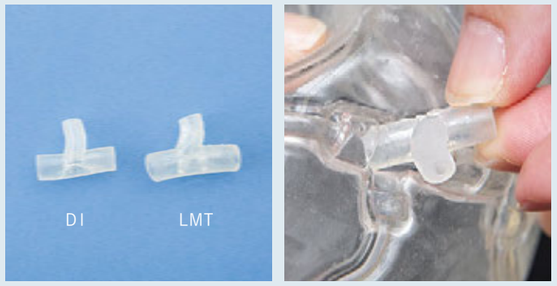
RAO CAU LAO CRA



KBT (Kissing balloon technique)



BIF disease parts (detachable & disporsable)



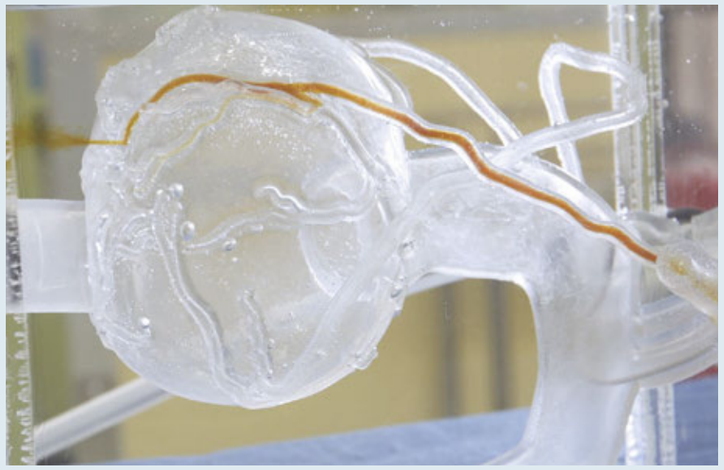
High-end Class

CABG Model

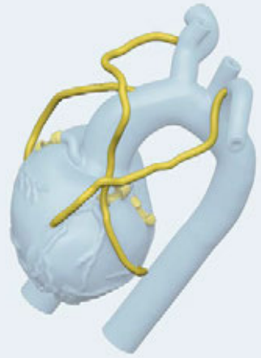
| Compatible Operating procedure |

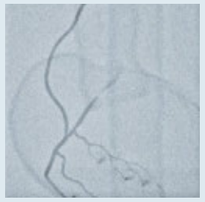
CAG	CABG	ACS	IVUS / OCT	FFR	Stenting
Rotablation	DCA	Bifurcation	Vascular rupture	CTO	

Web



The features of CABG Model





This is a triple vessel disease model with a triple coronary artery bypass grafting: LITA-mid LAD, RITA-LCX OM branch, and distal RCA. The native coronary artery has a severe stenosis in the proximal LAD, a severe stenosis in the proximal LCX, and also a severe stenosis in the mid RCA. This model is suitable for bypass graft angiography and PCI simulation for cases involving CABG.

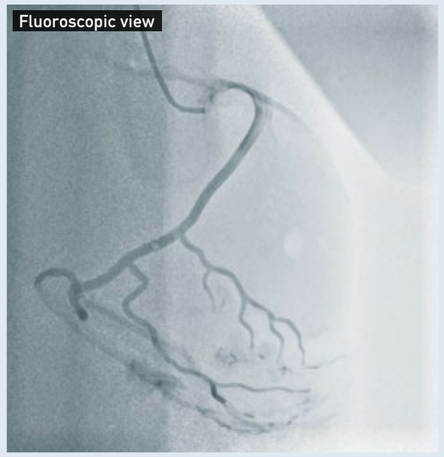
Entry Class

CAG Model

| Compatible Operating procedure |

CAG	CABG	ACS	IVUS / OCT	FFR	Stenting
Rotablation	DCA	Bifurcation	Vascular rupture	CTO	

Web



This system facilitates full procedures necessary in CAG (coronary angiography). It allows trainees to understand how to manipulate catheters, guidewires and contrast injectionunder camera and X-ray fluoroscopic view. Both transfemoral and transradial approach compatible. This entry model is suitable for young cardiologists, medical students and cath lab staffs' team simulation.

Disease parts (detachable & disporsable)

ACS parts

Soft plaque

75% stenosis with soft plaque suitable for direct stenting.

Concentric Calc

75% stenosis with concentric calcification suitable for rotablation.

DCA

75% stenosis with eccentric calcification suitable for directional coronary atherectomy.

Perforation

For bail-out scenario "Coronary Perforation"

ACS

100% total occlusion easy to pass

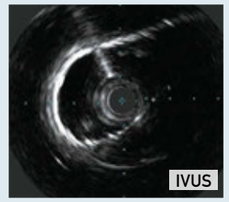
CTO

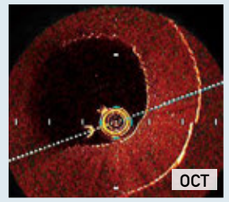
Compatible with CTO Models only

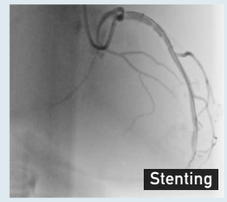
100% total occlusion. (Hardness: level 1 to 5)

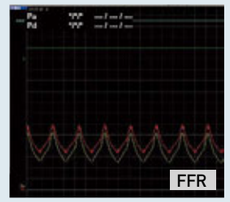
Compatible Operating procedure

Class	Entry	Standard	High-end		
Model	CAG	PCI	CABG	CTO	BIF
Coronary angiography (CAG)	○	○	○	○	○
Coronary artery bypass graft (CABG)			○		
Acute coronary syndromes (ACS)		○	○	○	
IVUS / OCT		○	○	○	○
Fractal Flow Reserve (FFR)		○	○	○	○
Stenting		○	○	○	○
Rotablation		○	○	○	○
Directional coronary atherectomy (DCA)		○	○	○	
Coronary Bifurcation					○
Vascular rupture		○	○	○	
Chronic total occlusion (CTO)				○	









TAVI Model

Web

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart Model for TAVI
Heart model suitable for practical training in TAVI under X-ray fluoroscopy in the cath lab.

2. Valve parts
One of the valves shown below is included. (Aortic Regurgitation Valve)

3. Special Tank for TAVI

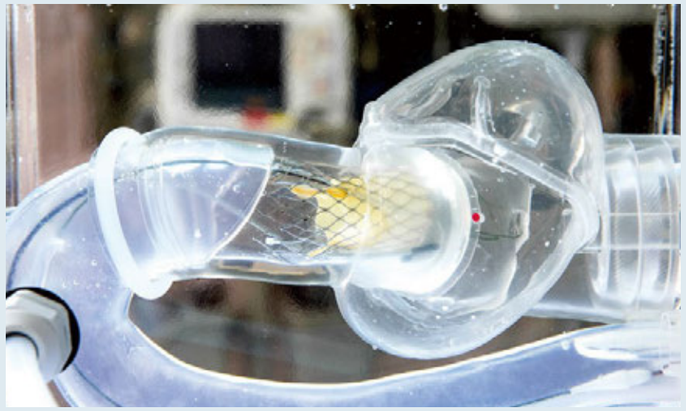
4. Special Pulsatile Pump for TAVI

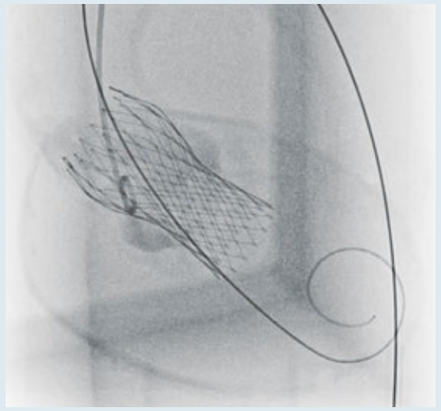
5. Tubes with Sheath
Number of tubes : I (6Fr)

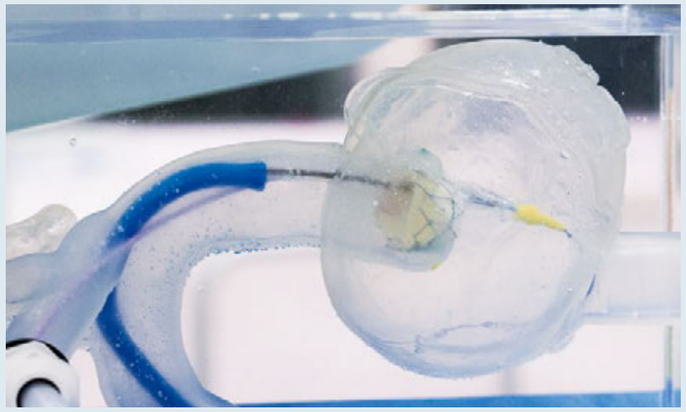
6. Lubricant
I fl. oz.
(lasts for 20 coatings)

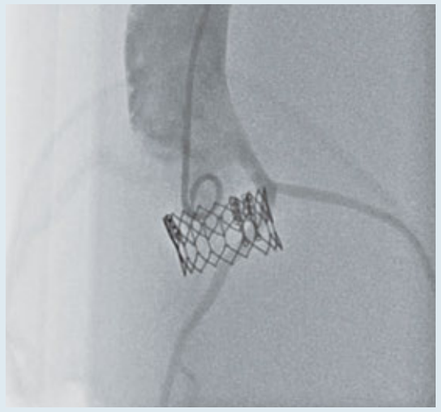
7. Hoses

▶ See P.20 in details









HEARTROID TAVI model facilitates technical training for TAVI (Transcatheter Aortic Valve Implantation), a novel therapy for aortic valve stenosis. With a pulsatile pump included in the set, stent valve deployment under blood flow can be verified by simultaneous aortography. This system is appropriate for both balloon-expandable and self-expandable transcatheter stent valves. It is also applicable to both the TF and TA approach. It can be used under various circumstances, from hands-on seminars at an exhibition booth to simulation under X-ray fluoroscopy in the cath lab. The detachable aortic valve part enables quick preparation and effective training.

Valve parts (detachable)

Aortic Regurgitation Valve

A detachable aortic valve without calcification suitable for TAVI in AR cases.

Aortic Stenosis Valve

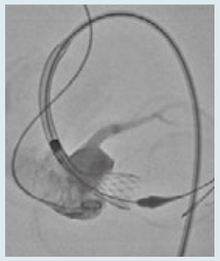
A detachable aortic valve with severe calcification suitable for TAVI in AS cases.

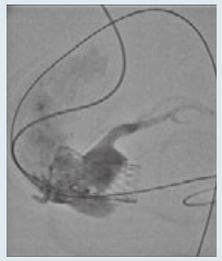
Bicuspid Aortic Valve

A detachable aortic valve with raphe suitable for TAVI in AS cases due to bicuspid aortic valve.

TAVI Horizontal Model

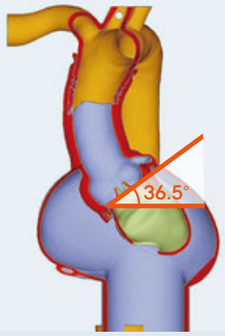
Web



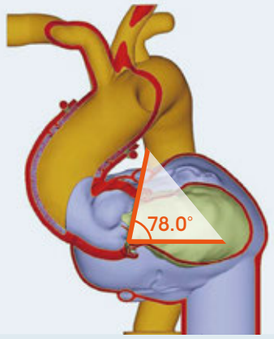


Horizontal aortic root anatomy causes difficuty in the valve positioning and delivery system retrieval process in TAVI procedure. This model has increased aortic angulation of 78° as measured between plane of aortic valve annulus and horizontal plane.

TAVI Model



TAVI Horizontal Model



Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart Model for TAVI Horizontal
Heart model suitable for practical training in TAVI under X-ray fluoroscopy in the cath lab.

2. Valve parts
One of the valves shown below is included. (Aortic Regurgitation Valve)

3. Special Tank for TAVI

4. Special Pulsatile Pump for TAVI

5. Tubes with Sheath
Number of tubes : 1 (6Fr)

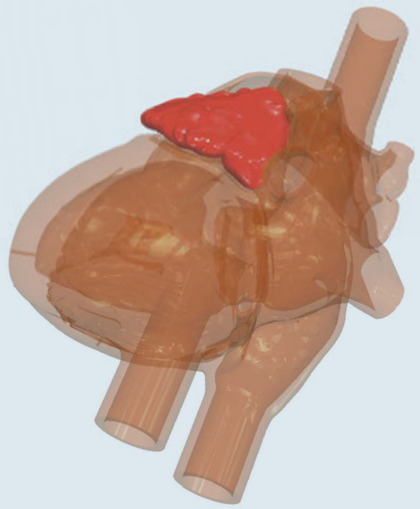
6. Lubricant
1 fl. oz.
(lasts for 20 coatings)

7. Hoses

▶ See P.20 in details

LAA Closure Model

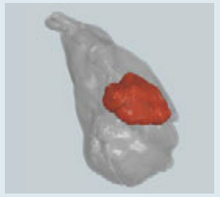
Web



HEARTROID LAA closure model facilitates training for the LAA (left atrial appendage) closure procedure, a catheter-based operation for patients at risk of stroke due to atrial fibrillation. Guided by echocardiography, the delivery catheter can be inserted through the atrial septum and the occluder can be deployed in the LAA. Blood flow from the left atrium to the left ventricle is simulated, so the location of the occluder can be confirmed by X-ray fluoroscopy during the procedure.

Wind Sock model

Chicken Wing model



Broccoli model

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart model for LAA Closure
The basic set includes a heart model with a wind sock type LAA. An esophagus is attached to this heart model. Major LAA types (wind sock, chicken wing, and broccoli) can be selected upon request.

2. Special Wide Tank For TEE
A special tank for inserting the TEE probe.
Compatible with the following heart model.

ASD Closure

3. Pulsatile Pump
Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tube with Sheath
Number of tubes : 1 (24Fr)

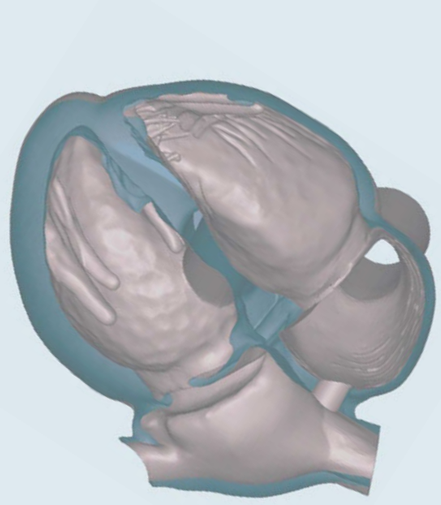
5. Lubricant
1 fl. oz.
(lasts for 20 coatings)

6. Hoses

▶ See P.20 in details

ASD Closure Model

Web



HEARTROID ASD closure model facilitates training for the ASD (atrial septal defect) closure procedure, a catheter-based operation for patients with congenital defects of the atrial septum. Guided by echocardiography, a delivery catheter can be inserted through the septal defect into the left atrium, and the closure device can be deployed across the ASD. As blood flow from the left atrium to the left ventricle is simulated, the location of the occluder can be confirmed by X-ray fluoroscopy during the procedure.

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart model for ASD Closure

An esophagus is attached to this heart model. The size and location of the ASD can be changed upon request.

2. Special Wide Tank For TEE

A special tank for inserting the TEE probe. Compatible with the following heart model.

LAA Closure

3. Pulsatile Pump

Compatible with the following heart model

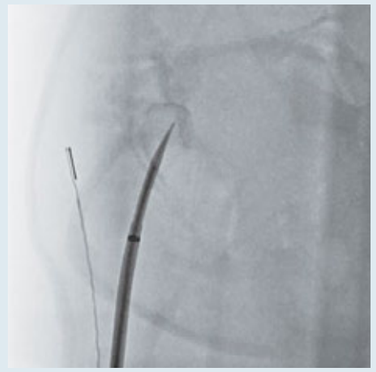
PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tube with Sheath
   Number of tubes : 1 (24Fr)
5. Lubricant
   1 fl. oz.
   (lasts for 20 coatings)
6. Hoses

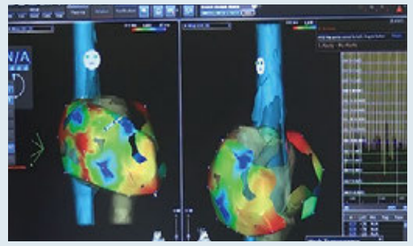
▶ See P.20 in details

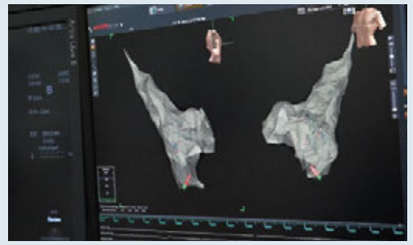
Ablation Model

Web



HEARTROID Ablation model facilitates technical training for catheter manipulation and 3D mapping, which are basic skills required for catheter ablation. With this model, the Brockenbrough Method (atrial septal puncture) guided by ICE (intracardiac echocardiography) can also be simulated. The model is appropriate for both the internal jugular and femoral vein approach.





Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart model for Ablation

This model has an atrial septum which can be punctured repeatedly. The septal part can be replaced. Please contact JMC for details.

2. Special Smart Tank

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、Myocardial Biopsy Model

3. Pulsatile Pump

Compatible with the following heart model

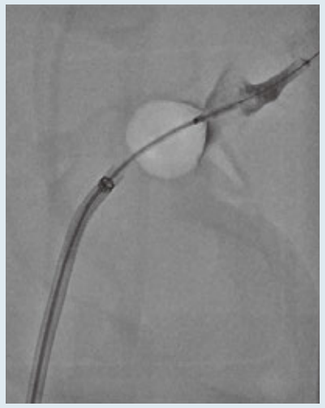
PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

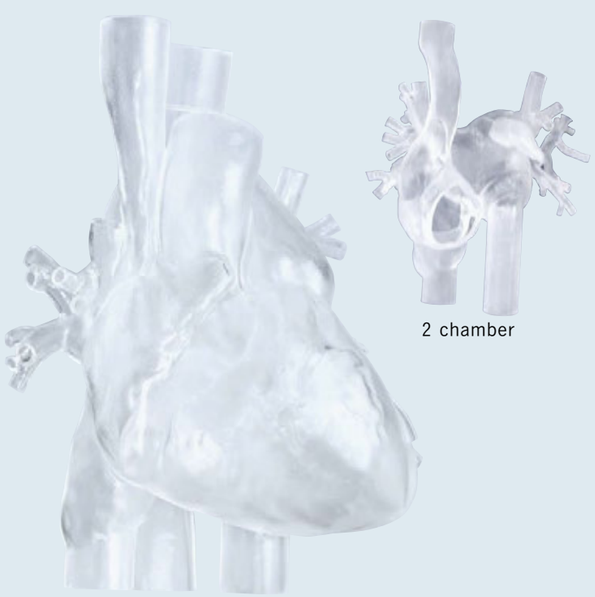
4. Tube with Sheath
   Number of tubes : 1 (24Fr)
5. Lubricant
   1 fl. oz.
   (lasts for 20 coatings)
6. Hoses

▶ See P.20 in details

PVI Model

Web





2 chamber

4 chamber

HEARTROID PVI model facilitates simulated training of a pulmonary vein isolation procedure, with or without X-ray visualization. During cryoballoon catheter ablation, the operator is able to check whether pulmonary vein flow is blocked appropriately using a pulsatile pump which included in the standard set. This model features all four pulmonary veins (RSPV, RIPV, LSPV, LIPV), and ICE (intracardiac echocardiography) is usable when passing through the atrial septum.

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. PVI Model

Four-chamber-structured transparent heart model with all four pulmonary veins (RSPV, RIPV, LSPV, LIPV) ,SVC andIVC. Femoral vein and intrajugular ven approaches are possible.

2. Special Wide Tank

3. Pulsatile Pump

Compatible with the following heart model

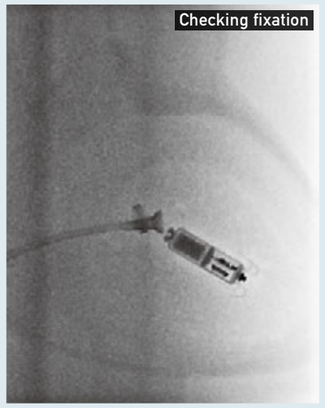
PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tube with Sheath
   Number of tubes : 1 (24Fr)
5. Lubricant
   1 fl. oz.
   (lasts for 20 coatings)
6. Hoses

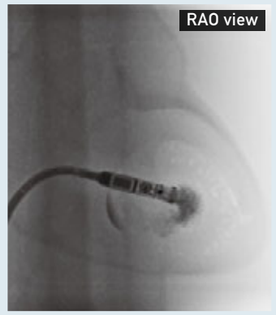
▶ See P.20 in details

Leadless PM Model

Web



HEARTROID Leadless PM model facilitates simulated training of a leadless pacemaker device implantation procedure, with or without X-ray visualization. The operator is able to simulate full procedure; inserting a delivery catheter from femoral vein via right atrium into right ventricle, confirming the position of the device on the right ventricular septum with contrast under X-ray and deployemnt followed by checking fixation process.



Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Leadless PM Model

2. Special Wide Tank

3. Pulsatile Pump

Compatible with the following heart model

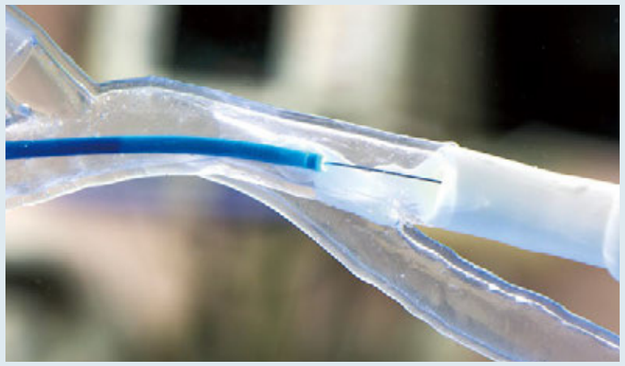
PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tube with Sheath
   Number of tubes : 1 (24Fr)
5. Lubricant
   1 fl. oz.
   (lasts for 20 coatings)
6. Hoses

▶ See P.20 in details

EVT Model

Web



Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. EVT Model

Peripheral vessel model. Major arteries from terminal aorta to plantar arch with some pockets capable of setting removable disease parts.

2. Special Tank for EVT

Tank provides excellent visibility under X-ray fluoroscopy and non-fluoroscopic situation. Divided construction allows above-knee-specific procedures from iliac to popliteal artery.

3. Pulsatile Pump

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tubes with Sheath

Number of tubes : 2 (8Fr)

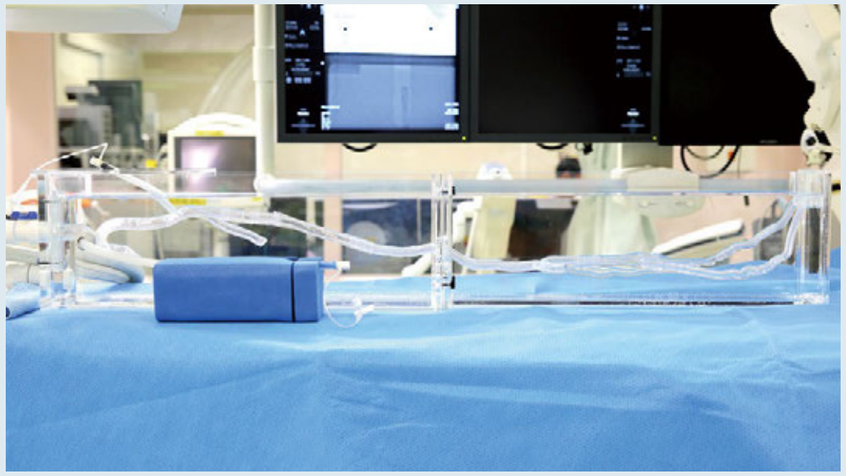
5. Lubricant

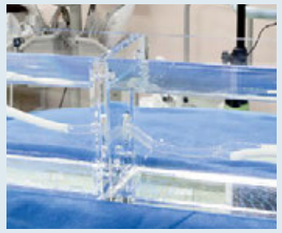
1 fl. oz.
(lasts for 20 coatings)

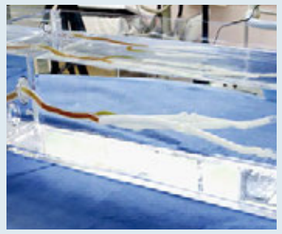
6. Hoses

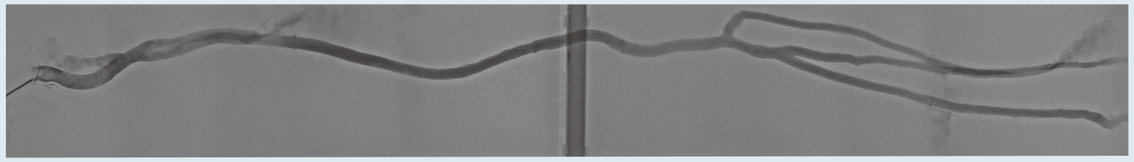
▶ See P.20 in details

HEARTROID EVT model facilitates simulation for peripheral intervention procedures under X-ray fluoroscopy and non-fluoroscopic situation. This vessel model covers from the terminal aorta to the plantar arch, and supports both retrograde and antegrade approaches. Similar to the HEARTROID coronary artery model, this system can incorporate sections of stenosis, total occlusion and severe calcification, thus allowing procedures of various cases such as stent deployment and debulking procedures. The tank can be divided between the above-knee area (AK) and the below-knee area (BK) for easy setup.









RDN Model

Web

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Vessel Model for RDN

The model is primarily designed for RDN (renal denervation). Vessel model can be customized depending on the purpose of use, along with the special tank.

2. Special Tank for RDN

Transparent tank that provides high visibility for catheter use simulation with or without X-ray fluoroscopy. No more than six liters of water are required for training.

3. Pulsatile Pump

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、Leadless、EVT、RDN、Myocardial Biopsy Model

4. Tubes with Sheath

Number of tubes : 2 (8Fr)

5. Lubricant

1 fl. oz.
(lasts for 20 coatings)

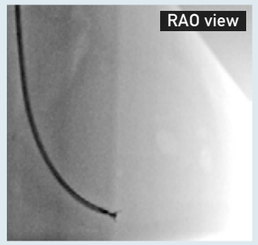
6. Hoses

▶ See P.20 in details

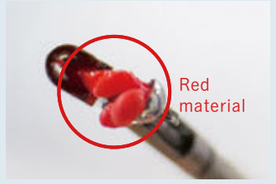
HEARTROID RDN model allows trainees to understand how to manipulate catheters during RDN (renal denervation) procedure with or without X-ray fluoroscopy.
With a pulsatile pump included in the set, blood flow from the aorta to the extremity can be simulated and verified by realistic angiographic imaging. We offer steeply angled renal branches, along with further customization depending on usage.

Myocardial Biopsy Model

Web



With this model, the myocardial biopsy procedure can be simulated under X-ray fluoroscopy, similar to the set-up in a real cath lab. The transparent heart model enables one to practice the procedure by confirming the direction of the sheath and forceps through both an X-ray image and a camera image.



Tissue removed from the ventricular septum.

Tissue removed from the ventricular free wall, not the ventricular septum.

As the material used to simulate the ventricular septum is different from that of the ventricular free wall, it is easy to confirm whether the tissue was removed from the appropriate area after the procedure. Using the X-ray image, it is possible to determine if the forceps are facing towards the free wall. The compact camera with a flexible arm can provide a clear image from various angles.

Basic Set

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

1. Heart Model for Myocardial Biopsy

The heart shape is designed based on the Four-Chamber Model. The septal part can be replaced. Please contact JMC for details.

2. Special Smart Tank

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、Ablation

3. Pulsatile Pump

Compatible with the following heart model

PCI、CTO、BIF、CABG、CAG、LAA、ASD、Ablation、PVI、EVT、RDN、Myocardial Biopsy Model

4. Tubes with Sheath
5. Lubricant
   1 fl. oz.
   (lasts for 20 coatings)
6. Hoses

HEARTROID System

"HEARTROID" is a training system with a heart model and a pulsatile pump for interventional cardiologists and medical students. This system offers clear angiographic images under X-ray fluoroscopy in the Cath lab, with a short prep time of only three minutes.

Heart model + Special Tank + Pulsatile Pump

Just pour water the tank and connect with the Heart model

Basic Set

Heart model

A 3D-printed models to practice coronary, structual, peripheral and ablation procedures. Ability to customize as needed.

Special Tank

Transparent tank that provides high visibility for catheter use simulation with or without X-ray fluoroscopy. No more than six liters of water are required for training.

Pulsatile Pump

Our uniquely-developed pulsatile pump can be set by 30-120 bpm (1200-4800ml/min in flow volume.). Realistic coronary images are obtained by particular patterns of the cylinder movement.

Sheath

Special tubes with sheath.

Lubricant

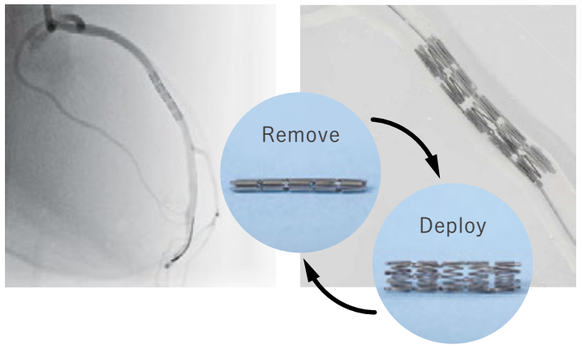
Special lubricant for coating the inner surface of the heart model.
1 fl. oz. (lasts for 20 coatings)

Hoses

Hose with one-touch joint.

Option Equipment

Reusable Training Stent

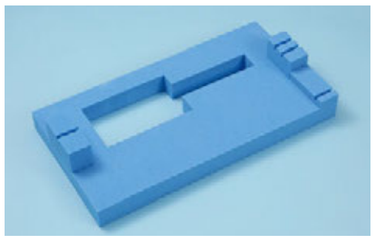


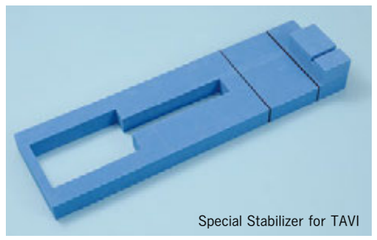
Used in Heart Coronary Model for PCI training. Deployed with a balloon catheter as for a real PCI procedure (not for human use) and easy to remove.

Camera Set

A compact camera with a flexible arm that can provide clear images from various angles.
Via the flexible arm, observation from various angles can be performed. Simple connection with a camera and monitor, a clear image can be attained.

Special Stabilizer





Special Stabilizer for TAVI

Special Stabilizer to stabilize the tank and sheath to make catheter manipulation easier.

Portable Stabilizer

A portable sheath stabilizer easy to store in a small portable case.

Special Carrying Case

Special Carrying Case (large)

Large carrying case customized for HEARTROID.
Total Outer Size: 730 x 515 x 325mm
Capacity: 96 liters
Capable of containing the basic set and special table.

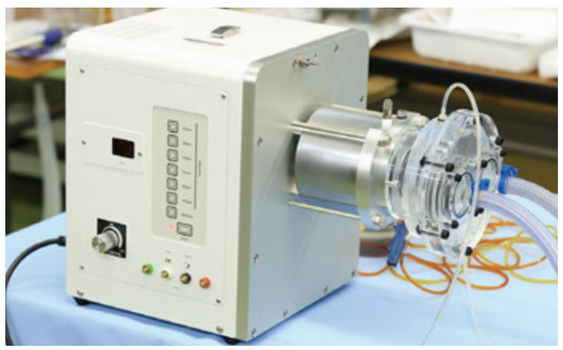
Special Carrying Case (small)

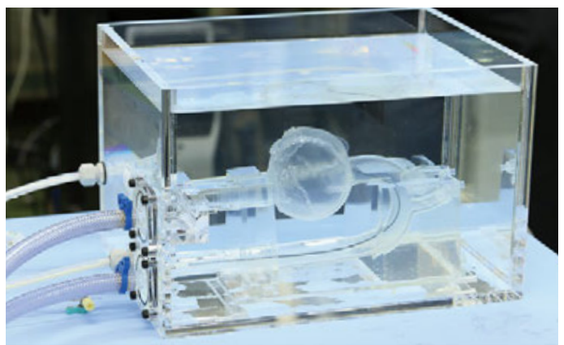
Small portable case customized for HEARTROID.
Total Outer Size: 540 x 360 x 250mm
Capacity: 40liters
Capable of containing the basic set.

Special Trunk

Total Outer Size: 390 x 745 x 409mm
Capable of containing the whole basic set.
boxCaseTrunk

HEARTROID for Research and Development

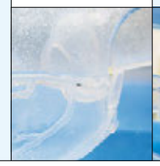
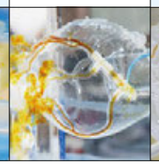
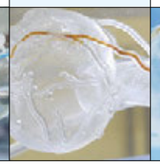
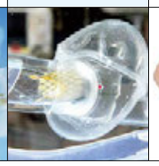
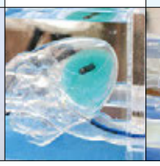




A high performance pump producing and controlling pulsatile flows and a water tank appropriate for various clinical scenarios and heart models are available. Please contact JMC for price and customization.

Product specifications can be customized and are subject to change without notice. Please contact JMC for details.

Compatibility List

HEARTROID MODEL		Coronary					Structure			Ablation			Peripheral		Others
		PCI Model	CTO Model	BIF Model	CABG Model	CAG Model	TAVI Model	LAA Closure Model	ASD Closure Model	Ablation Model	PVI Model	Leadless Model	EVT Model	RDN Model	Myocardial Biopsy Model
															
Basic Set															
Pulsatile Pump	Standard	●	●	●	●	●		●	●	●	●	●	●	●	●
	TAVI						●								
Special Tank	Smart	●	●	●	●	●				●					●
	TAVI						●								
	Wide for TEE							●	●						
	Wide										●	●			
	EVT												●		
	RDN													●	
Hoses		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sheath	Tubes with Sheath	● 6Fr, 8Fr	● 6Fr, 8Fr	● 6Fr, 8Fr	● 6Fr, 8Fr	● 6Fr, 8Fr	● 6Fr						● 8Fr × 2	● 8Fr × 2	● 10Fr × 2
	Tube with Sheath (24Fr)						● 24Fr	● 24Fr	● 24Fr	● 24Fr	● 24Fr	● 24Fr			
Lubricant		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Option															
Disease parts	CTO parts		●												
	Other disease parts	●	●	●	●										
Carry case	Large	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Small	●	●	●	●	●	●			●	●	●		●	●
Page		3 – 4 p	5 p	6 p	7 p		9 – 11 p	12 p	13 p	14 p	15 p	16 p	17 p	18 p	19 p