MicroPort CardioFlow

A New Force in TAVR

VitaFlow Liberty™

Aortic Valve and Delivery System

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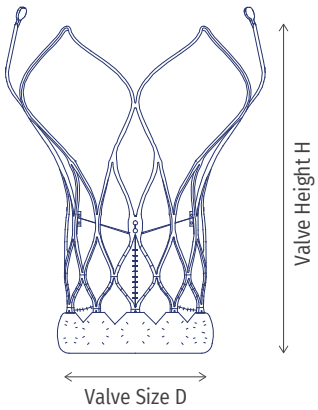
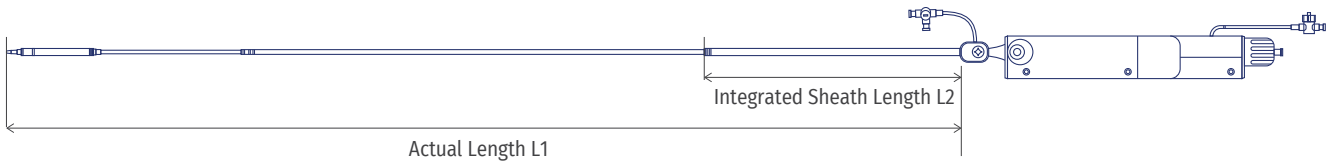
Aortic Valve

Product Code	Valve Size D (mm)	Aortic Annulus Diameter (mm)	Valve Height H (mm)
TAV21	21	17-20	50
TAV24	24	20-23	50
TAV27	27	23-26	53
TAV30	30	26-29	53



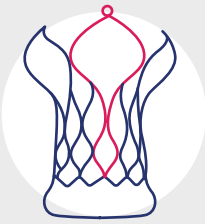


Delivery System

Product Code	Actual Length L1 (cm)	Integrated Sheath Length L2 (cm)
DSR21	112	30
DSR24	112	30
DSR27	112	30
DSR30	112	30

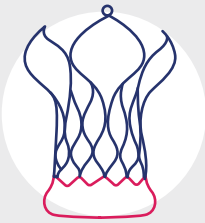
Electrically Enabled Delivery System

For control, stability and accuracy



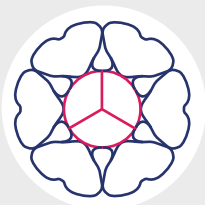
Hybrid Cell Density Frame

Catered to varied clinical needs at different stages of implantation



Advanced Double Layer PET Skirt

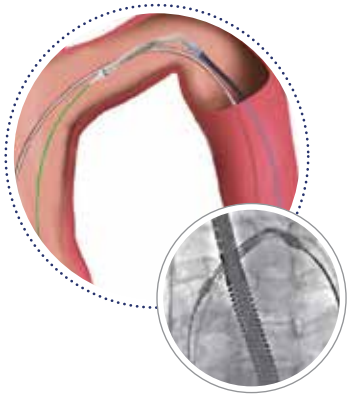
Prevent paravalvular leaks

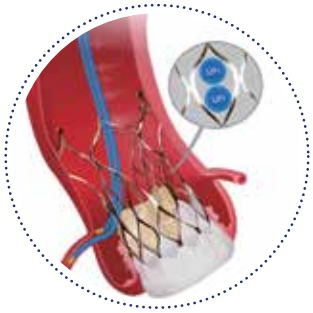


VITAL-X™ Anti-Calcification Technology with Bovine Pericardial Leaflets

Extended valve durability

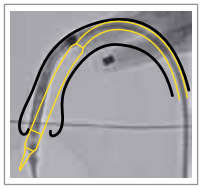
Hybrid Cell Density Frame





Low Density Cells provide an easy-to-bend section

- Enhanced deliverability, suitable for aortic arch with acute angulation
- Coaxial Alignment during valve deployment

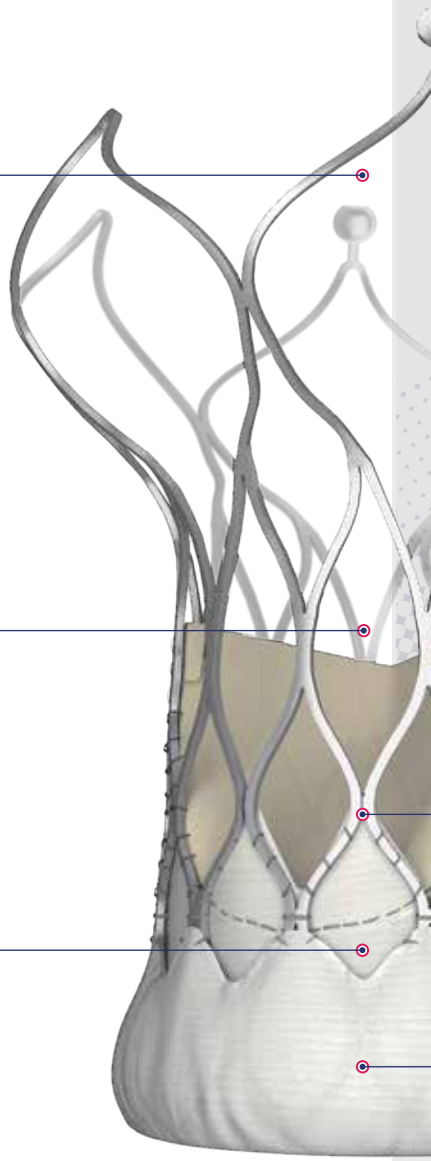


Large Cells preserve coronary access

- Able to simultaneously pass-through two 12F catheters*
- 14F catheter can easily pass-through

High Density Cells

- High radial force suited for heavily calcified and/or bicuspid valves
- Strengthens valve anchoring



* TAV24 and above

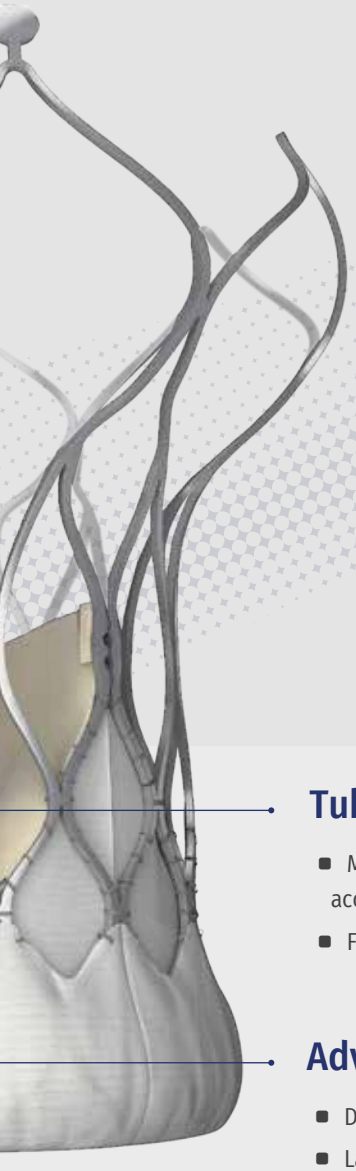
Extended Valve Durability

VITAL-X™ Anti-Calcification Technology

- Targets and prevents the valve calcification process
- Reduces the rate of structural valve deterioration (SVD)

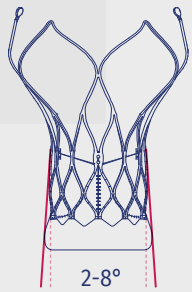
Bovine Pericardial Leaflets

- Durability proven with 40 years of clinical results



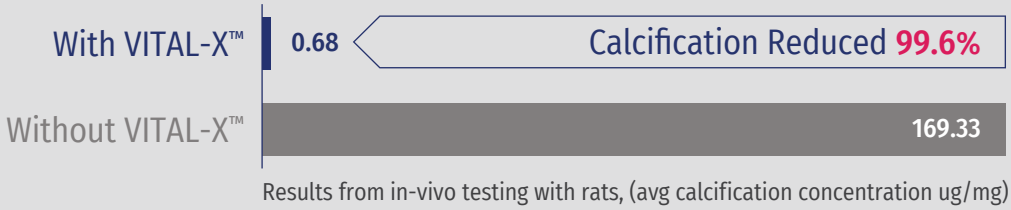
Tubular shaped frame

- Minimize downward pressure during deployment, improve deployment accuracy
- Forms better sealing with native annulus



Advanced double layer PET skirt

- Double layer PET skirt, 11-12mm in height
- Larger functional area for paravalvular leak prevention

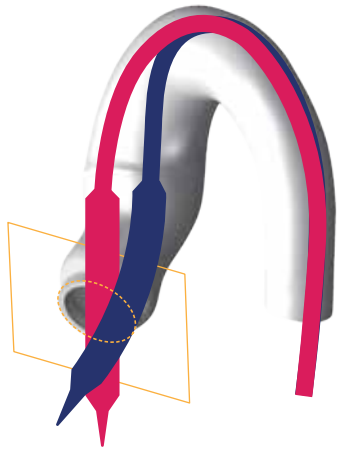


Results from in-vivo testing with rats, (avg calcification concentration ug/mg)

Electrically Enabled Delivery Device

Capsule with 360° range of motion

- Proprietary “doubly reinforced spiral design” enables 360° freedom of motion of the capsule
- Flexibility for coaxial alignment and valve positioning
- Ultra-deliverability well suited to complex anatomies



The world's first motorised recapturable TAVI System approved for marketing

Access and Stability

- 16F-equivalent integrated sheath that broadens vascular access
- Optimized outer stability layer for enhanced support during valve deployment

Valve release at the press of a button

- 1 for 1 instant response, for precise control when it matters most
- Easy to use, allows simultaneous control of guidewire during valve deployment
- Recapture and Reposition

MicroPort VitaFlow™ Transcatheter Aortic Valve System Pivotal Trial Results

Immediate Results, Proven Durability

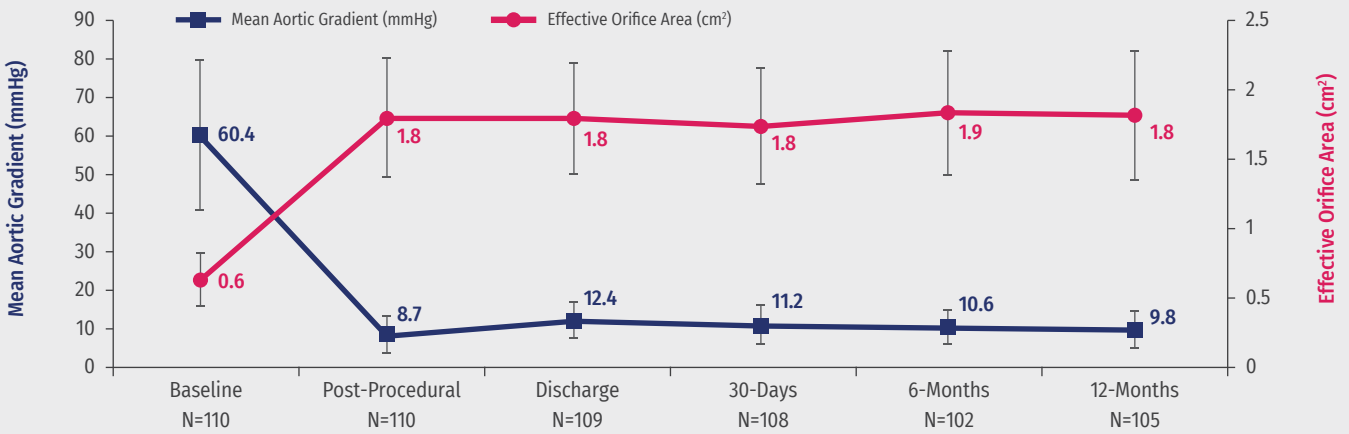
Study Design: Prospective, multicenter, single arm study

Patient Baseline

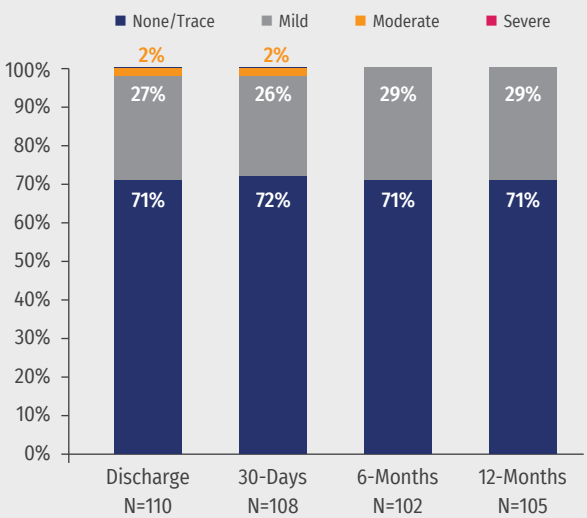
Total Patients: 110

Mean STS Score	8.84
Mean Age – Year	77.73
Bicuspid Aortic Valve	**42/110**
Tricuspid Aortic Valve	68/110
LVEF	57.22±12.00%
Effective Orifice Area – cm^2	0.64±0.19
Mean AV Gradient - mmHg	60.41±19.40

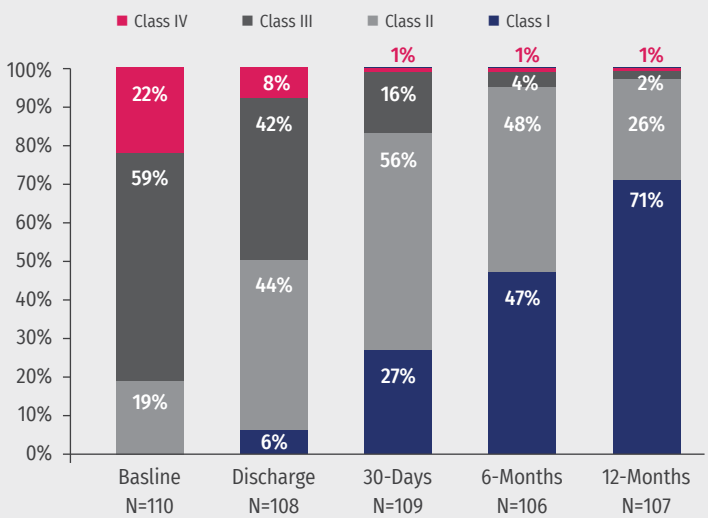
Significantly Improved Hemodynamics



No moderate and severe paravalvular leak after 6 months



Heart Function Recovery: 97% NYHA ≤ II at 12 months

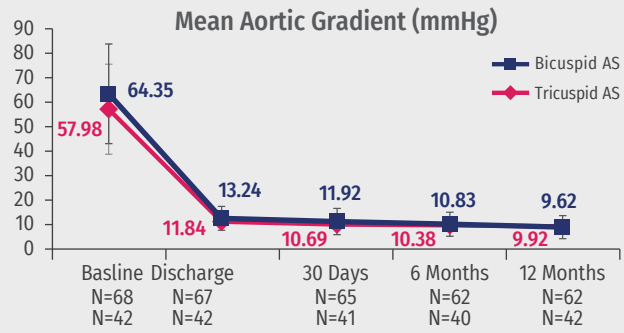


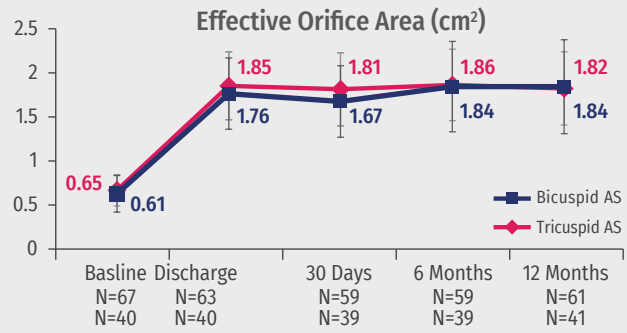
Comparable Clinical Results for Bicuspid vs Tricuspid Patients

Patient Baseline

Characteristic	Tricuspid AS N=68	Bicuspid AS N=42	*p*-Value
Age – Year	78.55±4.76	76.41±4.56	0.0223
STS Score	9.72±6.28	7.42±3.87	0.0190
LVEF	56.08±11.55%	59.06±12.62%	0.2060
Effective Orifice Area – cm^2	0.65±0.18	0.61±0.21	0.3712
Mean AV Gradient – mmHg	57.98±18.45	64.35±20.46	0.0945

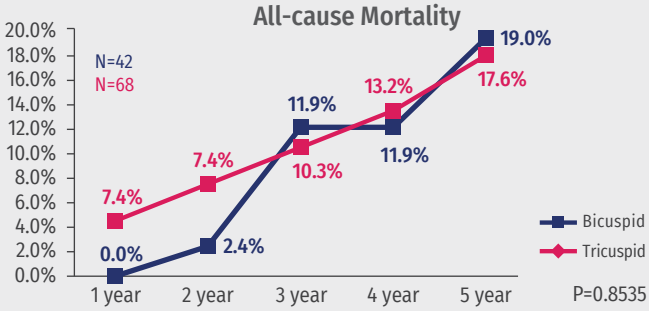
No significant difference between 1 year hemodynamic outcomes of bicuspid and tricuspid patients



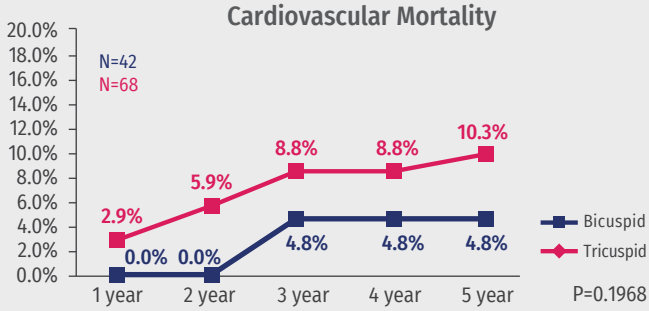


Comparable mortality outcomes at 5 year follow-up

For a high risk patient population (mean STS score: 8.84), mean age 77.7years
5 year cardiovascular related mortality at 8.2%, and all-cause mortality at 18.2%



No significant difference in all-cause mortality



No significant difference in cardiovascular mortality

Major clinical outcome for VitaFlow™ Pivotal Trial at 5 years

Clinical Outcomes	Discharge, % N=110	30-Day, % N=110	6-Month, % N=110	1-Year, % N=110	2-Year, % N=110	3-Year, % N=110	4-Year, % N=110	5-Year, % N=110
All-cause Mortality	0.9% (1)	0.9% (1)	2.7% (3)	2.7% (3)	4.5%(5)	10.9%(12)	12.7%(14)	**18.2%(20)**
Cardiovascular Mortality	0.9% (1)	0.9% (1)	1.8% (2)	1.8% (2)	2.7%(3)	7.2%(8)	7.2%(8)	8.2%(9)
All Stroke (Major & Minor)	1.8% (2)	2.7% (3)	4.5% (5)	4.5% (5)	7.3%(8)	11.8%(13)	12.7%(14)	**13.6%(15)**
Major Stroke	0.0%(0)	0.0%(0)	0.0%(0)	0.0%(0)	0.0%(0)	1.8%(2)	1.8%(2)	1.8%(2)
Major Vascular Complication	1.8% (2)	1.8% (2)	2.7% (3)	2.7% (3)	2.7% (3)	2.7%(3)	2.7%(3)	**2.7%(3)**
New Pacemaker Implantation	15.5% (17)*	16.4% (18)*	19.1% (21)*	19.1% (21)*	19.1% (21)*	20.0%(22)*	20.0%(22)*	20.0%(22)*

* 5.5% (6) patients with I°AVB

MicroPort CardioFlow

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