

**UNIQUELY DESIGNED**

**ONLY** hVAD<sup>®</sup>  
System

is **UNIQUELY**  
**DESIGNED**

Revolutionary design  
reduces complexity &  
increases durability.



**HeartWare<sup>®</sup>**

## Innovative pump design

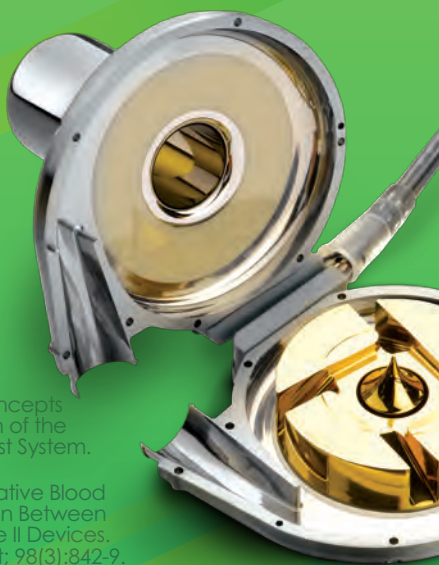
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- The HVAD<sup>®</sup> Pump has passive maglev with hydrodynamic bearings, so there's no need for electronic sensors or mechanical bearings. The result is a less complex system that eliminates friction, heat, and component wear.<sup>1</sup>
- The HVAD Pump has a patented, wide-blade impeller featuring 3 blood flow paths—primary, secondary, and tertiary—designed to enhance blood flow and proven to reduce blood trauma while reducing the time blood travels through the device.<sup>2</sup>
- The HVAD<sup>®</sup> System design includes features for washing while maintaining no points of stasis.<sup>1</sup>

## A system engineered for reliability and durability

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- Dual motor stators enhance system efficiency and provide power redundancy to rotate the impeller. If a driveline fault is detected, the controller switches from normal dual motor stator operation to single motor stator operation—without loss of support.<sup>1</sup>
- The durable driveline consists of 6 individually-wrapped coated wires encased in an abrasion-resistant outer sheathing. In over 10,000 implants, the HVAD System has no exchanges due to internal driveline fractures.<sup>3</sup>



1. LaRose J, et al. Design Concepts and Principal of Operation of the HeartWare Ventricular Assist System. ASAIO 2010; 285-289.
2. Haglund N, et al. Perioperative Blood Product Use: A Comparison Between HeartWare and HeartMate II Devices. Ann Thorac Surg 2014 Sept; 98(3):842-9.
3. HeartWare data on file.

**CAUTION:** Federal law (USA) restricts this device to sale by or on the order of a physician. Refer to the "Instructions for Use" for complete Indications for Use, Contraindications, Warnings, Precautions, Adverse Events and Instructions prior to using this device. The IFU can be found at [www.heartware.com/clinicians/instructions-use](http://www.heartware.com/clinicians/instructions-use).

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