


# aVAD vs. other LVADs

| COMPANY  | Thoratec  |  | HeartWare                  | ReliantHeart  |
|--|---|--|----------------------------|---|
| PRODUCT  | HeartMate II  | HeartMate III                                      | HVAD                       |  |
| WEIGHT (Grams)   | 292   | 220  | 145                        | 84  |
| PLACEMENT  | Below Diaphragm                                     | Pericardial Space                                  | Pericardial Space          | Pericardial Space   |
| TYPE   | Axial Flow  | Centrifugal  | Centrifugal                | Axial Flow  |
| MEASURABLE PULSATILITY (aids recovery)                                 | Minimal <sup>(2)</sup>                              | Not Evaluated                                      | Not Evaluated              | Yes <sup>(2)</sup>  |
| PATTERNS OF PUMP CREATED THROMBUS                                      | Reported <sup>(1)</sup> Stroke > 12% <sup>(4)</sup> | stroke rate of 12% 6 months of data <sup>(6)</sup> | stroke >28% <sup>(4)</sup> | Thrombus patterns Absent <sup>(1)</sup>   |
| HEMOLYSIS - Pfhgb vs. time at 5 liters/min                             | 16.67 <sup>(7)</sup>                                | 8.83 <sup>(7)</sup>                                |                            | 3.65 <sup>(7)</sup>   |
| BEARING SYSTEM   | Ball in Cup   | Active Magnetic Levitation                         | Active Magnetic Levitation | Active Magnetic Stabilization & Directional Retention                               |
| TRUE FLOW MEASUREMENT  |   |  |                            | ✓   |
| REMOTE MONITORING  |   |  |                            | ✓   |
| PATIENT DIARY - INR TRACKER  |   |  |                            | ✓   |
| Pump in or out of the Ventricle  | OUT   | OUT  | OUT                        | Intraventricular  |
| TET READY HA5 - Forward Compatibility to <i>Liberty</i> <sup>(3)</sup> |   |  |                            | 2018 <sup>(3)</sup>   |
| CE APPROVAL (Europe)   | ✓   | ✓  | ✓                          | ✓   |
| FDA TRANSPLANT ELIGIBLE (short)  | ✓   | In Trial   | ✓                          | 2017  |
| FDA DESTINATION (long)   | ✓   | In Trial   | In Trial                   | 2017  |

(1) Stony Brook Study, New York, December 1, 2013

(2) THI 2009 Report Frazier et. al.

(3) Forward compatibility - a design that gracefully accepts input designed for later versions of itself

(4) HeartWare Endurance 1 trial

(5) HeartAssist5 (rev6) EU commercial experience - minimal ischemic stroke

(6) Thoratec HeartMateIII, European Data on 50 patient study (doi:10.1016/j.jacc.2015.09.083)...published December 15, 2015

(7) Hemolysis Testing - Average Plasma free Hemoglobin (Pfhgb) vs. time testing performed at 5 liters/min. ReliantHeart aVAD - final report from Texas Heart Institute August 21, 2015. Data on file. HMII and HMIII data from Bourque et. al. ASIO Journal, published ahead of print May, 18, 2016.

ReliantHeart, 8965 Interchange Drive - Houston, TX 77054 - (713) 592 0913

ReliantHeart Europe, Erfstraat 10A 5405 BE, UDEN - The Netherlands - +31 (413) 245.107

**CAUTION Investigational Device.** The HeartAssist5 is a device limited by Federal law to investigational use in the United States. The HeartAssist5 has received CE Mark approval for distribution in Europe. ©2014 All Rights Reserved.