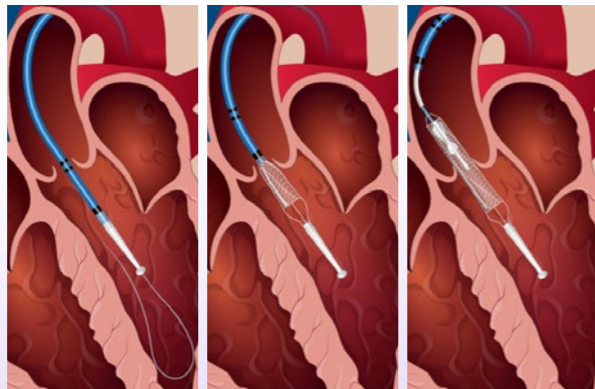


**HeartMate PHP**<sup>™</sup>  
  
Percutaneous Heart Pump<sup>™</sup>

INTRODUCING HEARTMATE PHP™

# HIGH FLOW LOW PROFILE

HeartMate PHP is a percutaneous heart pump that delivers the blood flow needed to quickly stabilise haemodynamically compromised patients and provide optimal haemocompatibility.



The covered nitinol cannula and integrated impeller expand from a low 13F insertion profile to 24F once across the aortic valve for near-physiological mean flow of over 4 L/min.<sup>1</sup> HeartMate PHP collapses to its original 13F dimension for device removal.

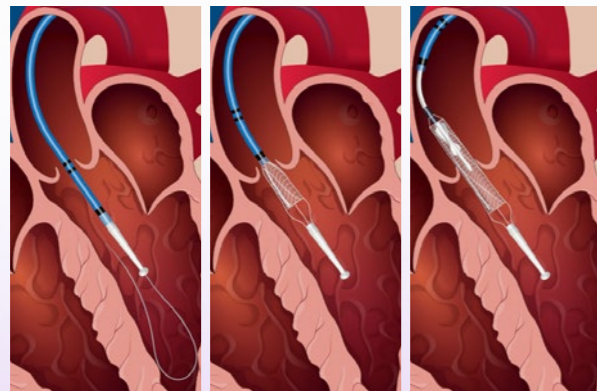
**HeartMate PHP**  
disrupts the  
traditional relationship  
between size and flow  
to provide care  
without compromise.



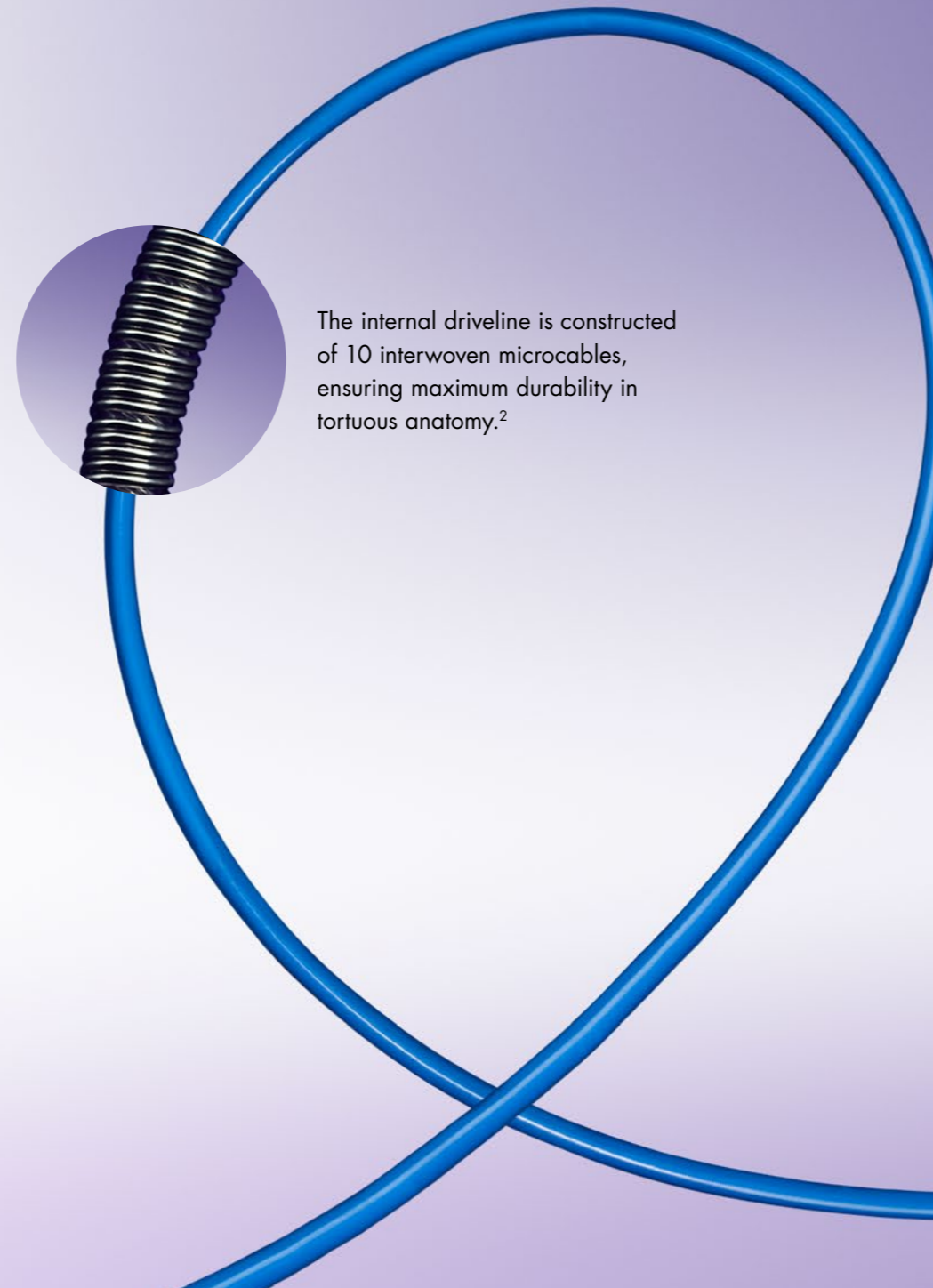
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The internal driveline is constructed of 10 interwoven microcables, ensuring maximum durability in tortuous anatomy.<sup>2</sup>

Compact, lightweight console offers a user-friendly touchscreen interface.



### Rapidly inserted and stable over time

- Provides haemodynamic support in minutes
- Radiopaque distal markers help ensure accurate placement
- Flexible catheter with variable stiffness accommodates heart motion and increases stability across the aortic valve over time



### Designed for gentle blood handling

The efficient 3-blade impeller is designed to minimise shear stress on blood moving through the device.<sup>2</sup> HeartMate PHP achieves high flow rates at operating speeds far lower than those of other catheter-based heart pumps.<sup>1,3</sup>

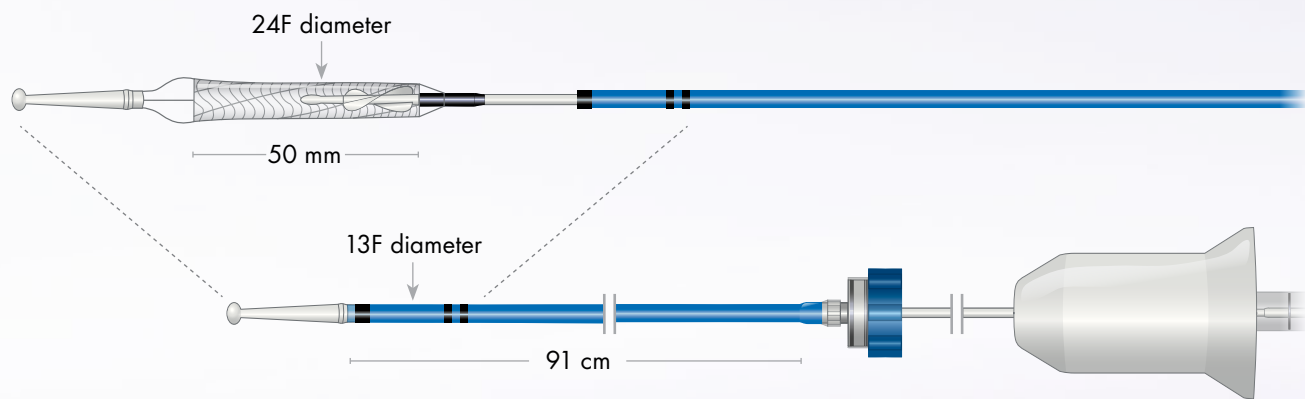
# High flow, low profile

- Provides wide 24F blood flow pathways for over 4 L/min of mean flow<sup>1</sup>
- Offers a low 13F insertion profile
- Stable once placed across the aortic valve
- Low shear stress on blood moving across the impeller<sup>2</sup>
- Reduces end-diastolic pressure, end-diastolic volume, and oxygen demand of the myocardium<sup>2</sup>

## Interim clinical results

- Maintained full haemodynamic stability during high-risk percutaneous coronary intervention in a first-in-human trial<sup>4</sup>
- No demonstrated need for adjunctive pharmacological or mechanical support<sup>4\*</sup>

## Dimensions



## Ordering information

Part number	Name	Description
10002111	HeartMate PHP Catheter	Single-use, catheter-based heart pump for use with HeartMate PHP Console
10002109	HeartMate PHP Console	Reusable control unit for use with HeartMate PHP Catheter

Contact your Thoratec representative to order or learn more about HeartMate PHP,<sup>™</sup> or go to [www.HeartMatePHP.com](http://www.HeartMatePHP.com)

\*Prospective, nonrandomised, single-arm, single-centre, open-label clinical evaluation of HeartMate PHP to assess its safety in supporting cardiovascular haemodynamics in 8 patients undergoing high-risk percutaneous coronary intervention.<sup>4</sup>

1. HeartMate PHP [instructions for use]. Pleasanton, CA; Thoratec Corporation; 2015. 2. Data on file, Thoratec Corporation; 2015. 3. Impella [instructions for use]. Danvers, MA; Abiomed, Inc; 2013. 4. Kandzari DE, Ebner A, Muller P. HeartMate PHP percutaneous heart pump: a novel high-flow circulatory support catheter. Presented at: TCT 2013; 28 October–1 November, 2013; San Francisco, CA.



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Percutaneous Heart Pump<sup>™</sup>