



Precision Engineered for  
Every Coronary Intervention



**VASMED**



Avery label J8162, 63 (9.91 x 3.81 cm)

**ACCEX™**  
0.014" PTCA Guidewire

## Engineered for Superior Control & Reliability

Meeting diverse challenges in modern interventional cardiology.

Successful Percutaneous Transluminal Coronary Angioplasty (PTCA) relies fundamentally on precise guidewire performance. Vasmed's comprehensive portfolio of 0.014" PTCA guidewires is engineered to meet the diverse challenges encountered in modern interventional cardiology, from navigating tortuous vessels to crossing complex lesions, including Chronic Total Occlusions (CTOs). Each wire from Vasmed is designed with specific material compositions and construction techniques to optimize critical performance characteristics.

### The Core of Performance: Advanced Materials & Design

At Vasmed, our guidewire designs incorporate advanced materials and manufacturing processes to achieve the superior control and reliability essential for successful interventions.

**Core Materials: The Foundation of Excellence** The choice of core material is pivotal for guidewire behavior. We utilize:

**High-Tensile Stainless Steel (SS)**  
Employed for its inherent ability to provide enhanced support and pushability. This makes SS core wires ideal for situations demanding robust shaft performance and device support.

**Super-Elastic Nitinol (NiTi) Alloys**  
Selected for exceptional flexibility, kink resistance, and shape memory. These properties are particularly beneficial in distal segments and for precise tip shaping, especially when navigating tortuous anatomy.

### Dual Core Strategy Strength & Flexibility, Precisely Delivered.

**Stainless Steel Cores:**  
Offer inherently high tensile strength, providing excellent pushability, support, and tactile feedback.

**Nitinol Cores/Components:**  
Leverage unique super-elastic and shape memory properties for exceptional flexibility and kink resistance.

### Precision Core Wire Processing

Unicore Design – For Stainless steel wires

Unicoil design – For coils with platinum tips

**Optimized Tapers:** Our guidewires are subjected to precision grinding techniques that create optimized tapers and core diameters.

**Balanced Performance:** This meticulous processing is key to balancing flexibility, support, and torque transmission effectively along the wire shaft.

**Enhanced Pushability & Torque:** Advanced annealing processes are incorporated into our core wire designs to improve support, torque, and pushability.

### Advanced Tip Technology: Navigating with Confidence

Special Platinum alloys to ensure superior visibility under fluoroscopy.

Seamless Transition: Advanced joining techniques, ensure a seamless and durable core-to-tip transition.

**Superior Visualization:** Radiopaque distal coils, typically made from Platinum-alloys, provide excellent fluoroscopic visualization for accurate placement.

**Purposeful Design:** Tip shaping is meticulously designed for atraumatic passage or, when needed, specific penetration capabilities. Our tips are engineered to resist deformation during navigation and device passage, while also allowing for user reshaping if necessary.

## Specialized Coatings & Performance Characteristics

Tailored Surfaces, Optimized Interaction

Guidewire performance is significantly influenced by its surface characteristics. Vasmed employs application-specific coating technologies to enhance interaction with the vasculature and optimize handling.

### Coating Technologies

**Enhancing Guidewire Performance** We provide a range of coatings to meet the specific demands of each procedure:

**Hydrophilic Coating – 3 Layer – Hydrashield Protection:** This coating is applied to reduce friction and enhance lubricity, significantly improving trackability and crossability.

**Hydrophobic Coating – Silicon – DuraPhobe Coating:** Designed to provide greater tactile feedback and optimal crossability. All our wires use this silicon- hydrophobic coating for optimal crossability.

**Polyurethane Coating – DuraThane Coating:** Offers a distinct balance of properties for specific applications, including its use on certain tip designs to support crossability.

Combination coating of above with specific sections coated with one polymer and other with another polymer.

### Surface Science for Success

Choose Your Glide & Feel

**Hydrashield Protection (Hydrophilic)**  
For maximum lubricity and smooth navigation.

**DuraPhobe Coating (Hydrophobic Silicon)**  
For precise tactile feedback and excellent crossability.

**DuraThane Coating (Polyurethane)**  
Durable performance for specific applications.



### Understanding Key Performance Characteristics

The optimal guidewire selection is driven by its performance characteristics. Our portfolio is designed to offer a comprehensive range:

**Tip Load (g):** Indicates the gram force required to cause buckling or significant deflection of the distal wire tip. It quantifies the tip's stiffness and penetration capability (higher load) versus its softness and potential for atraumatic navigation (lower load).

**Pushability:** The efficiency of transmitting axial force from the proximal end to the distal tip without energy loss or shaft buckling. Primarily determined by core material stiffness and shaft construction.

**Trackability:** Allows the distal section to follow the natural course of the vessel, including tortuous segments, without prolapsing or deviating. Influenced by distal flexibility, tip design, and shaft coatings. Varying taper designs allow for enhanced distal support or high flexibility for tortuous vessels.

**Crossability:** The capacity of the guidewire tip and distal segment to successfully navigate through tight stenotic lesions or complex obstructions. It is a function of tip profile, lubricity, tip load, and pushability.

**Torque Response (Steerability):** The fidelity of transmitting rotational force from the proximal manipulator to the distal tip, ideally at a 1:1 ratio, for precise directional control.

**Tip Shape Retention:** The ability of the formed tip shape to resist deformation during navigation and device passage, crucial for maintaining steering control.

## Workhorse & Support Solutions: Floppy & Regular Wires

### Reliable Performance for Everyday & Complex Needs

Vasmed offers a versatile range of guidewires designed for both atraumatic access and reliable workhorse performance, built on Stainless Steel and Nitinol platforms.



### Floppy Guidewires

**Atraumatic Access & Navigation** Designed for initial vessel access, navigating non-complex anatomy, and procedures where minimizing vessel trauma is paramount.

#### Key Characteristics:

**Tip Load: Ultra-low (< 0.7 gmf)** for maximum safety and atraumatic passage.

**Trackability: High degree of distal flexibility** allows effortless navigation in relatively straightforward anatomy.

**Tip Design: Soft, often shapeable tip** (e.g., J-curve) designed to prolapse safely if resistance is met.

**Material Insights:** Often utilize a Nitinol distal core for superior flexibility, kink resistance, and shape retention; may feature extensive hydrophilic coating for enhanced trackability.

### Gentle Navigation, Maximum Safety.

Ultra-low tip load (< 0.7 gmf) and high trackability.

### Regular / Workhorse Guidewires

**Balanced Performance** for Daily Use Engineered for a broad spectrum of coronary lesions and anatomies encountered in routine interventions, providing versatile and reliable performance.

#### Key Characteristics:

**Tip Load: Moderate (typically 0.8 – 0.9 gmf)**, balancing safety and lesion crossing capability.

**Pushability & Support: Good axial force transmission** for device delivery in common scenarios.

**Trackability & Torque: Reliable performance** in moderately tortuous vessels with responsive steering.

**Tactile Feedback:** Offers perceptible feedback to the operator.

**Material Options:** Available with both Nitinol and multiple stainless steel designs.

### The Everyday Standard: Versatile & Reliable.

Balanced tip load (0.8 – 0.9 gmf) for broad utility.

## Enhanced Support & Specialized Crossing Mastering Challenges with Enhanced Support & Crossability

For more demanding cases, Vasmed provides guidewires with enhanced support for device delivery and specialized designs for superior crossability.

### Support / Extra Support Guidewires:

**Enhanced Stability for Device Delivery** Ideal for cases requiring significant backup support for delivering bulky devices (stents, balloons), crossing calcified lesions, or utilizing anchoring techniques.

#### Key Characteristics:

**Pushability: Maximized** through stiffer shaft construction for superior axial force transmission.

**Support: Provides a stable rail**, minimizing catheter prolapse during device advancement.

**DuoCoil™ Design of the tip provide extra support for use with devices for Stent placement.**

**Tip Load: Moderate to high (Company Support/extra support Wire – between 0.8 – 1.1 gmf)**, offering sufficient support without overly compromising safety.

**Torque Response: Generally good**, though distal flexibility might be slightly reduced compared to workhorse wires to maximize support.

### Unwavering Stability

#### Deliver Devices with Confidence

Maximized pushability and a stable rail for complex interventions.

Enhanced Crossability Features Vasmed guidewires incorporate several design elements to support superior crossability through tight stenotic lesions or complex obstructions:

- **Coil Reinforced Tip**
- **Support Reinforced Tip**
- **Urethane Coated Tip**
- All our wires additionally use **Silicon – hydrophobic coating**, which allows for optimal crossability. These features are a function of tip profile, lubricity, appropriate tip load, and effective pushability.



## Nitinol Advantage

### Specialized Solutions: Nitinol Performance & CTO Mastery

Vasmed leverages advanced materials like Nitinol and purpose-built designs to address the most challenging anatomical variations and lesion types, including Chronic Total Occlusions (CTOs).

### The Nitinol Advantage

**Flexibility, Durability, Memory** Vasmed Nitinol Core / Component Wires harness the unique super-elastic and shape memory properties of Nitinol.

#### Key Characteristics:

**Exceptional Flexibility & Kink Resistance:** Ideal for navigating tortuous anatomy without compromising wire integrity.

**Superior Tip Shape Retention:** Maintains the desired tip shape even after navigating challenging paths, ensuring continued steering control.

**Versatility:** Nitinol is used in our Floppy wires for maximum atraumatic navigation and in some Regular/Workhorse designs for balanced performance.

**Super-Elastic Performance**  
Navigate the Unnavigable.

Nitinol cores for unmatched flexibility, kink resistance, and shape memory.

### CTO Guidewires

**Engineered for Crossing Chronic Total Occlusions** Specifically designed to penetrate and traverse challenging Chronic Total Occlusions, our CTO guidewires offer a dedicated solution for complex cases.

#### Key Characteristics:

**Tip Load: Graduated range, with moderate tip loads** (e.g., 3-6 gmf), allowing selection based on lesion morphology and crossing strategy.

Tapered distal coil section allows for easy crossability of the wire for CTO lesions.

**Pushability: Exceptional axial force transmission** is critical to deliver the necessary penetration force without buckling.

**Crossability: Often feature specialized tip designs** (e.g., tapered, hardened, non-tapered penetrating) and durable, lubricious coatings to facilitate entry and passage through resistant tissue.

**Torque Control: High-fidelity torque response** enables precise directional control within the occlusion.

## Performance Data

### Validated Performance You Can Trust

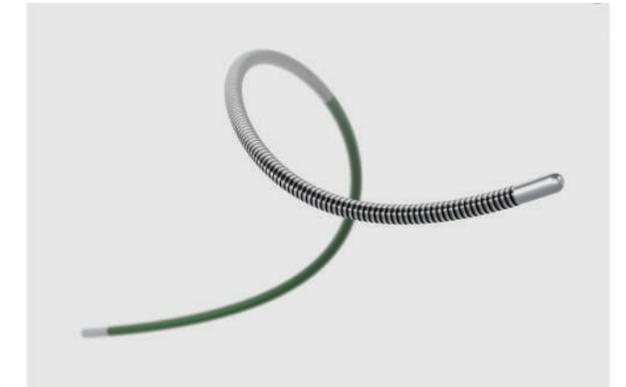
At Vasmed, we are committed to excellence. The performance of our 0.014" PTCA Guidewire Portfolio is rigorously evaluated to ensure it meets the demanding needs of interventional cardiology.

### Pushability & Trackability

**Engineered for Efficiency** Our guidewires, whether Stainless Steel or Nitinol core, are designed with advanced annealing processes and precision tapers to optimize pushability and trackability. This ensures efficient force transmission and faithful vessel navigation, even in tortuous segments.



Testing confirms the enhanced crossability of our specialized tip designs and coated wires in challenging lesion models.



1:1 torque response is consistently achieved, providing interventionalists with the direct control necessary for complex navigation and bifurcation stenting.

### Tip Load & Shape Retention

**Safety and Reliability** Our guidewires offer a range of tip loads to balance penetration power with atraumatic navigation. Tip shape retention is engineered to maintain control throughout the procedure.



**Data-Driven Design:**  
Confidence in Every Procedure.

Contact your Vasmed representative for comprehensive performance data and technical specifications.