## Pulsar-35

Self-expanding stent/0.035"/OTW Indicated for femoral and proximal popliteal arteries





- One-handed stent release for accurate stent deployment
- Tri-axial shaft for a stable delivery system during stent deployment
- S-articulating connecting bars and peak-to-valley design for multi-directional flexibility
- Segmented stent design with thin struts for lower restenosis rates





## Pulsar-35 Deliverability where it matters

Being a relatively mobile artery, the SFA requires a stent that conforms to the natural vessel movement and provides sufficient support in complex, long lesions that are often difficult to cross. Pulsar-35 is a stent designed for SFA with high multi-directional flexibility on a tri-axial delivery system.

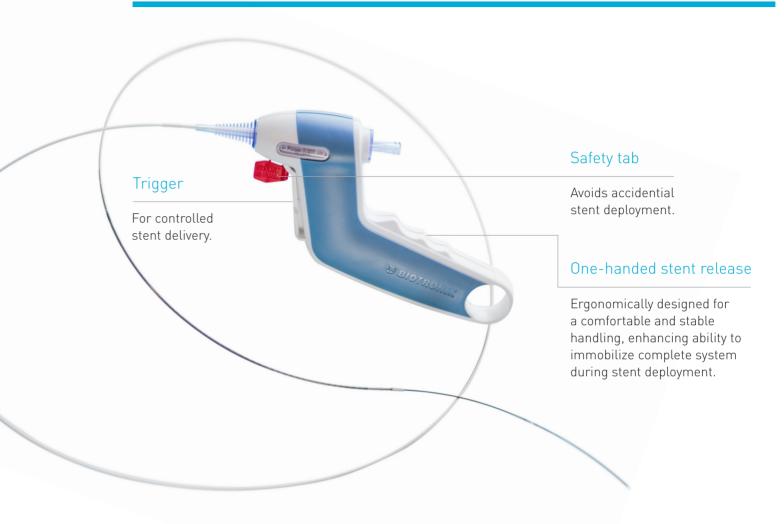
#### Tri-axial outer shaft

Isolates retractable shaft from friction caused by introducer valve, aimed at ensuring precision-like implantation accuracy.

Outer shaft
Retractable shaft
Inner shaft

Tri-axial catheter shaft

# Stent designed to achieve radial force and flexibility required by SFA



#### Stent designed for SFA

- Peak-to-valley design and S-articulating connecting bars provide multi-directional flexibility and avoid fish-scaling in mobile vessel architecture.
- A segmented design with thin struts provides low Chronic Outward Force (COF)<sup>1</sup> sufficient to maintain vessel scaffolding even in calcified lesions (4EVER study<sup>2</sup>). High COF has been shown to result in higher rates of neointimal hyperplasia<sup>3</sup>.
- Stent lengths up to 170 mm for covering long lesions with a single stent.





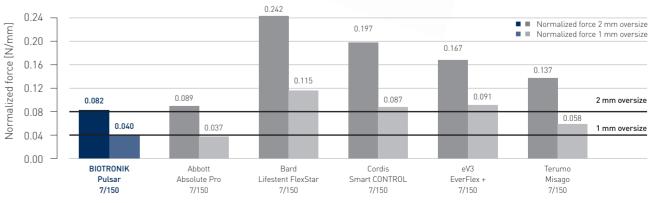
-Valley S-articulating

Peak-to-Peak

#### BIOTRONIK data on file (IIB report (P) 71/2011-1)

#### Low chronic outward force

Low Chronic Outward Force (COF)<sup>1</sup> sufficient to maintain vessel scaffolding even in calcified lesions (4EVER study<sup>2</sup>). As shown below, COF of Pulsar stents increases less than many competitor stents when oversized, thus potentially reducing inflammatory response and restenosis<sup>3</sup>.



BIOTRONIK data on file (IIB report (P) 71/2011-1

<sup>4</sup>EVER study. Bosiers. M. 24m results presented CIRSE 2013; Deloose K. 24m results presented LINC 2014

Ballyk PD. Intramural stress increases exponentially with stent diameter: a stress threshold for negintimal hyperplasia. J Vasc Interv Radiol. 2006 Jul. 17[7]: 1139-45

<sup>•</sup> Freeman JW, Snowhill PB, Nosher JL. A link between stent radial forces and vascular wall remodeling: the discovery of an optimal stent radial force for minimal vessel restenosic Connect Tissue Res. 2010 Aug; 51[4]: 314-26.

Zhao HQ, Nikanorov A, Virmani R, Jones R, Pacheco E, Schwartz LB. Late stent expansion and neointimal proliferation of oversized Nitinol stents in peripheral arteries.
 Cardiovasc Intervent Radiol. 2009. Jul. 32(4): 720-6.

### Pulsar-35

## Self-expanding stent/0.035"/OTW

| Technical Data       |    | Stent                  |                  |  |         |                                    |        |        |        |        |        |  |
|----------------------|----|------------------------|------------------|--|---------|------------------------------------|--------|--------|--------|--------|--------|--|
|                      |    | Catheter type          |                  |  |         | OTW                                |        |        |        |        |        |  |
|                      |    | Recommended guide wire |                  |  |         | 0.035"                             |        |        |        |        |        |  |
|                      |    | Stent material         |                  |  |         | Nitinol                            |        |        |        |        |        |  |
|                      |    | Strut thickness        |                  |  |         | 140 μm                             |        |        |        |        |        |  |
|                      |    | Strut width            |                  |  |         | 85 μm                              |        |        |        |        |        |  |
|                      |    | Stent coating          |                  |  |         | proBIO (Amorphous Silicon Carbide) |        |        |        |        |        |  |
|                      |    | Stent ma               | ırkers           |  | 6 gold  | 6 gold markers each end            |        |        |        |        |        |  |
|                      |    | Sizes                  |                  |  | ø 5.0 - | ø 5.0 - 7.0 mm; L: 30 - 170 mm     |        |        |        |        |        |  |
|                      |    | Proximal               | shaft            |  | 6F, hy  | 6F, hydrophobic coating            |        |        |        |        |        |  |
|                      |    | Usable length          |                  |  | 90 and  | 90 and 135 cm                      |        |        |        |        |        |  |
|                      |    |                        |                  |  |         |                                    |        |        |        |        |        |  |
|                      |    | C1 1                   | 0.11             | 00   |         |                                    |        |        |        |        |        |  |
| Ordering Information |    | Stent<br>ø (mm)        | Stent leng       | l <mark>ength 90 cm</mark><br><sub>J</sub> th (mm) |         |                                    |        |        |        |        |        |  |
|                      |    |                        | 30               | 40   | 60      | 80                                 | 100    | 120    | 150    | 170    | 200    |  |
|                      |    | 5.0                    | 379878           | 379879   | 379880  | 379881                             | 379917 | 379918 | 379919 | 379920 | 379921 |  |
|                      | 6F | 6.0                    | 379883           | 379884   | 379885  | 379886                             | 379922 | 379923 | 379924 | 379925 | 379926 |  |
|                      |    | 7.0                    | 379888           | 379889   | 379890  | 379891                             | 379927 | 379928 | 379929 | 379930 | 379931 |  |
|                      |    |                        |                  |  |         |                                    |        |        |        |        |        |  |
|                      |    | Stent                  | $\boldsymbol{J}$ |  |         |                                    |        |        |        |        |        |  |
|                      |    | ø (mm)                 | Stent len        | gth (mm)   |         |                                    |        |        |        |        |        |  |
|                      |    |                        | 30               | 40   | 60      | 80                                 | 100    | 120    | 150    | 170    | 200    |  |
|                      |    | 5.0                    | 379898           | 379899   | 379900  | 379901                             | 379937 | 379938 | 379939 | 379940 | 379941 |  |
|                      | 6F | 6.0                    | 379903           | 379904   | 379905  | 379906                             | 379942 | 379943 | 379944 | 379945 | 379946 |  |
|                      |    | 7.0                    | 379908           | 379909   | 379910  | 379911                             | 379947 | 379948 | 379949 | 379950 | 379951 |  |
|                      |    |                        |                  |  |         |                                    |        |        |        |        |        |  |

Pulsar-35 is part of the BIOTRONIK 6F Solutions portfolio, including:

■ Introducer Sheath: Fortress ■ Balloons: Passeo-35, Passeo-35 HP ■ Stents: Dynamic, Astron

For ordering please contact your local sales representative

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