



Bionert Small			
Diameter (mm)	Length (mm)	Profile (inches)	Reference
2,0	9	0,034	55209
2,0	14	0,034	55204
2,0	19	0,034	55200
2,25	9	0,035	55229
2,25	14	0,035	55224
2,25	19	0,035	55220
2,50	9	0,037	55259
2,50	14	0,037	55254
2,50	19	0,037	55250
2,50	23	0,037	55253
2,50	28	0,037	55258
2,75	9	0,038	55279
2,75	14	0,038	55274
2,75	19	0,038	55270
2,75	23	0,038	55273
2,75	28	0,038	55278

Bionert			
Diameter (mm)	Length (mm)	Profile (inches)	Reference
3,0	9	0,038	55309
3,0	14	0,038	55314
3,0	18	0,038	55318
3,0	23	0,038	55323
3,0	28	0,038	55328
3,0	36	0,038	55336
3,5	9	0,039	55359
3,5	14	0,039	55354
3,5	18	0,039	55358
3,5	23	0,039	55353
3,5	28	0,039	55350
3,5	36	0,039	55356
4,0	9	0,040	55409
4,0	14	0,040	55414
4,0	18	0,040	55418
4,0	23	0,040	55423
4,0	28	0,040	55428
4,0	36	0,040	55436
4,5	14	0,041	55454
4,5	18	0,041	55458
4,5	23	0,041	55453
4,5	28	0,041	55450
4,5	36	0,041	55456

Bionert®

Inert coronary stent

Simply the best BMS



Rated burst: 16 atm.
Average burst pressure: 22 atm.

Device restricted for use by a Doctor or on the order of a physician.
Prior to use, please read all precautionary statements and possible complications specified in attached instructions for use.





Bionert®

Inert coronary stent

Bionert is a bare metal coronary stent treated with innovative ionic implantation technology that ensures low restenosis.



Innovative ionic implantation technology developed by Iberhospitex ensures low restenosis rate for new Bionert Stent ⁽¹⁾

IONIC OXYGEN IMPLANTATION

Surgical stainless steel 316 LVM is treated with O₂ ion jets impinging with high energy acceleration. As a result, O₂ ions are trapped in the metal lattice, binding heavy metal ions (Ni, Mo, amongst others) and preventing their free migration to the stent's surface and further reaching the arterial wall. The result is a biologically inert stent.



This treatment reduces:

Cellular proliferation by blocking Nickel ion migration.

Inflammation by induced surface passivation.

Platelet adhesion by suppressing surface microfissures during expansion.

BIOSAS Study

6-month angiographic follow-up:

- Binary restenosis: 10,8%
- TLR: 3,3%
- Late Loss (mm): 0,82 ± 0,32
- MACE: 4,6%

Bionert
the guaranty for
low restenosis
in BMS

A perfect fit for every vessel

Based on Apolo 3 and Apolo Small designs.

Bionert

Metal surface area at expansion Metal/artery ratio (18 mm stent)

3,00 mm ø	16,9%
3,50 mm ø	14,4%
4,00 mm ø	12,6%
4,50 mm ø	11,2%

Main area Strut width

Center:	0,125 mm	0,0049"
Curve:	0,115 mm	0,0045"
Connector:	0,085 mm	0,0033"

Strut thickness 0,0045"

Bionert Small

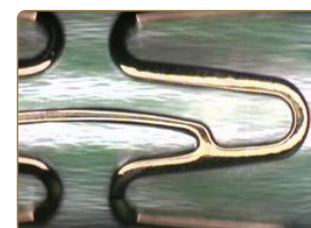
Metal surface area at expansion Metal/artery ratio (19 mm stent)

2,00 mm ø	17,9%
2,25 mm ø	15,9%
2,50 mm ø	14,3%
2,75 mm ø	13,0%

Main area Strut width

Centre:	0,115 mm	0,0045"
Curve:	0,105 mm	0,0041"
Connector:	0,085 mm	0,0033"

Strut thickness 0,0037"



High flexibility 1000mN

Bionert recoil 1,4%

Bionert small recoil 1%

(1) Bibliography:

• Growth inhibition of cultured smooth muscle cells by corrosion products of 316 L stainless steel wire. Shih CC, et al. J Biomed Mater Res Nov; 57(2):200-7 • Evaluation of metal allergies in patients with coronary stents. Hillen U, et al. Contact Dermatitis. 2002 Dec; 47(6): 353-6 • Nickel and molybdenum contact allergies in patients with coronary in-stent restenosis. Ralf Köster, et al. The Lancet Volume 356, Number 9245, 02 December 2000 • Corrosion testing of stents: a novel fixture to hold entire device in deployed form and finish. Venugopalan R. J Biomed Mater Res 1.999; 48(6): 829-32