Consistent with MAQUET Vascular Interventions’ policy of continuous improvement, the company has sought to develop an antimicrobial graft with increased efficacy than that of the current INTERGARD SILVER. The resultant product, INTERGARD SYNERGY, is made of polyester and coated with a highly purified form of cross-linked bovine collagen to minimize intra-operative bleeding and eliminate the need for preclotting at the time of implant. In addition to collagen, the INTERGARD SYNERGY vascular prosthesis comprises silver acetate and triclosan, providing improved antimicrobial properties without compromising safety.

In the test protocols, the INTERGARD SYNERGY vascular prosthesis demonstrated antimicrobial efficacy against a broad spectrum of microorganisms including MRSA (Methicillin Resistant Staphylococcus Aureus). In addition, it was also shown that the INTERGARD SYNERGY vascular prosthesis was substantially more effective when compared against the predicate device INTERGARD SILVER.

This new antimicrobial graft, combining those two well-known antimicrobial agents, silver acetate and triclosan should be considered an adjunct to current surgical practice.

INTERGARD SYNERGY
THE NEXT GENERATION ANTIMICROBIAL GRAFT

Consistent with MAQUET’s continuous innovation policy, INTERGARD SYNERGY is the first vascular prosthesis combining two well-known antimicrobial agents: silver acetate and triclosan. While those antimicrobial agents are effective alone, their power to prevent development of infection intensifies when combined, offering increased antimicrobial properties than the existing available vascular prosthesis on the market.

About graft infections
- 40-75% amputation rate and 25-75% mortality rate,\(^1,3,4\)
- Rates of incidence range from 1-6%,\(^2,3,4\)
- Greater than 90% of patients have one or more risk factors for the development of graft infection.\(^7\)

Severe economic impact of vascular graft infection
- The estimated cost of combined medical and surgical treatment of infections associated with vascular grafts is $40,000.\(^8\)
- Cost to treat an infected vascular graft is more than 3 times the cost of the original surgical procedure.\(^5\)

The majority of vascular graft infections occur at the time of implant, or in the immediate postoperative period\(^9\)
- The release profile of the combined silver and triclosan is designed to be most active during the initial 24 hours post implant, with continuous and substantial release for a 6 days period.\(^6\)
- In vitro and in vivo testings have proven the effectiveness of INTERGARD SYNERGY against a broad spectrum of microorganisms including MRSA and Staph Epi, with sustained effectiveness beyond 7 days.\(^6,7\)

REFERENCES
FACTS ON INTERGARD SYNERGY

ASTM E 2149 test method, formerly known as Dow Corning Shake Flask Test, is designated to evaluate the resistance of non-leaching antimicrobial treated specimens to growth of bacteria under dynamic contact conditions.

INTERGARD SYNERGY shows higher efficacy, especially on MRSA, compared to INTERGARD SILVER or other silver grafts available on the market.

**Kill time test results against MRSA**

Kill time test is a quantitative contact test to determine the number of viable micro-organisms present on the graft after various exposure times. While both INTERGARD and SYNERGY INTERGARD SILVER showed bactericidal efficacy against MRSA in this standard in vitro method, INTERGARD SYNERGY shows significant colony count reduction. The antimicrobial threshold is reached significantly faster with INTERGARD SYNERGY compared to any antimicrobial graft available on the market. Both grafts showed bactericidal efficacy against MRSA in this standard in vitro method.
Combined silver ions and triclosan molecules exert their antimicrobial effect on bacteria through several distinct mechanisms of action.¹⁰

1. Silver ions bind to the phospholipid layer, penetrate and change the permeability of the bacterial cell wall.
2. Silver ions bind to functional proteins and interfere with cellular respiration.
3. Silver ions bind with the bases in the bacterial DNA molecule and inhibit cell division.
4. Silver ions inactivate enzymes by binding to sulfhydryl groups in the proteins.
5. Triclosan molecules inhibiting the fatty acid synthase.

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**PHYSICAL AND MECHANICAL PROPERTIES***

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<td>Cross-linked Type I bovine collagen</td>
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<td>45° suture retention**</td>
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** Test results are for customer evaluation only and do not represent a product specification.
## INTERGARD SYNERGY

### PRODUCT INFORMATION

### RADIALLY SUPPORTED GRAFTS

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<th>Distal Length</th>
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### ULTRATHIN RADIALLY SUPPORTED

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Local contact:

Place Sticker here

GETINGE GROUP is a leading global provider of products and systems that contribute to quality enhancement and cost efficiency within healthcare and life sciences. We operate under the three brands of ArjoHuntleigh, GETINGE and MAQUET. ArjoHuntleigh focuses on patient mobility and wound management solutions. GETINGE provides solutions for infection control within healthcare and contamination prevention within life sciences. MAQUET specializes in solutions, therapies and products for surgical interventions and intensive care.