

GENERAL OPEN SURGERY

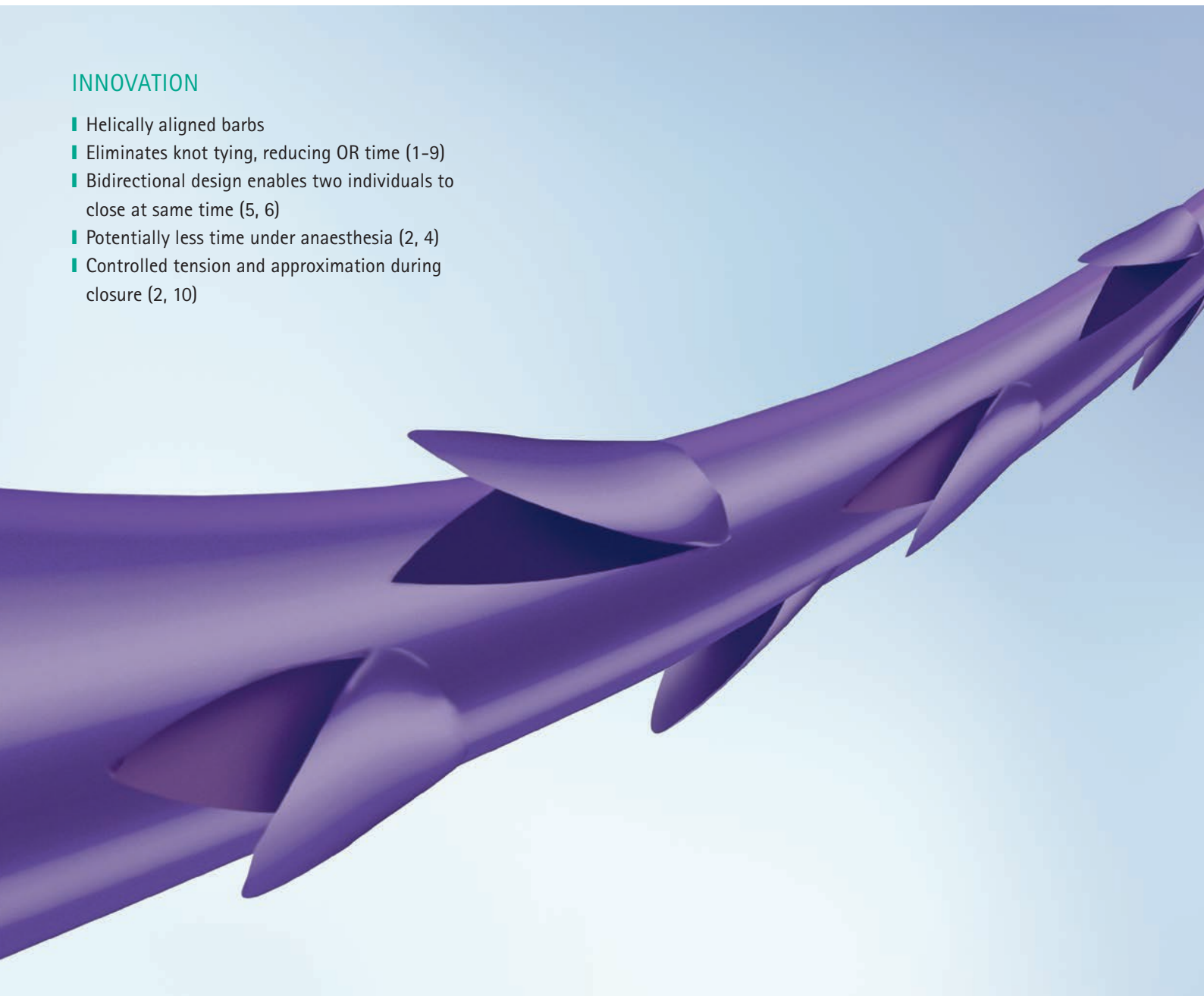
QUILL™
KNOTLESS TISSUE-CLOSURE DEVICE

QUILL™

KNOTLESS TISSUE-CLOSURE DEVICE

INNOVATION

- Helically aligned barbs
- Eliminates knot tying, reducing OR time (1-9)
- Bidirectional design enables two individuals to close at same time (5, 6)
- Potentially less time under anaesthesia (2, 4)
- Controlled tension and approximation during closure (2, 10)



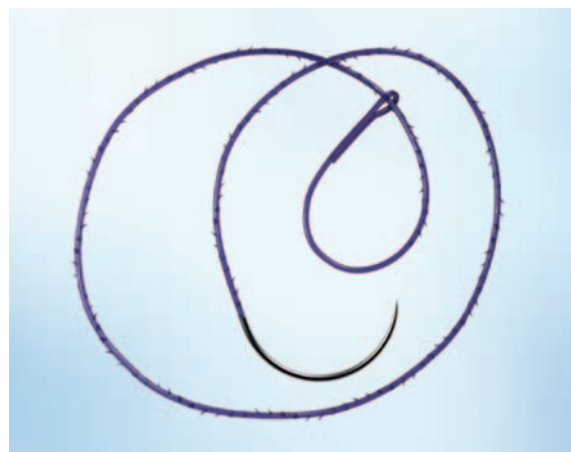


VERSATILE KNOTLESS TISSUE-CLOSURE DEVICE

- The original barbed suture launched in 2007
- Used in more than 25 million surgical cases
- Studied in more than 80 clinical papers
- Complete range of absorbable and non-absorbable materials and configurations including Monoderm™, PDO and Polypropylene
- More than 200 SKUs available in sizes 5-0 to 2 (11)



QUILL™ Knotless Tissue-Closure Device
Bidirectional Design



QUILL™ Variable Loop Device
Unidirectional Design






QUILL™

KNOTLESS TISSUE-CLOSURE DEVICE



MATERIALS GUIDE (11)





| Material Absorbable | Material Description | BSR Profile | Mass Absorption |
|---|--|---|---|
| Monoderm™ (PGA - PCL)  | Monofilament ■ Undyed (clear) ■ Violet | In vivo strength retention: 42% to 76% at 7 days 36% to 52% at 14 days | Essentially complete between 90 and 120 days |
| PDO (polydioxanone)  | Monofilament ■ Violet | In vivo strength retention: QUILL™ device size: Gauge 3/0 & larger Gauge 4/0 80% at 2 weeks 67% at 2 weeks 60% at 4 weeks 50% at 4 weeks 40% at 6 weeks 37% at 6 weeks | Minimal until approximately 120 days Essentially complete by 180 days |
| Polypropylene  | Monofilament ■ Undyed (clear) | | Polypropylene is not absorbed, nor is any significant change in tensile strength retention known to occur in vivo |




BARIATRIC & UPPER GI SURGERY

NEEDLE-THREAD COMBINATIONS




NISSEN FUNDOPLICATION


| Gastric Fundus Plication | | | | | | | | |
|--------------------------|---|--------|--------------------|-----|-----|----------------------|----------|----------------------|
| Material | Needle | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | 0 | 1 | 2 |
| PDO | 22 mm, 1/2 Circle Taper Point  | Violet | 14 x 14 | | | | RA-1088Q | |
| PDO | 26 mm, 1/2 Circle Taper Point  | Violet | 10 x 10 14 x 14 | | | RA-1078Q RA-1079Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point  | Violet | 7 x 7 14 x 14 | | | RX-1068Q RX-1069Q | RA-1003Q | |
| PDO | 36 mm, 1/2 Circle Taper Point  | Violet | 15 20 30 | | | VLP-1001 VLP-1002 | | VLP-2030 VLP-2032 |

HIATAL & PARAESOPHAGEAL HERNIA

| Crura | | | | | | | | |
|---------------|---|--------|-------------|-----|-----|-----|---|----------|
| Material | Needle | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | 0 | 1 | 2 |
| Polypropylene | 36 mm, 1/2 Circle Taper Point  | Undyed | 24 x 24 | | | | | JA-1007Q |

GASTRECTOMY



| Oversew Staple Line (Stomach) | | | | | | | | |
|-------------------------------|--|--------|-------------|-----|-----|---|----------|----------|
| Material | Needle | Color | Length (cm) | USP | | | | |
| | | | | 3/0 | 2/0 | 0 | 1 | 2 |
| PDO | 22 mm, 1/2 Circle Taper Point  | Violet | 14 x 14 | | | | RA-1088Q | |
| PDO | 36 mm, 1/2 Circle Taper Point  | Violet | 14 x 14 | | | | RA-1003Q | |
| PDO | 36 mm, 1/2 Circle Taper Point  | Violet | 45 | | | | | VLP-2025 |

| Omentalpexy | | | | | | | | |
|-------------|---|--------|-------------|-----|----------|----------|---|---|
| Material | Needle | Color | Length (cm) | USP | | | | |
| | | | | 3/0 | 2/0 | 0 | 1 | 2 |
| PDO | 26 mm, 1/2 Circle Taper Point  | Violet | 15 30 | | VLP-2021 | VLP-2009 | | |



CARDIOVASCULAR SURGERY



NEEDLE-THREAD COMBINATIONS

CABG





| Sternal Closure | | | | | | | | |
|-----------------|-----------------------------------|---|--------|-------------|-----|----------|-----|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 60 | | VLM-2002 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 | | VLM-2012 | | |

THORACIC

| Thoracotomy Closure | | | | | | | | |
|---------------------|-----------------------------------|---|--------|-------------|-----|----------|-----|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 60 | | VLM-2002 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 | | VLM-2012 | | |

| VATS Lobectomy – Extraction Site Closure | | | | | | | | |
|--|--|---|--------|-------------|-----|----------------------|----------|---|
| Material | Needle | | Color | Length (cm) | 4/0 | 3/0 | USP | |
| | | | | | | | 2/0 | 0 |
| | | | | | | | | 1 |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 60 | | | VLM-2002 | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | | VLM-3008 VLM-2018 | | |













EP CATH LAB PACEMAKER





| Pacemaker Pocket | | | | | | | | |
|------------------|---|---|--------|-------------|----------|----------|----------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | 0 | 1 | 2 | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 | VLM-3008 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 20 | | | VLP-1001 | |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | | VLP-2010 |

COLORECTAL SURGERY

NEEDLE-THREAD COMBINATIONS

LOWER ANTERIOR RESECTION














| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|--|--------------------------|--------------------------|----------------------------------|----------------------------------|----------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1023Q-0 | YA-1015Q-0 YA-1024Q-0 | | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | 19 eil.nr | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 45 70 | | | VLP-1004 VLP-2012 | | VLP-2032 VLP-2024 |





| Oversew Staple Line | | | | | | | | |
|---------------------|----------------------------------|---|--------|--------------------|-----|-----|----------------------|----------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| PDO | 22 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 | | | | RA-1088Q |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 10 x 10 14 x 14 | | | RA-1078Q RA-1079Q | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 7 x 7 14 x 14 | | | RX-1068Q RX-1069Q | RA-1003Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 45 | | | | VLP-2032 VLP-2025 |

COLORECTAL SURGERY

NEEDLE-THREAD COMBINATIONS

SIGMOIDECTOMY / PARTIAL SIGMOIDECTOMY













| Subcutaneous | | | | | | | | |
|--------------|--|---|------------------|--|--------------------------|--------------------------|----------------------------------|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1023Q-0 | YA-1015Q-0 YA-1024Q-0 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Undyed Violet | 15 30 | | VLM-2014 VLM-1021 | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 45 70 | | | VLP-1004 VLP-2012 | VLP-2032 VLP-2024 |









| Oversew Staple Line | | | | | | | | | |
|---------------------|-------------------------------|---|--------|----------------------|-----|-----|----------------------|----------|----------------------------------|
| Material | Needle | | Color | Length (cm) | USP | | | | |
| | | | | | 3/0 | 2/0 | 0 | 1 | 2 |
| PDO | 22 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 | | | | RA-1088Q | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 10 x 10 14 x 14 | | | RA-1078Q RA-1079Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 7 x 7 | | | RX-1069Q RX-1068Q | RA-1003Q | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 15 20 30 45 | | | VLP-1001 VLP-1002 | VLP-2015 | VLP-2030 VLP-2032 VLP-2025 |

GENERAL SURGERY



NEEDLE-THREAD COMBINATIONS

LAPAROTOMY CLOSURE

| Subcutaneous | | | | | | | | | |
|--------------|--|---|------------------|-----------------------------|--------------------------|--------------------------|----------------------|---|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | YA-1004Q | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 7 x 7 14 x 14 30 x 30 | | YA-1015Q-0 YA-1024Q-0 | YA-1010Q | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | YA-1014Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Reverse Cutting |  | Undyed | 36 x 36 45 x 45 | | | YA-2036Q YA-2035Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Undyed Violet | 15 30 | | VLM-2014 VLM-1021 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |

| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|--|----------------------|----------------------|--------------------------------------|----------------------------------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 19 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 | VLP-2029 | VLP-2001 | | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 60 | | VLP-2026 VLP-2027 | | | |
| PDO | 13 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3021 VLP-3022 | | | | |
| PDO | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3026 | VLP-3027 VLP-3028 | | | |
| PDO | 24 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 30 | | VLP-3029 | | | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | VLP-1004 VLP-2012 | | VLP-2024 |














HIATAL & PARAESOPHAGEAL HERNIA









| Crura | | | | | | | | | |
|---------------|-------------------------------|---|--------|-------------|-----|-----|-----|----------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Polypropylene | 22 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 | | | | JA-1050Q | |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |

GENERAL SURGERY

NEEDLE-THREAD COMBINATIONS

VENTRAL HERNIA







| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|-----------------------------|--------------------------|--------------------------|----------------------|---|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | YA-1004Q | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 7 x 7 14 x 14 30 x 30 | | YA-1015Q-0 YA-1024Q-0 | YA-1010Q | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | YA-1014Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Reverse Cutting |  | Undyed | 36 x 36 45 x 45 | | | YA-2036Q YA-2035Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Undyed | 15 | | VLM-2014 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Violet | 30 | | VLM-1021 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |

| Subcutaneous | | | | | | | | | |
|--------------|---|---|--------|--|----------------------|----------------------|--------------------------------------|----------------------------------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 19 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 | VLP-2029 | VLP-2001 | | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 60 | | VLP-2026 VLP-2027 | | | |
| PDO | 13 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3021 VLP-3022 | | | | |
| PDO | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3026 | VLP-3027 VLP-3028 | | | |
| PDO | 24 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 30 | | VLP-3029 | | | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | VLP-1004 VLP-2012 | | VLP-2024 |



GENERAL SURGERY






NEEDLE-THREAD COMBINATIONS

INGUINAL HERNIORRHAPHY (TAPP – LAPAROSCOPIC OR ROBOTIC)

| Peritoneum | | | | | | | | | |
|------------|-----------------------------------|---|--------|----------------|------------|----------|----------|----------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Violet | 15 | | | VLM-2013 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | | VLM-1024 | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 24 x 24 | RA-1052Q-0 | | | | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 15 | | VLP-2021 | | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 15 20 30 | | | VLP-1001 | VLP-2015 | VLP-2030 |

VENTRAL HERNIA (LAPAROSCOPIC OR ROBOTIC)







| Fascia | | | | | | | | | |
|---------------|-------------------------------|---|--------|-------------|-----|-----|-----|----------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Polypropylene | 22 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 | | | | JA-1050Q | |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |







| Mesh Fixation | | | | | | | | | |
|---------------|-------------------------------|---|--------|-------------|-----|----------|----------|----------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 22 mm, 1/2 Circle Taper Point |  | Violet | 20 30 | | VLP-2002 | VLP-1008 | | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 20 | | VLP-2006 | | | |
| Polypropylene | 22 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 | | | | JA-1050Q | |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |
| Polypropylene | 22 mm, 1/2 Circle Taper Point |  | Undyed | 30 | | | VLO-1001 | | |

HEPATOBIILIARY SURGERY

NEEDLE-THREAD COMBINATIONS

HPB (OPEN)




| Subcutaneous | | | | | | | | |
|--------------|-------------------------------|---|--------|--|-----|----------|----------------------|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | VLP-1004 VLP-2012 | |





| Subcuticular | | | | | | | | |
|--------------|--|---|--------|--------------------|--------------------------|--------------------------|-----|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1023Q-0 | YA-1015Q-0 YA-1024Q-0 | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | |













OBSTETRICS / GYNAECOLOGY

NEEDLE-THREAD COMBINATIONS

C-SECTION

| Uterus | | | | | | | | |
|-----------|-------------------------------|--|--------|-------------------------------|-----|-----|----------------------------------|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 | | | | RA-1003Q RA-1031Q RA-1059Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 20 30 45 | | | VLP-1001 VLP-1002 VLP-1004 | |









| Peritoneum | | | | | | | | |
|------------|-------------------------------|---|--------|--------------------|-----|----------|----------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 30 | | VLM-1006 | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Violet | 15 | | | VLM-2013 | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 60 | | | VLM-1003 | |

| Subcutaneous | | | | | | | | | |
|--------------|--|---|------------------|-----------------------------|--------------------------|--------------------------|----------------------|---|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | YA-1004Q | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 7 x 7 14 x 14 30 x 30 | | YA-1015Q-0 YA-1024Q-0 | YA-1010Q | | |
| Monoderm™ | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | YA-1014Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 70 mm, Straight Reverse Cutting |  | Undyed | 30 x 30 | | | YA-1051Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Undyed Violet | 15 30 | | VLM-2014 VLM-1021 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 60 | | | VLM-1003 | | |

OBSTETRICS / GYNAECOLOGY

NEEDLE-THREAD COMBINATIONS











C-SECTION

| Subcutaneous | | | | | | | | |
|--------------|---|---|--------|---|----------------------|----------------------|--|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 7 x 7 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1068Q RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q |
| PDO | 19 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 | VLP-2029 | VLP-2001 | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 60 | | VLP-2026 VLP-2027 | | |
| PDO | 36 mm, 1/2 Circle Reverse Cutting |  | Violet | 20 30 | | | VLP-1005 VLP-1006 | |
| PDO | 13 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3021 VLP-3022 | | | |
| PDO | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 20 30 | VLP-3026 | VLP-3027 VLP-3028 | | |
| PDO | 24 mm, 3/8 Circle Fine Reverse Cutting |  | Violet | 30 | | VLP-3029 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 20 30 45 70 | | | VLP-1001 VLP-1002 VLP-1004 VLP-2012 | |

ORTHOPAEDICS

NEEDLE-THREAD COMBINATIONS













HIP REPLACEMENT












| Capsule/Fascia | | | | | | | | | |
|----------------|-----------------------------------|---|--------|-------------------------------|-----|-----|----------|----------------------------------|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 26 mm, 1/2 Circle Reverse Cutting |  | Violet | 14 x 14 24 x 24 | | | | RA-1004Q RA-1032Q | RA-1006Q RA-1034Q |
| PDO | 40 mm, 1/2 Circle Reverse Cutting |  | Violet | 36 x 36 45 x 45 | | | | | RX-1066Q RX-2066Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 | | | RA-1029Q | RA-1003Q RA-1031Q RA-1059Q | RA-1005Q RA-1033Q RA-1058Q |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 36 x 36 45 x 45 | | | | | RA-1065Q RA-2065Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 24 x 24 30 x 30 36 x 36 | | | | RX-1031Q RX-1059Q | RX-1033Q RX-1058Q RX-1062Q |
| PDO | 40 mm, 1/2 Circle Reverse Cutting |  | Violet | 20 70 | | | | | VLP-2019 VLP-2011 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | | | VLP-2025 VLP-2024 |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | VLP-2010 | | |
| Polypropylene | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | | JA-1005Q | JA-1001Q |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |

ORTHOPAEDICS

NEEDLE-THREAD COMBINATIONS

HIP REPLACEMENT











| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|--------------------|-----|----------------------|----------------------|----------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | | YA-1004Q | |
| Monoderm™ | 36 mm, 1/2 Circle Reverse Cutting |  | Undyed | 36 x 36 45 x 45 | | | YA-2036Q YA-2035Q | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 20 | | | VLM-1022 | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 20 | | | VLM-1023 | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 | | VLM-3010 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 30 45 | | VLM-1006 VLM-1013 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLM-1015 | | |
| Monoderm™ | 40 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | VLM-1017 | | |

| Subcutaneous | | | | | | | | | |
|--------------|-----------------------------------|---|--------|--|-----|----------------------|--|----------------------------------|--|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 7 x 7 | | | RA-1015Q | | |
| PDO | 36 mm, 1/2 Circle Reverse Cutting |  | Violet | 36 x 36 45 x 45 | | | RX-2069Q RX-2068Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 7 x 7 14 x 14 24 x 24 30 x 30 36 x 36 45 x 45 | | | RX-1068Q RX-1069Q RA-1029Q RA-1067Q RA-2067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 30 x 30 | | | RA-1060Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 24 x 24 | | | RX-1029Q | | |
| PDO | 13 mm, 3/8 Circle Reverse Cutting |  | Violet | 20 30 | | VLP-3021 VLP-3022 | | | |
| PDO | 19 mm, 3/8 Circle Reverse Cutting |  | Violet | 30 45 | | VLP-2029 | VLP-3028 VLP-2001 | | |
| PDO | 24 mm, 3/8 Circle Reverse Cutting |  | Violet | 30 | | | VLP-3029 | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 60 | | VLP-2026 VLP-2027 | | | |
| PDO | 36 mm, 1/2 Circle Reverse Cutting |  | Violet | 30 | | | VLP-1006 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 15 20 30 45 70 | | | VLP-1001 VLP-1002 VLP-1004 VLP-2012 | VLP-2015 | VLP-2030 VLP-2032 VLP-2025 VLP-2024 |











ORTHOPAEDICS

NEEDLE-THREAD COMBINATIONS

HIP REPLACEMENT

| Subcuticular | | | | | | | | |
|--------------|--|---|--------|-------------------------------|----------------------------------|----------------------------------|----------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q YA-1022Q-0 | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 40 x 40 | YA-2016Q YA-2021Q YA-2031Q | YA-2022Q YA-2032Q | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 40 x 40 | YA-2023Q YA-2033Q | YA-2024Q YA-2034Q | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1015Q-0 YA-1023Q-0 | YA-1024Q-0 | | |
| Monoderm™ | 70 mm, Straight Reverse Cutting |  | Undyed | 30 x 30 | | | YA-1051Q | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 20 45 60 | VLM-1010 VLM-2004 | VLM-2016 VLM-2002 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 20 30 45 60 | VLM-1011 | VLM-1002 VLM-2012 VLM-1001 | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 | VLM-1012 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 14 x 14 | RA-1021Q | | | |













KNEE REPLACEMENT












| Capsule/Fascia | | | | | | | | | |
|----------------|--|---|--------|-------------------------------|-----|-----|----------|----------------------------------|----------------------------------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 26 mm, 1/2 Circle Reverse Cutting |  | Violet | 14 x 14 24 x 24 | | | | RA-1004Q RA-1032Q | RA-1006Q RA-1034Q |
| PDO | 40 mm, 1/2 Circle Reverse Cutting |  | Violet | 36 x 36 45 x 45 | | | | | RX-1066Q RX-2066Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 | | | RA-1029Q | RA-1003Q RA-1031Q RA-1059Q | RA-1005Q RA-1033Q RA-1058Q |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 36 x 36 45 x 45 | | | | | RA-1065Q RA-2065Q |
| PDO | 36 mm, 1/2 Circle Taper Point Reinforced |  | Violet | 24 x 24 30 x 30 36 x 36 | | | | RX-1031Q RX-1059Q | RX-1033Q RX-1058Q RX-1062Q |
| PDO | 40 mm, 1/2 Circle Reverse Cutting |  | Violet | 20 70 | | | | | VLP-2019 VLP-2011 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | | | VLP-2025 VLP-2024 |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | VLP-2010 | | |
| Polypropylene | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | | JA-1005Q | JA-1001Q |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |

ORTHOPAEDICS

NEEDLE-THREAD COMBINATIONS

KNEE REPLACEMENT










| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|--------------------|-----|----------------------|----------------------|----------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | | YA-1004Q | |
| Monoderm™ | 36 mm, 1/2 Circle Reverse Cutting |  | Undyed | 36 x 36 45 x 45 | | | | YA-2036Q YA-2035Q | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 20 | | | VLM-1022 | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 20 | | | VLM-1023 | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 | | VLM-3010 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 30 45 | | VLM-1006 VLM-1013 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLM-1015 | | |
| Monoderm™ | 40 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | VLM-1017 | | |

| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|--|-----|----------------------|--|----------------------------------|--|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 7 x 7 | | | RA-1015Q | | |
| PDO | 36 mm, 1/2 Circle Reverse Cutting |  | Violet | 36 x 36 45 x 45 | | | RX-2069Q RX-2068Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 7 x 7 14 x 14 24 x 24 30 x 30 36 x 36 45 x 45 | | | RX-1068Q RX-1069Q RA-1029Q RA-1067Q RA-2067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 30 x 30 | | | RA-1060Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point Reinforced |  | Violet | 24 x 24 | | | RX-1029Q | | |
| PDO | 13 mm, 3/8 Circle Reverse Cutting |  | Violet | 20 30 | | VLP-3021 VLP-3022 | | | |
| PDO | 19 mm, 3/8 Circle Reverse Cutting |  | Violet | 30 45 | | VLP-2029 | VLP-3028 VLP-2001 | | |
| PDO | 24 mm, 3/8 Circle Reverse Cutting |  | Violet | 30 | | | VLP-3029 | | |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 45 60 | | VLP-2026 VLP-2027 | | | |
| PDO | 36 mm, 1/2 Circle Reverse Cutting |  | Violet | 30 | | | VLP-1006 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 15 20 30 45 70 | | | VLP-1001 VLP-1002 VLP-1004 VLP-2012 | VLP-2015 | VLP-2030 VLP-2032 VLP-2025 VLP-2024 |


PLASTIC & RECONSTRUCTIVE SURGERY









NEEDLE-THREAD COMBINATIONS

ABDOMINOPLASTY

| Plication | | | | | | | | | |
|---------------|-----------------------------------|---|--------|--------------------|-----|-----|----------|----------|----------------------------------|
| Material | Needle | | Color | Length (cm) | USP | | | | |
| | | | | | 3/0 | 2/0 | 0 | 1 | 2 |
| PDO | 40 mm, 1/2 Circle Reverse Cutting |  | Violet | 36 x 36 45 x 45 | | | | | RX-1066Q RX-2066Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 x 30 36 x 36 | | | | | RA-1058Q RX-1062Q |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 36 x 36 45 x 45 | | | | | RA-1065Q RA-2065Q |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 30 45 70 | | | | | VLP-2032 VLP-2025 VLP-2024 |
| PDO | 48 mm, 1/2 Circle Taper Point |  | Violet | 70 | | | VLP-2010 | | |
| PDO | 65 mm, 1/2 Circle Taper Point |  | Violet | 60 | | | | | VLP-2031 |
| Polypropylene | 26 mm, 1/2 Circle Reverse Cutting |  | Undyed | 14 x 14 | | | | JA-1005Q | JA-1001Q |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 24 x 24 | | | | | JA-1007Q |
| Polypropylene | 36 mm, 1/2 Circle Taper Point |  | Undyed | 45 | | | | VLO-1002 | VLO-1003 |

ABDOMINOPLASTY / BREAST RECONSTRUCTION





| Superficial Fascial System (SFS) | | | | | | | | | |
|----------------------------------|-------------------------------|---|--------|-------------------------------|-----|-----|----------------------|----------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 24 x 24 30 x 30 36 x 36 | | | RA-1029Q RA-1067Q | RA-1031Q RA-1059Q | |

| Subcutaneous | | | | | | | | | |
|--------------|--|---|--------|-------------------------------|----------------------|----------------------|----------------------|----------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| PDO | 26 mm, 3/8 Circle Reverse Cutting |  | Violet | 24 x 24 | | RA-1028Q-0 | | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 24 x 24 30 x 30 36 x 36 | | | RA-1029Q RA-1067Q | RA-1031Q RA-1059Q | |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-1021Q-0 | YA-1022Q-0 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-1023Q-0 | YA-1024Q-0 | | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 36 x 36 | | | YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | VLM-2004 | VLM-2016 VLM-2002 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |








PLASTIC & RECONSTRUCTIVE SURGERY

NEEDLE-THREAD COMBINATIONS

ABDOMINOPLASTY / BREAST RECONSTRUCTION

| Subcuticular | | | | | | | | | |
|--------------|--|--|--------|--------------------|--------------------------|-----|-----|---|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | | | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 60 | VLM-2004 | | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 | VLM-3008 | | | | |





BREAST RECONSTRUCTION

| Areola | | | | | | | | | |
|-----------|--|---|--------|-------------|------------|----------------------|-----|---|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 | YA-1016Q-0 | YA-1012Q | | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 | YA-2016Q | | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 | | YA-1015Q-0 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 20 30 | | VLM-1004 VLM-2001 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 | | VLM-1002 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 20 30 | | VLM-3009 VLM-3010 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | | |

UROLOGY

NEEDLE-THREAD COMBINATIONS














PROSTATECTOMY

| Peritoneum | | | | | | | | |
|------------|-------------------------------|---|--------|--------------------|-----|----------|----------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Violet | 15 | | | VLM-2013 | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 60 | | | VLM-1003 | |














UROLOGY

NEEDLE-THREAD COMBINATIONS

PROSTATECTOMY

| Subcutaneous | | | | | | | | | |
|--------------|--|---|------------------|--|--------------------------|--------------------------|----------------------------------|----------------------------------|---|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | | |
| | | | | | | | 0 | 1 | 2 |
| Monoderm™ | 18 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1016Q-0 YA-1021Q-0 | YA-1012Q | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 x 30 | YA-2023Q | YA-2024Q | | | |
| Monoderm™ | 26 mm, 3/8 Circle Reverse Cutting |  | Undyed | 14 x 14 30 x 30 | YA-1023Q-0 | YA-1015Q-0 YA-1024Q-0 | | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 14 x 14 36 x 36 | | | YA-1003Q YA-1029Q | | |
| Monoderm™ | 19 mm, 3/8 Circle Reverse Cutting |  | Undyed | 30 60 | VLM-2004 | VLM-2001 VLM-2002 | | | |
| Monoderm™ | 24 mm, 3/8 Circle Reverse Cutting |  | Undyed | 45 60 | | VLM-2012 VLM-1001 | | | |
| Monoderm™ | 19 mm, 3/8 Circle Fine Reverse Cutting |  | Undyed | 30 45 | VLM-3008 VLM-2018 | VLM-3010 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point |  | Undyed Violet | 15 30 | | VLM-2014 VLM-1021 | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 45 | | VLM-1006 | VLM-1020 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 60 | | | VLM-1014 VLM-1003 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 24 x 24 30 x 30 36 x 36 | | | RX-1069Q RA-1029Q RA-1067Q | RA-1003Q RA-1031Q RA-1059Q | |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 45 70 | | | VLP-1004 VLP-2012 | | |



Urethrovesical Anastomosis (Bladder-Urethra Anastomosis)

| Material | Needle | Color | Length (cm) | USP | | | | |
|-----------|---|---------------|--------------------|----------------------|----------------------|----------------------|----------|---|
| | | | | 3/0 | 2/0 | 0 | 1 | 2 |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point  | Undyed Violet | 16 x 16 16 x 16 | | VP-1000Q VP-2000Q | | | |
| Monoderm™ | 18 mm, 1/2 Circle Taper Point  | Undyed | 16 x 16 | RS-1001Q | RS-1000Q | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point  | Undyed | 16 x 16 | | RS-1005Q | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point  | Undyed | 15 20 | | VLM-2014 VLM-1005 | | | |
| Monoderm™ | 17 mm, 1/2 Circle Taper Point  | Violet | 15 20 | | VLM-2015 VLM-2005 | | | |
| Monoderm™ | 18 mm, 1/2 Circle Taper Point  | Violet | 20 30 | VLM-1008 VLM-1009 | 21 eil.nr | | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point  | Undyed | 20 | | VLM-1006 | 20 eil.nr. | | |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point  | Violet | 15 20 | | VLM-2017 VLM-2006 | | | |
| Monoderm™ | 26 mm, 5/8 Circle Taper Point  | Violet | 15 20 | | VLM-1018 VLM-2019 | | | |
| PDO | 22 mm, 1/2 Circle Taper Point  | Violet | 14 x 14 | | | | RA-1088Q | |
| PDO | 26 mm, 1/2 Circle Taper Point  | Violet | 10 x 10 14 x 14 | | | RA-1078Q RA-1079Q | | |
| PDO | 36 mm, 1/2 Circle Taper Point  | Violet | 7 x 7 14 x 14 | | | RX-1068Q RX-1069Q | RA-1003Q | |
| PDO | 17 mm, 1/2 Circle Taper Point  | Violet | 15 | | VLP-2022 | | | |








UROLOGY

NEEDLE-THREAD COMBINATIONS

PROSTATECTOMY

| Urethrovessical Anastomosis (Bladder-Urethra Anastomosis) | | | | | | | | |
|---|-------------------------------|---|--------|----------------|-----|----------|----------------------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 15 | | VLP-2021 | | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 15 20 30 | | | VLP-1001 VLP-1002 | VLP-2015 |
| | | | | | | | | VLP-2030 |

NEPHRECTOMY/PARTIAL NEPHRECTOMY

| Organ/Renorrhaphy (Kidney Closure on Partial Nephrectomy) | | | | | | | | |
|---|-------------------------------|---|--------|--------------------|-----|----------|----------------------|----------|
| Material | Needle | | Color | Length (cm) | 3/0 | 2/0 | USP | |
| | | | | | | | 0 | 1 |
| | | | | | | | | 2 |
| Monoderm™ | 26 mm, 1/2 Circle Taper Point |  | Undyed | 20 | | VLM-1006 | | |
| Monoderm™ | 36 mm, 1/2 Circle Taper Point |  | Undyed | 30 | | | VLM-1014 | |
| PDO | 22 mm, 1/2 Circle Taper Point |  | Violet | 14 x 14 | | | | RA-1088Q |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 10 x 10 14 x 14 | | | RA-1078Q RA-1079Q | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 7 x 7 14 x 14 | | | RX-1068Q RX-1069Q | RA-1003Q |
| | | | | | | | | RA-1005Q |
| PDO | 26 mm, 1/2 Circle Taper Point |  | Violet | 30 | | | VLP-2009 | |
| PDO | 36 mm, 1/2 Circle Taper Point |  | Violet | 20 30 | | | VLP-1001 VLP-1002 | VLP-2015 |

- (1) Mansour A, Ballard R, Garg S, Baulesh D, Erickson M. The Use of Barbed Sutures During Scoliosis Fusion Wound Closure: A Quality Improvement Analysis. *Journal of Pediatric Orthopedics*. Volume 33, Number 8, Dec 2013.
- (2) Ting N, Moric M, Della Valle C, Levine B. Use of Knotless Suture for Closure of Total Hip and Knee Arthroplasties; A Prospective, Randomized Clinical Trial. *J. of Arthroplasty* vol 27, no. 10. 2012.
- (3) Gililland J, Anderson L, Pelt C, Peters C. Barbed Versus Standard Sutures for Closure in Total Knee Arthroplasty: A Multicenter Prospective Randomized Trial. *Journal of Arthroplasty* 29 suppl. 2 June, 2014;135-8.
- (4) Eickmann T, Quane E. Total Knee Arthroplasty Closure with Barbed Suture. *J. of Knee Surgery*. 2010;23:163-8.
- (5) Stephens S, Politi J, Taylor B. Evaluation of Primary Total Knee Arthroplasty Incision Closure with the Use of Continuous Bidirectional Barbed Suture. *Surgical Technology International XXI, Orthopaedic Surgery*. 2011;#338,1-5.
- (6) Smith E, Shukla P, Matzkin E. (Tufts Med Center; Brigham & Womens hospital). Barbed Versus Traditional Sutures: Closure Time, Cost, and Wound Related Outcomes in Total Joint Arthroplasty. *Journal of Arthroplasty*, Spring, 2014.
- (7) Gililland J, Anderson L, Sun LG, Erickson J, Peters C. Perioperative Closure-related Complication Rates and Cost Analysis of Barbed Suture for Closure in TKA. *CORR*. Sept. 28, 2011.
- (8) Nett M, Cushner F, Avelar R. Water-Tight Knee Arthrotomy Closure: Comparison of a Novel Single Bidirectional Barbed Self-Retaining Running Suture vs. Conventional Interrupted Sutures. *Journal of Knee Surgery*. 2011;24:55-60.
- (9) Rosen AD. Use of Absorbable Running Barbed Suture and Progressive Tension Technique in Abdominoplasty: a Novel Approach. *Plastic and Reconstructive Surgery*. March 2010;125(3):1024-7.
- (10) Vakil JJ, O'Reilly MP, Sutter EG, Mears SC, Belkoff SM, Khanuja HS. Knee arthrotomy repair with a continuous barbed suture: a biomechanical study. *J Arthroplasty*. 2011;26(5): 710-3.
- (11) Quill™ device Instructions for Use.

Distributed by:

B. Braun Surgical, S.A. | Carretera de Terrassa, 121 | 08191 Rubí | Spain
Phone +34 93 586 6200 | Fax +34 93 588 1096 | www.bbraun.com

AESCULAP® – a B. Braun brand

Aesculap AG | Am Aesculap-Platz | 78532 Tuttlingen | Germany
Phone +49 7461 95-0 | Fax +49 7461 95-2600 | www.aesculap.com

Manufacturer acc. to MDD 93/42/EEC

B. Braun Surgical, S.A. | Carretera de Terrassa, 121 | 08191 Rubí | Spain

Monoderm, QUILL:

Surgical Specialties Corporation | 247 Station Drive | Suite NE1 | Westwood | MA 02090 | USA

The main product trademark "Aesculap" is a registered trademark of Aesculap AG.
"Monoderm" and "QUILL" are registered trademarks of Surgical Specialties Corporation.

Subject to technical changes. All rights reserved. This brochure may only be used for the exclusive purpose of obtaining information about our products. Reproduction in any form partial or otherwise is not permitted.