

## STERNUM SUTURES

Sternum sutures represent a new development in sutures for sternum closure after median sternotomy. For suture sizes USP 5,6 & 7 the sternal suture is welded to the needle rather than using the conventional crimped design offered by other manufacturers. (Smaller suture sizes USP 0,1,2 & 4 are offered in channel or drilled-end attachment )

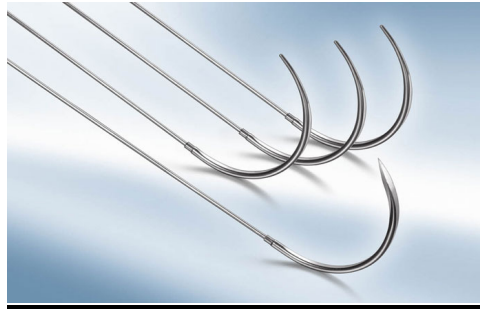
As a result of this development, for these 3 sizes Quality Needles now offers a product which combines an aesthetically pleasing needle-suture joint with attaching strength approaching the ultimate strength of the suture!

The fact that our Company is certified under ISO 9001-2008/ISO13485:2003 & all the products are CE Marked by DNV is a further assurance of consistent product quality.

For our products we use high grade stainless steel of the finest quality. These high quality materials are the basis for a product that combines maximum stiffness and strength coupled with ductility.

## STERNUM WIRE

- Is manufactured from implantable high grade stainless steel of the highest quality (as per AISI 316 LVM (low carbon vacuum melt)).
- Its inherently consistent tensile strength in combination with its good twisting & knotting properties guarantees a high degree of safety.
- More pliable wire conforms closely to the contours of the sternum facilitating good closure.



## STERNOTOMY NEEDLES

- are manufactured exclusively from selected high grade, martensitic stainless steel to DIN Werkstoffnummer 1.4031 (roughly equivalent to AISI 420), duly hardened and tempered.
- Couple high stiffness with high strength and resistance to breakage.
- Guarantee low penetration force and minimum trauma through precise control of point geometry.
- are available with several needle types e.g.
  - a) Round bodied needles, with Conventional cutting (Trocar point.)
  - b) Triangular needles with Conventional or reverse Cutting point.
  - c) taper cutting point
  - d) round bodied needles, with blunt point

Maximum sharpness of the needles is achieved by individual grinding of the needle points on special purpose machines. We also offer a special 'cross ground' point geometry with hollow grinding for premium performance. Further, the profile of the needle tip has convex to the point, these contributing to a stronger point which is less prone to damage.



























## STERNOTOMY NEEDLE SUTURE CONNECTION

- For USP sizes 5,6 & 7 are manufactured using a specially developed welding process under precise microprocessor control, as a result of which highest standards of safety and quality are guaranteed. This attachment is aesthetically pleasing and exceptionally strong.
- failure of the needle-suture joint is almost completely eliminated since joint strength is comparable with the ultimate tensile strength of the suture wire.
- is fully free from sharp edges, minimising tissue trauma.

## PACKAGING

Products will be supplied as non-sterile and bulk packed in packets of 100. Special packing can also be done as per customer's specific requirements.

## PRODUCT RANGE

NEEDLE					SUTURE		
Type	Curve		Point		USP	Metric	length
HS 48	½ Circle		Reverse cutting		0, 1, 2, 4, 5, 6 or 7 -- as per customer's requirement	4, 5, 6, 7, 8 or 9 -- as per customer's requirement	Any length can be supplied as per customer's choice
HS 58	½ Circle		Reverse cutting				
DS 48	¾ Circle		Reverse cutting				
HRT 48	½ Circle		Trocar point				
HRT 58	½ Circle		Trocar point				
HSY 40	½ Circle		Taper cut				
HSY 48	½ Circle		Taper cut				
DSY 55	¾ Circle		Taper cut				
HRN 40	½ Circle		Blunt point				
HRN 44	½ Circle		Blunt point				
HRN 48	½ Circle		Blunt point				
HRN 66	½ Circle		Blunt point				
HRN 85	½ Circle		Blunt point				

USP	Metric	Suture diameter (in mm)
0	3.5	0.39
1	4	0.49
2	5	0.59
4	6	0.69
5	7	0.79
6	8	0.89
7	9	0.99

1. Either needles with sutures attached or only needles (without sutures) can be supplied as desired.
2. Option of channel or drilled-end types for attachment of sutures to needles available as per customer's request.
3. Any other shape/size/type of sternotomy needles, including pediatric sizes, can supply as required by customer. Different curvatures, needle lengths and shank profiles can be developed to suit any particular requirements.