



MFG. UNIT

NEO SURGICAL

Plot No. G/306 , Road No. A/6, Almighty Gate,
GIDC Lodhika, Metoda-360021
Rajkot, Gujarat (INDIA)

Mo. No. +91 70966 65266

Authorised Dealer :



TRAUMA SYSTEM

www.neosuricals.com



L.C.D.C Plate (R/U) 3.5mm

Hole 04 Hole to 12 Hole
Cat No. NS 201.04 to NS 201.12



L.C.D.C. Plate (Narrow) 4.5mm

Hole 05 Hole to 14 Hole
Cat No. NS 202.05 to NS 202.14



D.H.S Plate (Round Hole)

Hole 04 Hole to 12 Hole
Angle 120*,125*,130*,135*,140*
Cat No. NS 209



D.H.S Plate (D.C Hole)

Hole 04 Hole to 12 Hole
Angle 120*,125*,130*,135*,140*
Cat No. NS 210



L.C.D.C Plate (Broad) 4.5mm

Hole 05 Hole to 16 Hole
Cat No. NS 203.05 to NS 203.16



D.C. Plate (R/U) 3.5mm

Hole 04 Hole to 12 Hole
Cat No. NS 204.04 to NS 204.12



D.C.S Plate (Round Hole) 95*

Hole 05 Hole to 14 Hole
Cat No. NS 211.105 to NS 211.114



D.C.S Plate (D.C Hole) 95*

Hole 05 Hole to 14 Hole
Cat No. NS 211.205 to NS 211.214



D.C. Plate (Narrow) 4.5mm

Hole 05 Hole to 14 Hole
Cat No. NS 205.05 to NS 205.14



D.C. Plate (Broad) 4.5mm

Hole 05 Hole to 16 Hole
Cat No. NS 206.05 to NS 206.16



Cloverleaf Plate

Hole 03 Hole to 10 Hole
Cat No. NS 212.03 to NS 212.10



L Buttress Plate (Right/Left)

Hole 03 Hole to 12 Hole
Cat No. NS 213R.03 to NS 213R.12 / NS 213L.03 to NS 213L.12



One Third Tubular Plate 3.5mm

Hole 04 Hole to 12 Hole
Cat No. NS 208.04 to NS 208.12



Semi Tubular Plate 4.5mm

Hole 05 Hole to 14 Hole
Cat No. NS 223.05 to NS 223.14



T Buttress plate

Hole 04 Hole to 14 Hole
Cat No. NS 214.04 to NS 214.14



T Oblique Plate 3.5mm

Hole 03 Hole to 10 Hole
Cat No. NS 215.03 to NS 215.10



T Radius Plate 3.5mm

Hole 03 Hole to 10 Hole
Cat No. NS 216.03 to NS 216.10



T Ellis Plate 3.5mm

Hole 02 Hole to 08 Hole
Cat No. NS 217.02 to NS 217.08



Lateral Tibia Plate (Right/Left)

Hole 04 Hole to 14 Hole
Cat No. NS 222R.04 to NS 222R.14 / NS 222L.04 to NS 222L.14



D.C Plate (R/U) 2.7mm

Hole 04 Hole to 10 Hole
Cat No. NS 207.04 to NS 207.10



Hook Plate

Hole 04 Hole to 14 Hole
Cat No. NS 218.04 to NS 218.14



Y Plate

Hole 04 Hole, 5 Hole, 6 Hole
Cat No. NS 219.04 to NS 219.06



Condylar Buttress Plate (Right/Left)

Hole 04 Hole to 12 Hole
Cat No. NS 224R.04 to NS 224R.12 / NS 224L.04 to NS 224L.12



Reconstruction Plate 3.5mm

Hole 04 Hole to 20 Hole
Cat No. NS 220.104 to NS 220.120



Reconstruction Plate 4.5mm

Hole 05 Hole to 20 Hole
Cat No. NS 220.205 to NS 220.220



Dynamic Reconstruction Plate 3.5mm

Hole 04 Hole to 20 Hole
Cat No. NS 221.104 to NS 221.120



Dynamic Reconstruction Plate 4.5mm

Hole 05 Hole to 20 Hole
Cat No. NS 221.205 to NS 221.220



Cortical Screw 2.7mm 20TPI

Size 8mm to 30mm (2mm Variation)
Cat No. NS 102.08 to NS 102.30



Cortical Screw 3.5mm 14 TPI (Self Tapping)

Size 10mm to 40mm (2mm Variation)
Cat No. NS 101.110 to NS 101.140



Cancellous Screw 6.5mm (16mm Thread)

Size 25mm to 100mm (5mm Variation)
Cat No. NS 106.125 to NS 106.1100



Cancellous Screw 6.5mm (32mm Thread)

Size 25mm to 100mm (5mm Variation)
Cat No. NS 106.225 to NS 106.2100



Cortical Screw 3.5mm 20 TPI (Self Tapping)

Size 10mm to 40mm (2mm Variation)
Cat No. NS 101.210 to NS 101.240



Cortical Screw 4.5mm (Self Tapping)

Size 16mm to 60mm (2mm Variation)
Cat No. NS 103.16 to NS 103.60



Cancellous Screw 6.5mm (Full Thread)

Size 40mm to 100mm (5mm Variation)
Cat No. NS 106.340 to NS 106.3100



Cannulated Cancellous Screw 6.5mm (16mm Thread)

Size 25mm to 120mm (5mm Variation)
Cat No. NS 107.125 to NS 107.1120



Cancellous Screw 4.0mm (16mm Thread)

Size 15mm to 75mm (5mm Variation)
Cat No. NS 104.115 to NS 104.175



Cancellous Screw 4.0mm (Full Thread)

Size 15mm to 75mm (5mm Variation)
Cat No. NS 104.215 to NS 104.275



Cannulated Cancellous Screw 6.5mm (32mm Thread)

Size 25mm to 100mm (5mm Variation)
Cat No. NS 107.225 to NS 107.2100



Cannulated Cancellous Screw 6.5mm (Full Thread)

Size 40mm to 100mm (5mm Variation)
Cat No. NS 107.340 to NS 107.3100



Cannulated Cancellous Screw 4.0mm (16mm Thread)

Size 10mm to 28mm (2mm Variation)
30mm to 75mm (5mm Variation)
Cat No. NS 105.110 to NS 105.175



Cannulated Cancellous screw 4.0mm (Full Thread)

Size 10mm to 75mm (5mm Variation)
Cat No. NS 105.210 to NS 105.275



Malleolar Screw 4.5mm

Size 25mm to 100mm (5mm Variation)
Cat No. NS 108.25 to NS 108.100



Herbert Screw

Size 14mm to 40mm (2mm Variation)
Cat No. NS 112.14 to NS 112.40



Interlocking Bolt 3.0mm

Size 18mm to 40mm (2mm Variation)
Cat No. NS 110.118 to NS 110.140



Interlocking Bolt 3.4mm

Size 20mm to 50mm (2mm Variation)
Cat No. NS 110.220 to NS 110.250



Steman Pin

Length 9" Long
Dia 3.0mm to 6.0mm (5mm Variation)
Cat No. NS 503.30 to NS 503.60



Interlocking Bolt 3.9mm

Size 22mm to 60mm (2mm Variation)
Cat No. NS 110.322 to NS 110.360



Interlocking Bolt 4.9mm

Size 22mm to 50mm (2mm Variation)
55mm to 90mm (5mm Variation)
Cat No. NS 110.422 to NS 110.490



Denhan Pin

Length 9" Long
Dia 3.5mm to 5.0mm (5mm Variation)
Cat No. NS 504.35 to NS 504.50



Proximal Femur Bolt 6.4mm (Cannulated)

Size 50mm to 115mm (5mm Variation)
Cat No. NS 111.150 to NS 111.115



Proximal Femur Bolt 8.0mm (Cannulated)

Size 50mm to 115mm (5mm Variation)
Cat No. NS 111.250 to NS 111.215



D.H.S Screw

Size 50mm to 115mm (5mm Variation)
Cat No. NS 109.50 to NS 109.115



Washer
Size 4.0mm/6.5mm
Cat No. NS 512.40 / NS 512.65



Schanz Pin

Length 8" Long Dia 4.5mm Cat No. NS 505T.45 / NS 505F.45	Length 6" Long Dia 3.5mm Cat No. NS 505.35	Length 4" Long Dia 2.5mm Cat No. NS 505.25
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Guide Wire

Length 9"
Dia 1.0mm, 1.2mm, 1.8mm, 2.5mm
Cat No. NS 509.110 to NS 509.125



Guide Wire (Threaded)

Length 9"
Dia 1.8mm,2.5mm
Cat No. NS 510.18 / NS 510.25



K.Wire

Length 6"Long Dia 1.0mm to 3.0mm Cat No. NS 506.110 to NS 506.130	Length 9"Long Dia 1.0mm to 3.0mm Cat No. NS 506.210 to NS 506.230	Length 12"Long Dia 1.0mm to 3.0mm Cat No. NS 506.310 to NS 506.330
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K.Wire (Threaded)

Length 6"Long
Dia 1.5mm to 3.0mm
Cat No. NS 507.115 to NS 507.130



S.S. Wire

Length 16G to 30G
Cat No. NS 508.16 to NS 508.30



Giglay Saw Wire (Imported)

Cat No. NS 511

INSTRUCTIONS FOR USE

1. GENERAL:

All the implants are made and supplied in stainless steel and Titanium (in accordance ISO 5832-1 and ASTM F138/ ASTM F139). Titanium is used in different variation according to the products.

- As softer and more malleable pure Titanium TiCP (ISO 5832-2/ASTM F67)
- As harder Titanium alloy Ti-6Al-4V ELI (ISO 5832-3/ASTM F136)

2. PROCESSING INSTRUCTIONS:

These processing instructions are intended to assist the hospital in developing procedures to attain safe and effective devices, both for hospital-owned and for loaned instrument sets. This information is based on neo testing, experience and material science, as well as widely accepted recommendations of the following organizations:

- American Society for Testing and Materials (ASTM)
- International Standards Organization (ISO)
- World Health Organization (WHO)

Note : These instructions describe the necessary processing steps that new and used instruments must undergo to attain sterility.

3. CONTRAINDICATIONS:

This includes but is not limited to presence of fever-progressive local or systemic infection-pregnancy-severe osteopenia or any other contraindication in patient exhibiting, disorders which would cause the patient to ignore the risk and limitations of internal fixation, patients with metal sensitivity or allergies to the implants materials, patients unwilling or unable to follow post care instructions.

4. INDICATIONS:

All the implants are designed and made for trauma and reconstructive surgery to provide temporary internal fixation to the fracture until bony fusion occurs.

5. POST OPERATIVE CARE:

The patients should be advised properly about post operative care and precautions. The patient should be instructed not to overlook the problems related to early weight bearing and load bearing stress on the implant which can cause in to insecure bone healing. The patient should carry adequate external support and physical activities should be restricted until enough bone union is achieved.

6. WARNING AND PRECAUTIONS:

All the implants are intended to provide aids to normal healing but are not supposed to replace normal body structure or bear the body weight in absence of complete bone healing the following care must be taken while using the metallic bone fixation implants.

- **USE :** All the implants are made for single use only and shall not be used re-used. An explanted implant must never be re-used.
- **CLEANING :** The OT staff is advised to handle all the implants properly after surgery and the unused implants shall be cleaned, washed and dried properly before starting for next surgery. The storage container nature and do not possess any sharp corner or edges.
- **CAREFUL SELECTION FOR IMPLANTS :** Care must be taken while choosing the implants keeping in mind patient's weight, height, occupation and nature of physical activity. An appropriate size, shape and design of implants are an important part of the success of the devices. Ensure that the same brand of instrument is used for implants.
- **HANDLING :** Care must be taken while storing, autoclaving and using the implants in surgery. Improper method of handling can cause serious damage to the implants and may decrease the life of the implants. The implants are supplied non-sterile and must be sterilized as per directions before use. Avoid sharp and reverse bends, scratching or notching on the surface of implants to eliminate the possible adverse effect of internal stresses and cracking.
- **DISCLAIMER :** The titanium implants possess a natural oxide layer for superior bio-compatibility. The Color coding is given for identification and traceability only and the implants color depends on the size of oxide layer. Therefore a little discoloration is possible in titanium implants after autoclaving or bending which do not create any influence on implants quality. No additional coating is applied in its layer.

7. POSSIBLE ADVERSE EFFECT:

- **METAL FATIGUE :** All the implants can loosen, break or bend in case of overloading due to delayed union or non-union. The internal fixation metal device is of load sharing nature which tends to provide alignment to fracture until healing occurs. If healing does not occur or delayed, the implants could break due to metal fatigue.
- **PATIENT'S PHYSICS & ACTIVITY :** The patient's body weight, exhaustive physical activity level and adherence to weight bearing instructions may affect the life of device.
- **FOREIGN BODY SENSITIVITY :** pre-operative test is recommended if the patient is suspected of metal sensitivity

8. REMOVAL:

All the implants are intended for the temporary aids during the bone healing period and the surgeon shall make appropriate decision to remove the implants once the expected service life of the implants is over except in post aged patients.

9. PACKAGING:

All the implants are supplied in food grade polyethylene pouch with a label bearing all the details of products like batch , date of mfg, manufacturer's information etc. the user is advised not to take the delivery of the materials if the package is found damage or open. The materials should be stored in cool , dry and away from hazardous solutions.

10. STERILIZATION:

All the implants and instruments are packed and supplied non-sterile and must be sterilized prior to surgical use. The recommended parameters for sterilization are as under

RECOMMENDED STEAM STERILIZATION PARAMETERS :

Cycle Type	Temperature	Exposure time wrapped and unwrapped	Minimum Dry Time	Minimum Cool Time
Prevacuum/Pulsating Vacuum	134°C / 273°F	3 minutes	30 minutes	30 minutes
Prevacuum/Pulsating Vacuum	132°C / 270°F	4 minutes		
Prevacuum/Pulsating Vacuum	134°C / 273°F	18 minutes		
Prevacuum/Pulsating Vacuum	132°C / 270°F	8 minutes		
Gravity/Gravity Displacement	121°C / 250°F	90 minutes	40 minutes	

NOTE : NEO is not familiar with individual hospital's handling-cleaning methods and bio burden; neo cannot assume responsibility for sterility even though the guideline is followed. The users are advised to calibrate and validate the entire process of sterilization.

● FOR FUTURE INFORMATION :

If future information on this products is needed please visit www.neosuricals.com or users may contact the company's customer service department on info@neosuricals.com for any future assistance and can post their suggestion and feedback on the products.

● SYMBOLS : Details of Symbols used in Labeling

	Catalogue Number
	Batch Number
	Date of Expiry
	Date of Manufacture
	Manufacturer
	Consult Instruction for Use
	Do Not Reused

	Materials Used in Device
	Do Not Re-Sterilization
	Temperature limitation
	Gamma Radiation Sterilization
	ETO Sterilization
	Non Sterile
	Do Not Use if Packaged is Opened or Damage

● CAUTION : All devices is restricted to be sold by or on the order of a physician. As per federal law (USA)

● NOTE : This instruction for use is valid for all implants.