

stryker®

stryker®

Craniomaxillofacial

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1: Liu JK, Gottfried ON, Cole CD, Dougherty, WR, Couldwell WT, "MEDPOR Porous Polyethylene Implant for Cranioplasty and Skull Base Reconstruction" Neurosurgery [April 2004]

Resources

* When compared to Stryker Universal Neuro II System Implants

1 Stryker Test Reports TI2269 and TI3137

2 Stryker Test Reports TI2441 and TI2446

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Universal Neuro III

1.5mm Cranial Fixation System

Renowned Quality, Lasting Innovation

Our products are derived from a close working partnership with surgeons, physicians and healthcare experts from the spectrum of the healthcare field. That partnership has been the basis of our success for nearly eight decades and will continue to foster growth into the future.

Stryker is one of the preeminent medical products and service companies in the world. Our focus is on the fundamentals and a relentless attention to details of not just design and manufacture, but also of application and outcomes. The output of our work supports the skills and talents of the medical profession. And because of this, we set our standards high and work to surpass our own ambitious goals.

UNIII Development

The development process of the Universal Neuro III Cranial Fixation System exemplifies Stryker's commitment to quality. 120 employees dedicated 16,000 hours to develop this product, which included the manufacture of 96 separate prototypes. Over 500 screws were tested by Stryker's R&D Team in Freiburg, Germany and an additional 300 were tested by surgeons to ensure all specifications were met. Numerous prototypes of burr hole covers, and screwdriver blades were tested before the final product was selected to be produced for use worldwide.



Products embodying innovation and superior quality have been the foundation of the Stryker reputation.

Universal Neuro III

Universal Neuro III Module

The Universal Neuro III Module neatly contains low-profile plates, dynamic mesh, screws, and the instrumentation needed to fixate cranial bone flaps.

Unique Features:

- Optimized self-drilling screws with addition of 3mm option
- Unique burr hole cover design with added fixation hole and dynamic bar for ease of contouring
- 20% thinner plates* with deeper countersink, broader bars, and smoother geometry
- Addition of ergonomic screwdriver handle
- Redesigned module with designated pockets for decreased plate stacking and ease of identification
- Customizable screw disc



Optimized Self-Drilling (SD) Screws

- Addition of 3mm self-drilling screw provides lowest plate-to-screw profile option in UNIII system for minimal palpability
- Newly designed self-drilling screws require 25% less turns to fully insert*
- 23% lower construct for decreased palpability*
- 40% greater initial bite into bone for quicker insertion*

Self-Drilling Screw Options

Screw Length (Plate-To-Screw Profile Heights)



Customizable Screw Disc Delivery System

Customizable screw disc allows placement of 3, 4, and/or 5mm screws in a single screw disc



Technology and Innovations

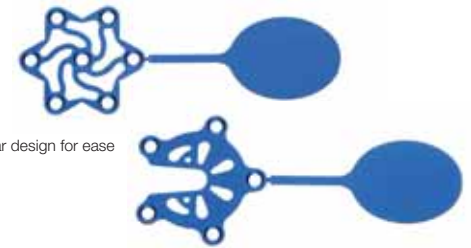
Instrumentation

- Ergonomically shaped screwdriver handle and newly designed screwdriver blade for increased handling, allowing optimal blade-to-screw interface/retention and easier screw insertion



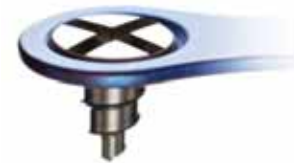
Burr Hole Covers

- Unique burr hole covers with added fixation hole and dynamic bar design for ease of contouring; in addition to two new shunt plate options



Lower Profile Plates

- 0.4mm profile height allows for rigid fixation of cranial flaps with decreased palpability
- 25% deeper countersink* for a more flush plate/screw construct
- Select plates feature break-off tabs for easy handling and identification
- Comprehensive selection of implants including shunt, "dog-bone," gap, and box plates along with 5 sizes of burr hole covers offer numerous fixation options



QuikDrive mini

Battery Powered Screwdriver

- Touch sensors for continuous, variable speed control
- Forward and reverse capabilities
- Ergonomically balanced for both left and right hand use
- Acoustic Feedback to help ensure battery is attached and device is working properly
- Standby Mode to minimize power consumption and improve battery life
- Improved electrical components to protect against rigorous sterilization parameters and excessive heat



Storage Options

Universal Neuro III System: Sterilization Containers

The Universal Neuro III System features Half (not shown), Combined and Quarter size sterilization containers to accommodate a wide variety of options for your specific Neurosurgical needs.



Quarter Size
Sterilization
Container

QuikDrive mini
Sterilization
Container

Combined Size
Sterilization Container

Dynamic Mesh

Dynamic Mesh has optimized properties to facilitate controlled, three-dimensional contouring while maintaining adequate rigidity for bone defects of varied size and location. Dynamic Mesh can be shaped to fit most three-dimensional bone surfaces without unwanted wrinkled or overlapped areas.

Unique Features:

- Standard (Gold - .60mm profile height) and Malleable Low Profile (Blue - .30mm profile height) designs
- Dedicated screw holes for many options in screw placement
- Easy to cut and accurately contour to anatomical structures
- Instrumentation for "in situ" cutting

Micro Mesh

Micro Mesh is an ultra-thin mesh used for defect bridging of the skull and skull base.

Unique Features:

- Screws may be inserted directly through the mesh without the need for a dedicated screw hole
- Available in two ultra-thin sizes: .10mm (Blue) and .20mm (Gold)
- If fixation with bone screws is not possible or preferred, suture material may be used

Our products are derived from a close working partnership with surgeons, physicians and healthcare experts from the entire spectrum of the healthcare field.

Ordering Information

1.5mm Neuro Plates/Mesh

Product No. Description

Low Profile Plates

(Order Qty: Pkg of 1)

53-34804	Straight Plate, 8-Hole
53-34164	Straight Plate, 16-Hole
53-34406	Straight Plate, 4-Hole w/ Bar
53-36212	Dog-Bone Plate, 2-Hole Rigid (0.6mm), 12mm Bar
53-34212	Dog-Bone Plate, 2-Hole, 12mm Bar, w/ Tab
53-34216	Dog-Bone Plate, 2-Hole, 16mm Bar
53-34228	Box Plate, 2 x 2 Hole, Small
53-34300	Rectangle Plate, 2 x 2 Hole
53-34608	Double-Y Plate, 6-Hole, w/ Bar
53-34612	Gap Plate, 6-Hole, Small
53-34622	Gap Plate, 6-Hole, Large
53-34240	Box Plate, 2 x 2 Hole, Large
53-34230	Box Plate, 2 x 2 Hole, Large, w/ Tab
53-34630	X Plate, 4-Hole

Low Profile Burr Hole Covers

(Order Qty: Pkg of 1)

53-34507	Burr Hole Cover, 7mm, w/ Tab
53-34510	Burr Hole Cover, 10mm, w/ Tab
53-34514	Burr Hole Cover, 14mm, w/ Tab
53-34520	Burr Hole Cover, 20mm, w/ Tab
53-34524	Burr Hole Cover, 24mm, w/ Tab
53-34614	Shunt Burr Hole Cover, 14mm, w/ Tab
53-34620	Shunt Burr Hole Cover, 20mm, w/ Tab

Titanium Mesh (Order Qty: Pkg of 1)

54-00262	Micro Mesh 60 x 60 x 0.1mm
54-00272	Micro Mesh 60 x 60 x 0.2mm
54-00344	Dynamic Mesh 40 x 40 x 0.3mm
54-00346	Dynamic Mesh 90 x 90 x 0.3mm
54-00646	Dynamic Mesh 90 x 90 x 0.6mm
54-00345	Dynamic Mesh 120 x 120 x 0.3mm
54-00645	Dynamic Mesh 120 x 120 x 0.6mm
54-00647	Dynamic Mesh 200 x 200 x 0.6mm

Neuro Containers

Product No. Description

Sterilization Containers

29-15300	Screw Disc Inlay (2 Discs, No Mesh)
29-15330	Module w/ Lid
29-15331	Plate Inlay
29-15335	Mesh Inlay
29-15336	Screw Disc Inlay
29-15332	Instrument Inlay
29-15012	Half-Size Container
29-15013	Half-Size Lid
29-15023	Lid for Combined Tray
29-15026	Combined Container
29-15027	Mat for Combined Tray
29-15028	Instrument Inlay for Combined Tray
29-15031	Quarter-Size Container
29-15032	Quarter-Size Lid
29-15036	Accessory Tray
29-15037	Silicon Mat

1.5mm Neuro Screws

Product No. Description

Screw Disc, Pre-Loaded

(Order Qty: Pkg of 1)

29-15993	Screw Disc, 1.5 x 3mm, SD, 80/p
29-15994	Screw Disc, 1.5 x 4mm, SD, 80/p
29-15995	Screw Disc, 1.5 x 5mm, SD, 80/p
29-15094	Screw Disc, 1.5 x 4mm, ST, 80/p
29-15095	Screw Disc, 1.5 x 5mm, ST, 80/p

Screw Disc, Empty

(Order Qty: Pkg of 1)

29-15091	Screw Disc, 1.5mm, Empty
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1.5mm Self-Drilling Screws

(5 screws/pkg)

56-15903	UNIII Screws, SD, 1.5 x 3mm, 5/p
56-15904	UNIII Screws, SD, 1.5 x 4mm, 5/p
56-15905	UNIII Screws, SD, 1.5 x 5mm, 5/p

1.5mm Self-Tapping Screws

(5 screws/pkg)

56-15004	UNIII Screws, ST, 1.5 x 4mm, 5/p
56-15005	UNIII Screws, ST, 1.5 x 5mm, 5/p
56-15006	UNIII Screws, ST, 1.5 x 6mm, 5/p

1.7mm Emergency Screws

(5 screws/pkg)

56-17304	UNIII Screws, EM, 1.7 x 4mm, 5/p
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Twist Drills (Single use only)

(Order Qty: Pkg of 1)

60-12594	1.2mm Drill Bit, 4mm Stop, J-Latch End
60-12596	1.2mm Drill Bit, 6mm Stop, J-Latch End
60-12394	1.2mm Drill Bit, 4mm Stop, TPS End
60-12396	1.2mm Drill Bit, 6mm Stop, TPS End

Neuro Instrumentation

Product No. Description

Instrumentation

62-18110	Plate Forcep
62-18330	In-Situ Cutter
62-15001	Screwdriver Handle, Small
62-15002	Screwdriver Handle, Large
62-15030	UNIII Screwdriver Blade, Long
62-15032	UNIII Screwdriver Blade, Short
36-00726	Plate Bending Plier
64-00132	Mesh Bending Plier
37-10930	Plate/Mesh Scissors

Markers

52-00003	Screw Marker 3mm
52-00004	Screw Marker 4mm
52-00005	Screw Marker 5mm
52-00006	Screw Marker 6mm

Complementary Products

Leibinger Instruments

Drawing on more than a century of experience in manufacturing high-quality surgical instruments, Leibinger instruments are made precisely for craniomaxillofacial surgery.

Leibinger

HydroSet

HydroSet is an injectable, fast-setting, osteoconductive hydroxyapatite (HA) bone substitute. It is designed to set under normal body wet-field conditions and produces hydroxyapatite as the final product.

DuraMatrix-Onlay

DuraMatrix-Onlay is a conformable and resorbable membrane matrix. It has thickness similar to native dura, excellent handling characteristics, is flexible, and is designed to conform to the contour of the defect site.

MEDPOR Neuro Implants

MEDPOR Porous Polyethylene Implants provide surgeons with an expanding range of options for reconstruction and augmentation. MEDPOR is a biocompatible, porous polyethylene material. The interconnecting, omni-directional pore structure may allow for fibrovascular in-growth and integration of the patient's tissue. More than 650,000 procedures have been performed with MEDPOR Biomaterial, with more than 350 published clinical reports in cranial, reconstructive, oculo-plastic and cosmetic applications.

Delta System

Delta System resorbable implant technology merges science and simplicity. The system consists of resorbable bone plates and screws fabricated from a unique triopolymer. The Delta System triopolymer is a composition of poly L-Lactide/D-Lactide/Glycolide having a molecular ratio of 85/5/10. The resulting triopolymer is an extraordinary combination of strength, contourability and absorption, well suited for craniomaxillofacial surgery.

Colorado Needle

The Colorado Microdissection Needle has an ultra-sharp tip for clean, precise soft tissue dissection. The heat resistant tungsten alloy maintains tip sharpness, and is highly polished for easy cleaning. We offer a wide selection of needle electrodes and standard shaft sizes for use in standard handpieces.



Applications

- Precision manufacturing process
- Easy handling ergonomic design
- Excellent balance
- Exceptional finish to exacting standards



Applications

- Repair of bony voids or gaps
- Repair of surgically created or osseous defects
- Augment provisional hardware to help support bone fragments
- Repair of craniotomy burr holes and contiguous craniotomy cuts



DuraMatrix-Onlay Features

- Onlay or minimal tension sutures
- High conformability and mechanical strength
- Highly Purified Type I Collagen
- Provides support for host tissue regeneration



Applications

- Craniofacial reconstruction and repair of craniofacial trauma
- Implants intended for reconstruction of the cranium
- Implants with Titanium mesh embedded in the MEDPOR Biomaterial are designed to help the implant retain its shape when bent and contoured to meet a specific patient defect
- May be trimmed and cut with surgical scissors.
- Easily fixated with plates/screws - designed to stay in place



Applications

- Adult and pediatric craniomaxillofacial applications
- Fixation of bones affected by trauma or for reconstruction
- Cranial flap fixation
- Communited fractures
- Reconstructive procedures of the midface



Applications

- Precise electro-cutting and electro-coagulation during electrosurgery