

# P(R)

**Cranial Stabilization & Retractor Systems** 



# Thank you

for your interest in our products!

Because we share your sense for precision, quality is in everything we do. PMI proudly stands behind our state-of-the-art solutions which are designed to support you in your daily tasks.

The PMI team is committed to excellence in the field of neuroscience. We are devoted to improving surgical performance and patient care by delivering high-value products and services that make a difference.

Matthias Schüle
Owner & Managing Director

Roman Maier

Ctor Managing Director

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Patrick Lux Managing Director



Get connected





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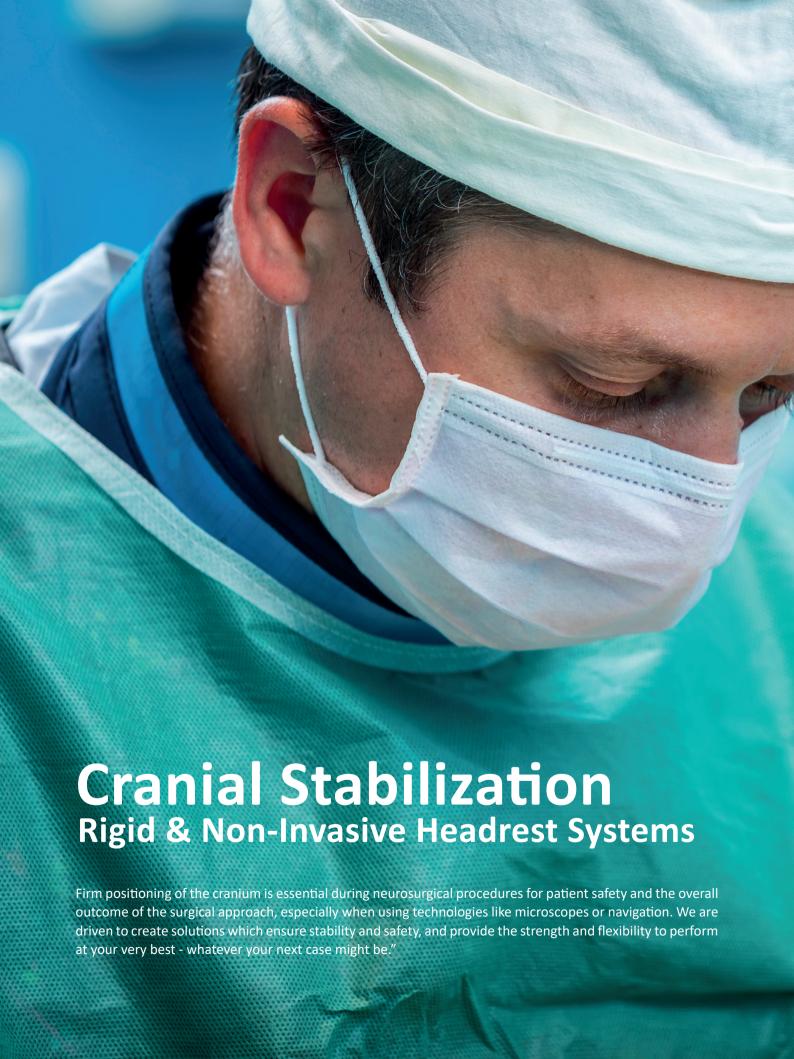
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# DORO® QR3 Headrest System

The  $DORO^{\otimes}$  QR3 Headrest System is developed for daily use in non-imaging neurosurgical applications. Features like built-in navigation adaptor interfaces and Mix & Match compatibility with  $DORO^{\otimes}$  Radiolucent products make it a time-saving and versatile device.

#### DORO® **QR3 Headrest System** Item no. 1001.100 (shown with DORO® Skull Pins)

Included Items	Item no.
DORO® QR3 Skull Clamp	1001.001
DORO® Swivel Adaptor Aluminum	3002-00
DORO® Base Unit Aluminum	3001-00



DORO® Storage Case Headrest System Item no. 1001.030 (optionally available).

#### Versatile

With the DORO®QR3 Skull Clamp as a basis, you are free to enhance the set-up to what suits you best. Retractor arms, entire retractor systems or navigation adaptors — It all fits.

#### Intuitive

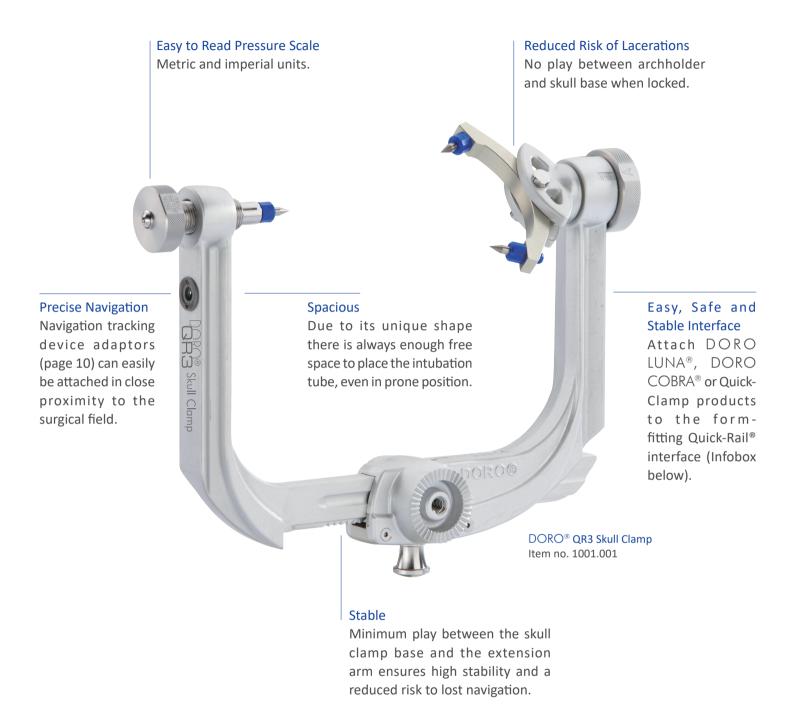
Fast and easy mounting frees up resources for the rest of your surgery preparations.

#### Compatible

Can directly be attached to an OR table via the neuro interface or mounted to its side-rails by means of the DORO® Side Rail Adaptors (page 10). You can also Mix & Match it with radiolucent DORO® products (page 23).



# DORO® QR3 Skull Clamp





#### Quick-Rail® - An Innovative Interface

The term QR3 refers to the 3<sup>rd</sup> generation of our innovative Quick-Rail® technology which is directly implemented in the extension arms of our aluminum skull clamps. Due to its unique shape it can easily be located, even when covered by multiple layers of sterile drape. The Quick-Rail® serves as a form-fitting interface, ensuring reliable attachment of DORO® Retractor Systems and accessories.

# DORO® Swivel Adaptors

DORO® Swivel Adaptors are the connecting elements between DORO® Skull Clamps and DORO® Base Units. Versions offering additional height, pivoting features and additional starbursts are available.



DORO® Swivel Adaptor Item no. 3002-00

Provides 360° rotation for optimum flexibility in patient positioning.



DORO® Ball Pivot Adaptor Item no. 3002-50

Provides 360° rotation, additional height, pivoting and unique horizontal inclination up to 90° for maximum flexibility in patient positioning.



DORO® Swivel Adaptor Navigation Item no. 3002-60

Provides 360° rotation and two additional starbursts for increased options in mounting navigational or similar devices.

# DORO® Aluminum Base Units

DORO® Base Units are individually designed for specific OR tables. Additionally, you can attach DORO® Base Units to almost all common OR tables with DORO® Side Rail OR Table Adaptors (page 10).



DORO® Adjustable Base Unit Item no. 3001-00



DORO® Adjustable Base Unit





DORO® Adjustable Base Unit Mizuho Mizuho, short Item no. 3001-002 Item no. 1001.023



DORO® Adjustable Base Unit Eschmann Item no. 3001-003



DORO® Adjustable Base Unit **Eschmann T-Series** Item no. 3001-010



DORO® Adjustable Base Unit Australia Item no. 3001-008

#### DORO® Base Unit Parkbench

The DORO® Base Unit Parkbench is the perfect solution for lateral patient positioning. Its design allows the safe and comfortable positioning of the patient's arm, resulting in a reduced risk of hematomas. The Base Unit Parkbench is adjustable in width and attaches to almost all standard side-rails.



DORO® Base Unit Parkbench Item no. 3001-006



Trumpf Universal Side Rail Fitting Item no. 3007-50



Stryker Armrest Parkbench Item no. 3001-007

Connects the Armrest Parkbench to the DORO® Base Unit Parkbench.



# DORO® Crossbar Adaptor

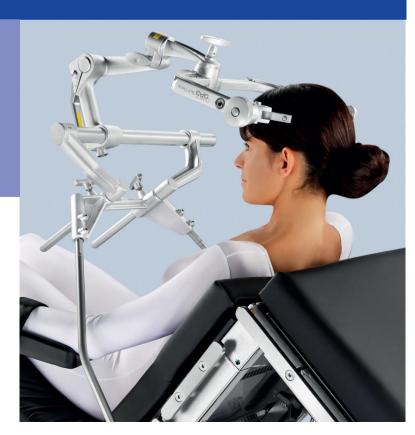
The DORO® Crossbar Adaptor is the perfect solution for all aproaches requiring a patient in sitting position. It can be mounted to the side-rails of almost all standard OR tables and provides a stable interface for the DORO® QR3 Headrest System.



DORO® Crossbar Adaptor

Item no. 3007-00

Needs 2x Universal Side Rail Fittings (item no. 3007-50, see above).



# DORO® Aluminum OR Table Adaptors



DORO® Table Adaptor Item no. 3010-00

Mounted on square receptacle of OR table.



DORO® Side Rail OR Table Adaptor Item no. 3011-00

Width-adjustable universal neuro interface, fitting OR tables with bars up to 70 mm.



DORO® Side Rail OR Table Adaptor AMSCO® Item no. 3011-10

Width-adjustable universal neuro interface, fitting OR tables with bars up to 125 mm.



AMSCO® Headrest Adaptor Item no. 3011-11

Fits 3080 & 3085 series.

# DORO® Easy Connect Navigation Adaptors

DORO® Easy Connect Navigation Adaptors connect directly to the integrated navigation starburst on the Quick-Rail® of the DORO® QR3 Skull Clamp, DORO® Multi-Purpose Skull Clamp and DORO® Skull Clamp Teflon®. This provides a very stable and secure connection and allows positioning the navigation reference array close to the surgical target.



DORO® Easy Connect Navigation Adaptor Stryker®

Item no. 1204.001

(Shown with Stryker navigation reference array).



DORO® Easy Connect Navigation Adaptor Brainlab

Item no. 1204.002

(Shown with Brainlab navigation reference array).



#### DORO® Reusable Skull Pins



DORO® Reusable Skull Pins Stainless Steel Adult Color: Black Item no. 3005-00 (3 pins)



DORO® Reusable Skull Pins Stainless Steel Pediatric Color: Black Item no. 3004-00 (3 pins)



DORO® Reusable Skull Pins Titanium Adult Color: Blue Item no. 3005-50 (3 pins)



DORO® Reusable Skull Pins Titanium Pediatric Color: Blue Item no. 3004-50 (3 pins)

# DORO® Disposable Skull Pins



DORO® Disposable Skull Pins Stainless Steel Adult Color: Blue Item no. 3006-00 (36 pins), sterile



DORO® Disposable Skull Pins Stainless Steel Pediatric Color: Yellow Item no. 3006-10 (36 pins), sterile



DORO® Disposable Skull Pins Titanium Adult Color: Turquoise Item no. 3006-20 (36 pins), sterile



DORO® Disposable Skull Pins Titanium Pediatric Color: Green Item no. 3006-30 (36 pins), sterile



DORO® Disposable Skull Pins Stainless Steel Adult Color: Black Item no. 3006-50 (36 pins), sterile

#### **High-End Imaging**

Perfect balance of imaging quality and pin stability. The DORO LUCENT® Disposable Skull Pin is specifically designed for intra-operative imaging applications using CT, MRI, X-Ray and Fluoroscopy. Imaging artifacts are reduced to a minimum while the composition of a titanium tip and high-performance reinforced polymer ensures a precise, secure and rigid fixation of the patient's head.

DORO LUCENT® Disposable Skull Pins Adult, sterile Color: Black

Item no. 1106.003 (3 pins) Item no. 1106.103 (9 pins)



# DORO® QR3 Headrest System Teflon®

The DORO® QR3 Headrest System Teflon® is the sterilizable counterpart of our well-established DORO® Headrest System Aluminum. Its autoclavability is a major plus when you are treating highly infectious patients.

# DORO® QR3 Headrest System Teflon® Item no. 3003-100 (shown with DORO® Skull Pins)

Included Items	Item no.
DORO® Skull Clamp Teflon®	3003-009
DORO® Swivel Adaptor Teflon®	3002-009

DORO® Adjustable Base Unit Teflon® 3001-009

# Precise Navigation

Navigation tracking device adaptors (page 10) can easily be attached in close proximity to the surgical field.

#### Easy, Safe and Stable Connection

Attach DORO LUNA®, DORO COBRA® or Quick-Clamp products to the form-fitting Quick-Rail® interface.

#### Autoclavable

The Teflon® coated surface of DORO® QR3 Headrest System Teflon® makes it machine-washable and autoclavable. It conforms to World Health Organization (WHO) Infection Control Guidelines for cleaning and sterilization.



DORO® Storage Case Headrest System Item no. 1001.030 (optionally available).



DORO

# DORO® Aluminum

#### **Swivel Horseshoe Headrests**



#### **Skeletal Traction Option**

An extension bar is optionally available.

#### **Proper Patient Positioning**

All DORO® Horseshoe Headrests are adjustable in width.

#### One Base Fits All

Mount adult or pediatric gel pads to the same horseshoe base.

#### Adult versions

# DORO® Swivel Horseshoe Headrest System, Adult with Extension Bar Item no. 3009-00

Included Items	Item no.
DORO® Horseshoe Base	3009-01
DORO® Horseshoe Pad, Adult, right	3009-10
DORO® Horseshoe Pad, Adult, left	3009-11
DORO® Extension Bar Horseshoe	3009-25

# DORO® Swivel Horseshoe Headrest System, Adult without Extension Bar Item no. 3009-02

Included Items	Item no.
DORO® Horseshoe Base	3009-01
DORO® Horseshoe Pad, Adult, right	3009-10
DORO® Horseshoe Pad, Adult, left	3009-11

#### **Pediatric versions**

DORO® Swivel Horseshoe Headrest System, Pediatric with Extension Bar Item no. 3008-00	
Included Items	Item n
DORO® Horseshoe Base	3009-0

mora a carrierns	
DORO® Horseshoe Base	3009-01
DORO® Horseshoe Pad, Pediatric, right	3008-10
DORO® Horseshoe Pad, Pediatric, left	3008-11
DORO® Extension Bar Horseshoe	3009-25

DORO® Swivel Horseshoe Headrest System, Pediate	
without Extension Bar	
Item no. 3008-02	
Included Items	ļ

included items	item no.
DORO® Horseshoe Base	3009-01
DORO® Horseshoe Pad, Pediatric, right	3008-10
DORO® Horseshoe Pad Pediatric left	3008-11

# DORO® Accessories



DORO® Cervical Spine Support Item no. 3012-00

Item no. 3012-00 Neck support for anterior spine surgery.



DORO® Headrest Wall Storage Unit Item no. 3013-00 81 cm x 94 cm 32" w x 37" h.

DORO® Lubricant HP500

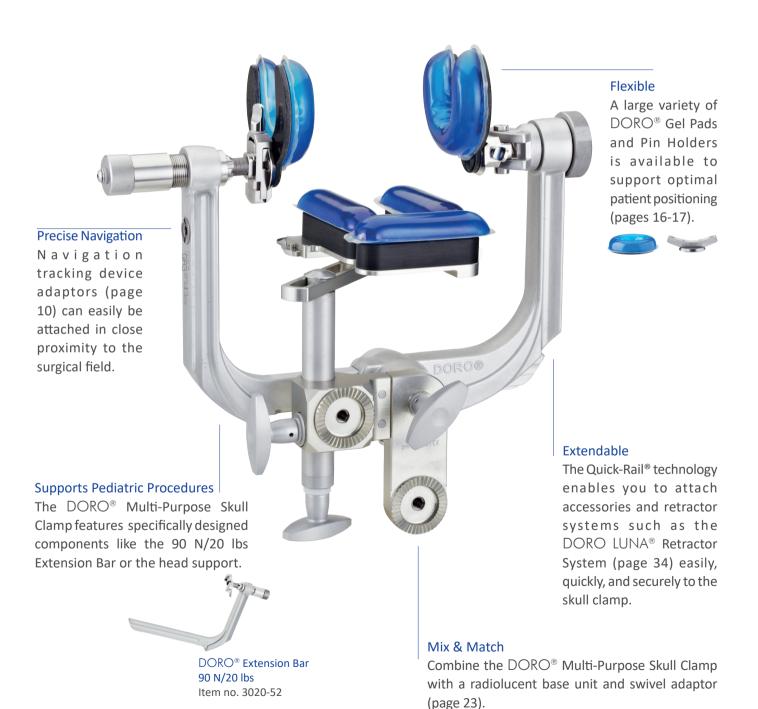
Item no. 1001.999 HP500 6-pack Item no. 1001.998

Autoclavable and precise in its application due to its needle-shaped tip.



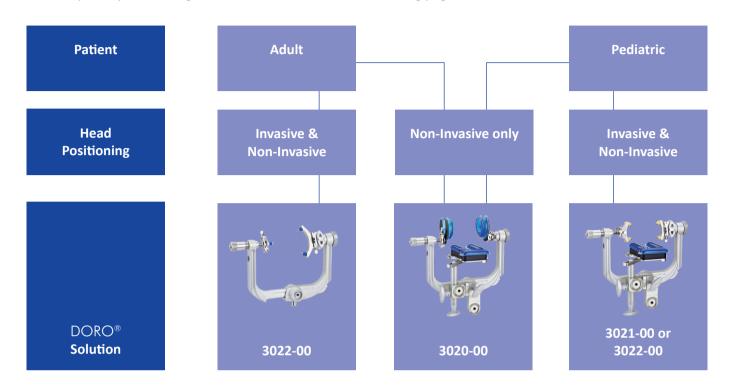
# DORO® Multi-Purpose Skull Clamp

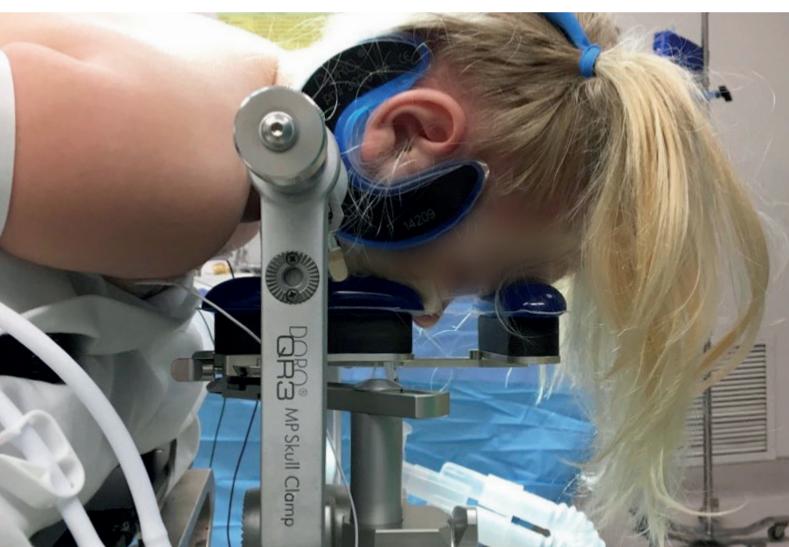
The DORO® Multi-Purpose Skull Clamp is our most versatile skull clamp. It offers all the beneficial features of the DORO® QR3 Skull Clamp and can be set-up for invasive or non-invasive procedures in adult as well as in pediatric cases. Since a children's skull is still growing and is, therefore, very vulnerable, neurosurgical solutions are needed which fit their needs. The DORO® Multi-Purpose Skull Clamp provides different kind of shapes and sizes of gel pads and pin holders. A specifically designed extension bar ensures a safe fixation of the children's head with an appropriate pin force, comprising a force scale up to 90N.



# Which DORO® Multi-Purpose Skull Clamp System works for you?

That depends on the desired head positioning method. Have a look at the overview below for guidance. The complete system configurations can be found on the following pages.





# DORO® Multi-Purpose Skull Clamp – Invasive Set-Up Possibilities

Set-up the DORO® Multi-Purpose Skull Clamp as a classic 3-pin skull clamp for adult patients or apply the dedicated 90 N /20 lbs Extension Bar, head support and dual pin holders on both sides when treating pediatric patients. An interface for the direct connection of the PMT® Halo System is also available.







Adjustable, Pediatric

Item no. 3020-62

DORO® PMT® Halo System Holder Item no. 1002.067



DORO® Pin Holder, Pediatric Item no. 3020-01



DORO® Pin Holder, Adult Item no. 3020-56

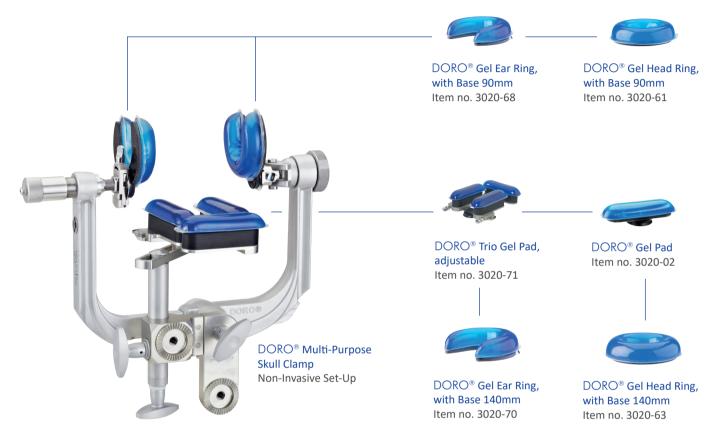


DORO® <b>Abbott Multi-Purpose Skull Clamp System</b> Item no. 3021-00	Pediatric,
Included Items	Item no.
DORO® Disposable Skull Pins, Pediatric (36pcs)	3006-10
DORO® Pin Holder Pediatric	3020-01
DORO® Head Support (w/o Gel Pads)	3020-03
DORO® Multi-Purpose Skull Clamp	3020-50
DORO® Extension Bar 90N/20lbs	3020-52
DORO® Single Pin Holder	3020-55
DORO® Gel Head Ring w/ Base 90 mm (3pcs)	3020-61
DORO® Pin Holder Adjustable, Pediatric	3020-62
DORO® Gel Head Ring w/ Base 140 mm	3020-63
DORO® Adjustment Key	3020-65
DORO® Gel Ear Ring w/ Base 90 mm (2pcs)	3020-68
DORO® Trio Gel Pad (adjustable)	3020-71
DORO® Storage Case MPSC System	3020-001

DORO® <b>Universal Multi-Purpose Skull Clamp Syst</b> Item no. 3022-00	tem
Included Items	Item no.
DORO® Disposable Skull Pins, Adult (36pcs)	3006-00
DORO® Disposable Skull Pins, Pediatric (36pcs)	3006-10
DORO® Pin Holder Pediatric	3020-01
DORO® Gel Pad	3020-02
DORO® Head Support (w/o Gel Pads)	3020-03
DORO® Multi-Purpose Skull Clamp	3020-50
DORO® Extension Bar 90N/20lbs	3020-52
DORO® Single Pin Holder	3020-55
DORO® Pin Holder Adult	3020-56
DORO® Gel Head Ring w/ Base 90 mm (3pcs)	3020-61
DORO® Pin Holder Adjustable, Pediatric	3020-62
DORO® Gel Head Ring w/ Base 140 mm	3020-63
DORO® Adjustment Key	3020-65
DORO® Gel Ear Ring w/ Base 90 mm (2pcs)	3020-68
DORO® Trio Gel Pad (adjustable)	3020-71
DORO® Storage Case MPSC System	3020-001

# DORO® Multi-Purpose Skull Clamp – Non-Invasive Set-Up Possibilities

Choose from a variety of different gel pad shapes and sizes for optimal patient stabilization in non-invasive surgical procedures. All of the pads can either be mounted to the lateral receptacles at the skull clamp or to the head support for maximized flexibility in patient positioning.



DORO® <b>Multi-Purpose Skull Clamp System</b> Item no. 3020-00	
Included Items	Item no.
DORO® Disposable Skull Pins, Pediatric (36pcs)	3006-10
DORO® Pin Holder Pediatric	3020-01
DORO® Head Support (w/o Gel Pads)	3020-03
DORO® Multi-Purpose Skull Clamp	3020-50
DORO® Single Pin Holder	3020-55
DORO® Gel Head Ring w/ Base 90 mm (3pcs)	3020-61
DORO® Pin Holder Adjustable, Pediatric	3020-62
DORO® Gel Head Ring w/ Base 140 mm	3020-63
DORO® Adjustment Key	3020-65
DORO® Gel Ear Ring w/ Base 90 mm (2pcs)	3020-68
DORO® Trio Gel Pad (adjustable)	3020-71
DORO® Storage Case MPSC System	3020-001

#### **Store it Safely**

All DORO® Multi-Purpose Skull Clamp systems ship in a stable storage case.





# Cranial Stabilization Imaging Solutions

Intra-operative imaging allows to run diagnostic imaging during surgical procedures to support decision making on how to proceed with the case at hand. Having experienced the complexity of different imaging methods and surgical approaches, we strive to provide technically advanced yet easy to use products.

# Our solutions support various intra-operative imaging modalities.

Please find the respective icon for the supported intra-op imaging modalities on the individual product page.



The best imaging method to examine vascular structures. This method also makes needle guidance and catheter placement easier by visualizing it. Angiography is often used in the context of Fluoroscopy and Digital Subtraction Angiography.



#### **Computed Tomography**

Used for a precise, three dimensional view. It is also applied to locate and determine the size of a tumor. The method can be further used for skeletal, high- and low-contrast as well as perfusion imaging.



#### **Magnetic Resonance Imaging**

The best solution to get detailed images of organs and tissues. MRI is particularly applied when soft tissue, perfusion or diffusion-weighted images are needed helping to assess blood vessels.

# DORO LUCENT® Headrest System



The DORO LUCENT® Headrest System is the cranial stabilization system of choice for all procedures applying X-Ray & iCT Imaging. It features the completely metal free DORO® Skull Clamp Radiolucent with its beneficial Quick-Rail® interfaces for a quick and easy attachment of navigation tracking devices, retractor systems and other accessories. The DORO LUCENT® Base Unit features a completely new and streamlined design and is also available in a compact version.

DORO LUCENT® <b>Headrest System</b> Item no. 1101.020	
Included Items	Item no.
DORO LUCENT® Disposable Skull Pins, Adult	1106.003
DORO LUCENT® Storage Case Headrest System	1101.030
DORO LUCENT® Base Unit	1101.021
DORO LUCENT® Locking Transitional Member	1101.031
DORO LUCENT® Transitional Member	1101.026
DORO® Swivel Adaptor Radiolucent	3033-00
DORO® Skull Clamp Radiolucent	3034-00

#### **High-End Imaging**

DORO LUCENT® Disposable Skull Pins are perfectly stable and reduce imaging artifacts to a minimum (page 16).

#### **Rigid Fixation**

Safely position the patient by means of the  $DORO^{\$}$  Skull Clamp Radiolucent.

#### **Fitting**

The system connects to almost all OR table side-rail types.

#### Adaptable

Compact Side Parts are additionally available.



#### Safe

The form fitting design of the base unit provides a stable base for the entire system.

#### **Convenient Handling**

Combined locking of transitional and sliding member.





#### Versatile

Quick-Rail® Technology enables you to attach accessories and retractor systems easily, quickly, and securely to the skull clamp.

#### Mix & Match

The DORO® Skull Clamp Radiolucent can be mounted to DORO® Aluminum Swivel Adaptor and Base Unit by means of the Mix & Match Adaptor #3033-50 (page 23).

# **Compact Version**

Choose the DORO LUCENT® Headrest System that suits you best. If you need to keep a low profile, the DORO LUCENT® Base Unit Compact offers shortened side parts, minimizing the space between base unit and OR table.



# DORO® Skull Clamp Radiolucent for Spinal Frames



This modification of our metalfree DORO® Skull Clamp Radiolucent is designed for spinal surgeries and can be spinal OR tables and spinal frames. The slim design allows the skull clamp to be lowered between the rails of the open simplifying patient imaging procedures.



Standard DORO® Skull Clamp



DORO® Skull Clamp Radiolucent to a MIZUHO OSI Insite® table.

#### Freedom in Patient Positioning

Unique shape allows lowering of the patient's head between the rails of an open frame OR table.



Technology enables you to attach accessories and retractor systems easily, quickly, and securely to the skull clamp.

Mix & Match

The DORO® Skull Clamp Radiolucent can be mounted to DORO® Aluminum Swivel Adaptor and Base Unit by means of the Mix & Match Adaptor #3033-50 (page 23) or to fitting counterparts of spinal frame table manufacturers.



# For Cranial Applications

Mix & Match the DORO® Skull Clamp Radiolucent with DORO® Aluminum Swivel Adaptors and Base Units.



DORO® Interface Skull Clamp Radiolucent (to ALU Swivel Adaptor) Item no. 3033-50



# For Cranial and Cervical Spine Applications

Mix & Match the DORO® Radiolucent Skull Clamp and Swivel Adaptor with DORO® Aluminum Base Units.



DORO® Transitional Member Radiolucent (to ALU Base Unit) Item no. 3032-00



# **For Cervical Spine Applications**

Mix & Match DORO® Aluminum Skull Clamps with the DORO® Radiolucent Swivel Adaptor, Transitional Member and Base Unit.



DORO® Interface Skull Clamp Aluminum (to RDL Swivel Adaptor) Item no. 3033-51



# DORO® Swivel Horseshoe Headrests Radiolucent



DORO® Radiolucent Horseshoes are the best choice for procedures that do not require a rigid fixation. The products come with an extension bar for skeletal traction. The horseshoes feature a Quick-Rail® interface for the quick connection of DORO COBRA® Retractor Arms.

#### Adult version

DORO® Swivel Horseshoe Headrest Radiolucent Adult, with Extension Bar Item no. 3036-00	
Included Items	Item no.
DORO® Horseshoe Base Radiolucent with Extension Bar	3036-50
DORO® Horseshoe Pad, Adult, right	3009-10
DORO® Horseshoe Pad, Adult, left	3009-11

#### **Pediatric version**

DORO® Swivel Horseshoe Headrest Radiolucent Pediatric, with Extension Bar Item no. 3035-00	
Included Items	Item no.
DORO® Horseshoe Base Radiolucent with Extension Bar	3036-50
DORO® Horseshoe Pad, Pediatric, right	3008-10
DORO® Horseshoe Pad, Pediatric, left	3008-11



# Versatile Attach DORO COBRA® Retractor Arms by means of the DORO COBRA® Quick-Clamp for Radiolucent Quick-Rail® (page 37).

# DORO® Horseshoe RS Headrest Radiolucent



DORO® Horseshoe RS Headrest Radiolucent, Adult, with Extension Bar Item no. 3036-70	
Included Items	Item no.
DORO® Horseshoe RS Base Radiolucent with Extension Bar	3036-71
DORO® Horseshoe Pad, Adult, right	3009-10
DORO® Horseshoe Pad, Adult, left	3009-11

#### **Pediatric version**

DORO® Horseshoe RS Headrest Radiolucent, Pediatric, with Extension Bar Item no. 3035-70	
Included Items	Item no.
DORO® Horseshoe RS Base Radiolucent with Extension Bar	3036-71
DORO® Horseshoe Pad, Pediatric, right	3008-10
DORO® Horseshoe Pad, Pediatric, left	3008-11



#### Compact

Connect the Horseshoe RS directly to the DORO LUCENT® Transitional Member and benefit from a low profile.

# DORO LUCENT® Horseshoe Headrest ENT



The DORO LUCENT® Horseshoe Headrest ENT is designed to match the specific needs of patient positioning for ear, nose and throat procedures. You can directly mount it to the DORO LUCENT® Transitional Member which allows a low profile by having the open part of the horseshoe facing away from the OR table.



#### Adult version

DORO LUCENT® Horseshoe Headrest ENT, Adult Item no. 1101.007	
Included Items	Item no.
DORO LUCENT® Horseshoe Headrest ENT, RDL w/o Gel Pads	1101.006
DORO® Horseshoe Pad, Adult, right	3009-10
DORO® Horseshoe Pad, Adult, left	3009-11

#### **Pediatric version**

DORO LUCENT® Horseshoe Headrest ENT, Pediatric Item no. 1101.008	
Included Items	Item no.
DORO LUCENT® Horseshoe Headrest ENT, RDL w/o Gel Pads	1101.006
DORO® Horseshoe Pad, Pediatric, right	3008-10
DORO® Horseshoe Pad, Pediatric, left	3008-11

#### One Base Fits All

DORO® Horseshoe Bases share the same gel pad holder design. This means that all our horseshoe gel pads can be mounted to every horseshoe base in our portfolio. The innovative design of the DORO® Horseshoe Base gives you the opportunity to quickly, adapt these products to adult or pediatric applications by mounting the respective gel pads, ensuring the optimal set-up for each of your patients.



# DORO LUCENT® Navigation Adaptors



DORO® Navigation Adaptors Radiolucent offer a safe and stable interface for navigation reference arrays from Stryker®, Medtronic and Brainlab. They are directly mounted over the sterile drape to the Quick-Rail® of the DORO® Skull Clamp Radiolucent. These adaptors allow a close positioning of the respective navigation reference array to the patients head while keeping the sterile field intact.



**Navigation Adaptor Brainlab** Item no. 3033-66 For Brainlab Reference Array 19145-01 with or without elongation 19145-02



DORO LUCENT® **Navigation Adaptor Medtronic** Item no. 3033-65



# DORO LUCENT® Headrest System Accessories





DORO® Swivel Adaptor Radiolucent Item no. 3033-00



DORO® Swivel Adaptor Radiolucent, short Item no. 3033-10



DORO® Universal DRF Adaptor Radiolucent (includes key) Item no. 3038-30



DORO LUCENT® Storage Case Headrest System Item no. 1101.030



DORO LUCENT® **Locking Transitional Member** Item no. 1101.031



DORO LUCENT® **Transitional Member** Item no. 1101.026

# DORO® Radiolucent OR Table Adaptors & Accessories





DORO® Angiography Table Adaptor SIEMENS, Radiolucent for Artis Table Item no. 4003-00



DORO® Table Adaptor medifa®, Radiolucent for medifa® OR Table 8000 Item no. 4004.001



DORO® Table Adaptor STERIS, Radiolucent for STERIS Carbon OR Tables CMAX XRAY Item no. 4004.002



DORO® Table Adaptor MAQUET, Radiolucent Item no. 3031-50

For Alphamaquet 1150 and Magnus 1180 and only in conjunction with MAQUET Adaptor, MAQUET item no. 6005.25A0.



DORO® Transitional Member Radiolucent, long (160 mm) Item no. 3032-10

Compatible with DORO® Table Adaptors Radiolucent, item nos 3031-50, 4003-00, 4004.001, 4004.002.

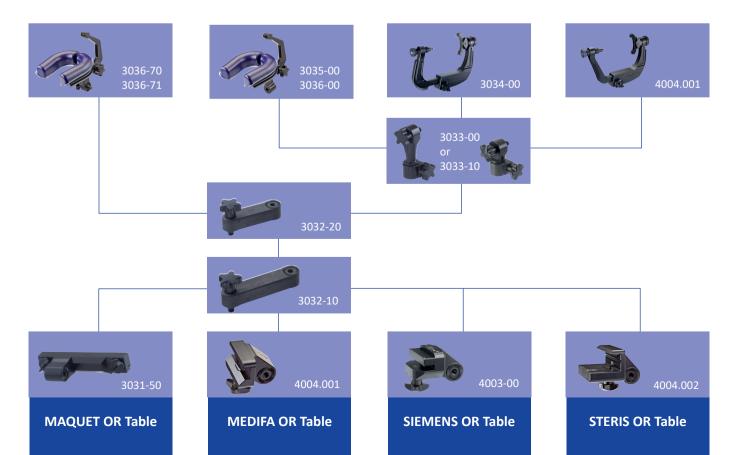


DORO® Transitional Member Radiolucent, short (120 mm) Item no. 3032-20

Compatible with DORO® Table Adaptors Radiolucent, item nos 3031-50, 4003-00, 4004.001, 4004.002.

#### Which DORO® Radiolucent Table Adaptor set-up fits your needs?

Start with the OR table manufacturer at the bottom and work your way up to the DORO® solution that works best for you.



# DORO LUCENT® iMRI Headrest Systems



DORO LUCENT® iMRI Headrest Systems allow you to use all the beneficial features and the known workflow of a standard rigid 3-pin fixation in an iMRI environment. This technically advanced yet familiar-to-use product features a variant of our proven DORO® Skull Clamp Radiolucent which is mounted to the OR table's transfer board by means of the DORO LUCENT® iMRI Parallelogram Adaptor, giving you the freedom you need to properly position patients for surgery.



# Which DORO LUCENT® iMRI Headrest System works for you?

Check the type of MRI scanner and OR table in your OR environment and compare it to the overview below to identify the DORO LUCENT® iMRI Headrest System that will fit your OR environment.





#### **Movement Capabilities**

DORO LUCENT® Parallelogram Adaptors allow you to shift, tilt, angle and rotate the skull clamp to always find a fitting position for your patient.



# DORO LUCENT® iXI Headrest System



The DORO LUCENT® IXI Headrest System increases your diagnostic capabilities as it supports intra-operative MR, CT and Angio imaging. This enables you and your team to run diagnostics on bone and tissue within the same surgery, resulting in a more precise treatment with lower time consumption compared to separate imaging approaches.

#### State-of-the-Art

The DORO LUCENT® iXI Headrest System is a dedicated multimodality imaging solution designed for use with a MAQUET / GETINGE Magnus OR Tables and SIEMENS Nexaris



#### Extendable

Quick-Rail® Technology enables you to attach accessories and retractor systems easily, quickly, and securely to the skull clamp.

#### Familiar

The classic skull clamp design lets you apply your known routines and workflows.

# **An Optimized Workflow**

iXI Headrest System

Item no. 4003.500

Position the patient as required for surgery before starting the actual pinning procedure with the DORO LUCENT® Headplate. This makes further movements of the sedated patient unnecessary, resulting in reduced procedural risk, less stress for the patient and increased convenience for you and your team.



DORO LUCENT® iXI <b>Headrest System</b> Item no. 4003.500	
Included Items	Item no.
DORO® Skull Clamp Radiolucent for DORO LUCENT® Parallelogram Adaptor	4003.001
DORO® Headplate	4003.005
DORO® Adjusting Wrench for DORO LUCENT® Parallelogram Adaptor	4003.011
DORO LUCENT® Storage Case for DORO LUCENT® Parallelogram Adaptor	4003.030
DORO LUCENT® iXI Parallelogram Adaptor	4003.511
DORO LUCENT® iXI Transfer Collision Indicator	4003.5XX
DORO LUCENT® Disposable Skull Pins, Adult (3 pcs)	1106.003

With the first installation of a DORO LUCENT® iXI Headrest System, an expert training is mandatory (page 31). Please contact your local DORO® representative for details.

# DORO LUCENT® Product Trainings

Dedicated products like the DORO LUCENT® iMRI or iXI Headrest Systems come as part of a larger iMRI or multimodality imaging installation. Before you start conducting live cases with these state-of-the-art products we will train you in their use. We explain functions, simulate workflows, and assist you in matching them to your distinct needs. These training sessions are held on site, in your facility, with you and your team, to offer the best possible education. DORO® application specialists will cover essential and advanced product knowledge and will match the training to your OR environment. The training will especially focus on overall system set-up & movement capabilities as well as patient positioning and clinical workflow subject to the respective imaging modality.



# DORO LUCENT® iMRI & iXI Accessories





DORO LUCENT® Headplate Item no. 4003.005



DORO LUCENT® iMRI Pad TRUMPF Item no. 4003.212



DORO LUCENT® Storage Case for Parallelogram Adaptors Item no. 4003.030



DORO® Adjusting Wrench for DORO LUCENT® Parallelogram Adaptor Item no. 4003.011



DORO® Torx Screwdriver T45, nonmagnetic Item no. 3033-68

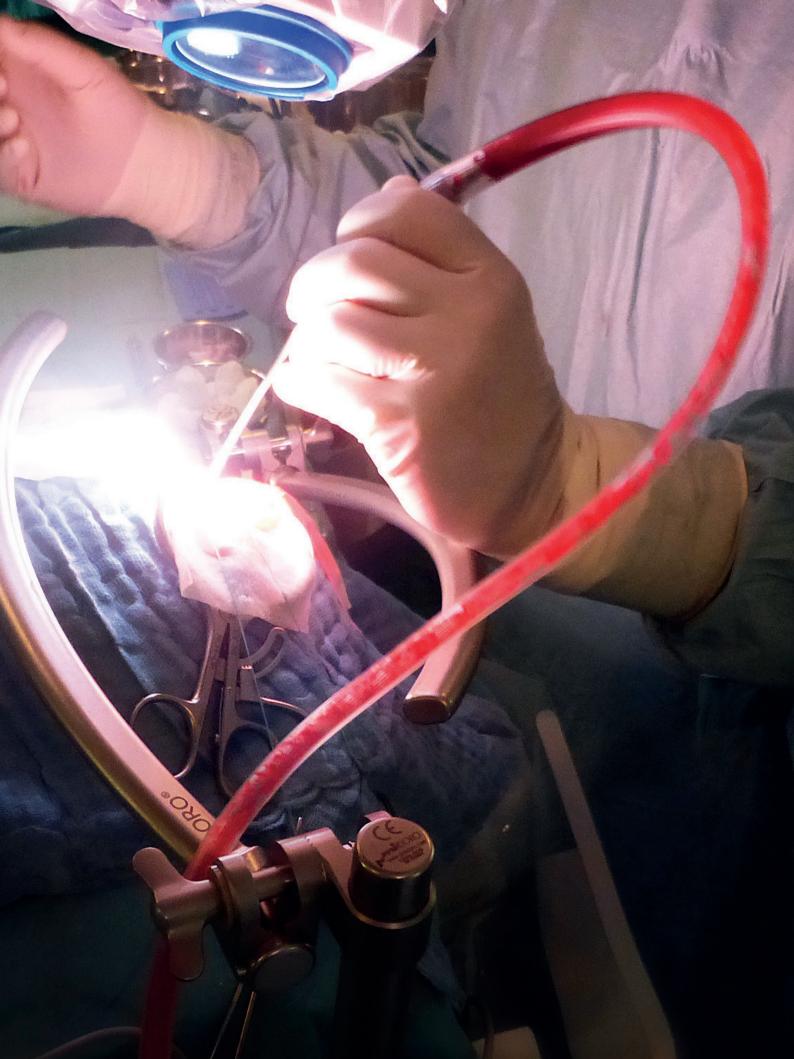


DORO LUCENT® iMRI Transfer Collision Indicator Item no. 4003.XXX



DORO LUCENT® iXI Transfer Collision Indicator Item no. 4003.5XX





# DORO LUNA® Retractor System

The DORO LUNA® Retractor System is made to support you in every surgery. Its open design allows you to always keep the curves parallel to the floor, independently of patient and skull clamp positioning. Tilt, shift and angle the system into any position you need and you will still be able to use the curves as a comfortable hand rest and retractor arm interface. The variability of the DORO LUNA® Retractor System can be further enhanced with additional adaptors, making it the most versatile retractor system to date.



DORO LUNA® <b>Retractor System – Standard System</b> Item no. 1203.100	
Included Items	Item no.
DORO COBRA® Flexible Rotary Arm 280mm (2 pcs)	1201.006
DORO® Retractor Sterilization Tray	1201.091
DORO LUNA® Quick-Clamp for Quick-Rail® (2 pcs)	1203.001
DORO LUNA® Coupling (4 pcs)	1203.002
DORO LUNA® Rod (2 pcs)	1203.003
DORO LUNA® Curve (2 pcs)	1203.004
DORO LUNA® Sterilization Tray	1203.091
DORO® Blade Set 102 mm, Black Coated, 5 pcs (2 sets)	3116-101

DORO LUNA® <b>Retractor System – Compact System</b> Item no. 1203.200	
Included Items	Item no.
DORO COBRA® Flexible Rotary Arm 280mm (2 pcs)	1201.006
DORO® Retractor Sterilization Tray	1201.091
DORO LUNA® Quick-Clamp for Quick-Rail®	1203.001
DORO LUNA® Coupling (2 pcs)	1203.002
DORO LUNA® Rod	1203.003
DORO LUNA® Curve	1203.004
DORO LUNA® Sterilization Tray	1203.091
DORO® Blade Set 102 mm, Black Coated, 5 pcs (2 sets)	3116-101



#### **Get the Bundle**

DORO LUNA® Standard Retractor System & DORO® QR3 Skull Clamp Item no. 1203.110

DORO LUNA® Standard Retractor System & DORO® QR3 Headrest System Item no. 1203.120



#### **Get the Bundle**

DORO LUNA® Compact Retractor System & DORO® QR3 Skull Clamp Item no. 1203.210

DORO LUNA® Compact Retractor System & DORO® QR3 Headrest System Item no. 1203.220

# A Highly Flexible Interface

Unfold the full potential of your DORO LUNA® & DORO COBRA® products by combining them in various setups. Mount half a DORO LUNA® Retractor System as a hand support while directly connecting DORO COBRA® Flexible Rotary Arms to the Quick-Rail® of the skull clamp, either in an imaging or in an non-imaging environment.







DORO LUNA® Retractor System mounted to the DORO® QR3 Skull Clamp.



DORO LUNA® & DORO COBRA® combined set-up mounted to the DORO® Skull Clamp Radiolucent.

# DORO COBRA® Retractor System

The DORO COBRA® Retractor System is the retractor system of choice for maximum visibility and access to the surgical site. DORO COBRA® Flexible Rotary Arms are directly mounted to the Quick-Rail® of either the DORO® QR3 Skull Clamp or the DORO® Skull Clamp Radiolucent. A combined set-up with DORO LUNA® components is possible and grants enhanced set-up and application possibilities.



DORO COBRA® Retractor System for Aluminum Quick-Rail® Item no. 1201.100	
Included Items	Item no.
DORO COBRA® Quick-Clamp for Aluminum Quick-Rail®	1201.021
DORO COBRA® Flexible Rotary Arm 420 mm	1201.008
DORO® Blade, Black Coated, 102 x 7 mm	3116-111
DORO® Blade, Black Coated, 102 x 10 mm	3116-121
DORO® Retractor Sterilization Tray	1201.091

#### Unobstructive

The DORO COBRA® Retractor System leaves you all the space you need to perform your surgery. You would like to use a comfortable hand support with it? Just mount a DORO LUNA® Compact Retractor System (page 35) to the other side of the skull clamp.







# DORO COBRA®

Mix & Match the DORO COBRA® Retractor System with the DORO® Skull Clamp Radiolucent.

DORO COBRA® Quick-Clamp for Radiolucent Quick-Rail® Item no. 1201.022

DORO COBRA® Retractor System for Radiolucent Quick-Rail® Item no. 1201.109



# DORO LUNA®

Mix & Match the DORO LUNA® Retractor System with the DORO® Skull Clamp Radiolucent.

DORO LUNA® Quick-Clamp for Radiolucent Quick-Rail® Item no. 1203.009

DORO LUNA® Retractor System - Standard System for Radiolucent Quick-Rail® Item no. 1203.109

DORO LUNA® Retractor System - Compact System for Radiolucent Quick-Rail® Item no. 1203.109

# DORO COBRA® Flexible Rotary Arms

DORO COBRA® Flexible Rotary Arms are smooth and very precise in their movement. Just clip them on their form-fitting counterparts like the DORO LUNA® Curve or the DORO COBRA® Quick-Clamps, mount a DORO® Brain Spatula and continue your procedure. All DORO COBRA® Retractor Arms share the ability to be quickly adjusted, even without releasing the arm's tension.



DORO COBRA® Flexible Rotary Arms		
Available Items	Item no.	
DORO COBRA® Flexible Rotary Arm 200 mm	1201.005	
DORO COBRA® Flexible Rotary Arm 280 mm	1201.006	
DORO COBRA® Flexible Rotary Arm 350 mm	1201.007	
DORO COBRA® Flexible Rotary Arm 420 mm	1201.008	

#### **Quick Adjustments Under Tension**

Even under tension, repositioning of the attached brain spatula is possible. Neither the tension of the retractor arm nor the stiffness of the brain spatula will be lost while doing so.

#### Flexible

Four different lengths and a 360° rotational body let you position the DORO COBRA® Flexible Rotary Arms precisely at the location where you need them, gaining a high visibility on your surgical site.

#### Fast to Mount

The Snap-On technology allows to quickly, and easily mount DORO COBRA® Flexible Rotary Arms.

# DORO® Flexible Arms





DORO® Flexible Arms	
Available Items	Item no.
DORO® Flexible Arm 230 mm	3114-34
DORO® Flexible Arm 300 mm	3114-35

DORO® Flexible Rotary Arms	
Available Items	Item no.
DORO® Flexible Rotary Arm 200 mm	3114-36
DORO® Flexible Rotary Arm 280 mm	3114-37
DORO® Flexible Rotary Arm 350 mm	3114-38
DORO® Flexible Rotary Arm 420 mm	1201.008

# DORO® Quick-Clamp with Starburst for Radiolucent Quick-Rail®

The DORO® Quick-Clamp with Starburst for Radiolucent Quick-Rail® serves as an intuitive interface\* for devices used for example in frameless stereotactic or endoscopic procedures. Designed for use over the sterile barrier and form-fittingly connected to the proven Quick-Rail® of the DORO® Skull Clamp Radiolucent, the adaptor provides a stable and secure connection point for third party devices.



# DORO® Quick-Clamp Halo Brain Retractor System

The DORO® Halo Retractor System features the classic halo ring design. You can easily attach it to the Quick-Rail® of DORO® QR3 Skull Clamps by means of the DORO® Quick-Clamp or to older skull clamp versions by means of the alternatively available C-Clamp. Rotary retractor arms, brain spatulas and accessories are available.



#### Adaptable

Adjust the halo ring to your needs. This provides angling, or half a ring can be removed completely.

#### Compatible

The DORO® Halo Retractor System fits almost all common skull clamps, either by means of the form-fitting Quick-Rail® interface or by means of the C-Clamp.

	020
DORO® <b>Quick-Clamp Halo Retractor System</b> Item no. 1202.100T	Q.
Included Items	Item no.
DORO® Quick-Clamp Halo Coupling Set (2 pcs)	1202.010
DORO® Halo Ring	3110-01
DORO® Halo Support Rod 8 mm (2 pcs)	3110-08
DORO® Halo Universal Key (2 pcs)	3110-80
DORO® Halo Pattie Tray	3110-85
DORO® Flexible Rotary Arm 280 mm (3 pcs)	3114-37
DORO® Blade Set 102 mm, Black Coated, 5 pcs (2 sets)	3116-101
DORO® Micro Blade Set, 6 pcs	3116-20
DORO® Halo Sterilization Case w/ Rack	3117-00

DORO® Halo Retractor System w/ C-Clamp Item no. 3100-00	
Included Items	Item no.
DORO® Halo Ring	3110-01
DORO® Halo Support Rod 8 mm (2 pcs)	3110-08
DORO® Halo Support Bracket w/ C-Clamp Adaptor (2 pcs)	3110-51
DORO® Halo Universal Key (2 pcs)	3110-80
DORO® Halo Pattie Tray	3110-85
DORO® Flexible Arm 230 mm (3 pcs)	3114-34
DORO® Blade Set 102mm, Black Coated, 5 pcs (2 sets)	3116-101
DORO® Micro Blade Set, 6 pcs	3116-20
DORO® Halo Sterilization Case w/ Rack	3117-00

# DORO® Retractor Accessories



DORO® Quick-Clamp Item no. 1202.014



DORO® Quick-Clamp Coupling Universal Item no. 1202.015



DORO® Halo Support Rod Holder Item no. 1202.016



DORO® Quick-Clamp Halo Coupling Set Item no. 1202.010



DORO® Quick-Clamp with Interface Mizuho-Type Retractors Item no. 1201.045



DORO® Halo Support Bracket with C-Clamp Adaptor Item no. 3110-51



DORO® Halo Ring Item no. 3110-01



DORO® Halo Support Rod 8mm Item no. 3110-08



DORO® Clamp Body for Skin Hooks Item no. 3114-53



DORO® Halo Pattie Tray Item no. 3110-85



DORO® Halo Universal Key Item no. 3110-80

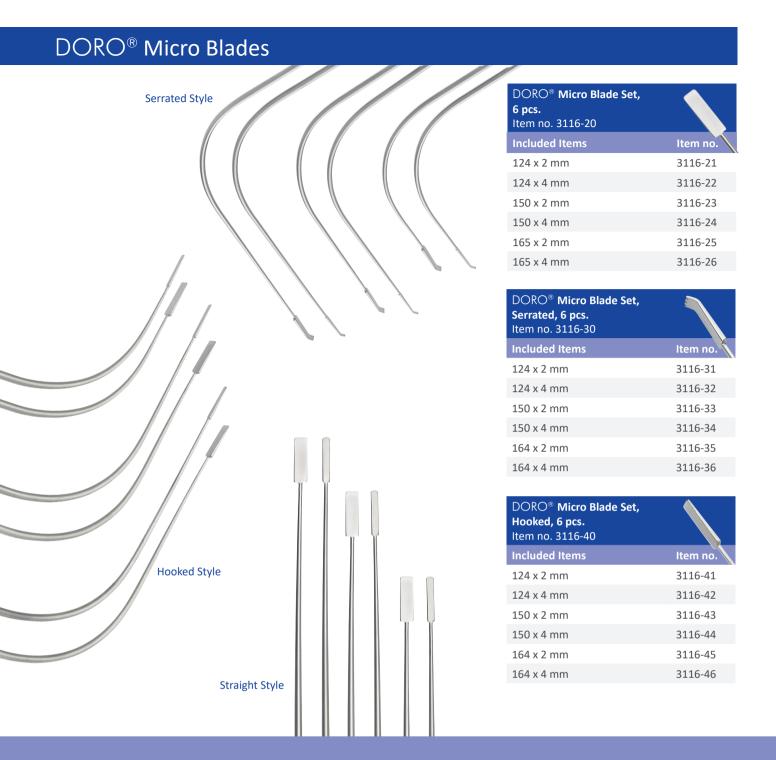


DORO® Mini Vice Item no. 3114-54

# DORO® Sterilization Trays

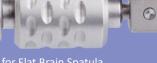
DORO® Sterilization Trays	
Included Items	Item no.
DORO® Retractor Sterilization Tray	1201.091
DORO LUNA® Sterilization Tray	1203.091
DORO® Lid for Sterilization Tray	1201.093
DORO® Halo Sterilization Case w/ Rack (shown)	3117-00
DORO® Pattie Tray Silicone Insert for Sterilization Tray	1201.092





#### Want to Use Your Own Blades?

Do you want to use our state-of-the-art DORO COBRA® Flexible Rotary Arms in combination with brain spatulas you are already familiar with? The DORO® Adaptor for Flat Brain Spatulas is the right choice as it attaches to all DORO® Retractor Arms and holds all common flat brain spatulas. But try out our blades at least once... you might actually like them.



# DORO® Blades



DORO® Blade Set 152 mm, Black Coated, 5 pcs. Item no. 3116-10	
Included Items	Item no.
152 x 7 mm	3116-11
152 x 10 mm	3116-12
152 x 16 mm	3116-13
152 x 20 mm	3116-14
152 x 26 mm	3116-15

DORO® Blade Set 102 mm, Black Coated, 5 pcs. Item no. 3116-101	
Included Items	Item no.
102 x 7 mm	3116-111
102 x 10 mm	3116-121
102 x 16 mm	3116-131
102 x 20 mm	3116-141
102 x 26 mm	3116-151

DORO® Blade, Black Coat	ted
not included in Set	Item no.
152 x 13 mm	3116-16
102 x 13 mm	3116-161



DORO® Blade Set 152 mm, Conical, Black Coated, 5 pcs. Item no. 3116-60	
Included Items	Item no.
152 x 2 mm	3116-61
152 x 3 mm	3116-62
152 x 4 mm	3116-63
152 x 5 mm	3116-64
152 x 6 mm	3116-65

DORO® Blade Set 102 mm, Conical, Black Coated, 5 pcs.	
Item no. 3116-601	
Included Items	Item no.
102 x 2 mm	3116-611
102 x 3 mm	3116-621
102 x 4 mm	3116-631
102 x 5 mm	3116-641
102 x 6 mm	3116-651



DORO® Blade Set 102 mm, Rounded Tip, Black Coated, 5 pcs. Item no. 3116-70	
Included Items	Item no.
102 x 7 mm	3116-71
102 x 10 mm	3116-72
102 x 16 mm	3116-73
102 x 20 mm	3116-74
102 x 26 mm	3116-75

#### Connectivity guaranteed

DORO® Blades and Micro Blades fit all DORO® and DORO COBRA® Retractor Arms.



# Why Black?

The black matt finish of our blades prevents reflections from the dazzling light focused on the surgical site during procedures and lets you concentrate on your procedure without interruptions.

#### www.pmisurgical.com









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