



BLACK  
FOREST  
MEDICAL  
GROUP

# DORO®

**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. The Black Forest Medical Group proudly stands behind its state-of-the-art solutions which are designed to support you in your daily tasks.*

*The Black Forest Medical 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  
Managing Director



Patrick Lux  
Managing Director



Get connected





# CONTENTS

## Rigid & Non-invasive Headrest Systems

DORO® QR3 Headrest System	page 6
DORO® QR3 Skull Clamp	page 7
DORO® Swivel Adaptors and Base Units	page 8
DORO® Base Unit Parkbench	page 9
DORO® Crossbar Adaptor	page 9
DORO® OR Table Adaptors	page 10
DORO® Easy Connect Navigation Adaptors	page 10
DORO® Skull Pins	page 11
DORO® QR3 Headrest System Teflon®	page 12
DORO® Aluminum Horseshoe Headrests	page 13
DORO® Accessories	page 13
DORO® Multi-Purpose Skull Clamp	page 14

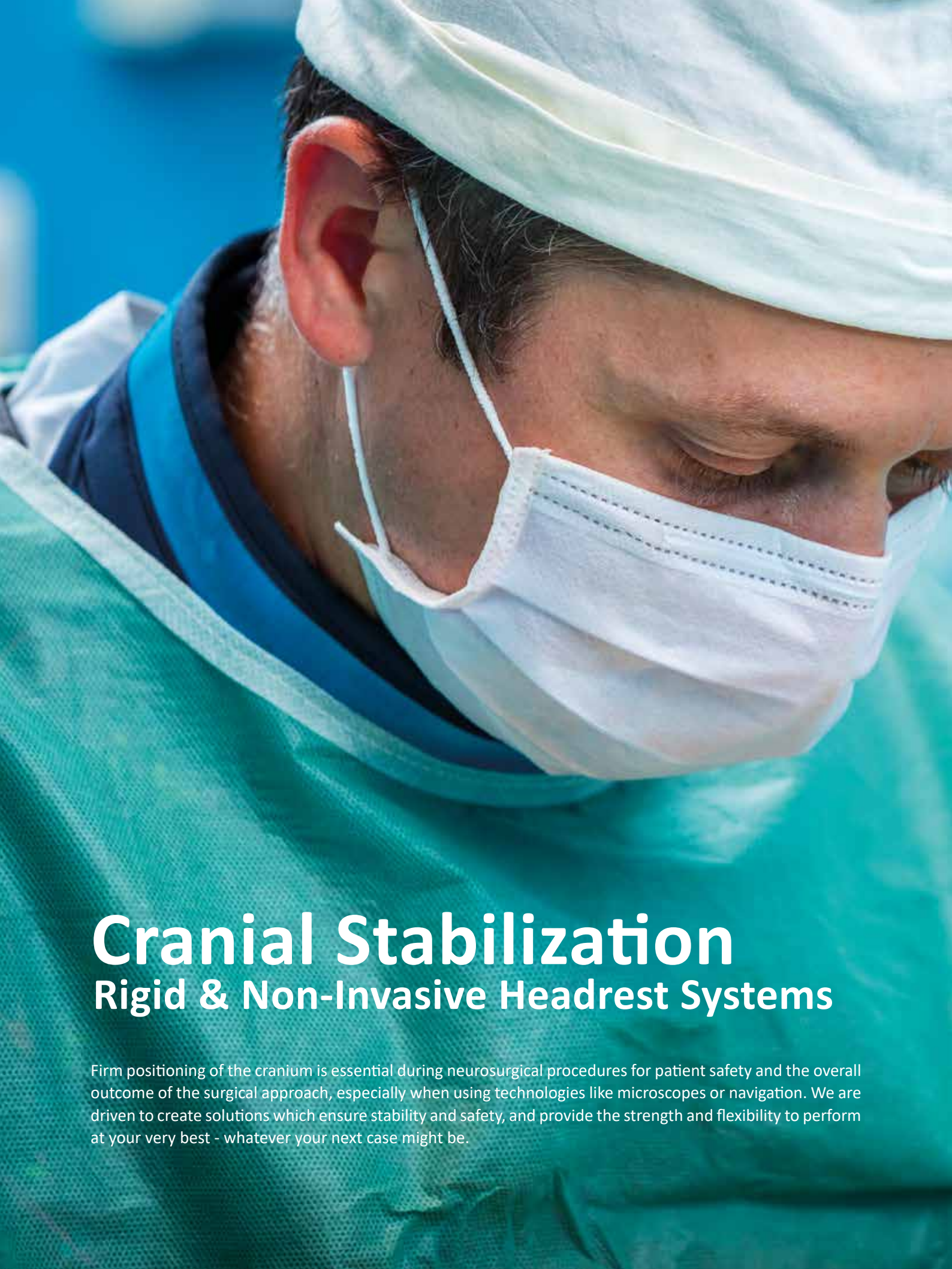
## Imaging Solutions

DORO LUCENT® Headrest System	page 20
DORO® Skull Clamp Radiolucent	page 21
DORO® Skull Clamp for Spinal Frames	page 22
DORO® Mix & Match	page 23
DORO® Radiolucent Horseshoe Headrests	page 24
DORO LUCENT® Horseshoe Headrest ENT	page 25
DORO LUCENT® Navigation Adaptors	page 26
DORO LUCENT® Accessories	page 26
DORO® Radiolucent OR Table Adaptors	page 27
DORO LUCENT® iMRI Headrest Systems	page 28
DORO LUCENT® iXI Headrest System	page 30
DORO LUCENT® iMRI & iXI Training	page 31
DORO LUCENT® iMRI & iXI Accessories	page 31

## Retractor Systems

DORO LUNA® Retractor System	page 34
DORO COBRA® Retractor System	page 36
DORO® Mix & Match	page 37
DORO® Flexible Rotary Arms	page 38
DORO® Quick-Clamp with Starburst	page 39
DORO® Halo Brain Retractor System	page 40
DORO® Retractor Accessories	page 41
DORO® Sterilization Trays	page 41
DORO® Micro Blades	page 42
DORO® Blades	page 43





# Cranial Stabilization

## Rigid & Non-Invasive Headrest Systems

Firm positioning of the cranium is essential during neurosurgical procedures for patient safety and the overall outcome of the surgical approach, especially when using technologies like microscopes or navigation. We are driven to create solutions which ensure stability and safety, and provide the strength and flexibility to perform at your very best - whatever your next case might be.





# DORO® QR3 Headrest System

The DORO® 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® 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 Headrest System  
Item no. 1001.100



# DORO® QR3 Skull Clamp

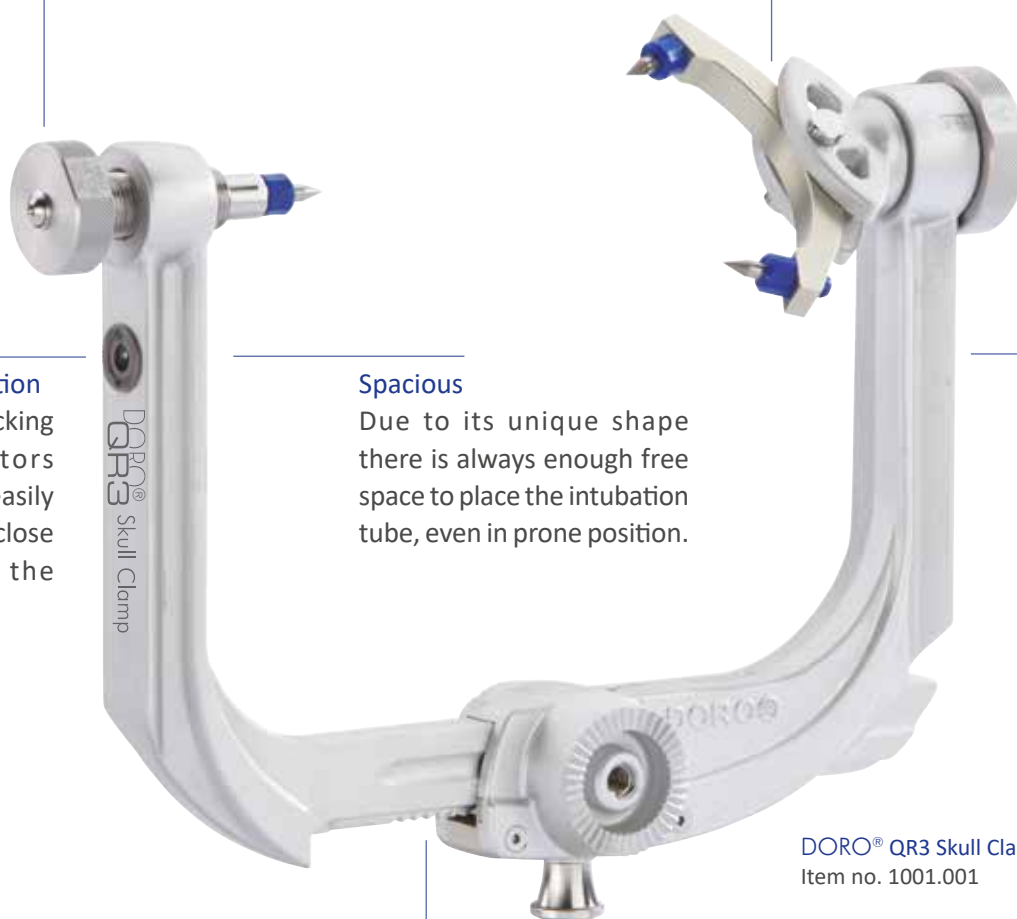
**Easy to Read Pressure Scale**  
Metric and imperial units.

**Reduced Risk of Lacerations**  
No play between archholder and skull base when locked.

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

**Spacious**  
Due to its unique shape there is always enough free space to place the intubation tube, even in prone position.

**Easy, Safe and Stable Interface**  
Attach DORO LUNA®, DORO COBRA® or Quick-Clamp products to the form-fitting Quick-Rail® interface (Infobox below).



DORO® QR3 Skull Clamp  
Item no. 1001.001

**Stable**  
Minimum play between the skull clamp base and the extension arm ensures high stability and a reduced risk to lost navigation.



DORO®  
QR3

## 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

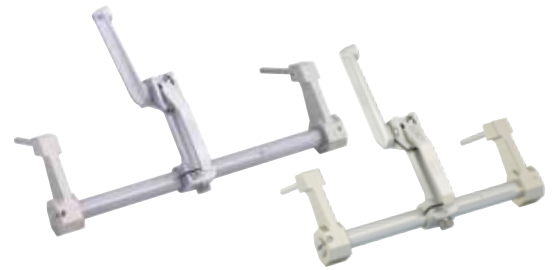
DORO® Base Units are individually designed for specific OR tables. Additionally, you can attach DORO® Base Units to almost all common OR tables with DORO® Side Rail OR Table Adaptors (page 10).



DORO® Adjustable Base Unit  
Item no. 3001-00



DORO® Adjustable Base Unit  
Takara Belmont  
Item no. 3001-001



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

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



Stryker Armrest Parkbench  
Item no. 3001-007

## DORO® Crossbar Adaptor

The DORO® Crossbar Adaptor is the perfect solution for all approaches 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® Easy Connect Navigation Adaptor Medtronic  
Item no. 1204.003

(Shown with Medtronic 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® QR3 Headrest System  
Teflon®  
Item no. 3003-100



**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 no.
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, Pediatric without Extension Bar**

Item no. 3008-02

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  
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**

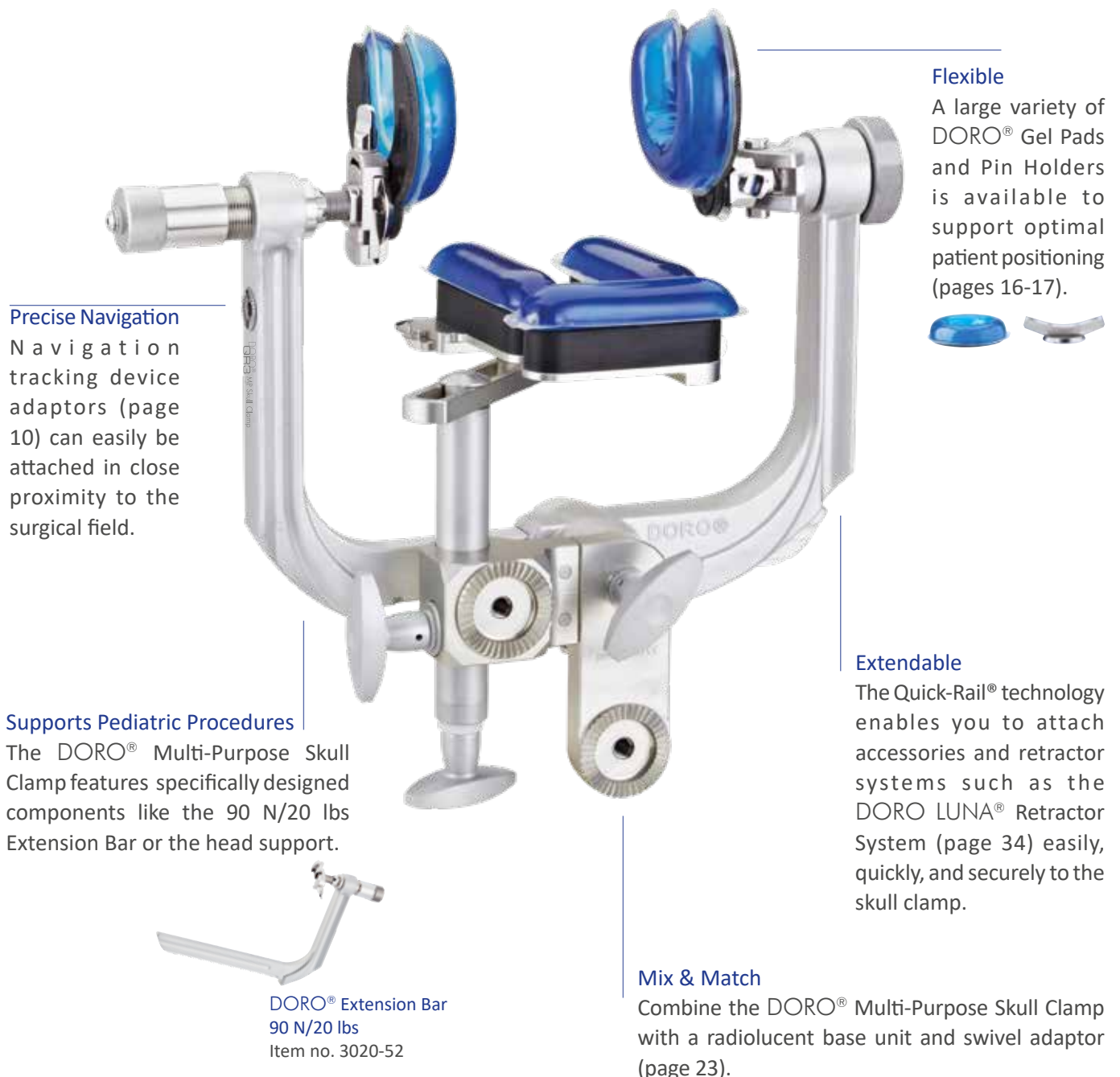
Item no. 1001.998

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



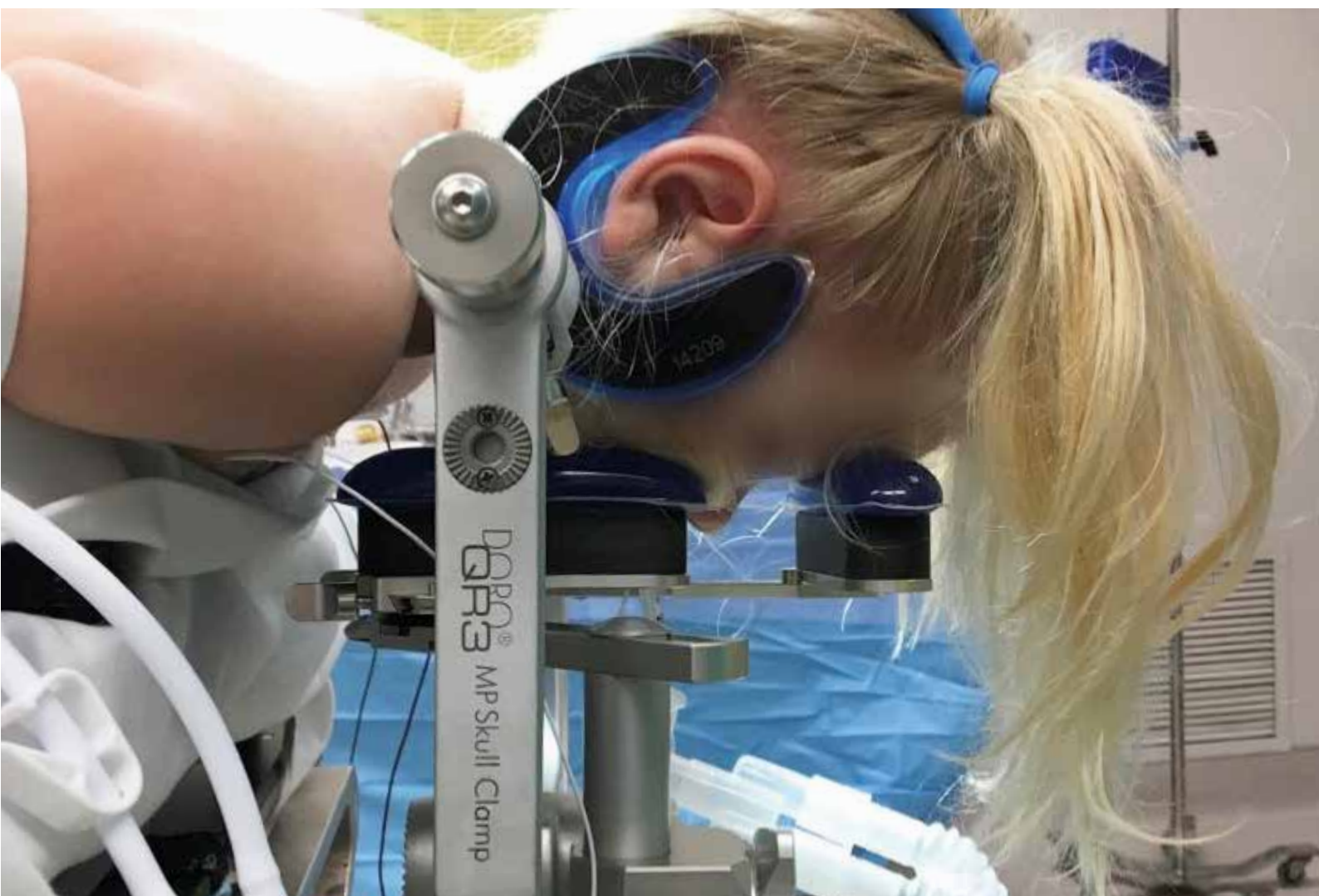
# DORO® Multi-Purpose Skull Clamp

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.



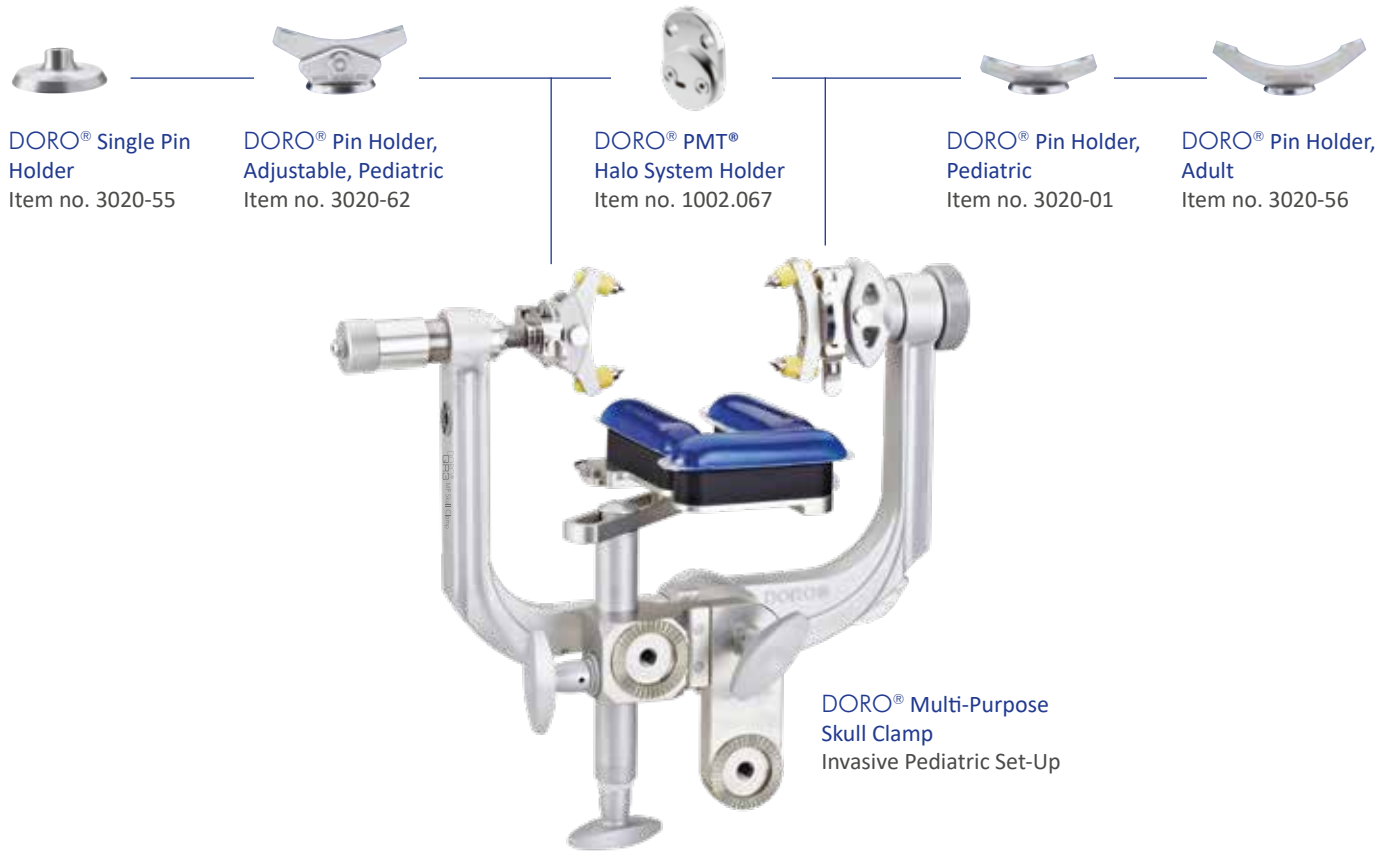
# Which DORO® Multi-Purpose Skull Clamp System works for you?

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.



## DORO® Abbott Multi-Purpose Skull Clamp System Pediatric, Item no. 3021-00

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® 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

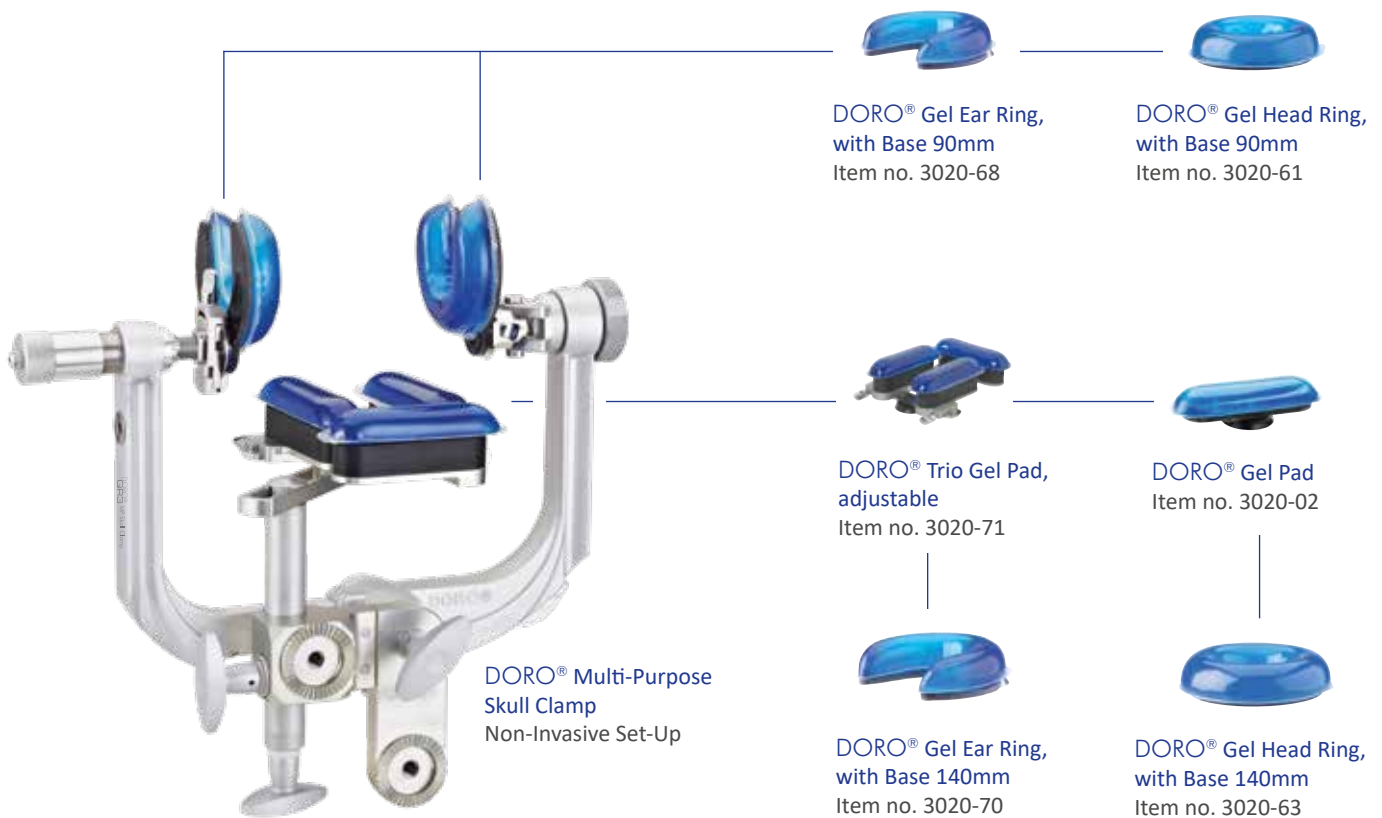
## DORO® Universal Multi-Purpose Skull Clamp System Item no. 3022-00

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® Multi-Purpose Skull Clamp System 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.



Storage Case MPSC System  
Item no. 3020-001  
(shown with Multi-Purpose Skull Clamp and Accessories).



# 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.



**Angiography**

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.

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® Headrest System

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.

### DORO LUCENT® Headrest System

Item no. 1101.020

(shown with DORO LUCENT® Disposable Skull Pins, page 16).



### 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.





**Easy to Read Pressure Scale**  
Metric and imperial units.

**Reduced Risk of Lacerations**  
No play between archholder and skull base when locked.

**DORO® Skull Clamp Radiolucent**  
Item no. 3034-00  
(shown with DORO LUCENT® Disposable Skull Pins, page 16).

## 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 LUCENT® Base Unit Compact**  
Item no. 1101.022

This modification of our metal-free DORO® Skull Clamp Radiolucent is designed for spinal surgeries and can be mounted to all established spinal OR tables and spinal frames. The slim design allows the skull clamp to be lowered between the rails of the open frame, simplifying patient positioning and imaging procedures.



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



DORO® Skull Clamp Radiolucent for Spinal Frames shown mounted 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.



DORO® Skull Clamp Radiolucent for Spinal Frames  
Item no. 4004.101

(shown with DORO LUCENT® Disposable Skull Pins, page 16).

## 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) or to fitting counterparts of spinal frame table manufacturers.

# Mix & Match



## 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® 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



## Adult version

**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

Shown mounted to the DORO LUCENT® Base Unit.

## 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.



DORO LUCENT®  
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®  
Navigation Adaptor Stryker®  
Item no. 3033-64

## 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® 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.

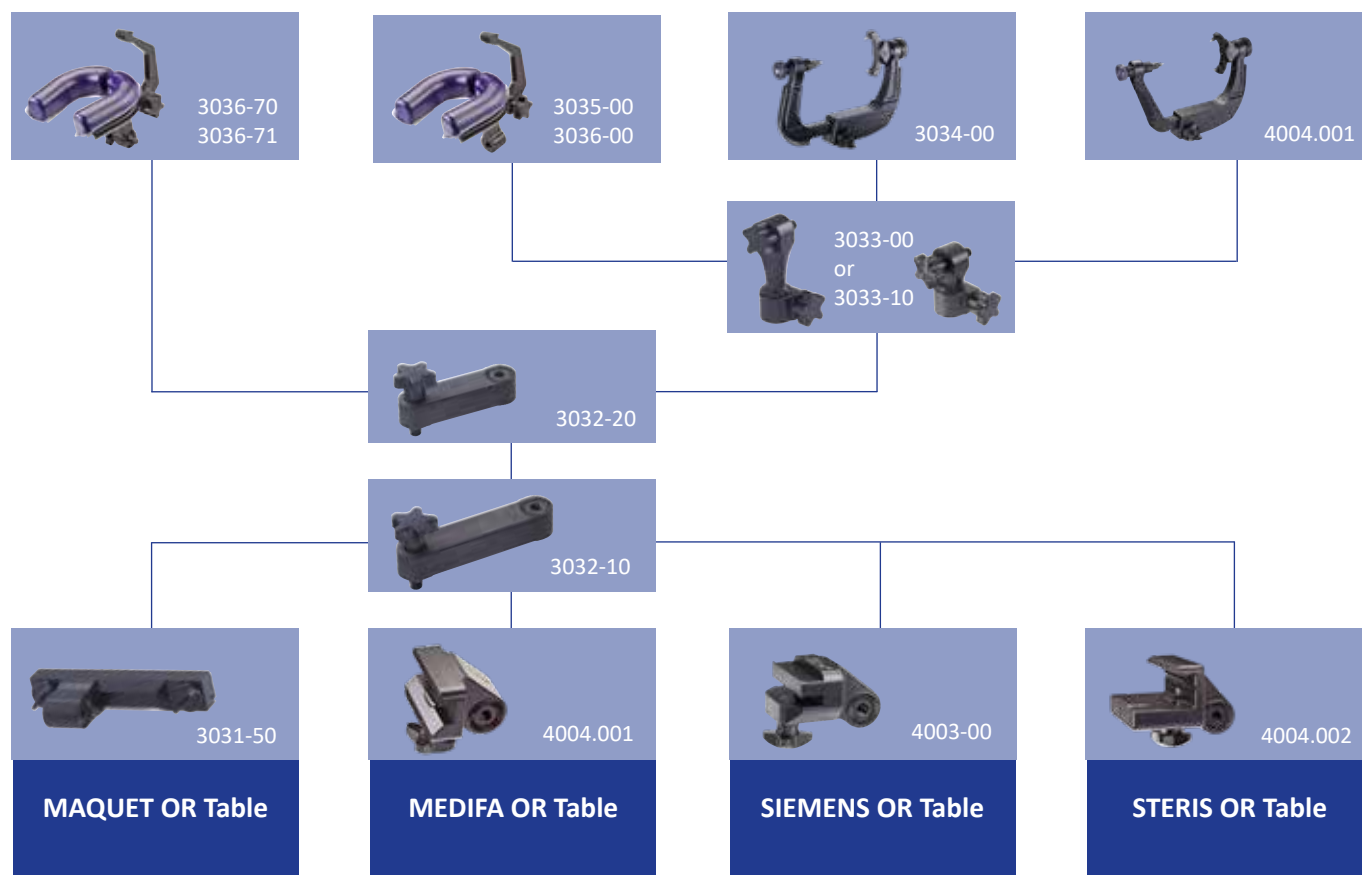


**DORO® Transitional Member**  
Radiolucent, short (120 mm)  
Item no. 3032-20

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 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.

## Familiar

The classic 3-pin skull clamp design with ratcheting system allows you to rely on your trained routine and known workflows.

## High-End Imaging

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

## Fast

Directly mountable to transfer boards of selected OR table manufacturers.

## Flexible

The parallelogram design supports you in properly positioning your patient for surgery.

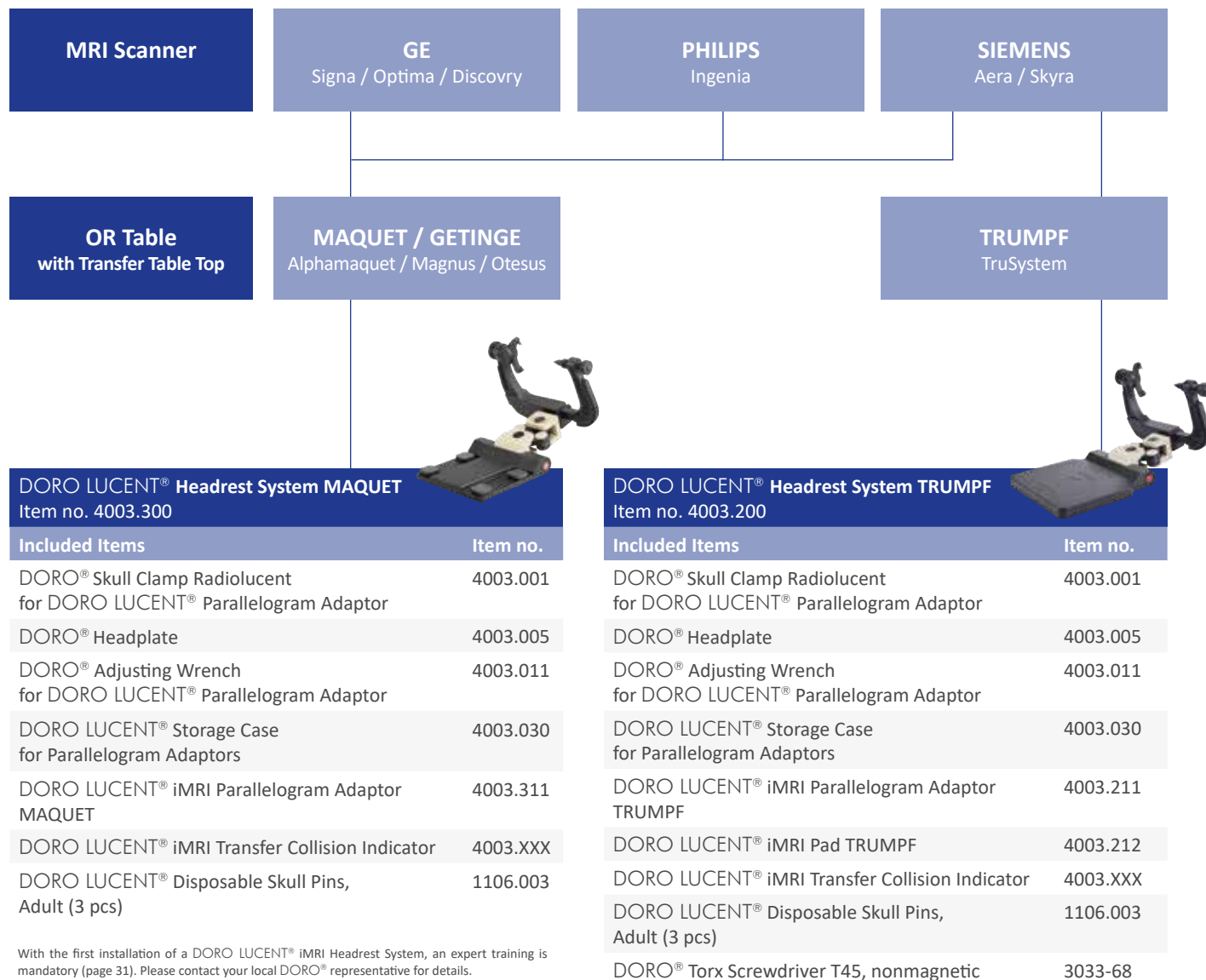


DORO LUCENT® iMRI Headrest System  
MAQUET  
Item no. 4003.300



# 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 Imaging Suites.



DORO LUCENT®  
iXI Headrest System  
Item no. 4003.500

## 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

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®  
Headplate  
Item no. 4003.005

### DORO LUCENT® iXI Headrest System

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.



iMRI &  
iXI Product Training  
Item no. 8001

## 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



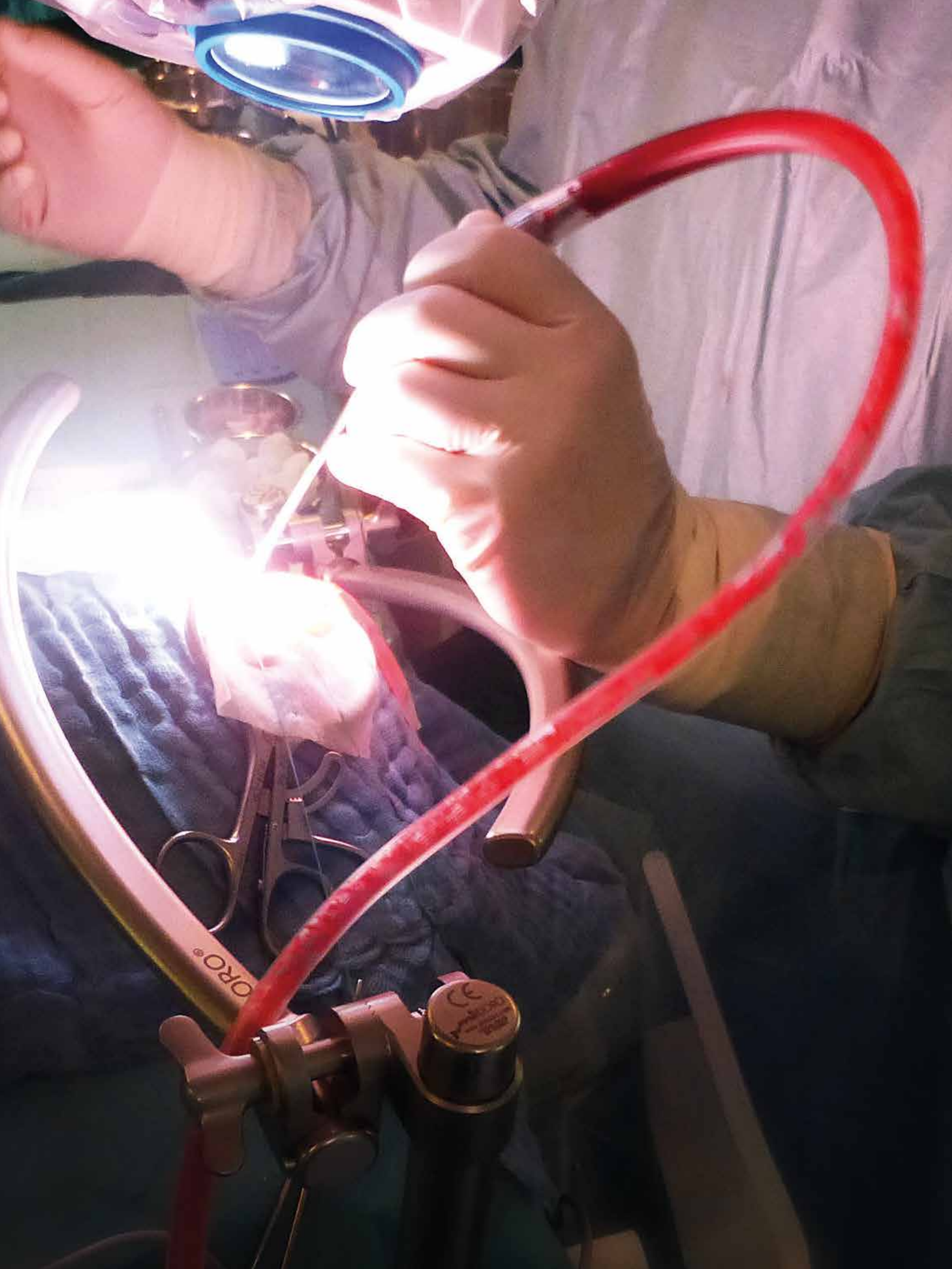
DORO LUCENT® iXI  
Transfer Collision Indicator  
Item no. 4003.5XX

A blurred, close-up photograph of a surgical procedure. In the upper right, a hand is visible holding a surgical instrument. Below it, a metal tray holds several other surgical tools, including forceps and a pair of scissors. The background is dark and out of focus, emphasizing the surgical environment.

# Retractor Systems

Surgeries are often connected to time-critical or stressful situations. Having to work under pressure demands the highest level of concentration. To enable you to focus on your work, we are driven to develop retractor systems which ease your workflow. Easy to set-up, convenient to use, comfortable as a hand rest, these systems will support you during the whole surgical procedure.





# 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.



The DORO LUNA® Retractor System is the winner of the 2015 Freiburg Innovation Award.

## Convenient

Snap-on attachment of DORO COBRA® Flexible Rotary Arms on any desired position on the curve.

## Supportive

Ergonomic design makes the DORO LUNA® Curve the optimal hand support. It can be positioned parallel to the floor, independently of skull clamp position.



DORO LUNA®  
Retractor System Standard  
Item no. 1203.100  
(shown mounted to the  
DORO® QR3 Skull Clamp)

## Fast

DORO LUNA® attaches directly to the Quick-Rail®, even over multiple layers of sterile drape.

## Easy

No extra tools are needed to mount and use DORO LUNA® Retractor Systems.

**DORO LUNA® Retractor System – Standard System**

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® Retractor System – Compact System**

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

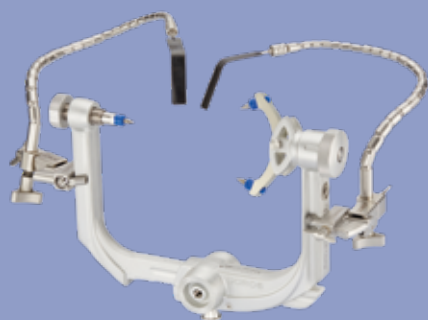
**Get the Bundle**

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 set-ups. 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 a non-imaging environment.



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



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

Item no. 1201.100

(shown mounted to the  
DORO® QR3 Skull Clamp)

## 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.



# Mix & Match



## 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



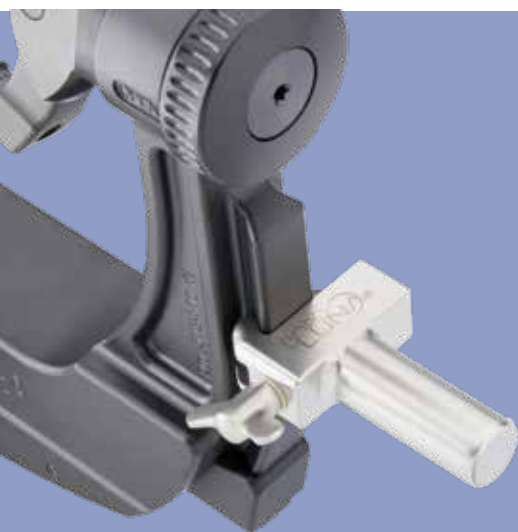
## DORO LUNA®

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. 1203.209



## 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® 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 with Starburst  
for Radiolucent Quick-Rail®  
Item no. 3033-69

\*The interface is designed to bear a max. load of 16.8 Nm (which equals a weight of 3.4 kg attached to a horizontally mounted, 50 cm long arm). It is validated for use with the Brainlab VarioGuide™. It is the responsibility of the user to verify that third party devices can safely be secured to the DORO® Quick-Clamp with Starburst for Radiolucent Quick-Rail®. The product is shown mounted to a DORO® Skull Clamp Radiolucent.

# 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.



### DORO® Quick-Clamp Halo Retractor System Item no. 1202.100T

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



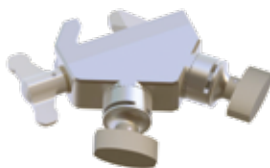
DORO® Quick-Clamp Coupling Universal  
Item no. 1202.015



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 (shown)	1201.091
DORO LUNA® Sterilization Tray (shown)	1203.091
DORO® Halo Sterilization Case w/ Rack	3117-00
DORO® Pattie Tray Silicone Insert for Sterilization Tray	1201.092



# DORO® Micro Blades

Serrated Style

## DORO® Micro Blade Set, 6 pcs. Item no. 3116-20

Included Items	Item no.
124 x 2 mm	3116-21
124 x 4 mm	3116-22
150 x 2 mm	3116-23
150 x 4 mm	3116-24
165 x 2 mm	3116-25
165 x 4 mm	3116-26

## DORO® Micro Blade Set, Serrated, 6 pcs. Item no. 3116-30

Included Items	Item no.
124 x 2 mm	3116-31
124 x 4 mm	3116-32
150 x 2 mm	3116-33
150 x 4 mm	3116-34
164 x 2 mm	3116-35
164 x 4 mm	3116-36

Hooked Style

## DORO® Micro Blade Set, Hooked, 6 pcs. Item no. 3116-40

Included Items	Item no.
124 x 2 mm	3116-41
124 x 4 mm	3116-42
150 x 2 mm	3116-43
150 x 4 mm	3116-44
164 x 2 mm	3116-45
164 x 4 mm	3116-46

Straight Style

## 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® Adaptor for Flat Brain Spatula  
Item no. 1201.046

# 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 Coated**

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.blackforestmedical.com](http://www.blackforestmedical.com)



DORO® Representative



**BLACK  
FOREST  
MEDICAL  
GROUP**

**pro med instruments — a part of the Black Forest Medical Group**

**Headquarters** | Bötzingen Straße 38 | 79111 Freiburg, Germany

Phone +49 761 384 222 10 | E-mail [pmi@pmisurgical.com](mailto:pmi@pmisurgical.com)

**US Subsidiary** | 4529 S.E. 16th Place, Suite 101 | Cape Coral, FL 33904

Toll Free 877 225 4086 | E-mail [pmi.us@pmisurgical.com](mailto:pmi.us@pmisurgical.com)

Version 10, June 2019. ©pro med instruments GmbH. DORO®, DORO LUNA®, DORO COBRA®, DORO LUCENT® and Quick-Rail® are registered trademarks (®) of pro med instruments GmbH, Freiburg, Germany. All rights reserved. No part of this document may be reproduced in any form without written permission from copyright holder. Specifications subject to change without notice. Teflon® is a registered trademark of DuPont de Nemours GmbH. VarioGuide™ is a trademark of Brainlab. Insite® is a registered trademark of Mizuho OSI. PMT® is a registered trademark of PMT® Corporation. The information has been compiled with utmost care. Errors can, however, not be excluded. Errors do not entitle to any legal claims. We reserve the right to modify the products at any time. Please note that the present catalogue also describes products which are not approved for sale in all countries.