



**DORO®**

# CREATE A NEW WORLD IN NEUROSURGERY WITH US!

Each neurosurgical intervention means a new challenge. Every minute counts. Every step needs to fit. A smooth workflow is essential. The Black Forest Medical Group is proud to **support you and your team** with innovative solutions that make neurosurgical interventions safer and more efficient.

From our history to the present and turning into the future, we were and always will be driven by the desire to satisfy your needs. Together, we are able to multiply our strengths, making a lasting difference for the health of people worldwide.



**Matthias Schüle**  
Owner & Managing Director



Take a peek on our work and visit us on social media!



# CONTENTS

## RIGID & NON-INVASIVE HEADREST SYSTEMS

DORO® QR3 Headrest System	6
DORO® QR3 Skull Clamp	7
DORO® Base Units	8
DORO® Swivel Adaptors & OR Table Adaptors	9
DORO® Base Unit Parkbench	10
DORO® Crossbar Adaptor	11
DORO® Navigation Adaptors	12
DORO® Skull Pins <b>NEW</b>	13
DORO® Accessories	15
DORO® QR3 Headrest System Teflon®	16
DORO® Horseshoe Headrests Aluminum	17
DORO® Multi-Purpose Skull Clamp	18

## IMAGING SOLUTIONS

DORO LUCENT® Headrest System PRO <b>NEW</b>	24
DORO LUCENT® Skull Clamp <b>NEW</b>	25
DORO LUCENT® Headrest System	26
DORO® Mix & Match	27
DORO LUCENT® Navigation Adaptors	28
DORO® Quick-Clamp Radiolucent	29
DORO LUCENT® Headrest Accessories	30
DORO® Horseshoe Headrests Radiolucent	32
DORO® QR3 XTom Headrest System	34
DORO LUCENT® iXI Headrest System	36
DORO LUCENT® iMRI Headrest Systems	38
DORO LUCENT® Product Trainings	42
DORO LUCENT® iMRI & iXI Accessories	42
DORO® Skull Clamp for Spinal Frames	43
DORO® OR Table Adaptors Radiolucent	44

## RETRACTOR SYSTEMS

DORO LUNA® Retractor System	48
DORO COBRA® Retractor System	50
DORO® Flexible Rotary Arms	51
DORO® Halo Retractor System	52
DORO® Retractor Accessories	54
DORO® Sterilization Trays	55
DORO® Micro Blades	55
DORO® Blades	56



# CRANIAL STABILIZATION

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, 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® Disposable Skull Pins)	
Included Items	Item no.
DORO® QR3 Skull Clamp	1001.001
DORO® Swivel Adaptor	3002-00
DORO® Adjustable Base Unit	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 can easily be attached.

**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 utilizing DORO® Side Rail Adaptors (page 9). You can also Mix & Match it with radiolucent DORO® products (page 27).



**DORO®  
QR3 Headrest System**  
Item no. 1001.100

# DORO® QR3 SKULL CLAMP

**EASY TO READ  
PRESSURE SCALE**  
Metric and imperial units.

**PRECISE  
NAVIGATION**  
Navigation tracking device adaptors (page 12) can easily be attached in close proximity to the surgical field.



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



**REDUCED RISK  
OF LACERATIONS**  
No play between archholder and skull clamp base when locked.

**DORO®  
QR3 Skull Clamp**  
Item no. 1001.001  
(shown with DORO® Disposable Skull Pins)

**EASY, SAFE AND  
STABLE INTERFACE**  
Attach DORO® Retractor Systems and other accessories to the form-fitting Quick-Rail® interface (infobox below).

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

## QUICK-RAIL® AN INNOVATIVE INTERFACE

The term QR3 refers to the 3rd generation of our innovative Quick-Rail® technology which is directly implemented in both extension arm and fixed arm 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® enables reliable attachment of accessories, such as the DORO LUNA® or DORO COBRA® Retractor Systems.



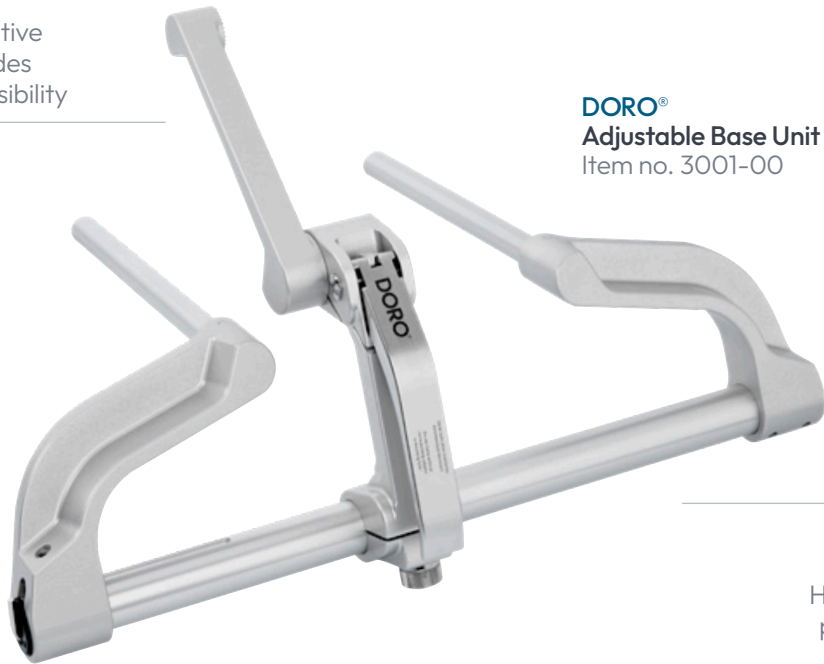
# DORO® ALUMINUM BASE UNITS

DORO® Base Units are individually designed for specific OR tables. Additionally, you can attach DORO® Base Units to nearly any common OR table with DORO® Side Rail OR Table Adaptors (page 9).

### REFINED APPEARANCE

Slim and thoughtful design enables intuitive handling and provides collision-free accessibility

DORO®  
Adjustable Base Unit  
Item no. 3001-00



### EFFORTLESS CLEANING

Dedicated drain holes allow for better flushing and drainage.

### EXCELLENT DURABILITY

High quality material and process standards result in increased resistance to operational stress.

# DORO® SWIVEL ADAPTORS

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

Provides 360° rotation for optimum flexibility in patient positioning.

Increase your options in mounting navigational or similar devices by adding two additional starbursts with our Swivel Adaptor Navigation.



DORO®  
Swivel Adaptor  
Item no. 3002-00



DORO®  
Swivel Adaptor Navigation  
Item no. 3002-60

# DORO® ALUMINUM OR TABLE ADAPTORS



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

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



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



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



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



DORO®  
Side Rail OR Table Adaptor  
Item no. 3011-00  
(Width-adjustable, fitting OR tables with bars up to 70 mm)



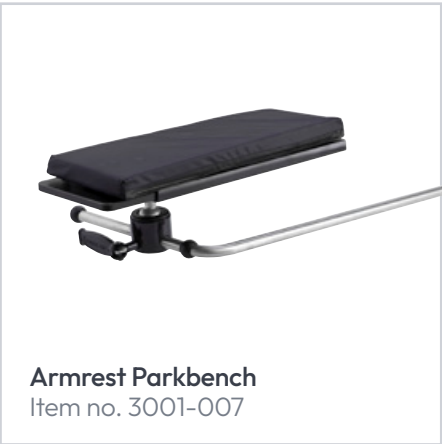
DORO®  
Table Adaptor  
Item no. 3010-00  
(mounted on square receptacle of OR table)

# DORO® BASE UNIT PARKBENCH

The DORO® Base Unit Parkbench is the perfect solution for lateral patient positioning. Its design allows a 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 siderails.



**DORO®**  
Base Unit Parkbench  
Item no. 3001-006



**Armrest Parkbench**  
Item no. 3001-007



**Universal Side Rail Fitting**  
Item no. 3007-50

(Connects the Armrest Parkbench to the DORO® Base Unit Parkbench)

# DORO® CROSSBAR ADAPTOR

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



**DORO®**  
Crossbar Adaptor  
Item no. 3007-00

Requires 2 Universal Side Rail Fittings  
(Item no. 3007-50, see page 10)



# DORO® NAVIGATION ADAPTORS

DORO® Easy Connect Navigation Adaptors connect directly to the integrated navigation starburst on the Quick-Rail® of DORO® Aluminum Skull Clamps. 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 Medtronic  
Item no. 1204.003  
  
(shown with Medtronic  
navigation reference array)



**DORO®**  
Easy Connect Navigation  
Adaptor Brainlab  
Item no. 1204.002  
  
(shown with Brainlab  
navigation reference array)



**DORO®**  
Easy Connect Navigation  
Adaptor Stryker®  
Item no. 1204.001  
  
(shown with Stryker  
navigation reference array)

# DORO® DISPOSABLE SKULL PINS



**DORO®**  
Sterile Disposable  
Skull Pins  
Stainless Steel, Adult  
Item no. 3006-00  
  
36 Pins



**DORO®**  
Sterile Disposable  
Skull Pins  
Stainless Steel, Pediatric  
Item no. 3006-10  
  
36 Pins



**DORO®**  
Sterile Disposable  
Skull Pins  
Titanium, Adult  
Item no. 3006-20  
  
36 Pins



**DORO®**  
Sterile Disposable  
Skull Pins  
Titanium, Pediatric  
Item no. 3006-30  
  
36 Pins



**DORO®**  
Sterile Disposable  
Skull Pins  
Stainless Steel, Adult  
Item no. 3006-50  
  
36 Pins

## A NEW ERA OF IMAGING QUALITY

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®**  
**Sterile Disposable**  
**Skull Pins, Adult**

Item no. 1106.003 (3 Pins)\*  
Item no. 1106.103 (9 Pins)

\*Not available in the USA & Canada

## DORO® REUSABLE SKULL PINS



**DORO®**  
**Reusable Skull Pins**  
**Stainless Steel, Adult**  
Item no. 3005-00

3 Pins



**DORO®**  
**Reusable Skull Pins**  
**Stainless Steel, Pediatric**  
Item no. 3004-00

3 Pins



**DORO®**  
**Reusable Skull Pins**  
**Titanium, Adult**  
Item no. 3005-50

3 Pins



**DORO®**  
**Reusable Skull Pins**  
**Titanium, Pediatric**  
Item no. 3004-50

3 Pins

## DORO® ACCESSORIES



**DORO®**  
**Cervical Spine Support**  
Item no. 3012-00

Neck support for anterior spine surgery



**DORO®**  
**Lubricant HP 500**  
Item no. 1001.999

**DORO®**  
**Lubricant HP 500 | 6-pack**  
Item no. 1001.998



**DORO®**  
**Headrest Wall Storage Unit**  
Item no. 3013-00

81 cm x 94 cm | 32" w x 37" h



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

# 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 12) can easily be attached closely to the surgical field.

### EASY, SAFE & STABLE CONNECTION

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

### AUTOCLAVABLE

The Teflon® coated surface of the 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

# DORO® HORSESHOE HEADREST ALUMINUM



### ONE BASE FITS ALL

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



### SKELETAL TRACTION OPTION

DORO® Horseshoe Headrests Aluminum are available with or without an Extension Bar.

### PROPER PATIENT POSITIONING

All DORO® Horseshoe Headrests are adjustable in width.

### ADULT VERSION

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 VERSION

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® MULTI-PURPOSE SKULL CLAMP

The DORO® Multi-Purpose Skull Clamp is our most versatile head positioning device. 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 therefore very vulnerable, neurosurgical solutions are needed which fit their needs. The DORO® Multi-Purpose Skull Clamp provides different kinds of shapes and sizes of gel pads and pin holders. An extension bar with a force application specifically designed for pediatric cases ensures a safe immobilization of the child’s head while providing additional control over the pinning force up to 90N.



**PRECISE NAVIGATION**

Navigation tracking device adaptors (page 12) can easily be attached in close proximity to the surgical field.



**FLEXIBLE**

A large variety of DORO® Gel Pads and Pin Holders is available to support optimal patient positioning (pages 20-21).

**EXTENDABLE**

The Quick-Rail® technology enables you to attach accessories and retractor systems such as the DORO Luna® Retractor System (page 48) easily, quickly, and securely to the skull clamp.

**MIX & MATCH**

Combine the DORO® Multi-Purpose Skull Clamp with a radiolucent base unit and swivel adaptor (page 27).

**ADULT AND PEDIATRIC SOLUTION**

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 (2pcs)	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

**SUPPORTS PEDIATRIC PROCEDURES**

The DORO® Multi-Purpose Skull Clamp features specifically designed components like the 90 N/20 lbs Extension Bar or the head support.



**DORO® Extension Bar 90 N/20 lbs**  
Item no. 3020-52

**DORO® Storage Case MPSC System**  
Item no. 3020-001

(shown with Multi-Purpose Skull Clamp and Accessories)



**PEDIATRIC SOLUTION**

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

**PEDIATRIC SOLUTION**

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 are shipped in a protective storage case.

# DORO® MULTI-PURPOSE

## INVASIVE SETUP

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.



# DORO® MULTI-PURPOSE

## NON-INVASIVE SETUP

Choose from a variety of different gel pad shapes and sizes for optimal patient stabilization for non-invasive positioning. 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.





# 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.

# DORO LUCENT® HEADREST SYSTEM PRO

CT / X-RAY BASED ANGIO

DORO LUCENT® Headrest System Pro	
Item no. 1101.100	
Included Items	Item no.
DORO LUCENT® Skull Clamp	1101.001
DORO LUCENT® Base Unit	1101.021
DORO LUCENT® Transitional Member	1101.026
DORO LUCENT® Locking Transitional Member	1101.031
DORO LUCENT® Storage Case Headrest System	1101.030
DORO LUCENT® Disposable Skull Pins, Adult (9 Pins)	1106.103
DORO® Swivel Adaptor Radiolucent	3033-00

The DORO LUCENT® Headrest System Pro is the ideal choice for all neurosurgical procedures involving intraoperative CT, X-ray based Angiography or X-ray imaging.

- ✓ Excellent imaging results
- ✓ Perfect handling and control
- ✓ 4-pin pediatric option available



### COMPACT VERSION

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

**DORO LUCENT® Side Part, short**  
Item no. 1101.038  
(2 short side parts are required)



DORO LUCENT® Headrest System Pro  
Item no. 1101.100

# DORO LUCENT® SKULL CLAMP

CT / X-RAY BASED ANGIO

The DORO LUCENT® Skull Clamp introduces a unique release mechanism, empowering surgeons to fully self-operate the clamp. Having access to all controls without changing the hand position ensures precise adjustments and an uninterrupted workflow. Interchangeable pin holders allow the right pin configuration for every patient and head size. Dedicated pediatric pin holders, which ensure a safe immobilization of children's heads, are available.

### PLAY-FREE OPEN/LOCK

Enhanced precision for neuro-navigation.



### INTERCHANGABLE PINHOLDERS

Secure positioning of adult and pediatric patients for surgery.

### SUPPORTIVE TORQUE SCREW

Force scale indication in N and lbs plus start marking to ensure sufficient travel for every pinning procedure.

### UNIQUE QUICK-RAIL®

Intuitive mounting of retractor systems and other accessories.

### SMOOTH SLIDING MECHANISM

Equal force distribution throughout the ratcheting process results in optimal precision and control.



**DORO LUCENT® Skull Clamp**  
Item no. 1101.001  
(shown with DORO LUCENT® Disposable Skull Pins)



**DORO LUCENT® Skull Clamp Case**  
Item no. 1101.900



**PEDIATRIC SET**  
A 4-pin holder set for head sizes down to 73 mm is additionally available.

**DORO LUCENT® Skull Clamp Pediatric Set**  
Item no. 1101.040

# DORO LUCENT® HEADREST SYSTEM

CT / X-RAY BASED ANGIO

The DORO LUCENT® Headrest System is a cranial stabilization system 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.

DORO LUCENT® Headrest System	
Item no. 1101.020	
Included Items	Item no.
DORO LUCENT® Base Unit	1101.021
DORO LUCENT® Transitional Member	1101.026
DORO LUCENT® Locking Transitional Member	1101.031
DORO LUCENT® Storage Case Headrest System	1101.030
DORO LUCENT® Disposable Skull Pins, Adult (3 Pins)	1106.003
DORO® Swivel Adaptor Radiolucent	3033-00
DORO® Skull Clamp Radiolucent	3034-00

**EASY TO READ PRESSURE SCALE**  
The Scale includes Metric and imperial units.



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

DORO LUCENT® Headrest System  
Item no. 1101.020

# MIX & MATCH



**FOR CRANIAL AND CERVICAL SPINE APPLICATIONS**  
Mix & Match DORO® Radiolucent Skull Clamps and Swivel Adaptors with DORO® Aluminum Base Units.

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



**FOR CRANIAL APPLICATIONS**  
Mix & Match DORO® Radiolucent Skull Clamps with DORO® Aluminum Swivel Adaptors and Base Units.

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



**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 LUCENT® NAVIGATION ADAPTORS

MRI / CT / ANGIO

DORO® Navigation Adaptors Radiolucent offer a safe and stable interface for navigation reference arrays from Stryker®, Medtronic and Brainlab. They are directly mounted to the Quick-Rail® and 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)  
\*This product is not available  
in the USA & Canada



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



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

**PLEASE NOTE:**  
Reference arrays are provided by  
Stryker®, Medtronic and Brainlab.

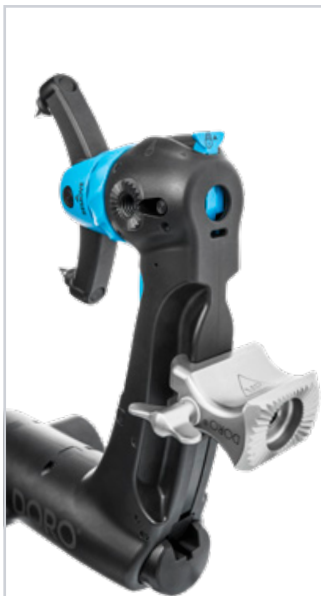
# DORO® QUICK-CLAMP

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



Also fitting  
on the new  
DORO LUCENT®  
Skull Clamp.

\*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 LUCENT® HEADREST ACCESSORIES

CT / X-RAY BASED ANGIO



MIX & MATCH

**DORO LUNA®**  
Quick-Clamp for Radiolucent Quick-Rail®  
Item no. 1203.009  
(fitting 3034-00 & 4004.101)



MIX & MATCH

**DORO COBRA®**  
Quick-Clamp for Radiolucent Quick-Rail®  
Item no. 1201.022  
(fitting 3034-00 & 4004.101)



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



**DORO®**  
Swivel Adaptor Radiolucent  
Item no. 3033-00



**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®**  
Universal DRF Adaptor Radiolucent  
Item no. 3038-30  
(fitting 3034-00 & 4004.101)

INCLUDING KEY



MIX & MATCH

# DORO® HORSESHOE RADIOLUCENT

CT / X-RAY BASED ANGIO

## 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

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 horseshoe features a Quick-Rail® interface for the quick connection of DORO COBRA® Retractor Arms.



### VERSATILE

Attach DORO COBRA® Retractor Arms utilizing the DORO COBRA® Quick-Clamp for Radiolucent Quick-Rail® (page 30).

# DORO® HORSESHOE RS RADIOLUCENT

CT / X-RAY BASED ANGIO

## 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 ENT

CT / X-RAY BASED ANGIO

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® QR3 XTOM HEADREST SYSTEM

## SMALL GANTRY CT

The DORO® QR3 XTom Cranial Stabilization System is designed to fit small gantry CTs. Adjustable Extension Arms ensure an optimal patient placement within CT scanner gantries of 32 cm / 12 inch and larger. The XTom System comes with a specifically designed torque screw driver to set pin pressure and with the DORO® XTom U-Belt, which works like a safety net and will prevent major injuries in case of head slippage, no matter the patient's head position.

DORO® QR3 XTom Cranial Stabilization System	
Item no. 4002.100	
Included Items	Item no.
DORO® QR3 XTom Skull Clamp	4002.001
DORO® XTom U-Belt (3 pcs)	4002.111
DORO® XTom Storage Case	4002.030
DORO® XTom Torque Screwdriver	4002.068
DORO® XTom Base Unit Parkbench	4002-10
DORO LUCENT® Disposable Skull Pins (9 Pins)	1106.103

### PRECISE NAVIGATION

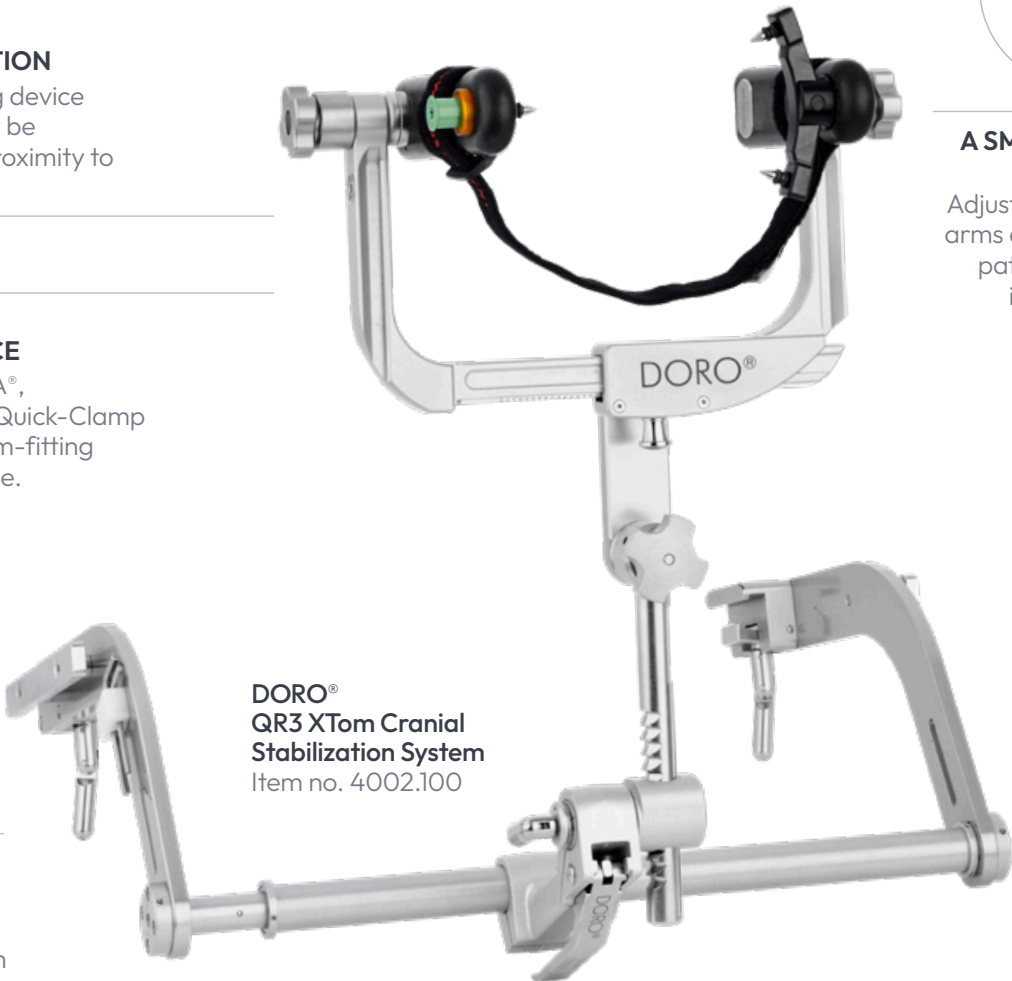
Navigation tracking device adaptors can easily be attached in close proximity to the surgical field.

### EASY, SAFE AND STABLE INTERFACE

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

### COMPATIBLE

The DORO® QR3 XTom Cranial Stabilization System is directly mountable to all standard OR tables with side rails.



DORO® QR3 XTom Cranial Stabilization System  
Item no. 4002.100

### HIGH-END IMAGING

DORO LUCENT® Disposable Skull Pins reduce imaging artifacts to a minimum.

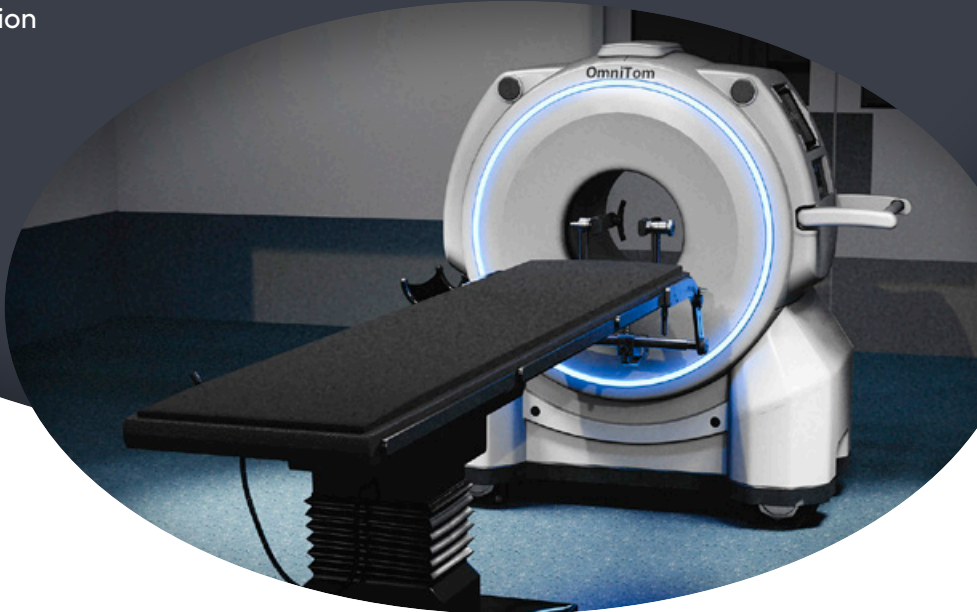


### A SMALL GANTRY SOLUTION

Adjustable extension arms ensure that the patient's head fits into gantries of 32 cm / 12 inch and larger.

## Which DORO® System works for your NeuroLogica scanner?

The DORO® QR3 XTom Cranial Stabilization System is designed to fit small gantry CTs like NeuroLogica's OmniTom or CereTom scanners. For CTs with larger gantries the DORO LUCENT® Headrest System is the Cranial Stabilization System of choice.



# DORO LUCENT® iXI HEADREST SYSTEM

MRI / CT / ANGIO

The DORO LUCENT® iXI Headrest System enhances your diagnostic capabilities by supporting intra-operative MR, CT and X-Ray based Angio imaging. This allows you and your team to perform diagnostic procedures on bone and tissue during the same surgery, resulting in more precise treatment with reduced time consumption compared to separate imaging methods.

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.



### STATE-OF-THE-ART

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

### FAMILIAR

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

## MULTI-MODALITY IMAGING

Multimodality imaging is the current pinnacle of clinical, intra-operative imaging. All individual strengths of the three highend imaging modalities are combined into one versatile OR suite. This way, a surgeon is able to decide on the fly, which modality (or modalities) will benefit the patient the most, resulting in the best possible medical answer possible for each individual patient.

MRI SCANNER

SIEMENS  
Sola / Vida

OR TABLE

GETINGE (MAQUET)  
Magnus Tabletop 1180.12

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 Pins)	1106.003



### PLEASE NOTE:

With the first installation of a DORO LUCENT® iMRI Headrest System, an expert training is mandatory (page 42). Please contact your local DORO® representative for details.



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

DORO LUCENT®  
Headplate  
Item no. 4003.005



## 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.

The DORO LUCENT® Headplate is included in every DORO LUCENT® iXI or iMRI system.

# DORO LUCENT® iMRI HEADREST SYSTEMS

## MRI

### SOLUTIONS FOR FIXED MRIs

DORO LUCENT® iMRI Headrest Systems for rigidly installed MRIs are mounted to the OR table's transfer board by utilizing the DORO LUCENT® iMRI Parallelogram Adaptor, giving you the freedom you need to properly position patients for surgery. These systems are available for a variety of OR table and MRI scanner combinations. Please refer to the neighboring chart to find a product that fits your OR environment.

### FAMILIAR

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



DORO LUCENT®  
iMRI Headrest System MAQUET  
Item no. 4003.300

### HIGH-END IMAGING

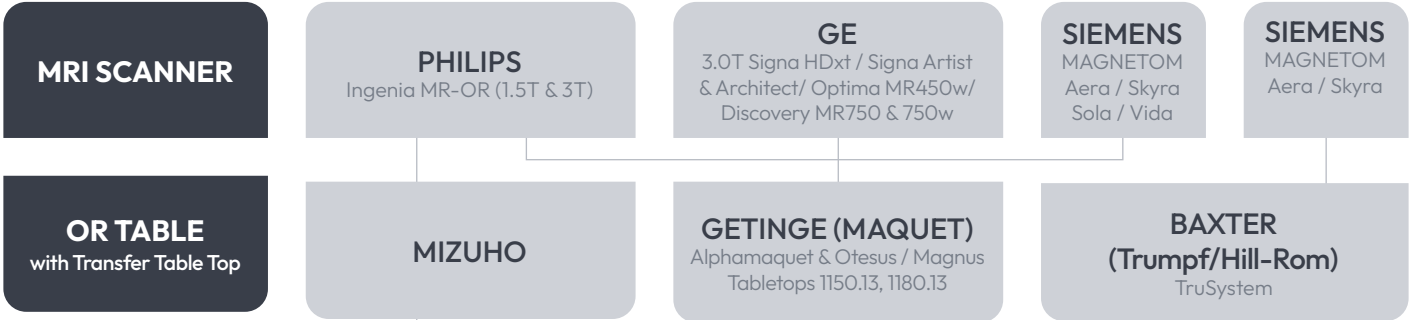
DORO LUCENT® Disposable Skull Pins are perfectly stable and reduce imaging artifacts to a minimum (page 14).

### FLEXIBLE

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

### FAST

Directly mountable to transfer boards of selected OR table manufacturers.



DORO LUCENT® iMRI Headrest System MIZUHO Item no. 4003.350	
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 Parallelogram Adaptors	4003.030
DORO LUCENT® iMRI Parallelogram Adaptor MAQUET	4003.311
DORO LUCENT® Disposable Skull Pins, Adult (3 Pins)	1106.003

A fitting iMRI Transfer Collision Indicator must be purchased from Phillips.

**PLEASE NOTE:** With the first installation of a DORO LUCENT® iMRI Headrest System, an expert training is mandatory (page 42). Please contact your local doro® representative for details.

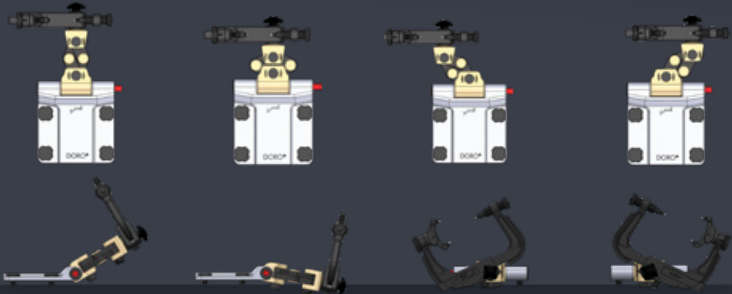
DORO LUCENT® iMRI Headrest System MAQUET Item no. 4003.300	
Included Items	Item no.
DORO® Skull Clamp Radiolucent for DORO LUCENT® Parallelogram Adaptor	4003.001
DORO® Headplate	4003.005
DORO® Adjusting Wrench for DORO LUCENT® Parallelogram Adaptor	4003.011
DORO LUCENT® Storage Case for Parallelogram Adaptors	4003.030
DORO LUCENT® iMRI Parallelogram Adaptor MAQUET	4003.311
DORO LUCENT® iMRI Transfer Collision Indicator	4003.XXX
DORO LUCENT® Disposable Skull Pins, Adult (3 Pins)	1106.003

**PLEASE NOTE:** In case you are planning to combine one of the SIEMENS MRI scanners mentioned above with the MAQUET Transfer Board 1180.71CO, please contact your DORO®-Partner.

DORO LUCENT® iMRI Headrest System Baxter Item no. 4003.200	
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 Parallelogram Adaptors	4003.030
DORO LUCENT® iMRI Parallelogram Adaptor Baxter	4003.211
DORO LUCENT® iMRI Pad Baxter	4003.212
DORO LUCENT® iMRI Transfer Collision Indicator	4003.XXX
DORO LUCENT® Disposable Skull Pins, Adult (3 Pins)	1106.003
DORO® Torx Screwdriver T45, nonmagnetic	3033-68

## MOVEMENT CAPABILITIES

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



# DORO LUCENT® iMRI HEADREST SYSTEMS

## MRI

### SOLUTION FOR MOVING MRIs

The DORO LUCENT® iMRI Cranial Stabilization Set IMRIS is a lightweight and intuitive intraoperative solution designed for the IMRIS Invision™ Surgical Theatre, featuring a ceiling-mounted, movable MRI. It can quickly be connected to the IMRIS Linkage System using the DORO LUCENT® iMRI Interface Adaptor. The interface to the IMRIS coil can be continuously adjusted, allowing for precise positioning.



#### CONVENIENT HANDLING

Proven three-point skull clamp and significantly more lightweight than comparable products

#### OPTIMIZED FOR IMRI

Continuous adjustability for precise adjustment of coil position.

Minimized amount of titanium results in less artifact.

#### PLAY-FREE OPEN/LOCK

Enhanced precision for neuro-navigation

#### UNIQUE QUICK-RAIL®

Intuitive mounting of retractor systems or other accessories

#### IMPROVED FLEXIBILITY

Slim and thoughtful design allows for easy and collision-free accessibility.

#### MRI SCANNER

SIEMENS  
MAGNETOM Espree / Aera /  
Verio / Skyra / Vida

#### OR TABLE with Transfer Table Top

Baxter  
(Trumpf/Hill-Rom)  
ORT 100 / 200 / 300 / 400

#### DORO LUCENT® Cranial Stabilization Set IMRIS Item no. 4003.600

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 IMRIS	4003.031
DORO LUCENT® iMRI Interface Adaptor IMRIS	4003.611
DORO LUCENT® iMRI Coil Connector IMRIS	4003.631
DORO LUCENT® Disposable Skull Pins, Adult (3 Pins)	1106.003



## READY FOR AUTOMATIC IMAGE REGISTRATION\*

Brainlab Automatic Image Registration (AIR) is the fundamental technology for high-precision surgical navigation from start to finish. It adds intraoperatively acquired MR images to surgical navigation while maintaining the preoperative surgical plan. This updated registration compensates for potential loss of navigation accuracy during surgery.

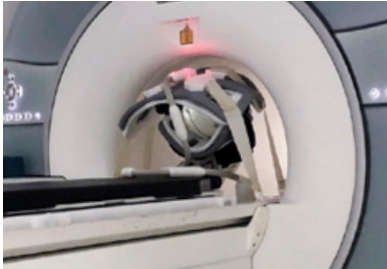
The Brainlab registration matrix with integrated MR markers has been designed exclusively for DORO LUCENT® iMRI & iXI Headrest Systems and therefore seamlessly integrates in the standard patient positioning workflow.

\*DORO LUCENT® iMRI Cranial Stabilization Set IMRIS: compatibility subject to the type of IMRIS MRI scanner used.

# DORO LUCENT® PRODUCT TRAININGS

Dedicated products like the DORO LUCENT® iMRI or iXI Headrest Systems come as a 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®  
iMRI & iXI Product Training  
Item no. 8001

# DORO LUCENT® IMRI & IXI ACCESSORIES



DORO LUCENT®  
Headplate  
Item no. 4003.005



DORO LUCENT®  
iMRI Pad Baxter  
Item no. 4003.212



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



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



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



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

# DORO® SKULL CLAMP RADIOLUCENT FOR SPINAL FRAMES

CT X-RAY BASED ANGIO

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.

## 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 14)

## VERSATILE

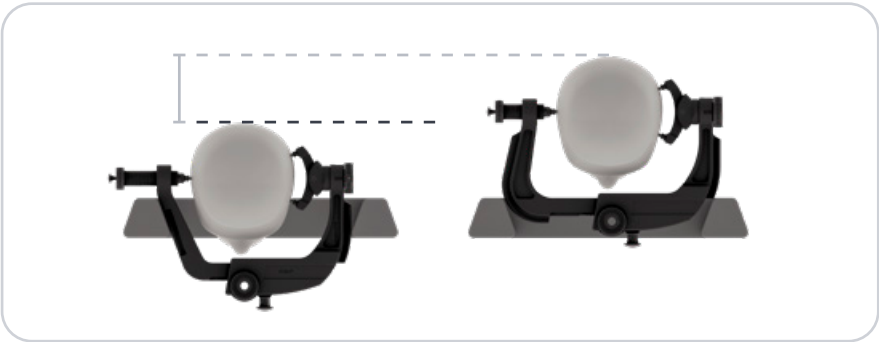
Quick-Rail® Technology enables you to attach accessories and retractor systems easily, quickly, and securely to the skull clamp.

## MIX & MATCH

The DORO® Skull Clamp Radiolucent can be mounted to DORO® Aluminum Swivel Adaptor and Base Unit utilizing the Mix & Match Adaptor 3033-50 (page 27) or to fitting counterparts of spinal frame table manufacturers.



DORO® Skull Clamp Radiolucent for Spinal Frames shown mounted to a MIZUHO OSI Insite® table (side view).



Comparison of the lowering capability of the DORO® Skull Clamp Radiolucent for Spinal Frames between the bars of an operating table for spinal surgery (front view) to the standard DORO® Skull Clamp Radiolucent.

# DORO® OR TABLE ADAPTORS RADIOLUCENT

CT / X-RAY BASED ANGIO



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



DORO®  
Table Adaptor Medifa®,  
Radiolucent for Medifa®  
OR Table 8000 & 8000 hybrid  
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 no. 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)



## DORO® RADIOLUCENT TABLE ADAPTORS SET-UP POSSIBILITIES

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





# 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 adaptability of the DORO LUNA® Retractor System can be further enhanced with additional accessories, 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.

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

### 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.

### EASY

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

### FAST

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

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

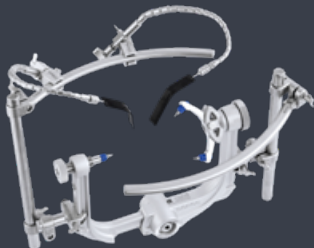
**DORO LUNA® Compact Retractor System**  
+ DORO® QR3 Headrest System  
Item no. 1203.220

## 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



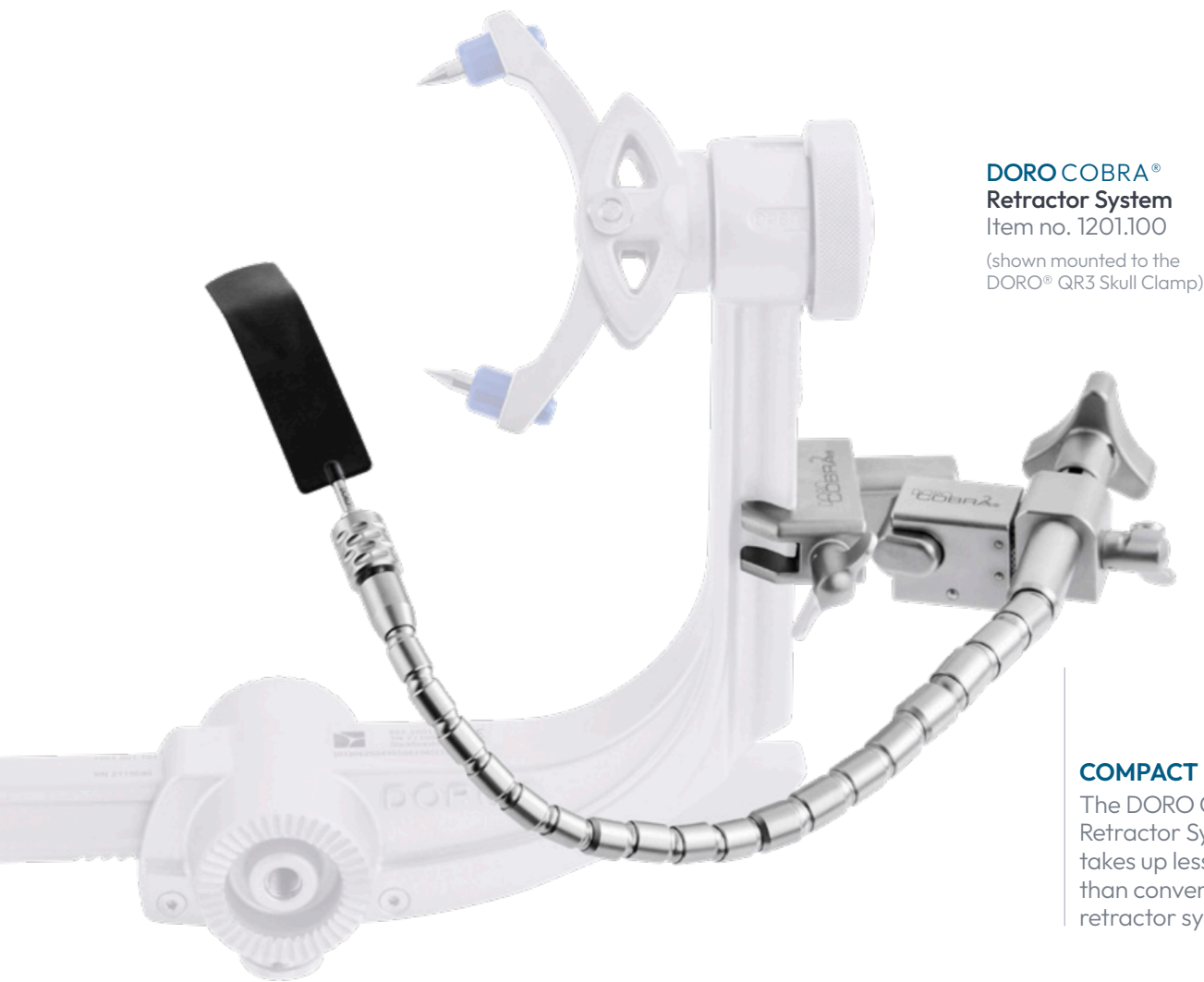
**DORO LUNA® Retractor System**  
mounted to the DORO® QR3 Skull Clamp



**DORO LUNA® & DORO COBRA® combined set-up**  
mounted to the DORO LUCENT® Skull Clamp

# DORO COBRA® RETRACTOR SYSTEM

The DORO COBRA® Retractor System is the retractor system of choice for minimal obstruction 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)

**COMPACT**  
The DORO COBRA® Retractor System takes up less space than conventional retractor systems



DORO COBRA® Retractor System for Aluminum Quick-Rail®	
Item no. 1201.100	
Included Items	Item no.
DORO COBRA® Quick-Clamp for Aluminum Quick-Rail® (2 pcs)	1201.021
DORO COBRA® Flexible Rotary Arm 420 mm (2 pcs)	1201.008
DORO® Blade, Black Coated, 102 x 7 mm (2 pcs)	3116-111
DORO® Blade, Black Coated, 102 x 10 mm (2 pcs)	3116-121
DORO® Retractor Sterilization Tray	1201.091

# 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.

**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.

**FAST TO MOUNT**  
The Snap-On-Technology allows to quickly and easily mount DORO COBRA® Flexible Rotary Arms.



**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.

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

(shown with a DORO® Blade, 102 mm attached)

# DORO® HALO 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 utilizing the DORO® Quick-Clamp or to older skull clamp versions by engaging the alternatively available C-Clamp. Rotary retractor arms, brain spatulas and accessories are available.

### ADAPTABLE

Adjust the halo ring to your needs. One half ring can be angled upwards or downwards, or be removed completely.

**DORO HALO® Retractor System**  
Item no. 1202.100T  
(shown mounted to the DORO® QR3 Skull Clamp)



### COMPATIBLE

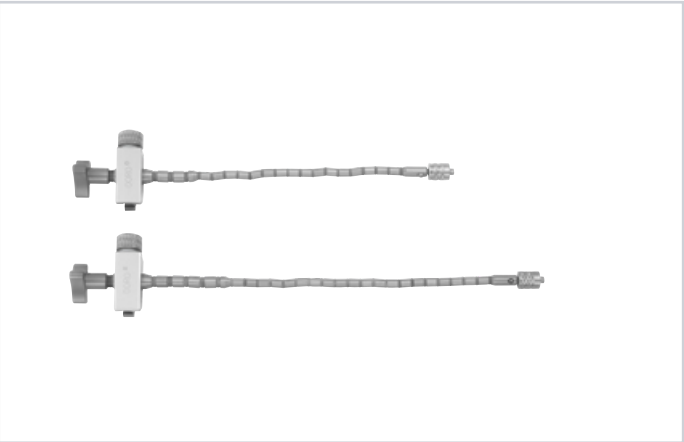
The DORO® Halo Retractor System fits almost all common skull clamps, either utilizing the form-fitting Quick-Rail® interface or the C-Clamp.

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

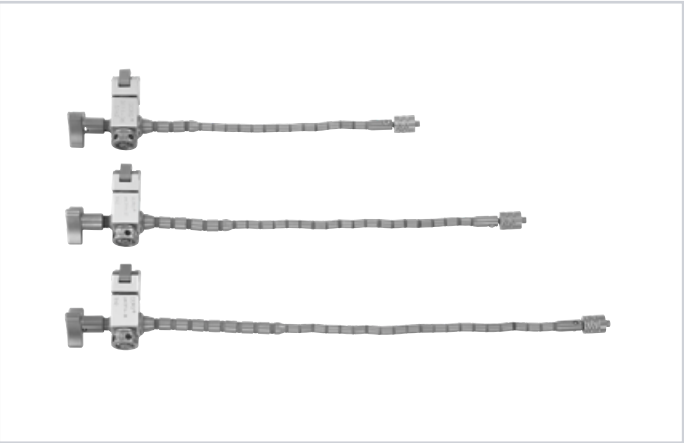
DORO® Halo Retractor System w/ C-Clamp Item no. 3100-00	
Included Items	Item no.
DORO® Halo Ring	3110-01
DORO® Halo Support Rod 8 mm (2 pcs)	3110-08
DORO® Halo Support Bracket w/ C-Clamp Adaptor (2 pcs)	3110-51
DORO® Halo Universal Key (2 pcs)	3110-80
DORO® Halo Pattie Tray	3110-85
DORO® Flexible Arm 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® FLEXIBLE ARMS

The DORO® Flexible Arms are specifically designed to be mounted to the DORO® Halo Ring. We offer different options in length, so you and your team are able to use the best setup for every situation.



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® 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



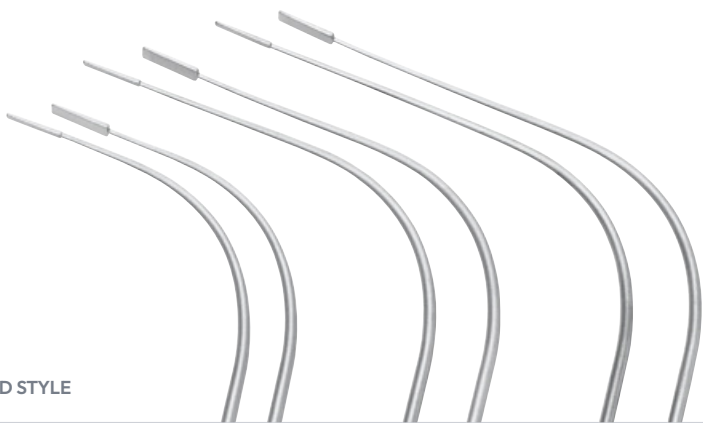
**DORO®**  
Mini Vice  
Item no. 3114-54

# 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 Tray	3117-00

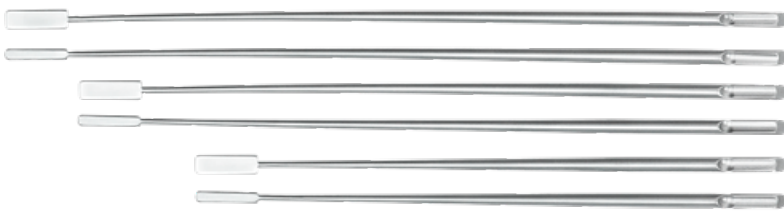


# DORO® MICRO BLADES



HOOKED STYLE

DORO® Micro Blade Set, Straight, 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



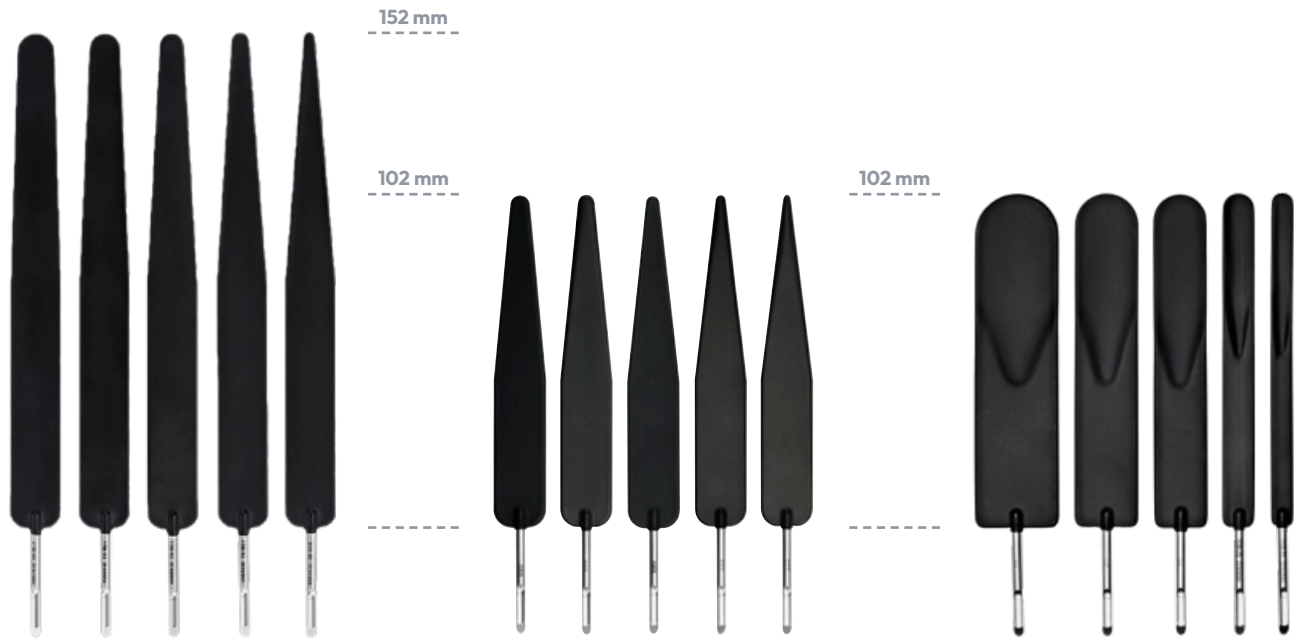
STRAIGHT STYLE

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

# DORO® BLADES

CONNECTIVITY  
GUARANTEED

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



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
not included in Set	Item no.
152 x 13 mm	3116-16

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
not included in Set	Item no.
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

## WHY BLACK?

The black matt finish of our blades prevents reflections from light focused on the surgical site during procedures.

DORO® Adaptor  
for Flat Brain Spatula  
Item no. 1201.046  
(shown with DORO COBRA®  
Flexible Rotary Arm)



## 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 and tubular spatulas. But try out our blades at least once... we are sure you will like them!

# ONE CATALOGUE, MANY OPTIONS



Choose your preferred language online  
and access all information in the way  
that is most convenient to you.



**German Version**  
Deutsche Version



**Spanish Version**  
Versión en Español



**French Version**  
Version Française

Version 15, March 2025. © pro med instruments GmbH - part of Black Forest Medical Group. 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.



BLACK  
FOREST  
MEDICAL  
GROUP

**pro med instruments GmbH**, part of Black Forest Medical Group  
Bötzingen Straße 86, 79111 Freiburg, Germany  
Phone: +49 761 384 222 - 10 | [info@blackforestmedical.com](mailto:info@blackforestmedical.com)

**USA** pro med instruments Inc., part of Black Forest Medical Group  
4529 S.E. 16th Place, Suite 101, Cape Coral, FL 33904  
Phone: +1 239 369 - 2310 | [info.us@blackforestmedical.com](mailto:info.us@blackforestmedical.com)

© pro med instruments, part of Black Forest Medical Group, 2025  
All rights reserved. The information provided was 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 shown products at any time.



Take a peek on our work and visit us on social media!

**[blackforestmedical.com](https://blackforestmedical.com)**

