

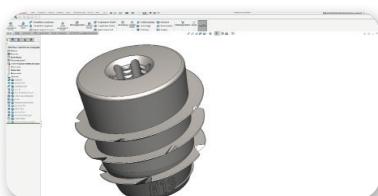
THERE FOR YOU.



Products with outstanding quality
cutting edge technology manufactured by us



Consistent reliability and support
dependable service beyond product sales



Constant Innovation
creating solutions for emerging needs

That is the

RITA LEIBINGER GUARANTEE.

FIXATION & COMPRESSION SYSTEMS

General Application

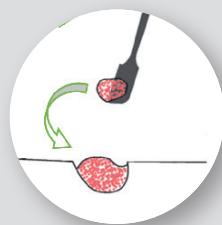
SUTURE ANCHORS



LeiCOM COMPRESSION SCREWS



LeiLa BONE MATTER



CRUCIATE LIGAMENT REPAIR & PATELLA LUXATION SYSTEMS

Knee, Elbow, Patella, etc.

TTA RAPID ®



LeiLOX TPLO



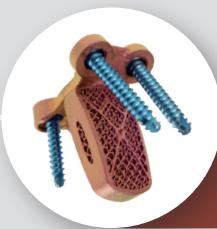
LeiLOX TPLO SWING



LeiLOX CBLO

OUR PRODUCTS

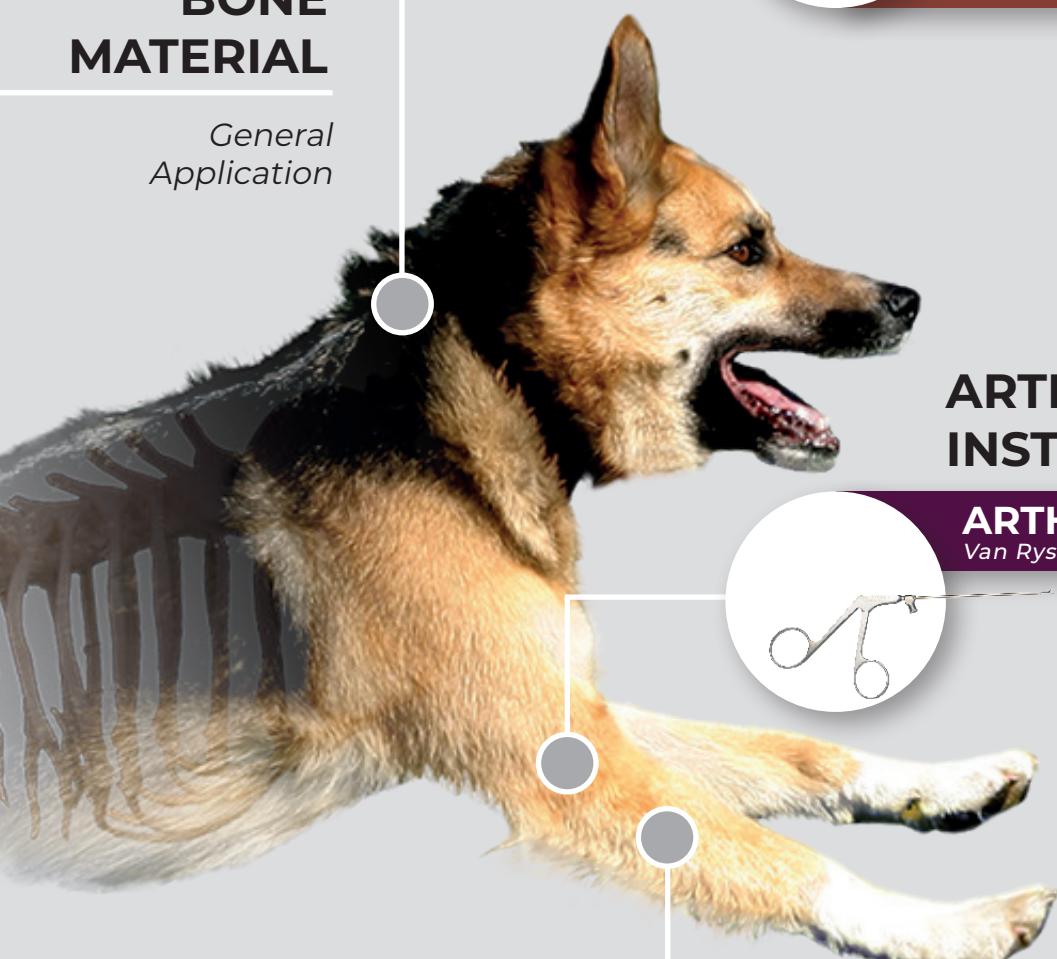
CERVICAL REPAIR



C-LOX SPINAL
Intervertebral Fusion Implant

BONE MATERIAL

General Application



ARTHROSCOPIC INSTRUMENTS



ARTHROSCOPY
Van Ryssen Series



LeiLOX 1.5/2.0
Micro Locking System



LeiLOX 2.0-3.5
Locking System

FRACTURE TREATMENT

Humerus, Radius, Femur, Tibia, etc.

Learn from the Experts

Experience and knowledge are essential for successful surgeries. We provide you with our all-out support.

Learn from the best and hone your skills in one of our Continuing Education (CE) Courses / Workshops, Online Courses and Webinars, or a personal one-on-one.

Our CE Courses and Workshops are held by renowned experts and clinicians at locations all over the world, and cover everything from the fundamentals to advanced procedures.

Take a look at the range of educational courses we offer at the RITA LEIBINGER Academy website page.

Visit our Academy Page

leibinger.vet/academy

Register for our Courses

leibinger.vet/academy/#registration

Contact Us

info@leibinger-medical.com



ACADEMY

NEW

FROM RITA LEIBINGER



TPLO Swing

Our TPLO Implants are now available in Titanium with improved contoured design for a better fit, positioning, and fixation to the bone.

Suture Anchors

Made of Titanium and designed with self-tapping threaded tips for ease of use and for a very secure and stable fixation to the bone.



LeiCOM

Our new range of Cannulated Compression Bone Screws in Titanium is available in Micro, Mini, Medi and Maxi sizes, and are also sold in sets.

Joint	TTA RAPID®	TTA RAPID® Tiny TTA RAPID®	TTA RAPID®
	PATELLA LUXATION	RAPID Luxation	Patella Luxation
	TTA STANDARD		TTA Standard
	TPLO	TPLO Locking, Stainless Steel/ TPLO Swing, Titanium	TPLO
	CBLO	CBLO Locking, Titanium	CBLO
Osteosynthesis	LeiLOX Micro	LeiLOX, Locking 1.5/2.0, Titanium	LeiLOX 1.5/2.0
	LeiLOX 2.0-3.5	LeiLOX, Locking 2.0/2.4, Stainless Steel/ LeiLOX, Locking 2.7/3.5, Stainless Steel	LeiLOX 2.0 - 3.5
	LeiCOM	Cannulated Compression Screws, Titanium	LeiCOM Compression
	Suture Anchors	Suture Anchors, Titanium	Suture Anchors
	Osteosynthesis General	Standard Plates, Screws S.O.S. Screw Extraction K-Wires	Osteosynthesis General
Spinal	C-LOX	Cervical Intervertebral Fusion Implants, Locking, Titanium	C-LOX Spinal
Bone Matter	LeiLA	Bone Matter / Bone Substitute	Bone Matter
Power Tools	Motorized Systems	Drilling Machine Motorized TPLO Saw	Power Tools
Arthroscopy	Arthroscopy	Small Animal Arthroscopy Equine Arthroscopy	Arthroscopy
Instruments	Surgical Instruments	Instruments for Micro-Surgery Sulcoplasty Set	Surgical Instruments

TTA RAPID®



With more than 100,000 successful surgeries worldwide

The VCOT Magazine published 2019 a new study comparing TTA RAPID® with TPLO - with some interesting results.

But please read yourself: In the following chapter you will find the complete title of the study and where you can find it.



More than 50 different cage sizes

With 54 different cage sizes, TTA RAPID® is the most flexible surgical technique designed to repair a cruciate ligament injury.

The new "Tiny" TTA RAPID® set now makes it possible to treat small dogs and cats with custom 1.5/2.0mm cages and screws. The instrumentation set features a new "tiny" sawguide for short osteotomies.

Tiny TTA RAPID® is designed for tiny animals – especially cats, toy breed dogs and dogs with short legs that need a wide advancement.

With the new „tiny“ spreader, TTA RAPID® now offers 5 different spreaders and 3 different sawguides – a solution for every need: from small to giant breeds. The overall investment for the technique is minimal because there are limited special instruments required.



Rapid Healing + Short Surgery Time

TTA RAPID® implants offer high stability with a less invasive approach. The TTA RAPID® surgery allows for shorter surgery times which means lower risk of infection, less anesthesia, and less costs.

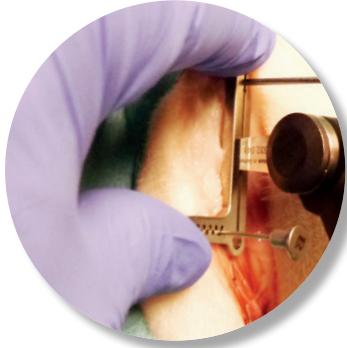
The open sponge Titanium construct allows for rapid bone growth throughout the cage.



Patella Luxation + CCL Rupture

TTA RAPID is extremely effective for a patellar luxation in combination with a cruciate ligament rupture. The uniquely designed Tibia Tappet allows you to move the tibial tuberosity very accurately and test functionality of the new position during the surgery, before fixating the screws.

Once you have reached the desired position, you can fixate it with the patellar spacer and screws.



Minimal Learning Curve

Due to the simplicity of the technique and instruments, a level of comfort can be achieved quickly.



TTA
RAPID®
It's firm, it's safe, it's RAPID.



Special Thanks to
Dr. Caroline Huisman-Wildeman

TTA RAPID®

RITA
LEIBINGER
MEDICAL

TTA RAPID

TTA RAPID ®

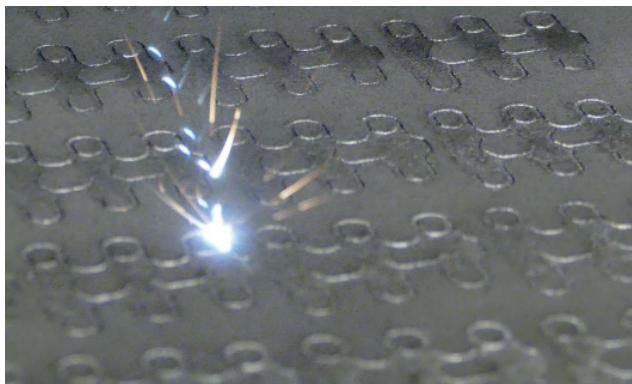
Tibial Tuberosity Advancement (TTA) as a technique for the surgical management of cranial cruciate ligament insufficiency has gained increasing acceptance and popularity in recent years. As we learn more, efforts are being made to simplify the technique, to make it more user friendly and overcome some of the pitfalls of the original technique. Developed in collaboration with Dr. Yves Samoy, University of Ghent, TTA Rapid is one of the newer developments in both implant technology and technique.

The Implant

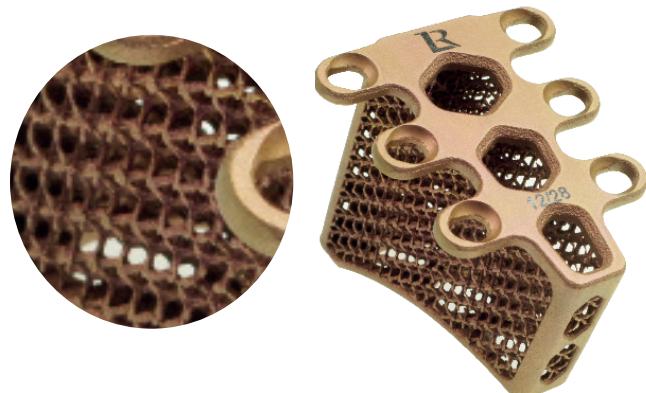


The manufacture of TTA Rapid cages has only been made possible with advances in materials and manufacturing technology. The cages are made by an additive manufacturing (AM) 3D printing process known as selective laser sintering (SLS). The process is interesting to watch. Although other materials can be used in the process, TTA Rapid cages start life as a very fine, commercially pure titanium powder. A very thin layer of titanium powder is deposited on the working bed of the SLS machine and a modified print head carrying a high intensity laser is used to selectively melt the powder to bond (sinter) regions together. As further layers of powder are applied and the laser sintering process repeated, a solid three dimensional structure begins to form within the 'sand-pit' of metal powder. Electron beam melting (EBM) is a similar procedure that uses an electron beam instead of a laser.

Once the full structure has been created, the cages are separated from the powder and various chemical and other finishing processes are performed to leave the cages in their final, implantable state. Through this process, shapes can be created that would either be impossible to produce using more conventional technologies or cost prohibitive. In the case of TTA Rapid, a very porous honeycomb titanium lattice with a modulus similar to that of cancellous bone is generated permitting very rapid bony ingrowth to occur. Titanium is also very biocompatible, MRI compatible and typically needs to be inoculated with 10 times as many infectious units for an implant associated infection to develop when compared to Stainless Steel.



The lattice found in the TTA Rapid cages is bound on 4 sides



by an anatomically shaped, rigid shell of the same material with one side carrying lugs with screw holes in them. With the lattice, cage and screw lugs being one piece, the cages are very stable in situ.

The constructs are so stable that auxiliary implants such as plates, wires, forks and staples are rarely indicated. This has a number of benefits:

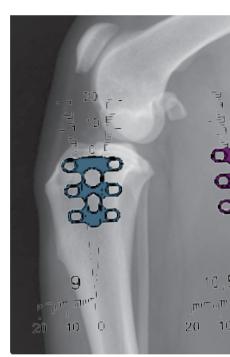
- Reduced morbidity and biological cost that may be associated with the dissection and placement of additional implants.
- Reduced potential for cold conduction with superficially sited metallic implants.
- Fewer additional holes created in the tibial diaphysis which may contribute to crack propagation and failure of the tibial shaft.
- Metals of different electro-potentials are avoided in the same construct. Theoretically this reduces the potential for galvanic corrosion to occur (all components are titanium).
- Simplified inventory management.
- Potential time savings in the placement of implants.

Caution: TTA Rapid patients are often subjectively more comfortable in their early post-operative recovery than many patients undergoing other osteotomy surgeries. TTA Rapid still involves a major osteotomy and both appropriate patient selection and appropriate client education for post-operative management are indicated.

TTA RAPID ® Technique

The dog is placed in a dorsal recumbency with the affected limb suspended from a stand. Make sure that the dog's paws are not fixed too tightly, since the affected limb will be put against the table later in the surgery. Preferably, the joint is investigated to assess the menisci and cranial cruciate ligament remnants. Remedial action is taken as necessary. TTA-Rapid is performed through a medial skin incision.

01 Pre-operative planning



a. Calculating the advancement can be done in different ways (classic TTA template; common tangent technique (Dennler); 2.07 x Tibial plateau Length (Inauen); Ness; ...). However, none of these techniques are perfect. A critical mind is advised when applying those measurements.

b. Use of the template:

1. Where possible, calibrate the radiograph on the screen to real size.
2. Place the template over the radiograph and choose the appropriate cage width.



3. Adjust the template position until the cage sits about 3mm below the proximal cortex on its caudal edge. Now measure the thickness of the cranial tibial cortex in the region of the black dot. Note this value; you will need it during surgery.

$XX / YY / Z$

XX = Size of Implant from Template

YY = Implant deep (you find out, after the saw cut)

Z = thickness of the cranial tibial cortex in the region of the Maquet hole

02 Joint surgery

a. If performing a lateral arthrotomy, leave about the last centimeter of the joint capsule closest to the tibia open. This allows enough slack to later perform the advancement.



DO NOT PRESS THE HORIZONTAL ARM AGAINST THE BONE, AS THIS WILL CAUSE AN OBLIQUE OSTEOTOMY!

5. Use the saw guide to create the osteotomy. Optionally, a blade can be used to open the fascia/periostium prior to the osteotomy.



b. Opening the osteotomy

1. Depending on the required cage size, different osteotomy spreaders can be used to spread and hold open the osteotomy. Provided this is done carefully and slowly, allowing the bone time to adjust, the hinge is unlikely to fail. This being the most critical point of the surgery, the spreaders should be used with great caution!

2. Start with the 3mm spreader held sideways (thinnest part) located at the most proximal part of the osteotomy and gently turn it to spread open the osteotomy. Always turn the spacer downwards to minimize the forces on the fragment. A second spacer/spreader held sideways in the distal region of the osteotomy can be used to maintain the displacement.

03 TTA-RAPID protocol

a. Using the saw guide



The saw guide is an L-shaped device developed to facilitate the correct position of the osteotomy. It has been developed to ensure a sufficiently large cranial fragment is created for screw placement. The vertical arm of the guide has 2.5mm holes placed at strategic points, over a 1mm wide slot. The numbers beside the holes correspond with the size of the cage. This will prevent making a too distal osteotomy. The horizontal arm of the guide is a scale in millimeters. This will prevent making a too caudal osteotomy.



Sawing the crista tibiae

1. A 2.5mm pin is placed through the joint capsule at the intersection of the femoral condyle and the tibial plateau. On the lateral side, the pin should start slightly in front of the level of "Gerdy's Tuber". This pin is used as the proximal fixation of the saw guide.



2. The guide is dropped over the pin using one of the numbered holes in the vertical arm, corresponding with the size of the cage measured during pre-operative planning.



Repeat these steps until the required displacement is reached.

3. A peg is placed into one of the holes in the horizontal arm of the drill guide, selecting the number of millimeters measured during pre-operative planning.



3. The depth of the osteotomy is measured with a drill depth gauge at the proximal extent of the osteotomy. This measurement is rounded up to select the correct cage Length.

4. Press the saw guide against the medial aspect of the tibia with protruding peg forced up against the cranial side of the tibia. Hold it in that position. Correct use of the saw guide will place the osteotomy just caudal to the cranial cortex of the tibia. (As a guide: In a large dog the cortex is approximately 5mm thick and in a small dog approximately 3mm.)

c. Fixating the cage

1. The ears of the cage need to be bent using the bending stick. Ears on the caudal side (tibia) should point slightly upwards, while the ears on the cranial side (crista tibiae) should be tilted slightly downwards. Slight under-bending of the caudal ears and slight over-bending of the cranial ears will help compress the osteotomy against the cage.



2. Elevate the periostium from the bone in the region where the cage will be fixed.

TTA & Patella Luxation

3. Insert the cage into the osteotomy. Use bone Forceps to make sure the ears of the cage are in close contact with the bone.



4. Once the cage is in place, check if the height of the cage is correct. This can be done by palpating the proximal tibia with the tip of a small mosquito clamp. You should feel about 3mm of bone above the top of the cage. More bone means a more distal placement of the cage and thus subsequently a more cranial displacement of the tibial tuberosity.

5. Large bone Forceps can be used to give extra compression on the cage. This step is not essential if the distal cortex is still intact, but

will result in a better bone contact with the cage.

6. 2.4mm screws are inserted into the cage. Start with the most cranial, most proximal screw. The orientation of the screws should be medio-proximal to latero-distal (similar as the orientation of the fork in a standard TTA). The second screw is the caudo-proximal screw. The orientation of this screw is crano-medio-proximal to caudo-latero-distal ("Away from the joint, away from the osteotomy site"). The rest of the screws are placed in the same fashion starting with the most proximal screws.

Once all screws are inserted, remove the bone Forceps and retighten all screws.
7. Insertion of Hydroxy-Apatite paste inside and underneath the cage will accelerate healing of the osteotomy. Close the fascia where possible.
8. Close the wound in a routine fashion.



d. Aftercare

1. Casting/bandaging is generally not required.
2. A light dressing can be applied for 3 to 5 days.
3. NSAIDs are provided for 3 to 4 weeks.
4. With HA paste, clinical union can generally be anticipated within 6 weeks.



Y. Samoy, DVM, PhD and P. Verleyen, DVM
Department of Medical Imaging and Small Animal Orthopedics
Faculty of Veterinary Medicine, Ghent University

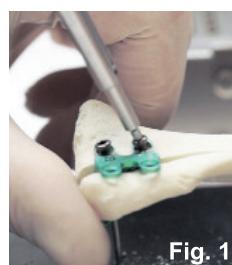


Fig. 1



Fig. 2



Fig. 3



Fig. 4

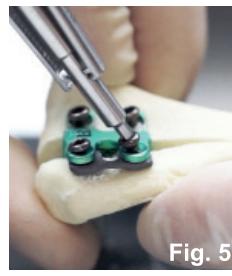


Fig. 5



Fig. 6

TTA RAPID and Patella Luxation (TTA)

Dr. Hugo Schmökel

When a dog suffers from a cranial cruciate ligament rupture with a simultaneous patellar luxation, this can be addressed with a modified TTA Rapid procedure. Prior to the TTA Rapid surgery itself, it should be determined if the dog would benefit from a trochleoplasty. If so, this should be performed before the actual TTA Rapid procedure(1).

The osteotomy used for the TTA Rapid procedure can also be used to achieve a medial or lateral tibial tuberosity transposition (TTT), depending on the kind of patellar luxation. The further described procedure focuses on a lateralization of the crest, needed for the correction of a medial patellar luxation

After performing the osteotomy, the appropriate cage is inserted into the osteotomy and all of the caudal screws are inserted in the tibia (Figure 1). Take care to choose a cage that has a bigger medio-lateral Length than measured after the osteotomy, as both cortices of the transposed crest need to be supported! Usually, the longest cage is advised.

Consecutively, the tibial crest is slightly advanced, so that it can be moved laterally with the tibia tappet instrument (Fig 2).

Be very careful performing this and restrict the advancement to the absolute minimum to avoid crest avulsion. Once the desired position is reached, a corresponding washer is placed between the crista tibiae and the ears of the cage (Figure 3). If the transposition is sufficient to prevent dislocation of the patella, the remaining screws are inserted and the operation finished as described (Figure 4 and 5).

In case of a lateral luxation, the tibial crest is shifted medially in a similar manner after fixating the cranial part of the cage in the tibial crest.

1. Samoy Y, Verhoeven G, Bosmans T, Van der Vekens E, de Bakker E, Verleyen P, et al. TTA Rapid: Description of the Technique and Short Term Clinical Trial Results of the First 50 Cases. Vet Surg. 2014:n/a-n/a.



Studies about TTA RAPID

Comparison of Outcomes Associated with Tibial Plateau Levelling Osteotomy and a Modified Technique for Tibial Tuberosity Advancement for the Treatment of Cranial Cruciate Ligament Disease in Dogs: A Randomized Clinical Study

University of Lyon, VetAgro Sup, Marcy l'Etoile, France
 Véronique Livet, Arnaud Baldinger, Éric Viguer, Mathieu Taroni, Mathieu Harel, Claude Carozzo, Thibaut Cachon
 VCOT 2019

TTA Rapid: Description of the Technique and Short Term Clinical Trial Results of the First 50 Cases

Ghent University, Faculty of Veterinary Medicine,
 Department of Veterinary Medical Imaging and Small Animal Orthopaedics
 Yves Samoy1, DVM, PhD, Geert Verhoeven1, DVM, PhD, Diplomate ECVS, Tim Bosmans2, DVM, PhD, Elke Van der Vekens1, DVM, Diplomate ECVDI, Evelien de Bakker1, DVM, PhD, Piet Verleyen1, DVM and Bernadette Van Ryssen1, Prof, DVM, PhD
 Vet Surg 2014

Tibial tuberosity advancement in small-breed dogs using TTA Rapid® implants. Complications and outcome

Evidensia Strömsholm Small Animal Referral Hospital, Sweden
 Dyall B A R, DVM, Spec SWE. Schmökel H, DVM, DECVS, PHD
 2016

TTA Rapid in the treatment of the canine cruciate deficient stifle: short- and medium-term outcome

S. J. Butterworth & D. M. Kydd, Weighbridge Referral Centre & Kydd & Kydd Vets
 Journal of Small Animal Practice 2017

TTA Rapid for treatment of cranial cruciate ligament injuries in dogs. Clinical results 50 cases.

Kydd and Kydd Veterinary Health Centre, Wimbledon
 David M Kydd BVetMed CertVR CertSAO MRCVS
 Orthopaedic News from Kydd & Kydd 2014

Postoperative infection with a multiresistant *Staphylococcus aureus* (MRSA) in a Bernese mountain dog with a rupture of the cranial cruciate ligament

Ghent University, Faculty of Veterinary Medicine, Department of Veterinary Medical Imaging and Small Animal Orthopaedics

1F. Vandael, 1E. de Bakker, 2D. Paepe, 1L. Mosselmans, 1Y. Samoy, 1G. Verhoeven, 1B. Van Ryssen

Flemish Veterinary Journal, 2015, 84

TTA Rapid: an interesting alternative operation method of an injured cranial cruciate ligament

Lecznica Weterynaryjna Arwet w Wieliczce
 lek. wet. Rafał Korta
 WETERYNARIA W PRAKTYCE 2014

Bone Regeneration in Critical-Sized Bone Defects Treated with Additively Manufactured Porous Metallic Biomaterials: The Effects of Inelastic Mechanical Properties

M. Koolen, SA Yavari, K Lietaert, R Wauthle, AA Zadpoor, H Weinans
 Universities of Utrecht & Delft, 3D Systems Healthcare
 MDPI Journals (Materials) 2020

TTA RAPID with porous structure stimulates bone ingrowth

„TTA Rapid is made from pure titanium using innovative additive manufacturing (3D printing) technologies that allow to create complex geometries like porous structures. These porous structures stimulate bone ingrowth through the open porosities, have an improved fixation thanks to the high roughness and corresponding coefficient of friction and have in addition a lower stiffness and thus avoid stress-shielding. The mechanical and clinical performance of the dodecahedron unit cell – also used in TTA Rapid – has been reported in literature, showing superior dynamical properties¹ and bone regeneration² compared to standard Ti-6Al-4V porous structures. These research-based innovations are the cornerstone of TTA Rapid, leading to over 80,000 TTA Rapid cages successfully implanted since 2011.“

¹ Wauthle et al., Revival of pure titanium for dynamically loaded porous implants using additive manufacturing. Mater. Sci. Eng. C Mater. Biol. Appl. 2015, 54, 94–100.

² Koolen et al., Bone Regeneration in Critical-Sized Bone Defects Treated with Additively Manufactured Porous Metallic Biomaterials: The Effects of Inelastic Mechanical Properties. Materials 2020, 13, 1992.

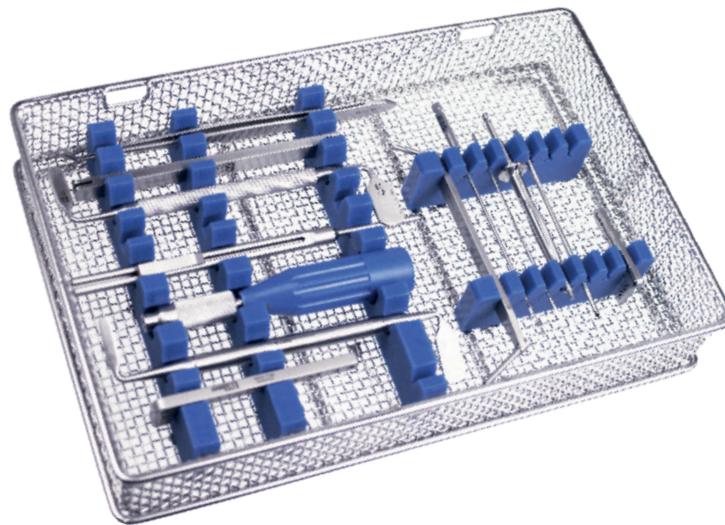


TTA Rapid Sets

TTA RAPID Instrument Kit

Contains:

Sterilization Tray
 „Petite“ Saw Guide (not „tiny“) + K-Wire
 „Standard“ Sawguide + K-Wire
 1 Pin
 Lever-Spreader 3/9 + 6/12
 Twist Drill 1.8
 Depth Gauge
 Screwdriver Handle
 Screw Driver Shaft 2.4 + Holding Sleeve
 Drill Guide
 Plate Holding Forceps



132-6000-10

Tray without content

132-5000-10/A

TTA RAPID Premium Set

Contains:

Sterilization Tray with Lid
 5x 2.4mm Screws of each length
 (6-40mm, 90 pcs. total)
 One Cage of each size from 3-12mm
 Plus: 1 Cage of each short and very short size in addition
 (42 cages total)

132-6002-00

Tray without content

132-5000-00/A





TTA RAPID Starter Split Set I

Contains:

Sterilization Tray with Lid
 5x 2.4mm Screws of each length
 (6-40mm, 90 pcs. total)
 1 Cage of each size from 3-12mm
 (28 cages total)

132-6003-00

Tray without content

132-5000-00/A



TTA RAPID Starter Set II

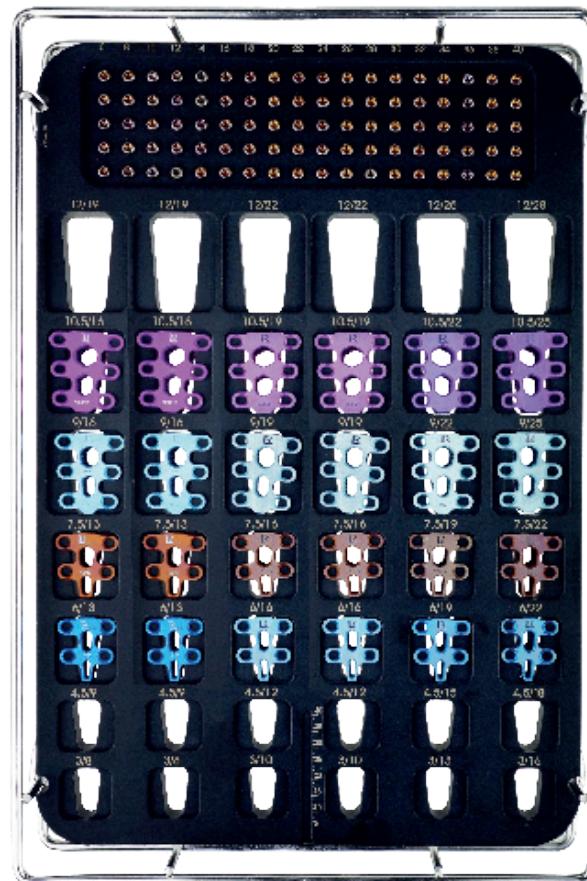
Contains:

Sterilization Tray with Lid
 5x 2.4mm Screws of each length
 (6-40mm, 90 pcs. total)
 One Cage of each size from 6-10.5mm
 Plus: 1 Cage of each short and very short size in addition
 (24 cages total)

132-6004-00

Tray without content

132-5000-00/A



TTA Rapid Sets III / IV

TTA RAPID Starter Set III

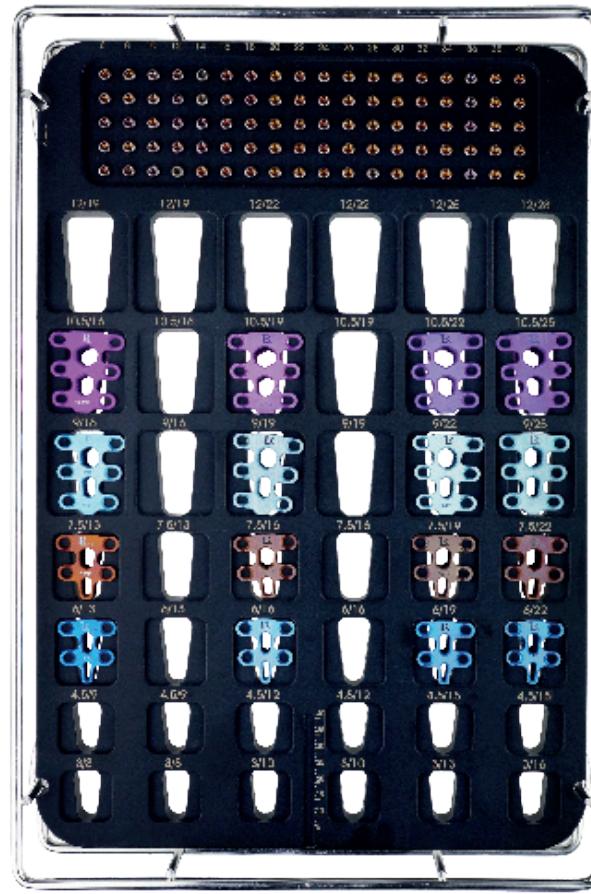
Contains:

Sterilization Tray with Lid
 5 pcs. 2.4mm Screws of each length
 (6-40mm, 90 pcs. total)
 1 Cage of each size from 6-10.5mm
 (16 Cages total)

132-6005-00

Tray without content

132-5000-00/A



TTA RAPID Starter Set IV

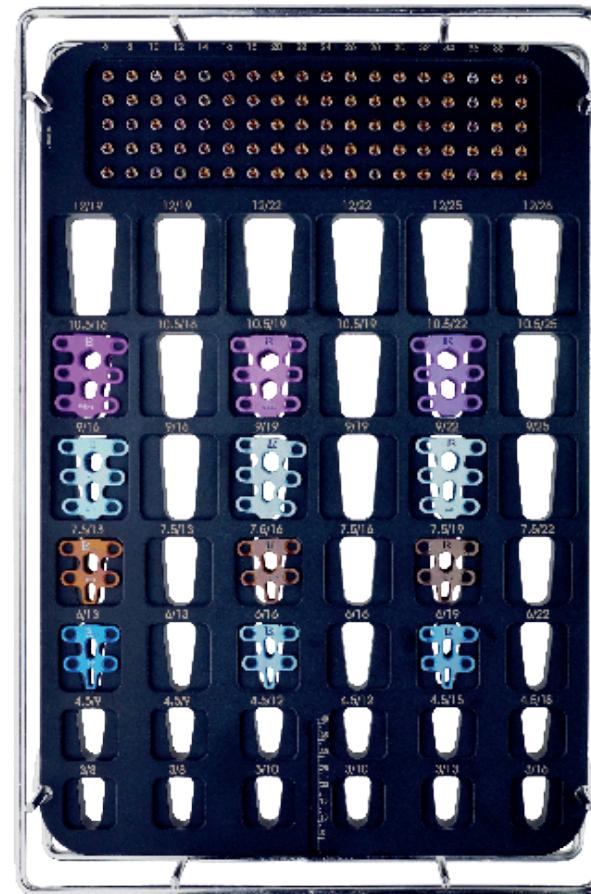
Contains:

Sterilization Tray with Lid
 5 pcs. 2.4mm Screws of each length
 (6-40mm, 90 pcs. total)
 1 Cage from 6-10.5mm,
 (without long versions)
 (12 Cages total)

132-6006-00

Tray without content

132-5000-00/A





Sterilization Container

310x190x130mm

blue (image)

150-5401-30

green

150-5402-30

flat (1 Tray only)

150-5401-00

TTA Rapid Implants

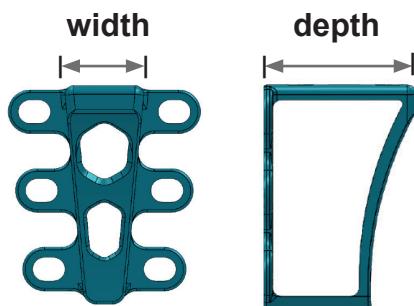
TTA RAPID® Cages

Titanium



Product Code	Size (mm) (width/depth)	Colour
132-0023-08	3/08 (petite) for 2.0 screws	
132-0023-10	3/10 (petite) for 2.0 screws	
132-0023-13	3/13 (petite) for 2.0 screws	
132-0003-08	3/08 for 2.4 screws	
132-0003-10	3/10 for 2.4 screws	
132-0003-13	3/13 for 2.4 screws	
132-0003-16	3/16 for 2.4 screws	
132-0045-09	4.5/09 for 2.4 screws	
132-0045-12	4.5/12 for 2.4 screws	
132-0045-15	4.5/15 for 2.4 screws	
132-0045-18	4.5/18 for 2.4 screws	
132-0006-13	6/13 for 2.4 screws	
132-0006-16	6/16 for 2.4 screws	
132-0006-19	6/19 for 2.4 screws	
132-0006-22	6/22 for 2.4 screws	
132-0075-13	7.5/13 for 2.4 screws	
132-0075-16	7.5/16 for 2.4 screws	
132-0075-19	7.5/19 for 2.4 screws	
132-0075-22	7.5/22 for 2.4 screws	

Product Code	Size (mm) (width/depth)	Colour
132-0009-16	9/16 for 2.4 screws	
132-0009-19	9/19 for 2.4 screws	
132-0009-22	9/22 for 2.4 screws	
132-0009-25	9/25 for 2.4 screws	
132-0105-16	10.5/16 for 2.4 screws	
132-0105-19	10.5/19 for 2.4 screws	
132-0105-22	10.5/22 for 2.4 screws	
132-0105-25	10.5/25 for 2.4 screws	
132-0012-19	12/19 for 2.4 screws	
132-0012-22	12/22 for 2.4 screws	
132-0012-25	12/25 for 2.4 screws	
132-0012-28	12/28 for 2.4 screws	
132-0135-19	13.5/19 for 2.4 screws	
132-0135-22	13.5/22 for 2.4 screws	
132-0135-25	13.5/25 for 2.4 screws	
132-0135-28	13.5/28 for 2.4 screws	
132-0015-19	15/19 for 2.4 screws	
132-0015-22	15/22 for 2.4 screws	
132-0015-25	15/25 for 2.4 screws	
132-0015-28	15/28 for 2.4 screws	



Tiny sizes
in next section





2.0 Self-tapping Screws, Titanium

Hexagonal or Star Drive head, self tapping,
with three flute cutting edge



Length (mm)	Hexagonal (Petite)		Star Drive (Petite)	
5			245-520-05	
6	245-220-06		245-520-06	
7			245-520-07	
8	245-220-08		245-520-08	
9			245-520-09	
10	245-220-10		245-520-10	
12	245-220-12		245-520-12	
14	245-220-14		245-520-14	
16	245-220-16		245-520-16	
18	245-220-18		245-520-18	
20	245-220-20		245-520-20	
22	245-220-22		245-520-22	
24	245-220-24		245-520-24	
26	245-220-26		245-520-26	
28	245-220-28		245-520-28	
30	245-220-30		245-520-30	

2.4 Self-tapping Screw Titanium

Hexagonal or Star Drive Head, self tapping,
with three flute cutting edge



Length (mm)	Hexagonal (Standard)	Star Drive (Standard)
6	245-224-06	245-524-06
8	245-224-08	245-524-08
10	245-224-10	245-524-10
12	245-224-12	245-524-12
14	245-224-14	245-524-14
16	245-224-16	245-524-16
18	245-224-18	245-524-18
20	245-224-20	245-524-20
22	245-224-22	245-524-22
24	245-224-24	245-524-24
26	245-224-26	245-524-26
28	245-224-28	245-524-28
30	245-224-30	245-524-30
32	245-224-32	245-524-32
34	245-224-34	245-524-34
36	245-224-36	245-524-36
38	245-224-38	245-524-38
40	245-224-40	245-524-40

Screw Rack

Product Code	Description
150-0520-00	for 2.0 mm screws
150-0524-00	for 2.4 mm screws



Patella Luxation Spacers



(R)

Correction of a Patella Luxation during a TTA RAPID Surgery

This technique is suitable for dogs which do not have a cruciment ligament rupture but suffer from a patella-luxation and a cruciate ligament rupture.



Patella Luxation Spacers

For RAPID LUXATION and TTA RAPID, Titanium

Product Code	Specifications	cage sizes
132-8030-01L	1 mm height, 2 holes, left	Petite/Tiny
132-8030-01R	1 mm height, 2 holes, right	Petite/Tiny
132-8030-02L	2 mm height, 2 holes, left	Petite/Tiny
132-8030-02R	2 mm height, 2 holes, right	Petite/Tiny
132-8030-03L	3 mm height, 2 holes, left	Petite/Tiny
132-8030-03R	3 mm height, 2 holes, right	Petite/Tiny
132-8030-04L	4 mm height, 2 holes, left	Petite/Tiny
132-8030-04R	4 mm height, 2 holes, right	Petite/Tiny
132-8020-02L	2 mm height, 2 holes, left	3 - 7,5 mm
132-8020-02R	2 mm height, 2 holes, right	3 - 7,5 mm
132-8020-03L	3 mm height, 2 holes, left	3 - 7,5 mm
132-8020-03R	3 mm height, 2 holes, right	3 - 7,5 mm
132-8020-04L	4 mm height, 2 holes, left	3 - 7,5 mm
132-8020-04R	4 mm height, 2 holes, right	3 - 7,5 mm
132-8010-02L	2 mm height, 3 holes, left	9 - 15 mm
132-8010-02R	2 mm height, 3 holes, right	9 - 15 mm
132-8010-04L	4 mm height, 3 holes, left	9 - 15 mm
132-8010-04R	4 mm height, 3 holes, right	9 - 15 mm
132-8010-06L	6 mm height, 3 holes, left	9 - 15 mm
132-8010-06R	6 mm height, 3 holes, right	9 - 15 mm





Tibia Tappet

Patella Saw

Twist Drill

TTA Depth Gauge

Tibia Tappet

For inserting Patella Luxation Spacers.

Product Code	Description
132-4071-00	Petite / Tiny 2.0 mm
132-4070-00	Standard 2.4 mm



rapid.leibinger.vet



Patella Saw

With standard sawblade, incl. Allen Wrench 1.5mm

23-1005-90



Twist Drill



Product Code	Ø (mm)	Length (mm)	Connec-tion
148-0080-15	1.5 (Petite)	70/30	straight sh.
148-0080-18	1.8 (Stand.)	125/25	straight sh.

Product Code	Ø (mm)	Length (mm)	Connec-tion
148-0081-15	1.5 (Petite)	85/60	AO QC
148-0081-18	1.8 (Stand.)	125/25	AO QC

TTA Depth Gauge

Product Code	Description
164-1520-20	Petite 2.0 mm
164-2735-60	Standard 2.4 mm



TTA Rapid Spreader

TTA Rapid Saw Guides

TTA Rapid Bending Iron

TTA RAPID® Spreader

With tensioning and fixation screw, 16 cm

132-4080-16



TTA RAPID® Lever-Spreader

Product Code	Description
132-4000-13	3 mm & 9 mm
132-4010-13	6 mm & 12 mm
132-4015-13	13.5 mm & 15 mm



TTA RAPID® Saw Guide

Product Code	Description
132-4040-00	for cage size 6-15 mm
132-4041-00	for cage size 3-4.5 mm



TTA RAPID® Saw Guide Pin

Ø 1.0mm

132-4030-10



TTA RAPID® Bending Iron

120 mm

132-4020-00





Screwdriver Handle

Screwdriver Shaft

Boneholding Forceps

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0103-00



Screw Driver Shaft Hexagonal

Standard 2.4 mm (Holding Sleeve recommended)

128-0900-20



Holding Sleeve

2.4 mm for 128-0900-20



128-0940-24

Screw Driver Shaft Star-Drive

AO connection, self-holding, (no Holding Sleeve needed)
Star-Drive T8, for 2.0 & 2.4 mm Screws, 100mm

128-2024-08



Plate Holding Forceps

160 mm, angulated

164-0050-16



K-Wires, Single Trocar

Product Code	Description
144-1015-10	1.5 mm x 100 mm
144-1025-10	2.5 mm x 100 mm

Drill Guide

1.5 / 1.8 mm, 100 mm length

164-0070-18



Boneholding Forceps

21,5 cm - with spin lock

128-0525-21



TTA Rapid Tiny Set

Tiny TTA Rapid Cages

Tiny TTA RAPID® Set

Titanium

Tiny TTA RAPID is designed for tiny animals – especially cats, toy dogs and dogs with short legs needing a wide advancement. The tiny sawguide allows short osteotomies.

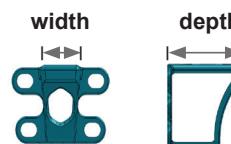
Contains:

- 1 Sterilization Tray with Lid
- 1 of each Tiny TTA RAPID Cage (12 total)
- 1 of each 2, 3 & 4mm Patella Spacer (6 total)
- 1 Rapid Luxation Plate „Petite“
- 5 of each 1.5mm Screw (6-20mm, 40 total)
- 5 of each 2.0mm Screw (6-26mm, 55 total)
- 1 Tibia Tappet „Petite“
- 1 Plate Holding Forceps
- 1 Tiny Sawguide with Pin & K-Wire
- 1 Depth Gauge
- 2 Drills (1.1 & 1.5mm)
- 2 Screw Driver Shafts (T6 & T8)
- 1 Screwdriver Handle
- 1 Drill Guide

132-6500-00

Tray without content

132-6500-10



Tiny TTA RAPID® Cages

Titanium



Product Code	Size (mm) (width/depth)	Colour	Product Code	Size (mm) (width/depth)	Colour
132-0152-06	2/06 for 1.5 screws		132-0245-08	4.5/08 for 2.0 screws	
132-0152-08	2/08 for 1.5 screws		132-0245-10	4.5/10 for 2.0 screws	
132-0152-10	2/10 for 1.5 screws		132-0245-12	4.5/12 for 2.0 screws	
132-0153-07	3/07 for 1.5 / 2.0 screws		132-0026-09	6/09 for 2.0 screws	
132-0153-09	3/09 for 1.5 / 2.0 screws		132-0026-11	6/11 for 2.0 screws	
132-0153-11	3/11 for 1.5 / 2.0 screws		132-0026-13	6/13 for 2.0 screws	

Patella Luxation Spacer

For RAPID LUXATION and TTA RAPID, Titanium

Product Code	Specifications	for cages
132-8030-01L	1 mm height, 2 holes, left	petite/tiny
132-8030-01R	1 mm height, 2 holes, right	petite/tiny
132-8030-02L	2 mm height, 2 holes, left	petite/tiny
132-8030-02R	2 mm height, 2 holes, right	petite/tiny



Product Code	Specifications	for cages
132-8030-03L	3 mm height, 2 holes, left	petite/tiny
132-8030-03R	3 mm height, 2 holes, right	petite/tiny
132-8030-04L	4 mm height, 2 holes, left	petite/tiny
132-8030-04R	4 mm height, 2 holes, right	petite/tiny

Rapid Luxation Plate

4-hole, 1 mm thick, with gliding holes for 1.5 + 2.0 mm screws

132-8200-03





Screws Tiny TTA RAPID(Titanium)

1.5 Cortical Screw Titanium

Star Drive head, self tapping,
with three flute cutting edge



Length (mm)	Star Drive
6	245-515-06
7	245-515-07
8	245-515-08
9	245-515-09
10	245-515-10
12	245-515-12
14	245-515-14
16	245-515-16
18	245-515-18
20	245-515-20

2.0 Cortical Screw Titanium

Star Drive head, self tapping,
with three flute cutting edge



Length (mm)	Star Drive
5	245-520-05
6	245-520-06
7	245-520-07
8	245-520-08
9	245-520-09
10	245-520-10
12	245-520-12
14	245-520-14
16	245-520-16
18	245-520-18
20	245-520-20
22	245-520-22
24	245-520-24
26	245-520-26
28	245-520-28
30	245-520-30

Patella Luxation Tibia Tappet

For inserting Patella
Luxation Spacers.

132-4071-00



Patella Saw

With standard sawblade, incl. Allen Wrench 1.5mm

23-1005-90



Twist Drill

Product Code	Ø (mm)	Length (mm)	Connection
148-0080-11	1.1	60	straight shank
148-0080-15	1.5	85	straight shank

Product Code	Ø (mm)	Length (mm)	Connection
148-0081-11	1.1	60	AO QC
148-0081-15	1.5	85	AO QC

rapid.leibinger.vet



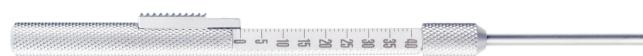
TTA Depth Gauge

TTA RAPID Tiny Spreader

TTA Depth Gauge

Tiny 1.5/2.0 mm

164-1520-20



TTA RAPID ® Tiny Spreader

With tensioning and fixation screw, 12 cm

132-4080-12



TTA RAPID ® Lever-Spreader

3 mm & 9 mm

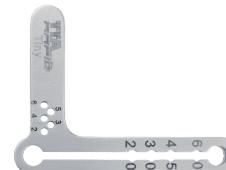
132-4000-13



TTA RAPID ® Saw Guide

For Tiny cages size 2-6 mm

132-4042-00



TTA RAPID ® Saw Guide Pin

Ø 1.0mm

132-4030-10



TTA RAPID ® Bending Iron

120 mm



132-4020-00

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0103-00



Screwdriver Shaft Star-Drive

AO connection, self-holding (no Holding Sleeve needed)

Product Code	Description
128-1520-15	Star-Drive T6, for 1.5 mm Screws
128-1520-20	Star-Drive T8, for 2.0 & 2.4 mm Screws



Plate Holding Forceps

90 mm, curved

164-0050-09



K-Wire, Single Trocar

1.5 mm x 100 mm



144-1015-10

Drill Guide

1.1 / 1.5 mm, 100 mm length

164-0070-15





Sawblades - „Samoy Rapid-Cut“

extreme cutting precision optimum performance protection against wear and tear titanium nitride*



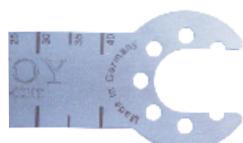
Colibri



Aesculap



Linvatec-Hall



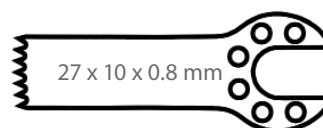
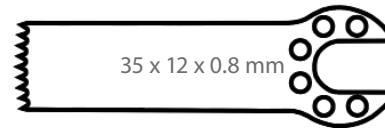
AO/Synthes



TERRIER



HORNET

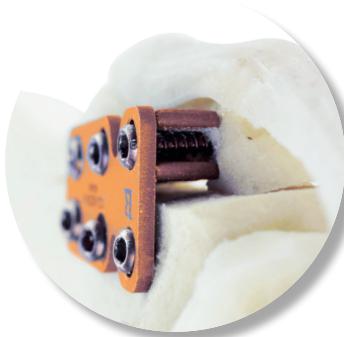


*Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field. TiN coated Saw-Blades last up to 5 times longer.

Standard	Length x Width x Cutting Thickness			
for Connection	50x20x0.8mm	42x15x0.8mm	35x12x0.8mm	27x10x0.8mm
Colibri	102-1420-50	102-1414-42	102-1411-35	102-1411-27
Aesculap		102-1714-42	102-1711-35	102-1711-27
Linvatec-Hall	102-1520-50	102-1514-42	102-1511-35	102-1511-27
AO/Synthes	102-1620-50	102-1614-42	102-1611-35	102-1611-27
		40x16x0.7mm	40x12x0.7mm	
TERRIER		102-1916-40	102-1912-40	
		18x6x0.3mm	24x9x0.3mm	
HORNET		102-2026-18	102-2026-24	

„Petite“	Product Code	Length x Width x Cutting Thickness
Colibri	102-1211-30	30x11x0.6mm
Aesculap	102-1212-25	25x10x0.7mm
Linvatec-Hall	102-1213-25	25.5x9.4x0.65mm
AO/Synthes	102-1210-25	25x10x0.6mm

RAPID LUXATION



Patella Correction – Safe And Simple

Patellar Luxations are frequently seen in dogs and cats. In the past, correcting these could prove to be challenging, but RAPID LUXATION has simplified the technique and instrumentation.



Testing The Stifle During The Surgery

The uniquely designed Tibia Tappet allows you to move the tibial tuberosity very accurately and test the functionality of the new position during the surgery, before placing the screws.

Once you have reached the desired position, you can fixate with the patellar spacer and screws.



Secure Construction

The screws securely fix the plate and spacer together and do not allow movement of the bone, which is essential for quick bone growth.

If you realize a re-correction is necessary post operatively, you only need to replace the spacer by another size.



Three Different Sizes

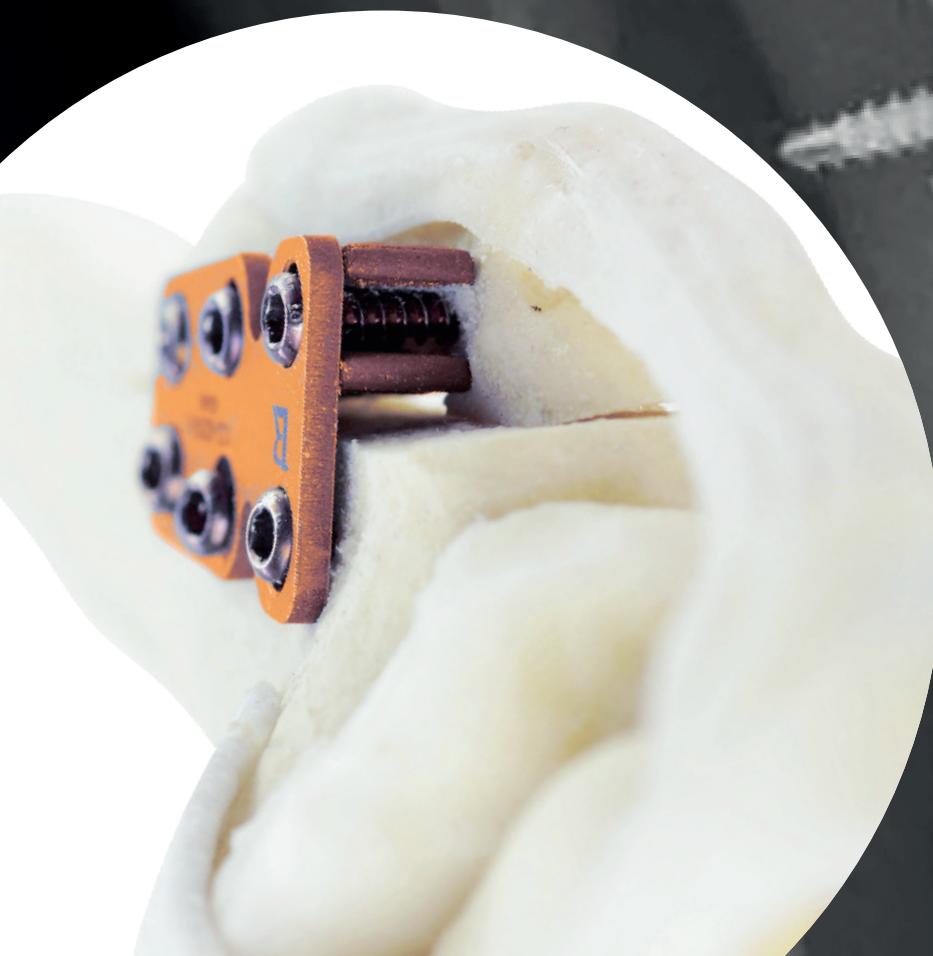
The RAPID LUXATION Patella Plates are available in three different sizes: Petite/Tiny (2.0mm), Medium (2.4mm) and Large (2.4mm).



Compatible With TTA RAPID®

RAPID LUXATION is compatible with TTA RAPID® since both techniques use identical instrumentation (sawguide, tibia tappet, etc.), screws and patella spacers.

RAPiD
LUXATION
PLATING SYSTEM



Special Thanks to
Emile Pickee

RAPID LUXATION

RITA
LEIBINGER
MEDICAL

Rapid Luxation Surgery Protocol

RAPID LUXATION Surgery Protocol Placement of the patient

The dog is placed in a dorsal recumbency with the affected limb suspended from a stand. Make sure that the dog's paws are not fixed too tightly, since the affected limb will be put against the table later in the surgery. Rapid Luxation is performed through a medial skin incision.

Using the saw guide

The saw guide is an L-shaped device developed to facilitate the correct position of the osteotomy. It has been developed to ensure a sufficiently large cranial fragment is created for screw placement. The vertical arm of the guide has 2.5mm holes placed at strategic points, over a 1mm wide slot. The numbers beside the holes result from the TTA Rapid technique, where the saw guides were originally developed for but will also be appropriate for the Rapid Luxation technique in order to prevent making a too distal osteotomy. The horizontal arm of the guide is a scale in millimeters. This will prevent making a too caudal osteotomy.

Making the osteotomy

1.) A 2.5mm pin is placed through the joint capsule at the intersection of the femoral condyle and the tibial plateau. On the lateral side, the pin should start slightly in front of the level of "Gerdy's Tuber". This pin is used as the proximal fixation of the saw guide.



2.) The guide is dropped over the pin using one of the numbered holes in the vertical arm. The number should be selected accordingly that the osteotomy will end below the Tibia Tuberosity.
3.) A peg is placed into one of the holes in the horizontal arm of the saw guide, selecting the cortical thickness in millimeters measured during pre-operative planning.



4.) Press the saw guide against the medial aspect of the tibia with protruding peg forced up against the cranial side of the tibia. Hold it in that position. Correct use of the saw guide will place the osteotomy just caudal to the cranial cortex of the tibia. (As a guide: In a large dog the cortex is approximately 5mm thick and in a small dog approximately 3mm.)



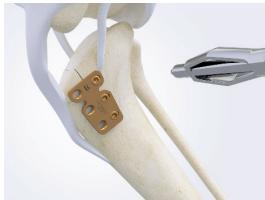
DO NOT PRESS THE HORIZONTAL ARM AGAINST THE BONE, AS THIS WILL CAUSE AN OBLIQUE OS-TEOTOMY!

5.) Use an oscillating saw to create the osteotomy. Optionally, a blade can be used to open the fascia/periosteum prior to the osteotomy.



Placing the implants

(following the medial Patella Luxation (PL) is described. With lateral PL proceed the placing of the implants in lateral/medial opposite site)

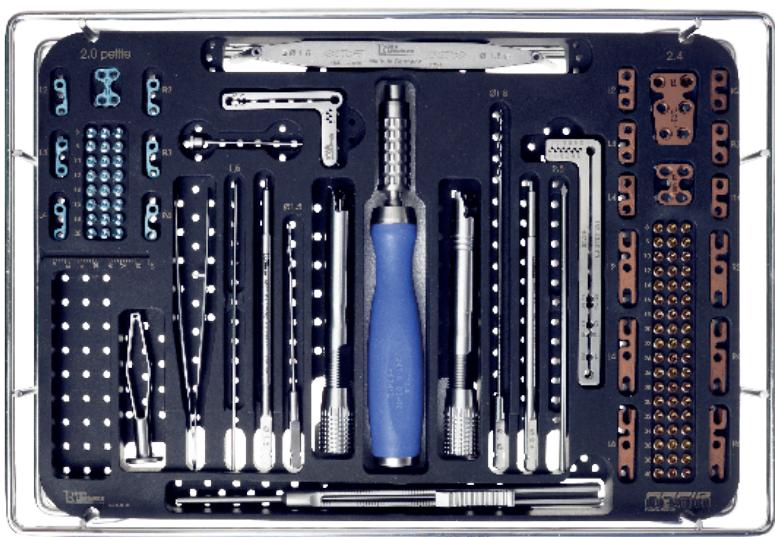


luxation.leibinger.vet

RAPID LUXATION Set

Contains:

Sterilization Tray with Lid
 3 of each 2.0mm Screw (6-20mm)
 (24 pcs. total)
 3 of each 2.4mm Screw (6-40mm)
 (54 pcs. total)
 1 of each Rapid Luxation Plate
 (3 pcs. total)
 1 of each Patella Spacer (18 pcs. total)
 Large Sawguide with Pin & K-Wire
 Petite Sawguide with Pin & K-Wire
 Tibia Tappet „Petite“
 Tibia Tappet „Standard“
 Screwdriver Handle
 Screw Driver Shaft 2.4/2.0 or T8
 Holding Sleeve (Hexagonal Set only)
 Plate Holding Forceps
 Depth Gauge
 Drill Guide
 Drills 1.5 + 1.8



Set with Hexagonal Screws

132-8000-00

Set with Stardrive Screws

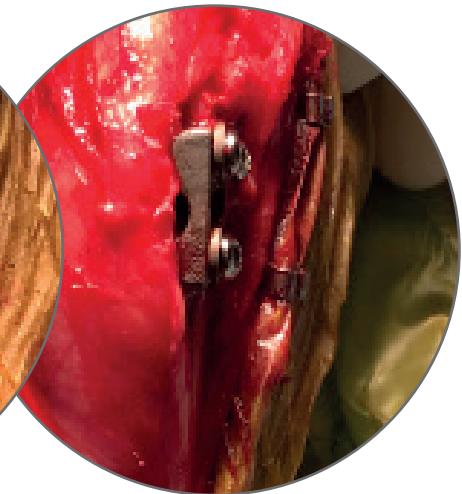
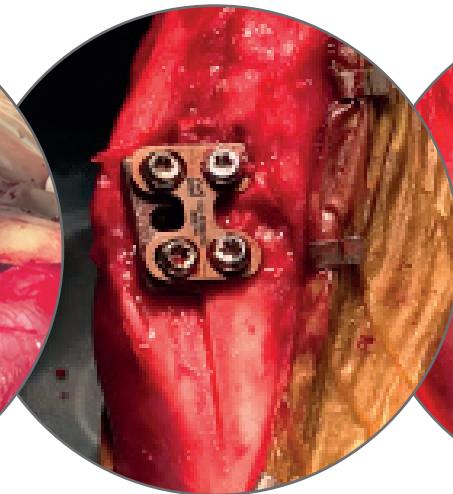
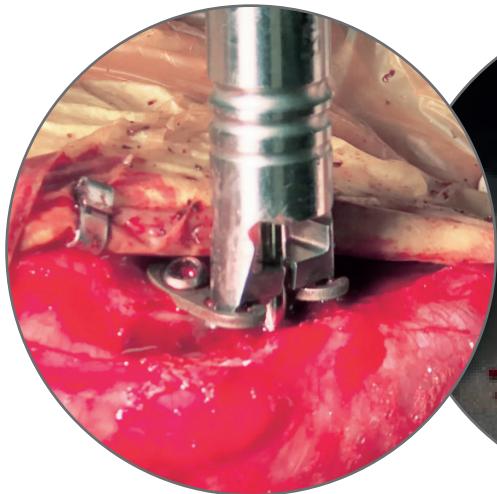
132-8000-01

Tray without content

132-8000-10



**New! Online Workshops:
academy.leibinger.vet**



Rapid Luxation Plates

Patella Luxation

Luxation Plate

6-hole, 1.5 mm thick, with gliding holes, for 2.4 mm screws, Titanium

132-8200-01



Spacer



Product Code	Spacer left
132-8010-02L	2 mm height, 3 holes, left
132-8010-04L	4 mm height, 3 holes, left
132-8010-06L	6 mm height, 3 holes, left



Product Code	Spacer right
132-8010-02R	2 mm height, 3 holes, right
132-8010-04R	4 mm height, 3 holes, right
132-8010-06R	6 mm height, 3 holes, right

Luxation Plate

4-hole, 1 mm thick, with gliding holes for 2.4 mm screws, Titanium

132-8200-02



Spacer



Product Code	Spacer left
132-8020-02L	2 mm height, 2 holes, left
132-8020-03L	3 mm height, 2 holes, left
132-8020-04L	4 mm height, 2 holes, left



Product Code	Spacer right
132-8020-02R	2 mm height, 2 holes, right
132-8020-03R	3 mm height, 2 holes, right
132-8020-04R	4 mm height, 2 holes, right

Luxation Plate Petite

4-hole, 1 mm thick, with gliding holes for 2.0 mm screws, Titanium

132-8200-03



Spacer



Product Code	Spacer left
132-8030-01L	1 mm height, 2 holes, left
132-8030-02L	2 mm height, 2 holes, left
132-8030-03L	3 mm height, 2 holes, left
132-8030-04L	4 mm height, 2 holes, left



Product Code	Spacer right
132-8030-01R	1 mm height, 2 holes, right
132-8030-02R	2 mm height, 2 holes, right
132-8030-03R	3 mm height, 2 holes, right
132-8030-04R	4 mm height, 2 holes, right

2.0/2.4 Self-tapping Screws Titanium

Screws for RAPID LUXATION

2.0 Self-tapping Screws, Titanium

Hexagonal or Star Drive head, self tapping,
with three flute cutting edge



Length (mm)	Hexagonal (Petite)
5	
6	245-220-06
7	
8	245-220-08
9	
10	245-220-10
12	245-220-12
14	245-220-14
16	245-220-16
18	245-220-18
20	245-220-20
22	245-220-22
24	245-220-24
26	245-220-26
28	245-220-28
30	245-220-30

Star Drive (Petite)
245-520-05
245-520-06
245-520-07
245-520-08
245-520-09
245-520-10
245-520-12
245-520-14
245-520-16
245-520-18
245-520-20
245-520-22
245-520-24
245-520-26
245-520-28
245-520-30

2.4 Self-tapping Screws, Titanium

Hexagonal or Star Drive head, self tapping,
with three flute cutting edge



Length (mm)	Hexagonal (Standard)	Star Drive (Standard)
6	245-224-06	245-524-06
8	245-224-08	245-524-08
10	245-224-10	245-524-10
12	245-224-12	245-524-12
14	245-224-14	245-524-14
16	245-224-16	245-524-16
18	245-224-18	245-524-18
20	245-224-20	245-524-20
22	245-224-22	245-524-22
24	245-224-24	245-524-24
26	245-224-26	245-524-26
28	245-224-28	245-524-28
30	245-224-30	245-524-30
32	245-224-32	245-524-32
34	245-224-34	245-524-34
36	245-224-36	245-524-36
38	245-224-38	245-524-38
40	245-224-40	245-524-40

Tibia Tappet

Patella Saw

Twist Drill

TTA Depth Gauge

Tibia Tappet

For inserting Patella
Luxation Spacers

Product Code	Description
132-4071-00	Petite / Tiny 2.0 mm
132-4070-00	Standard 2.4 mm



luxation.leibinger.vet

Patella Saw

With standard sawblade, incl. Allen Wrench 1.5mm

23-1005-90



Twist Drill



Product Code	Ø (mm)	Length (mm)	Connec-tion
148-0080-15	1.5 (Petite)	70/30	straight sh.
148-0080-18	1.8 (Stand.)	125/25	straight sh.

Product Code	Ø (mm)	Length (mm)	Connec-tion
148-0081-15	1.5 (Petite)	85/60	AO QC
148-0081-18	1.8 (Stand.)	125/25	AO QC

Depth Gauge

Product Code	Description
164-1520-20	Petite 2.0 mm
164-2735-60	Standard 2.4 mm



Plate Holding Forceps

90 mm, curved

164-0050-09



RAPID LUXATION Saw Guide

RAPID LUXATION Instruments

RAPID LUXATION Saw Guide

Product Code	Description
132-4040-00	for plates 132-8200-01 & -02
132-4041-00	for plates 132-8200-02 & -03
132-4042-00	for Tiny plates 132-8200-03



TTA RAPID ® Saw Guide Pin

Ø 1.0mm

132-4030-10



Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0103-00



Screw Driver Shaft Hexagonal

AO connection, (Holding Sleeve recommended)

Product Code	Description
128-0900-15	for 2.0 mm screws „Petite“
128-0900-20	for 2.4 mm screws „Standard“



Holding Sleeve

2.4 mm

128-0940-24



Screw Driver Shaft Star-Drive

AO connection, self-holding (no Holding Sleeve needed)
Star-Drive 8, for 2.0 & 2.4 mm Screws

128-2024-08



K-Wires, Single Trocar

Product Code	Description
144-1015-10	1.5 mm x 100 mm
144-1025-10	2.5 mm x 100 mm



Drill Guide

1.5 / 1.8 mm, 100 mm length

164-0070-18



TTA Standard



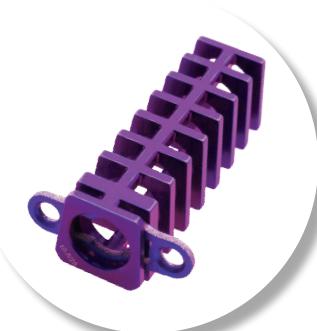
Made in Germany

TTA Standard implants are manufactured by Rita Leibinger with a high quality.



Titanium Implants Available In Many Sizes

Our TTA Standard implants are available from very small to very large sizes. All implants are made of Titanium.



Cuttable Cages

Besides standard cages we offer cuttable cages, too. This allows you to adjust the depth of each cage yourself.



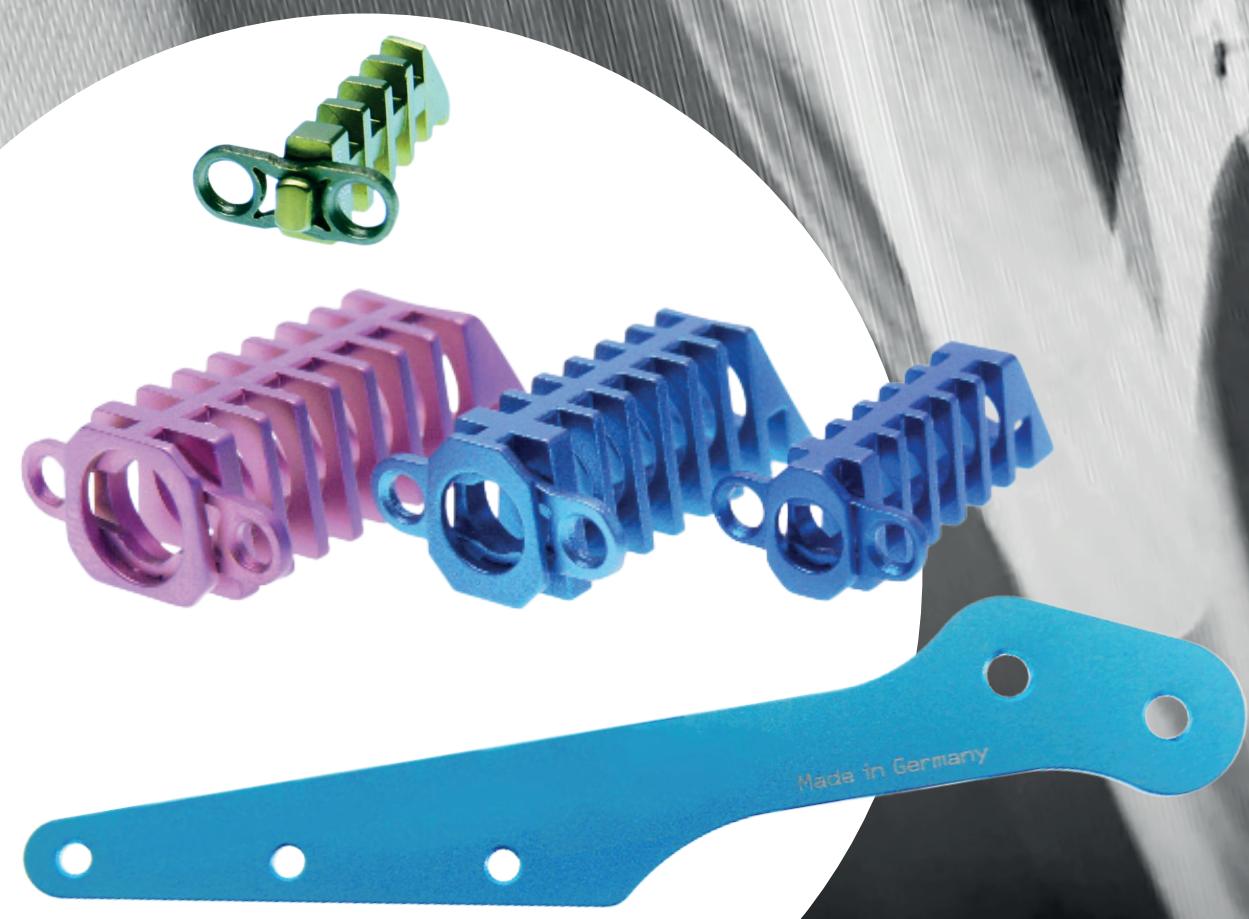
Affordable

Because you are buying directly from the manufacturer, we can offer all implants at affordable pricing.



Ordering Convenience

In addition to our Standard TTA Implants, we also offer TTA RAPID and many other implant systems. As we manufacture the implants ourselves, we can assist you directly and quickly with whatever you need.



TTA STANDARD

RITA
LEIBINGER
MEDICAL

TTA Standard Set

TTA ESY Set

Sterilization Container

TTA Implant Standard Set

Contains:

- 1 TTA Implant Tray with Lid
- 1 of each TTA Cage 3mm - 15mm
(24 total)
- 2 of each 2.4mm Screw
(6-40mm, 36 total)
- 2 of each 2.7mm Screw
(6-40mm, 36 total)
- 2 of each 3.5mm Screw
(10-50mm, 36 total)
- 1 of each Fork Standard Style 3-8
- 1 of each Plate Standard Style 3-8

230-2020-00

Tray without content

230-2080-00



TTA Implant ESY Set

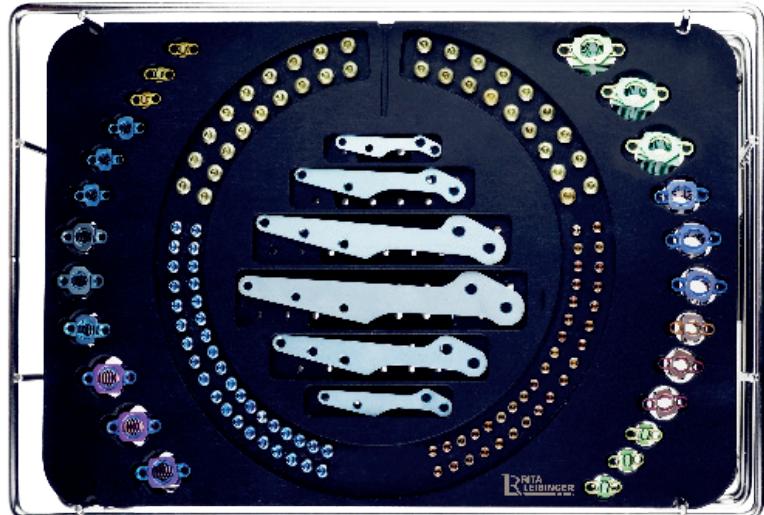
Contains:

- 1 TTA Implant Tray with Lid
- 1 of each TTA Cage 3mm - 15mm
(24 total)
- 2 of each 2.4mm Screw
(6-40mm, 36 total)
- 2 of each 2.7mm Screw
(6-40mm, 36 total)
- 2 of each 3.5mm Screw
(10-50mm, 36 total)
- 1 of each ESY Plate Style 3-8

230-2040-00

Tray without content

230-2080-00



Sterilization Container

For Trays, 310x190x130mm

blue (image)

150-5401-30

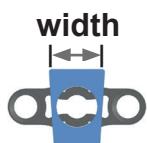
green

150-5402-30

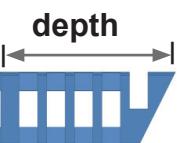


TTA Cages

Cages
Titanium



TTA Cuttable Cages



TTA Standard Plates



Product Code	Size (w/d)
230-2162-310	3/10
230-2162-313	3/13
230-2162-316	3/16
230-2162-319	3/19
230-2162-4512	4.5/12
230-2162-4515	4.5/15
230-2162-4518	4.5/18
230-2162-616	6/16
230-2162-619	6/19

Product Code	Size (w/d)
230-2162-622	6/22
230-2162-7513	7.5/13
230-2162-7516	7.5/16
230-2162-7519	7.5/19
230-2162-7522	7.5/22
230-2162-919	9/19
230-2162-922	9/22
230-2162-925	9/25

Product Code	Size (w/d)
230-2162-10519	10.5/19
230-2162-10522	10.5/22
230-2162-10525	10.5/25
230-2162-1222	12/22
230-2162-1225	12/25
230-2162-1228	12/28
230-2162-1525	15/25
230-2162-1528	15/28
230-2162-1531	15/31

Cuttable Cages

Titanium

Product Code	Size (w/d)
230-2163-622	6/22
230-2163-7524	7.5/24
230-2163-926	9/26

Product Code	Size (w/d)
230-2163-10528	10.5/28
230-2163-1230	12/30
230-2163-1532	15/32



Forks

Titanium

Product Code	Prongs
230-2161-03	3
230-2161-04	4



Product Code	Prongs
230-2161-05	5
230-2161-06	6

Product Code	Prongs
230-2161-07	7
230-2161-08	8

Plates Standard

Titanium

Product Code	Holes
230-2160-03	3
230-2160-04	4



Product Code	Holes
230-2160-05	5
230-2160-06	6

Product Code	Holes
230-2160-07	7
230-2160-08	8

ESY TTA Plate

Titanium

Product Code	Specification	
	Holes	Style
230-155-03	2	3
230-155-04	2	4

Product Code	Specification	
	Holes	Style
230-155-05	2	5
230-155-06	3	6

Product Code	Specification	
	Holes	Style
230-155-07	3	7
230-155-08	3	8

TTA Spacers

2.4 TTA Screws

TTA Spacers Titanium

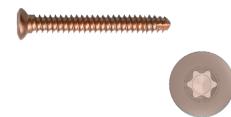
For Patella Luxation



Product Code	Size (mm)
246-008-02	2
246-008-04	4
246-008-06	6

2.4 Self Tapping Screws Titanium

Hexagonal or **Star Drive** head, self tapping with three flute cutting edge



Length (mm)	Hexagonal	Star Drive
6	245-224-06	245-524-06
8	245-224-08	245-524-08
10	245-224-10	245-524-10
12	245-224-12	245-524-12
14	245-224-14	245-524-14
16	245-224-16	245-524-16
18	245-224-18	245-524-18
20	245-224-20	245-524-20
22	245-224-22	245-524-22
24	245-224-24	245-524-24
26	245-224-26	245-524-26
28	245-224-28	245-524-28
30	245-224-30	245-524-30
32	245-224-32	245-524-32
34	245-224-34	245-524-34
36	245-224-36	245-524-36
38	245-224-38	245-524-38
40	245-224-40	245-524-40

2.7 TTA Screws

3.5 TTA Screws

2.7 Self Tapping Screws Titanium

Hexagonal or **Star Drive** head, self tapping with three flute cutting edge



Length (mm)	Hexagonal	Star Drive
6	245-227-06	245-527-06
8	245-227-08	245-527-08
10	245-227-10	245-527-10
12	245-227-12	245-527-12
14	245-227-14	245-527-14
16	245-227-16	245-527-16
18	245-227-18	245-527-18
20	245-227-20	245-527-20
22	245-227-22	245-527-22
24	245-227-24	245-527-24
26	245-227-26	245-527-26
28	245-227-28	245-527-28
30	245-227-30	245-527-30
32	245-227-32	245-527-32
34	245-227-34	245-527-34
36	245-227-36	245-527-36
38	245-227-38	245-527-38
40	245-227-40	245-527-40

3.5 Self Tapping Screws Titanium

Hexagonal or **Star Drive** head, self tapping with three flute cutting edge



Length (mm)	Hex Head	Star Drive
8	245-235-08	245-535-08
10	245-235-10	245-535-10
12	245-235-12	245-535-12
14	245-235-14	245-535-14
16	245-235-16	245-535-16
18	245-235-18	245-535-18
20	245-235-20	245-535-20
22	245-235-22	245-535-22
24	245-235-24	245-535-24
26	245-235-26	245-535-26
28	245-235-28	245-535-28
30	245-235-30	245-535-30
32	245-235-32	245-535-32
34	245-235-34	245-535-34
36	245-235-36	245-535-36
38	245-235-38	245-535-38
40	245-235-40	245-535-40
45	245-235-45	245-535-45
50	245-235-50	245-535-50
55	245-235-55	245-535-55
60	245-235-60	245-535-60

Drill Guides for Forks

Product Code	Holes
246-001-04	4
246-001-08	8



Pin

Size 1.9 mm

246-006-19



Drill Sleeves

Product Code	Size (mm)
164-0070-18	1.5/1.8
164-0070-27	2.0/2.7
164-0070-35	2.5/3.5



Drill Bits

Product Code	Ø (mm)	Length (mm)	Connection
148-0080-18	1.8	125/25	straight shank
148-0080-20	2.0	85/70	straight shank
148-0080-25	2.5	95/80	straight shank

Product Code	Ø (mm)	Length (mm)	Connection
148-0081-18	1.8	125/25	AO Schaft
148-0081-20	2.0	100/75	AO Schaft
148-0081-25	2.5	110/85	AO Schaft

Depth Gauge

For 2.4 | 2.7 | 3.5 screws
maximal measurement 60 mm

164-2735-60



Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0103-00



Screwdriver

TTA RAPID Spreader

Boneholding Forceps

Screwdriver Hex Insert

AO connection, self-holding, (Holding Sleeve recommended)

Product Code	Description
128-0900-20	for 2.4 mm Screws
128-0900-25	for 2.7 and 3.5 mm Screws



Holding Sleeve for Hexagonal Screwdriver

Product Code	Size
128-0940-24	2.4 mm
128-0940-25	2.7/3.5 mm



Screwdriver Star-Drive

AO connection, self-holding (no Holding Sleeve needed)

Product Code	Description
128-1520-20	for 2.0 and 2.4 mm Screws
128-2735-10	for 2.7 and 3.5 mm Screws



Plate Holding Forceps

16 cm angled

164-0050-16



TTA RAPID ® Spreader

With tensioning and fixation screw, 16 cm

132-4080-16



Boneholding Forceps

21,5 cm - with spin lock

128-0525-21



Fork Inserter

246-002-00



TTA Bending Iron

120 mm



132-4020-00

LeiLOX TPLO



Tradition improved and Made Affordable

LeiLOX TPLO implants are made in Germany by Rita Leibinger. Because you are buying directly from the manufacturer, we can offer them at an affordable price.



Multiaxial Locking

The screws can be locked in a 90° angle with a 12° deviation in any direction. This allows you to angle the screws away from vital structures. The robust stardrive screw head can be locked firmly into the plate.



Anatomically Shaped Limited Contact Dynamic Compression Plates

The LeiLOX TPLO plates are contoured to match the anatomic shape of the bone. This makes it easier to place the plate in an optimal position.

The plate features limited contact dynamic compression to minimize vascular damage to the plated bone segment.



Double Compression

Two precisely designed compression holes enable a very tight compression of the osteotomy.



Interchangeable 2.7 & 3.5mm and 2.0 & 2.4mm Screws

Because the screwheads are identical, all Stainless Steel 2.7/3.5 LeiLOX plates (TPLO and fracture systems) work with 2.7mm as well as 3.5mm screws in all of the plate sizes. Same applies for the 2.0/2.4 systems. This offers flexibility and ideal implant selection for each patient. Moreover, this saves on inventory cost.

High Performance TPLO Sawblades are available. The Titanium Nitrate coating allows them to last significantly longer than standard blades.

LeiLOX

TPLO Locking System



Special Thanks to
Dr. Ulrich Rytz

LeiLOX TPLO

RITA
LEIBINGER
MEDICAL

2.0/2.4 TPLO Implant Set

2.0/2.4 TPLO Locking Plates

2.0 / 2.4 TPLO Set

Contains:

- 1 TPLO Implants and Instruments Tray with Lid
- 2 of each TPLO Plate
- 3 of each Cortical Screw (8-18mm // 8-22mm, 42 total)
- 5 of each Locking Screw (6-24mm // 6-30mm, 115 total)
- 2 Drills (1.5 & 1.8mm)
- 5 K-Wires
- 2x2 Locking Drill Guides
- 2 Compression Drill Guides
- 1 TPLO Jig
- 1 Screwdriver Handle
- 1 Screwdriver Shaft T8
- 1 Depth Gauge

142-0150-00

Tray without content

142-0150-10



2.0 / 2.4 LeiLOX TPLO Locking Plate



LeiLOX TPLO Locking Plate, 2.0 mm, left, 33 mm, Stainless Steel

142-1120-10



LeiLOX TPLO Locking Plate, 2.0 mm, right, 33 mm, Stainless Steel

142-1120-00



LeiLOX TPLO Locking Plate, 2.4 mm, left, 37 mm, Stainless Steel

142-1124-10



LeiLOX TPLO Locking Plate, 2.4 mm, right, 37 mm, Stainless Steel

142-1124-00

2.0 / 2.4 Non-Locking Screws

2.0 LeiLOX Locking Screw Stainless Steel

For LeiLOX Locking Systems, Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
06	242-120-06
08	242-120-08
10	242-120-10
12	242-120-12
14	242-120-14
16	242-120-16
18	242-120-18
20	242-120-20
22	242-120-22
24	242-120-24

2.0 / 2.4 Locking Screws

2.4 LeiLOX Locking Screw Stainless Steel

For LeiLOX Locking Systems, Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
06	242-124-06
08	242-124-08
10	242-124-10
12	242-124-12
14	242-124-14
16	242-124-16
18	242-124-18
20	242-124-20
22	242-124-22
24	242-124-24
26	242-124-26
28	242-124-28
30	242-124-30

2.0 Cortical Screw (Non-Locking) Stainless Steel

Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
08	245-620-08
10	245-620-10
12	245-620-12
14	245-620-14
16	245-620-16
18	245-620-18

2.4 Cortical Screw (Non-Locking) Stainless Steel

Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
08	245-624-08
10	245-624-10
12	245-624-12
14	245-624-14
16	245-624-16
18	245-624-18
20	245-624-20
22	245-624-22

TPLO Set LeiLOX 2.7/3.5

2.7/3.5 TPLO Set LeiLOX

2.7 / 3.5 TPLO Implant Set

Contains:

- 1 TPLO Implant Tray with Lid
- 2 of each TPLO Plate
- 3 of each Cortical Screw (16-34mm, 60 total)
- 5 of each Locking Screw (16-46mm, 160 total)

142-0100-02

Tray without content

142-0100-10



TPLO/CBLO Instrument Set

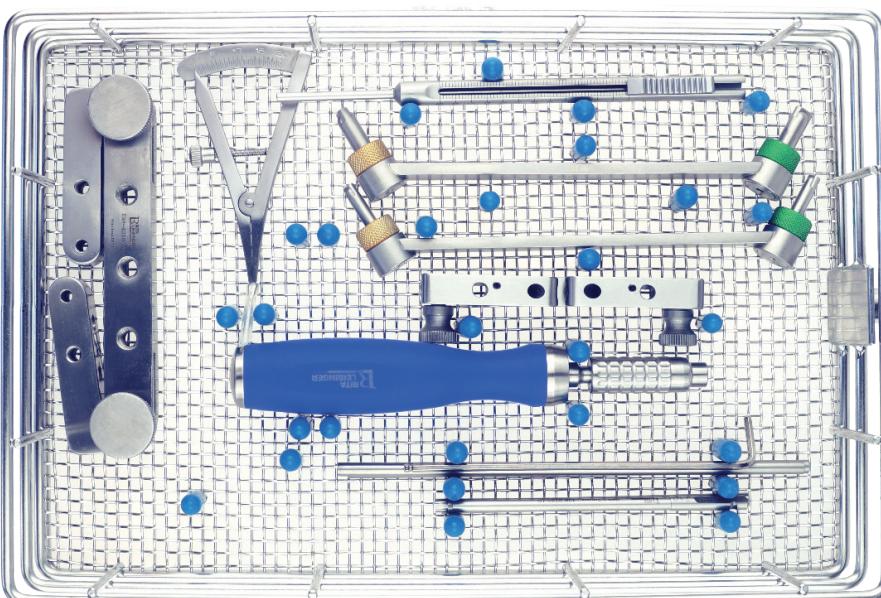
Contains:

- 1 TPLO/CBLO Instrument Tray
- 2 Drills (2.0 & 2.5mm)
- 3x2 K-Wires (1.0, 2.5 & 3.0mm)
- 2x2 Locking Drill Guides
- 2 TPLO Jigs
- 1 Screwdriver Handle
- 1 Screwdriver Shaft
- 1 Depth Gauge
- 1 Castroviejo Caliper
- 2 Compression Drill Guides

142-0100-01

Tray without content

142-0100-20



Sterilization Container

for Trays, 310x190x130mm

blue (image)

150-5401-30

green

150-5402-30



TPLO Plates LeiLOX 2.7/3.5

2.7/3.5 TPLO

2.7 / 3.5 LeiLOX TPLO Locking Plate



LeiLOX TPLO Locking Plate, 2.7 mm,
left, 46 mm, Stainless Steel

142-1127-10



LeiLOX TPLO Locking Plate, 2.7 mm,
right, 46 mm, Stainless Steel

142-1127-00



LeiLOX TPLO Locking Plate, 3.5 mm,
left, 66 mm, Stainless Steel

142-1135-10



LeiLOX TPLO Locking Plate, 3.5 mm,
right, 66 mm, Stainless Steel

142-1135-00



LeiLOX TPLO Locking Plate, broad, 3.5 mm,
left, 75 mm, Stainless Steel

142-1135-60



LeiLOX TPLO Locking Plate, broad, 3.5 mm,
right, 75 mm, Stainless Steel

142-1135-50

2.7 / 3.5 Locking Screws (Star-Drive, TPLO)

2.7 LeiLOX Locking Screw Stainless Steel

For LeiLOX Locking Systems, Star Drive T10
self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR
Screw-
Head



Length (mm)	Product Code
10	242-127-10
12	242-127-12
14	242-127-14
16	242-127-16
18	242-127-18
20	242-127-20
22	242-127-22
24	242-127-24
26	242-127-26
28	242-127-28
30	242-127-30
32	242-127-32
34	242-127-34
36	242-127-36
38	242-127-38
40	242-127-40
42	242-127-42
44	242-127-44
46	242-127-46
48	242-127-48
50	242-127-50



3.5 LeiLOX Locking Screw Stainless Steel

For LeiLOX Locking Systems, Star Drive T10
self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR
Screw-
Head



Length (mm)	Product Code
10	242-135-10
12	242-135-12
14	242-135-14
16	242-135-16
18	242-135-18
20	242-135-20
22	242-135-22
24	242-135-24
26	242-135-26
28	242-135-28
30	242-135-30
32	242-135-32
34	242-135-34
36	242-135-36
38	242-135-38
40	242-135-40
42	242-135-42
44	242-135-44
46	242-135-46
48	242-135-48
50	242-135-50
52	242-135-52
54	242-135-54
56	242-135-56
58	242-135-58
60	242-135-60
62	242-135-62
64	242-135-64
66	242-135-66
68	242-135-68
70	242-135-70

TPLO.leibinger.vet

2.7 / 3.5 Cortical Screw

Screwdriver Handle TPLO

2.7 Cortical Screw (Non-Locking) Stainless Steel

Star Drive T10

self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
16	245-627-16
18	245-627-18
20	245-627-20
22	245-627-22
24	245-627-24
26	245-627-26
28	245-627-28
30	245-627-30
32	245-627-32
34	245-627-34

3.5 Cortical Screw (Non-Locking) Stainless Steel

Star Drive T10

self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
16	245-635-16
18	245-635-18
20	245-635-20
22	245-635-22
24	245-635-24
26	245-635-26
28	245-635-28
30	245-635-30
32	245-635-32
34	245-635-34

K-Wire, Single Trocar

1.0 mm x 100 mm

144-1010-10

Produkt Code	Maße (mm)
144-1010-10	1.0 x 100
144-1020-10	2.0 x 100
144-1025-10	2.5 x 100
144-1030-10	3.0 x 100

Screwdriver Shaft Star-Drive

AO connection, self-holding
(no Holding Sleeve needed)



Product Code	Description
128-1520-20	T8, for 2.0 / 2.4 mm screws, 60 mm length
128-2024-08	T8 for 2.0 / 2.4 mm screws, 100 mm length
128-2735-10	T10 for 2.7 / 3.5 mm screws, 100 mm length

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F



Product Code	Description
247-0103-00	small, recommended for 2.0/2.4 TPLO
247-0102-00	standard, recomen. for 2.7/3.5 TPLO

Torque Limiting Screwdriver Handle

Torque 3 Nm
Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



Drill Bits

Compression Drill Guide

Locking Drill Guide

Drill Bits



Product Code	Ø (mm)	Length (mm)
148-0080-15	1.5	70/30
148-0080-18	1.8	125/25
148-0080-20	2.0	85/70
148-0080-25	2.5	95/80



Product Code	Ø (mm)	Length (mm)
148-0081-15	1.5	85/60
148-0081-18	1.8	125/25
148-0081-20	2.0	100/75
148-0081-25	2.5	110/85

Depth Gauge

Product Code	Description
164-1520-20	for 2.0/2.4 mm screws
164-2735-60	for 2.7/3.5 mm screws



Compression Drill Guide

Neutral / load



Product Code	Description
164-0071-15	for screws Ø 2.0 mm and drills Ø 1.5 mm
128-2418-24	for screws Ø 2.4 mm and drills Ø 1.8 mm
128-2720-27	for screws Ø 2.7 mm and drills Ø 2.0 mm
128-2535-35	for screws Ø 3.5 mm and drills Ø 2.5 mm

Locking Drill Guide

Stainless Steel

Product Code	Description
164-2000-00	for 2.0 mm screws
164-2400-00	for 2.4 mm screws
164-2700-00	for 2.7 mm screws
164-3500-00	for 3.5 mm screws



Castroviejo

Caliper

17-3105-08



Castroviejo

TPLO Jig

Screw Rack

TPLO Jig

Product Code	Description
128-4354-00	for 2.0/2.4 mm
128-4355-00	for 2.7 mm
128-4356-00	for 3.5 mm



TPLO Saw Blades

with triangle connection

Leibinger TPLO Sawblades are coated with Titanium Nitride (TiN). Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field.

Product Code	Width
102-2100-09	09 mm
102-2100-12	12 mm
102-2100-15	15 mm
102-2100-18	18 mm
102-2100-21	21 mm
102-2100-24	24 mm
102-2100-27	27 mm
102-2100-30	30 mm
102-2100-33	33 mm



Screw Rack

Product Code	Description
150-0520-00	for 2.0 mm screws
150-0524-00	for 2.4 mm screws
150-0527-00	for 2.7 mm screws
150-0535-00	for 3.5 mm screws
150-4027-00	for 2.7mm screws (extended: 6-52mm)
150-4035-00	for 3.5 mm screws (extended: 6-70mm)



LeiLOX TPLO Swing



Titanium for Best Biocompatibility

LeiLOX TPLO Swing implants are made of medical grade Titanium, which makes them very durable but lightweight, highly biocompatible, and low in temperature sensitiveness.



Multiaxial Locking

The screws can be locked in a 90° angle with a 12° deviation in any direction. This allows you to angle the screws away from vital structures. The robust stardrive screw head can be locked firmly into the plate.



Anatomically Shaped Limited Contact Dynamic Compression Plates

The LeiLOX TPLO Swing plates are contoured to match the anatomic shape of the bone. This makes it easier to place the plate in an optimal position.

The plate features limited contact dynamic compression to minimize vascular damage to the plated bone segment.



Double Compression

Two precisely designed compression holes enable a very tight compression of the osteotomy.



Interchangeable 2.7 & 3.5mm and 2.0 & 2.4mm Screws

Because the screwheads are identical, all Titanium 2.7/3.5 LeiLOX plates (TPLO and fracture systems) work with 2.7mm as well as 3.5mm screws in all of the plate sizes. Same applies for the 2.0/2.4 systems. This offers flexibility and ideal implant selection for each patient. Moreover, this saves on inventory cost.

High Performance TPLO Sawblades are available. The Titanium Nitrate coating allows them to last significantly longer than standard blades.

LeiLOX

TPLO Swing



Special Thanks to
Dr. Yves Samoy

LeiLOX TPLO SWING

RITA
LEIBINGER
MEDICAL

TPLO Swing Set 2.0 / 2.4 Titanium

2.0 / 2.4 TPLO Swing Set

Contains:

- 1 TPLO Implants and Instruments Tray with Lid
- 2 of each TPLO Swing Locking Plate
- 3 of each Cortical Screw (2.0, 8-18mm // 2.4, 8-22mm, 42 total)
- 5 of each Locking Screw (2.0, 6-24mm // 2.4, 6-30mm, 115 total)
- 2 Drills (1.5 & 1.8mm)
- 5 K-Wires
- 2x2 Locking Drill Guides
- 2 Compression Drill Guides
- 1 TPLO Jig
- 1 Screwdriver Handle
- 1 Screwdriver Shaft T8
- 1 Depth Gauge

142-2820-24

Tray without contents

142-2800-10



2.0 / 2.4 LeiLOX TPLO Swing Locking Plates, Titanium



LeiLOX TPLO Swing Locking Plate
2.0 mm, left, 33 mm, Titanium

142-2820-10



LeiLOX TPLO Swing Locking Plate
2.0 mm, right, 33 mm, Titanium

142-2820-00



LeiLOX TPLO Swing Locking Plate
2.4 mm, left, 37 mm, Titanium

142-2824-10



LeiLOX TPLO Swing Locking Plate
2.4 mm, right, 37 mm, Titanium

142-2824-00

2.0/2.4 LeiLOX Locking Screws Titanium

2.0 LeiLOX Locking Screw Titanium

For LeiLOX Locking Systems
Star Drive, self-tapping



STAR<sup>Screw-
Head</sup>



Length (mm)	Product Code
06	242-220-06
08	242-220-08
10	242-220-10
12	242-220-12
14	242-220-14
16	242-220-16
18	242-220-18
20	242-220-20
22	242-220-22
24	242-220-24
26	242-220-26 optional
28	242-220-28 optional
30	242-220-30 optional

2.0/2.4 Cortical Screws Titanium

2.4 LeiLOX Locking Screw Titanium

For LeiLOX Locking Systems
Star Drive, self-tapping



STAR<sup>Screw-
Head</sup>



Length (mm)	Product Code
06	242-224-06
08	242-224-08
10	242-224-10
12	242-224-12
14	242-224-14
16	242-224-16
18	242-224-18
20	242-224-20
22	242-224-22
24	242-224-24
26	242-224-26
28	242-224-28
30	242-224-30
32	242-224-32 optional
34	242-224-34 optional
36	242-224-36 optional
38	242-224-38 optional
40	242-224-40 optional

2.0 Cortical Screw (Non-Locking) Titanium

Star Drive, self-tapping



STAR<sup>Screw-
Head</sup>



Length (mm)	Product Code
08	245-520-08
10	245-520-10
12	245-520-12
14	245-520-14
16	245-520-16
18	245-520-18

2.4 Cortical Screw (Non-Locking) Titanium

Star Drive, self-tapping



STAR<sup>Screw-
Head</sup>



Length (mm)	Product Code
08	245-524-08
10	245-524-10
12	245-524-12
14	245-524-14
16	245-524-16
18	245-524-18
20	245-524-20
22	245-524-22

TPLO Swing Set 2.7 / 3.5 Titanium

2.7 / 3.5 TPLO Swing Set Titanium

2.7 / 3.5 TPLO Swing Set

Contains:

- 1 TPLO Implant Tray with Lid
- 2 of each TPLO Swing Plate
- 3 of each Cortical Screw (16-34mm, 60 total)
- 5 of each Locking Screw (16-46mm, 160 total)

142-2827-35



Tray without contents

142-2800-20

TPLO/CBLO Instrument Set

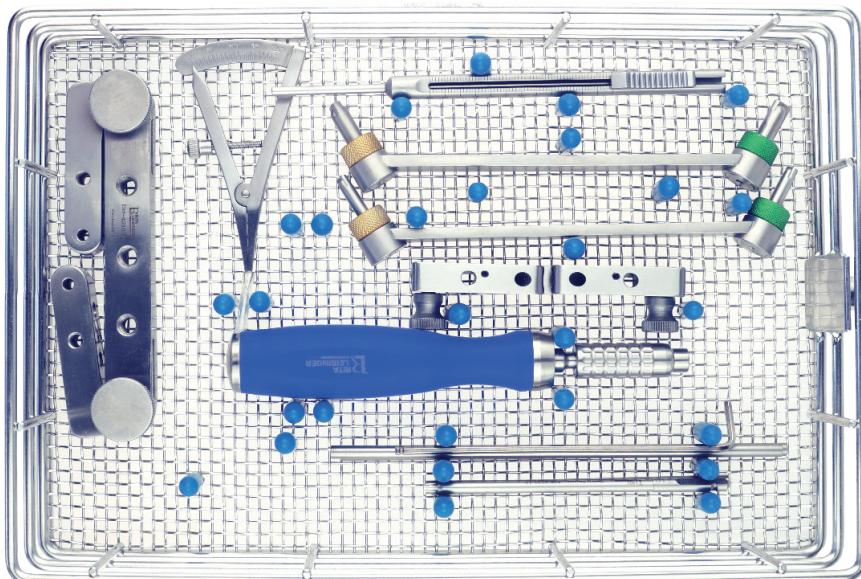
Contains:

- 1 TPLO/CBLO Instrument Tray
- 2 Drills (2.0 & 2.5mm)
- 3x2 K-Wires (1.0, 2.5 & 3.0mm)
- 2x2 Locking Drill Guides
- 2 TPLO Jigs
- 1 Screwdriver Handle
- 1 Screwdriver Shaft
- 1 Depth Gauge
- 1 Castroviejo Caliper
- 2 Compression Drill Guides

142-0100-01

Tray without content

142-0100-20



Sterilization Container

for Trays, 310x190x130mm

blue (image)

150-5401-30

green

150-5402-30



2.7 / 3.5 LeiLOX TPLO Swing Locking Plates Titanium



LeiLOX TPLO Swing Locking Plate
2.7 mm, left, 44 mm, Titanium

142-2827-10



LeiLOX TPLO Swing Locking Plate
2.7 mm, right, 44 mm, Titanium

142-2827-00



LeiLOX TPLO Swing Locking Plate
3.5 mm, left, 63 mm, Titanium

142-2835-10



LeiLOX TPLO Swing Locking Plate
3.5 mm, right, 63 mm, Titanium

142-2835-00



LeiLOX TPLO Swing Locking Plate
3.5 mm, left, 74 mm, Titanium

142-2835-60



LeiLOX TPLO Swing Locking Plate
3.5 mm, right, 74 mm, Titanium

142-2835-50

2.7/3.5 Locking Screws Titanium

2.7 LeiLOX Locking Screw Titanium

For LeiLOX Locking Systems
Star Drive, self-tapping



STAR Screw-
Head



Length (mm)	Product Code	
10	242-227-10	<i>optional</i>
12	242-227-12	<i>optional</i>
14	242-227-14	<i>optional</i>
16	242-227-16	
18	242-227-18	
20	242-227-20	
22	242-227-22	
24	242-227-24	
26	242-227-26	
28	242-227-28	
30	242-227-30	
32	242-227-32	
34	242-227-34	
36	242-227-36	
38	242-227-38	
40	242-227-40	
42	242-227-42	
44	242-227-44	
46	242-227-46	
48	242-227-48	<i>optional</i>
50	242-227-50	<i>optional</i>

3.5 LeiLOX Locking Screw Titanium

For LeiLOX Locking Systems
Star Drive, self-tapping



STAR Screw-
Head



Length (mm)	Product Code	
10	242-235-10	<i>optional</i>
12	242-235-12	<i>optional</i>
14	242-235-14	<i>optional</i>
16	242-235-16	
18	242-235-18	
20	242-235-20	
22	242-235-22	
24	242-235-24	
26	242-235-26	
28	242-235-28	
30	242-235-30	
32	242-235-32	
34	242-235-34	
36	242-235-36	
38	242-235-38	
40	242-235-40	
42	242-235-42	
44	242-235-44	
46	242-235-46	
48	242-235-48	
50	242-235-50	
52	242-235-52	
54	242-235-54	
56	242-235-56	
58	242-235-58	
60	242-235-60	

2.7/3.5 Cortical Screws Titanium

2.7 Cortical Screw (Non-Locking) Titanium
Star Drive, self-tapping



STAR^{Screw-Head}



Length (mm)	Product Code
16	245-527-16
18	245-527-18
20	245-527-20
22	245-527-22
24	245-527-24
26	245-527-26
28	245-527-28
30	245-527-30
32	245-527-32
34	245-527-34

3.5 Cortical Screw (Non-Locking) Titanium
Star Drive, self-tapping



STAR^{Screw-Head}



Length (mm)	Product Code
16	245-535-16
18	245-535-18
20	245-535-20
22	245-535-22
24	245-535-24
26	245-535-26
28	245-535-28
30	245-535-30
32	245-535-32
34	245-535-34

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F



Product Code	Description
247-0103-00	small, recommended for 2.0/2.4 TPLO
247-0102-00	standard, recommen. for 2.7/3.5 TPLO

Torque Limiting Screwdriver Handle

Torque 3 Nm
Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



Screwdriver Shaft

Depth Gauge

Compression Drill Guide

Screwdriver Shaft Star-Drive

AO connection, self-holding
(no Holding Sleeve needed)



Product Code	Description
128-1520-20	T8, for 2.0 / 2.4 mm screws, 60 mm length
128-2024-08	T8 for 2.0 / 2.4 mm screws, 100 mm length
128-2735-10	T10 for 2.7 / 3.5 mm screws, 100 mm length

Drill Bits



Product Code	Ø (mm)	Length (mm)
148-0080-15	1.5	70/30
148-0080-18	1.8	125/25
148-0080-20	2.0	85/70
148-0080-25	2.5	95/80



Product Code	Ø (mm)	Length (mm)
148-0081-15	1.5	85/60
148-0081-18	1.8	125/25
148-0081-20	2.0	100/75
148-0081-25	2.5	110/85

Depth Gauge

Product Code	Description
164-1520-20	for 2.0/2.4 mm screws
164-2735-60	for 2.7/3.5 mm screws



Compression Drill Guide

Neutral / load



Product Code	Description
164-0071-15	for screws Ø 2.0 mm and drills Ø 1.5 mm
128-2418-24	for screws Ø 2.4 mm and drills Ø 1.8 mm
128-2720-27	for screws Ø 2.7 mm and drills Ø 2.0 mm
128-2535-35	for screws Ø 3.5 mm and drills Ø 2.5 mm

K-Wire, Single Trocar

Produkt Code	Maße (mm)
144-1010-10	1.0 x 100
144-1020-10	2.0 x 100
144-1025-10	2.5 x 100
144-1030-10	3.0 x 100



Locking Drill Guide

Castroviejo

TPLO Jig

TPLO Saw Blades

Locking Drill Guide

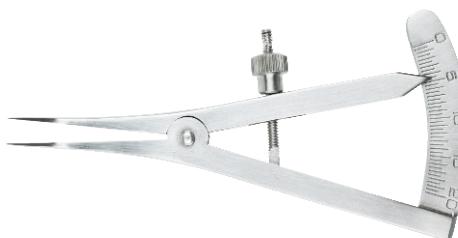
Stainless Steel

Product Code	Description
164-2000-00	for 2.0 mm screws
164-2400-00	for 2.4 mm screws
164-2700-00	for 2.7 mm screws
164-3500-00	for 3.5 mm screws



Castroviejo

Caliper

17-3105-08

TPLO Jig

Product Code	Description
128-4354-00	for 2.0/2.4 mm
128-4355-00	for 2.7 mm
128-4356-00	for 3.5 mm



TPLO Saw Blades

with triangle connection

Leibinger TPLO Sawblades are coated with Titanium Nitride (TiN).
 Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field.

Product Code	Width
102-2100-09	09 mm
102-2100-12	12 mm
102-2100-15	15 mm
102-2100-18	18 mm
102-2100-21	21 mm
102-2100-24	24 mm
102-2100-27	27 mm
102-2100-30	30 mm
102-2100-33	33 mm



LeiLOX CBLO



Combines the advantages of TPLO and TTA

CBLO (CORA based leveling osteotomy) is a modern osteotomy technique to level the tibia plateau, similar to TPLO. However, CBLO addresses further challenges such as secondary (late) meniscal damage, overload of the caudal cruciate ligament, reduction of proximal anatomic axis shift and the secondary translation as well as misalignment of the joint.



VARIABLE LOCKING

Multiaxial Locking & Titanium

The screws can be locked in 90° angle with a 12° deviation in any direction. This allows you to angle the screws away from vital structures. The robust stardrive screw head can be locked firmly into the plate.

All LeiLOX CBLO Implants are made of Titanium by RITA LEIBINGER for the best biocompatibility.



Anatomically Shaped Limited Contact Dynamic Compression Plates

The LeiLOX CBLO plates are contoured to match the anatomic shape of the bone. This makes it easier to place the plate in an optimal position.

The plate features limited contact dynamic compression to minimize vascular damage to the plated bone segment.



Double Compression

Two precisely designed compression holes enable a very tight compression of the osteotomy. This allows you to use a standard cortical screw as the cranio-caudal holding screw (instead of a headless compression screw).



Interchangeable 2.0/2.4 & 2.7/3.5mm Screws

Because the screw heads are identical, all Stainless Steel 2.0/2.4 respectively 2.7/3.5 LeiLOX plates (TPLO and fracture systems) work with 2.0mm as well as 2.4mm screws respectively 2.7mm as well as 3.5mm screws in all plate sizes. This offers flexibility and saves on inventory cost.



Special Thanks to
Dr. Hugo Schmökel

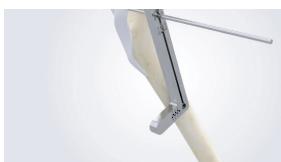
LeiLOX CBLO



CBLO Surgery Protocol

Pre-operative Planning

Proper positioning is essential for accurate planning. Orthogonal radiographs are taken with the stifle positioned at 90 degrees and the tarsus at 90 degrees for the lateral projection. The AP projection must have the stifle and tarsus included for the attending surgeon to assess limb alignment. The patient is best sedated for radiographs to assure optimal positioning.



The distal mid-diaphyseal line (FA) as well as the Tibia Plateau (TP) are determined. The proximal axis (PA) is determined from the intersection point on the tibia plateau with the angle α (normally $80^\circ = 90^\circ - 10^\circ$ (post-operative required TP angle)). The intersection point of FA and PA is the CORA. The angle β is then the correction. The required saw blade is determined by a circle CORA as the centre point. Draw and measure a line (D1) from the insertion of the patella tendon to the point at which the saw blade crosses the cranial cortex. Draw and measure a second line (D2) from the joint line at a point where the MCL crosses the joint to the location where the saw blade crosses the caudal cortex. With these D1 and D2 measurements the osteotomies can be positioned correctly during the surgery.

MCL crosses the joint to the location where the saw blade crosses the caudal cortex. With these D1 and D2 measurements the osteotomies can be positioned correctly during the surgery.

Determine the correction

Based on the measured correction angle and the selected saw blade select the appropriate correction in the Leibinger LeiLOX CBLO Rotation Chart in the field "Rotation". (see table at the end of this text)

Placement of the patient

The dog is placed in a dorsal recumbency with the affected limb suspended from a stand. Make sure that the dog's paws are not fixed too tightly, since the affected limb will be put against the table later in the surgery. CBLO is performed through a medial skin incision. The internal structures of the joint should be examined, this is accomplished arthroscopically or with a medial open mini arthrotomy. Most importantly, the caudal horn of the medial meniscus must be examined closely and torn meniscus parts excised if present. Next, the insertion of the sartorius muscle is reflected from the medial tibia to expose the MCL. Limited reflection of the popliteal muscle and protection of the popliteal artery with gauze packing or Hohmann retractor is optional. D1 and D2 measurements are marked distal to the insertion of the patella tendon (D1) and distal to the joint line at the MCL (D2). The surgeon may choose to use a jig or can perform the osteotomy without a jig if he/she has experience performing a CBLO without a jig. The use of a jig is advised when performing a leveling osteotomy.



Jigs-Placement

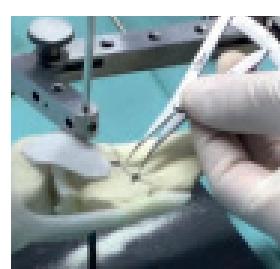
The proximal pin of the jig is inserted about 3-4mm below the joint surface caudal to the MCL. The pin must be absolutely parallel to the joint surface. The Jig is slid over the proximal pin. The Jig can be used as a guide for placing the distal pin. Both pins must

be parallel to each other. The Jig must be in a right angle to the pins. After the positions are correct, the screws as well as the grub screws can be tightened.



Osteotomy

The appropriate saw blade determined in the pre-operative planning is positioned at D1/D2 and a circular osteotomy begins. The osteotomy is stopped when 1/3 to 1/2 complete. Move the saw circularly so that it won't stick. The pre-operatively determined correction measurements (in mm) should be marked for example by a small chisel and mallet.



At the insertion point of the patella a 2.0mm pin can be preplaced without crossing the osteotomy.



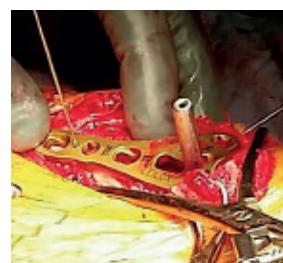
The osteotomy is completed, and rotation achieved.

The rotation is made with the pin so that the marks are aligned. The osteotomy is then stabilized with the pin. Carefully avoid a rotation or valgus mistake. The preplaced pin is directed across the osteotomy under the

medial cortex to exit the caudal cortex of the tibia distal to the osteotomy.

Stabilization of the osteotomy with plate compression

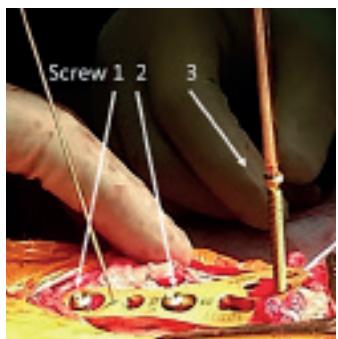
The CBLO is a leveling procedure but also advances the tibial crest cranially. Advancing the tibial crest cranially increases the structural moment arm of the tibia and therefore quadriceps force on the osteotomy. To increase the stability, the osteotomy should be compressed. The osteotomy should also be compressed to induce faster healing.



If the distal part of the plate lies completely on the tibial surface without pressing the proximal tibia laterally, the osteotomy can be compressed using the plate.

The LeiLOX CBLO plate can be placed on the desired position and pre-fixed by a 1mm positioning Pin in the plate shaft

Sequence of the screws with plate compression



Compression
Locking
Compression



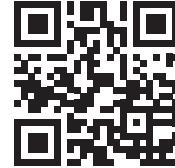
In large dogs it is advised to place 2 cranial screw to counteract the quadriceps force. In giant breed dogs the placement of a second plate should be considered.



- The first screws to be placed are 2 cortical screws in the 2 compression holes in the plate (marked as 1 and 2 in the picture). Drill the holes with the matching compression drill guide facing distal. Place the screw but do not tighten yet.
- Place the proximal locking screws in the plate head (screws 3-5). Drill the hole with the matching locking drill guide and insert the screw one by one. Fully tighten the screws.
- Note: the locking mechanism of the LeiLOX CBLO plate is designed multi-axial. In case there is a risk of the screws ending in the joint when drilling in a 90-degree angle, just change the angle of the drill guide facing distal.
- The stabilizing pin as well as the positioning pin are removed
- Tighten the compression screws 1 and 2
- Finalize the plate fixation with the locking screw 6
- To counteract the pull of the quadriceps muscle a screw should be placed in the same location as the pin through the crest in a caudo-distal direction.

Image: Big dogs, stabilized with a 3.5mm broad plate and two cranial screw

Original-Author (English version):
Dr. Hugo Schmökel
Dr.med.vet. PhD, ECVS



LeiLOX CBLO Rotation Chart



CBLO.leibinger.vet

Correction Angle		5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
Buckles		0.04	0.03	0.06	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	
Screw blade	9mm	0.8	1.9	1.1	1.3	1.5	1.6	1.7	1.9	2.1	2.2	2.4	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	5.1	5.1	5.3
	12mm	1.0	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
	15mm	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.1	3.4	3.7	3.9	4.2	4.4	4.7	5.0	5.2	5.5	5.7	6.0	6.2	6.5	6.7	7.0	7.3	7.5	7.8	8.0	8.3	8.5	8.8
	18mm	1.6	1.9	2.2	2.5	2.8	3.1	3.3	3.6	4.1	4.4	4.7	5.0	5.3	5.6	5.9	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9	10.2	10.5
	21mm	1.8	2.2	2.6	2.9	3.3	3.7	4.0	4.4	4.8	5.1	5.5	5.8	6.2	6.6	6.9	7.3	7.7	8.0	8.4	8.7	9.1	9.4	9.8	10.2	10.5	10.9	11.2	11.5	11.9	12.3
	24mm	2.1	2.3	2.9	3.3	3.8	4.2	4.6	5.0	5.4	5.8	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.2	9.6	10.0	10.5	11.2	11.6	12.0	12.4	12.8	13.2	13.6	14.0	
	27mm	2.4	2.8	3.3	3.8	4.2	4.7	5.2	5.6	6.1	6.6	7.0	7.5	8.0	8.4	8.9	9.4	9.8	10.3	10.8	11.2	11.7	12.1	12.6	13.1	13.5	14.0	14.4	14.9	15.3	15.8
	30mm	2.6	3.1	3.7	4.2	4.7	5.2	5.8	6.3	6.8	7.3	7.8	8.4	8.9	9.4	9.9	10.4	10.9	11.4	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5
	33mm	2.9	3.3	4.0	4.6	5.2	5.8	6.3	6.9	7.5	8.0	8.6	9.2	9.8	10.3	10.9	11.5	12.0	12.6	13.2	13.7	14.3	14.8	15.4	16.0	16.5	17.1	17.6	18.2	18.7	19.3

2.0/2.4 CBLO Sets (LeiLOX)

CBLO 2.0/2.4 Locking Plates

2.0 / 2.4 CBLO Set

Contents:

- 1 CBLO Implants and Instruments Tray with Lid
- 2 of each CBLO Plate
- 3 of each Cortical Screw (8-18mm // 8-22mm, 42 total)
- 5 of each Locking Screw (6-24mm // 6-30mm, 115 total)
- 2 Drills (1.5 & 1.8mm)
- 5 K-Wires
- 2x2 Locking Drill Guides
- 2 Compression Drill Guides
- 1 TPLO Jig
- 1 Screwdriver Handle
- 1 Screwdriver Shaft T8
- 1 Depth Gauge

142-4200-00

Tray without content

142-4200-10



2.0 / 2.4 LeiLOX CBLO Locking Plate



LeiLOX CBLO Locking Plate, 2.0 mm, left, 35 mm, titanium

142-2320-10



LeiLOX CBLO Locking Plate, 2.0 mm, right, 35 mm, titanium

142-2320-00



LeiLOX CBLO Locking Plate, 2.4 mm, left, 40 mm, titanium

142-2324-10



LeiLOX CBLO Locking Plate, 2.4 mm, right, 40 mm, titanium

142-2324-00

2.0 / 2.4 Non-Locking Screws Titanium

2.0 LeiLOX Locking Screw Titanium

for LeiLOX Locking Systems, Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
06	242-220-06
08	242-220-08
10	242-220-10
12	242-220-12
14	242-220-14
16	242-220-16
18	242-220-18
20	242-220-20
22	242-220-22
24	242-220-24
26	242-220-26 optional
28	242-220-28 optional
30	242-220-30 optional

2.0 / 2.4 Locking Screws Titanium

2.4 LeiLOX Locking Screw Titanium

for LeiLOX Locking Systems, Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
06	242-224-06
08	242-224-08
10	242-224-10
12	242-224-12
14	242-224-14
16	242-224-16
18	242-224-18
20	242-224-20
22	242-224-22
24	242-224-24
26	242-224-26
28	242-224-28
30	242-224-30
32	242-224-32 optional
34	242-224-34 optional
36	242-224-36 optional
38	242-224-38 optional
40	242-224-40 optional

2.0 Cortical Screw (Non-Locking) Titanium

Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
08	245-520-08
10	245-520-10
12	245-520-12
14	245-520-14
16	245-520-16
18	245-520-18

2.4 Cortical Screw (Non-Locking) Titanium

Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
08	245-524-08
10	245-524-10
12	245-524-20
14	245-524-14
16	245-524-16
18	245-524-18
20	245-524-20
22	245-524-22

2.7/3.5 CBLO Sets

TPLO/CBLO Instrument Set

2.7/3.5 CBLO Implant Set

Contains:

- 1 CBLO Implants and Instruments Tray with Lid
- 1 Screwrack CBLO 2.7
- 1 Screwrack CBLO 3.5
- 2 of each CBLO Plate
- 3 of each 2.7mm Cortical Screw (16-34mm)
- 3 of each 3.5mm Cortical Screw (16-34mm)
- 5 of each 2.7mm Locking Screw (16-46mm)
- 5 of each 3.5mm Locking Screw (16-60mm)



142-4000-10

Tray without content

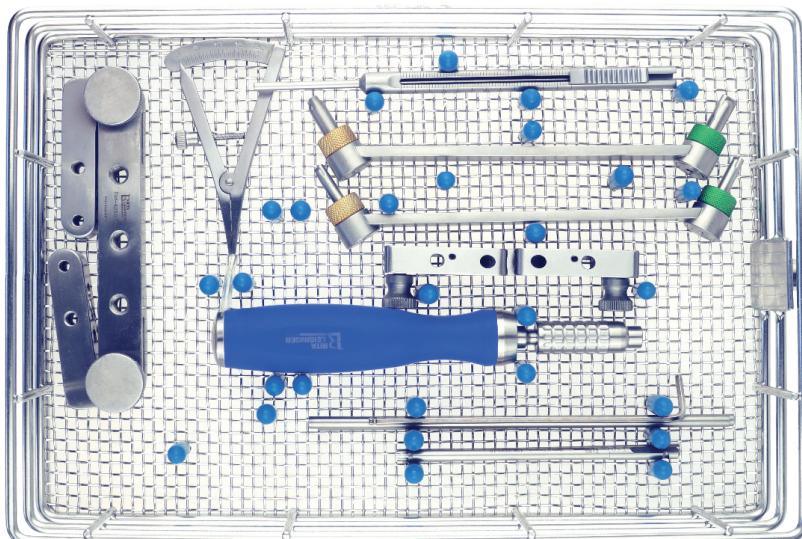
142-4000-01



TPLO/CBLO Instrument Set

Contains:

- 1 CBLO Instrument Tray
- 2 Drills (2.0 & 2.5mm)
- 3x2 K-Wires (1.0, 2.5 & 3.0mm)
- 2x2 Locking Drill Guides
- 2 TPLO Jigs
- 1 Screwdriver Handle
- 1 Screwdriver Shaft
- 1 Depth Gauge
- 1 Castroviejo Caliper
- 2 Compression Drill Guides



142-0100-01

Tray without content

142-0100-20

Sterilization Tray

for Trays, 310x190x130mm
blue (image)

150-5401-30

green

150-5402-30



CBLO Plates (LeiLOX) 2.7/3.5

2.7/3.5 CBLO

CBLO Plates, Titanium



LeiLOX CBLO Plate, 2.7 mm,
left, 55 mm, titanium

142-2327-10



LeiLOX CBLO Plate, 2.7 mm,
right, 55 mm, titanium

142-2327-00



LeiLOX CBLO Plate, 3.5 mm,
left, 70 mm, titanium

142-2335-10



LeiLOX CBLO Plate, 3.5 mm,
right, 70 mm, titanium

142-2335-00



LeiLOX CBLO Plate, broad, 3.5 mm,
left, 78 mm, titanium

142-2335-60



LeiLOX CBLO Plate, broad, 3.5 mm,
right, 78 mm, titanium

142-2335-50

2.7 / 3.5 Locking Screws Titanium

2.7 LeiLOX Locking Cortical Screw Titanium

For LeiLOX Locking Systems, Star Drive T10
self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code	
10	242-227-10	<i>optional</i>
12	242-227-12	<i>optional</i>
14	242-227-14	<i>optional</i>
16	242-227-16	
18	242-227-18	
20	242-227-20	
22	242-227-22	
24	242-227-24	
26	242-227-26	
28	242-227-28	
30	242-227-30	
32	242-227-32	
34	242-227-34	
36	242-227-36	
38	242-227-38	
40	242-227-40	
42	242-227-42	
44	242-227-44	
46	242-227-46	
48	242-227-48	<i>optional</i>
50	242-227-50	<i>optional</i>

3.5 LeiLOX Locking Cortical Screw Titanium

For LeiLOX Locking Systems, Star Drive T10
self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code	
10	242-235-10	<i>optional</i>
12	242-235-12	<i>optional</i>
14	242-235-14	<i>optional</i>
16	242-235-16	
18	242-235-18	
20	242-235-20	
22	242-235-22	
24	242-235-24	
26	242-235-26	
28	242-235-28	
30	242-235-30	
32	242-235-32	
34	242-235-34	
36	242-235-36	
38	242-235-38	
40	242-235-40	
42	242-235-42	
44	242-235-44	
46	242-235-46	
48	242-235-48	
50	242-235-50	
52	242-235-52	
54	242-235-54	
56	242-235-56	
58	242-235-58	
60	242-235-60	

2.7 / 3.5 Non-Locking Screws (CBLO)

CBLO Screw Rack

2.7 Cortical Screw (Non-Locking) Titanium

Star Drive T10

self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
16	245-527-16
18	245-527-18
20	245-527-20
22	245-527-22
24	245-527-24
26	245-527-26
28	245-527-28
30	245-527-30
32	245-527-32
34	245-527-34

3.5 Cortical Screw (Non-Locking) Titanium

Star Drive T10

self-holding (T10 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	Product Code
16	245-535-16
18	245-535-18
20	245-535-20
22	245-535-22
24	245-535-24
26	245-535-26
28	245-535-28
30	245-535-30
32	245-535-32
34	245-535-34

TPLO Saw Blades

with triangle connection

Leibinger TPLO Sawblades are coated with Titanium Nitride (TiN). Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field.

Product Code	Width
102-2100-09	09 mm
102-2100-12	12 mm
102-2100-15	15 mm
102-2100-18	18 mm
102-2100-21	21 mm
102-2100-24	24 mm
102-2100-27	27 mm
102-2100-30	30 mm
102-2100-33	33 mm



Screw Rack

Product Code	Description
150-0520-00	for 2.0 mm screws
150-0524-00	for 2.4 mm screws
150-0527-00	for 2.7 mm screws
150-0535-00	for 3.5 mm screws
150-4027-00	for 2.7mm screws (extended: 6-52mm)
150-4035-00	for 3.5 mm screws (extended: 6-70mm)

Screwdriver Shaft Star-Drive



Product Code	Description
128-2024-08	T8 for 2.0 / 2.4 mm screws, 100 mm long
128-2735-10	T10 for 2.7 / 3.5 mm screws, 100 mm long

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F



Product Code	Description
247-0103-00	compact, approve for 2.0/2.4 TPLO
247-0102-00	standard, approve for 2.7/3.5 TPLO

Torque Limiting Screwdriver Handle

Torque 3 Nm
Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



K-Wire

Single Trokar
1.0 mm x 100 mm



Product Code	Dimensions (mm)
144-1010-10	1.0 x 100
144-1025-10	2.5 x 100
144-1030-10	3.0 x 100

Drill Bits



Product Code	Ø (mm)	Length (mm)
148-0080-15	1.5	70/30
148-0080-18	1.8	125/25
148-0080-20	2.0	85/70
148-0080-25	2.5	95/80



Product Code	Ø (mm)	Length (mm)
148-0081-15	1.5	85/60
148-0081-18	1.8	125/25
148-0081-20	2.0	100/75
148-0081-25	2.5	110/85

Depth Gauge

Compression Drill Guide

Locking Drill Guide

TPLO Jigs

Depth Gauge

Product Code	Description
164-1520-20	for 2.0/2.4 mm screws
164-2735-60	for 2.7/3.5 mm screws



Compression Drill Guide

Neutral / load



Locking Drill Guide

Stainless Steel

Product Code	Description
164-2000-00	for 2.0 mm screws
164-2400-00	for 2.4 mm screws
164-2700-00	for 2.7 mm screws
164-3500-00	for 3.5 mm screws



TPLO Jig

Product Code	Description
128-4354-00	for 2.0/2.4 mm
128-4355-00	for 2.7 mm
128-4356-00	for 3.5 mm



Castroviejo

Caliper

17-3105-08



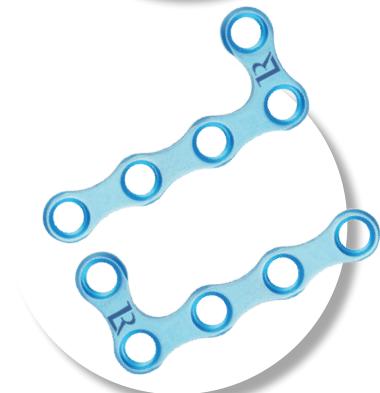
LeiLOX 1.5/2.0 Micro



Titanium Locking Fracture System for cats and small dogs

Accidents happen. And you, as a surgeon, are often required to fix complex fractures.

Our 1.5/2.0 locking plate system features 62 different plates, making it the most flexible titanium locking system for small animals. The system can handle both simple and complex fractures.



Titanium: Best Biocompatibility

Unique Titanium Alloy makes our implants very strong, resistant and lightweight, which is ideal for small animals. Titanium offers advantages in biocompatibility, extreme temperatures and weight.



All-in-One Set

LeiLOX 1.5/2.0 is the "swiss army knife" for micro fractures: it contains not only (cuttable) standard plates, but also unique shapes for complex anatomy, in a compact instrument set.



Various Applications

With more than 62 different plates, LeiLOX 1.5/2.0 is the perfect solution to treat a wide variety of fracture cases: Y-Plates, L-Plates, Bridge-Plates, Standard-Plates, Cuttable 20-hole Plates and many Challenger Plates offer plenty of possibilities: from maxillofacial and pelvic fractures, to the fixation of long tubular bones.



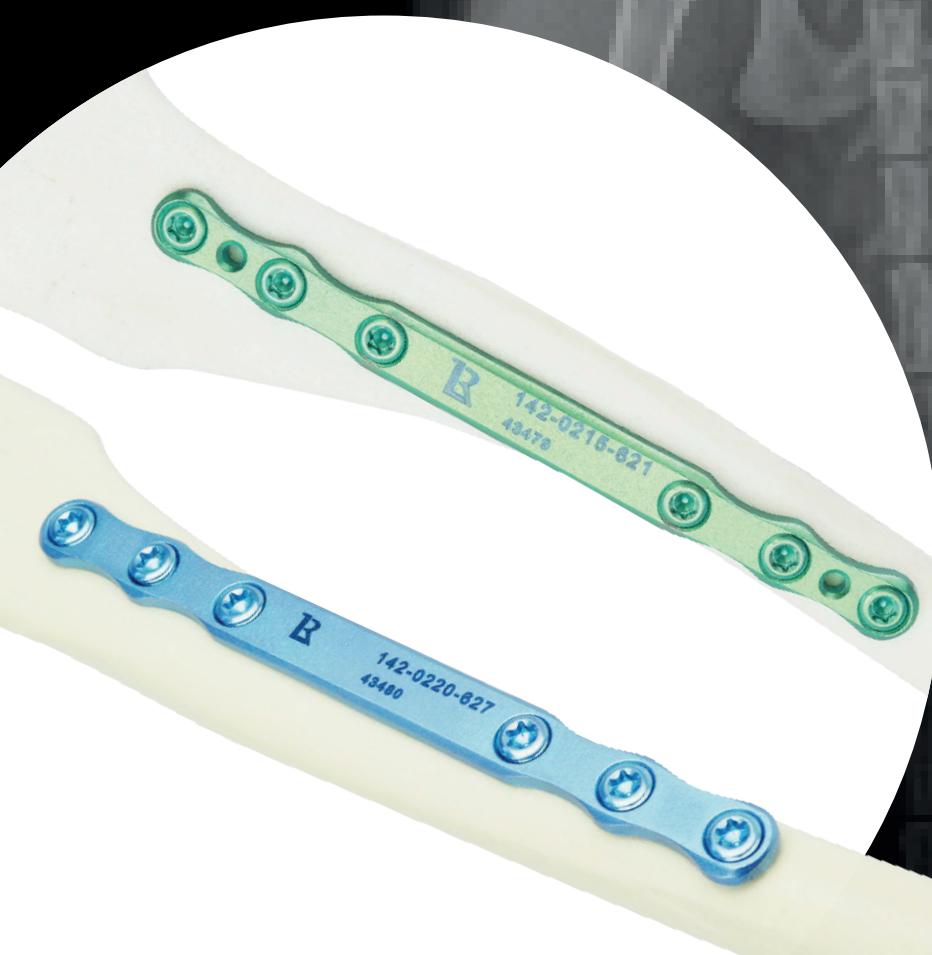
Stardrive Screws

All of our locking screwheads are stardrive, which allows for better tightening torque than hexagonal screwheads.

Additionally, you do not need a separate Holding Sleeve if you use a screwdriver shaft from Rita Leibinger. The screwdriver shaft is self-holding and keeps the screws firmly on the driver.

LeiLOX

1.5/2.0 MicroLocking System



Special Thanks to
Dr. Felix Sonntag

LeiLOX 1.5/2.0 MICRO

RITA
LEIBINGER
MEDICAL

Osteosynthesis Locking Set 1.5/2.0

Challenger Set 1.5/2.0

1.5/2.0 Osteosynthesis Locking Set Titanium

Contains:

- 1 Tray for Implants and Instruments with Lid
- 1 Locking Plate of each style (28 pcs. total)
- 5 of each 1.5 Locking Screw (5-24mm, 70 pcs. total)
- 5 of each 2.0 Locking Screw (5-30mm, 85 pcs. total)
- 2 Screwdriver Shafts
- 1 Screwdriver Handle
- 2x2 Locking Drill Guides
- 1 Depth Gauge
- 2 Drills (AO, 1.1 & 1.5)
- 1 pair of Bending Irons

142-1520-00

Tray without content

142-1520-10



1.5/2.0 Challenger Locking Set Titanium

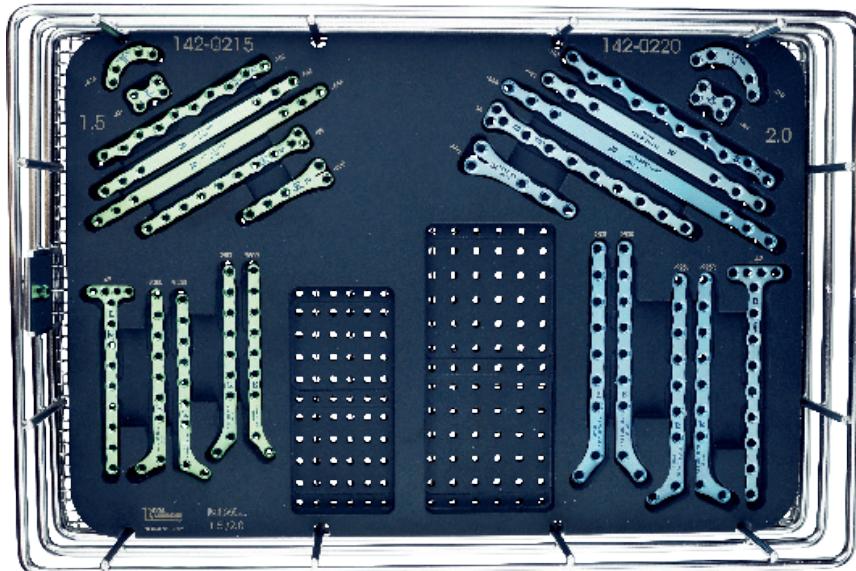
Contains:

- 1 Implant Tray, without contents
- 1 Locking Plate of each style „Challenger“ (24 pcs. total)

142-1520-50

Tray without content

142-1520-60



1520.leibinger.vet

Sterilization Container

For Trays, 310x190x130mm
blue (image)

150-5401-30

green

150-5402-30



Osteosynthesis Locking Set 1.5

Osteosynthesis Locking Set 2.0

1.5 Osteosynthesis Locking Set Titanium

Contains:

- 1 Tray for implants and instruments, with lid
- 1 Locking Plate of each style 1.5 mm
(26 pcs. total)
- 5 of each 1.5 Locking Screw
(5-24mm, 70 pcs. total)
- 1 Star Drive Screwdriver Shaft
- 1 Screwdriver Handle
- 2 Locking Drill Guides
- 1 Depth Gauge
- 1 Drill (AO, 1.1)
- 1 pair of bending irons

142-1500-00

Tray without content

142-1500-10



2.0 Osteosynthesis Locking Set Titanium

Contains:

- 1 Tray for implants and instruments, with lid
- 1 Locking Plate of each style 2.0mm
(26 pcs. total)
- 5 of each 2.0 Locking Screw
(5-30mm, 85 pcs. total)
- 1 Star Drive Screwdriver Shaft
- 1 Screwdriver Handle
- 2 Locking Drill Guides
- 1 Depth Gauge
- 1 Drill (AO, 1.5)
- 1 pair of bending irons

142-2000-00

Tray without content

142-2000-10



1520.leibinger.vet

1.5 Locking Plates Titanium

1.5 Locking Plate Titanium

5mm wide, 1.5mm thick



Product Code	Description
142-0215-04	4-Hole, 25.5mm
142-0215-05	5-Hole, 32.5mm
142-0215-06	6-Hole, 39.5mm
142-0215-07	7-Hole, 46.5mm
142-0215-08	8-Hole, 53.5mm
142-0215-09	9-Hole, 60.5mm
142-0215-10	10-Hole, 67.5mm
142-0215-20	20-Hole, cuttable

1.5 Locking Plate with Bridge, Titanium

5mm wide, 1.5mm thick



Product Code	Description
142-0215-614	14mm Bridge, 4-Hole, 32.5mm
142-0215-621	21mm Bridge, 6-Hole, 53.5mm
142-0215-635	35mm Bridge, 6-Hole, 67.5mm
142-0215-645	45mm Bridge, 6-Hole, 78 mm
142-0215-658	58mm Bridge, 6-Hole, 95mm

1.5 Locking-L-Plate Titanium

5mm / 11.5mm wide, 1.5mm thick, 25.5mm long

Product Code	Description
142-0215-504L	left
142-0215-504R	right

1.5 Locking-Y-Plate Titanium

5mm / 11mm wide, 1.5mm thick

Product Code	Description
142-0215-805	5-Hole, 33mm long
142-0215-809	10-Hole, cuttable

1.5 Locking Screws Titanium

1.5 LeiLOX Locking Screw Titanium

For LeiLOX Locking System, Star Drive T6 self-holding (T6 Shaft from Rita Leibinger recommended) self-tapping with three flute cutting edge



Length (mm)	Product Code
5	245-415-05
6	245-415-06
7	245-415-07
8	245-415-08
9	245-415-09
10	245-415-10
11	245-415-11
12	245-415-12
14	245-415-14
16	245-415-16
18	245-415-18
20	245-415-20
22	245-415-22
24	245-415-24
26	245-415-26



1.5 T-Locking Plate Titanium

5mm wide, 1.5mm thick, cuttable

Product Code	Description
142-0215-38	1.5 mm, 3/8 hole
142-0215-49	1.5 mm, 4/9 hole


1.5 Z-Locking Plate Titanium

 6mm wide, 1.5 mm thick, 10 hole, cuttable
142-0215-10Z

1.5 Acetabulum-Locking Plate Titanium

 1.5 mm thick, 4 hole
142-0215-475

1.5 H-Locking Plate Titanium

 9mm wide, 1.5 mm thick, 14mm long, 4 hole
142-0215-4H

1.5 MAYO DFO Locking Plate Titanium

5mm wide, 1.5mm thick, 9-Hole

Product Code	Description
142-0215-925L	cuttable, left 25°
142-0215-925R	cuttable, right 25°
142-0215-950L	cuttable, left 50°
142-0215-950R	cuttable, right 50°



2.0 Locking Plates Titanium

2.0 Locking Plate Titanium

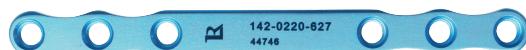
6mm wide, 1.5mm thick



Product Code	Description
142-0220-04	4-Hole, 33mm
142-0220-05	5-Hole, 42mm
142-0220-06	6-Hole, 51mm
142-0220-07	7-Hole, 60mm
142-0220-08	8-Hole, 69mm
142-0220-09	9-Hole, 78mm
142-0220-10	10-Hole, 87mm
142-0220-20	20-Hole, cuttable

2.0 Locking Plate with Bridge Titanium

6mm wide, 1.5mm thick



Product Code	Description
142-0220-618	18mm Bridge, 4-Hole, 42mm
142-0220-627	27mm Bridge, 6-Hole, 69mm
142-0220-636	36mm Bridge, 6-Hole, 78mm
142-0220-648	48mm Bridge, 6-Hole, 90mm
142-0220-668	68mm Bridge, 6-Hole, 110mm

2.0 Locking-L-Plate Titanium

6mm / 15mm wide, 1.5mm thick, 33mm long

Product Code	Description
142-0220-504L	left
142-0220-504R	right

2.0 Locking-Y-Plate Titanium

6mm / 13.5mm wide, 1.5mm thick

Product Code	Description
142-0220-805	5-Hole, 42mm long
142-0220-809	10-Hole, cuttable

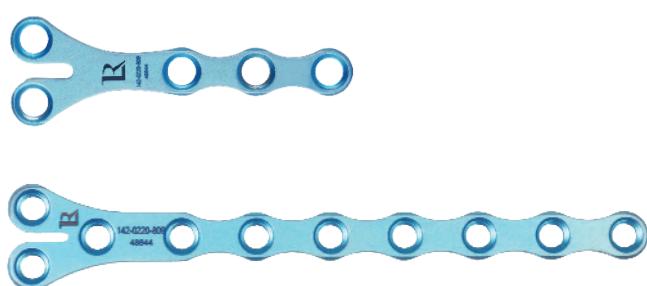
2.0 Locking Screws Titanium

2.0 LeiLOX Locking Screw Titanium

For LeiLOX Locking System, Star Drive T8
self-holding (T8 Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



Length (mm)	Product Code
5	245-420-05
6	245-420-06
7	245-420-07
8	245-420-08
9	245-420-09
10	245-420-10
11	245-420-11
12	245-420-12
14	245-420-14
16	245-420-16
18	245-420-18
20	245-420-20
22	245-420-22
24	245-420-24
26	245-420-26
28	245-420-28
30	245-420-30



2.0 T-Locking Plate Titanium

6mm wide, 1.5mm thick, cuttable

Product Code	Description
142-0220-38	2.0 mm, 3/8 Holes
142-0220-49	2.0 mm, 4/9 Holes


2.0 Z-Locking Plate Titanium

8mm wide, 1.5mm thick, 10 Loch, cuttable

142-0220-10Z

2.0 Acetabulum-Locking Plate Titanium

1.5mm thick, 4 Loch

142-0220-410

2.0 H-Locking Plate Titanium

10.5mm wide, 1.5mm thick, 16mm long, 4 holes

142-0220-4H

2.0 MAYO DFO Locking Plate Titanium

5mm wide, 1.5mm thick, 9-Hole

Product Code	Description
142-0220-925L	cuttable, left 25°
142-0220-925R	cuttable, right 25°
142-0220-950L	cuttable, left 50°
142-0220-950R	cuttable, right 50°



Arthrodesis Plates LeiLOX 1.5/2.0 Titanium

1.5/2.0 Arthrodesis Plates Titanium

locking, bendable, Titanium, 1.5mm thick



LeiLOX Arthrodesis Plate, 1.5/2.0mm,
55mm long

142-0215-55



LeiLOX Arthrodesis Plate, 1.5/2.0mm,
60mm long

142-0215-60



LeiLOX Arthrodesis Plate, 2.0mm,
60mm long

142-0220-60



LeiLOX Arthrodesis Plate, 2.0mm,
68mm long

142-0220-68

1.5/2.0 Arthrodesis Plates Titanium, angled

locking, bendable, Titanium, 1.5mm thick



LeiLOX Arthrodesis Plate, 1.5/2.0mm,
56mm long, left

142-0215-120L



LeiLOX Arthrodesis Plate, 1.5/2.0mm,
56mm long, right

142-0215-120R



LeiLOX Arthrodesis Plate, 1.5/2.0mm,
72mm long, left

142-0215-135L



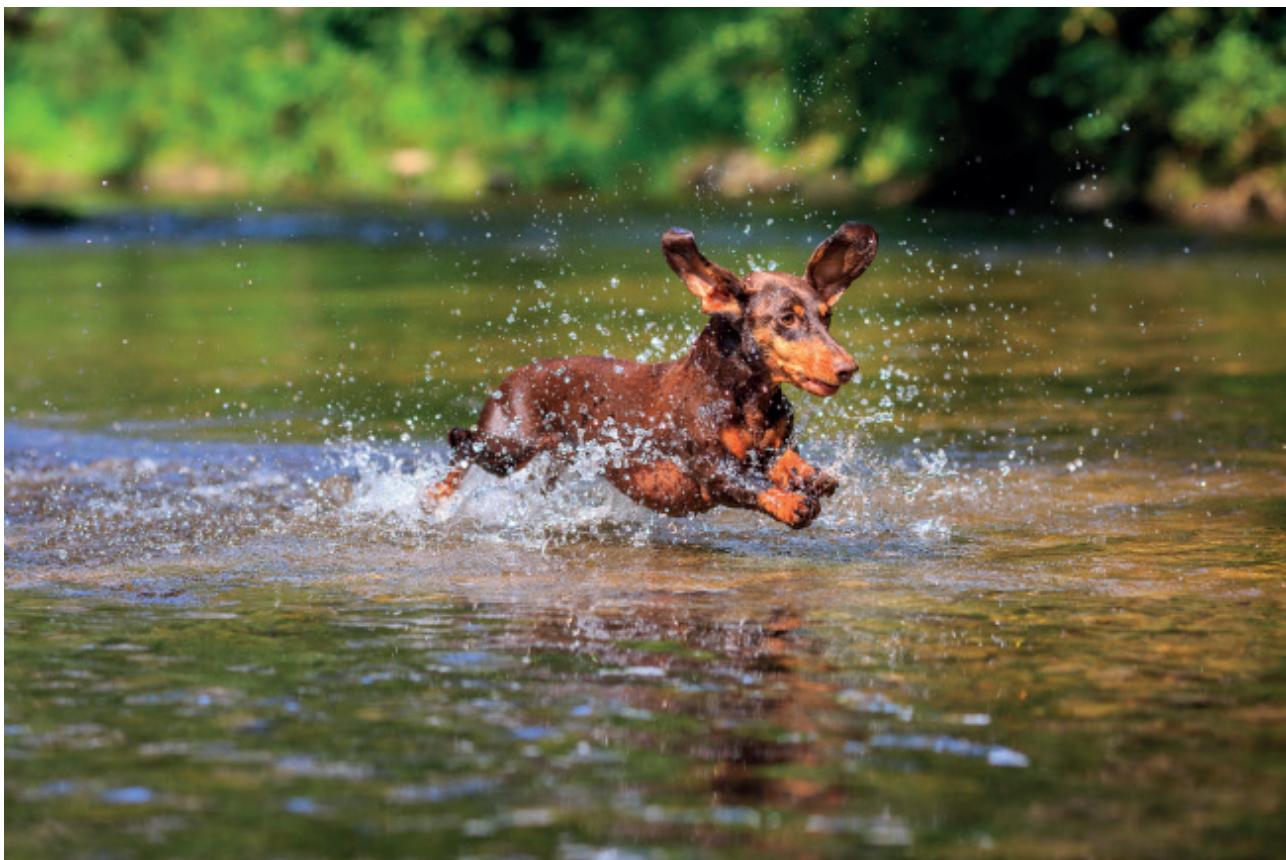
LeiLOX Arthrodesis Plate, 1.5/2.0mm,
72mm long, right

142-0215-135R



Katharina Hergog
KATHARINA.HDR200
PHOTOGRAPHY

Rita's dog Siri is one of the few Dachshunds mastering obedience competitions.



Siri is an avid swimmer.

Drill Guides

Screwdriver Handle

1.5/2.0 Bending Iron

Bone Drills



Product Code	\varnothing (mm)	Length (mm)	Connection
148-0180-11	1.1	60	straight shank
148-0180-15	1.5	85	straight shank



Product Code	\varnothing (mm)	Length (mm)	Connection
148-0181-11	1.1	60	AO QC
148-0181-15	1.5	85	AO QC

Depth Gauge

Scale up to 40 mm, for 1.5/2.0 Screws



164-1520-20

Screwdriver Shaft Star-Drive

AO connection, self-holding

Product Code	Description
128-1520-15	T6 for 1.5 mm Screws
128-1520-20	T8 for 2.0/2.4 mm Screws



Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F



247-0103-00

Locking Drill Guide

20 mm long

Product Code	Description
164-0015-00	for 1.5 mm Screws, 1.1 mm Drill
164-0020-00	for 2.0 mm Screws, 1.5 mm Drill



Bending Iron AO Type 1.5/2.0

130 mm, Pair



128-0881-15



Bone Plate Cutter

Bone Plate Holding Forceps

Bone Plate Holding Forceps

125mm, straight, 45 mm working end

128-0539-13



Bone Plate Holding Forceps

125mm, angled up, 45 mm working end

128-0538-13



Bone Plate Holding Retractor

angled up, with tensioning screw, working end 10x4mm

128-0537-10



Bone Plate Cutter

Double action, for titanium plates max. 1.5 mm

23-5865-24T



LeiLOX 2.0/2.4 & 2.7/3.5 Locking System



Multiaxial Locking

The screws can be locked in 90° angle with a 12° deviation in any direction. This allows you to angle specific screws away from vital structures. The robust stardrive screw head locks firmly into the plate.



LeiLOX offers you the right plate for every fracture. It offers not only Straight, but also Bridge, Reconstruction and Arthrodesis Plates.

Further you get bending irons that comfortably bend the plates in any direction.

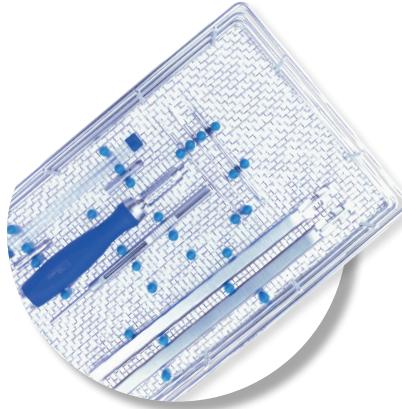
Locking Plugs offer additional strength and protect the screw holes when you bend the plates.



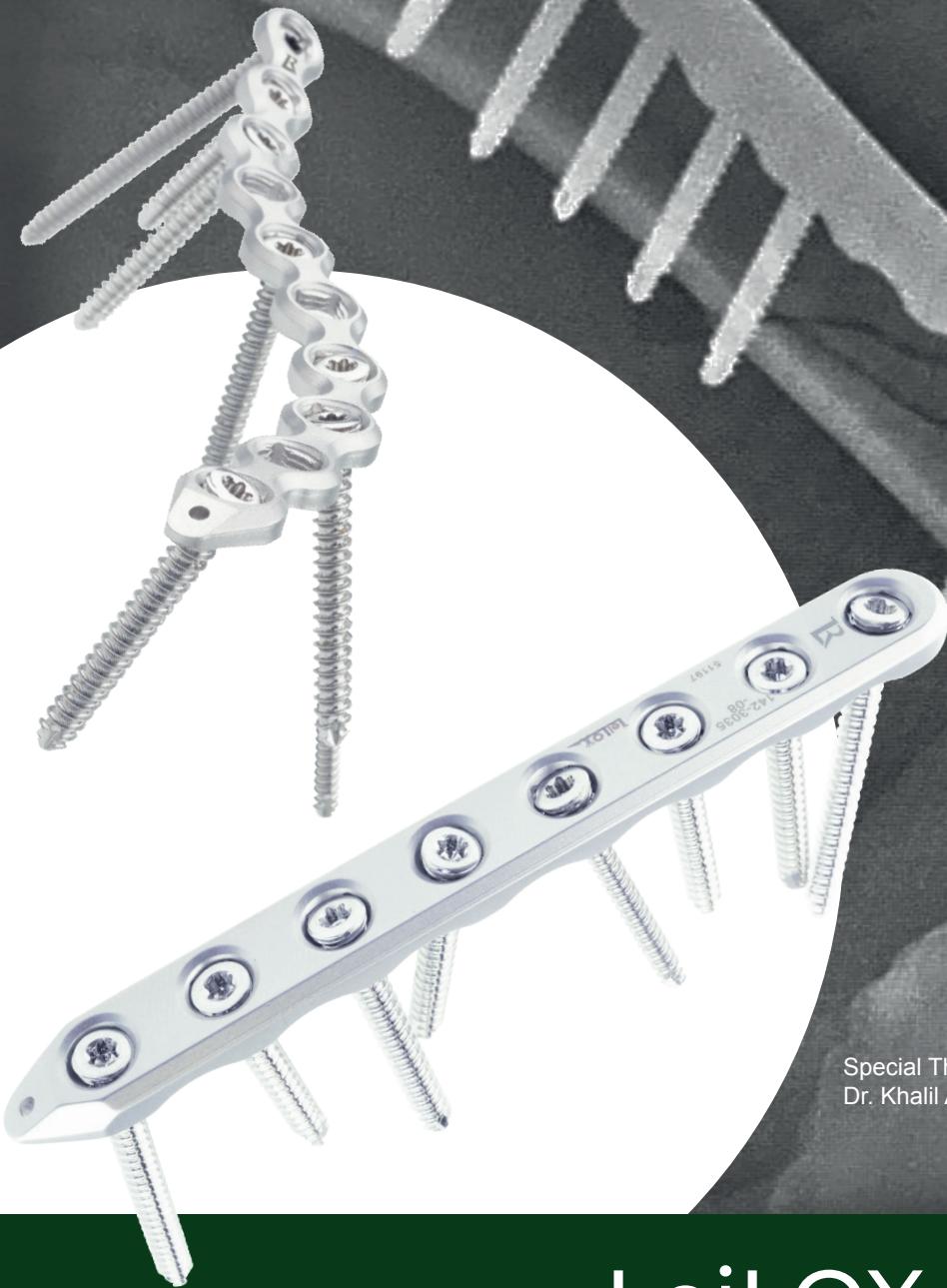
Straight plates are needed in strong bones that face high forces. With our bending irons, they can be bent vertically. Straight plates feature limited contact dynamic compression to minimize vascular damage to the plated bone segment.



Because the screw heads are identical, all Stainless Steel 2.0/2.4 respectively 2.7/3.5 LeiLOX plates (TPLO and fracture systems) work with 2.0mm as well as 2.4mm screws respectively 2.7mm as well as 3.5mm screws in all plate sizes. This offers flexibility and saves on inventory cost.



Locking drill guides, screw drivers, depth gauge, etc. are identical and interchangeable in all of our 2.0/2.4 respectively 2.7/3.5 systems (Fracture Systems as well as TPLO and CBLO).



Special Thanks to
Dr. Khalil Abaya

LeiLOX 2.0/3.5



2.0/2.4 LeiLOX Straight Plates Sets

2.7/3.5 LeiLOX Straight Plates Sets

2.0/2.4 Straight Implant Set

Stainless Steel

Contains:

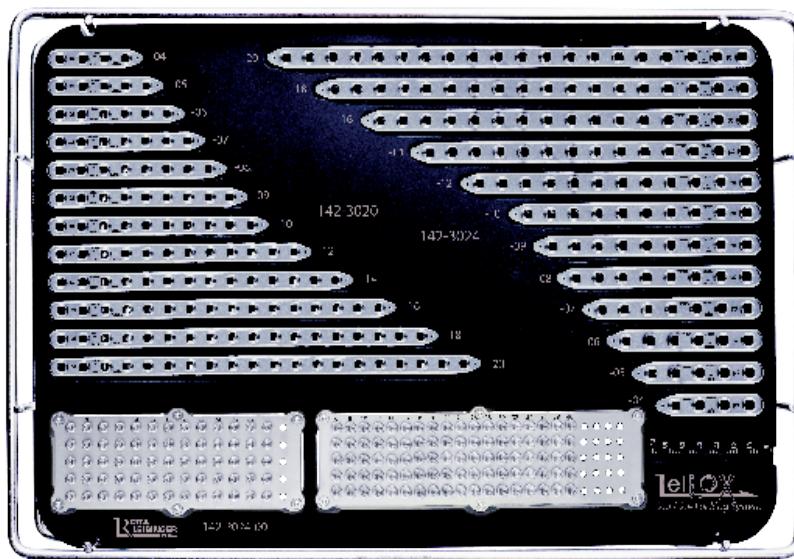
- 1 Tray for Implants with Lid, stackable
- 1 of each Plate
(24 pcs. total)
- 5 of each 2.0 Locking Screw
(6-30mm, 65 pcs. total)
- 5 of each 2.4 Locking Screw
(6-40mm, 90 pcs. total)

Complete Set

142-2024-00

Tray without content

142-2024-01



2.7/3.5 Straight Implant Set

Stainless Steel

Contains:

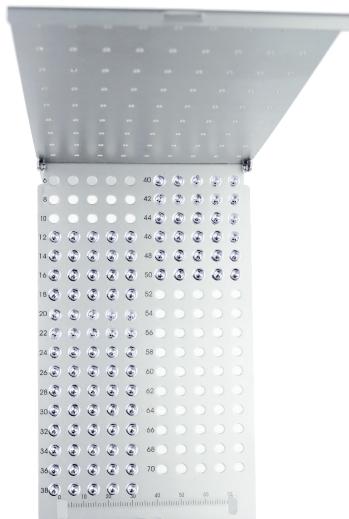
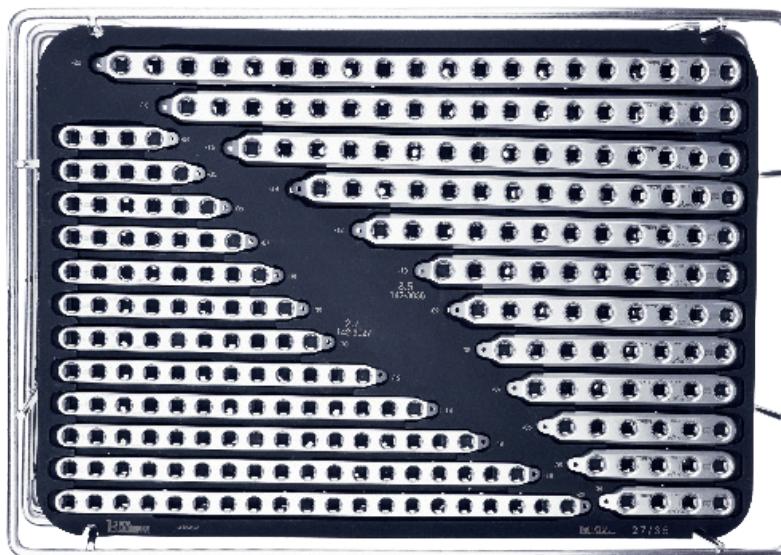
- 1 Tray for Implants with Lid, stackable
- 1 Screwrack 2.7
- 1 Screwrack 3.5
- 1 of each Plate
(24 pcs. total)
- 5 of each 2.7 Locking Screw
(10-46mm, 95 pcs. total)
- 5 of each 3.5 Locking Screw
(10-50mm, 100 pcs. total)

Complete Set

142-3000-00

Tray without content

142-3010-02



2.0-3.5 LeiLOX Bridge Plate Sets

2.0/2.4 Bridge Plate Set

Stainless Steel

Contains:

- 1 Tray for Implants with Lid, stackable
- 1 of each Plate
(20 pcs. total)

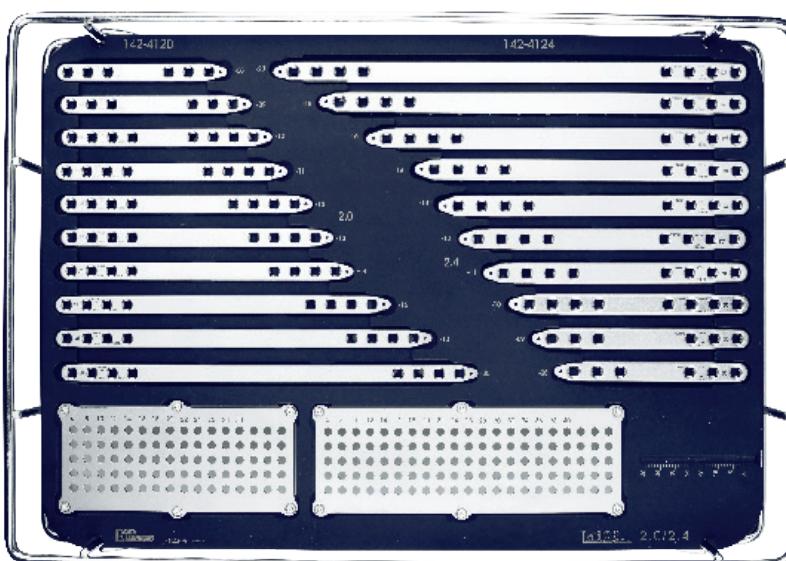
Complete Set (without screws)

142-2024-60

Tray without content

142-2024-62

Optional Screws, see Page 103



2.7/3.5 Bridge Plate Set

Stainless Steel

Contains:

- 1 Tray for Implants with Lid, stackable
- 1 of each Bridge Plate
(20 pcs. total)

Complete Set (without Screws)

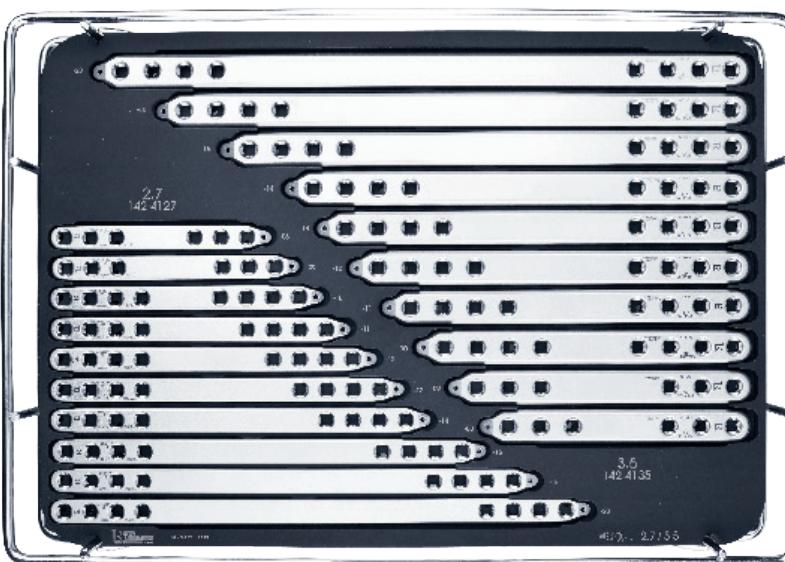
142-3200-00

Tray without content

142-3200-10

Optional Screws, see Page 103

Optional Screw Rack, see Page 107



2.0-3.5 Arthrodesis Set

Stainless Steel

Contains:

- 1 Tray for Implants with Lid, stackable
- 1 of each Arthrodesis Plate
(16 pcs. total)

Complete Set (without Screws)

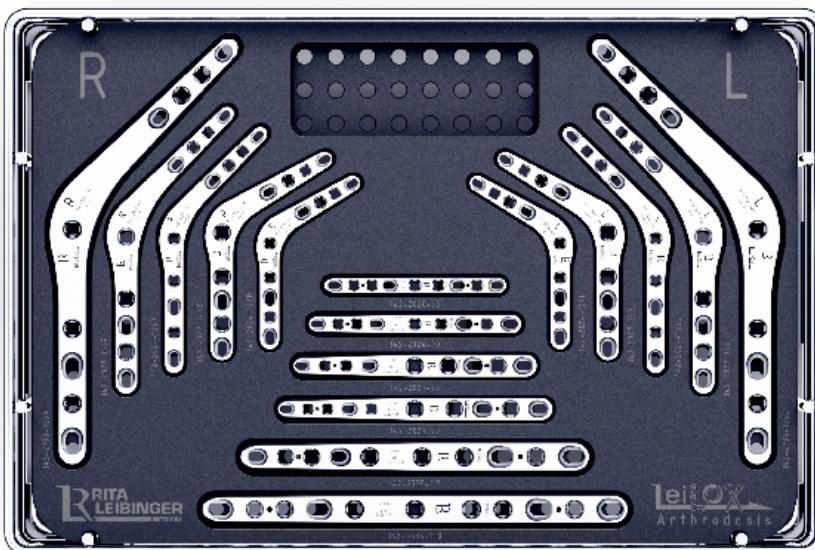
142-3300-00

Tray without content

142-3300-10

Optional Screws, see Page 103

Optional Screw Rack, see Page 107



2.0/2.4 + 2.7/3.5 LeiLOX Set, Reconstruction

2.0/2.4 Reconstruction Implant Set

Stainless Steel

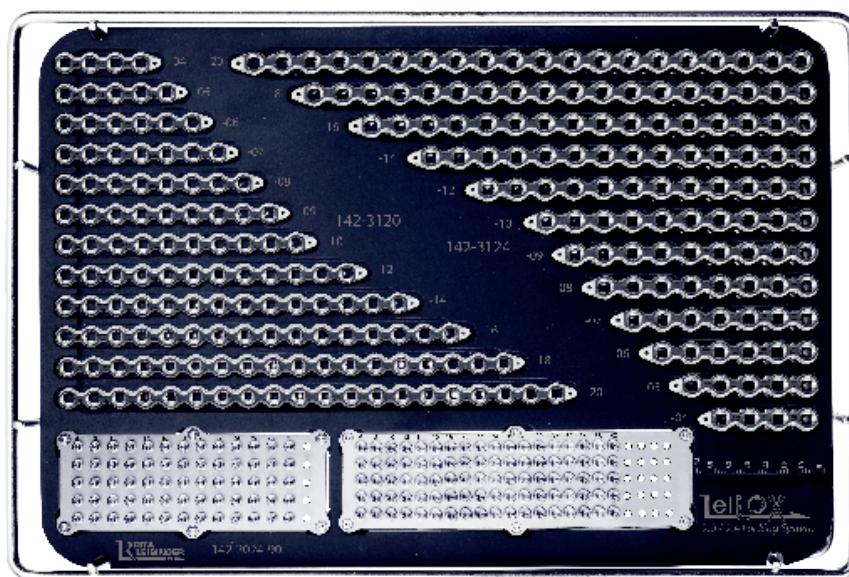
Contains:

- 1 Tray for Implants with Lid
- 1 of each Plate
(24 pcs. total)
- 5 of each 2.0 Locking Screw
(06-30mm, 65 pcs. total)
- 5 of each 3.4 Locking Screw
(6-40mm, 90 pcs. total)

142-2024-90

Tray without content

142-2024-91



2.7/3.5 Reconstruction Implant Set

Stainless Steel

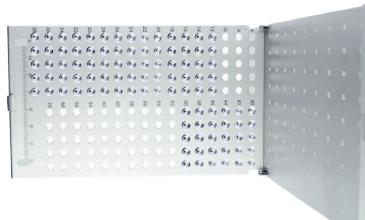
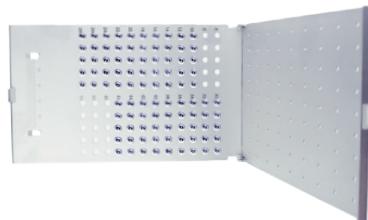
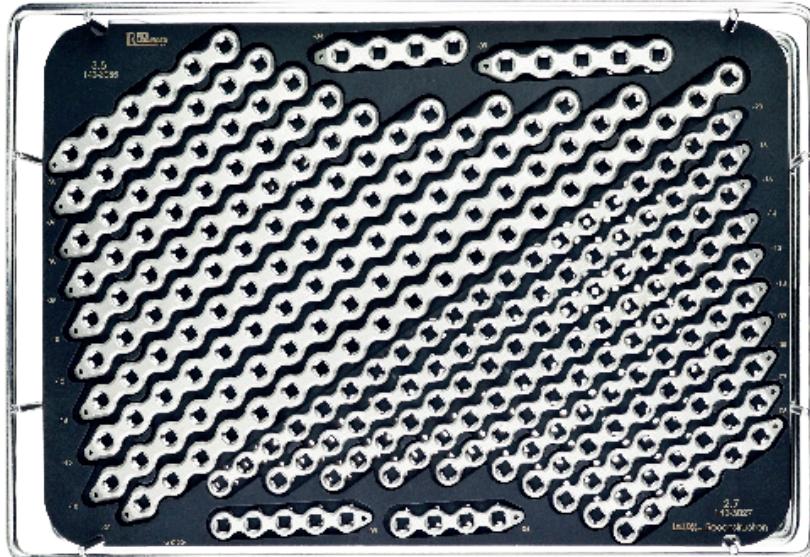
Contains:

- Tray for Reconstruction Implants with Lid
- 1 Screwrack 2.7
- 1 Screwrack 3.5
- 1 of each Plate (24 pcs. total)
- 5 of each 2.7 Locking Screw
(10-46mm, 95 pcs. total)
- 5 of each 3.5 Locking Screw
(12-50mm, 100 pcs. total)

142-3100-00

Tray without content

142-3100-02



2.0/2.0 + 2.4/2.4 + 2.7/2.7 Straight + Reconstruction Sets

2.0/2.0 Straight + Reconstruction Implant Set

Stainless Steel

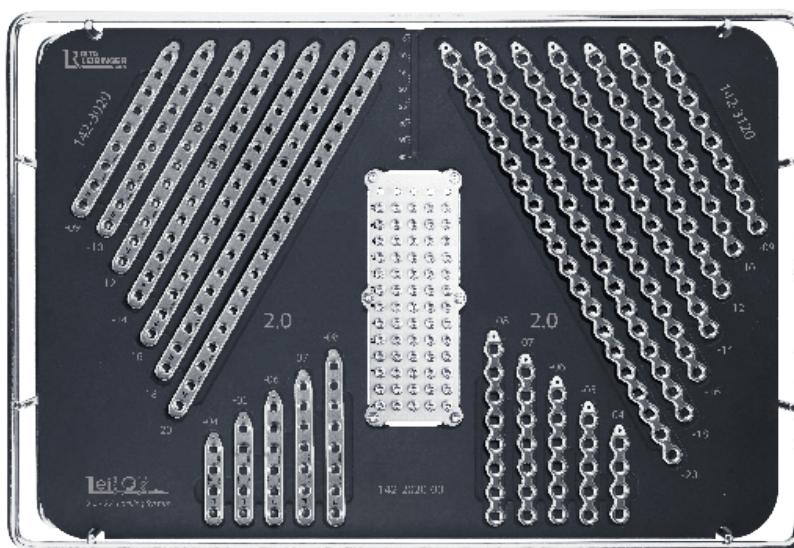
Contains:

- Tray for Implants with Lid
- 1 of each Plate
- (24 pcs. total)
- 5 of each 2.0 Locking Screw
- (6-30mm, 65 pcs. total)

142-2020-00

Tray without content

142-2020-01



2.4/2.4 Straight + Reconstruction Implant Set

Stainless Steel

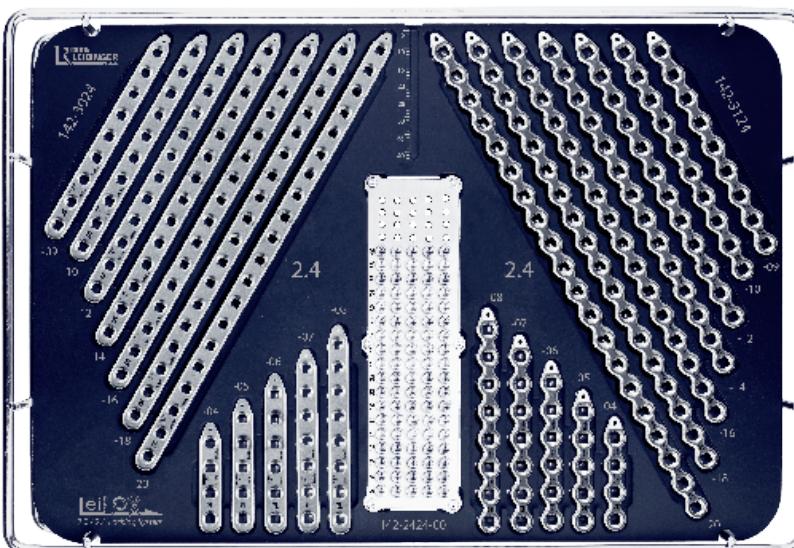
Contains:

- Tray for Implants with Lid
- 1 of each Plate
- (24 pcs. total)
- 5 of each 2.0 Locking Screw
- (6-40mm, 90 pcs. total)

142-2424-00

Tray without content

142-2424-01



2.7/2.7 Straight + Reconstruction Implant Set

Stainless Steel

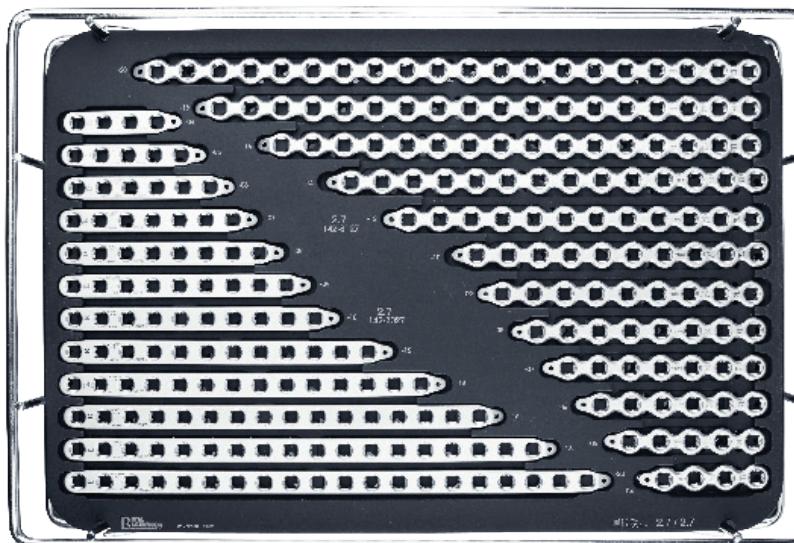
Contains:

- Tray for Implants with Lid
- 1 of each Bone Plate
- (12 pcs. total)
- 1 of each Reconstruction Plate
- (12 pcs. total)
- 1 Screw rack 2.7
- 5 of each 2.7 Locking Screw
- (10-50mm, 105 pcs. total)

142-2727-00

Tray without content

142-2727-01



2.0/2.4 LeiLOX Plates, Straight

LeiLOX 2.0/2.4 Plates straight

2.0 LeiLOX Boneplate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



1.7 mm thick



6 mm wide



2024.leibinger.vet

Product Code	Holes	Length (mm)
142-3020-04	4	31.5
142-3020-05	5	38.5
142-3020-06	6	45.5
142-3020-07	7	52.5
142-3020-08	8	59.5
142-3020-09	9	66.5

Product Code	Holes	Length (mm)
142-3020-10	10	73.5
142-3020-12	12	87.5
142-3020-14	14	101.5
142-3020-16	16	115.5
142-3020-18	18	129.5
142-3020-20	20	143.5

2.4 LeiLOX Boneplate, Stainless Steel

multiaxial locking, straight, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



2.3 mm thick



7 mm wide



Product Code	Holes	Length (mm)
142-3024-04	4	35.5
142-3024-05	5	43.5
142-3024-06	6	51.5
142-3024-07	7	59.5
142-3024-08	8	67.5
142-3024-09	9	75.5

Product Code	Holes	Length (mm)
142-3024-10	10	83.5
142-3024-12	12	99.5
142-3024-14	14	115.5
142-3024-16	16	131.5
142-3024-18	18	147.5
142-3024-20	20	163.5

2.7/3.5 LeiLOX Plates, Straight

LeiLOX 2.7/3.5 Plates, Straight

2.7 LeiLOX Boneplate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



3 mm thick



9 mm wide



2735.leibinger.vet



Product Code	Holes	Length (mm)
142-3027-04	4	40
142-3027-05	5	49
142-3027-06	6	58
142-3027-07	7	67
142-3027-08	8	76
142-3027-09	9	85

Product Code	Holes	Length (mm)
142-3027-10	10	94
142-3027-12	12	112
142-3027-14	14	130
142-3027-16	16	148
142-3027-18	18	166
142-3027-20	20	184

3.5 LeiLOX Boneplate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



4 mm thick



11 mm wide



Product Code	Holes	Length (mm)
142-3035-04	4	49
142-3035-05	5	60
142-3035-06	6	71
142-3035-07	7	82
142-3035-08	8	93
142-3035-09	9	104

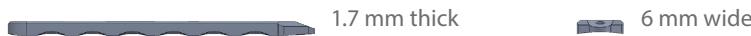
Product Code	Holes	Length (mm)
142-3035-10	10	115
142-3035-12	12	137
142-3035-14	14	159
142-3035-16	16	181
142-3035-18	18	203
142-3035-20	20	225

2.0/2.4 LeiLOX Bridge Plates

LeiLOX 2.0/2.4 Bridge Plates

2.0 LeiLOX Bridge Plate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



1.7 mm thick



6 mm wide



Produkt Code	Holes	Length Total (mm)	Length Bridge (mm)
142-4120-08	6	59,5	17
142-4120-09	6	66,5	24
142-4120-10	8	73,5	17
142-4120-11	8	80,5	24
142-4120-12	8	87,5	31
142-4120-13	8	94,5	38
142-4120-14	8	101,5	45
142-4120-16	8	115,5	59
142-4120-18	8	129,5	73
142-4120-20	8	143,5	87

2.4 LeiLOX Bridge Plate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



2.3 mm thick



7 mm wide



Produkt Code	Holes	Length Total (mm)	Length Bridge (mm)
142-4124-08	6	67,5	20
142-4124-09	6	75,5	28
142-4124-10	8	83,5	20
142-4124-11	8	91,5	28
142-4124-12	8	99,5	36
142-4124-13	8	107,5	44
142-4124-14	8	115,5	52
142-4124-16	8	131,5	68
142-4124-18	8	147,5	84
142-4124-20	8	163,5	100

2.7/5.4 LeiLOX Bridge Plates

LeiLOX 2.7/3.5 Bridge Plates

2.7 LeiLOX Bridge Plate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



3 mm thick



9 mm wide



Produkt Code	Holes	Length Total (mm)	Length Bridge (mm)
142-4127-08	6	76	22
142-4127-09	6	85	31
142-4127-10	8	94	22
142-4127-11	8	103	31
142-4127-12	8	112	40
142-4127-13	8	121	48
142-4127-14	8	130	57
142-4127-16	8	148	75
142-4127-18	8	166	93
142-4127-20	8	184	111

3.5 LeiLOX Bridge Plate, Stainless Steel

Multiaxial locking, straight, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



4 mm thick



11 mm wide



Produkt Code	Holes	Length Total (mm)	Length Bridge (mm)
142-4135-08	6	93	27
142-4135-09	6	104	38
142-4135-10	8	115	27
142-4135-11	8	126	38
142-4135-12	8	137	49
142-4135-13	8	148	60
142-4135-14	8	159	71
142-4135-16	8	181	93
142-4135-18	8	203	115
142-4135-20	8	225	137

Reconstruction Plates 2.0/2.4 LeiLOX

LeiLOX 2.0/2.4 Reconstruction Plates

2.0 LeiLOX Reconstruction Plate, Stainless Steel

Multiaxial locking, bendable, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



1.7 mm thick



6.5 mm wide



2024.leibinger.vet

Product Code	Holes	Length (mm)
142-3120-04	4	34
142-3120-05	5	42
142-3120-06	6	50
142-3120-07	7	58
142-3120-08	8	66
142-3120-09	9	74

Product Code	Holes	Length (mm)
142-3120-10	10	82
142-3120-12	12	98
142-3120-14	14	114
142-3120-16	16	130
142-3120-18	18	146
142-3120-20	20	162

2.4 LeiLOX Reconstruction Plate, Stainless Steel

Multiaxial locking, bendable, Stainless Steel
compatible with 2.0 & 2.4mm LeiLOX Screws



2.3 mm thick



7 mm wide



Product Code	Holes	Length (mm)
142-3124-04	4	37.5
142-3124-05	5	46.5
142-3124-06	6	55.5
142-3124-07	7	64.5
142-3124-08	8	73.5
142-3124-09	9	82.5

Product Code	Holes	Length (mm)
142-3124-10	10	91.5
142-3124-12	12	109.5
142-3124-14	14	127.5
142-3124-16	16	145.5
142-3124-18	18	163.5
142-3124-20	20	181.5

2.7/3.5 LeiLOX Reconstruction Plates

LeiLOX 2.7/3.5 Reconstruction Plates

2.7 LeiLOX Reconstruction Plate, Stainless Steel

Multiaxial locking, bendable, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



3 mm thick



9 mm wide

2735.leibinger.vet



Product Code	Holes	Length (mm)
142-3127-04	4	40
142-3127-05	5	49
142-3127-06	6	58
142-3127-07	7	67
142-3127-08	8	76
142-3127-09	9	85

Product Code	Holes	Length (mm)
142-3127-10	10	94
142-3127-12	12	112
142-3127-14	14	130
142-3127-16	16	148
142-3127-18	18	166
142-3127-20	20	184

3.5 LeiLOX Reconstruction Plate, Stainless Steel

Multiaxial locking, bendable, Stainless Steel
compatible with 2.7 & 3.5mm LeiLOX Screws



4 mm thick



11 mm wide



Product Code	Holes	Length (mm)
142-3135-04	4	49
142-3135-05	5	60
142-3135-06	6	71
142-3135-07	7	82
142-3135-08	8	93
142-3135-09	9	104

Product Code	Holes	Length (mm)
142-3135-10	10	115
142-3135-12	12	137
142-3135-14	14	159
142-3135-16	16	181
142-3135-18	18	203
142-3135-20	20	225

Arthrodesis Locking Plates LeiLOX

LeiLOX Arthrodesis Plate, Stainless Steel, straight

Multiaxial locking, bendable, Stainless Steel
compatible with 2.0/2.4mm and 2.7/3.5 LeiLOX Screws



LeiLOX Arthrodesis Plate, 2.0/2.0mm,
60mm long

142-2020-60



LeiLOX Arthrodesis Plate, 2.4/2.0mm,
70mm long

142-2024-70



LeiLOX Arthrodesis Plate, 2.7/2.0mm,
80mm long

142-2027-80



LeiLOX Arthrodesis Plate, 2.7/2.0mm,
90mm long

142-2027-90



LeiLOX Arthrodesis Plate, 2.7/3.5mm,
115mm long

142-2735-115



LeiLOX Arthrodesis Plate, 3.5/3.5mm,
140mm long

142-3535-140

Arthrodesis Locking Plates LeiLOX

LeiLOX Arthrodesis Plate, Stainless Steel, angled

Multiaxial locking, bendable, Stainless Steel
compatible with 2.0/2.4mm and 2.7/3.5 LeiLOX Screws



LeiLOX Arthrodesis Plate, 2.0/2.4mm,
120mm long, left

142-2024-120L



LeiLOX Arthrodesis Plate, 2.0/2.4mm,
120mm long, right

142-2024-120R



LeiLOX Arthrodesis Plate, 2.0/2.7mm,
77mm long, left

142-2027-120L



LeiLOX Arthrodesis Plate, 2.0/2.7mm,
77mm long, right

142-2027-120R



LeiLOX Arthrodesis Plate, 2.0/2.4mm,
86mm long, left

142-2024-135L



LeiLOX Arthrodesis Plate, 2.0/2.4mm,
86mm long, right

142-2024-135R

LeiLOX Arthrodesis Plate, Stainless Steel, angled

Multiaxial locking, bendable, Stainless Steel
compatible with 2.0/2.4mm and 2.7/3.5 LeiLOX Screws



LeiLOX Arthrodesis Plate, 2.0/2.7mm,
100mm long,

left:
142-2027-135L

right:
142-2027-135R



LeiLOX Arthrodesis Plate, 2.7/3.5mm,
150mm long, left

left:
142-2735-135L

right:
142-2735-135R

Locking Cortical Screw Stainless Steel

For LeiLOX Locking Systems, Star Drive T8 (2.0/2.4) & T10 (2.7/3.5) self-holding
(Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge


STAR Screw-
Head


Length (mm)	2.0 mm	2.4 mm	2.7mm	3.5mm
6	242-120-06	242-124-06		
8	242-120-08	242-124-08		
10	242-120-10	242-124-10	242-127-10	242-135-10
12	242-120-12	242-124-12	242-127-12	242-135-12
14	242-120-14	242-124-14	242-127-14	242-135-14
16	242-120-16	242-124-16	242-127-16	242-135-16
18	242-120-18	242-124-18	242-127-18	242-135-18
20	242-120-20	242-124-20	242-127-20	242-135-20
22	242-120-22	242-124-22	242-127-22	242-135-22
24	242-120-24	242-124-24	242-127-24	242-135-24
26	242-120-26	242-124-26	242-127-26	242-135-26
28	242-120-28	242-124-28	242-127-28	242-135-28
30	242-120-30	242-124-30	242-127-30	242-135-30
32		242-124-32	242-127-32	242-135-32
34		242-124-34	242-127-34	242-135-34
36		242-124-36	242-127-36	242-135-36
38		242-124-38	242-127-38	242-135-38
40		242-124-40	242-127-40	242-135-40
42			242-127-42	242-135-42
44			242-127-44	242-135-44
46			242-127-46	242-135-46
48			242-127-48	242-135-48
50			242-127-50	242-135-50
52				242-135-52
54				242-135-54
56				242-135-56
58				242-135-58
60				242-135-60
62				242-135-62
64				242-135-64
66				242-135-66
68				242-135-68
70				242-135-70

Locking Plug for LeiLOX

Locking Plug for LeiLOX, Stainless Steel

Star Drive, 1.5mm K-Wire hole, for 2.0/2.4 & 2.7/3.5 plates
self-holding (shaft from Rita Leibinger recommended)



top



bottom



side

2.0/2.4mm

242-0020-24

2.7/3.5mm

242-0027-35**Fixation**

Create an additional K-Wire fixation point in any hole of the plate.

**Protection**

Protect the screw holes while bending the plate.

**Stability**

Increase the fatigue strength by closing unused screw holes.

Cortical Screw (Non-Locking) 2.0, 2.4, 2.7, 3.5

Cortical Screw (Non-Locking) Stainless Steel

Star Drive T8 (2.0/2.4) & T10 (2.7/3.5) self-holding (Shaft from Rita Leibinger recommended)
self-tapping with three flute cutting edge



STAR Screw-
Head



Length (mm)	2.0 mm	2.4 mm	2.7mm	3.5mm
8	245-620-08	245-624-08		
10	245-620-10	245-624-10		
12	245-620-12	245-624-12		
14	245-620-14	245-624-14		
16	245-620-16	245-624-16	245-627-16	245-635-16
18	245-620-18	245-624-18	245-627-18	245-635-18
20		245-624-20	245-627-20	245-635-20
22		245-624-22	245-627-22	245-635-22
24			245-627-24	245-635-24
26			245-627-26	245-635-26
28			245-627-28	245-635-28
30			245-627-30	245-635-30
32			245-627-32	245-635-32
34			245-627-34	245-635-34
36			245-627-36	245-635-36
38			245-627-38	245-635-38
40			245-627-40	245-635-40
45				245-635-45
50				245-635-50
55				245-635-55
60				245-635-60



LeiLOX Instruments Set

LeiLOX Instrumente Set

Contains:

- Tray for 2.0/2.4 Instruments
- 2 Drills (1.5 & 1.8mm)
- 2x K-Wires (1.0mm)
- 2x2 Locking Drill Guides
- 1 Screwdriver Handle
- 1 Screwdriver Shaft
- 1 Depth Gauge
- 1 Pair Bending Irons

2.0/2.4 Instruments Set

142-2024-50

2.0/2.4 Tray without content

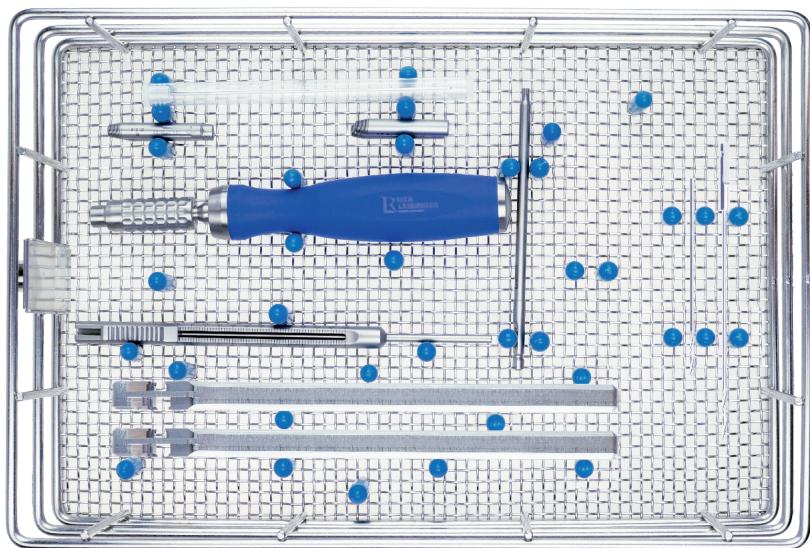
142-2024-51

2.7/3.5 Instruments Set

142-3010-00

2.7/3.5 Tray without content

142-3010-01



Sterilization Container

For Trays, 310x190x130mm

blue

150-5401-30

green

150-5402-30



Screwdriver Shaft Star-Drive



Product Code

Description

128-2024-08	T8 for 2.0 / 2.4 mm screws, 100 mm long
128-2735-10	T10 for 2.7 / 3.5 mm screws, 100 mm long

Screwdriver Handle

Silicone, AO-Connection

sterilizable up to 134°C / 273°F



Product Code

Description

247-0103-00	compact, approve for 2.0/2.4
247-0102-00	standard, approve for 2.7/3.5

Torque Limiting Screwdriver Handle

Torque 3 Nm

Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



Bending Iron LeiLOX 2.0/2.4 2.7/3.5

K-Wire

Single Trokar
1.0 mm x 100 mm

144-1010-10

Bone Drills



Product Code	Ø (mm)	Length (mm)
148-0080-15	1.5	70/30
148-0080-18	1.8	125/25
148-0080-20	2.0	85/70
148-0080-25	2.5	95/80



Product Code	Ø (mm)	Length (mm)
148-0081-15	1.5	85/60
148-0081-18	1.8	125/25
148-0081-20	2.0	100/75
148-0081-25	2.5	110/85

Depth Gauge

Product Code	Description
164-1520-20	for 1.5/2.0 mm screws
164-2735-60	for 2.7/3.5 mm screws



Locking Drill Guide Stainless Steel

Product Code	Description
164-2000-00	for 2.0 mm screws
164-2400-00	for 2.4 mm screws
164-2700-00	for 2.7 mm screws
164-3500-00	for 3.5 mm screws



Bending Iron

Product Code	Description
128-0820-24	Pair, for 2.0/2.4 Straight & Reconstruction Plates
128-0827-35	Pair, for 2.7/3.5 Straight & Reconstruction Plates

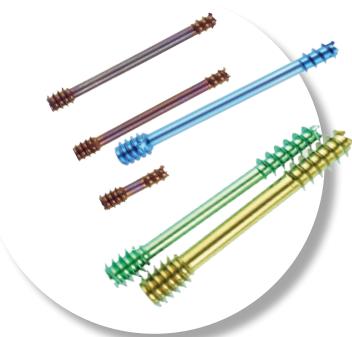


Screw Rack

Product Code	Description
150-0520-00	for 2.0 mm screws
150-0524-00	for 2.4 mm screws
150-0527-00	for 2.7 mm screws
150-0535-00	for 3.5 mm screws
150-4027-00	for 2.7mm screws (extended: 6-52mm)
150-4035-00	for 3.5 mm screws (extended: 6-70mm)



LeiCOM Cannulated Compression Bone Screws



Titanium Compression Bone Screw Systems for small animals

The LeiCOM Cannulated Compression Bone Screws create compression through different thread pitches at the head of the screw and at the distal thread of the screw. Available in Micro, Mini, Medium and Maxi sizes, our compression screws offer a solution for every need - from small to large breeds.



Titanium: Best Biocompatibility

Medical grade Titanium makes our compression screws very durable but lightweight. Titanium is also highly biocompatible and has low temperature sensitiveness.



Improved Accuracy and Optimized Positioning

All screws are cannulated to allow placement over a guidewire ensuring better accuracy before drilling or screw insertion. Using cannulated screws adopts the principles of interfragmentary screw fixation and aims to optimize screw position.



Various Applications

The LeiCOM Cannulated Compression Bone Screws can be used for corrective osteotomies, fracture fixations, distal femur, humeral condyle, degenerative changes in small bone, and non-unions.



Stardrive Compression Screws

All of our cannulated compression screws have stardrive screwheads, which allows for better tightening torque than hexagonal screwheads. The screwdriver shaft is self-holding and keeps the screws firmly on the driver.

LeiCOM



Special Thanks to
Dr. Yves Samoy

COMPRESSION SCREWS

RITA
LEIBINGER
MEDICAL

Compression Bone Screws Set - Micro/Mini

LeiCOM Cannulated Compression Screws Set - 2.4 / 3.1 Micro & 3.0 / 3.9 Mini

Contains:

1 LEICOM Compression Screws Set Tray with Lid
 1 of each LEICOM Compression Screws (Micro 2.4, 8-14mm & 24-30mm // Mini 3.0, 10-18mm & 32-40mm // 18 total)
 2 of each LEICOM Compression Screws (Micro 2.4, 16-22 // Mini 3.0, 20-30mm // 20 total)
 1 Screwdriver Handle
 1 of each Screwdriver Shaft T6 & T8, cannulated (2.4 & 3.0mm)
 1 of each Screw Head countersink, cannulated (2.4 & 3.0mm)
 1 of each Drill Bit (Ø 1.8mm & 2.3mm)
 5 K-Wires (Ø 0.9mm x 150mm)

244-2439-00

Tray without contents

244-2439-10



2.4 LeiCOM Micro Compression Screw

Cannulated Bone Screw 2.4 x 3.1 mm, Titanium Star Drive, self-tapping, self-drilling



STAR Screw-
Head



Length (mm)	Product Code
08	244-2431-08
10	244-2431-10
12	244-2431-12
14	244-2431-14
16	244-2431-16
18	244-2431-18
20	244-2431-20
22	244-2431-22
24	244-2431-24
26	244-2431-26
28	244-2431-28
30	244-2431-30

3.0 LeiCOM Mini Compression Screw

Cannulated Bone Screw 3.0 x 3.9 mm, Titanium Star Drive, self-tapping, self-drilling



STAR Screw-
Head



Length (mm)	Product Code
10	244-3039-10
12	244-3039-12
14	244-3039-14
16	244-3039-16
18	244-3039-18
20	244-3039-20
22	244-3039-22
24	244-3039-24
26	244-3039-26
28	244-3039-28
30	244-3039-30
32	244-3039-32
34	244-3039-34
36	244-3039-36
38	244-3039-38
40	244-3039-40

Compression Bone Screws Set - Medi/Maxi

Compression Bone Screws 4.0 - 6.0

LeiCOM Cannulated Compression Screws Set - 4.0 / 5.0 Medi & 5.0 / 6.0 Maxi

Contains:

1 LEICOM Compression Screws Set Tray with Lid
 1 of each LEICOM Compression Screws
 (Medi 4.0, 14-24mm & 38-60mm // Maxi 5.0,
 20-28mm & 40-60mm // 22 total)
 2 of each LEICOM Compression Screws
 (Medi 4.0, 26-36// Maxi 5.0, 30-38mm // 22 total)
 1 Screwdriver Handle
 1 of each Screwdriver Shaft T10 & T15,
 cannulated (4.0 & 5.0mm)
 1 of each Screw Head countersink,
 cannulated (4.0 & 5.0mm)
 1 of each Drill Bit (Ø 2.7mm & 3.8mm)
 5 K-Wires (Ø 1.5mm x 150mm)



244-4060-00

Tray without contents

244-4060-10

4.0 LeiCOM Medi Compression Screw

Cannulated Bone Screw 4.0 x 5.0 mm, Titanium Star Drive, self-tapping, self-drilling



STAR Screw-
Head



Length (mm)	Product Code
14	244-4050-14
16	244-4050-16
18	244-4050-18
20	244-4050-20
22	244-4050-22
24	244-4050-24
26	244-4050-26
28	244-4050-28
30	244-4050-30
32	244-4050-32
34	244-4050-34
36	244-4050-36
38	244-4050-38
40	244-4050-40
45	244-4050-45
50	244-4050-50
55	244-4050-55
60	244-4050-60

5.0 LeiCOM Maxi Compression Screw

Cannulated Bone Screw 5.0 x 6.0 mm, Titanium Star Drive, self-tapping, self-drilling



STAR Screw-
Head



Length (mm)	Product Code
20	244-5060-20
22	244-5060-22
24	244-5060-24
26	244-5060-26
28	244-5060-28
30	244-5060-30
32	244-5060-32
34	244-5060-34
36	244-5060-36
38	244-5060-38
40	244-5060-40
45	244-5060-45
50	244-5060-50
55	244-5060-55
60	244-5060-60

Screwdriver Handle

Screwdriver Shaft

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F



Product Code	Description
247-0105-00	standard, straight, black

Screw Depth Gauge

for K-Wires up to Ø 1.6, cannulated 150



164-1600-00



K-Wire, Single Trocar

Length: 150 mm, round end

Produkt Code	Maße (mm)
144-1009-15	0.9 x 150
144-1015-15	1.5 x 150



Product Code	Description
128-2431-06	2.4 mm, 90mm, cannulated, T6 for 2.4 / 3.1 mm screws
128-3039-08	3.0 mm, 90mm, cannulated, T8 for 3.0 / 3.9 mm screws
128-4050-10	4.0 mm, 90mm, cannulated, T10 for 4.0 / 5.0 mm screws
128-5060-15	5.0 mm, 90mm, cannulated, T15 for 5.0 / 6.0 mm screws

Screw Head Countersink

Drill Bits

Screw Head Countersink Star-Drive, cannulated

For LeiCOM, AO connection



Product Code	Description
128-2431-31	2.4 mm, 70mm, cannulated, for 2.4 / 3.1 mm screws
128-3039-39	3.0 mm, 70mm, cannulated, for 3.0 / 3.9 mm screws
128-4050-50	4.0 mm, 90mm, cannulated, for 4.0 / 5.0 mm screws
128-5060-60	5.0 mm, 100mm, cannulated, for 5.0 / 6.0 mm screws

Drill Bits

Length 95mm, Fluting Ø 1.1 mm, AO Connection



Product Code	Ø (mm)
148-0084-18	1.8
148-0084-23	2.3

Drill Bits

Length 125mm, Fluting Ø 1.6 mm, AO Connection



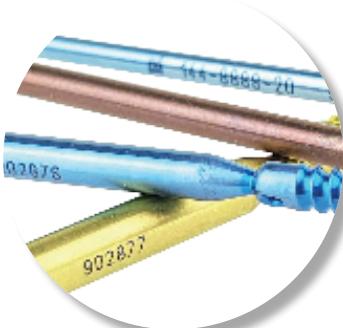
Product Code	Ø (mm)
148-0084-27	2.7
148-0084-38	3.8

Suture Anchor Screws



High-Strength Titanium Suture Anchors

The RITA LEIBINGER Suture Anchor Screws are made of high-grade Titanium, making them very durable but lightweight. This material also allows for the design of thinner and smaller-sized anchors without compromising strength.



Titanium: Best Biocompatibility

Made from a unique Titanium alloy, our suture/bone anchors are highly biocompatible and has low temperature sensitiveness. The high-strength material and construct provides fixation strength and stability, which promotes healing of the soft tissue.



Easy to use

The self-tapping design of our threaded suture anchors makes them easy to use and position, therefore shortening surgery time.



Secure and stable fixation

The stable construct ensures a secure fixation of the suture anchor, thereby maintaining the position of the anchor without loosening and providing optimal conditions for rapid and uninterrupted healing of the soft tissue.



Quality that is affordable

The Suture Anchor Screws from RITA LEIBINGER are manufactured at our own plant in Germany. We can therefore offer you high-quality products at very affordable prices.



SUTURE ANCHORS

RITA
LEIBINGER
MEDICAL

Suture Anchor Screw 2.0

2.0 Suture Anchor Screw

Titanium

144-8888-20



Total Length	45 mm
Thread Length	7 mm
Hole Ø	0.65 mm

Suture Anchor Screw 2.4



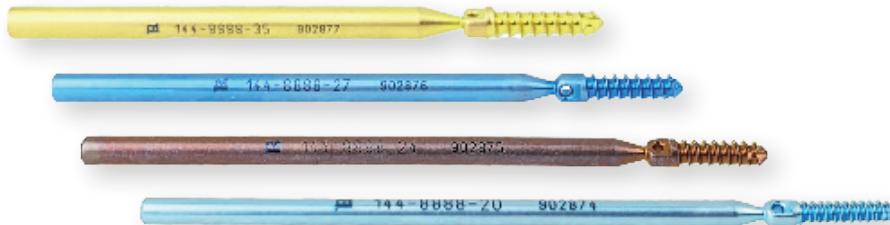
2.4 Suture Anchor Screw

Titanium

144-8888-24



Total Length	45 mm
Thread Length	7 mm
Hole Ø	0.85 mm



Suture Anchor Screw 2.7

Suture Anchor Screw 3.5

2.7 Suture Anchor Screw

Titanium

144-8888-27



Total Length	45 mm
Thread Length	9 mm
Hole Ø	1.0 mm

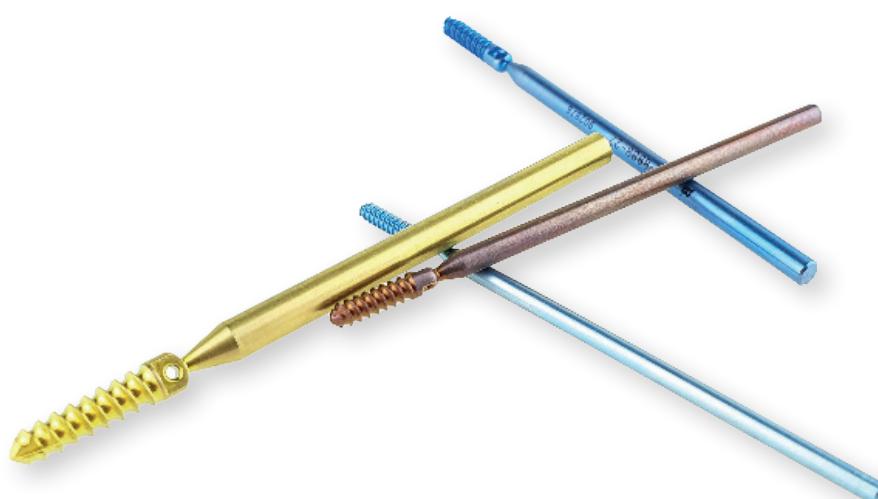
3.5 Suture Anchor Screw

Titanium

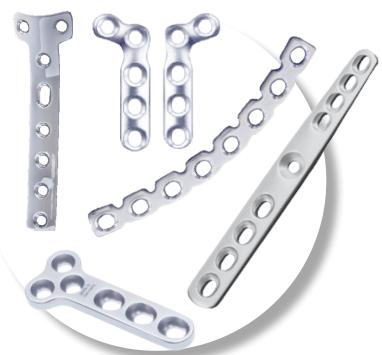
144-8888-35



Total Length	45 mm
Thread Length	11.5 mm
Hole Ø	1.0 mm



OSTEOSYNTHESIS



Standard Plates

DCP Plates
Acetabulum Plates
Reconstruction Plates
T-Plates
L-Plates
Arthrodesis Plates



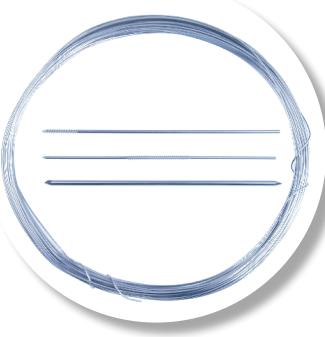
Screws, Screwdrivers, Instruments

Cortical Screws, Cancellous Screws, Washers
Screw Racks
Screwdrivers, Screwdriver Handles, Screwdriver Shafts
Drills, Drill Guides
Depth Gauge, Bending Iron, Forceps



Screw Removal Set

S.O.S. Screw Extraction for damaged screw drives,
broken-off screw heads, broken-off screw thread
inside bone



K-Wires & Pins

K-Wire Set
K-Wire Instrument Set
Single Trocar, Single Trocar (threaded)
Double Trocar
Orthopedic Cerclage



OSTEOSYNTHESE

**RITA
LEIBINGER**
MEDICAL

1.5mm Cortical Screws

Screws Standard (all)

2.0mm Cortical Screws

1.5 mm Cortical Screw Hexagonal or Star Drive head, self-holding, self-tapping with three flute cutting edge



Length (mm)	Stainless Hex Head	Titanium Hex Head	Titanium Star-Drive
5			245-515-05
6	245-115-06	245-215-06	245-515-06
7	245-115-07	245-215-07	245-515-07
8	245-115-08	245-215-08	245-515-08
9	245-115-09	245-215-09	245-515-09
10	245-115-10	245-215-10	245-515-10
11	245-115-11	245-215-11	
12	245-115-12	245-215-12	245-515-12
14	245-115-14	245-215-14	245-515-14
16	245-115-16	245-215-16	245-515-16
18	245-115-18	245-215-18	245-515-18
20	245-115-20	245-215-20	245-515-20

2.0mm Cortical Screw Hexagonal or Star Drive head, self-holding, self-tapping with three flute cutting edge



Length (mm)	Stainless Hex Head	Stainless Star Drive	Titanium Hex Head	Titanium Star Drive
5				245-520-05
6	245-120-06		245-220-06	245-520-06
7				245-520-07
8	245-120-08	245-620-08	245-220-08	245-520-08
9				245-520-09
10	245-120-10	245-620-10	245-220-10	245-520-10
12	245-120-12	245-620-12	245-220-12	245-520-12
14	245-120-14	245-620-14	245-220-14	245-520-14
16	245-120-16	245-620-16	245-220-16	245-520-16
18	245-120-18	245-620-18	245-220-18	245-520-18
20	245-120-20		245-220-20	245-520-20
22	245-120-22		245-220-22	245-520-22
24	245-120-24		245-220-24	245-520-24
26	245-120-26		245-220-26	245-520-26
28	245-120-28		245-220-28	245-520-28
30	245-120-30		245-220-30	245-520-30
32	245-120-32			
34	245-120-34			
36	245-120-36			
38	245-120-38			
40	245-120-40			
42	245-120-42			
44	245-120-44			

2.4mm Cortical Screws

Screws Self-Tapping (all)

2.7mm Cortical Screws

2.4 mm Cortical Screw Hexagonal or Star Drive head, self-holding, self-tapping with three flute cutting edge

Length (mm)	Stainless Hex Head	Stainless Hex Head	Titanium Hex Head	Titanium Star Drive
6	245-124-06		245-224-06	245-524-06
8	245-124-08	245-624-08	245-224-08	245-524-08
10	245-124-10	245-624-10	245-224-10	245-524-10
12	245-124-12	245-624-12	245-224-12	245-524-12
14	245-124-14	245-624-14	245-224-14	245-524-14
16	245-124-16	245-624-16	245-224-16	245-524-16
18	245-124-18	245-624-18	245-224-18	245-524-18
20	245-124-20	245-624-20	245-224-20	245-524-20
22	245-124-22	245-624-22	245-224-22	245-524-22
24	245-124-24		245-224-24	245-524-24
26	245-124-26		245-224-26	245-524-26
28	245-124-28		245-224-28	245-524-28
30	245-124-30		245-224-30	245-524-30
32	245-124-32		245-224-32	245-524-32
34	245-124-34		245-224-34	245-524-34
36	245-124-36		245-224-36	245-524-36
38	245-124-38		245-224-38	245-524-38
40	245-124-40		245-224-40	245-524-40

2.7 mm Cortical Screw Hexagonal or Star Drive head, self-holding, self-tapping with three flute cutting edge

Length (mm)	Stainless Hex Head	Stainless (Star Drive)	Titanium Hex Head	Titanium Star Drive
6	245-127-06		245-227-06	
8	245-127-08		245-227-08	
10	245-127-10	245-627-10	245-227-10	
12	245-127-12	245-627-12	245-227-12	
14	245-127-14	245-627-14	245-227-14	
16	245-127-16	245-627-16	245-227-16	245-527-16
18	245-127-18	245-627-18	245-227-18	245-527-18
20	245-127-20	245-627-20	245-227-20	245-527-20
22	245-127-22	245-627-22	245-227-22	245-527-22
24	245-127-24	245-627-24	245-227-24	245-527-24
26	245-127-26	245-627-26	245-227-26	245-527-26
28	245-127-28	245-627-28	245-227-28	245-527-28
30	245-127-30	245-627-30	245-227-30	245-527-30
32	245-127-32	245-627-32	245-227-32	245-527-32
34	245-127-34	245-627-34	245-227-34	245-527-34
36	245-127-36	245-627-36	245-227-36	
38	245-127-38	245-627-38	245-227-38	
40	245-127-40	245-627-40	245-227-40	
42	245-127-42			

3.5mm Cortical Screws

3.5 Cortical Screw (Non-Locking) Stainless Steel

Hexagonal or Star Drive head,
self-holding (T10 Shaft from Rita Leibinger needed)
self-tapping with three flute cutting edge

				
Length (mm)	Stainless Hex Head	Stainless Star Drive	Titanium Hex Head	Titanium Star Drive
8	245-135-08	245-635-08	245-235-08	
10	245-135-10	245-635-10	245-235-10	
12	245-135-12	245-635-12	245-235-12	
14	245-135-14	245-635-14	245-235-14	
16	245-135-16	245-635-16	245-235-16	245-535-16
18	245-135-18	245-635-18	245-235-18	245-535-18
20	245-135-20	245-635-20	245-235-20	245-535-20
22	245-135-22	245-635-22	245-235-22	245-535-22
24	245-135-24	245-635-24	245-235-24	245-535-24
26	245-135-26	245-635-26	245-235-26	245-535-26
28	245-135-28	245-635-28	245-235-28	245-535-28
30	245-135-30	245-635-30	245-235-30	245-535-30
32	245-135-32	245-635-32	245-235-32	245-535-32
34	245-135-34	245-635-34	245-235-34	245-535-34
36	245-135-36	245-635-36	245-235-36	
38	245-135-38	245-635-38	245-235-38	
40	245-135-40	245-635-40	245-235-40	
42	245-135-42			
44	245-135-44			
45	245-135-45	245-635-45	245-235-45	
50	245-135-50	245-635-50	245-235-50	
55	245-135-55	245-635-55	245-235-55	
60	245-135-60	245-635-60	245-235-60	
65	245-135-65			

4.0 mm Cancellous Screws

Hexagonal head,
self-holding, self-tapping with three flute cutting edge



Length (mm)	Fully Threaded
10	245-440-10
12	245-440-12
14	245-440-14
16	245-440-16
18	245-440-18
20	245-440-20
22	245-440-22
24	245-440-24
26	245-440-26
28	245-440-28
30	245-440-30
32	245-440-32
34	245-440-34
35	245-440-35
36	245-440-36
38	245-440-38
40	245-440-40
42	245-440-42
44	245-440-44
45	
46	245-440-46
48	245-440-48
50	245-440-50
52	245-440-52
54	245-440-54
55	245-440-55
56	245-440-56
58	245-440-58
60	245-440-60
62	245-440-62
63	245-440-64
66	245-440-66
68	245-440-68
70	245-440-70

Partially Threaded
245-140-10
245-140-12
245-140-14
245-140-16
245-140-18
245-140-20
245-140-22
245-140-24
245-140-26
245-140-28
245-140-30
245-140-32
245-140-34
245-140-35
245-140-36
245-140-38
245-140-40
245-140-42
245-140-44
245-140-45
245-140-46
245-140-48
245-140-50
245-140-52
245-140-54
245-140-55
245-140-56
245-140-58
245-140-60
245-140-62
245-140-64
245-140-66
245-140-68
245-140-70

Length (mm)	Product Code
14	245-145-14
16	245-145-16
18	245-145-18
20	245-145-20
22	245-145-22
24	245-145-24
26	245-145-26
28	245-145-28
30	245-145-30
32	245-145-32
34	245-145-34
36	245-145-36
38	245-145-38
40	245-145-40
42	245-145-42
44	245-145-44
46	245-145-46
48	245-145-48
50	245-145-50
52	245-145-52
54	245-145-54
56	245-145-56
58	245-145-58
60	245-145-60
62	245-145-62
64	245-145-64
66	245-145-66
68	245-145-68
70	245-145-70



Screwdriver 1.5/2.0 Mini-AO QC

Washers

Screw Racks (all)

Screw Racks
(without screws)



Product Code	Description
150-0515-00	for 1.5 mm screws
150-0520-00	for 2.0 mm screws
150-0524-00	for 2.4 mm screws
150-0527-00	for 2.7 mm screws
150-0535-00	for 3.5 mm screws
150-4027-00	for 2.7mm screws (extended: 6-52mm)
150-4035-00	for 3.5 mm screws (extended: 6-70mm)

Washers
Stainless Steel

Product Code	Description
130-5215-10	Washer 1.5
130-6252-12	Washer 2.0
130-7324-14	Washer 2.4
130-8327-16	Washer 2.7
130-9435-16	Washer 3.5

Mini-AO QC Screwdriver 1.5/2.0

Handle

128-0807-00



Shaft

128-0905-15



Holding Sleeve

128-0905-17

Screwsdriver 2.4 Propylux Hex

Without Holding Sleeve, Propylux handle

128-0911-25



Screwdriver Handle (all)

Screwdriver Shaft (all)

Screwdriver Shaft Hex

AO connection, (Holding Sleeve recommended)

Product Code	Description
128-0900-15	for 1.5/2.0 mm screws, 100 mm long
128-0900-20	for 2.4 mm screws, 100 mm long
134-0900-24	for 2.4 mm screws, 130 mm long
128-0900-25	for 2.7 / 3.5 mm screws, 100 mm long



Holding Sleeve

For Hex Screwdriver

128-0940-24



Screwdriver Shaft Star-Drive

AO connection, self-holding

Product Code	Description
128-1520-15	T6 for 1.5 mm screws, 60 mm long
128-1520-20	T8 for 2.0 / 2.4 mm screws, 60 mm long
128-2735-10	T10 for 2.7 / 3.5 mm screws, 100 mm long
134-0800-27	T10 for 2.7 / 3.5 mm screws, 135 mm long



Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0103-00



Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0102-00



Torque Limiting Screwdriver Handle

Torque 3 Nm
Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



Drill (all)

Drill Guide (all)

Drills with Round Shaft

self-centred

Product Code	Ø (mm)	Length
148-0080-11	1.1	45/30 mm
148-0080-15	1.5	70/30 mm
148-0080-18	1.8	125/25 mm
148-0080-20	2.0	85/70 mm
148-0080-25	2.5	95/80 mm

Product Code	Ø (mm)	Length
148-0080-27	2.7	85/70 mm
148-0080-30	3.0	100/50 mm
148-0080-32	3.2	180/165 mm
148-0080-35	3.5	180/165 mm
148-0080-45	4.5	180/165 mm

Drills with AO Schaft

self-centred

Product Code	Ø (mm)	Length
148-0081-11	1.1	60/35 mm
148-0081-15	1.5	85/60 mm
148-0081-18	1.8	125/25 mm
148-0081-20	2.0	100/75 mm
148-0081-25	2.5	110/85 mm

Product Code	Ø (mm)	Length
148-0081-27	2.7	125/100 mm
148-0081-30	3.0	100/85 mm
148-0081-32	3.2	145/120 mm
148-0081-35	3.5	110/85 mm
148-0081-45	4.5	195/170 mm

Drill Guide

Standard



Product Code	Size (mm)
164-0070-20	1.1/1.5
164-0070-24	1.8/2.0
164-0070-27	2.7/2.0
164-0070-35	3.5/2.5

Drill Guide

Neutral / load



164-0071-15

Product Code	Description
164-0071-15	for screws Ø 2.0 mm and drill Ø 1.5 mm
128-2418-24	for screws Ø 2.4 mm and drill Ø 1.8 mm
128-2720-27	for screws Ø 2.7 mm and drill Ø 2.0 mm
128-2535-35	for screws Ø 3.5 mm and drill Ø 2.5 mm

Depth Gauge

Product Code	Description
164-1520-20	for 1.5/2.0 mm screws
164-2735-60	for 2.4/2.7/3.5 mm screws



Bending Irons AO Type 1.5/2.0

130 mm, Pair

128-0881-15



Bending Irons AO Type 2.7/3.5/4.5

140mm, Pair

Product Code	Description
128-0880-27	right
128-0881-27	left



Plate Holding Forceps

90 mm, curved

164-0050-09



Plate Holding Forceps

17 cm, angulated

164-0051-17



1.5, 2.0, 2.4, 2.7 Bone Plate DCP

Bone Plates Standard (all)

1.5mm DCP Plate

Cuttable

1mm thick, for 1.5 mm screws



Product Code	Holes	Length (mm)
130-1848-04	4	18.5
130-1848-05	5	22.5
130-1848-06	6	26.5
130-1848-07	7	30.5

Product Code	Holes	Length (mm)
130-1848-08	8	34.5
130-1848-09	9	38.5
130-1848-10	10	42.5
130-1848-20	20	82.5

2.0mm DCP Plate

1.5mm thick, 6.0mm wide



Product Code	Holes	Length (mm)
130-11-1014	4	27
130-11-1015	5	33
130-11-1016	6	39
130-11-1017	7	45

Product Code	Holes	Length (mm)
130-11-1018	8	51
130-11-1019	9	57
130-11-1020	10	63
130-11-1021	11	69
130-11-1022	12	75

2.4mm DCP Plate

2.0mm thick, 7.0mm wide



Product Code	Holes	Length (mm)
130-11-6004	4	32
130-11-6005	5	39
130-11-6006	6	46
130-11-6007	7	54
130-11-6008	8	61

Product Code	Holes	Length (mm)
130-11-6009	9	68
130-11-6010	10	75
130-11-6011	11	82
130-11-6012	12	89
130-11-6013	13	96
130-11-6014	14	103

2.7mm DCP Plate

2.5mm thick, 8.0mm wide



Product Code	Holes	Length (mm)
140-12-0004	4	37
140-12-0005	5	45
140-12-0006	6	53
140-12-0007	7	61
140-12-0008	8	70
140-12-0009	9	78

Product Code	Holes	Length (mm)
140-12-0010	10	86
140-12-0011	11	94
140-12-0012	12	102
140-12-0013	13	110
140-12-0014	14	118

3.5mm DCP Plate narrow

4mm thick, 11mm wide, 5mm hole distance



Product Code	Holes	Length (mm)
140-20-0002	2	27
140-20-0004	4	51
140-20-0005	5	63
140-20-0006	6	75
140-20-0007	7	87
140-20-0008	8	99
140-20-0009	9	111
140-20-0010	10	123

Product Code	Holes	Length (mm)
140-20-0011	11	135
140-20-0012	12	147
140-20-0013	13	159
140-20-0014	14	171
140-20-0015	15	183
140-20-0016	16	195
140-20-0017	17	207
140-20-0018	18	219

3.5mm DCP Plate broad

5mm thick, 12.5mm wide, 5mm hole distance



Product Code	Holes	Length (mm)
140-24-0004	4	54
140-24-0005	5	66
140-24-0006	6	78
140-24-0007	7	90
140-24-0008	8	102
140-24-0009	9	114
140-24-0010	10	126
140-24-0011	11	138

Product Code	Holes	Length (mm)
140-24-0012	12	150
140-24-0013	13	162
140-24-0014	14	174
140-24-0015	15	186
140-24-0016	16	198
140-24-0017	17	210
140-24-0018	18	222
140-24-0019	19	234
140-24-0020	20	246



4.5 Bone Plate DCP

Bone Plate 4.5 mm DCP narrow



Product Code	Holes	Length (mm)
130-30-0004	4	71
130-30-0005	5	87
130-30-0006	6	103
130-30-0007	7	119
130-30-0008	8	135
130-30-0009	9	151
130-30-0010	10	167
130-30-0011	11	183
130-30-0012	12	199

Product Code	Holes	Length (mm)
130-30-0013	13	215
130-30-0014	14	231
130-30-0015	15	247
130-30-0016	16	263
130-30-0018	18	295
130-30-0020	20	327
130-30-0022	22	359
130-30-0024	24	391

Bone Plate 4.5mm DCP broad



Product Code	Holes	Length (mm)
130-31-0005	5	87
130-31-0006	6	103
130-31-0007	7	119
130-31-0008	8	135
130-31-0009	9	151
130-31-0010	10	167
130-31-0011	11	183
130-31-0012	12	199

Product Code	Holes	Length (mm)
130-31-0013	13	215
130-31-0014	14	231
130-31-0015	15	247
130-31-0016	16	263
130-31-0018	18	295
130-31-0020	20	327
130-31-0022	22	359
130-31-0024	24	391

Limited Contact Bone Plate

Bone Plate Limited Contact

2.0mm Limited Contact DCP Plate



Product Code	Holes	Length (mm)
130-11-2004	4	23
130-11-2005	5	29
130-11-2006	6	35
130-11-2007	7	41

Product Code	Holes	Length (mm)
130-11-2008	8	47
130-11-2009	9	53
130-11-2010	10	59
130-11-2020	20	119

2.7 Limited Contact DCP Plate

Frontside



Backside (Limited Contact)



Product Code	Holes	Length (mm)
140-13-2004	4	36
140-13-2005	5	44
140-13-2006	6	52
140-13-2007	7	60
140-13-2008	8	68
140-13-2009	9	76

Product Code	Holes	Length (mm)
140-13-2010	10	84
140-13-2011	11	92
140-13-2012	12	100
140-13-2013	13	108
140-13-2014	14	116

Bone Plate 3.5 mm Limited Contact DCP

Frontside



Backside (Limited Contact)



Product Code	Holes	Length (mm)
140-20-2004	4	51
140-20-2005	5	64
140-20-2006	6	77
140-20-2007	7	90
140-20-2008	8	103

Product Code	Holes	Length (mm)
140-20-2009	9	116
140-20-2010	10	129
140-20-2011	11	142
140-20-2012	12	155
140-20-2014	14	168



Plate (Reconstruction, straight/curved)

Acetabulum Plate

Acetabulum Plates



2,0mm, 6 Hole, 31mm

130-11-0606



2,7mm, 4 Hole, 39mm

130-12-0604



2,7mm, 5 Hole, 47mm

130-12-0605



2,7mm, 6 Hole, 53mm

130-12-0606

Reconstruction Plates 3.5mm

Straight



Product Code	Holes	Length (mm)
140-50-0004	4	46
140-50-0005	5	58
140-50-0006	6	70
140-50-0007	7	82
140-50-0008	8	94
140-50-0009	9	106
140-50-0010	10	118

Product Code	Holes	Length (mm)
140-50-0011	11	130
140-50-0012	12	142
140-50-0014	14	166
140-50-0016	16	190
140-50-0018	18	214
140-50-0020	20	238
140-50-0022	22	262

Reconstruction Plates 3.5mm

Curved



Product Code	Holes	Length (mm)
130-50-0106	6	48
130-50-0108	8	64
130-50-0110	10	80

Product Code	Holes	Length (mm)
130-50-0112	12	96
130-50-0114	14	112
130-50-0116	16	128

2.0mm Adaption Plate

20 holes, 1.2 mm thickness, cuttable



130-11-1420

T-Plate standard

L-Plate standard

2.0mm T-Bone Plate

2x2 holes, 1.0mm thick, 5.0mm wide, 6mm hole distance

130-11-0302



1.5mm T-Plate (cuttable)

Product Code	Holes	Length (mm)
130-10-0339	3x9	50
130-11-0349	4x9	50



2.0mm T-Plate (cuttable)

Product Code	Holes	Length (mm)
130-11-0339	3x9	50
130-11-0349	4x9	50



2.0mm T-Plate



Product Code	Holes	Length (mm)
140-0620-24	2x4	32
140-0620-25	2x5	38
140-0620-26	2x6	44

Product Code	Holes	Length (mm)
140-0620-27	2x7	50
140-0620-28	2x8	56

2.0 mm L-Plate



Product Code	Description
130-11-0402	left
130-11-0502	right

2.7 mm L-Plate



Product Code	Description
130-12-0103	left
130-12-0203	right

Plates (Phillips, T-shape)

Phillips T-Plates

Product Code	Holes	Measures
131-20-0304	2/4	2.0/2.7 mm, 36 mm
131-20-0305	2/5	2.0/2.7 mm, 44 mm
131-20-0306	2/6	2.0/2.7 mm, 52 mm

Plates (3.5mm T-shape)



3.5 mm T - Bone Plate

Product Code	Holes	Measures
131-35-0505	2/5	3.5/65 mm
131-35-0506	2/6	3.5/75 mm



3.5 mm T - Bone Plate with curved head

Product Code	Holes	Measures
131-35-0404	3/4	3.5/60 mm
131-35-0406	3/6	3.5/80 mm
131-35-0508	3/8	3.5/105 mm



Arthrodesis Plates

9 holes oval, 1.5/2.0/54 mm

140-05-1168



9 holes oval, 2.0/2.0/58 mm

140-05-1169



9 holes round, 2.0/2.7/76 mm

140-05-1170



9 holes oval, 2.0/2.7/76 mm

140-05-1171



9 holes round, 2.7/3.5/120 mm

140-05-1172



9 holes oval, 2.7/3.5/120 mm

140-05-1173



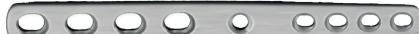
9 holes round, 2.7/3.5/104 mm

140-05-1174



9 holes oval, 2.7/3.5/104 mm

140-05-1175



11 holes oval, 3.5/3.5/152 mm

140-06-1176



10 holes round, 3.5/3.5/140 mm

140-05-1177

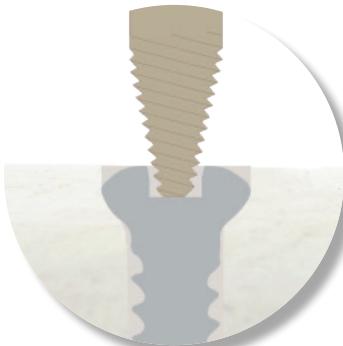


10 holes oval, 3.5/3.5/140 mm

140-06-1178



S.O.S. Screw Extraction



CASE 1

Stripped screw head

If the screw head is stripped and the screwdriver is not engaging into the head of the screw

- 1 Choose a conical extractor that corresponds to the diameter of the screw. Choose one size larger when the screw drive is severely damaged.
- 2 Attach the conical extractor to the AO handle and insert it into the screw head recess. Applying slight pressure, turn the device counterclockwise.
- 3 As soon as the extractor fully engages, the screw will start to move. Continue turning until screw is completely removed.



CASE 2

Screw Head broke off

Screw head broke off and the screw shaft protrudes from the bone

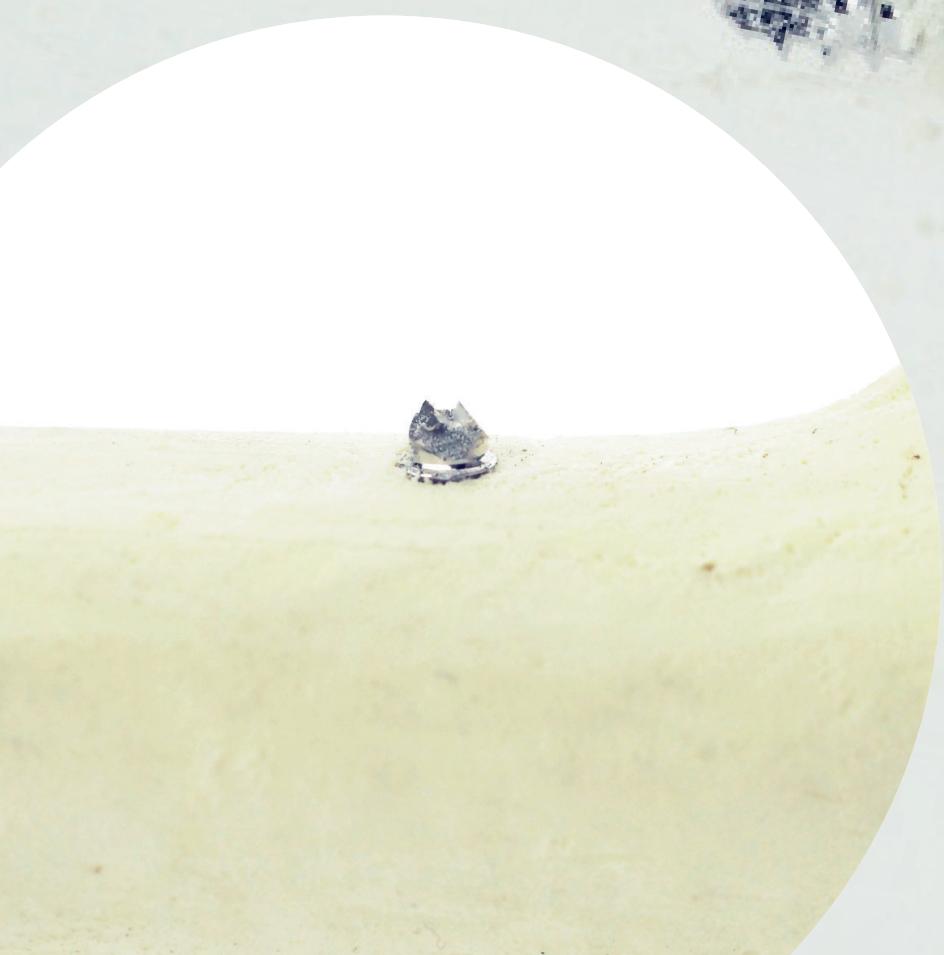
- 1 Attach the extraction bolt to the AO Handle and place it on top of the protruding screw shaft.
- 2 Applying slight pressure, turn the device counterclockwise.
- 3 As soon as the extraction bolt engages and sufficient grip is achieved, the screw will start to move. Continue turning until the screw shaft is completely removed.



CASE 3

Broken screw shaft is below cortical surface of the bone

- 1 Either use a gouge chisel or a hollow reamer. Choose the correct diameter that corresponds to the screw size. Remove surrounding bone to expose enough of the screw shaft. A few initial threads is often sufficient.
- 2 Attach the corresponding extraction bolt to the AO Handle and place on top of the exposed screw shaft.
- 3 Applying slight pressure, turn the device counterclockwise.
- 4 As soon as the extraction bolt engages and sufficient grip is achieved, the screw will start to move. Continue turning until the screw shaft is completely removed.



SCREW REMOVAL

RITA
LEIBINGER
MEDICAL

Screw Removal Set S.O.S.

S.O.S. Screw Removal

S.O.S. - Screw Removal Set

247-0000-00

Product Code	Description
150-0863-00	Wire Box for 24 Inserts, with Lid
150-0864-00	Wire Box for handles
247-0101-00	Silicone T-Handle, AO
247-0102-00	Screwdriver Handle Silicone, straight, AO
128-0300-15	Bone Pick, 15 cm
247-0110-00	Screwdriver Shaft Star-Drive AO, T4, 1,28
247-0111-00	Screwdriver Shaft Star-Drive AO, T6, 1,7 mm
247-0112-00	Screwdriver Shaft Star-Drive AO, T7, 1,99 mm
247-0113-00	Screwdriver Shaft Star-Drive AO, T8, 2,31 mm
247-0114-00	Screwdriver Shaft Star-Drive AO, T9, 2,5 mm
247-0115-00	Screwdriver Shaft Star-Drive AO, T10, 2,74 mm
247-0116-00	Screwdriver Shaft Star-Drive AO, T15, 3,27 mm
247-0117-00	Screwdriver Shaft Star-Drive AO, T25, 4,43 mm
247-0120-00	Screwdriver Shaft Cross Drive AO, CD1.0/1.2
247-0121-00	Screwdriver Shaft Cross Drive AO, CD 1.5/1.7
247-0122-00	Screwdriver Shaft Cross Drive AO, CD 2.0/2.3
247-0130-00	Screwdriver Shaft Hexagonal AO, 1.5mm
247-0131-00	Screwdriver Shaft Hexagonal AO, 2.5mm
247-0132-00	Screwdriver Shaft Hexagonal AO, 3.5mm
247-0140-00	Extraction Bolt, AO for Screws 1.5 mm
247-0141-00	Extraction Bolt, AO for Screws 2.0 mm
247-0142-00	Extraction Bolt, AO for Screws 2.7 mm
247-0143-00	Extraction Bolt, AO for Screws 3.5/4.0 mm
247-0150-00	Conical Extractor, AO 1.5 / 2.0 mm
247-0151-00	Conical Extractor, AO 2.7 / 3.5 / 4.0 mm
247-0152-00	Conical Extractor, AO 4.5 / 5.0 / 6.5 / 7.0mm
247-0160-00	Hollow Reamer 1.5 / 2.0 mm
247-0161-00	Hollow Reamer 2.7 / 3.5 / 4.0 mm



Sterilization Container

310x190x130mm
blue (image)

150-5401-30

green

150-5402-30



K-Wires

Osteosynthesis
General



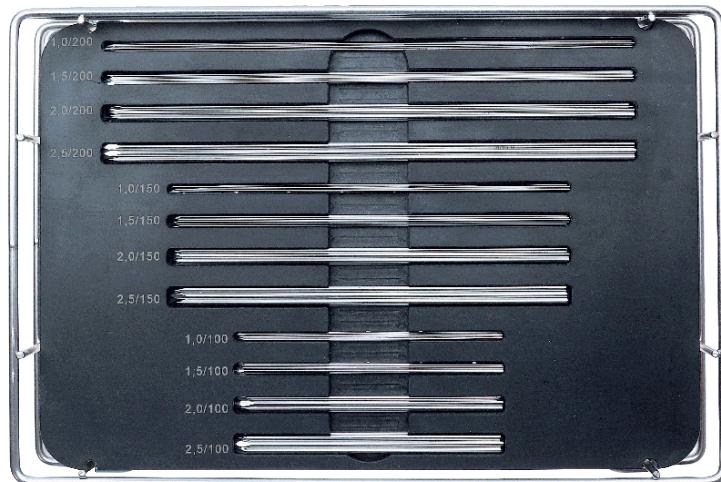
K-WIRES

RITA
LEIBINGER
MEDICAL

K-Wire Set

K-Wire Set

111-0015-10



The K-Wires contained in the set are single trocars with round ends.

Set contains:

Product Code	Description	Quantity
150-0865-00	Tray with Lid for K-Wires	1
143-1000-04	Cerclage Wire, 0,4 mm, 10 meter roll	1
143-1000-06	Cerclage Wire, 0,6 mm, 10 meter roll	1
143-1000-08	Cerclage Wire, 0,8 mm, 10 meter roll	1
143-1000-10	Cerclage Wire, 1,0 mm, 10 meter roll	1
144-1010-10	1.0mm x 100mm (CCC) K-Wire	6
144-1010-15	1.0mm x 150mm (CCC) K-Wire	6
144-1010-20	1.0mm x 200mm (CCC) K-Wire	6
144-1015-10	1.5mm x 100mm (CCC) K-Wire	6
144-1015-15	1.5mm x 150mm (CCC) K-Wire	6
144-1015-20	1.5mm x 200mm (CCC) K-Wire	6
144-1020-10	2.0mm x 100mm (CCC) K-Wire	6
144-1020-15	2.0mm x 150mm (CCC) K-Wire	6
144-1020-20	2.0mm x 200mm (CCC) K-Wire	6
144-1025-10	2.5mm x 100mm (CCC) K-Wire	6
144-1025-15	2.5mm x 150mm (CCC) K-Wire	6
144-1025-20	2.5mm x 200mm (CCC) K-Wire	6



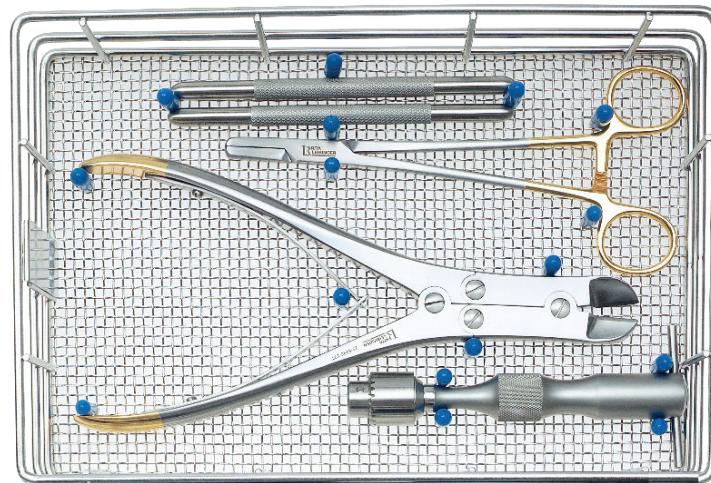
www.LEIBINGER-MEDICAL.com

Instrument Set K-Wire

K-Wire Instrument Set

K-Wire Instrument Set

111-0015-20



Set contains:

Product Code	Description
150-0866-00	Instrument Tray for K-Wire Set
23-3513-00	Hand Chuck and key, max. Ø 4 mm
23-1363-14	K-Wire Bender, 1.0/2.0 mm 14 cm
23-1364-14	K-Wire Bender, 1.5/2.5mm, 14 cm
23-5795-22T	Wirecutter TC, 22 cm, for wires up to 2,6 mm
23-5535-18T	Wire Twister Berry, 18,5cm ,7 1/4", straight

Sterilization Container

310x190x130mm
blue (image)

150-5401-30

green

150-5402-30



K-Wire Single Trocar

Single Trocar

Round end
up to 3mm in a pack of ten

INFO: More sizes available upon request

Product Code	\varnothing (mm)	Product Code	\varnothing (mm)	Product Code	\varnothing (mm)
144-1008-10	0.8x100	144-1012-30	1.2x300	144-1025-15	2.5x150
144-1008-15	0.8x150	144-1015-10	1.5x100	144-1025-30	2.5x300
144-1008-30	0.8x300	144-1015-15	1.5x150	144-1030-10	3.0x100
144-1010-10	1.0x100	144-1015-30	1.5x300	144-1030-15	3.0x150
144-1010-15	1.0x150	144-1020-10	2.0x100	144-1030-30	3.0x300
144-1010-30	1.0x300	144-1020-15	2.0x150	144-1035-15	3.5x150
144-1012-10	1.2x100	144-1020-30	2.0x300	144-1035-30	3.5x300
144-1012-15	1.2x150	144-1025-10	2.5x100	144-1040-15	4.0x150

Single Trocar, threaded

Round end, with threaded Tip
up to 3mm in a pack of ten

INFO: More sizes available upon request

Product Code	\varnothing (mm)	threaded	Product Code	\varnothing (mm)	threaded
144-1516-10	1.6x100	negativ	144-1525-15	2.5x150	negativ
144-1518-15	1.8x150	negativ	144-1530-15	3.0x150	negativ
144-1520-15	2.0x150	negativ			

Double Trocar

Up to 3mm in a pack of ten

INFO: More sizes available upon request

Product Code	\varnothing (mm)	Product Code	\varnothing (mm)	Product Code	\varnothing (mm)
144-2008-10	0.8x100	144-2012-10	1.2x100	144-2020-10	2.0x100
144-2008-15	0.8x150	144-2012-15	1.2x150	144-2020-15	2.0x150
144-2008-30	0.8x300	144-2012-30	1.2x300	144-2025-10	2.5x100
144-2010-10	1.0x100	144-2015-10	1.5x100	144-2025-15	2.5x150
144-2010-15	1.0x150	144-2015-15	1.5x150	144-2030-10	3.0x100
144-2010-30	1.0x300	144-2015-30	1.5x300	144-2040-15	4.0x150

Orthopedic Cerclage

Wires 10 meter roll

INFO: More sizes available upon request



Product Code	\varnothing (mm)	Product Code	\varnothing (mm)
143-1000-02	0.2	144-1000-08	0.8
143-1000-03	0.3	144-1000-09	0.9
143-1000-04	0.4	144-1000-10	1.0
143-1000-05	0.5	144-1000-12	1.2
143-1000-06	0.6	144-1000-15	1.5
143-1000-07	0.7		



Special Thanks to
Prof. Björn Meij



C-LOX SPINAL, locking



Cervical Intervertebral Fusion Implant

in cooperation with

Prof. Dr. Franck Forterre, University Bern (Switzerland)

C-LOX has been developed by RITA LEIBINGER in cooperation with Professor Dr. Franck Forterre, Bern University (Switzerland).

For more details please visit:

spinal.leibinger.vet



spinal.leibinger.vet



Surgical Protocol

Surgical application of a new anchor'd intervertebral spacer (C-LOX, Rita Leibinger GmbH & Co. KG, Mühlheim/Danau, Germany) for the treatment of Canine Cervical Spondylomyelopathy (Wobbler Syndrome)

Authors: Dr. Günter Schwarz & Prof. Dr. Franck Forterre

Note: Preoperative radiographs are used to make preliminary selection of spacer and screw sizes. It is advisable but not indispensable to use fluoroscopy while performing the distraction-fusion technique with the C-Lox Cage. Fluoroscopy will provide accurate intraoperative assessment of correct implant and screw size, and of the depth and location of spacer and screw placement.



Place the dog in dorsal recumbency with a fulcrum underneath to support the neck. Avoid overextension. A standard approach to the ventral cervical spine is performed.



The affected disc space is identified and exposed, and a window is cut out of the ventral annulus fibrosus using a beaver blade. The width of this window should be minimally larger than the width of the selected spacer. The vertebral endplates delimit the cranial and caudal borders of the opening. Care must be taken not to penetrate the dorsal part of the annulus during discectomy.

In order to attach the C-LOX Distractor, vertically oriented 2,5 mm holes are drilled into each of the adjacent vertebrae. These holes must be exactly on the midline and should be located in the caudal half of the cranial and in the cranial half of the caudal vertebrae. Penetration depth should at least be 2/3 of the vertebral body depth in order to avoid tilting when distracting the vertebrae. The crista ventralis marks the median plane of the vertebrae but makes it easy to slide off the midline. Preoperative measurements and fluoroscopy will aid in taking care not to enter the spinal canal.



Insert the C-LOX Distractor into the predrilled holes and open its jaws to widen the intervertebral disc space.

The C-LOX Spinal Disc Broaching Curette is used to carefully remove all remnants of the nucleus pulposus. The dorsal part of the annulus fibrosus can be felt as a more dense structure and should be preserved. The exposed end plates are freed from as much connective tissue as possible, but subchondral bone must be fully preserved.



If a considerable amount of nucleus pulposus material is located within the spinal canal, this can be attempted to remove with the help of fine curettes or delicate arthroscopic biopsy forceps.

The suitable size for the C-Lox implant can be estimated pre-operatively on diagnostic imaging. Attach the C-LOX Implantation Placement Rod to the suitable



C-LOX Template and insert it in the intervertebral disc space. Ensure the correct fit. Here again, vertical beam fluoroscopy can be very helpful. If insertion requires energetic forcing or seems to achieve only slight distraction, a slimmer or thicker template should be used.



After establishing optimal fit, the Template is replaced by the corresponding C-LOX Cage. Spikes on the cranial and caudal side will ensure a secure seating of the implant, but can make insertion slightly more difficult compared to the C-Lox Template of the same size. Press the cage firmly down into place.



After proper seating of the C-Lox Cage, the C-Lox Distractor can be removed and the Implantation Placement Rod is removed from the cage. The cage will be secured with locking screws.



Select the drill guide according to the screw Length intended to use. Attach the Drill Guide to the Implant and use the dedicated 2.0mm drill bit to drill the hole for the Locking Cortical Screw . This drill bit forms a unit with the Drill Guide and will create the hole in the vertebral body to guide the self tapping screw. Screw Lengths are selected pre-operatively from measurements on the preoperative radiographs in precise latero-lateral projection. The four Locking Cortical Screw are inserted using the Star-Drive C-Lox Screwdriver. The screws must be well anchored within the vertebral body and must not penetrate the vertebral end plates or the spinal canal. Again, fluoroscopy can be very helpful in achieving optimal screw placement.



Cancellous bone or bone substitutes can be apposed to the ventral surface of the treated disc space.

Close the soft tissues in a routine manner.

C-LOX



14 x 4 x 8 mm

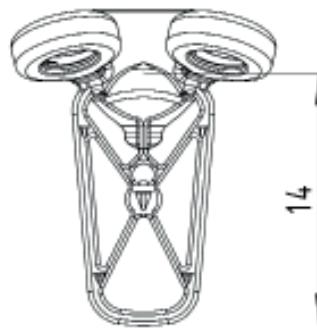
14 x 6 x 8 mm

16 x 4 x 8 mm

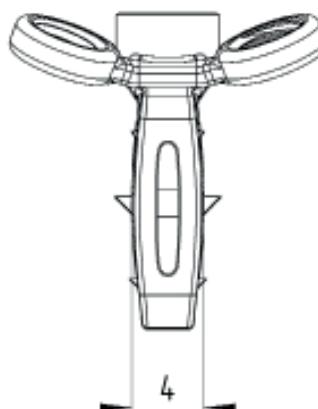
16 x 6 x 8 mm

16 x 5 x 10 mm

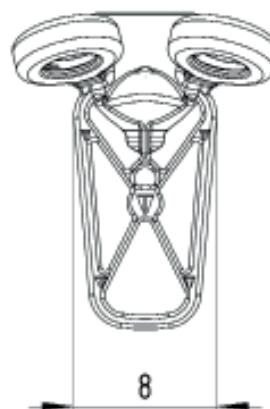
Depth



Thickness



Width



C-LOX Cages

Titanium

Product Code	Dimensions		
	Depth	Thickness	Width
134-0144-08	14 mm	4 mm	8 mm
134-0146-08	14 mm	6 mm	8 mm
134-0164-08	16 mm	4 mm	8 mm
134-0165-10	16 mm	5 mm	10 mm
134-0166-08	16 mm	6 mm	8 mm
134-0167-10	16 mm	7 mm	10 mm
134-0185-10	18 mm	5 mm	10 mm
134-0187-10	18 mm	7 mm	10 mm
134-0206-12	20 mm	6 mm	12 mm
134-0208-12	20 mm	8 mm	12 mm



16 x 7 x 10 mm

18 x 5 x 10 mm

18 x 7 x 10 mm

20 x 6 x 12 mm

20 x 8 x 12 mm



C-LOX Templates

Titanium



Product Code	Dimensions		
	Depth	Thickness	Width
134-9144-08	14 mm	4 mm	8 mm
134-9146-08	14 mm	6 mm	8 mm
134-9164-08	16 mm	4 mm	8 mm
134-9165-10	16 mm	5 mm	10 mm
134-9166-08	16 mm	6 mm	8 mm
134-9167-10	16 mm	7 mm	10 mm
134-9185-10	18 mm	5 mm	10 mm
134-9187-10	18 mm	7 mm	10 mm
134-9206-12	20 mm	6 mm	12 mm
134-9208-12	20 mm	8 mm	12 mm

Locking Self-drilling Cortical Screw

Titanium, Star-Drive Head, self-tapping with three flute cutting edge



Product Code	Total Length	Thread Length
245-427-08	10 mm	8 mm
245-427-10	12 mm	10 mm
245-427-12	14 mm	12 mm
245-427-14	16 mm	14 mm
245-427-16	18 mm	16 mm
245-427-18	20 mm	18 mm
245-427-20	22 mm	20 mm

Screwdriver Handle

Silicone, AO-Connection
sterilizable up to 134°C / 273°F

247-0102-00



Torque Limiting Screwdriver Handle

Torque 3 Nm
Silicone, AO, sterilizable up to 134°C / 273°F

247-0104-00



C-LOX Screwdriver Shaft 2.7

Star-Drive, 135mm length, AO

134-0800-27



C-LOX Locking Drill Guides

Stainless Steel

for 2.0mm drills, for 2.7mm screws



Product Code	Description
164-0027-10	10 mm working end
164-0027-12	12 mm working end
164-0027-14	14 mm working end

Product Code	Description
164-0027-16	16 mm working end
164-0027-18	18 mm working end
164-0027-20	20 mm working end

C-LOX Drill

Product Code	Ø (mm)	Connection
148-0081-20	2.0	AO QC
148-0081-25	2.5	AO QC



C-LOX Spinal Curette

22cm

134-0700-22



C-LOX Implantation Placement Rod

22 cm

134-0750-22



C-LOX Distractor

90mm deep, 90° curved

134-0750-16



C-LOX Set

C-LOX Set

Contains:

Sterilization Tray with Lid
 1 of each Spinal Cage
 1 of each Seizing Cage
 2 Placement Rods
 Spinal Curette
 Screwdriver Shaft
 Screwdriver Handle Silicone
 1 of each Locking Drill Guide
 2 Drills (2.0/2.5mm)
 5 of each Screw (10, 12, 14, 16, 18, 20mm)
 (30 pcs. total)

134-0100-01



C-LOX Set Upgrade on new version

Upgrade for existing set

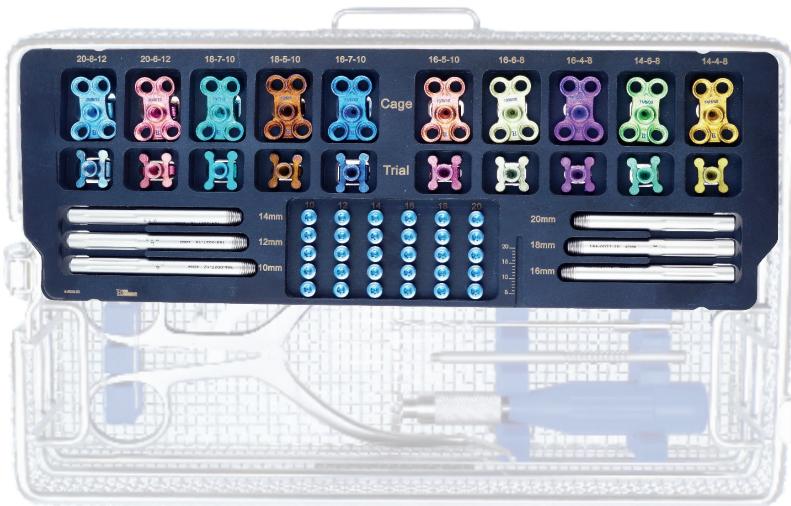
Contains:

1 of each Spinal Cage
 1 of each Seizing Cage
 5 of each Screw (10, 12, 14, 16, 18, 20mm)
 (30 pcs. total)
 Screwdriver Shaft
 Bone Drill 2.0mm
 Tray Insert for existing Box

134-0100-02

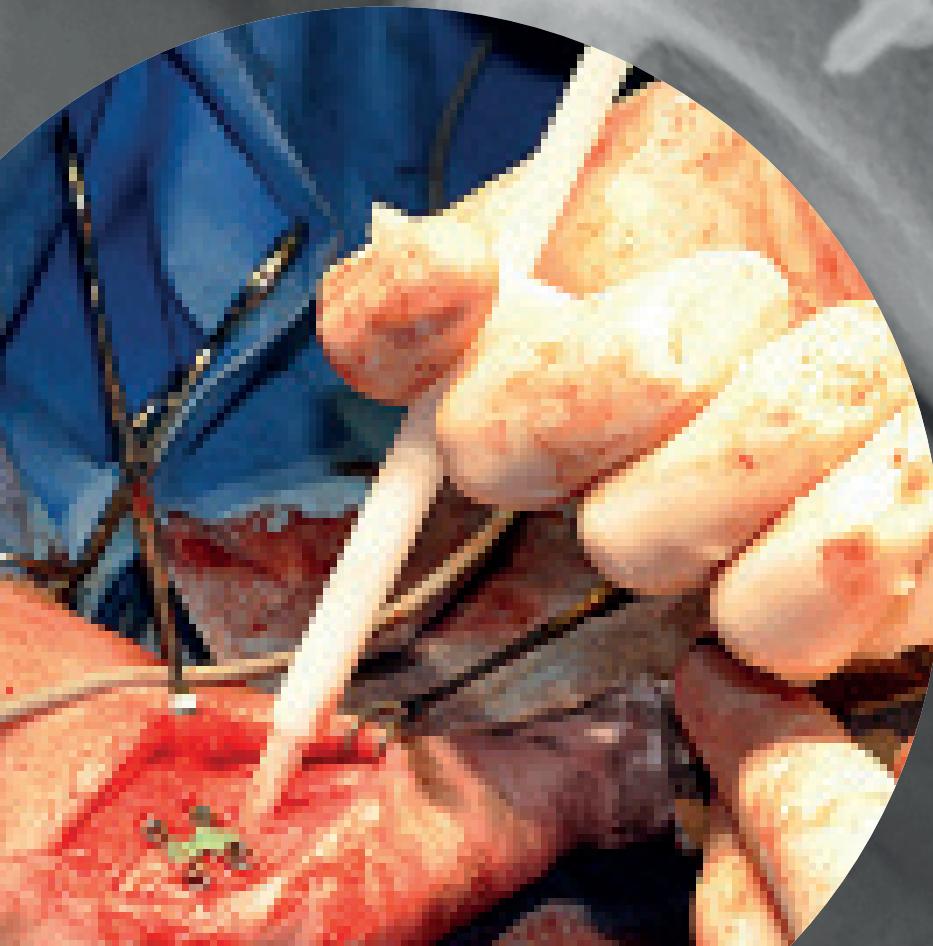


spinal.leibinger.vet



LeiLa
SERIES

RITA LEIBINGER LABS



Special Thanks to
Siegfried Wilhelm



LeiLA BONE MATTER

RITA
LEIBINGER
MEDICAL

Hydroxyapatitepaste

Bone Matter

Bone Paste

LeiLa REDY Hydroxyapatitpaste

1 x 2.5 g syringe, sterile

synthetic resorbable Bone Substitute, Hydroxyapatite

132-9025-00



LeiLa REDY ONEg Hydroxyapatitpaste

3 x 1 g syringe, sterile

synthetic resorbable Bone Substitute, Hydroxyapatite

140-2011-00



LeiLa Bone Matter

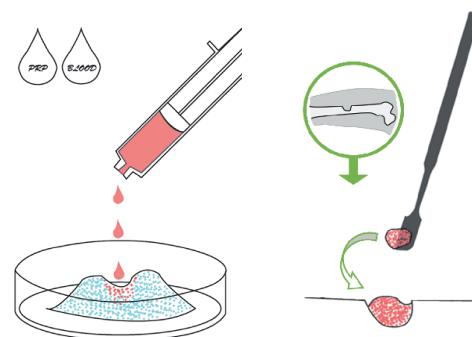
99,9% tricalcium phosphate Economic, 5x1 gram-package, sterile

140-1011-00



How you use it...

1. Open the pouch and remove the vial. Place LeiLa Bone Matter in a proper recipient.
2. Impregnate LeiLa Bone Matter with patient's blood or autologous bone marrow. PRP can also be used.
3. Mix everything well, using a spatula.
4. Place LeiLa Bone Matter into the bone defect. LeiLa Bone Matter should be put in contact with cancellous tissue. The bone surface must be freshened and slightly bleeding.
5. The filling must be complete with a slight impaction.
6. Close the wound. The wound closure must be complete and airtight. LeiLa Bone Matter is highly bioactive and undergoes total resorption within 1 to 6 months. It is replaced by new bone tissue during the healing process.



About Bone Matter

- Porous synthetic ceramic
- Composed of 99,9% β -Tricalcium Phosphate (β -TCP)
- Designed for the filling of bone voids or defects
- High Interconnected Porosity
- Excellent Osteointegration and Total Vascularization of the implant.

Produkt information please find Online



POWER TOOLS

**RITA
LEIBINGER**
MEDICAL

Advanced function controls

- High speed and oscillating drilling
- Low speed drilling, screw driving and tapping
- Torque limiting for screw driving
- Forward and reverse triggers
- Mode selector button with mechanical safety lock



Hand piece

DE SOUTTER V-MBQ-708

0-1350 rpm

Twin Trigger

compatible with all batteries on page 122

125-5000-00

Compatible Batteries	Battery Housing	Battery Shield	Battery Charger
125-5006-00 DE SOUTTER AB-703 Large Battery	125-5007-00 DE SOUTTER V-AH-703	125-5008-00 DE SOUTTER AS-703	125-5060-00 DE SOUTTER BC-708
125-5055-00 DE SOUTTER AB-703 Small Battery	125-5056-00 DE SOUTTER V-AH-703	125-5057-00 DE SOUTTER AS-703	125-5059-00 DE SOUTTER BC-707
125-5070-00 DE SOUTTER SB-703 Small Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706
125-5071-00 DE SOUTTER SB-704 Large Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706

Jacobs chuck

DE SOUTTER V-DQ-708

0.5 - 6.4 mm (1/4") keyed

speed (rpm) 0 - 1350

cannulation Ø mm 4.4



125-5001-00

AO quick-connection chuck

DE SOUTTER V-DQ-708

small A.O Synthes/ASIF

speed (rpm) 0 - 1350

cannulation Ø mm 2.1



125-5002-00

Sagittal saw adapter

DE SOUTTER V-NQ-707
speed (cpm) 0 - 20000

125-5003-00

**TPLO saw adapter**

DE SOUTTER V-OQ-708
oscillating saw Uses Slocum blades
speed (cpm) 0 - 13500

125-5004-00

**Pin driver**

DE SOUTTER V-WQ-707
0.7 - 4.0 mm wire capacity
speed (rpm) 0 - 1350

125-5005-00



DE SOUTTER V-MBQ-807

Straight Case Features

- High speed and oscillating drilling
- Uses same motor from Orthodrive Lite and a reduced sized controller
- Modular version is the same weight as MBQ-708 handpiece (713g)
- Power is around 7% less than MBQ-707/8 and stall torque around 10% less
- Unique twin trigger design allows the tool to be operated in multiple ways depending on procedure type and surgeon preference

Straight Case Modular Handpiece

DE SOUTTER V-MBQ-807

0-1350 rpm

Twin Trigger

125-5020-00



Compatible Batteries		Battery Housing	Battery Shield	Battery Charger
125-5006-00	DE SOUTTER AB-703 Large Battery	125-5007-00 DE SOUTTER V-AH-703	125-5008-00 DE SOUTTER AS-703	125-5060-00 DE SOUTTER BC-708
125-5055-00	DE SOUTTER AB-703 Small Battery	125-5056-00 DE SOUTTER V-AH-703	125-5057-00 DE SOUTTER AS-703	125-5059-00 DE SOUTTER BC-707
125-5070-00	DE SOUTTER SB-703 Small Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706
125-5071-00	DE SOUTTER SB-704 Large Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706



Sample Assemblies

For DE SOUTTER V-MBQ-807 Straight Case Modular Handpiece

125-5055-00 Small Battery DE SOUTTER AB-703
 125-5056-00 Battery Housing DE SOUTTER V-AH-703



125-5006-00 Large Battery DE SOUTTER AB-703
 125-5007-00 Battery Housing DE SOUTTER V-AH-703



DE SOUTTER V-MBU-470

AO quick-connect clamp

Advanced function controls

- High speed and oscillating drilling
- Low speed drilling, screw driving and tapping
- Torque limiting for screw driving
- Forward and reverse triggers
- Mode selector button with mechanical safety lock



Hand piece

DE SOUTTER V-MBU-470

0-1350 rpm

Twin Trigger

compatible with all batteries on page 122

125-5050-00

Compatible Batteries	Battery Housing	Battery Shield	Battery Charger
125-5006-00 DE SOUTTER AB-703 Large Battery	125-5007-00 DE SOUTTER V-AH-703	125-5008-00 DE SOUTTER AS-703	125-5060-00 DE SOUTTER BC-708
125-5055-00 DE SOUTTER AB-703 Small Battery	125-5056-00 DE SOUTTER V-AH-703	125-5057-00 DE SOUTTER AS-703	125-5059-00 DE SOUTTER BC-707
125-5070-00 DE SOUTTER SB-703 Small Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706
125-5071-00 DE SOUTTER SB-704 Large Battery (sterilizable)	-	-	125-5072-00 DE SOUTTER BC-706

Jacobs chuck

DE SOUTTER V-DU-470

0.5 - 4.0 mm (5/32") Keyed

speed (rpm) 0 - 1350

cannulation Ø mm 4.1



125-5051-00

AO quick-connection chuck

DE SOUTTER V-DU-470

small A.O Synthes/ASIF

speed (rpm) 0 - 1350

cannulation Ø mm 2.1



125-5052-00

Sagittal saw adapter

DE SOUTTER V-NU-470
speed (cpm) 0 - 20500

125-5053-00

**Pin driver**

DE SOUTTER V-WU-471
0.7 - 4.0 mm capacity
speed (rpm) 0 – 1350

125-5054-00



Aseptic Batteries

Li-Ion Batteries

ASEPTIC BATTERIES



Large battery

DE SOUTTER AB-703
Battery pack 14,6 V
Capacity (mAh) 2000
for charger 125-5060-00

125-5006-00



Battery housing

DE SOUTTER V-AH-703
for Battery 125-5006-00
for charger 125-5060-00

125-5007-00



Battery shield

DE SOUTTER AS-703
for Battery 125-5006-00
for charger 125-5060-00

125-5008-00



Small battery

DE SOUTTER AB-703
Battery pack 10,95 V
Capacity (mAh) 2000
for charger 125-5059-00

125-5055-00



Battery housing

DE SOUTTER V-AH-703
for Battery 125-5055-00
for charger 125-5059-00

125-5056-00



Battery shield

DE SOUTTER AS-703
for Battery 125-5055-00
for charger 125-5059-00

125-5057-00

Why choose Lithium Ion battery technology?

De Soutter Medical Lithium Ion batteries offer the surgical team and sterile services a number of tangible benefits over conventional battery technology, including:

- Li-Ion technology improves battery "capacity to weight" ratio by around 100% when compared to NiMH or NiCad chemistries
- Significantly extends the usable run time of the power tool
- Eliminates 'memory effect' normally associated with other battery types
- De Soutter Medical Li-Ion technology readily withstands repeated machine washing and autoclaving
- Unique fuel gauge incorporated within De Soutter Medical Li-Ion batteries allows the surgical team to instantly assess the battery capacity both before and during use

STERILE BATTERIES

**Large battery**

sterilizable
DE SOUTTER SB-704
13.2 Volt, 2500 mAh
for charger 125-5072-00, BC-706

125-5071-00**Small battery**

sterilizable
DE SOUTTER SB-703
13.2 Volt 1100 mAh
for charger 125-5072-00, BC-706

125-5070-00

BATTERY CHARGERS

DE SOUTTER BC-706 SINGLE BAY CHARGER

with 1 slot, for Battery Types
SB-703 (Product Code 125-5070-00) and
SB-704 (Product Code 125-5071-00)

125-5072-00

*Battery not included

DE SOUTTER BC-707 SINGLE BAY CHARGER

with 1 slot
for Battery Type AB-703 (Product Code 125-5055-00)

125-5059-00

*Battery not included

DE SOUTTER BC-708 SINGLE BAY CHARGER

with 1 slot
for Battery Type AB-704 (Product Code 125-5006-00)

125-5060-00

TPLO Saw Blades

with triangle connection

Leibinger TPLO Sawblades are coated with Titanium Nitride (TiN). Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field.

Product Code	Width
102-2100-09	09 mm
102-2100-12	12 mm
102-2100-15	15 mm
102-2100-18	18 mm
102-2100-21	21 mm
102-2100-24	24 mm
102-2100-27	27 mm
102-2100-30	30 mm
102-2100-33	33 mm



Drills with Round Shaft



Product Code	Ø (mm)	Length
148-0080-11	1.1	45/30 mm
148-0080-15	1.5	70/30 mm
148-0080-18	1.8	125/25 mm
148-0080-20	2.0	85/70 mm
148-0080-25	2.5	95/80 mm

self-centred

Product Code	Ø (mm)	Length
148-0080-27	2.7	85/70 mm
148-0080-30	3.0	100/50 mm
148-0080-32	3.2	180/165 mm
148-0080-35	3.5	180/165 mm
148-0080-45	4.5	180/165 mm

Drills with AO Shaft



Product Code	Ø (mm)	Length
148-0081-11	1.1	60/35 mm
148-0081-15	1.5	85/60 mm
148-0081-18	1.8	125/25 mm
148-0081-20	2.0	100/75 mm
148-0081-25	2.5	110/85 mm

self-centred

Product Code	Ø (mm)	Length
148-0081-27	2.7	125/100 mm
148-0081-30	3.0	100/85 mm
148-0081-32	3.2	145/120 mm
148-0081-35	3.5	110/85 mm
148-0081-45	4.5	195/170 mm

Sawblades - „Samoy Rapid-Cut“

extreme cutting precision optimum performance protection against wear and tear titanium nitride*



Colibri



Aesculap



Linvatec-Hall



AO/Synthes



DeSoutter



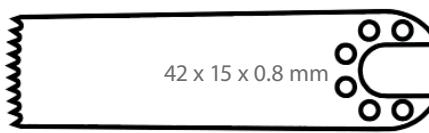
TERRIER



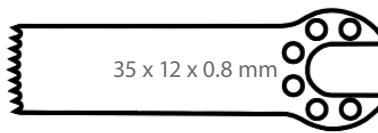
HORNET



50 x 20 x 0.8 mm



42 x 15 x 0.8 mm



35 x 12 x 0.8 mm



27 x 10 x 0.8 mm

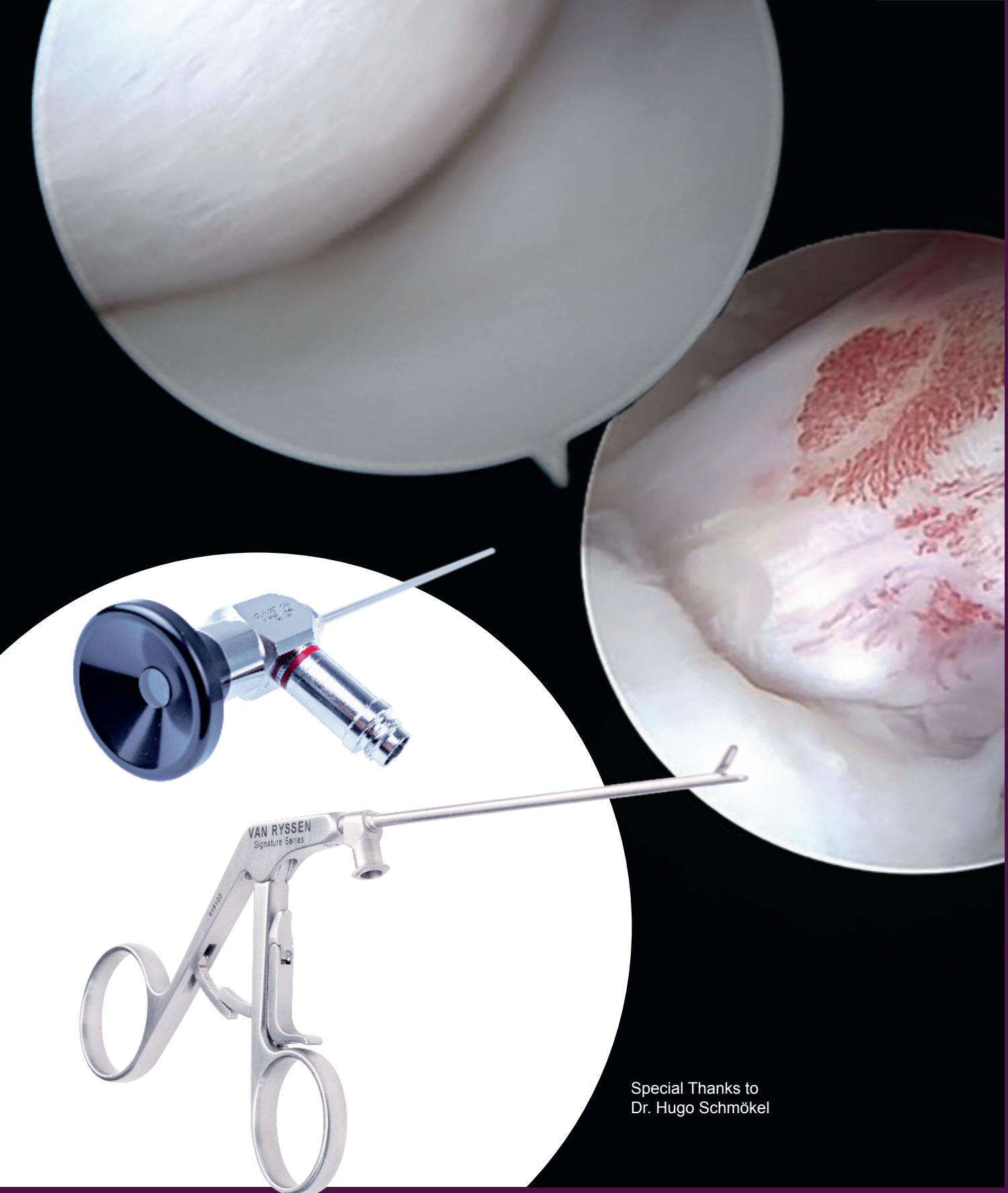
Standard	Length x Width x Cutting Thickness			
for Connection	50 x 20 x 0.8 mm	42 x 15 x 0.8 mm	35 x 12 x 0.8 mm	27 x 10 x 0.8 mm
Colibri	102-1420-50	102-1414-42	102-1411-35	102-1411-27
Aesculap		102-1714-42	102-1711-35	102-1711-27
Linvatec-Hall	102-1520-50	102-1514-42	102-1511-35	102-1511-27
AO/Synthes	102-1620-50	102-1614-42	102-1611-35	102-1611-27
	50 x 19.8 x 0.7 mm	46 x 20 x 0.8 mm	25 x 10 x 0.6 mm	27 x 6.4 x 0.6 mm
DeSoutter	102-16520-50	102-16515-46	102-16510-25	102-16506-27
		40 x 16 x 0.7 mm	40 x 12 x 0.7 mm	
TERRIER		102-1916-40	102-1912-40	
		18 x 6 x 0.3 mm	24 x 9 x 0.3mm	
HORNET		102-2026-18	102-2026-24	

„Petite“	Product Code	Length x Width x Cutting Thickness
Colibri	102-1211-30	30x11x0.6mm
Aesculap	102-1212-25	25x10x0.7mm
Linvatec-Hall	102-1213-25	25.5x9.4x0.65mm
AO/Synthes	102-1210-25	25x10x0.6mm

*Titanium Nitride (TiN) is one of the hardest and toughest materials in the medical field. TiN coated Saw-Blades lasts up to 5 times longer.







Special Thanks to
Dr. Hugo Schmökel

Small Animal ARTHROSCOPY

RITA
LEIBINGER
MEDICAL



About Arthroscopy



arthroscopy.leibinger.vet

Prof. Dr. Bernadette Van Rysen

Dep. of Medical Imaging & Small Animal Orthopaedics

Faculty of Veterinary Medicine

GHENT UNIVERSITY

In the last few decades, arthroscopy in small animals has known a rapid expansion because of some important advantages. This minimally invasive technique allows a wide and detailed inspection of the intra-articular structures and their pathologic changes because of the enlargement by the arthroscope and camera. Fibrillation and superficial erosions of cartilage, fibers of (partially) ruptured ligaments, and the structure of synovial villi are details that can be evaluated during arthroscopy. These possibilities allow an accurate diagnosis and a better understanding of the intra-articular anatomy and pathology. Arthroscopy can be used to demonstrate discrete or early lesions without radiographic evidence. It allows a second look in joints that have been treated unsuccessfully via arthrotomy or arthroscopy.

Several lesions can be treated via arthroscopy. In case of bilateral lesions, treatment of both joints can be performed during one anesthesia. Because of the limited surgical trauma, the postoperative care and risk for complications are minimal.

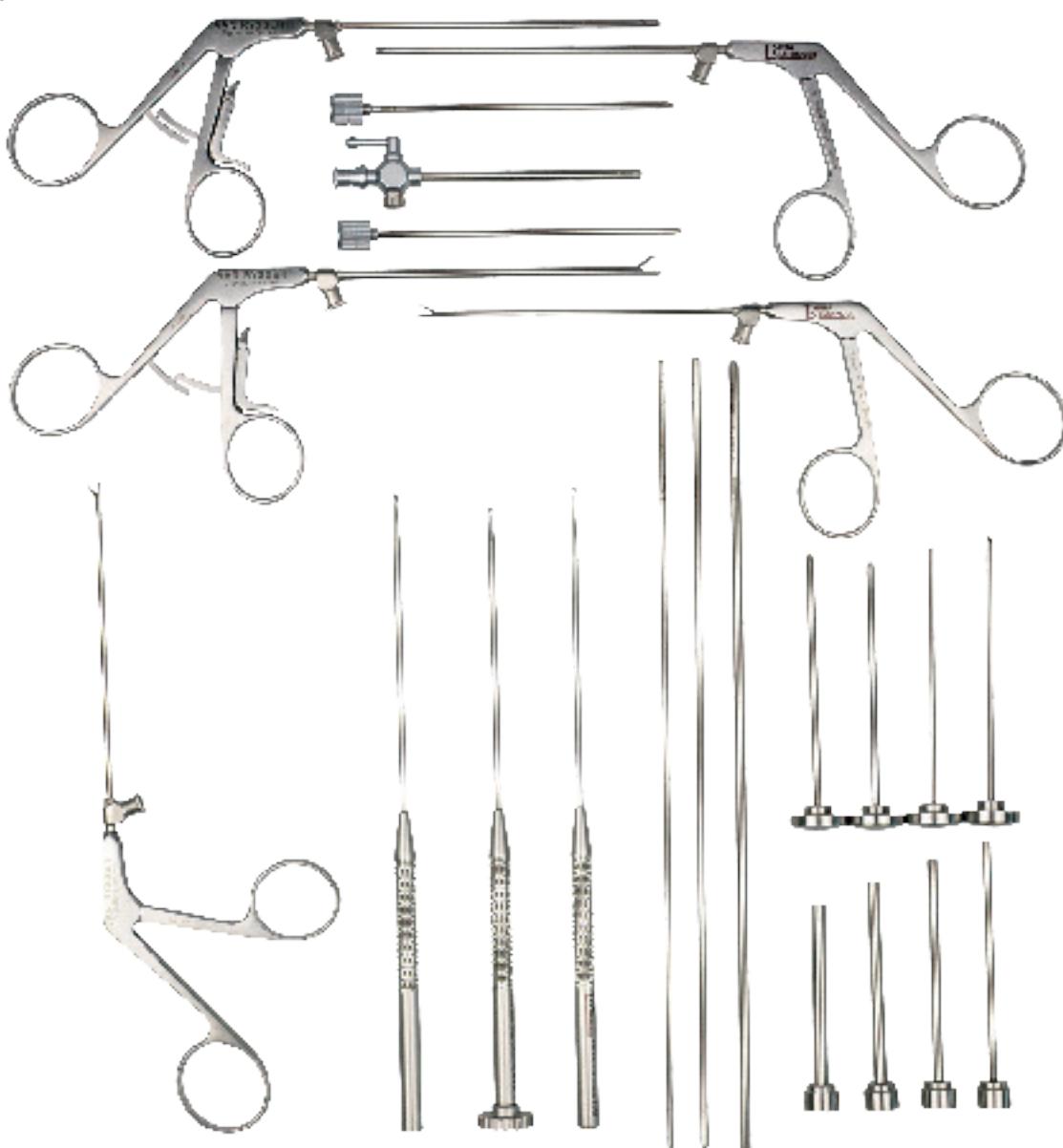
A prerequisite for successful arthroscopic interventions is good quality equipment to clearly visualize the intra-articular structures. It is also important to work with the correct instruments: they should be small yet strong and have an adapted shape.

Finally, training and exercise is needed before sufficient experience is reached to apply arthroscopy in the small-sized joints and to adapt a different way of surgical handling.

BERNADETTE VAN RYSEN

Van Rysen Arthroscopy Set

111-0016-00



Product Code	Description
165-0100-21	Marking Rod 2.1 mm, working length 250 mm
165-0100-27	Marking Rod 2.7 mm, working length 250 mm
165-0100-34	Marking Rod 3.4 mm, working length 250 mm
162-0112-02	Grasping Forcep Alligator, Ø 2.0 mm, with fine serration, with flush port, working length 110 mm
162-0146-02	Biopsy Spoon, with flush port, 110 mm working length, sharp, Ø 2.0 mm
162-0169-30	Grasping Forcep, with spoon, 1x2 teeth, cross serrated, Ø 3.0 mm, with flush port, working length 110 mm
162-0182-27	Hook Scissors, Ø 2.7 mm, with flush port, working length 110 mm
162-0197-27	Biopsy Spoon, sharp, Ø 2.7, cross serrated, with flush port, working length 110 mm, with ratchet
165-0110-15	Hook Probe, 1.5 mm
165-0110-23	Ball Head Burr, 2.3 mm
165-0120-15	Spoon Curette, small model, 1.5 mm
165-0150-32	Rinse Cannula, complete with Trocar/Obturator, 3.2 mm, with Stopcock
165-0100-00	4 Sheaths, 2.2 / 2.8 / 3.5 / 4.2 mm, 2 Trocar pyramid tip, 2 Obturators round



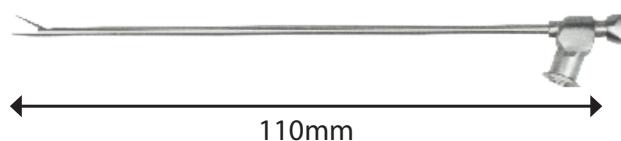
Van Ryssen Series

Van Ryssen Series

Designed in cooperation with Prof. Dr. Bernadette van Ryssen



1. Special Length



Length and diameter were adapted for smaller joints, which provides ideal access to knee, elbow and shoulder.

2. Flush Port



The shaft of the instrument can be rinsed out easily with the LUER Lock shadow-free flush connection. This will increase the lifetime and accuracy of the instrument.

3. Special Ratchet



Innovative ratchet mechanism for quick switch between ratchet and ratchet-free working.

Grasping Forcep Alligator

Hook Scissors

Biopsy Spoon Forceps

Grasping Forcep Alligator

Fine serration, with flush port
2.0 mm, 110 mm Shaft

162-0112-02



Hook Scissors

Sharp, with flush port
2.7 mm, 110 mm Shaft

162-0182-27



Biopsy Spoon Forceps

Sharp, with flush port
2.0 mm, 110 mm Shaft

162-0146-02



Biopsy Grasping Forceps

With spoon, 1x2 teeth, with ratchet, flush port
3.0 mm, 110 mm Shaft

162-0169-30



Biopsy Spoon Forceps

Cross serrated, with ratchet, flush port
2.7 mm, 105 mm Shaft

162-0197-27



VAN RYSEN Signature Series

RITA LEIBINGER MEDICAL presents a new ergonomic grip design.



1. Small Working Ends



The size of the working ends has been reduced. This enables fine working especially in small joints.

2. New Grip Design



The new anti-slip grip design is ergonomically well balanced and provides an easy control of the working end. This results in a fatigue-free surgery.

3. Mushroom Handle for Ball Head Burr



With the redesign of the mushroom handle in combination with a new grip design, working with the ball head burr will allow time saving and more accuracy.

Hook Probe

Ball Head Burr

Knives

Hook Probe

Product Code	Description
165-0110-10	1.0 mm
165-0110-15	1.5 mm



Ball Head Burr

2.3 mm

165-0110-23



Spoon Curette

Product Code	Description
165-0120-15	1.5 mm
165-0120-30	2.7 mm



Banana Knife

2.5x12 mm

165-0130-00



Hook Knife

2.2 mm

165-0130-22



Elevator

Penfield Style, small

2.5 mm

165-0140-00



Curette

2.7 mm with hole



Meniscus Knife

2.5 mm

165-0130-25



Arthroscopy Instruments

Standard Instrument, 2.0mm

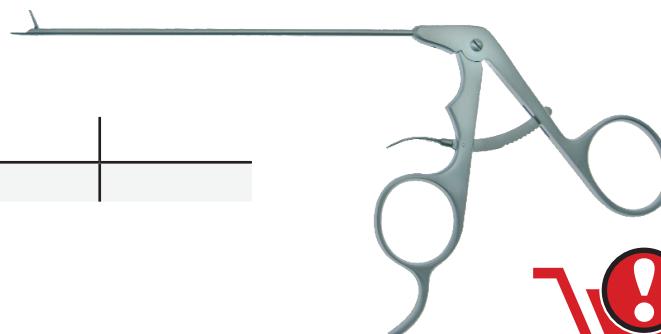
Product Code	Description
162-0150-11	Hook Scissors, Ø 2.0mm shaft, 11cm long



ATTENTION: only while stocks last.

Standard Instrument, 2.7mm

Product Code	Description
162-0190-27	Hook Punch Forceps, Ø 2.7mm, 12cm long



ATTENTION: only while stocks last.

Standard Instrument, 3.4mm

Product Code	Description
162-0190-34	Hook Punch Forceps, 3.4mm, straight, with scoop, 15cm long



ATTENTION: only while stocks last.

Standard Instrument with knurled handle (\varnothing 4.0mm)



Meniscotome

5.0 mm

160-2402-00



Banana-Knife

160-2404-00



Smillie-Meniscotome

3mm

160-2408-00



Meniscotome

7.0mm

160-2413-00



Hook-Probe

graduated, 3.5mm

160-2415-00



Sickle-Knife

160-2418-00



Meniscus Rasp

fine

160-2420-00



Meniscus Rasp

coarse

160-2421-00

„Handle“
knurled

Hook Knife

fine

160-2401-00

ATTENTION: only
while stocks last.

Hook Probe

Meniscotome

Knife toothed

Standard Instrument with interchangeable handle



Handle

125mm

160-2600-00

sold separately



Spoon Ø 3.0mm

curved, 30°

160-2606-00



Meniscotome

Smillie 7.0mm

160-2613-00



Knife, toothed

str.

160-2615-00



Sickle-Knife

160-2618-00



Hook-Knife

3.0mm, 90°

160-2619-00



ATTENTION: only
while stocks last.

Standard Instrument with solid triangular handle



Handle

solid triangular



Bajonet-Knife

160-2503-00



Banana-Knife

smooth

160-2505-00



Ring-Curette

 $\varnothing 3.0\text{mm}, 30^\circ$

160-2507-00



Hook-Probe

5.0mm, graduated

160-2510-00



Knife, toothed

3.0mm, str.

160-2515-00



ATTENTION: only while stocks last.

Arthroscopes

Arthroscope

Optics

Autoclavable up to 134°C / 273°F

Product Code	Description
● 162-0016-30	2.0 mm / 110 mm / 30° Optic
▲ 162-0017-30	2.4 mm / 96 mm / 30° Optic
■ 162-1124-30	2.4 mm / 110 mm / 30° Optic
★ 162-0013-30	2.7 mm / 110 mm / 30° Optic
✗ 162-0018-30	2.7 mm / 187.5 mm / 30° Optic



Shaft

Product Code	Description
● 162-0021-20	2.0 mm / 110 mm / 30°, 1 stop-cocks
▲ 162-0031-65	2.4 mm / 96 mm / 30°, 1 stop-cocks
■ 162-1131-65	2.4 mm / 110 mm / 30°, 1 stop-cocks
★ 162-0021-30	2.7 mm / 110 mm / 30°, with stop-cock
✗ 162-0021-45	2.7 mm / 187.5 mm / 30°, with stop-cock



Trocar

Product Code	Description
● 162-0035-03	2.0 mm / 110 mm, sharp
▲ 162-0035-22	2.4 mm / 96 mm, sharp
■ 162-1135-22	2.4 mm / 110 mm, sharp
★ 162-0035-14	2.7 mm / 110 mm, sharp
✗ 162-0035-18	2.7 mm / 187.5 mm, sharp



Obturator

Product Code	Description
● 162-0036-03	OD 2.0 mm / 110 mm, blunt
▲ 162-0036-22	OD 2.4 mm / 96 mm, blunt
■ 162-1136-22	OD 2.4 mm / 110 mm, blunt
★ 162-0036-14	OD 2.7 mm / 110 mm, blunt
✗ 162-0036-18	OD 2.7 mm / 187.5 mm, blunt



Sterilization Storage System

Includes

- Sterilization Basket Standard with Lid
- Sterilization Rack for Arthroscopy Ringhandle Instrument
- Sterilization Insert Rack for Arthroscopy Hand Instrument
- Sterilization Insert Rack for Arthroscopy Flush/Rinse Instrument
(instruments not included)

165-5003-00



www.LEIBINGER-MEDICAL.com



Sterilization Container

310x190x130mm
blue (image)

150-5401-30

green

150-5402-30



Arthroscopy Trocar Set

Rinse Cannula Set

Mini Lambotte Osteotome

Arthroscopy Trocar Set

4 Sheaths, 2 Trocar pyramid tip, 2 Obturators

165-0100-00



Rinse Cannula Set

Complete with Trocar/Obturator and Stopcock
3.2 mm

165-0150-32



Marking Rods

Product Code	Description
165-0100-21	2.1 mm
165-0100-27	2.7 mm
165-0100-34	3.4 mm

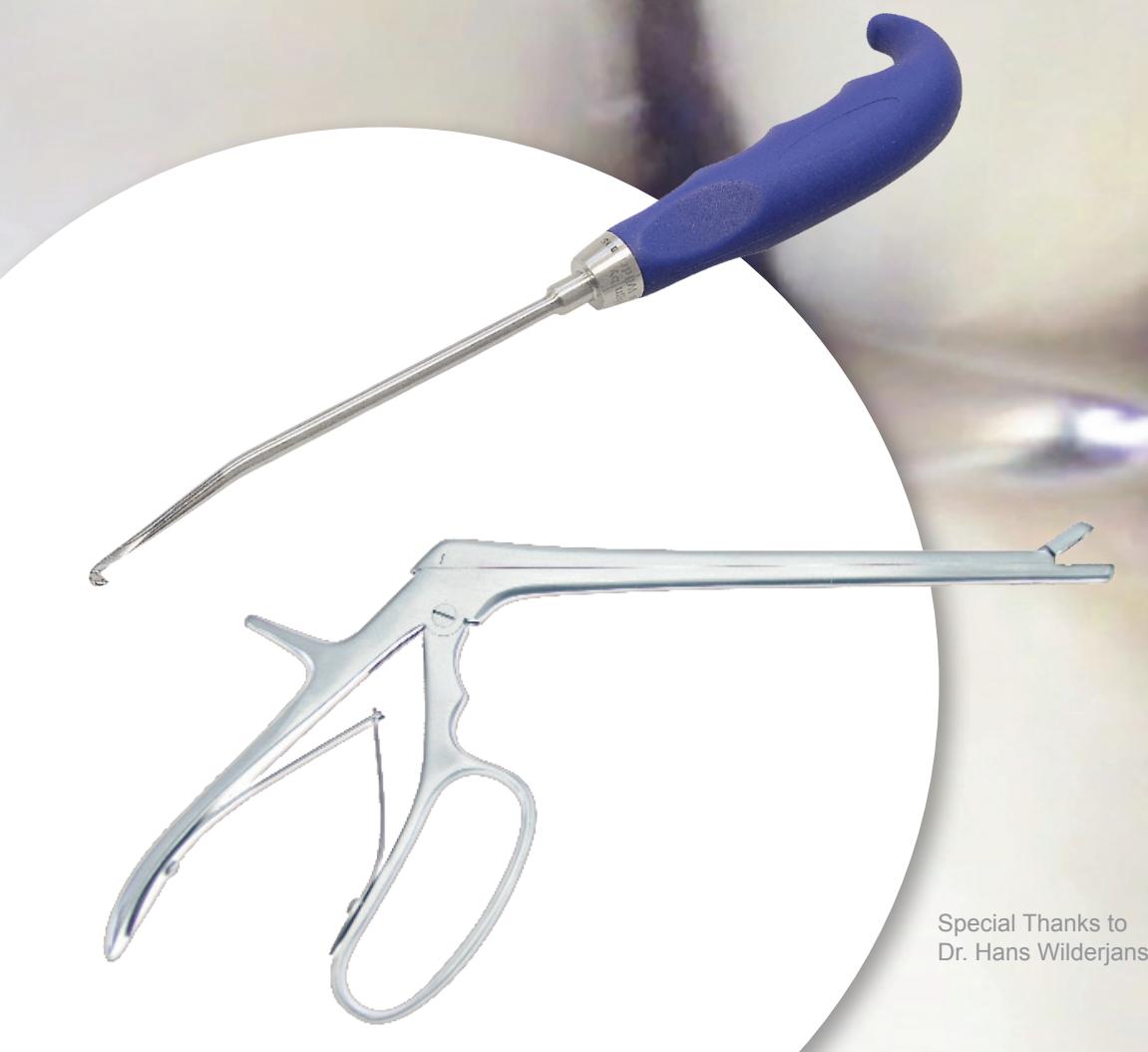


Mini Lambotte Osteotome

12.5 m

Product Code	Description
23-3805-12	3.0 mm
23-3806-12	4.0 mm
23-3807-12	6.0 mm





Special Thanks to
Dr. Hans Wilderjans

Equine ARTHROSCOPY

RITA
LEIBINGER
MEDICAL



Curved Hook Knife

Curved Hook Knife

Design by Dr. Hans Wilderjans

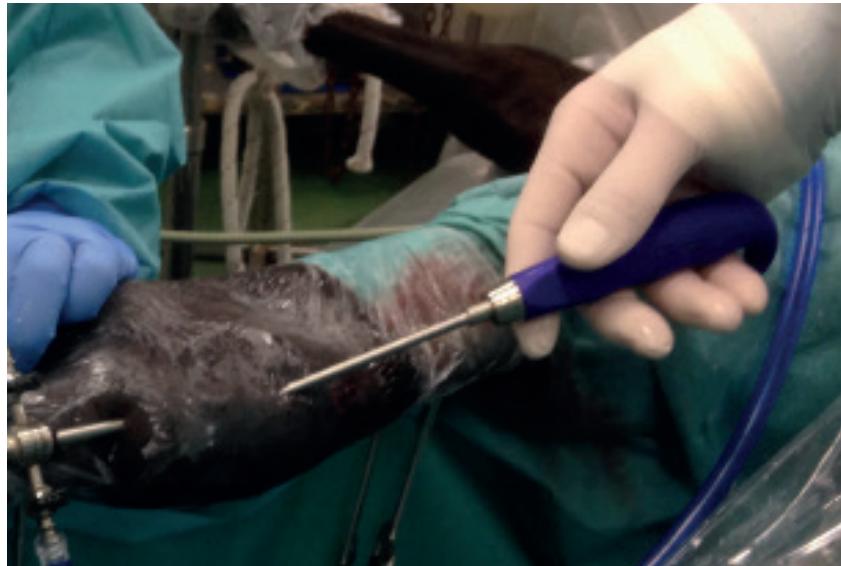
163-200-20**Indication:**

Chronic tenosynovitis of the digital flexor tendon sheath with thickening and constriction of the palmar annular ligament.

Goal:

Section of a thickened and constricted annular ligament using a tenoscopic approach

This knife is specially designed to facilitate easy cutting of the palmar annular ligament in cases of chronic tenosynovitis of the digital flexor tendon sheath in the horse.

**Specifications**

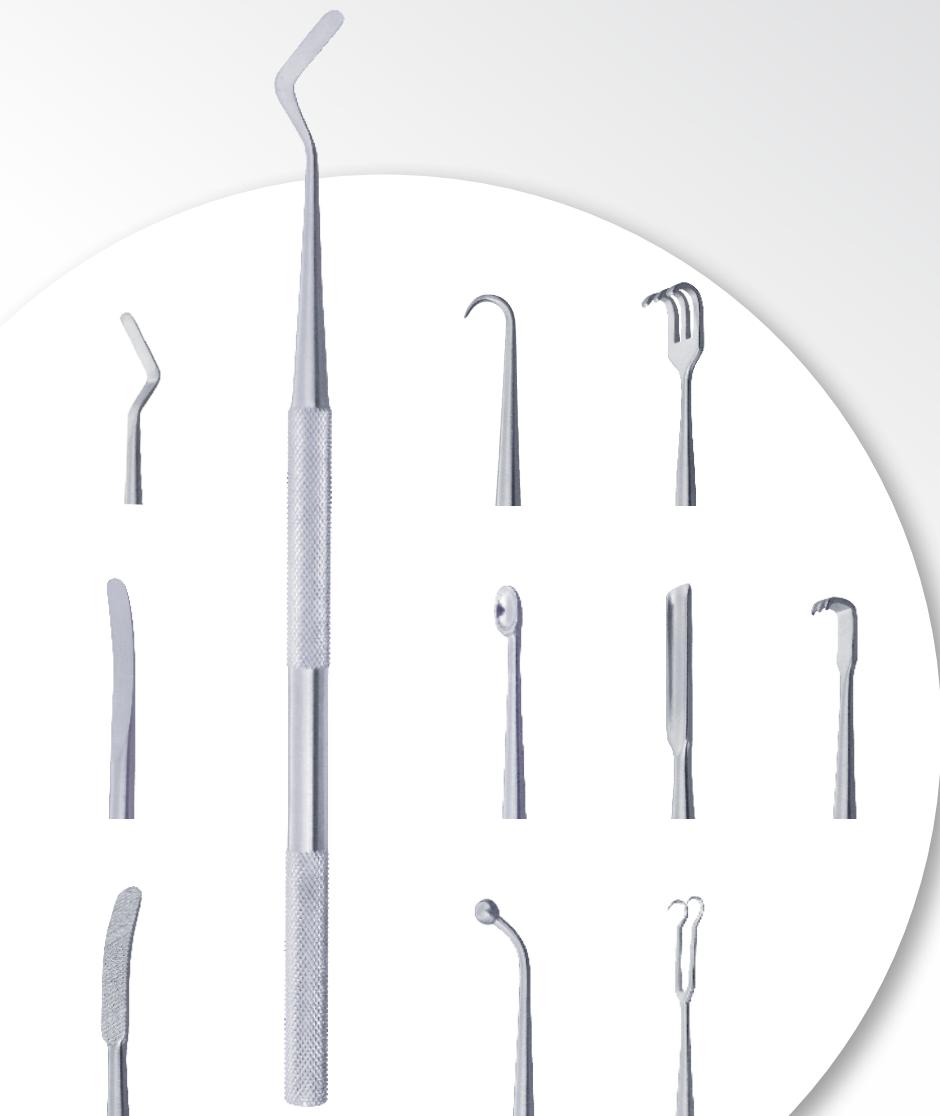
- Curved shaft and bigger hook to facilitate good grip and deep cut in thickened ligaments
- New handle will facilitate accurate placement in hand
- Sharp blade ensures easy cutting in firm chronic thickened ligament





Rita's dog Stella.

Micro Surgery



INSTRUMENTS

**RITA
LEIBINGER**
MEDICAL





Original Size (15 cm)

Rita Leibinger Medical is proud to present the latest development (advancement) in orthopedic instrument technology. With our continuous development of specialty lines of instruments we want to introduce to you this new line of Small Bone Orthopedic Instrument.

The **Small Bone Orthopedic Instrument** are offered in 72 various Instrument, and will offer surgeons the choice to create their own SBOI Set. We offer the SBOI Sterilization Tray for 5 – 10 and 20 Instrument.

Bone Lever

Curved up, 3 mm tip



170-1038-03

Bone Lever

Curved side, 3mm tip



170-1037-03

Bone Hook

Sharp 1 prong



170-1170-01

Bone Hook

Blunt 1 prong



170-1225-07

Langenbeck

Langenbeck Retractor



Product Code	Description
170-1235-06	10x6 mm
170-1236-04	11x4 mm

Periosteal Elevator

Periosteal Elevator



Product Code	Description
170-1025-02	slight cvd. 2mm tip
170-1029-06	slight cvd, 6mm tip
170-1030-07	slight cvd, 7mm tip
170-1031-08	slight cvd, 8mm tip

Bone Curette

Gouge

Bone File

Bone Curette

Bone Curette

Product Code	Description
170-1040-02	2 mm
170-1045-03	3 mm



Gouge

Product Code	Description
170-1050-04	4 mm
170-1055-05	5 mm



Bone File

Straight, fine

Product Code	Description
170-1082-02	2 mm tip
170-1083-03	3 mm tip
170-1084-04	4 mm tip
170-1085-05	5 mm tip
170-1086-06	6 mm tip

Product Code	Description
170-1087-07	7 mm tip
170-1088-08	8 mm tip
170-1090-10	10 mm tip
170-1092-12	12 mm tip



Bone File

Curved, coarse

Product Code	Description
170-1114-04	4 mm wide, straight, fine
170-1115-06	6 mm wide, straight, fine
170-1120-06	6 mm wide, straight, fine



Bone File

Curved, fine

Product Code	Description
170-1124-04	4 mm wide, curved, fine
170-1125-06	6 mm wide, curved, fine



Bone Awl
Bone Packer
Bone Tamper
Joseph Hook
Bone Awl

Product Code	Description
170-1135-05	5 mm tip
170-1137-25	2,5 mm tip


Bone Packer

Ball tip

Product Code	Description
170-1155-02	2 mm ball tip
170-1156-03	3 mm ball tip
170-1157-04	4 mm ball tip
170-1158-05	5 mm ball tip


Bone Tamper

Round Handle, 15 cm

Product Code	Description
170-1140-01	Bone Tamper, 1 mm tip
170-1142-02	Bone Tamper, 2 mm tip
170-1145-03	Bone Tamper, 3 mm tip
170-1146-04	Bone Tamper, 4 mm tip
170-1150-05	Bone Tamper, 5 mm tip


Joseph Hook

2-prong

Product Code	Description
170-1211-02	Joseph Hook, sharp, 2-prong, 2 mm wide
170-1210-03	Joseph Hook, sharp, 2-prong, 3 mm wide
170-1216-04	Joseph Hook, blunt, 2-prong, 4 mm wide
170-1215-06	Joseph Hook, sharp, 2-prong, 4 mm wide
170-1212-07	Joseph Hook, sharp, 2-prong, 7 mm wide
170-1218-05	Joseph Hook, sharp, 2-prong, 8 mm wide



Senn Miller Hook

Retractor

Scalpel Handle

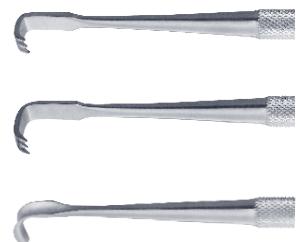
Senn Miller Hook

Product Code	Description
170-1220-08	sharp, 3-prong, 8 mm curved, 11 mm wide
170-1222-08	blunt, 3-prong, 8 mm curved, 11 mm wide
170-1223-08	sharp, 2-prong, 8 mm curved, 7 mm wide



Meyerding Retractor

Product Code	Description
170-1232-04	6x4 mm
170-1234-04	10x4 mm
170-1233-04	6x4 mm, concave



Cushing Retractor

No. 3, straight

Product Code	Description
170-1266-06	6 mm, rigid
170-1268-08	8 mm, rigid, concave
170-1269-08	8 mm, rigid, flat
170-1270-10	10 mm, rigid
170-1273-12	12 mm, rigid



Hohmann Retractor

Product Code	Description
170-1005-04	4 mm tip
170-1005-06	6 mm tip
170-1010-09	9 mm tip



Scalpel Handle

Product Code	Description
170-1305-03	No. 3, angled
170-1300-03	No. 3, straight



Osteotome

Osteotome

Product Code	Description
170-1062-02	2 mm tip
170-1063-03	3 mm tip
170-1065-05	5 mm tip
170-1066-06	6 mm tip



Instrument Cassette

Product Code	Description
170-1067-07	7 mm tip
170-1070-10	10 mm tip
170-1072-12	12 mm tip

X-Ray Markers

Instrument cases

Instrument Cassette #10

For 10 Instrument

150-0300-10



Rita Leibinger Essentials

RL X-RAY Markers „Rita Leibinger“-Design

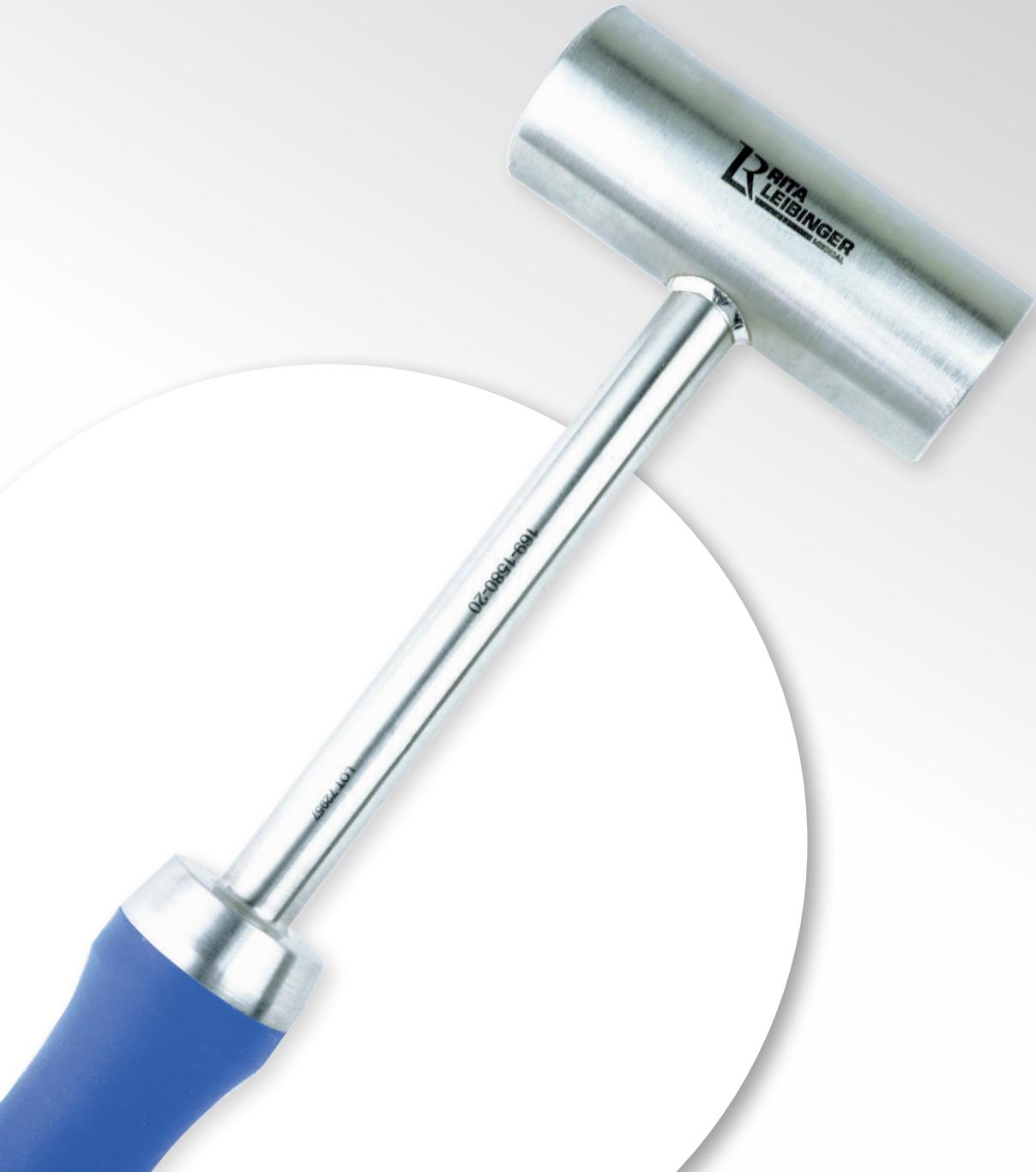
With 2.0 cm scale, 0.5 cm steps

100-0000-02



...pssst: „I've heard, clients get one pair for free. Just ask for it with your next order.“

Sulcoplasty

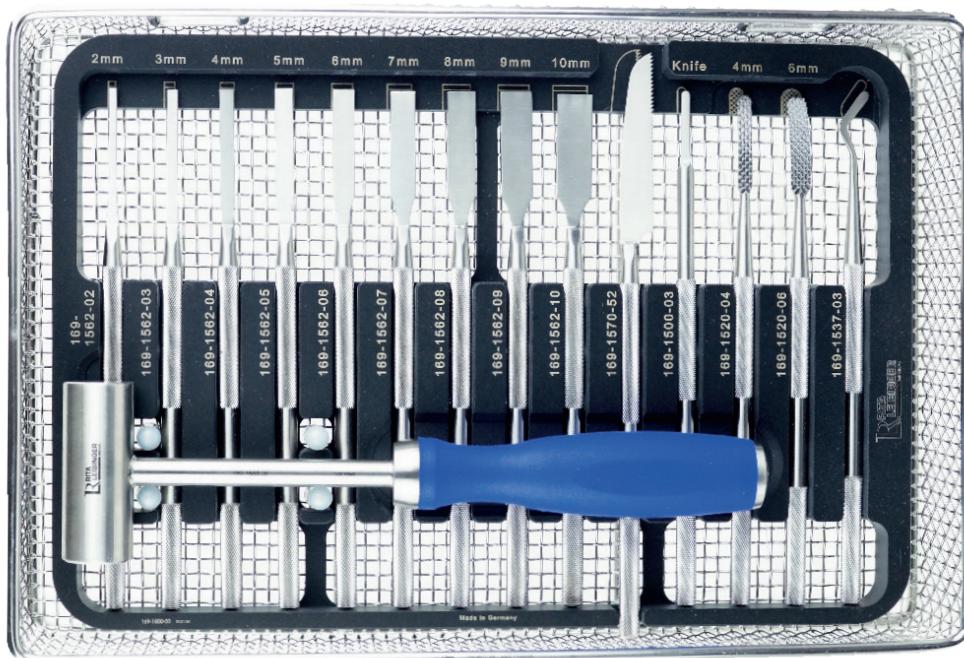


INSTRUMENTS

RITA
LEIBINGER
MEDICAL



Sulcoplasty Set



Sulcoplasty Set

169-1500-00

Tray without contents

169-1500-01

Product Code	Description	Qty
169-1500-01	Sulcoplasty Instrument Tray (without contents)	1
169-1500-03	Sulcoplasty Scalpel Handle, No. 3, 16 cm, straight, Non-Slip Handle Design	1
169-1537-03	Sulcoplasty Bone Lever, 16 cm, 3 mm wide tip, angled laterally, Non-Slip Handle Design	1
169-1520-04	Sulcoplasty Bone File, 17 cm, 4 mm, slightly curved upwards, Non-Slip Handle Design	1
169-1520-06	Sulcoplasty Bone File, 17 cm, 6 mm, slightly curved upwards, Non-Slip Handle Design	1
169-1562-02	Sulcoplasty Osteotome, 16 cm, 2 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-03	Sulcoplasty Osteotome, 16 cm, 3 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-04	Sulcoplasty Osteotome, 16 cm, 4 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-05	Sulcoplasty Osteotome, 16 cm, 5 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-06	Sulcoplasty Osteotome, 16 cm, 6 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-07	Sulcoplasty Osteotome, 16 cm, 7 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-08	Sulcoplasty Osteotome, 16 cm, 8 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-09	Sulcoplasty Osteotome, 16 cm, 9 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1562-10	Sulcoplasty Osteotome, 16 cm, 10 mm wide tip, thickness 0.9mm, Non-Slip Handle Design	1
169-1570-52	Sulcoplasty / Osteotomy Bone Saw 17 cm, Cutting length 52mm, Cutting width 0.5mm, Non-Slip Handle Design	1
169-1580-20	Orthopedic hammer, length 200 mm, weight 225 g, blue silicone handle	1

Sulcoplasty Scalpel Handle

No. 3, 16 cm, straight


169-1500-03
Sulcoplasty Bone Lever

16 cm, 3 mm wide tip, angled laterally


169-1537-03
Sulcoplasty Bone File

Product Code
Description

169-1520-04	17 cm, 4 mm, slightly curved upwards
169-1520-06	17 cm, 6 mm, slightly curved upwards

Sulcoplasty Osteotome

Product Code
Description

169-1562-02	16 cm, 2 mm wide tip, thickness 0.9mm
169-1562-03	16 cm, 3 mm wide tip, thickness 0.9mm
169-1562-04	16 cm, 4 mm wide tip, thickness 0.9mm
169-1562-05	16 cm, 5 mm wide tip, thickness 0.9mm
169-1562-06	16 cm, 6 mm wide tip, thickness 0.9mm
169-1562-07	16 cm, 7 mm wide tip, thickness 0.9mm
169-1562-08	16 cm, 8 mm wide tip, thickness 0.9mm
169-1562-09	16 cm, 9 mm wide tip, thickness 0.9mm
169-1562-10	16 cm, 10 mm wide tip, thickness 0.9mm

Sulcoplasty / Osteotomy Bone Saw

Cutting length 52mm, Cutting width 0.5mm

169-1570-52

Orthopedic Hammer

Length 200 mm, Weight 225 g, blue silicone handle


169-1580-20


Sterilization

Sterilization of products with fractional pre-vacuum procedure (in accordance with ISO 13060 / ISO 17665) in consideration of the respective national requirements. We recommend to perform a fractional pre-vacuum procedure with the following parameters:

- Fractional pre-vacuum (three times)
- Sterilization parameter 132 °C
- Holding period 3 min. (full cycle)
- Drying time 10 min.

Storage

Sterilized products should be stored in a dry, clean and dust-free area at moderate temperature from 5°C to 40°C.

Additional information

The user takes full responsibility for the processing facilities, the equipment and materials used, the personnel, as well as the proper execution of the processes to achieve the targeted results. This usually requires validation and routine monitoring of the process and equipment used.

Power Tools Sterilization

Cleaning, disinfection and sterilization guide

Cleaning and disinfection:

All consumables, parts and battery must be removed before cleaning. Always close the end cap of the battery chamber before cleaning! Wipe the surfaces immediately after use with a lint-free cloth moistened with a cleaning agent or disinfectant, or use a disinfectant spray, to prevent exudates or other contamination from drying on the surface. For this manual wipe-down, use a cleaning agent or disinfectant approved for surface disinfection under national regulations (DGHM – German Association of Hygiene and Microbiology). Please follow the manufacturer's instructions for correct dilution, exposure time etc. In the case of heavy contamination, the power tool can also be carefully cleaned under running water (machine cleaning or soak cleaning is not permitted).

Note:

Excessive exposure to saline solutions or solutions containing iodine or chloride may cause harmful reactions. Damage may also be caused by strong acids and alkaline solutions or incorrectly used disinfectants.

The quality of the water used for cleaning and rinsing is another possible factor affecting corrosion or surface damage for the Drill and attachments.

The power tool must never be boiled or immersed in water or cleaning solutions.

CAUTION!

Always close the end cap of the battery chamber before cleaning!

Machine cleaning and ultrasonic cleaning in thermal disinfectors are not permitted!

Sterilisation:

The power tool with end cap of the battery chamber and funnel can be sterilised at up to 2 bar at 134°C / 273°F in the steam steriliser, for up to 6 minutes. Cooling time before use is 60 minutes.

It is advisable to place the equipment on a cloth or wrap it in a cloth to prevent external or internal damage.

To ensure proper sterilisation, the battery chamber must always be closed.

Maintenance:

The power tool should be regularly lubricated to ensure a long service life and smooth operation. We recommend the use of 1 drop LeiLube special instrument oil.

CAUTION!

The rechargeable battery must never be sterilised.

Instructions for use of Surgical Instruments

Warnings

The cleaning of narrow lumens or holes requires special attention! In general, our products will be delivered unsterile. All instruments have to be completely cleaned, disinfected and sterilized before initial use according to the following procedures.

Indications

It is very important to check each surgical instrument for function and any visible damages before use. Damaged products should be scrapped or sent back to the manufacturer for maintenance. Restrictions of reprocessing: Frequent reprocessing has minimal effect on our instruments. The end of the product life cycle is determined by wear and damage through use.

Defective products should undergo the entire sterilization process before sending back to the manufacturer.

Place of use

Immerse products in cold water immediately after each use (<40°C). Do not use cleaning agents or hot water (>40°C) as this may result in the fixation of residues and could reduce the cleaning success (risk of protein coagulation / denaturation).

Remove surface contamination with a disposable, single-use towel or paper towel.

Transport

Always store and transport instruments safely to avoid damages.

Preparation for decontamination

When possible and where applicable, the instruments should be disassembled and/or unfastened or opened (e.g. for hinged instruments) before proceeding further with the processing steps.

Manual cleaning

- Immerse products in cold water for 5 min. and brush with a nylon brush thereafter.
- Flush products with a water pressure gun (with a static water pressure of at least 3.8 bar).
- Clean products in an ultrasonic bath with a smooth alkaline cleaner (neodisher Mediclean, Dr. Weigert, Hamburg).

Machine cleaning:

Machine cleaning process (Program Vario TD ; G 7735 CD Miele):

- Pre-rinse for 2 min. with cold water
- Drain water
- Clean for 5 min. at 55°C with 0,5% alkaline cleaning agent (neodisher Mediclean, Dr. Weigert, Hamburg)
- Drain water
- Neutralize for 3 min. with cold tap water
- Drain water
- Rinse for 2 min. with cold tap water

Special manufacturer's instructions of the cleaning machine should be followed.

Disinfection

Manual disinfection:

1. Immerse products in disinfectant approved by RKI or VAH. Please follow the manufacturer's instructions for use of the disinfectant.
2. Rinse products with fully demineralized water.

Automatic disinfection:

Automatic thermic disinfection in a cleaning and disinfection machine should conform to the national requirements to the A0-value.

Drying

Manual drying should be carried out using a lint free cloth. The product should **never** be heated over 134°C. To avoid residual water in hollows, it is recommended to blow out with sterile compressed air.

Automatic drying should be in accordance to the automatic drying process of the cleaning and disinfection machine. If necessary, subsequent manual drying with lint free cloth and blowing out of lumen by sterile, oil-free compressed air may be done.

Service, control and review

Test for function and check for contamination. If necessary, repeat the cleaning and disinfection process to remove residual contamination.

Packaging

Products should be packaged in suitable sterile packaging.

Description

1.5, 2.0, 2.4, 2.7 Bone Plate DCP	128	2.7/3.5 LeiLOX Straight Plates Sets	90
1.5/2.0 Bending Iron	86	2.7 / 3.5 Locking Screws (Star-Drive, TPLO)	50
1.5 Locking Plates Titanium	80	2.7 / 3.5 Locking Screws Titanium	72
1.5 Locking Plates Titanium	81	2.7 / 3.5 Locking Screws Titanium	60
1.5 Locking Screws Titanium	80	2.7 / 3.5 Non-Locking Screws (CBLO)	73
1.5mm Cortical Screws	120	2.7 / 3.5 TPLO	49
2.0, 2.4, 2.7 Straight + Reconstruction Sets	93	2.7 / 3.5 TPLO Set LeiLOX	48
2.0/2.4 + 2.7/3.5 LeiLOX Set, Reconstruction	92	2.7 / 3.5 TPLO Swing Set Titanium	58
2.0/2.4 CBLO Sets (LeiLOX)	68	2.7 / 5.4 LeiLOX Bridge Plates	97
2.0/2.4 Cortical Screws Titanium	57	2.7mm Cortical Screws	121
2.0/2.4 LeiLOX Bridge Plates	96	2.7 TTA Screws	41
2.0/2.4 LeiLOX Locking Screws Titanium	57	3.5 Bone Plate DCP	129
2.0/2.4 LeiLOX Plates, Straight	94	3.5mm Cortical Screws	122
2.0/2.4 LeiLOX Straight Plates Sets	90	3.5 TTA Screws	41
2.0 / 2.4 Locking Screws	47	4.0 / 4.5 Cortical Screws	123
2.0 / 2.4 Locking Screws Titanium	69	4.5 Bone Plate DCP	130
2.0 / 2.4 Non-Locking Screws	47	About Arthroscopy	166
2.0 / 2.4 Non-Locking Screws Titanium	69	Acetabulum Plate	132
2.0/2.4 Self-tapping Screws Titanium	33	AO quick-connect clamp	154
2.0/2.4 TPLO Implant Set	46	AO quick-connect clamp	158
2.0/2.4 TPLO Locking Plates	46	AO quick-connect clamp	158
2.0 / 2.4 TPLO Swing Set Titanium	56	Arthrodesis Locking Plates LeiLOX	100
2.0-3.5 LeiLOX Arthrodesis Set	91	Arthrodesis Locking Plates LeiLOX	101
2.0-3.5 LeiLOX Bridge Plate Sets	91	Arthrodesis Plates LeiLOX 1.5/2.0 Titanium	84
2.0 Locking Plates Titanium	82	Arthroscopes	176
2.0 Locking Plates Titanium	83	Arthroscopy Instruments	172
2.0 Locking Screws Titanium	82	Arthroscopy Trocar Set	178
2.0mm Cortical Screws	120	Aseptic Batteries	160
2.4mm Cortical Screws	121	Ball Head Burr	171
2.4 TTA Screws	40	Battery Charger	161
2.7/3.5 CBLO	71	Bending Iron LeiLOX 2.0/2.4 2.7/3.5	107
2.7/3.5 CBLO Sets	70	Bending Irons 1.5/2.0 2.7/3.5/4.5	127
2.7 / 3.5 Cortical Screw	51	Biopsy Spoon Forceps	169
2.7/3.5 Cortical Screws Titanium	61	Bone Awl	186
2.7/3.5 LeiLOX Plates, Straight	95	Bone Curette	185
2.7/3.5 LeiLOX Reconstruction Plates	99	Bone Drills	74

Bone File	185	Depth Gauge	75
Boneholding Forceps	23	Depth Gauge (all)	127
Boneholding Forceps	43	DE SOUTTER Straight Case Modular Handpiece	157
Bone Lever	184	DE SOUTTER V-MBQ-708	154
Bone Matter	152	DE SOUTTER V-MBQ-807	156
Bone Packer	186	DE SOUTTER V-MBU-470	158
Bone Paste	152	Drill (all)	126
Bone Plate Cutter	87	Drill Bits	52
Bone Plate Holding Forceps	87	Drill Bits	113
Bone Plate Limited Contact	131	Drill Bits with AO Shaft (all)	162
Bone Plates Standard (all)	128	Drill Guide (all)	126
Bone Tamper	186	Drill Guides	86
Castroviejo	53	Drill Guides for TTA Forks	42
Castroviejo	63	Drills with Round Shaft (all)	162
CBLO 2.0/2.4 Locking Plates	68	Equine Arthroscopy	181
CBLO Plates (LeiLOX) 2.7/3.5	71	Gouge	185
CBLO Screw Rack	73	Grasping Forcep Alligator	169
CBLO Surgery Protocol	66	Hook-Knife	173
Challenger Set 1.5/2.0	78	Hook Probe	171
C-LOX Cages	146	Hook Probe	174
C-LOX Set	150	Hook-Probe	175
C-LOX Surgical Protocol	145	Hook Scissors	169
C-LOX Templates	147	Hydroxyapatitepaste	152
C-LOX Utilities	149	Instructions for Surgical Instruments	193
Compression Bone Screws 2.4 - 3.9	110	Instrument Cassette	188
Compression Bone Screws 4.0 - 6.0	111	Instruments, C-LOX	148
Compression Bone Screws Set - Medi/Maxi	111	Instruments, C-LOX	149
Compression Bone Screws Set - Micro/Mini	110	Instrument Set K-Wire	141
Compression Drill Guide	52	Instruments (Micro)	184
Compression Drill Guide	62	Instruments TTA Standard	42
Compression Drill Guide	75	Jakobs drill chuck	154
Cortical Screw (Non-Locking) 2.0, 2.4, 2.7, 3.5	105	Joseph Hook	186
Curette	175	Knife toothed	174
Curved Hook Knife	180	Knives	171
Depth Gauge	42	Knives (Arthroscopy)	175
Depth Gauge	62	K-Wire	74

K-Wire Instrument Set	141	Plates (all)	129
K-Wire Set	140	Plates Arthrodesis	135
K-Wire Single Trocar	142	Plates (Phillips, T-shape)	134
K-Wire Single Trocar, threaded	142	RAPID LUXATION Instruments	35
LeiLOX 2.0/2.4 Bridge Plates	96	Rapid Luxation Plates	32
LeiLOX 2.0/2.4 Plates straight	94	RAPID LUXATION Saw Guide	35
LeiLOX 2.0/2.4 Reconstruction Plates	98	RAPID LUXATION Set	31
LeiLOX 2.7/3.5 Bridge Plates	97	Rapid Luxation Surgery Protocol	30
LeiLOX 2.7/3.5 Plates, Straight	95	Reconstruction Plates 2.0/2.4 LeiLOX	98
LeiLOX 2.7/3.5 Reconstruction Plates	99	Retractor	184
LeiLOX Instruments Set	106	Retractor	187
LeiLOX Locking Cortical Screw 2.0, 2.4, 2.7, 3.5	103	Rinse Cannula Set	178
Li-Ion Batteries	160	Sagittal Saw	159
Limited Contact Bone Plate	131	Sagittal saw	155
Locking Drill Guide	52	Sawblades - Samoy Rapid-Cut	27
Locking Drill Guide	63	Sawblades - Samoy Rapid-Cut	163
Locking Drill Guide	75	Scalpel Handle	187
Locking Plug for LeiLOX	104	Screwdriver	43
L-Plate standard	133	Screwdriver 1.5/2.0 Mini-AO QC	124
Meniscotome	174	Screwdriver Handle	23
Meniscotomes	173	Screwdriver Handle	61
Meniscus Rasp	173	Screwdriver Handle	86
Mini Lambotte Osteotome	178	Screwdriver Handle	112
Neuro-Surgery	146	Screwdriver Handle (all)	125
Osteosynthesis Locking Set 1.5	79	Screwdriver Handle TPLO	51
Osteosynthesis Locking Set 1.5/2.0	78	Screwdriver Shaft	23
Osteosynthesis Locking Set 2.0	79	Screwdriver Shaft	62
Osteotome	188	Screwdriver Shaft	112
Patella Luxation	32	Screwdriver Shaft (all)	125
Patella Luxation Spacers	20	Screwdriver Shaft Star-Drive	74
Patella Saw	21	Screw Head Countersink	113
Patella Saw	34	Screw Rack	53
Periosteal Elevator	184	Screw Racks (all)	124
Pin Driver	155	Screw Removal Set S.O.S.	138
Pin Driver	159	Screws (C-LOX)	148
Pin Driver	159	Screws for RAPID LUXATION	33
Plate (Reconstruction, straight/curved)	132	Screws Self-Tapping (all)	121
Plates (3.5mm T-shape)	134	Screws Standard (all)	120

Screws Tiny TTA RAPID (Titanium)	25	TTA Depth Gauge	21
Screws (TTA Rapid)	19	TTA Depth Gauge	34
Senn Miller Hook	187	TTA ESY Set	38
S.O.S. Screw Removal	138	TTA & Patella Luxation	12
Spinal	147	TTA RAPID	10
Sterile Batteries	161	TTA Rapid Bending Iron	22
Sterilization Container	17	TTA Rapid Implants	18
Sterilization Container	38	TTA Rapid Saw Guides	22
Sterilization Power Tools	212	TTA Rapid Sets	14
Sterilization Storage System	177	TTA Rapid Sets I / II	15
Studies about TTA RAPID	13	TTA Rapid Sets III / IV	16
Sulcoplasty Instruments	191	TTA Rapid Spreader	22
Sulcoplasty Set	190	TTA RAPID Spreader	43
Sulcoplasty Set	190	TTA RAPID Technique	11
Suture Anchor Screw 2.0	116	TTA RAPID Technique	67
Suture Anchor Screw 2.4	116	TTA Rapid Tiny Set	24
Suture Anchor Screw 2.7	117	TTA Spacers	40
Suture Anchor Screw 3.5	117	TTA Standard Plates	39
Tibia Tappet	21	TTA Standard Set	38
Tibia Tappet	34	Twist Drill	21
Tiny TTA Rapid Cages	24	Twist Drill	34
Torque Limiter	74	Van Ryssen Arthroscopy Set	167
T-Plate standard	133	Van Ryssen Series	168
TPLO/CBLO Instrument Set	70	VAN RYSSEN Signature Series	170
TPLO Jig	53	Washers	124
TPLO Jig	63	X-Ray Markers	188
TPLO Jigs	75		
TPLO Plates LeiLOX 2.7/3.5	49		
TPLO Saw Adapter	155		
TPLO Saw Blades	63		
TPLO Saw Blades	162		
TPLO Set LeiLOX 2.7/3.5	48		
TPLO Swing Locking Plates 2.0 / 2.4 Titanium	56		
TPLO Swing Locking Plates 2.7 / 3.5 Titanium	59		
TPLO Swing Set 2.0 / 2.4 Titanium	56		
TPLO Swing Set 2.7 / 3.5 Titanium	58		
TTA Cages	39		
TTA Cuttable Cages	39		

Product Code Index

17-3105-08	52	102-2026-24	163	125-5054-00	159	128-2418-24	52
17-3105-08	63	102-2100-09	53	125-5055-00	154	128-2418-24	62
17-3105-08	75	102-2100-09	63	125-5055-00	156	128-2418-24	75
23-1005-90	21	102-2100-09	73	125-5055-00	158	128-2418-24	126
23-1005-90	25	102-2100-09	162	125-5055-00	160	128-2431-06	112
23-1005-90	34	102-2100-12	53	125-5056-00	160	128-2431-31	113
23-1363-14	141	102-2100-12	63	125-5057-00	160	128-2535-35	52
23-1364-14	141	102-2100-12	73	125-5059-00	161	128-2535-35	62
23-3513-00	141	102-2100-12	162	125-5070-00	154	128-2535-35	75
23-3805-12	178	102-2100-15	53	125-5070-00	156	128-2535-35	126
23-3806-12	178	102-2100-15	63	125-5070-00	158	128-2720-27	52
23-3807-12	178	102-2100-15	73	125-5070-00	161	128-2720-27	62
23-5535-18T	141	102-2100-15	162	125-5071-00	154	128-2720-27	75
23-5795-22T	141	102-2100-18	53	125-5071-00	156	128-2720-27	126
23-5865-24T	87	102-2100-18	63	125-5071-00	158	128-2735-10	43
100-0000-02	188	102-2100-18	73	125-5071-00	161	128-2735-10	51
102-1210-25	27	102-2100-18	162	125-5072-00	161	128-2735-10	62
102-1210-25	163	102-2100-21	53	128-0300-15	138	128-2735-10	74
102-1211-30	27	102-2100-21	63	128-0525-21	23	128-2735-10	106
102-1211-30	163	102-2100-21	73	128-0525-21	43	128-2735-10	125
102-1212-25	27	102-2100-21	162	128-0537-10	87	128-3039-08	112
102-1212-25	163	102-2100-24	53	128-0538-13	87	128-3039-39	113
102-1213-25	27	102-2100-24	63	128-0539-13	87	128-4050-10	112
102-1213-25	163	102-2100-24	73	128-0807-00	124	128-4050-50	113
102-1411-27	27	102-2100-24	162	128-0820-24	107	128-4354-00	53
102-1411-27	163	102-2100-27	53	128-0827-35	107	128-4354-00	63
102-1411-35	27	102-2100-27	63	128-0880-27	127	128-4354-00	75
102-1411-35	163	102-2100-27	73	128-0881-15	86	128-4355-00	53
102-1414-42	27	102-2100-27	162	128-0881-15	127	128-4355-00	63
102-1414-42	163	102-2100-30	53	128-0881-27	127	128-4355-00	75
102-1420-50	27	102-2100-30	63	128-0900-15	35	128-4356-00	53
102-1420-50	163	102-2100-30	73	128-0900-15	125	128-4356-00	63
102-1511-27	27	102-2100-30	162	128-0900-20	23	128-4356-00	75
102-1511-27	163	102-2100-33	53	128-0900-20	35	128-5060-15	112
102-1511-35	27	102-2100-33	63	128-0900-20	43	128-5060-60	113
102-1511-35	163	102-2100-33	73	128-0900-20	125	130-11-0302	133
102-1514-42	27	102-2100-33	162	128-0900-25	43	130-11-0339	133
102-1514-42	163	102-16506-27	163	128-0900-25	125	130-11-0349	133
102-1520-50	27	102-16510-25	163	128-0905-15	124	130-11-0402	133
102-1520-50	163	102-16515-46	163	128-0905-17	124	130-11-0502	133
102-1611-27	27	102-16520-50	163	128-0911-25	124	130-11-0606	132
102-1611-27	163	111-0015-10	140	128-0940-24	23	130-11-1014	128
102-1611-35	27	111-0015-20	141	128-0940-24	35	130-11-1015	128
102-1611-35	163	111-0016-00	167	128-0940-24	43	130-11-1016	128
102-1614-42	27	125-5000-00	154	128-0940-24	125	130-11-1017	128
102-1614-42	163	125-5001-00	154	128-0940-25	43	130-11-1018	128
102-1620-50	27	125-5002-00	154	128-1520-15	26	130-11-1019	128
102-1620-50	163	125-5003-00	155	128-1520-15	86	130-11-1020	128
102-1711-27	27	125-5004-00	155	128-1520-15	125	130-11-1021	128
102-1711-27	163	125-5005-00	155	128-1520-20	26	130-11-1022	128
102-1711-35	27	125-5006-00	154	128-1520-20	43	130-11-1420	132
102-1711-35	163	125-5006-00	156	128-1520-20	51	130-11-2004	131
102-1714-42	27	125-5006-00	158	128-1520-20	62	130-11-2005	131
102-1714-42	163	125-5006-00	160	128-1520-20	86	130-11-2006	131
102-1912-40	27	125-5007-00	160	128-1520-20	125	130-11-2007	131
102-1912-40	163	125-5008-00	160	128-2024-08	23	130-11-2008	131
102-1916-40	27	125-5020-00	156	128-2024-08	35	130-11-2009	131
102-1916-40	163	125-5050-00	158	128-2024-08	51	130-11-2010	131
102-2026-18	27	125-5051-00	158	128-2024-08	62	130-11-2020	131
102-2026-18	163	125-5052-00	158	128-2024-08	74	130-11-6004	128
102-2026-24	27	125-5053-00	159	128-2024-08	106	130-11-6005	128

130-11-6006....128	130-6252-12....124	132-4000-13....26	132-8030-01L....20
130-11-6007....128	130-7324-14....124	132-4010-13....22	132-8030-01L....24
130-11-6008....128	130-8327-16....124	132-4015-13....22	132-8030-01L....32
130-11-6009....128	130-9435-16....124	132-4020-00....22	132-8030-01R....20
130-11-6010....128	131-20-0304....134	132-4020-00....26	132-8030-01R....24
130-11-6011....128	131-20-0305....134	132-4020-00....43	132-8030-01R....32
130-11-6012....128	131-20-0306....134	132-4030-10....22	132-8030-02L....20
130-11-6013....128	131-35-0404....134	132-4030-10....26	132-8030-02L....24
130-11-6014....128	131-35-0406....134	132-4030-10....35	132-8030-02L....32
130-12-0103....133	131-35-0505....134	132-4040-00....22	132-8030-02R....20
130-12-0203....133	131-35-0506....134	132-4040-00....35	132-8030-02R....24
130-12-0604....132	131-35-0508....134	132-4041-00....22	132-8030-02R....32
130-12-0605....132	132-0003-08....18	132-4041-00....35	132-8030-03L....20
130-12-0606....132	132-0003-10....18	132-4042-00....26	132-8030-03L....24
130-30-0004 ... 130	132-0003-13....18	132-4042-00....35	132-8030-03L....32
130-30-0005 ... 130	132-0003-16....18	132-4070-00....21	132-8030-03R....20
130-30-0006 ... 130	132-0006-13....18	132-4070-00....34	132-8030-03R....24
130-30-0007 ... 130	132-0006-16....18	132-4071-00....21	132-8030-03R....32
130-30-0008 ... 130	132-0006-19....18	132-4071-00....25	132-8030-04L....20
130-30-0009 ... 130	132-0006-22....18	132-4071-00....34	132-8030-04L....24
130-30-0010 ... 130	132-0009-16....18	132-4080-12....26	132-8030-04L....32
130-30-0011 ... 130	132-0009-19....18	132-4080-16....22	132-8030-04R....20
130-30-0012 ... 130	132-0009-22....18	132-4080-16....43	132-8030-04R....24
130-30-0013 ... 130	132-0009-25....18	132-5000-00/A...14	132-8030-04R....32
130-30-0014 ... 130	132-0012-19....18	132-5000-00/A...15	132-8200-01....32
130-30-0015 ... 130	132-0012-22....18	132-5000-00/A...15	132-8200-02....32
130-30-0016 ... 130	132-0012-25....18	132-5000-00/A...16	132-8200-03....24
130-30-0018 ... 130	132-0012-28....18	132-5000-00/A...16	132-8200-03....32
130-30-0020 ... 130	132-0015-19....18	132-5000-10/A...14	132-9025-00....152
130-30-0022 ... 130	132-0015-22....18	132-6000-10....14	134-0100-01....150
130-30-0024 ... 130	132-0015-25....18	132-6002-00....14	134-0100-02 150
130-31-0005 ... 130	132-0015-28....18	132-6003-00 15	134-0144-08 ... 146
130-31-0006 ... 130	132-0023-08....18	132-6004-00 15	134-0146-08... 146
130-31-0007 ... 130	132-0023-10....18	132-6005-00 16	134-0164-08 ... 146
130-31-0008 ... 130	132-0023-13....18	132-6006-00 16	134-0165-10... 146
130-31-0009 ... 130	132-0026-09 24	132-6500-00 24	134-0166-08 ... 146
130-31-0010 ... 130	132-0026-11....24	132-6500-10....24	134-0167-10....146
130-31-0011 ... 130	132-0026-13....24	132-8000-00 31	134-0185-10....146
130-31-0012 ... 130	132-0045-09 18	132-8000-01....31	134-0187-10....146
130-31-0013 ... 130	132-0045-12....18	132-8000-10....31	134-0206-12....146
130-31-0014 ... 130	132-0045-15....18	132-8010-02L... 20	134-0208-12....146
130-31-0015 ... 130	132-0045-18....18	132-8010-02L... 32	134-0700-22....149
130-31-0016 ... 130	132-0075-13....18	132-8010-02R ... 20	134-0750-16....149
130-31-0018 ... 130	132-0075-16....18	132-8010-02R ... 32	134-0750-22....149
130-31-0020 ... 130	132-0075-19....18	132-8010-04L... 20	134-0800-27 ... 125
130-31-0022 ... 130	132-0075-22....18	132-8010-04L... 32	134-0800-27 ... 148
130-31-0024 ... 130	132-0105-16....18	132-8010-04R ... 20	134-0900-24 ... 125
130-50-0106 ... 132	132-0105-19....18	132-8010-04R ... 32	134-9144-08....147
130-50-0108 ... 132	132-0105-22....18	132-8010-06L... 20	134-9146-08....147
130-50-0110 ... 132	132-0105-25....18	132-8010-06L... 32	134-9164-08....147
130-50-0112 ... 132	132-0135-19....18	132-8010-06R ... 20	134-9165-10....147
130-50-0114 ... 132	132-0135-22....18	132-8010-06R ... 32	134-9166-08 ... 147
130-50-0116 ... 132	132-0135-25....18	132-8020-02L ... 20	134-9167-10....147
130-1848-04 ... 128	132-0135-28....18	132-8020-02L... 32	134-9185-10....147
130-1848-05 ... 128	132-0152-06....24	132-8020-02R ... 20	134-9187-10....147
130-1848-06 ... 128	132-0152-08....24	132-8020-02R ... 32	134-9206-12....147
130-1848-07 ... 128	132-0152-10....24	132-8020-03L ... 20	134-9208-12....147
130-1848-08 ... 128	132-0153-07....24	132-8020-03L ... 32	140-05-1168....135
130-1848-09 ... 128	132-0153-09....24	132-8020-03R ... 20	140-05-1169....135
130-1848-10 ... 128	132-0153-11....24	132-8020-03R ... 32	140-05-1170....135
130-1848-20 ... 128	132-0245-08....24	132-8020-04L... 20	140-05-1171....135
130-1863-09 ... 133	132-0245-10....24	132-8020-04L... 32	140-05-1172....135
130-1864-09 ... 133	132-0245-12....24	132-8020-04R ... 20	140-05-1173....135
130-5215-10 ... 124	132-4000-13....22	132-8020-04R ... 32	140-05-1174....135

140-05-1175 . . . 135	140-24-0016 . . . 129	142-0215-925L . . . 81	142-2024-135L . . . 101
140-05-1177 . . . 135	140-24-0017 . . . 129	142-0215-925R . . . 81	142-2024-135R . . . 101
140-06-1176 . . . 135	140-24-0018 . . . 129	142-0215-950L . . . 81	142-2027-80 . . . 100
140-06-1178 . . . 135	140-24-0019 . . . 129	142-0215-950R . . . 81	142-2027-90 . . . 100
140-12-0004 . . . 128	140-24-0020 . . . 129	142-0220-04 . . . 82	142-2027-120L . . . 101
140-12-0005 . . . 128	140-50-0004 . . . 132	142-0220-4H . . . 83	142-2027-120R . . . 101
140-12-0006 . . . 128	140-50-0005 . . . 132	142-0220-05 . . . 82	142-2027-135L . . . 102
140-12-0007 . . . 128	140-50-0006 . . . 132	142-0220-06 . . . 82	142-2027-135R . . . 102
140-12-0008 . . . 128	140-50-0007 . . . 132	142-0220-07 . . . 82	142-2320-00 . . . 68
140-12-0009 . . . 128	140-50-0008 . . . 132	142-0220-08 . . . 82	142-2320-10 . . . 68
140-12-0010 . . . 128	140-50-0009 . . . 132	142-0220-09 . . . 82	142-2324-00 . . . 68
140-12-0011 . . . 128	140-50-0010 . . . 132	142-0220-10 . . . 82	142-2324-10 . . . 68
140-12-0012 . . . 128	140-50-0011 . . . 132	142-0220-10Z . . . 83	142-2327-00 . . . 71
140-12-0013 . . . 128	140-50-0012 . . . 132	142-0220-20 . . . 82	142-2327-10 . . . 71
140-12-0014 . . . 128	140-50-0014 . . . 132	142-0220-38 . . . 83	142-2335-00 . . . 71
140-13-2004 . . . 131	140-50-0016 . . . 132	142-0220-49 . . . 83	142-2335-10 . . . 71
140-13-2005 . . . 131	140-50-0018 . . . 132	142-0220-60 . . . 84	142-2335-50 . . . 71
140-13-2006 . . . 131	140-50-0020 . . . 132	142-0220-68 . . . 84	142-2335-60 . . . 71
140-13-2007 . . . 131	140-50-0022 . . . 132	142-0220-410 . . . 83	142-2424-00 . . . 93
140-13-2008 . . . 131	140-0620-24 . . . 133	142-0220-504L . . . 82	142-2424-01 . . . 93
140-13-2009 . . . 131	140-0620-25 . . . 133	142-0220-504R . . . 82	142-2727-00 . . . 93
140-13-2010 . . . 131	140-0620-26 . . . 133	142-0220-618 . . . 82	142-2727-01 . . . 93
140-13-2011 . . . 131	140-0620-27 . . . 133	142-0220-627 . . . 82	142-2735-115 . . . 100
140-13-2012 . . . 131	140-0620-28 . . . 133	142-0220-636 . . . 82	142-2735-135L . . . 102
140-13-2013 . . . 131	140-1011-00 . . . 152	142-0220-648 . . . 82	142-2735-135R . . . 102
140-13-2014 . . . 131	140-2011-00 . . . 152	142-0220-668 . . . 82	142-2800-10 . . . 56
140-20-0002 . . . 129	142-0100-01 . . . 48	142-0220-805 . . . 82	142-2800-20 . . . 58
140-20-0004 . . . 129	142-0100-01 . . . 58	142-0220-809 . . . 82	142-2820-00 . . . 56
140-20-0005 . . . 129	142-0100-01 . . . 70	142-0220-925L . . . 83	142-2820-10 . . . 56
140-20-0006 . . . 129	142-0100-02 . . . 48	142-0220-925R . . . 83	142-2820-24 . . . 56
140-20-0007 . . . 129	142-0100-10 . . . 48	142-0220-950L . . . 83	142-2824-00 . . . 56
140-20-0008 . . . 129	142-0100-20 . . . 48	142-0220-950R . . . 83	142-2824-10 . . . 56
140-20-0009 . . . 129	142-0100-20 . . . 58	142-1120-00 . . . 46	142-2827-00 . . . 59
140-20-0010 . . . 129	142-0100-20 . . . 70	142-1120-10 . . . 46	142-2827-10 . . . 59
140-20-0011 . . . 129	142-0150-00 . . . 46	142-1124-00 . . . 46	142-2827-35 . . . 58
140-20-0012 . . . 129	142-0150-10 . . . 46	142-1124-10 . . . 46	142-2835-00 . . . 59
140-20-0013 . . . 129	142-0215-04 . . . 80	142-1127-00 . . . 49	142-2835-10 . . . 59
140-20-0014 . . . 129	142-0215-4H . . . 81	142-1127-10 . . . 49	142-2835-50 . . . 59
140-20-0015 . . . 129	142-0215-05 . . . 80	142-1135-00 . . . 49	142-2835-60 . . . 59
140-20-0016 . . . 129	142-0215-06 . . . 80	142-1135-10 . . . 49	142-3000-00 . . . 90
140-20-0017 . . . 129	142-0215-07 . . . 80	142-1135-50 . . . 49	142-3010-00 . . . 106
140-20-0018 . . . 129	142-0215-08 . . . 80	142-1135-60 . . . 49	142-3010-01 . . . 106
140-20-2004 . . . 131	142-0215-09 . . . 80	142-1500-00 . . . 79	142-3010-02 . . . 90
140-20-2005 . . . 131	142-0215-10 . . . 80	142-1500-10 . . . 79	142-3020-04 . . . 94
140-20-2006 . . . 131	142-0215-10Z . . . 81	142-1520-00 . . . 78	142-3020-05 . . . 94
140-20-2007 . . . 131	142-0215-20 . . . 80	142-1520-10 . . . 78	142-3020-06 . . . 94
140-20-2008 . . . 131	142-0215-38 . . . 81	142-1520-50 . . . 78	142-3020-07 . . . 94
140-20-2009 . . . 131	142-0215-49 . . . 81	142-1520-60 . . . 78	142-3020-08 . . . 94
140-20-2010 . . . 131	142-0215-55 . . . 84	142-2000-00 . . . 79	142-3020-09 . . . 94
140-20-2011 . . . 131	142-0215-60 . . . 84	142-2000-10 . . . 79	142-3020-10 . . . 94
140-20-2012 . . . 131	142-0215-120L . . . 84	142-2020-00 . . . 93	142-3020-12 . . . 94
140-20-2014 . . . 131	142-0215-120R . . . 84	142-2020-01 . . . 93	142-3020-14 . . . 94
140-24-0004 . . . 129	142-0215-135L . . . 84	142-2020-60 . . . 100	142-3020-16 . . . 94
140-24-0005 . . . 129	142-0215-135R . . . 84	142-2024-00 . . . 90	142-3020-18 . . . 94
140-24-0006 . . . 129	142-0215-475 . . . 81	142-2024-01 . . . 90	142-3020-20 . . . 94
140-24-0007 . . . 129	142-0215-504L . . . 80	142-2024-50 . . . 106	142-3024-04 . . . 94
140-24-0008 . . . 129	142-0215-504R . . . 80	142-2024-51 . . . 106	142-3024-05 . . . 94
140-24-0009 . . . 129	142-0215-614 . . . 80	142-2024-60 . . . 91	142-3024-06 . . . 94
140-24-0010 . . . 129	142-0215-621 . . . 80	142-2024-62 . . . 91	142-3024-07 . . . 94
140-24-0011 . . . 129	142-0215-635 . . . 80	142-2024-70 . . . 100	142-3024-08 . . . 94
140-24-0012 . . . 129	142-0215-645 . . . 80	142-2024-90 . . . 92	142-3024-09 . . . 94
140-24-0013 . . . 129	142-0215-658 . . . 80	142-2024-91 . . . 92	142-3024-10 . . . 94
140-24-0014 . . . 129	142-0215-805 . . . 80	142-2024-120L . . . 101	142-3024-12 . . . 94
140-24-0015 . . . 129	142-0215-809 . . . 80	142-2024-120R . . . 101	142-3024-14 . . . 94

142-3024-16	94	142-3127-20	99	143-1000-04	140	144-1030-15	142
142-3024-18	94	142-3135-04	99	143-1000-04	142	144-1030-30	142
142-3024-20	94	142-3135-05	99	143-1000-05	142	144-1035-15	142
142-3027-04	95	142-3135-06	99	143-1000-06	140	144-1035-30	142
142-3027-05	95	142-3135-07	99	143-1000-06	142	144-1040-15	142
142-3027-06	95	142-3135-08	99	143-1000-07	142	144-1516-10	142
142-3027-07	95	142-3135-09	99	143-1000-08	140	144-1518-15	142
142-3027-08	95	142-3135-10	99	143-1000-08	142	144-1520-15	142
142-3027-09	95	142-3135-12	99	143-1000-09	142	144-1525-15	142
142-3027-10	95	142-3135-14	99	143-1000-10	140	144-1530-15	142
142-3027-12	95	142-3135-16	99	143-1000-10	142	144-2008-10	142
142-3027-14	95	142-3135-18	99	143-1000-12	142	144-2008-15	142
142-3027-16	95	142-3135-20	99	143-1000-15	142	144-2008-30	142
142-3027-18	95	142-3200-00	91	144-1008-10	142	144-2010-10	142
142-3027-20	95	142-3200-10	91	144-1008-15	142	144-2010-15	142
142-3035-04	95	142-3300-00	91	144-1008-30	142	144-2010-30	142
142-3035-05	95	142-3300-10	91	144-1009-15	112	144-2012-10	142
142-3035-06	95	142-3535-140	100	144-1010-10	51	144-2012-15	142
142-3035-07	95	142-4000-01	70	144-1010-10	62	144-2012-30	142
142-3035-08	95	142-4000-10	70	144-1010-10	74	144-2015-10	142
142-3035-09	95	142-4120-08	96	144-1010-10	107	144-2015-15	142
142-3035-10	95	142-4120-09	96	144-1010-10	140	144-2015-30	142
142-3035-12	95	142-4120-10	96	144-1010-10	142	144-2020-10	142
142-3035-14	95	142-4120-11	96	144-1010-15	140	144-2020-15	142
142-3035-16	95	142-4120-12	96	144-1010-15	142	144-2025-10	142
142-3035-18	95	142-4120-13	96	144-1010-20	140	144-2025-15	142
142-3035-20	95	142-4120-14	96	144-1010-30	142	144-2030-10	142
142-3100-00	92	142-4120-16	96	144-1012-10	142	144-2040-15	142
142-3100-02	92	142-4120-18	96	144-1012-15	142	144-8888-20	116
142-3120-04	98	142-4120-20	96	144-1012-30	142	144-8888-24	116
142-3120-05	98	142-4124-08	96	144-1015-10	23	144-8888-27	117
142-3120-06	98	142-4124-09	96	144-1015-10	26	144-8888-35	117
142-3120-07	98	142-4124-10	96	144-1015-10	35	148-0080-11	25
142-3120-08	98	142-4124-11	96	144-1015-10	140	148-0080-11	126
142-3120-09	98	142-4124-12	96	144-1015-10	142	148-0080-11	162
142-3120-10	98	142-4124-13	96	144-1015-15	112	148-0080-15	21
142-3120-12	98	142-4124-14	96	144-1015-15	140	148-0080-15	25
142-3120-14	98	142-4124-16	96	144-1015-15	142	148-0080-15	34
142-3120-16	98	142-4124-18	96	144-1015-20	140	148-0080-15	52
142-3120-18	98	142-4124-20	96	144-1015-30	142	148-0080-15	62
142-3120-20	98	142-4127-08	97	144-1020-10	51	148-0080-15	74
142-3124-04	98	142-4127-09	97	144-1020-10	62	148-0080-15	107
142-3124-05	98	142-4127-10	97	144-1020-10	74	148-0080-15	126
142-3124-06	98	142-4127-11	97	144-1020-10	140	148-0080-15	162
142-3124-07	98	142-4127-12	97	144-1020-10	142	148-0080-18	21
142-3124-08	98	142-4127-13	97	144-1020-15	140	148-0080-18	34
142-3124-09	98	142-4127-14	97	144-1020-15	142	148-0080-18	42
142-3124-10	98	142-4127-16	97	144-1020-20	140	148-0080-18	52
142-3124-12	98	142-4127-18	97	144-1020-30	142	148-0080-18	62
142-3124-14	98	142-4127-20	97	144-1025-10	23	148-0080-18	74
142-3124-16	98	142-4135-08	97	144-1025-10	35	148-0080-18	107
142-3124-18	98	142-4135-09	97	144-1025-10	51	148-0080-18	126
142-3124-20	98	142-4135-10	97	144-1025-10	62	148-0080-18	162
142-3127-04	99	142-4135-11	97	144-1025-10	74	148-0080-20	42
142-3127-05	99	142-4135-12	97	144-1025-10	140	148-0080-20	52
142-3127-06	99	142-4135-13	97	144-1025-10	142	148-0080-20	62
142-3127-07	99	142-4135-14	97	144-1025-15	140	148-0080-20	74
142-3127-08	99	142-4135-16	97	144-1025-15	142	148-0080-20	107
142-3127-09	99	142-4135-18	97	144-1025-20	140	148-0080-20	126
142-3127-10	99	142-4135-20	97	144-1025-30	142	148-0080-20	162
142-3127-12	99	142-4200-00	68	144-1030-10	51	148-0080-25	42
142-3127-14	99	142-4200-10	68	144-1030-10	62	148-0080-25	52
142-3127-16	99	143-1000-02	142	144-1030-10	74	148-0080-25	62
142-3127-18	99	143-1000-03	142	144-1030-10	142	148-0080-25	74

148-0080-25 . . . 107	148-0180-11 . . . 86	160-2420-00 . . . 173	164-0070-20 . . . 26
148-0080-25 . . . 126	148-0180-15 . . . 86	160-2421-00 . . . 173	164-0070-20 . . . 126
148-0080-25 . . . 162	148-0181-11 . . . 86	160-2503-00 . . . 175	164-0070-24 . . . 126
148-0080-27 . . . 126	148-0181-15 . . . 86	160-2505-00 . . . 175	164-0070-27 . . . 42
148-0080-27 . . . 162	150-0300-10 . . . 188	160-2507-00 . . . 175	164-0070-27 . . . 126
148-0080-30 . . . 126	150-0515-00 . . . 124	160-2510-00 . . . 175	164-0070-35 . . . 42
148-0080-30 . . . 162	150-0520-00 . . . 19	160-2515-00 . . . 175	164-0070-35 . . . 126
148-0080-32 . . . 126	150-0520-00 . . . 53	160-2600-00 . . . 174	164-0071-15 . . . 52
148-0080-32 . . . 162	150-0520-00 . . . 73	160-2606-00 . . . 174	164-0071-15 . . . 62
148-0080-35 . . . 126	150-0520-00 . . . 107	160-2613-00 . . . 174	164-0071-15 . . . 75
148-0080-35 . . . 162	150-0520-00 . . . 124	160-2615-00 . . . 174	164-0071-15 . . . 126
148-0080-45 . . . 126	150-0524-00 . . . 19	160-2618-00 . . . 174	164-1520-20 . . . 21
148-0080-45 . . . 162	150-0524-00 . . . 53	160-2619-00 . . . 174	164-1520-20 . . . 26
148-0081-11 . . . 25	150-0524-00 . . . 73	162-0013-30 . . . 176	164-1520-20 . . . 34
148-0081-11 . . . 126	150-0524-00 . . . 107	162-0016-30 . . . 176	164-1520-20 . . . 52
148-0081-11 . . . 162	150-0524-00 . . . 124	162-0017-30 . . . 176	164-1520-20 . . . 62
148-0081-15 . . . 21	150-0527-00 . . . 53	162-0018-30 . . . 176	164-1520-20 . . . 75
148-0081-15 . . . 25	150-0527-00 . . . 73	162-0021-20 . . . 176	164-1520-20 . . . 86
148-0081-15 . . . 34	150-0527-00 . . . 107	162-0021-30 . . . 176	164-1520-20 . . . 107
148-0081-15 . . . 52	150-0527-00 . . . 124	162-0021-45 . . . 176	164-1520-20 . . . 127
148-0081-15 . . . 62	150-0535-00 . . . 53	162-0031-65 . . . 176	164-1600-00 . . . 112
148-0081-15 . . . 74	150-0535-00 . . . 73	162-0035-03 . . . 176	164-2000-00 . . . 52
148-0081-15 . . . 107	150-0535-00 . . . 107	162-0035-14 . . . 176	164-2000-00 . . . 63
148-0081-15 . . . 126	150-0535-00 . . . 124	162-0035-18 . . . 176	164-2000-00 . . . 75
148-0081-15 . . . 162	150-0863-00 . . . 138	162-0035-22 . . . 176	164-2000-00 . . . 107
148-0081-18 . . . 21	150-0864-00 . . . 138	162-0036-03 . . . 176	164-2400-00 . . . 52
148-0081-18 . . . 34	150-0865-00 . . . 140	162-0036-14 . . . 176	164-2400-00 . . . 63
148-0081-18 . . . 42	150-0866-00 . . . 141	162-0036-18 . . . 176	164-2400-00 . . . 75
148-0081-18 . . . 52	150-4027-00 . . . 53	162-0036-22 . . . 176	164-2400-00 . . . 107
148-0081-18 . . . 62	150-4027-00 . . . 73	162-0112-02 . . . 167	164-2700-00 . . . 52
148-0081-18 . . . 74	150-4027-00 . . . 107	162-0112-02 . . . 169	164-2700-00 . . . 63
148-0081-18 . . . 107	150-4027-00 . . . 124	162-0146-02 . . . 167	164-2700-00 . . . 75
148-0081-18 . . . 126	150-4035-00 . . . 53	162-0146-02 . . . 169	164-2700-00 . . . 107
148-0081-18 . . . 162	150-4035-00 . . . 73	162-0150-11 . . . 172	164-2735-60 . . . 21
148-0081-20 . . . 42	150-4035-00 . . . 107	162-0169-30 . . . 167	164-2735-60 . . . 34
148-0081-20 . . . 52	150-4035-00 . . . 124	162-0169-30 . . . 169	164-2735-60 . . . 42
148-0081-20 . . . 62	150-5401-00 . . . 17	162-0182-27 . . . 167	164-2735-60 . . . 52
148-0081-20 . . . 74	150-5401-30 . . . 17	162-0182-27 . . . 169	164-2735-60 . . . 62
148-0081-20 . . . 107	150-5401-30 . . . 38	162-0190-27 . . . 172	164-2735-60 . . . 75
148-0081-20 . . . 126	150-5401-30 . . . 48	162-0195-34 . . . 172	164-2735-60 . . . 107
148-0081-20 . . . 149	150-5401-30 . . . 58	162-0197-27 . . . 167	164-2735-60 . . . 127
148-0081-20 . . . 162	150-5401-30 . . . 70	162-0197-27 . . . 169	164-3500-00 . . . 52
148-0081-25 . . . 42	150-5401-30 . . . 78	162-1124-30 . . . 176	164-3500-00 . . . 63
148-0081-25 . . . 52	150-5401-30 . . . 106	162-1131-65 . . . 176	164-3500-00 . . . 75
148-0081-25 . . . 62	150-5401-30 . . . 138	162-1135-22 . . . 176	164-3500-00 . . . 107
148-0081-25 . . . 74	150-5401-30 . . . 141	162-1136-22 . . . 176	165-0100-00 . . . 167
148-0081-25 . . . 107	150-5401-30 . . . 177	163-200-20 . . . 180	165-0100-00 . . . 178
148-0081-25 . . . 126	150-5402-30 . . . 17	164-0015-00 . . . 86	165-0100-21 . . . 167
148-0081-25 . . . 149	150-5402-30 . . . 38	164-0020-00 . . . 86	165-0100-21 . . . 178
148-0081-25 . . . 162	150-5402-30 . . . 48	164-0027-10 . . . 149	165-0100-27 . . . 167
148-0081-27 . . . 126	150-5402-30 . . . 58	164-0027-12 . . . 149	165-0100-27 . . . 178
148-0081-27 . . . 162	150-5402-30 . . . 70	164-0027-14 . . . 149	165-0100-34 . . . 167
148-0081-30 . . . 126	150-5402-30 . . . 78	164-0027-16 . . . 149	165-0100-34 . . . 178
148-0081-30 . . . 162	150-5402-30 . . . 106	164-0027-18 . . . 149	165-0110-10 . . . 171
148-0081-32 . . . 126	150-5402-30 . . . 138	164-0027-20 . . . 149	165-0110-15 . . . 167
148-0081-32 . . . 162	150-5402-30 . . . 141	164-0050-09 . . . 26	165-0110-15 . . . 171
148-0081-35 . . . 126	150-5402-30 . . . 177	164-0050-09 . . . 34	165-0110-23 . . . 167
148-0081-35 . . . 162	160-2401-00 . . . 173	164-0050-09 . . . 127	165-0110-23 . . . 171
148-0081-45 . . . 126	160-2402-00 . . . 173	164-0050-16 . . . 23	165-0120-15 . . . 167
148-0081-45 . . . 162	160-2404-00 . . . 173	164-0050-16 . . . 43	165-0120-15 . . . 171
148-0084-18 . . . 113	160-2408-00 . . . 173	164-0051-17 . . . 127	165-0120-28 . . . 171
148-0084-23 . . . 113	160-2413-00 . . . 173	164-0070-18 . . . 23	165-0120-30 . . . 171
148-0084-27 . . . 113	160-2415-00 . . . 173	164-0070-18 . . . 35	165-0130-00 . . . 171
148-0084-38 . . . 113	160-2418-00 . . . 173	164-0070-18 . . . 42	165-0130-22 . . . 171

165-0130-25....171	170-1150-05....186	230-2162-1528...39	242-124-26....103
165-0140-00 ...171	170-1155-02....186	230-2162-1531...39	242-124-28.....47
165-0150-32....167	170-1156-03....186	230-2162-4512...39	242-124-28.....103
165-0150-32....178	170-1157-04....186	230-2162-4515...39	242-124-30.....47
165-5003-00 ...177	170-1158-05....186	230-2162-4518...39	242-124-30.....103
169-1500-00....190	170-1170-01....184	230-2162-7513...39	242-124-32.....103
169-1500-01....190	170-1210-03....186	230-2162-7516...39	242-124-34.....103
169-1500-03....191	170-1211-02....186	230-2162-7519...39	242-124-36.....103
169-1520-04....191	170-1212-07....186	230-2162-7522...39	242-124-38.....103
169-1520-06....191	170-1215-06....186	230-2162-10519..39	242-124-40.....103
169-1537-03....191	170-1216-04....186	230-2162-10522..39	242-127-10.....50
169-1562-02....191	170-1218-05....186	230-2162-10525..39	242-127-10.....103
169-1562-03....191	170-1220-08....187	230-2163-622...39	242-127-12.....50
169-1562-04....191	170-1222-08....187	230-2163-926...39	242-127-12.....103
169-1562-05....191	170-1223-08....187	230-2163-1230...39	242-127-14.....50
169-1562-06....191	170-1225-07....184	230-2163-1532...39	242-127-14.....103
169-1562-07....191	170-1232-04....187	230-2163-7524...39	242-127-16.....50
169-1562-08....191	170-1233-04....187	230-2163-10528..39	242-127-16.....103
169-1562-09....191	170-1234-04....187	242-0020-24...104	242-127-18.....50
169-1562-10....191	170-1235-06....184	242-0027-35...104	242-127-18.....103
169-1570-52....191	170-1236-04....184	242-120-06.....47	242-127-20.....50
169-1580-20....191	170-1266-06....187	242-120-06....103	242-127-20.....103
170-1005-04....187	170-1268-08....187	242-120-08.....47	242-127-22.....50
170-1005-06....187	170-1269-08....187	242-120-08....103	242-127-22.....103
170-1010-09....187	170-1270-10....187	242-120-10.....47	242-127-24.....50
170-1025-02....184	170-1273-12....187	242-120-10....103	242-127-24.....103
170-1029-06....184	170-1300-03....187	242-120-12.....47	242-127-26.....50
170-1030-07....184	170-1305-03....187	242-120-12....103	242-127-26.....103
170-1031-08....184	230-155-03.....39	242-120-14.....47	242-127-28.....50
170-1037-03....184	230-155-0439	242-120-14.....103	242-127-28.....103
170-1038-03....184	230-155-0539	242-120-16.....47	242-127-30.....50
170-1040-02....185	230-155-0639	242-120-16....103	242-127-30.....103
170-1045-03....185	230-155-07.....39	242-120-18.....47	242-127-32.....50
170-1050-04....185	230-155-0839	242-120-18....103	242-127-32.....103
170-1055-05....185	230-2020-0038	242-120-20.....47	242-127-34.....50
170-1062-02....188	230-2040-0038	242-120-20....103	242-127-34.....103
170-1063-03....188	230-2080-0038	242-120-22.....47	242-127-36.....50
170-1065-05....188	230-2080-0038	242-120-22....103	242-127-36.....103
170-1066-06....188	230-2160-0339	242-120-24.....47	242-127-38.....50
170-1067-07....188	230-2160-0439	242-120-24....103	242-127-38.....103
170-1070-10....188	230-2160-0539	242-120-26....103	242-127-40.....50
170-1072-12188	230-2160-0639	242-120-28....103	242-127-40.....103
170-1082-02....185	230-2160-07....39	242-120-30....103	242-127-42.....50
170-1083-03....185	230-2160-0839	242-124-06.....47	242-127-42.....103
170-1084-04....185	230-2161-03....39	242-124-06....103	242-127-44.....50
170-1085-05....185	230-2161-04....39	242-124-08.....47	242-127-44.....103
170-1086-06....185	230-2161-05....39	242-124-08....103	242-127-46.....50
170-1087-07....185	230-2161-06....39	242-124-10.....47	242-127-46.....103
170-1088-08....185	230-2161-07....39	242-124-10....103	242-127-48.....50
170-1090-10....185	230-2161-08....39	242-124-12.....47	242-127-48.....103
170-1092-12185	230-2162-310....39	242-124-12....103	242-127-50.....50
170-1104-04....185	230-2162-313....39	242-124-14.....47	242-127-50.....103
170-1105-06....185	230-2162-316....39	242-124-14....103	242-135-10.....50
170-1114-04185	230-2162-319....39	242-124-16.....47	242-135-10.....103
170-1115-06....185	230-2162-616....39	242-124-16....103	242-135-12.....50
170-1120-06....185	230-2162-619....39	242-124-18.....47	242-135-12.....103
170-1124-04185	230-2162-622....39	242-124-18....103	242-135-14.....50
170-1125-06....185	230-2162-919....39	242-124-20.....47	242-135-14.....103
170-1135-05....186	230-2162-922....39	242-124-20....103	242-135-16.....50
170-1137-25186	230-2162-925....39	242-124-22.....47	242-135-16.....103
170-1140-01....186	230-2162-1222...39	242-124-22....103	242-135-18.....50
170-1142-02186	230-2162-1225...39	242-124-24.....47	242-135-18.....103
170-1145-03....186	230-2162-1228...39	242-124-24....103	242-135-20.....50
170-1146-04....186	230-2162-1525 ..39	242-124-26.....47	242-135-20.....103

242-135-22.....50	242-220-20.....57	242-227-26.....60	242-235-48.....60
242-135-22.....103	242-220-20.....69	242-227-26.....72	242-235-48.....72
242-135-24.....50	242-220-22.....57	242-227-28.....60	242-235-50.....60
242-135-24.....103	242-220-22.....69	242-227-28.....72	242-235-50.....72
242-135-26.....50	242-220-24.....57	242-227-30.....60	242-235-52.....60
242-135-26.....103	242-220-24.....69	242-227-30.....72	242-235-52.....72
242-135-28.....50	242-220-26.....57	242-227-32.....60	242-235-54.....60
242-135-28.....103	242-220-26.....69	242-227-32.....72	242-235-54.....72
242-135-30.....50	242-220-28.....57	242-227-34.....60	242-235-56.....60
242-135-30.....103	242-220-28.....69	242-227-34.....72	242-235-56.....72
242-135-32.....50	242-220-30.....57	242-227-36.....60	242-235-58.....60
242-135-32.....103	242-220-30.....69	242-227-36.....72	242-235-58.....72
242-135-34.....50	242-224-06.....57	242-227-38.....60	242-235-60.....60
242-135-34.....103	242-224-06.....69	242-227-38.....72	242-235-60.....72
242-135-36.....50	242-224-08.....57	242-227-40.....60	244-2431-08....110
242-135-36.....103	242-224-08.....69	242-227-40.....72	244-2431-10....110
242-135-38.....50	242-224-10.....57	242-227-42.....60	244-2431-12....110
242-135-38.....103	242-224-10.....69	242-227-42.....72	244-2431-14....110
242-135-40.....50	242-224-12.....57	242-227-44.....60	244-2431-16....110
242-135-40.....103	242-224-12.....69	242-227-44.....72	244-2431-18....110
242-135-42.....50	242-224-14.....57	242-227-46.....60	244-2431-20....110
242-135-42.....103	242-224-14.....69	242-227-46.....72	244-2431-22....110
242-135-44.....50	242-224-16.....57	242-227-48.....60	244-2431-24....110
242-135-44.....103	242-224-16.....69	242-227-48.....72	244-2431-26....110
242-135-46.....50	242-224-18.....57	242-227-50.....60	244-2431-28....110
242-135-46.....103	242-224-18.....69	242-227-50.....72	244-2431-30....110
242-135-48.....50	242-224-20.....57	242-235-10.....60	244-2439-00....110
242-135-48.....103	242-224-20.....69	242-235-10.....72	244-2439-10....110
242-135-50.....50	242-224-22.....57	242-235-12.....60	244-3039-10....110
242-135-50.....103	242-224-22.....69	242-235-12.....72	244-3039-12....110
242-135-52.....50	242-224-24.....57	242-235-14.....60	244-3039-14....110
242-135-52.....103	242-224-24.....69	242-235-14.....72	244-3039-16....110
242-135-54.....50	242-224-26.....57	242-235-16.....60	244-3039-18....110
242-135-54.....103	242-224-26.....69	242-235-16.....72	244-3039-20....110
242-135-56.....50	242-224-28.....57	242-235-18.....60	244-3039-22....110
242-135-56.....103	242-224-28.....69	242-235-18.....72	244-3039-24....110
242-135-58.....50	242-224-30.....57	242-235-20.....60	244-3039-26....110
242-135-58.....103	242-224-30.....69	242-235-20.....72	244-3039-28....110
242-135-60.....50	242-224-32.....57	242-235-22.....60	244-3039-30....110
242-135-60.....103	242-224-32.....69	242-235-22.....72	244-3039-32....110
242-135-62.....50	242-224-34.....57	242-235-24.....60	244-3039-34....110
242-135-62.....103	242-224-34.....69	242-235-24.....72	244-3039-36....110
242-135-64.....50	242-224-36.....57	242-235-26.....60	244-3039-38....110
242-135-64.....103	242-224-36.....69	242-235-26.....72	244-3039-40....110
242-135-66.....50	242-224-38.....57	242-235-28.....60	244-4050-14....111
242-135-66.....103	242-224-38.....69	242-235-28.....72	244-4050-16....111
242-135-68.....50	242-224-40.....57	242-235-30.....60	244-4050-18....111
242-135-68.....103	242-224-40.....69	242-235-30.....72	244-4050-20....111
242-135-70.....50	242-227-10.....60	242-235-32.....60	244-4050-22....111
242-135-70.....103	242-227-10.....72	242-235-32.....72	244-4050-24....111
242-220-06.....57	242-227-12.....60	242-235-34.....60	244-4050-26....111
242-220-06.....69	242-227-12.....72	242-235-34.....72	244-4050-28....111
242-220-08.....57	242-227-14.....60	242-235-36.....60	244-4050-30....111
242-220-08.....69	242-227-14.....72	242-235-36.....72	244-4050-32....111
242-220-10.....57	242-227-16.....60	242-235-38.....60	244-4050-34....111
242-220-10.....69	242-227-16.....72	242-235-38.....72	244-4050-36....111
242-220-12.....57	242-227-18.....60	242-235-40.....60	244-4050-38....111
242-220-12.....69	242-227-18.....72	242-235-40.....72	244-4050-40....111
242-220-14.....57	242-227-20.....60	242-235-42.....60	244-4050-45....111
242-220-14.....69	242-227-20.....72	242-235-42.....72	244-4050-50....111
242-220-16.....57	242-227-22.....60	242-235-44.....60	244-4050-55....111
242-220-16.....69	242-227-22.....72	242-235-44.....72	244-4050-60....111
242-220-18.....57	242-227-24.....60	242-235-46.....60	244-4060-10....111
242-220-18.....69	242-227-24.....72	242-235-46.....72	244-5060-20....111

244-5060-22	111	245-127-08	121	245-140-50	123	245-220-14	19
244-5060-24	111	245-127-10	121	245-140-52	123	245-220-14	33
244-5060-26	111	245-127-12	121	245-140-54	123	245-220-14	120
244-5060-28	111	245-127-14	121	245-140-55	123	245-220-16	19
244-5060-30	111	245-127-16	121	245-140-56	123	245-220-16	33
244-5060-32	111	245-127-18	121	245-140-58	123	245-220-16	120
244-5060-34	111	245-127-20	121	245-140-60	123	245-220-18	19
244-5060-36	111	245-127-22	121	245-140-62	123	245-220-18	33
244-5060-38	111	245-127-24	121	245-140-64	123	245-220-18	120
244-5060-40	111	245-127-26	121	245-140-66	123	245-220-20	19
244-5060-45	111	245-127-28	121	245-140-68	123	245-220-20	33
244-5060-50	111	245-127-30	121	245-140-70	123	245-220-20	120
244-5060-55	111	245-127-32	121	245-145-14	123	245-220-22	19
244-5060-60	111	245-127-34	121	245-145-16	123	245-220-22	33
245-115-06	120	245-127-36	121	245-145-18	123	245-220-22	120
245-115-07	120	245-127-38	121	245-145-20	123	245-220-24	19
245-115-08	120	245-127-40	121	245-145-22	123	245-220-24	33
245-115-09	120	245-127-42	121	245-145-24	123	245-220-24	120
245-115-10	120	245-135-08	122	245-145-26	123	245-220-26	19
245-115-11	120	245-135-10	122	245-145-28	123	245-220-26	33
245-115-12	120	245-135-12	122	245-145-30	123	245-220-26	120
245-115-14	120	245-135-14	122	245-145-32	123	245-220-28	19
245-115-16	120	245-135-16	122	245-145-34	123	245-220-28	33
245-115-18	120	245-135-18	122	245-145-36	123	245-220-28	120
245-115-20	120	245-135-20	122	245-145-38	123	245-220-30	19
245-120-06	120	245-135-22	122	245-145-40	123	245-220-30	33
245-120-08	120	245-135-24	122	245-145-42	123	245-220-30	120
245-120-10	120	245-135-26	122	245-145-44	123	245-224-06	19
245-120-12	120	245-135-28	122	245-145-46	123	245-224-06	33
245-120-14	120	245-135-30	122	245-145-48	123	245-224-06	40
245-120-16	120	245-135-32	122	245-145-50	123	245-224-06	121
245-120-18	120	245-135-34	122	245-145-52	123	245-224-08	19
245-120-20	120	245-135-36	122	245-145-54	123	245-224-08	33
245-120-22	120	245-135-38	122	245-145-56	123	245-224-08	40
245-120-24	120	245-135-40	122	245-145-58	123	245-224-08	121
245-120-26	120	245-135-42	122	245-145-60	123	245-224-10	19
245-120-28	120	245-135-44	122	245-145-62	123	245-224-10	33
245-120-30	120	245-135-45	122	245-145-64	123	245-224-10	40
245-120-32	120	245-135-50	122	245-145-66	123	245-224-10	121
245-120-34	120	245-135-55	122	245-145-68	123	245-224-12	19
245-120-36	120	245-135-60	122	245-145-70	123	245-224-12	33
245-120-38	120	245-135-65	122	245-215-06	120	245-224-12	40
245-120-40	120	245-140-10	123	245-215-07	120	245-224-12	121
245-120-42	120	245-140-12	123	245-215-08	120	245-224-14	19
245-120-44	120	245-140-14	123	245-215-09	120	245-224-14	33
245-124-06	121	245-140-16	123	245-215-10	120	245-224-14	40
245-124-08	121	245-140-18	123	245-215-11	120	245-224-14	121
245-124-10	121	245-140-20	123	245-215-12	120	245-224-16	19
245-124-12	121	245-140-22	123	245-215-14	120	245-224-16	33
245-124-14	121	245-140-24	123	245-215-16	120	245-224-16	40
245-124-16	121	245-140-26	123	245-215-18	120	245-224-16	121
245-124-18	121	245-140-28	123	245-215-20	120	245-224-18	19
245-124-20	121	245-140-30	123	245-220-06	19	245-224-18	33
245-124-22	121	245-140-32	123	245-220-06	33	245-224-18	40
245-124-24	121	245-140-34	123	245-220-06	120	245-224-18	121
245-124-26	121	245-140-35	123	245-220-08	19	245-224-20	19
245-124-28	121	245-140-36	123	245-220-08	33	245-224-20	33
245-124-30	121	245-140-38	123	245-220-08	120	245-224-20	40
245-124-32	121	245-140-40	123	245-220-10	19	245-224-20	121
245-124-34	121	245-140-42	123	245-220-10	33	245-224-22	19
245-124-36	121	245-140-44	123	245-220-10	120	245-224-22	33
245-124-38	121	245-140-45	123	245-220-12	19	245-224-22	40
245-124-40	121	245-140-46	123	245-220-12	33	245-224-22	121
245-127-06	121	245-140-48	123	245-220-12	120	245-224-24	19

245-224-24.....33	245-227-34.....121	245-420-05.....82	245-515-09.....25
245-224-24.....40	245-227-36.....41	245-420-06.....82	245-515-09.....120
245-224-24.....121	245-227-36.....121	245-420-07.....82	245-515-10.....25
245-224-26.....19	245-227-38.....41	245-420-08.....82	245-515-10.....120
245-224-26.....33	245-227-38.....121	245-420-09.....82	245-515-12.....25
245-224-26.....40	245-227-40.....41	245-420-10.....82	245-515-12.....120
245-224-26.....121	245-227-40.....121	245-420-11.....82	245-515-14.....25
245-224-28.....19	245-235-08.....41	245-420-12.....82	245-515-14.....120
245-224-28.....33	245-235-08.....122	245-420-14.....82	245-515-16.....25
245-224-28.....40	245-235-10.....41	245-420-16.....82	245-515-16.....120
245-224-28.....121	245-235-10.....122	245-420-18.....82	245-515-18.....25
245-224-30.....19	245-235-12.....41	245-420-20.....82	245-515-18.....120
245-224-30.....33	245-235-12.....122	245-420-22.....82	245-515-20.....25
245-224-30.....40	245-235-14.....41	245-420-24.....82	245-515-20.....120
245-224-30.....121	245-235-14.....122	245-420-26.....82	245-520-05.....19
245-224-32.....19	245-235-16.....41	245-420-28.....82	245-520-05.....25
245-224-32.....33	245-235-16.....122	245-420-30.....82	245-520-05.....33
245-224-32.....40	245-235-18.....41	245-427-08.....148	245-520-05.....120
245-224-32.....121	245-235-18.....122	245-427-10.....148	245-520-06.....19
245-224-34.....19	245-235-20.....41	245-427-12.....148	245-520-06.....25
245-224-34.....33	245-235-20.....122	245-427-14.....148	245-520-06.....33
245-224-34.....40	245-235-22.....41	245-427-16.....148	245-520-06.....120
245-224-34.....121	245-235-22.....122	245-427-18.....148	245-520-07.....19
245-224-36.....19	245-235-24.....41	245-427-20.....148	245-520-07.....25
245-224-36.....33	245-235-24.....122	245-440-10.....123	245-520-07.....33
245-224-36.....40	245-235-26.....41	245-440-12.....123	245-520-07.....120
245-224-36.....121	245-235-26.....122	245-440-14.....123	245-520-08.....19
245-224-38.....19	245-235-28.....41	245-440-16.....123	245-520-08.....25
245-224-38.....33	245-235-28.....122	245-440-18.....123	245-520-08.....33
245-224-38.....40	245-235-30.....41	245-440-20.....123	245-520-08.....57
245-224-38.....121	245-235-30.....122	245-440-22.....123	245-520-08.....69
245-224-40.....19	245-235-32.....41	245-440-24.....123	245-520-08.....120
245-224-40.....33	245-235-32.....122	245-440-26.....123	245-520-09.....19
245-224-40.....40	245-235-34.....41	245-440-28.....123	245-520-09.....25
245-224-40.....121	245-235-34.....122	245-440-30.....123	245-520-09.....33
245-227-06.....41	245-235-36.....41	245-440-32.....123	245-520-09.....120
245-227-06.....121	245-235-36.....122	245-440-34.....123	245-520-10.....19
245-227-08.....41	245-235-38.....41	245-440-35.....123	245-520-10.....25
245-227-08.....121	245-235-38.....122	245-440-36.....123	245-520-10.....33
245-227-10.....41	245-235-40.....41	245-440-38.....123	245-520-10.....57
245-227-10.....121	245-235-40.....122	245-440-40.....123	245-520-10.....69
245-227-12.....41	245-235-45.....41	245-440-42.....123	245-520-10.....120
245-227-12.....121	245-235-45.....122	245-440-44.....123	245-520-12.....19
245-227-14.....41	245-235-50.....41	245-440-46.....123	245-520-12.....25
245-227-14.....121	245-235-50.....122	245-440-48.....123	245-520-12.....33
245-227-16.....41	245-235-55.....41	245-440-50.....123	245-520-12.....57
245-227-16.....121	245-235-55.....122	245-440-52.....123	245-520-12.....69
245-227-18.....41	245-235-60.....41	245-440-54.....123	245-520-12.....120
245-227-18.....121	245-235-60.....122	245-440-55.....123	245-520-14.....19
245-227-20.....41	245-415-05.....80	245-440-56.....123	245-520-14.....25
245-227-20.....121	245-415-06.....80	245-440-58.....123	245-520-14.....33
245-227-22.....41	245-415-07.....80	245-440-60.....123	245-520-14.....57
245-227-22.....121	245-415-08.....80	245-440-62.....123	245-520-14.....69
245-227-24.....41	245-415-09.....80	245-440-64.....123	245-520-14.....120
245-227-24.....121	245-415-10.....80	245-440-66.....123	245-520-16.....19
245-227-26.....41	245-415-11.....80	245-440-68.....123	245-520-16.....25
245-227-26.....121	245-415-12.....80	245-440-70.....123	245-520-16.....33
245-227-28.....41	245-415-14.....80	245-515-05.....120	245-520-16.....57
245-227-28.....121	245-415-16.....80	245-515-06.....25	245-520-16.....69
245-227-30.....41	245-415-18.....80	245-515-06.....120	245-520-16.....120
245-227-30.....121	245-415-20.....80	245-515-07.....25	245-520-18.....19
245-227-32.....41	245-415-22.....80	245-515-07.....120	245-520-18.....25
245-227-32.....121	245-415-24.....80	245-515-08.....25	245-520-18.....33
245-227-34.....41	245-415-26.....80	245-515-08.....120	245-520-18.....57

245-520-18.....69	245-524-20.....19	245-527-20.....61	245-535-28.....73
245-520-18.....120	245-524-20.....33	245-527-20.....73	245-535-28.....122
245-520-20.....19	245-524-20.....40	245-527-20.....121	245-535-30.....41
245-520-20.....25	245-524-20.....57	245-527-22.....41	245-535-30.....61
245-520-20.....33	245-524-20.....57	245-527-22.....61	245-535-30.....73
245-520-20.....120	245-524-20.....69	245-527-22.....73	245-535-30.....122
245-520-22.....19	245-524-20.....69	245-527-22.....121	245-535-32.....41
245-520-22.....25	245-524-20.....121	245-527-24.....41	245-535-32.....61
245-520-22.....33	245-524-22.....19	245-527-24.....61	245-535-32.....73
245-520-22.....120	245-524-22.....33	245-527-24.....73	245-535-32.....122
245-520-24.....19	245-524-22.....40	245-527-24.....121	245-535-34.....41
245-520-24.....25	245-524-22.....57	245-527-26.....41	245-535-34.....61
245-520-24.....33	245-524-22.....69	245-527-26.....61	245-535-34.....73
245-520-24.....120	245-524-22.....121	245-527-26.....73	245-535-34.....122
245-520-26.....19	245-524-24.....19	245-527-26.....121	245-535-36.....41
245-520-26.....25	245-524-24.....33	245-527-28.....41	245-535-38.....41
245-520-26.....33	245-524-24.....40	245-527-28.....61	245-535-40.....41
245-520-26.....120	245-524-24.....121	245-527-28.....73	245-535-45.....41
245-520-28.....19	245-524-26.....19	245-527-28.....121	245-535-50.....41
245-520-28.....25	245-524-26.....33	245-527-30.....41	245-535-55.....41
245-520-28.....33	245-524-26.....40	245-527-30.....61	245-535-60.....41
245-520-28.....120	245-524-26.....121	245-527-30.....73	245-620-08.....47
245-520-30.....19	245-524-28.....19	245-527-30.....121	245-620-08.....105
245-520-30.....25	245-524-28.....33	245-527-32.....41	245-620-08.....120
245-520-30.....33	245-524-28.....40	245-527-32.....61	245-620-10.....47
245-520-30.....120	245-524-28.....121	245-527-32.....73	245-620-10.....105
245-524-06.....19	245-524-30.....19	245-527-32.....121	245-620-10.....120
245-524-06.....33	245-524-30.....33	245-527-34.....41	245-620-12.....47
245-524-06.....40	245-524-30.....40	245-527-34.....61	245-620-12.....105
245-524-06.....121	245-524-30.....121	245-527-34.....73	245-620-12.....120
245-524-08.....19	245-524-32.....19	245-527-34.....121	245-620-14.....47
245-524-08.....33	245-524-32.....33	245-527-36.....41	245-620-14.....105
245-524-08.....40	245-524-32.....40	245-527-38.....41	245-620-14.....120
245-524-08.....57	245-524-32.....121	245-527-40.....41	245-620-16.....47
245-524-08.....69	245-524-34.....19	245-535-08.....41	245-620-16.....105
245-524-08.....121	245-524-34.....33	245-535-10.....41	245-620-16.....120
245-524-10.....19	245-524-34.....40	245-535-12.....41	245-620-18.....47
245-524-10.....33	245-524-34.....121	245-535-14.....41	245-620-18.....105
245-524-10.....40	245-524-36.....19	245-535-16.....41	245-620-18.....120
245-524-10.....57	245-524-36.....33	245-535-16.....61	245-624-08.....47
245-524-10.....69	245-524-36.....40	245-535-16.....73	245-624-08.....105
245-524-10.....121	245-524-36.....121	245-535-16.....122	245-624-08.....121
245-524-12.....19	245-524-38.....19	245-535-18.....41	245-624-10.....47
245-524-12.....33	245-524-38.....33	245-535-18.....61	245-624-10.....105
245-524-12.....40	245-524-38.....40	245-535-18.....73	245-624-10.....121
245-524-12.....121	245-524-38.....121	245-535-18.....122	245-624-12.....105
245-524-14.....19	245-524-40.....19	245-535-20.....41	245-624-12.....121
245-524-14.....33	245-524-40.....33	245-535-20.....61	245-624-14.....47
245-524-14.....40	245-524-40.....40	245-535-20.....73	245-624-14.....105
245-524-14.....57	245-524-40.....121	245-535-20.....122	245-624-14.....121
245-524-14.....69	245-527-06.....41	245-535-22.....41	245-624-16.....47
245-524-14.....121	245-527-08.....41	245-535-22.....61	245-624-16.....105
245-524-16.....19	245-527-10.....41	245-535-22.....73	245-624-16.....121
245-524-16.....33	245-527-12.....41	245-535-22.....122	245-624-18.....47
245-524-16.....40	245-527-14.....41	245-535-24.....41	245-624-18.....105
245-524-16.....57	245-527-16.....41	245-535-24.....61	245-624-18.....121
245-524-16.....69	245-527-16.....61	245-535-24.....73	245-624-20.....47
245-524-16.....121	245-527-16.....73	245-535-24.....122	245-624-20.....47
245-524-18.....19	245-527-16.....121	245-535-26.....41	245-624-20.....105
245-524-18.....33	245-527-18.....41	245-535-26.....61	245-624-20.....121
245-524-18.....40	245-527-18.....61	245-535-26.....73	245-624-22.....47
245-524-18.....57	245-527-18.....73	245-535-26.....122	245-624-22.....105
245-524-18.....69	245-527-18.....121	245-535-28.....41	245-624-22.....121
245-524-18.....121	245-527-20.....41	245-535-28.....61	245-627-10.....121

245-627-12	121	245-635-30	105	247-0121-00	138
245-627-14	121	245-635-30	122	247-0122-00	138
245-627-16	51	245-635-32	51	247-0130-00	138
245-627-16	105	245-635-32	105	247-0131-00	138
245-627-16	121	245-635-32	122	247-0132-00	138
245-627-18	51	245-635-34	51	247-0140-00	138
245-627-18	105	245-635-34	105	247-0141-00	138
245-627-18	121	245-635-34	122	247-0142-00	138
245-627-20	51	245-635-36	105	247-0143-00	138
245-627-20	105	245-635-36	122	247-0150-00	138
245-627-20	121	245-635-38	105	247-0151-00	138
245-627-22	51	245-635-38	122	247-0152-00	138
245-627-22	105	245-635-40	105	247-0160-00	138
245-627-22	121	245-635-40	122	247-0161-00	138
245-627-24	51	245-635-45	105		
245-627-24	105	245-635-45	122		
245-627-24	121	245-635-50	105		
245-627-26	51	245-635-50	122		
245-627-26	105	245-635-55	105		
245-627-26	121	245-635-55	122		
245-627-28	51	245-635-60	105		
245-627-28	105	245-635-60	122		
245-627-28	121	246-001-04	42		
245-627-30	51	246-001-08	42		
245-627-30	105	246-002-00	43		
245-627-30	121	246-006-19	42		
245-627-32	51	246-008-02	40		
245-627-32	105	246-008-04	40		
245-627-32	121	246-008-06	40		
245-627-34	51	247-0000-00	138		
245-627-34	105	247-0101-00	138		
245-627-34	121	247-0102-00	51		
245-627-36	105	247-0102-00	61		
245-627-36	121	247-0102-00	74		
245-627-38	105	247-0102-00	106		
245-627-38	121	247-0102-00	125		
245-627-40	105	247-0102-00	138		
245-627-40	121	247-0102-00	148		
245-635-08	122	247-0103-00	23		
245-635-10	122	247-0103-00	26		
245-635-12	122	247-0103-00	35		
245-635-14	122	247-0103-00	42		
245-635-16	51	247-0103-00	51		
245-635-16	105	247-0103-00	61		
245-635-16	122	247-0103-00	74		
245-635-18	51	247-0103-00	86		
245-635-18	105	247-0103-00	106		
245-635-18	122	247-0103-00	125		
245-635-20	51	247-0104-00	51		
245-635-20	105	247-0104-00	61		
245-635-20	122	247-0104-00	74		
245-635-22	51	247-0104-00	106		
245-635-22	105	247-0104-00	125		
245-635-22	122	247-0104-00	148		
245-635-24	51	247-0105-00	112		
245-635-24	105	247-0110-00	138		
245-635-24	122	247-0111-00	138		
245-635-26	51	247-0112-00	138		
245-635-26	105	247-0113-00	138		
245-635-26	122	247-0114-00	138		
245-635-28	51	247-0115-00	138		
245-635-28	105	247-0116-00	138		
245-635-28	122	247-0117-00	138		
245-635-30	51	247-0120-00	138		

Notes

Notes

Griesweg 37 | D-78570 Mühlheim
GERMANY | Tel + 49 (0) 7463 99 291-0



Order Form

By fax: +49 (0) 7463 99 291-55

By mail: info@leibinger-medical.com

Clinic/Practice _____

Name _____

Street, House Number _____

ZIP code, City, Country _____

Product Code	Description	Quantity	Price

Date, signature _____

Order Form

By fax: +49 (0) 7463 99 291-55

By mail: info@leibinger-medical.com

Clinic/Practice

Name

Street, House Number

ZIP code, City, Country

Product Code	Description	Quantity	Price

Date, signature