

L1® Orthognathics

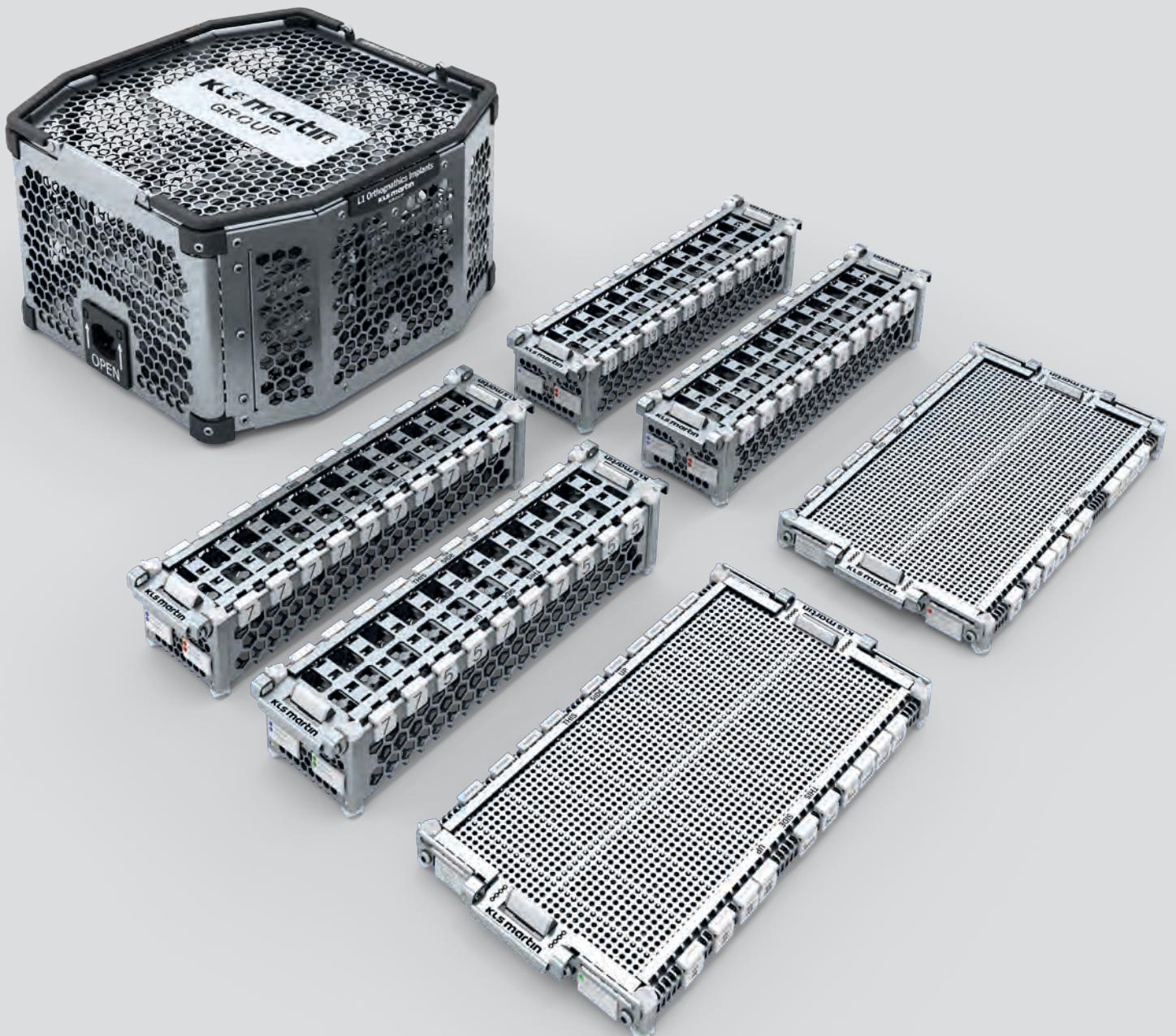
Orthognathic surgery



Oral and maxillofacial surgery is our passion! It is our policy to continue enhancing this field in collaboration with our customers. Every day we work on developing innovative products and services which meet the highest demands on quality, and which contribute to the wellbeing of the patient.

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L1® Orthognathics Orthognathic surgery

Orthognathic surgery is a surgical procedure for correcting jaw misalignments, which enables both functional as well as aesthetic improvements. It is employed when orthodontic measures alone are not sufficient to achieve harmonious occlusion and a balanced facial profile. This involves precisely repositioning the maxilla and/or mandible to achieve optimal jaw alignment.

L1® Orthognathics combines all the components required for this procedure in a single well-designed system. The set includes all the plates, screws, and instruments needed to perform orthognathic surgery - precisely tailored to the requirements of the operating room and designed for maximum efficiency and safety.

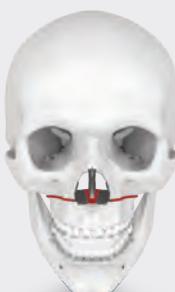
Feature, function and benefit



The plate range of the L1® Orthognathics system offers a complete selection of plates in various profile thicknesses and different shapes for use in orthognathic surgery.

To cover all anatomies and surgical philosophies, one can choose between a selection of plates from the systems 1.5 Micro and 2.0 Mini.

L1® Orthognathics – plates

Features	Benefits
 <ul style="list-style-type: none"> ■ Detachable ID tag with article number, batch number, GTIN number, and GS1 DataMatrix code 	<ul style="list-style-type: none"> ■ Enables reading or digital recording of all the relevant data, even in the case of very small implants ■ Batch retraceability for every single implant ■ Simplified reordering
 <ul style="list-style-type: none"> ■ Different variants of L-plates for LeFort I ■ Anatomically preshaped Arnett plates based on the FAB philosophy 	<ul style="list-style-type: none"> ■ L-plates from the 1.5 Micro and 2.0 Mini systems in various lengths and profile thicknesses, suitable for standard osteosynthesis ■ Arnett L- and C-shaped plates for LeFort-1 reconstruction ■ Arnett plates in T-shape for cases of a segmented maxilla
 <ul style="list-style-type: none"> ■ Standard osteosynthesis with straight plates for BSSO ■ Sliding plates for simultaneous forward and backward movement of the mandible 	<ul style="list-style-type: none"> ■ Straight 2.0 Mini plates in various lengths and with different numbers of holes ■ Arnett plates with graduation lines for precise adjustment and fixation ■ Double plates for fast restoration ■ Locking plates with a sliding element for optimum force transmission ■ Sliding plates for precise forward or backward movement of the mandible with a flexible and stable design
 <ul style="list-style-type: none"> ■ Different designs allow control of height, midline, and shape in genioplasty ■ Geometry or markings for improved handling 	<ul style="list-style-type: none"> ■ Chin plates from the 1.5 Micro and 2.0 Mini systems in various lengths and profile thicknesses ■ Center line or gap for symmetrical placement of the plates ■ Arnett plates with tabs for precise fixation of the plates ■ All plates can be used for a forward or backward shift

Feature, function and benefit



All plates from the L1® Orthognathics system can be combined with screws with a diameter of 1.5 mm or 2.0 mm.

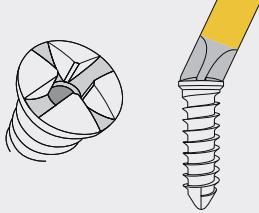
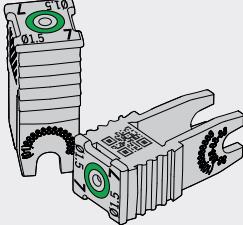
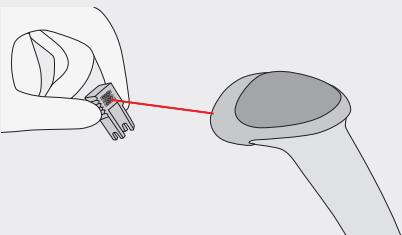
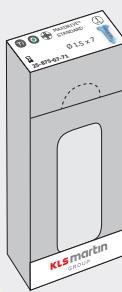
maxDrive®, being a high-precision osteosynthesis screw with excellent self-retaining properties, allows easy pick-up, screwing in, and retightening of the screw in combination with direct transmission of force from the screwdriver blade to the screw, even in an angular position.

Clear identification of diameters is ensured with color-coded single clips.

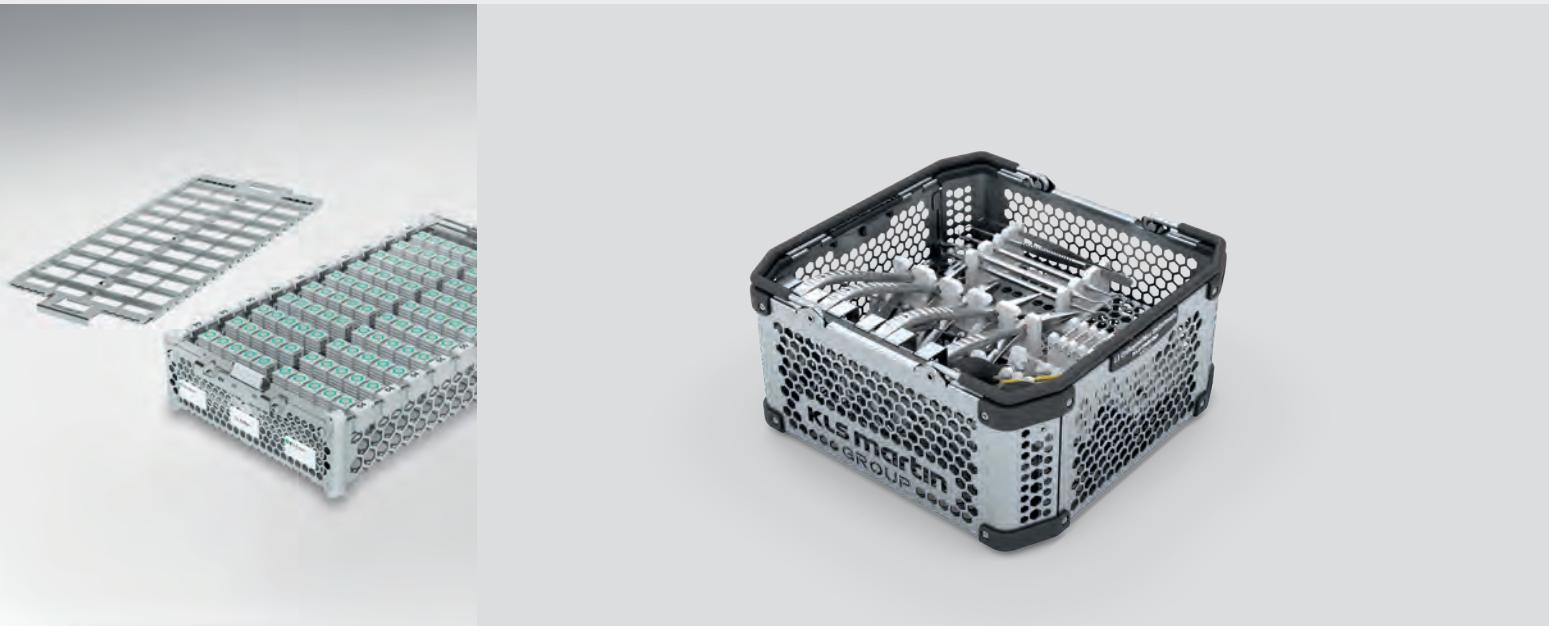
Whether this relates to a standard or emergency screw can also be determined when stored in the clip by the corresponding color coding of the screws.

Screw color	Screw type
Blue	Standard screw
Pink	Emergency screw

L1® Orthognathics – screws

Features	Benefits	
	<ul style="list-style-type: none"> Proven maxDrive® screws with predefined, self-centering guide and excellent self-retaining mechanism 	<ul style="list-style-type: none"> Easy finding, pick-up, and insertion of the screw Can be screwed in at an angle Direct force transfer from the screwdriver blade to the screw
	<ul style="list-style-type: none"> Screws in color-coded single clip with article number, batch number, GTIN number, and DataMatrix code 	<ul style="list-style-type: none"> Clear identification of the respective screw diameter Enables reading or digital recording of all the relevant data Batch retraceability of every single screw
	<ul style="list-style-type: none"> DataMatrix code for scanning with a 2D code scanner 	<ul style="list-style-type: none"> Easy recording of all the implant data by scanning the DataMatrix code 100% batch retraceability and transparent, patient-related documentation
	<ul style="list-style-type: none"> All screws are also available in individually sterile packaged versions Including self-adhesive labels with all the relevant implant data 	<ul style="list-style-type: none"> Maximum selection options for the user 100% batch retraceability and transparent, patient-related documentation

Feature, function and benefit

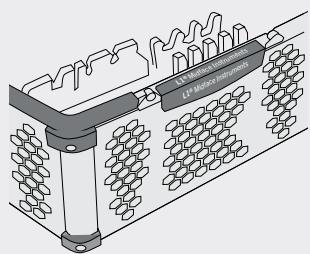
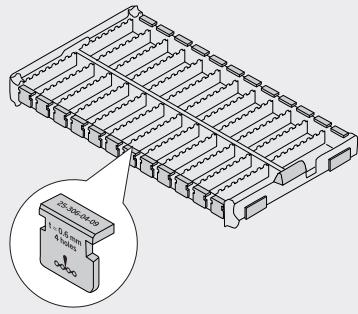
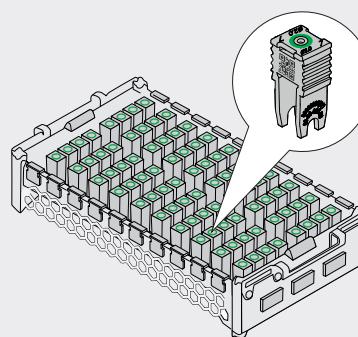


When redesigning the storage system, it was important for us to build on the success and ease of use of the LevelOne storage system, which has been successful on the market for more than 15 years, to utilize feedback from our customers, and to even better meet their needs and today's requirements.

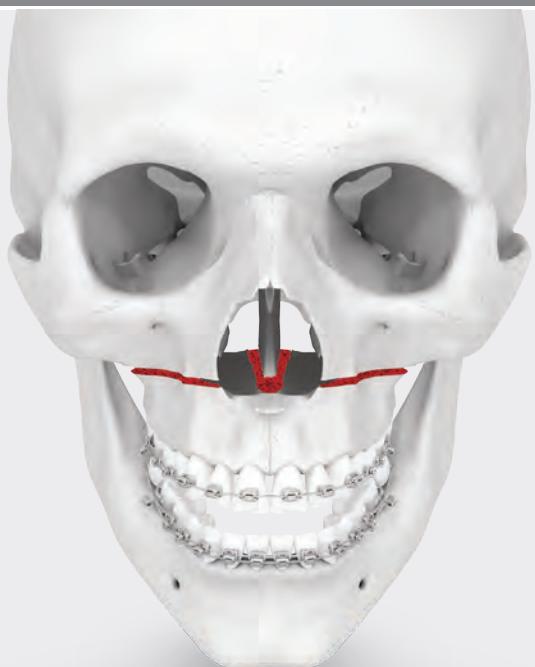
For this reason, in addition to efficient handling, for example by the instruments being arranged according to the sequence of use during surgery, the focus was also on the need for traceability and optimized reprocessing capability in order to equally meet the needs of everyone involved.

The new cleaning and sterilization-validated implant modules, which are suitable for machine reprocessing, meet these requirements in every respect and, as an open solution with 100% batch traceability of each individual implant, represent a genuine alternative to the sterile-packaged system.

L1® Orthognathics – storage

Features	Benefits	
	<ul style="list-style-type: none"> ■ Stainless steel storage containers of honeycomb design combined with high-performance plastic 	<ul style="list-style-type: none"> ■ Large openings ensure excellent rinsing capability ■ Suitable for machine reprocessing
	<ul style="list-style-type: none"> ■ Each compartment in the plate module is marked with a labeling clip that bears the article number, the plate profile, and a picture of the plate. ■ Matt, dark inner surface 	<ul style="list-style-type: none"> ■ Application-oriented access to the plate and intuitive refilling ■ Transparent arrangement ■ Increased contrast and good recognition of plates, even under surgical light
	<ul style="list-style-type: none"> ■ Single screw clips can be taken out of the screw module from any position 	<ul style="list-style-type: none"> ■ Easy removal and refilling
	<ul style="list-style-type: none"> ■ In the storage container, the instruments are arranged according to the sequence of use during surgery ■ Storage areas with laser images and article numbers 	<ul style="list-style-type: none"> ■ Swift and intuitive supply of instruments during surgery ■ User-friendly and efficient passing of instruments to the surgeon ■ Transparent arrangement and easy sorting

Step by step
to optimal treatment

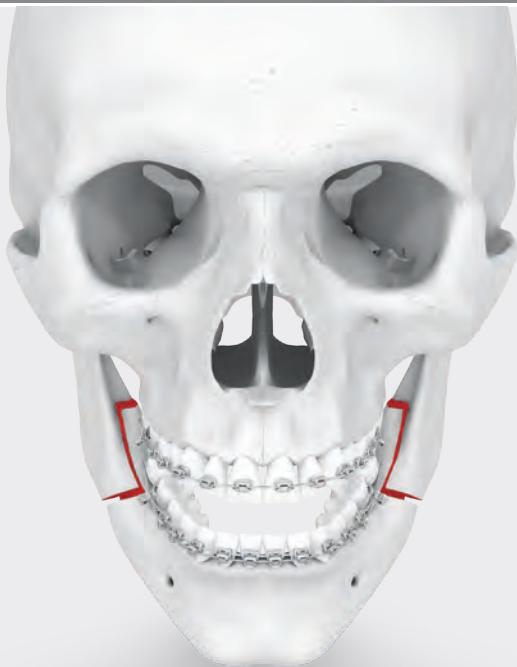


Modular system

The L1® Orthognathics system features a modular design and can be customized to suit individual needs. This allows the configuration to be optimally adapted to different surgical requirements and preferences. This flexibility allows for a targeted alignment with customer-specific needs - while at the same time providing complete coverage of all three key indications: Le Fort I osteotomy, bilateral sagittal split of the mandible (BSSO), and genioplasty (chin osteotomy).

Modular storage in the L1® Orthognathics system

- Selection from a central basket module for individual configuration.
- Integration of up to 4 storage modules for plates – depending on requirements and indications.
- Can be supplemented with up to 4 storage modules for screws – flexible combination options.
- A separate instrument basket is available for the complete set of surgical instruments.



Components

Plate module 1: Arnett

Plates for LeFort 1, BSSO, and genioplasty

Page 13



Plate module 2: 1.5

Plates for LeFort 1 and genioplasty

Page 14



Plate module 3: 2.0

Plates for LeFort 1 and genioplasty

Page 15



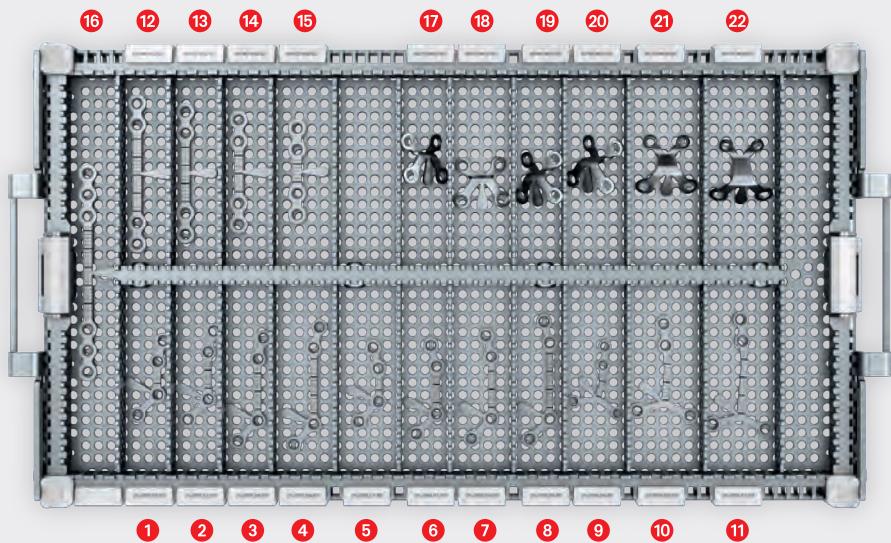
Plate module 4: BSSO

Plates for BSSO in different variants

Page 16



Plate module Arnett



Article number	Description
55-993-51-04	Platte module Arnett (for individual configuration)

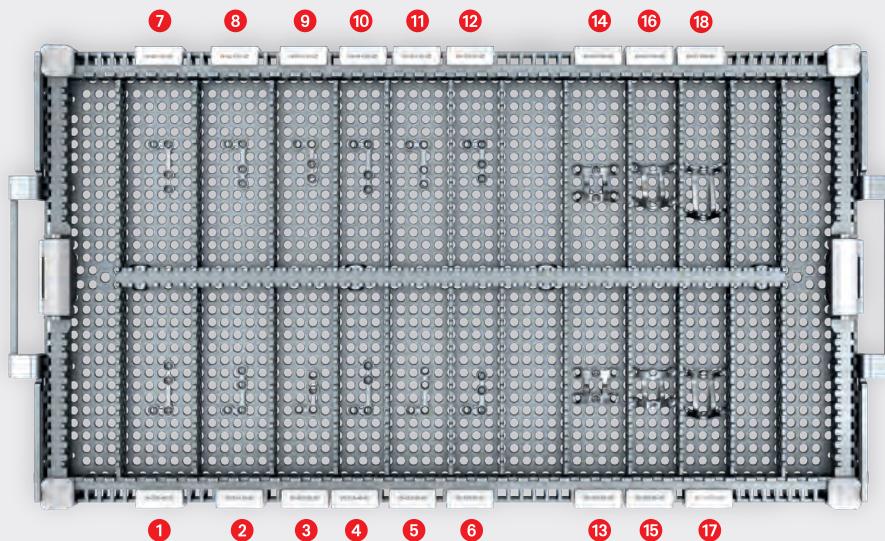
The following plates can be stored in the plate module Arnett (55-993-53-04)

Article number	Description	Profile
1	L-shape, 4-hole, S	0.8 mm
2	L-shape, 4-hole, M	0.8 mm
3	L-shape, 4-hole, L	0.8 mm
4	L-shape, 4-hole, XL	1.0 mm
5	C-shape, 4-hole, S	0.8 mm
6	C-shape, 4-hole, M	0.8 mm
7	C-shape, 4-hole, L	0.8 mm
8	C-shape, 4-hole, XL	1.0 mm
9	T-shape, 4-hole, S	0.8 mm
10	T-shape, 4-hole, M	0.8 mm
11	T-shape, 4-hole, L	1.0 mm
12	straight, S	1.0 mm
13	straight, 4-hole, M	1.0 mm
14	straight, 4-hole, L	1.0 mm
15	straight, 4-hole, XL	1.0 mm
16	straight, 6-hole, XXL	1.0 mm

Article number	Description	Profile
17	Displacement length 2 mm	0.8 mm
18	Displacement length 3 mm	0.8 mm
19	Displacement length 4 mm	0.8 mm
20	Displacement length 6 mm	0.8 mm
21	Displacement length 8 mm	0.8 mm
22	Displacement length 10 mm	0.8 mm

All plates are supplied with a UDI tag. However, for reasons of clarity, the tags have been deliberately removed from the illustrations.*

Plate module 1.5



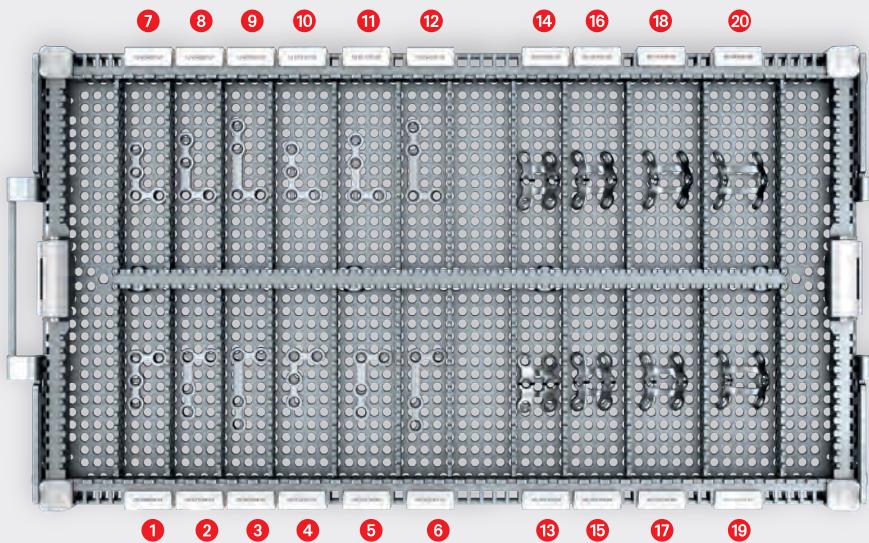
Article number	Description
55-993-52-04	Plate module 1.5 (for individual configuration)

The following plates can be stored in the plate module 1.5 (55-993-59-04)

Article number	Description	Profile	Article number	Description	Profile
① 25-310-85-91	Left, S	0.6 mm	⑬ 50-302-01-09	Displacement length 1 mm	0.6 mm
② 25-310-70-91	Left, M	0.6 mm	⑭ 50-302-03-09	Displacement length 3 mm	0.6 mm
③ 25-310-55-91	Left, L	0.6 mm	⑮ 50-302-05-09	Displacement length 5 mm	0.6 mm
④ 25-313-40-91	Left, S	0.8 mm	⑯ 50-302-07-09	Displacement length 7 mm	0.6 mm
⑤ 25-313-30-91	Left, M	0.8 mm	⑰ 50-302-09-09	Displacement length 9 mm	0.6 mm
⑥ 25-313-20-91	Left, L	0.8 mm	⑲ 50-302-11-09	Displacement length 11 mm	0.6 mm
⑦ 25-311-85-91	Right, S	0.6 mm			
⑧ 25-311-70-91	Right, M	0.6 mm			
⑨ 25-311-55-91	Right, L	0.6 mm			
⑩ 25-313-41-91	Right, S	0.8 mm			
⑪ 25-313-31-91	Right, M	0.8 mm			
⑫ 25-313-21-91	Right, L	0.8 mm			

All plates are supplied with a UDI tag. However, for reasons of clarity, the tags have been deliberately removed from the illustrations.*

Plate module 2.0



Article number	Description
55-993-53-04	Plate module 2.0 (for individual configuration)

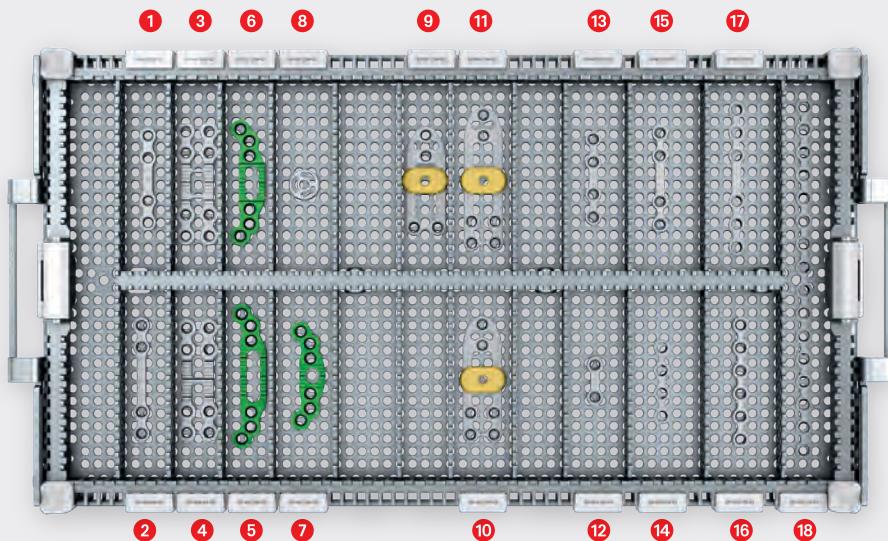
The following plates can be stored in the plate module 2.0 (55-993-53-04)

Article number	Description	Profile	Article number	Description	Profile
1	25-566-04-91	Left, S	13	50-303-02-09	Displacement length 2 mm
2	25-571-04-91	Left, M	14	50-303-03-09	Displacement length 3 mm
3	25-567-04-91	Left, L	15	50-303-04-09	Displacement length 4 mm
4	25-313-22-91	Left, S	16	50-303-05-09	Displacement length 5 mm
5	25-313-32-91	Left, M	17	50-303-06-09	Displacement length 6 mm
6	25-313-41-91	Left, L	18	50-303-07-09	Displacement length 7 mm
7	25-564-04-91	Right, S	19	50-303-08-09	Displacement length 8 mm
8	25-569-04-91	Right, M	20	50-303-09-09	Displacement length 9 mm
9	25-565-04-91	Right, L			
10	25-313-23-91	Right, S			
11	25-313-33-91	Right, M			
12	25-313-43-91	Right, L			

All plates are supplied with a UDI tag. However, for reasons of clarity, the tags have been deliberately removed from the illustrations.*

Plate module

BSSO



Article number	Description
55-993-59-04	Platte module BSSO (for individual configuration)

The following plates can be stored in the plate module BSSO (55-993-59-04)

Article number	Description	Profile	Image
①	25-394-04-91	4 hole, S	1.0 mm
②	25-392-04-91	4 hole, L	1.0 mm
③	25-394-34-09	2 x 4 hole, 1 bar	1.0 mm
④	25-395-34-09	2 x 4 hole, 2 bar	1.0 mm
⑤	25-401-38-09	6 hole, L	1.0 mm
⑥	25-401-37-09	6 hole, M	1.0 mm
⑦	25-401-36-09	6 hole, S	1.0 mm
⑧	25-401-39-09	Slider	1.0 mm
⑨	25-401-30-09	30 mm	0.8 mm
⑩	25-401-35-09	35 mm	0.8 mm
⑪	25-401-40-09	40 mm	0.8 mm
⑫	25-551-02-91	2 hole, XS	1.0 mm
⑬	25-551-04-91	4 hole, M	1.0 mm
⑭	25-550-04-91	4 hole, S	1.0 mm
⑮	25-552-04-91	4 hole, L	1.0 mm
⑯	25-550-06-91	6 hole, XL	1.0 mm
⑰	25-552-06-91	6 hole, XXL	1.0 mm
⑱	25-550-16-91	16 hole	1.0 mm

All plates are supplied with a UDI tag. However, for reasons of clarity, the tags have been deliberately removed from the illustrations.*

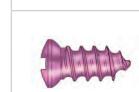
Implants L1® Orthognathics
maxDrive® screws in single clips

Module 1 

Article number	Description		
55-993-54-04	Screw module 1 (for individual configuration)		

maxDrive®

	Standard screw, self-retaining		
Quantity	Ø x length	Article number	
32	2.0 x 5 mm	25-872-05-61	



Emergency screw, self-retaining

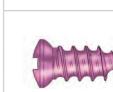
Quantity	Ø x length	Article number
8	2.0 x 5 mm	25-873-45-61

Module 2 

Article number	Description		
55-993-55-04	Screw module 2 (for individual configuration)		

maxDrive®

	Standard screw, self-retaining		
Quantity	Ø x length	Article number	
32	2.0 x 7 mm	25-872-07-61	

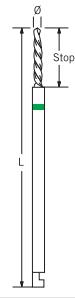


Emergency screw, self-retaining

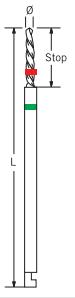
Quantity	Ø x length	Article number
8	2.0 x 7 mm	25-873-47-61

Drills 

for screws Ø 1.5 mm, J-coupling

	Ø	Stop	Article number
	1.1	3.5 mm	25-452-03-91
	1.1	5 mm	25-452-05-91
	1.1	7 mm	25-452-07-91

for screws Ø 2.0 mm, J-coupling

	Ø	Stop	Article number
	1.5	5 mm	25-449-05-91
	1.5	11 mm	25-449-11-91
	1.5	70 mm	25-449-16-91



Explanation of icons

- Titanium alloy
- Steel
- J-coupling
- maxDrive®
- System diameter 1.5 mm
- System diameter 2.0 mm
- Packaging unit

Module 3

Article number	Description		
55-993-56-04	Screw module 3 (for individual configuration)		

Module 4

Article number	Description		
55-993-57-04	Screw module 4 (for individual configuration)		

maxDrive®

	Standard screw, self-retaining		
	Quantity	Ø x length	Article number
12	1.5 x 5 mm	25-875-05-61	
12	1.5 x 7 mm	25-875-07-61	

	Emergency screw, self-retaining		
	Quantity	Ø x length	Article number
8	1.8 x 5 mm	25-876-05-61	
8	1.8 x 7 mm	25-876-07-61	

maxDrive®

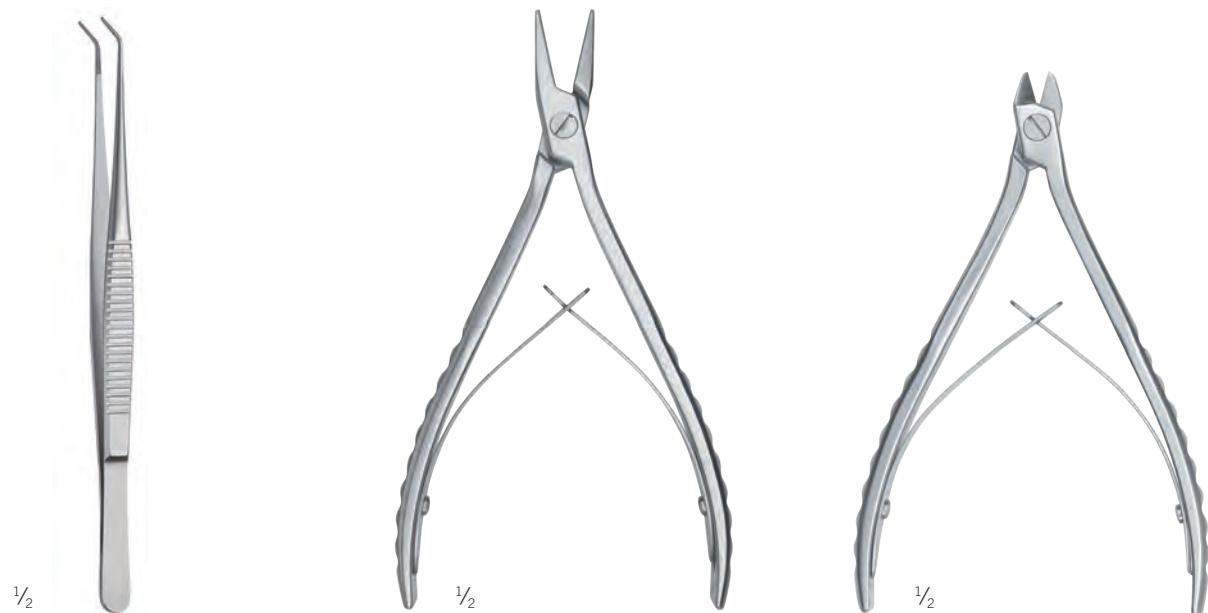
	Standard screw, self-retaining		
	Quantity	Ø x length	Article number
8	2.0 x 11 mm	25-872-11-61	
12	2.0 x 13 mm	25-872-13-61	
8	2.0 x 15 mm	25-872-15-61	

maxDrive®

	Standard screw, self-retaining		
	Quantity	Ø x length	Article number
4	2.3 x 11 mm	25-873-11-61	
4	2.3 x 13 mm	25-873-13-61	
4	2.3 x 15 mm	25-873-15-61	

Instruments L1® Orthognathics instrumentation

Instrumentation – selection according to the corresponding plate configuration



51-525-80-07

15.5 cm / 6 1/8"

Plate-holding forceps

25-516-14-07

15.5 cm / 6 1/8"

Bending pliers, curved

(2 per set necessary)

25-050-14-07

14.5 cm / 5 1/8"

Cutting pliers, up to 1.0 mm profile

St 1
qTY

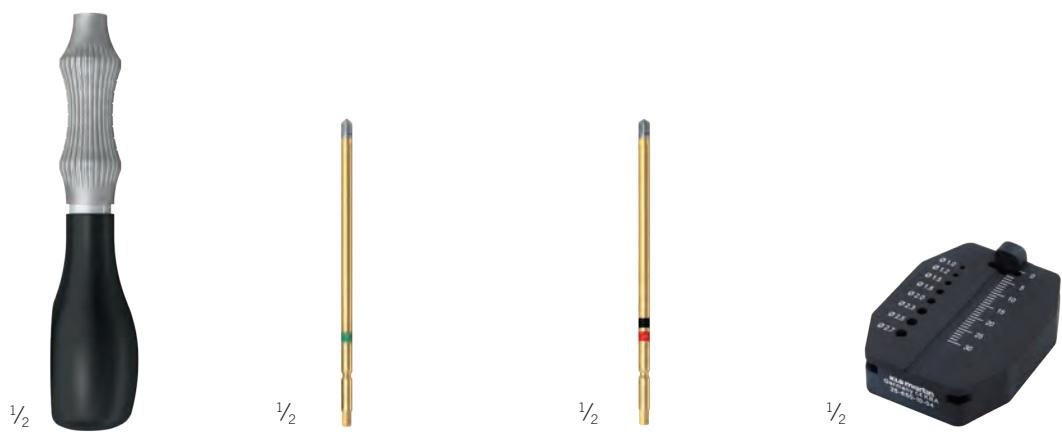
St 1
qTY

St 1
qTY



Explanation of icons

- Steel
- Silicone
- maxDrive®
- System diameter 1.5 mm
- Units per package



25-407-04-04

11 cm / 4 $\frac{3}{8}$ "
Screwdriver handle, flat,
rotatable

25-438-97-07

8 cm / 3 $\frac{1}{8}$ "
maxDrive® blade
 \varnothing 1.5 mm

25-486-97-07

8 cm / 3 $\frac{1}{8}$ "
maxDrive® blade
 \varnothing 2.0 mm

25-650-10-04

5 cm / 2"
Screw measurement clip,
length and diameter



Instruments L1® Orthognathics instrumentation

Instrumentation – selection according to the corresponding plate configuration



25-435-20-07

16.5 cm / 6 4/8"

Plate holding instrument

1.5 Midface



25-510-12-07

Mini

12 cm / 4 1/4"

Bending pliers KLS Martin Mini System

St 1
qty

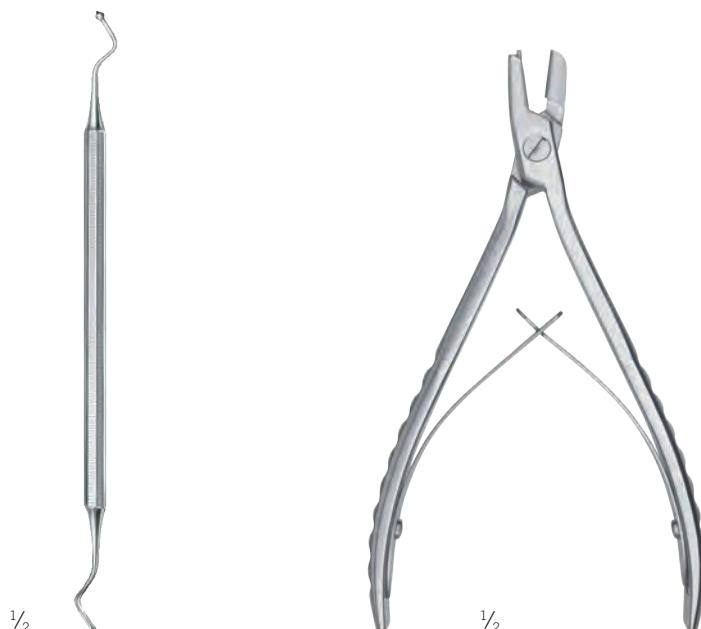


St 1
qty



Explanation of icons

- Steel
- maxDrive®
- System diameter 1.5 mm
- Packaging unit



25-435-15-07

16.5 cm / 6 4/8"

Plate holding instrument

1.5 Micro

St 1 QTY

25-416-14-07

15.5 cm / 6 1/8"

3-point bending pliers

1.5 Micro

St 1 QTY

Storage L1® Orthognathics – the concept for non-sterile packaged implants



The screw and plate modules are stored in the implant storage container.

The container offers space for:

- 1 x 1/3 screw module
- 1 x 2/3 screw module
- 2 x 2/3 plate module



For transparent organization and easy identification all the module fronts have color-coded labeling clips that clearly indicate the contents.

Screw modules allow direct, application-oriented access to the screws. After surgery, the empty single clips can be taken out of the module from any position.

To meet the requirements of any particular user, two sizes of screw modules are available, which can be configured with various numbers of screw clips.

The small 1/3 module can hold a total of 40 screws stored in a single clip and is therefore ideal for storing special screws. The larger 2/3 module offers space for a total of 100 screws.

All relevant data on the implant are provided on the single clip by labeling with article, batch and GTIN numbers. The printed DataMatrix code also enables easy recording with a scanner system and further processing of data. That means, all the conditions are fulfilled for ensuring transparent, patient-related and seamless documentation, as well as for reordering.



In the plate module the plates are clearly arranged and kept separate from each other. Each plate compartment is marked at the side with a labeling clip that bears the article number, the profile, and a picture of the plate. As a result, the necessary information is provided for application-oriented access and intuitive refilling.

The matt inner surface of the module increases the contrast and allows comfortable, dazzle-free work under the surgical light.

The stackable modules, which are available in coordinated sizes, can also be used individually, without a storage container. Consequently, it is possible to customize set design in a simple and practical manner.

All implant modules, both plate as well as screw modules, are cleaning and sterilization validated, and suitable for machine reprocessing. They thus meet the requirements for optimal reprocessing.

Individually configurable storage components

Article number	Description	Article number	Description
55-993-50-04	Container implants	55-993-54-04	Screw module 1
55-993-58-04	Container instruments	55-993-55-04	Screw module 2
55-993-51-04	Plate module Arnett	55-993-56-04	Screw module 3
55-993-52-04	Plate module 1.5	55-993-57-04	Screw module 4
55-993-53-04	Plate module 2.0		
55-993-59-04	Plate module BSSO		

CMF Surgery

SonicWeld Rx®

Resorbable implants for use in craniomaxillofacial osteosynthesis

- Resorb x®
- Resorb xG



It is the face which makes humans unique and unmistakable

– “There is nothing that more closely reflects the life of an individual than the human face*.”

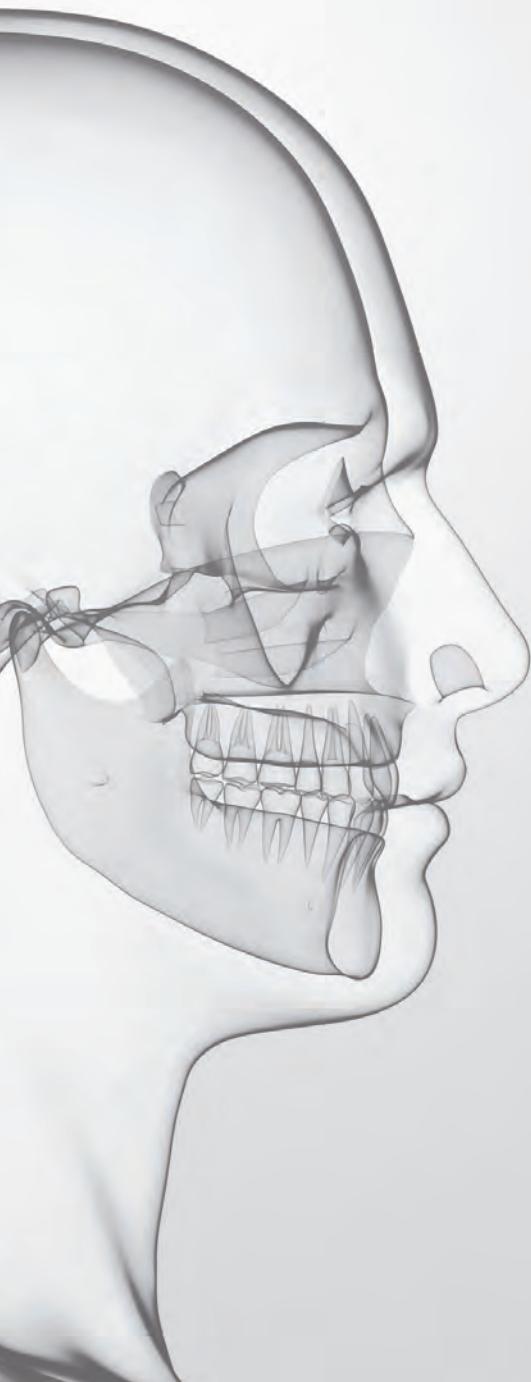
Our objective is to simplify craniomaxillofacial surgery with specially designed implant systems and instruments that ensure optimum satisfaction for both surgeon and patient. Together with renowned users we translate new ideas into innovative products and are continuously enhancing them.

Our range of products includes everything necessary for state-of-the-art craniomaxillofacial surgery. In doing so, we not only set standards, but also go further to develop solutions that are specifically tailored to individual patients by leveraging the technologies available to us.

KLS Martin – your competent and reliable partner for both everyday and special challenges.



* © Kurt Haberstich (*1948)



Distraction

Distractors for the treatment of malformations in the areas of the

- Cranium
- Midface
- Mandible



Individual Patient Solutions

Customized solutions for use in craniomaxillofacial surgery

- IPS Implants®
- IPS CaseDesigner®
- IPS Gate®



LevelOne fixation

Titanium implants for use in craniomaxillofacial osteosynthesis

- Trauma
- Reconstruction
- Orthognathic surgery



App for CMF products

All important information about the CMF portfolio at a glance:

<https://cmf.klsmartin.com/de/>



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