



Maxillomandibular Fixation
MMF System



Oral and maxillo-facial surgery is our passion! Its further development, together with our customers, is our ambition. 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.

Screws for Maxillomandibular Fixation MMF System

Maxillomandibular Fixation (MMF) is one of the most frequent procedures accompanying oral and maxillofacial surgery and it is used routinely for virtually all jaw and midface fractures. Immobilization of the fractured jaw is performed preoperatively (as an immediate measure), intraoperatively (to ensure accurate occlusion and anatomically correct reduction of fragments), or postoperatively (e.g. to introduce the healing process in complex fractures). In rare cases, Maxillomandibular Fixation is still used as a conservative (non-surgical) method of jaw fracture treatment.

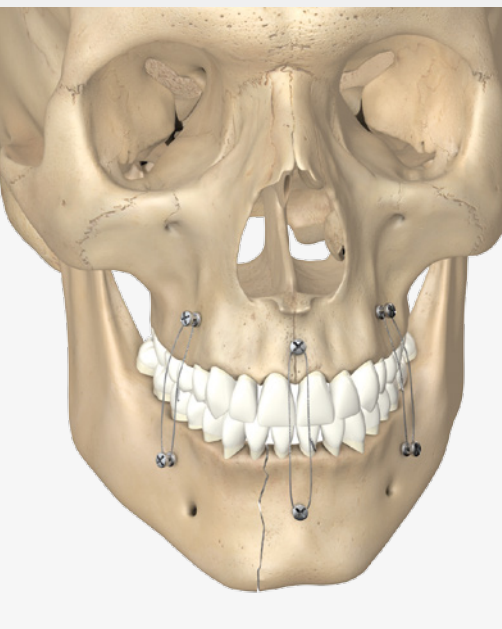
Maxillomandibular Fixation of the upper and lower dental arches using special self-tapping, bone-supported screws is a rapid and safe method. Placement comfort and less patient damage are considerable benefits for the patient and surgeon, compared to conventional, tooth-supported Erich or Schuchardt resin/arch wire splinting.



Table of Contents

	Pages
Feature, function and benefit	6 - 7
Surgical technique	8 - 9
Product range	
■ Implants	10 -13
■ Instruments	14
■ Storage and set recommendation	15

Feature, Function and Benefit



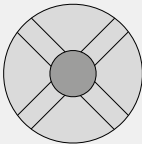
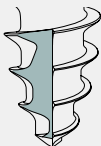
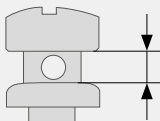
A multitude of different lengths and designs of our MMF screws offers a maximum of application flexibility to the user.

All the screws are self-drilling. The risk of damaging dental roots is thus reduced as there is no need for pre-drilling.

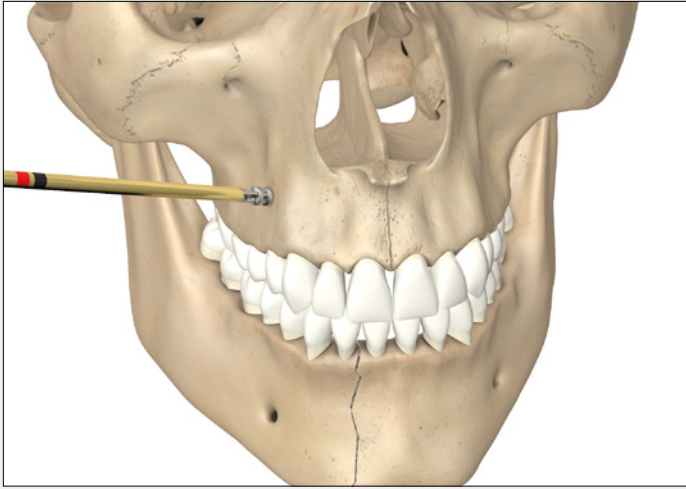
To provide maximum stability, our MMF screws are also offered in steel – in addition to the proven titanium alloy.

Due to a rising need for sterile implants the MMF screws are also available sterile-packed, in packs of 2.

MMF Screws

	Feature and Function	Benefit
	■ Proven maxDrive® head ■ Predefined, self-centering guide ■ Secure self-retaining mechanism	■ Easy screw pickup ■ Easy to pick up again in situ ■ Can be inserted in angular position as well ■ Direct force transmission from bit to screw
	■ Self-drilling screws	■ No pre-drilling ■ Reduced OR-time ■ Risk of damaging dental roots is reduced
	■ Groove under screwhead ■ Hole under screwhead	■ Secures wires or elastics
 	■ Screws made from stainless steel ■ Screws made from Titanium	■ Maximum stability ■ High biocompatibility
STERILE R	■ Sterile-packed screws	■ Direct, swift and application-oriented access ■ No costs for processing ■ 100% batch traceability

Note: Not all MMF screws have the above-named features.



Screw Placement Maxilla

Based on the fracture type and location, number and position of the MMF screws is determined.

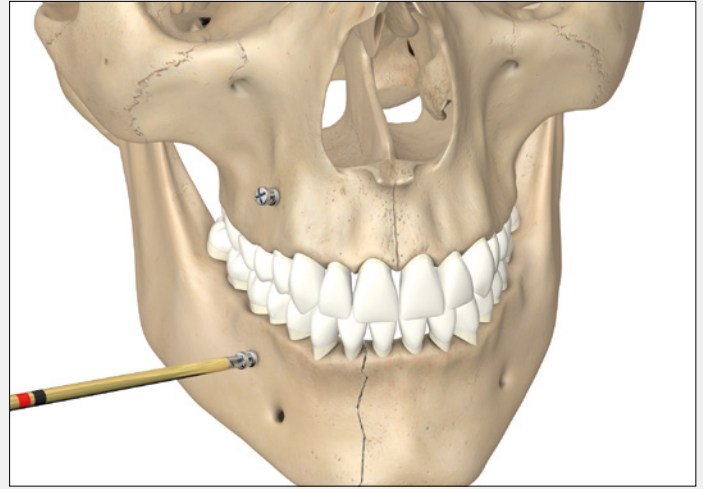
In this surgical technique three screws are placed in order to stabilize an anterior mandible fracture. The ideal position is above the teeth roots, one in the midline and one on either side of the midline, posterior to the canine roots.

Using the 2.0-mm screwdriver, the screw is directly inserted into the bone; pre-drilling is not necessary.

The screw is advanced until the concave shoulder of the screw head is 1 mm from the mucosal surface.

The screw may be readjusted for proper alignment of the wire holes contained within the screw head.

The procedure is repeated for the other maxillary MMF screws.



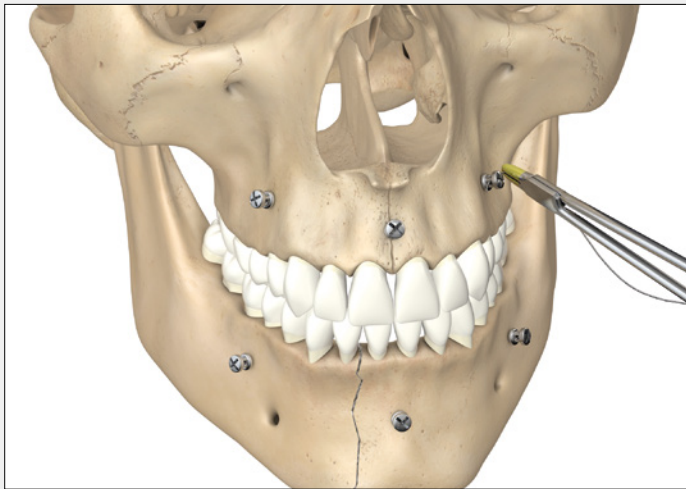
Screw Placement Mandible

Opposite to the maxillary MMF screws, the mandibular screws are inserted. After having exposed the fracture and identified the anatomical structures, teeth roots and mental nerve, the screws are implanted using the 2.0-mm screwdriver. Place screws a distance of 1 cm from either side of the fracture below the roots of the teeth.

The screw is advanced until the concave shoulder of the screw head is 1 mm from the mucosal surface.

The screw may be readjusted for proper alignment of the wire holes contained within the screw head.

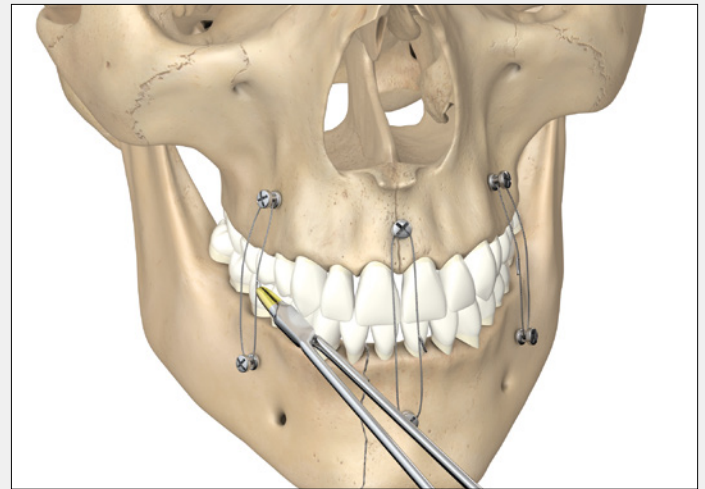
The procedure is repeated for the other mandibular MMF screws.



Wire Application

The wires are inserted through the holes of the maxillary and opposing mandibular screws. Alternatively the wires can be wrapped around the wire groove contained within the head of the MMF screw.

The number of wires placed, their configuration, and the amount needed to stabilize the occlusion and fracture is determined by the surgeon.



Tightening of Wires

After having established the occlusion, the wires are tightened. The MMF screws may be advanced further to increase the tautness of the wires.

Finally the wires are cut and bent under to prevent soft tissue irritation.

MMF Screws

maxDrive® MMF Screws

	Ø	Thread Length	Total Length	Item Number		
	2.0 mm	8 mm	12 mm	25-092-08-09	Ti	5
	2.0 mm	8 mm	12 mm	25-092-08-72	Ti	2
	2.0 mm	8 mm	12 mm	25-092-38-05	St	5
	2.0 mm	8 mm	12 mm	25-092-38-72	St	2
	2.0 mm	12 mm	16 mm	25-092-12-09	Ti	5
	2.0 mm	12 mm	16 mm	25-092-12-72	Ti	2
	2.0 mm	12 mm	16 mm	25-092-42-05	St	5
	2.0 mm	12 mm	16 mm	25-092-42-72	St	2

with clip magazine

Amsterdam MMF Screws

	Ø	Thread Length	Total Length	Item Number		
	2.0 mm	8 mm	12 mm	25-099-12-09	Ti	2
	2.0 mm	8 mm	12 mm	25-099-12-72	Ti	2
	2.0 mm	8 mm	12 mm	25-099-42-05	St	2
	2.0 mm	8 mm	12 mm	25-099-42-72	St	2
	2.0 mm	10 mm	14 mm	25-099-14-09	Ti	2
	2.0 mm	10 mm	14 mm	25-099-14-72	Ti	2
	2.0 mm	10 mm	14 mm	25-099-44-05	St	2
	2.0 mm	10 mm	14 mm	25-099-44-72	St	2

Amsterdam MMF
Designed in cooperation with:
Dr. Bart van den Bergh, VU Amsterdam, The Netherlands

without clip magazine



Explanation of icons

-  Titanium
-  Stainless steel
-  Packaging unit
-  maxDrive®
-  Centre-Drive®
-  Cross-Drive

STERILE | R Sterile packed implants

FAMI MMF Screws

 	Ø	Thread Length	Total Length	Item Number	
	2.0 mm	8 mm	10.4 mm	25-097-08-09	 
	2.0 mm	8 mm	10.4 mm	25-097-08-75	 

FAMI MMF –
designed in cooperation with:
- Lars Erikson D.D.S, Odont D. (Ph.D.), University of Lund, Sweden
- Dr. Dr. Rainer Fangmann, MSC, Wilhelmshaven, Germany
- PD Dr. Dr. R. Mischkowski, Städt. Klinikum Ludwigshafen, Germany

with clip magazine

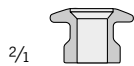
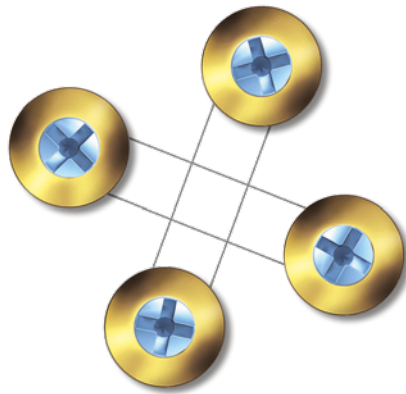
FAMI MMF Screws

 	Ø	Thread Length	Total Length	Item Number	
	2.0 mm	8 mm	10.7 mm	25-099-08-09	 
	2.0 mm	11 mm	13.7 mm	25-099-11-09	 

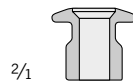
FAMI MMF –
designed in cooperation with:
- Dr. Dr. Rainer Fangmann, MSC, Wilhelmshaven, Germany
- PD Dr. Dr. R. Mischkowski, Städt. Klinikum Ludwigshafen, Germany

with clip magazine

Fast-Fix MMF Washer and Arch Bar



25-095-90-09
MMF washer, Rome model, short



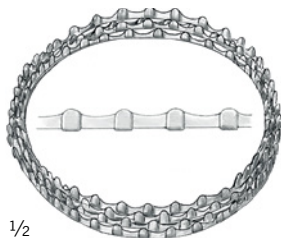
25-095-91-09
MMF washer, Rome model, long



Note:
Used in connection with 2.0-mm Centre-Drive®, maxDrive® or Cross-Drive screws

Explanation of icons

- Ti** Titanium
- St** Stainless steel
- 1** Packaging unit



1/2

Erich
38-690-00-07

Arch bar
Length: 1 m

St **1**

Instruments and Storage



1/2

25-407-04-04
Screwdriver handle,
only

St 1



1/2

25-486-97-07
maxDrive® blade
2.0 / 2.3 mm

St 1



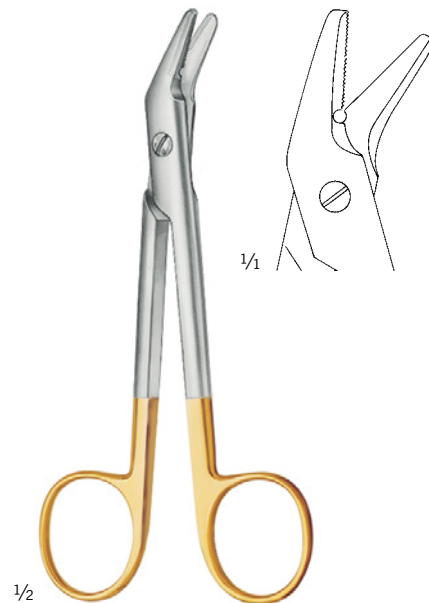
1/1

1/2

22-500-11-07
TC wire twister

St 1

TC GOLD



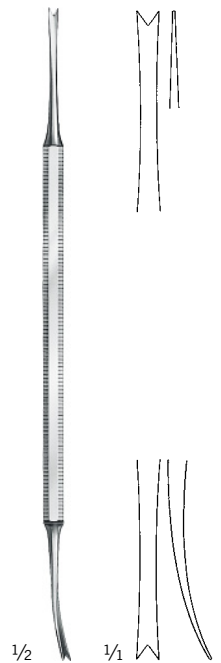
1/1

1/2

11-865-12-07
TC wire twister
max. Ø = 1.0 mm
soft wire

St 1

TC GOLD



1/2

1/1

39-311-20-07
Gauze packer

St 1



Explanation of icons

St Stainless steel

1 Packaging unit

TC GOLD TC instruments with hard-metal inserts

Fast-Fix MMF System

55-961-29-04		2.0-mm MMF module complete, consisting of:
55-962-48-04	1	MMF module, with red side rails
55-963-47-04	1	Lid for 2.0-mm MMF module

		Set Recommendation
25-407-04-04	St 1	Screwdriver handle, only
25-486-97-07	St 1	maxDrive® blade 2.0 / 2.3 mm
22-500-11-07	St 1	TC wire twister
11-865-12-07	St 1	Wire scissors
39-311-20-07	St 1	Gauze packer

KLS Martin Group

KLS Martin Australia Pty Ltd.

Sydney · Australia
Tel.: +61 2 9439 5316
australia@klsmartin.com

KLS Martin India Pvt Ltd.

Chennai · India
Tel. +91 44 66 442 300
india@klsmartin.com

Martin Nederland/Marned B.V.

Huizen · The Netherlands
Tel. +31 35 523 45 38
nederland@klsmartin.com

KLS Martin LP

Jacksonville · Florida, USA
Tel. +1 904 641 77 46
usa@klsmartin.com

KLS Martin do Brasil Ltda.

São Paulo · Brazil
Tel.: +55 11 3554 2299
brazil@klsmartin.com

Martin Italia S.r.l.

Milan · Italy
Tel. +39 039 605 67 31
italia@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Moscow · Russia
Tel. +7 499 792-76-19
russia@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Shanghai · China
Tel. +86 21 5820 6251
china@klsmartin.com

Nippon Martin K.K.

Tokyo · Japan
Tel. +81 3 3814 1431
nippon@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Dubai · United Arab Emirates
Tel. +971 4 454 16 55
middleeast@klsmartin.com

KLS Martin France SARL

Mulhouse · France
Tel. +33 3 8951 3150
france@klsmartin.com

KLS Martin SE Asia Sdn. Bhd.

Penang · Malaysia
Tel.: +604 505 7838
malaysia@klsmartin.com

KLS Martin UK Ltd.

London · United Kingdom
Tel. +44 1189 000 570
uk@klsmartin.com

Gebrüder Martin GmbH & Co. KG**A company of the KLS Martin Group**

KLS Martin Platz 1 · 78532 Tuttlingen · Germany
P.O. Box 60 · 78501 Tuttlingen · Germany
Tel. +49 7461 706-0 · Fax +49 7461 706-193
info@klsmartin.com · www.klsmartin.com