



Maxillomandibular Fixation MMF System



# 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.



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# 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	■ Easy screw pickup
	■ Predefined, self-centering guide	■ Easy to pick up again in situ
	■ Secure self-retaining mechanism	<ul> <li>Can be inserted in angular position as well</li> </ul>
		<ul> <li>Direct force transmission from bit to screw</li> </ul>
	■ Self-drilling screws	■ No pre-drilling
		■ Reduced OR-time
		<ul> <li>Risk of damaging dental roots is reduced</li> </ul>
	■ Groove under screwhead	■ Secures wires or elastics
	■ Hole under screwhead	
St	■ Screws made from stainless steel	■ Maximum stability
	■ Screws made from Titanium	<ul><li>High biocompatibility</li></ul>
STERILE R	■ Sterile-packed scews	<ul> <li>Direct, swift and application-oriented access</li> </ul>
		<ul><li>No costs for processing</li></ul>
		■ 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  $1\ \mathrm{mm}$  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  $1\ \mathrm{mm}$  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	Ø	Thread Length	Total Length	Item Number	
IOI	2.0 mm	8 mm	12 mm	25-092-08-09	<b>1</b> 5
捷	2.0 mm	8 mm	12 mm	25-092-08-72	<b>1</b> 2
蓬	2.0 mm	8 mm	12 mm	25-092-38-05	St 5
1	2.0 mm	8 mm	12 mm	25-092-38-72	St 2
	2.0 mm	12 mm	16 mm	25-092-12-09	<b>1</b> 5
	2.0 mm	12 mm	16 mm	25-092-12-72	<b>1</b> 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

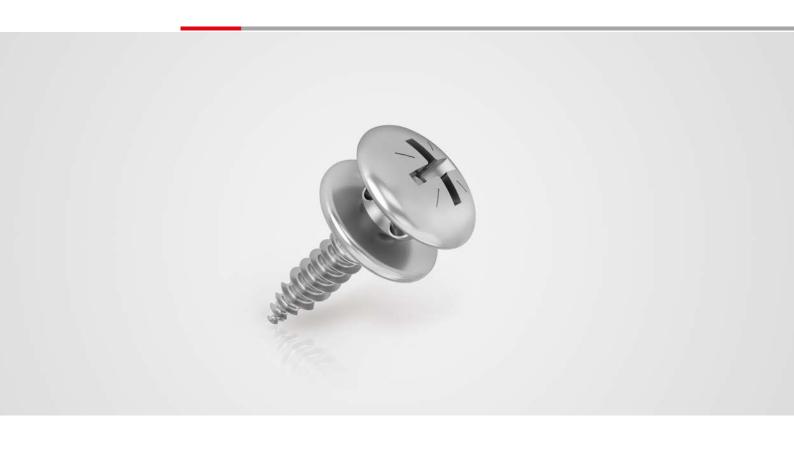


# **Amsterdam MMF Screws**



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

without clip magazine



# **FAMI MMF Screws**

	Ø	Thread Length	Total Length	Item Number	
事	2.0 mm	8 mm	10.4 mm	25-097-08-09	<b>11</b> 2
#	2.0 mm	8 mm	10.4 mm	25-097-08-75	<b>11</b> 2
#					

- 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

# Fast-Fix MMF Washer

Explanation of icons



Titanium



St Stainless steel

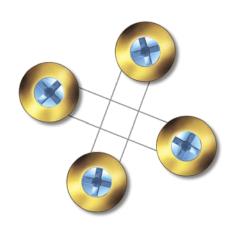


Centre-Drive®



Cross-Drive

STERILE | R | Sterile packed implants







25-095-90-09

MMF washer, Rome model, short





25-095-91-09

MMF washer, Rome model, long





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

# Instruments and Storage





# Fast-Fix MMF System

55-961-29-04		2.0-mm MMF module complete, consisting of:
55-962-48-04	0	MMF module, with red side rails
55-963-47-04	0	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 Italia S.r.l.

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

#### KLS Martin Nederland B.V.

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

### KLS Martin UK Ltd.

Reading · United Kingdom Tel. +44 118 467 1500 info.uk@klsmartin.com

### KLS Martin do Brasil Ltda.

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

### KLS Martin Japan K.K.

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

#### KLS Martin SE & Co. KG

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

### **KLS Martin LP**

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

## KLS Martin Medical (Shanghai) International Trading Co., Ltd

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

## KLS Martin SE Asia Sdn. Bhd.

Penang · Malaysia Tel. +604 261 7060 malaysia@klsmartin.com

#### KLS Martin Taiwan Ltd.

Taipei · Taiwan Tel. +886 2 2325 3169 taiwan@klsmartin.com

### KLS Martin SE Asia Sdn. Bhd.

Hanoi · Vietnam Tel. +49 7461 706-0 info@klsmartin.com

### KLS Martin India Pvt Ltd.

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

## KLS Martin de México, S.A. de C.V.

Mexico City · Mexico Tel. +52 55 7572 0944 mexico@klsmartin.com

#### KLS Martin SE & Co. KG

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



KLS Martin SE & Co. KG A company of the KLS Martin Group

KLS Martin Platz  $1\cdot 78532$  Tuttlingen  $\cdot$  Germany PO Box  $60\cdot 78501$  Tuttlingen  $\cdot$  Germany Tel.  $+49\ 7461\ 706-0\cdot Fax\ +49\ 7461\ 706-193$  info@klsmartin.com  $\cdot$  www.klsmartin.com