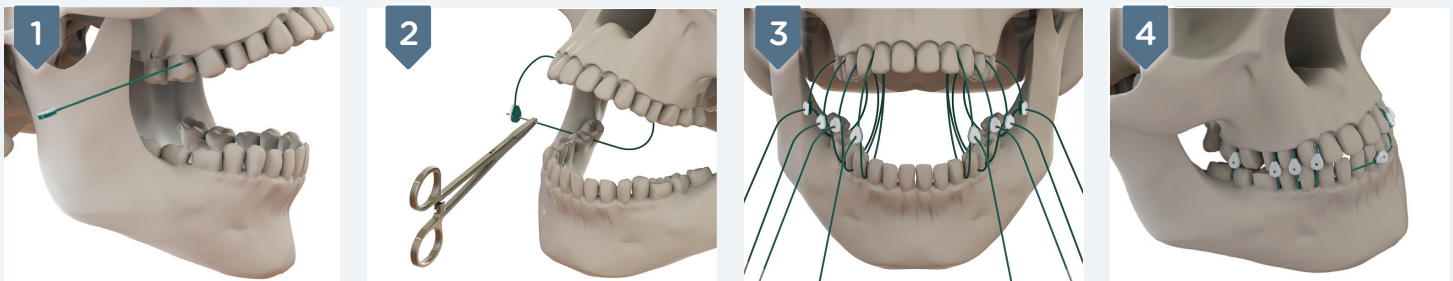
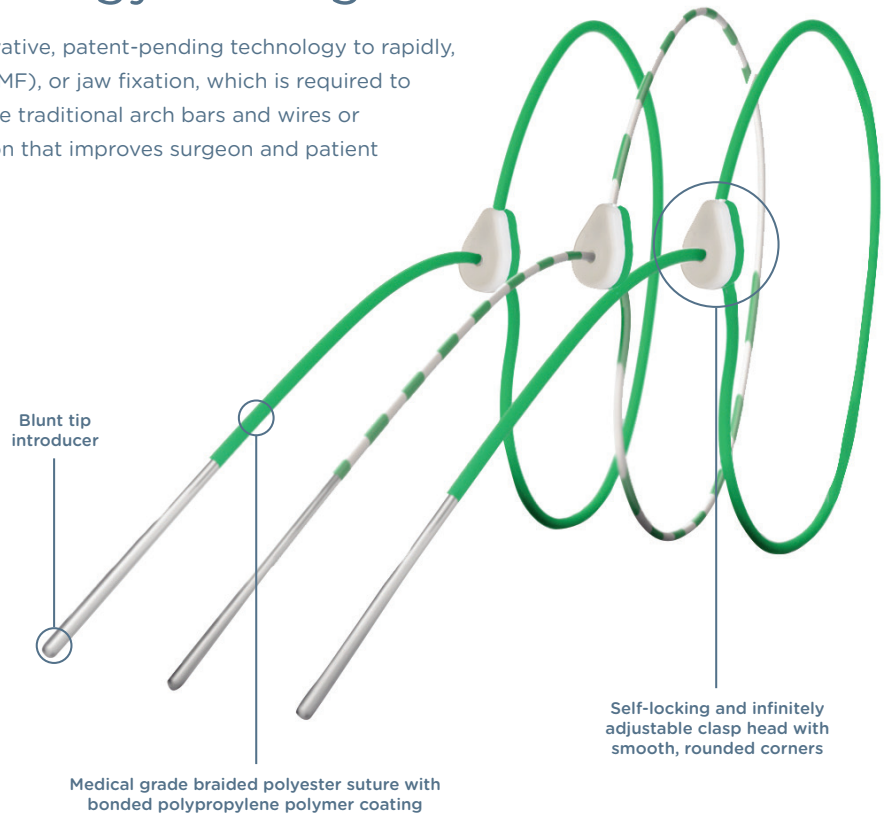


Minne Ties[®] - MMF Technology Reimagined

Minne Ties[®] Agile MMF (dental occlusion ties) are an innovative, patent-pending technology to rapidly, safely and securely achieve maxillomandibular fixation (MMF), or jaw fixation, which is required to manage most jaw-related trauma and jaw surgeries. Unlike traditional arch bars and wires or screw-based systems, Minne Ties are a noninvasive solution that improves surgeon and patient safety, saves time, and provides efficiency and flexibility.

Minne Ties Key Benefits

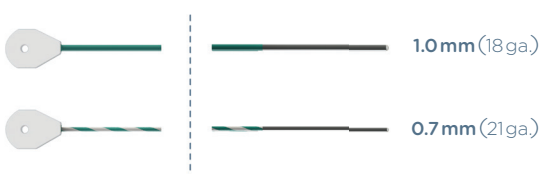
- **Surgeon Safety** - elimination of sharp wires that can cause glove punctures and sharps injuries
- **Time and Cost Savings** - application in 8-10 minutes vs. 54 minutes on average with arch bars, and removal in 2-3 minutes, saving costly surgeon and OR time, and acquisition cost vs. hybrid systems
- **Efficiency and Flexibility** - application and removal in the OR, ED or clinic without the need for general anesthesia
- **Patient Safety** - reduced risk of damage to patients' gingival tissue, tooth roots and sensitive oral tissue
- **Improved Patient Comfort** - completely smooth with rounded corners, no sharp wire and abrasive metal
- **Low Profile** - requires less space for better access, visibility and tangle-free suturing



APPLICATION Each Minne Tie is introduced through the embrasures to create a loop. The stainless steel introducer is threaded through the green side of the clasp head. Apply the recommended four ties on each side, using the largest size possible to minimize potential floss out. Final tightening is done after all ties are placed. Each Minne Tie is trimmed after final tightening. Visit MinneTies.com for additional application instructions and other configurations.

Materials

Polypropylene, Polyester, Stainless Steel



Clasp Head

Blunt Introducer

Product Configurations

The only MMF device packaged sterile and ready for single use.

MT-1000 12 Suture Kit Includes an Assortment Sizes

- Ten Standard Ties (1.0 mm)
- Two Supplemental Thin Ties (0.7 mm)
- Cheek retractor custom designed to organize Ties

Two Packs

Each two-pack includes two Ties of the same size.

MT-1001 Two Standard Ties (1.0 mm)

MT-1002 Two Supplemental Thin Ties (0.7 mm)

Minne Ties - A Valuable Addition to the Surgeon's Toolbox

Unlike other MMF methods, Minne Ties are non-invasive, eliminating sharp wires and invasive screws to improve surgeon and patient safety.

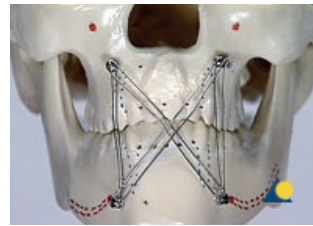
Minne Ties save time and offer flexibility and efficient use of hospital resources.



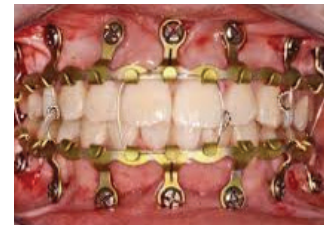
Minne Ties



Arch Bars and Wires**



IMF Screws and Wires***



Hybrid Systems*

Characteristics	Arch Bars and Wires**	IMF Screws and Wires***	Hybrid Systems*	Minne Ties
Stability of MMF	▲▲	▼	▲▲	▲▲
Trauma to Patient (gingival and oral tissue)	▼▼	▲	▼	▲▲
Risk of Tooth Root Damage	▲▲	▼	▼▼	▲▲
Oral Hygiene	▼▼	▲	▼	▲▲
Requires Full or Nearly Full Dentition	▲	▲▲	▲▲	▼
Surgeon Safety (glove puncture, sharps injury)	▼▼	▲	▲	▲▲
Application Time	▼▼	▲▲	▲▲	▲▲
Removal Time	▼▼	▲	▲	▲▲
Flexibility - Application/Removal Outside O.R.	▼▼	▼	▼▼	▲▲
Use with Elastics	▲▲	▼	▲▲	▼▼
Acquisition Cost	▲▲	▲	▼▼	▼
Total Cost (acquisition + application/removal time)	▼▼	▲	▼▼	▲▲

References

- CDC. Possible transmission of human immunodeficiency virus to a patient during an invasive dental procedure. MMWR Morb Mortal Wkly Rep 1990;39:489-93.
- Avery, C., Taylor, J., & Johnson, P. (1999). Double gloving and a system for identifying glove perforations in maxillofacial trauma surgery. *British Journal of Oral and Maxillofacial Surgery*,37(4), 316-319.
- Khosla, A., Gupta, K., Padhye, M., and Girotra, C. (2011). Efficacy of double gloving technique in major and minor oral surgical procedures: A prospective study. *Annals of Maxillofacial Surgery*. 1(2), 112.
- Bali, R., Sharma, P., & Garg, A. (2011). Incidence and patterns of needlestick injuries during intermaxillary fixation. *British Journal of Oral and Maxillofacial Surgery*,49(3), 221-224.
- Kendrick, D. E., Park, C. M., Fa, J. M., Barber, J. S., & Indresano, A. T. (2016). Stryker SMARTLock Hybrid Maxillomandibular Fixation System. *Plastic and Reconstructive Surgery*,137(1), 142-150
- Farber, S. J., Snyder-Warwick, A. K., Skolnick, G. B., Woo, A. S., & Patel, K. B. (2016). Maxillomandibular Fixation by Plastic Surgeons: Cost Analysis and Utilization of Resources. *Annals of Plastic Surgery*,77(3), 305-307. Data on file - collected from Data from 17 report forms from clinical evaluation.

* Health Benefit Times, <https://www.healthbenefitstimes.com/glossary/maxillomandibular-fixation>

** India Mart, <https://m.indiamart.com/proddetail/oral-and-maxillofacial-surgery-9750922255.html>

*** AO Surgery Reference, <https://surgeryreference.aofoundation.org/cmfbasic-technique/mandibulomaxillary-fixation-mmfbone-supported-devices>