



## Potential Savings & Impact on Hospital Staff

### Introducing SMARTLock Hybrid MMF

A revolutionary, patented product designed to combine the strength and rigidity of arch bars with the safety and efficiency of MMF screws. With nine potential points of fixation along the plate, posterior fixation and vector control are enhanced when compared to traditional MMF screws. The self-drilling, locking technology of the screws allows for purchase into both the bone and the plate for additional stability. The plate and screw combination omits the need for interdental wiring that is required with arch bars, and thereby reduces the chance of wire stick injuries for health care providers. It is removed under local anesthesia in the office setting, thereby eliminating non-reimbursable OR based removals.

### Potential Savings & Impact

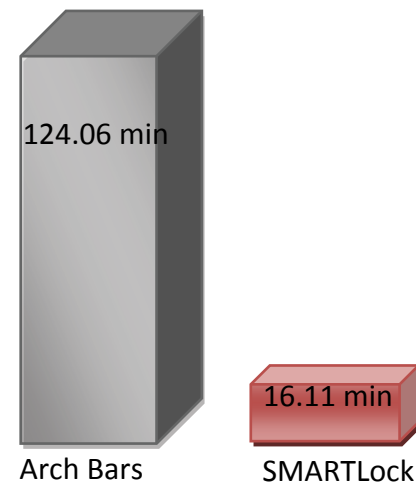
An analysis of recent studies shows that the SMARTLock Hybrid MMF System can potentially show significant cost savings through OR time reduction in hospital settings. A common goal of every operating room is to reduce case delays, decrease turnover time, cut overtime payments, enhance productivity, and increase the use of rooms for surgery. The SMARTLock Hybrid MMF System can potentially show a significant reduction in the OR time required to treat patients requiring maxillomandibular fixation. Since the introduction of open reduction and internal fixation (ORIF) protocols, intermaxillary fixation (IMF) has been predominantly used to obtain normal occlusion during trauma, reconstructive, and orthognathic surgery. The application of arch bars has been considered the gold standard in obtaining pre-injury occlusion, however it has shown significant drawbacks such as application time<sup>2</sup>, potential risk of wire stick<sup>2</sup>, potential impact on dentition/soft tissue<sup>3</sup>, and potential patient discomfort<sup>3</sup>. The average time required to place and remove the arch bars was 95.06 minutes and 29 minutes respectively<sup>4</sup>, for a total time of 124.06 minutes per case. During our early product surveillance (EPS) of the first 30 cases used, the average time required to place the SMARTLock Hybrid MMF System was 16.11 min<sup>5</sup>. An additional benefit of the SMARTLock Hybrid MMF System is that removal of the plates and screws in the OR may not be necessary, as the screws can be removed under local anesthesia<sup>2</sup>. A 2005 study of 100 US hospitals found that OR charges averaged \$62/min with a range of \$22- \$133/min<sup>1</sup>. These figures show that the SMARTLock Hybrid MMF System can save hospitals nearly 108 minutes or 1.8 hours in cases requiring maxillomandibular fixation. This time savings is equivalent to \$6,692.90 per case. In a facility that is performing 5 cases a week that require maxillo-mandibular fixation, The SMARTLock Hybrid MMF system could potentially show a cost savings of \$1,740,154 a year in the reduction of OR time.

#### Total Cost: OR Time & Product Cost

	Arch Bars	SMARTLock Hybrid MMF	Savings
<b>List Price</b>	\$420*	\$1,490	(\$1,070)
<b>Cost of Application (OR time only)</b>	95.06 min \$5,893.72	16.11 min \$998.82	\$4,894.90
<b>Cost of Removal (OR time only)</b>	29 min \$1,798	not necessary	\$1,798
<b>Savings per case</b>			<b>\$5,622.90</b>

\*Assuming 40 wires used for arch bars

#### Total Time: Application and Removal



9410-400-394 Rev. None  
US Pat. 8,118,850

1. A Macario. What does one minute of operating room time cost? *Journal of Clinical Anesthesia, Volume 22, Issue 4, Pages 233-236, 2010*
2. K Ansari et al. A comparison of anterior vs posterior isolated mandible fractures treated with intermaxillary fixation screws. *Archives of Facial Plastic Surgery, Volume 13, Issue 4, Pages 266-270, 2011*
3. A Ayoub and J Rowson. Comparative assessment of two methods used for interdental immobilization. *Journal of Craniomaxillofacial Surgery, Volume 31, Issue 3, Pages 159-161, 2003*
4. A Rai et al. Are maxillomandibular fixation screws a better option that erich arch bars in achieving maxillo-mandibular fixation? *Journal of Oral and Maxillofacial Surgery, Volume 69, Issue 12, Pages 3015-3018, 2011*
5. Early Product Surveillance data on file at Stryker

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery. The information presented is intended to demonstrate the breadth of Stryker product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.