

# TMA™

## Trans Mucosal Abutment System

*The Perfect Recipe  
for Success*





## ABOUT ADIN

ADIN Dental Implant Systems Ltd., designs, manufactures and markets state of the art, technologically advanced dental implants solutions. For over 20 years, ADIN has provided dentists and dental technicians with innovative solutions and advanced knowledge into the field of Implant Dentistry. Located in Northern Israel, The ADIN group employs over 150 employees, each one playing a significant role in ADIN's growing success. ADIN highly values each hard working employee and attributes its growing success to their continuous dedication.

Over the years, ADIN has continuously focused on advancing its highly professional research and development team to ensure the production of technologically advanced high quality products. ADIN has also worked closely with the industry's leading dental professionals, surgeons, technicians, in both private and public sectors, along with dental schools in leading universities in order to provide customers with the most current, up-to-date industry knowledge and information.

ADIN prides itself on providing excellent customer service, constant customer communication and availability to provide continuous excellent implantology solutions, from the simplest restorative case to the most complex surgical case.

ADIN's commitment to education today reflects on a better future and improving overall customer satisfaction. ADIN highly values continuous education, offering customers new research opportunities to explore and review new ideas in the field of Implantology.

Currently, ADIN is running a prospective multi-center study to validate the survival rates, bone remodeling, and soft tissue maintenance of all dental implant systems.

*With high quality implants, great customer service and a leading research and development team, ADIN is the perfect recipe for success.*

**Abutment Connection for  
Straight TMA™**

Multi-Unit Angled and Straight Abutment System for Screw Retained Restoration.

ADIN's Trans Mucosal Abutment System (TMA) is indicated for multiple-unit, screw-retained restorations, and may be used in combination with an implant level framework design. If not, all implants benefit from Trans Mucosal Abutments.

The system is used to elevate seating platform of restoration when restoration at implant level is not indicated or practical due to the depth or angle of the implant.

The Trans Mucosal Abutment System is designed to allow better prosthetics access when using diverging angled implants to accommodate full and partial edentulous arches, especially when using Tilted Implants and All on Four/Six technique for full arch restoration.

The TMA abutment system is available in straight and angled (17° and 30°), engaging the internal hex for indexing, with a selection of collar heights. Abutments are delivered with handles for simple handling and to assist with seating.

1. Selection of proper abutment height: measure the abutment collar height.
2. Use the pre-mounted plastic holder to place the abutment into the implant and screw the abutment into the correct position.
3. If necessary, shorten the holder with a pair of scissors. You may use the holders as parallel and bite indicators.
4. When the abutment is seated, the plastic holder should be removed with a slight bending movement.
5. A radiograph can be helpful to confirm accurate seating of the abutment.
6. Tighten the abutment to 35 Ncm using the Manual Prosthetic Torque Wrench and the TMA™ 2mm Female Hex Screwdriver.



## Abutment Connection for Angled 17° and 30° TMA™

1. The abutment is placed over the implant by using the pre-mounted abutment holder. Please note that there are six possible positions that can be used to place the abutment.
2. The use of TMA™ angled Abutments is recommended for use when an implant angle correction is needed. The maximum recommended angle of a tilted implant restored with the TMA™ system is 30°.
3. Tighten the abutment screw using a Star Screwdriver until resistance is felt.  
*Note: Caution needs to be taken when starting to insert the screw. It is important that correct seating is established.*
4. A radiograph can help to confirm accurate seating of the abutment.
5. Unscrew the holder from the abutment by turning it counterclockwise.
6. Tighten the abutment screw to 35 Ncm only by using the Manual Prosthetic Torque Wrench and Star Screwdriver or tighten manually with the Star Screwdriver.  
*Note: Be sure not to exceed 35 Ncm when tightening an Angled TMA™ screw.*

*Note: Removal of the tightened abutment, after loosening of the abutment screw, necessitates a clamp to slightly jiggle and remove the abutment.*



## Abutment Level Impression

1. Connect the impression coping to the abutment.
2. Inject the impression material and record the impression.
3. After the impression material sets, remove the impression and disconnect the impression copings. Attach the abutment replicas to each coping.
4. Connect the temporary restoration or healing cap and send the impression to the dental laboratory.



## Abutment Level Impression Open Tray

1. Connect the impression coping on to the abutment and tighten using the Star Screwdriver.
2. Relieve and perforate the impression tray to allow for full seating of the tray and protrusion of the guide pins. Verify that there is access to the tops of all guide pins to at least the level of the impression tray opening. If there is a large opening, close it with base plate wax using the guide pins indenting or by perforating the wax.
3. Inject impression material and fully seat the impression tray so the tips of all the guide pins are identified. After the impression material sets, unscrew the guide pins and remove the impression tray.
4. Place the impression coping abutment replica assembly into its corresponding location in the impression.
5. Connect the temporary restoration or healing cap and send the impression to the dental laboratory.



## Laboratory Procedures

In the laboratory, a model is made and a restoration is produced:

For final restoration use the RS-5001-Plastic Casting Sleeve;

1. Assemble the impression coping and TMA™ replica and position into impression.
2. Fabricate a working model with removable gingival material.
3. Attach the RS-5001 Plastic Casting Sleeves into TMA™ replicas and secure with the retaining screw.
4. Reduce the plastic sleeves to appropriate height and wax-up a framework.
5. Fabricate the framework using standard C&B techniques.

For temporary restoration you may use the RS-4900-Temporary Coping TMA™ Titanium: Cement the acrylic restoration to the sleeves and reduce them to appropriate height.

### Alternative:

Use customized CAD/CAM Implant Bridge from Zirconium, Titanium or Cobalt Chrome. The TMA™- MU STL files are available with most of the suppliers.

## Connection of Final Restoration

1. Verify the abutment screw tightness of 35 Ncm for angled abutments and 35 Ncm for Straight TMA™.
2. Evaluate full seating of the restoration on the model and intra-orally.
3. Connect the restoration to the abutments with prosthetic screws. Start with tightening the mid region post and continue to tighten the other screws, alternating sides from left to right.
4. Tighten the prosthetic screws to 15 Ncm using the Prosthetic Manual Torque Wrench and Star Screwdriver.
5. Fill the screw access channel with suitable material such as gutta-percha, silicone, or temporary filling material.





## Trans Mucosal Abutment Product Assortments:

### Standard Internal Hex Connection - RS

	Ref#	Description
	RS-3731	RS Straight Trans Mucosal Abutment Straight 1mm
	RS-3732	RS Straight Trans Mucosal Abutment Straight 2mm
	RS-3733	RS Straight Trans Mucosal Abutment Straight 3mm
	RS-3734	RS Angled Trans Mucosal Abutment 17°, 2mmL
	RS-3735	RS Angled Trans Mucosal Abutment 30°, 3mmL
	RS-3737	RS Angled Trans Mucosal Abutment 17°, 3mmL
	RS-3738	RS Angled Trans Mucosal Abutment 30°, 4mmL







### Touareg CloseFit™ - NP 3mmD (Narrow Platform)

	NP-0032	NP Straight Trans Mucosal Abutment 1mm
	NP-0033	NP Straight Trans Mucosal Abutment 2mm
	NP-0034	NP Straight Trans Mucosal Abutment 3mm
	NP-0035	NP Angled Trans Mucosal Abutment 17°, 3mmL
	NP-0036	NP Angled Trans Mucosal Abutment 30°, 3.5mmL
	NP-0037	NP Angled Trans Mucosal Abutment 30°, 5mmL
	NP-0038	NP Angled Trans Mucosal Abutment 17°, 4mmL

### Touareg CloseFit™ - RP 3.5mmD (Standard Platform)

























	RP-0032	RP Straight Trans Mucosal Abutment 1mm
	RP-0033	RP Straight Trans Mucosal Abutment 2mm
	RP-0034	RP Straight Trans Mucosal Abutment 3mm
	RP-3734	RP Angled Trans Mucosal Abutment 17°, 2.5mmL
	RP-3735	RP Angled Trans Mucosal Abutment 30°, 3.5mmL
	RP-3737	RP Angled Trans Mucosal Abutment 17°, 3.5mmL
	RP-3738	RP Angled Trans Mucosal Abutment 30°, 4.5mmL

### Touareg CloseFit™ - WP 4.3mmD and 5.0mmD (Wide Platform)

	WP-3731	WP Straight Trans Mucosal Abutment 1mm
	WP-3732	WP Straight Trans Mucosal Abutment 2mm
	WP-3733	WP Straight Trans Mucosal Abutment 3mm
	WP-3734	WP Angled Trans Mucosal Abutment 17°, 2.5mmL
	WP-3735	WP Angled Trans Mucosal Abutment 30°, 3.0mmL
	WP-3737	WP Angled Trans Mucosal Abutment 17°, 3.5mmL
	WP-3738	WP Angled Trans Mucosal Abutment 30°, 4.0mmL

## Trans Mucosal Abutment Assortments:

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	Ref#	Description
	RS-4900	Temporary Coping TMA Titanium w/ Prosthetic Screw
	RS-5001	Plastic Casting Sleeve for TMA w/ Prosthetic Screw
	RS-5004	TMA Abutment Replica
	RS-5005	TMA Healing Cap w/ Prosthetic Screw
	RS-5006	TMA Impression Coping Open Tray
	RS-5011	TMA Impression Coping Closed Tray
	RS 6080	1.27 Hex Torque Driver - Short
	RS 6082	1.27 Hex Torque Driver - Long
	RS 6094	1.27 Hex Hand Driver - Medium
	RS 6095	1.27 Hex Hand Driver - Long
	RS-6191	TMA 2mm Hex Female Hand Driver - Long
	RS-6193	TMA 2mm Hex Female Hand Driver - Short
	RS-6196	2mm Female Hex Torque Driver for Ratchet - Long
	RS-6197	2mm Female Hex Torque Driver for Ratchet - Short
	RS-6194	TMA 2mmHex Female Driver for Hand Piece - Short
	RS-6195	TMA 2mmHex Female Driver for Hand Piece - Long
	RS 9030	1.27 Hex Driver for Handpiece - Short
	RS 9035	1.27 Hex Driver for Handpiece - Long
	RP-0004	Star Hand Driver - Long
	RP-0064	Star Hand Driver - Short
	RP-0065	Star Torque Driver for Ratchet - short
	RP-0005	Star Torque Driver for Ratchet - Long
	RP-0018	Star Torque Driver for Hand Piece - Short
	RP-0019	Star Torque Driver for Hand Piece - Long

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Note: Abutments and Impression Copings are packed with their compatible retaining screw



[www.adin-implants.com](http://www.adin-implants.com)

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ADIN products meet and exceed the highest standards set by the FDA and other regulatory agencies. All ADIN products are CE-marked in accordance with the Council Directive 93/42/EEC. ADIN Dental Implant Systems Ltd. complies with ISO13485:2003 and the Canadian Medical Devices Conformity Assessment System (CMDCAS). Some products may not be regulatory cleared/released for sale in all markets and not all may have been licensed in accordance with Canadian law. Please contact the local ADIN sales office for current product assortment and availability.



Industrial Zone Alon Tavor POB 1128  
Afula 1811101, Israel

T. +972-4-6426-732  
F. +972-4-6426-733

[info@adin-implants.com](mailto:info@adin-implants.com)  
EC REP Adin Europe GmbH  
Siemandsstraße 10 DE - 78564 Wehingen



0 4 7 3