

Trans Mucosal Abutment System



# About ADIN

Adin Dental Implant Systems Ltd., designs, manufactures and markets state of the art, technologically advanced dental implant solutions. For more than 20 years, Adin has provided dentists and dental technicians with innovative solutions and advanced knowledge into the field of implant dentistry. The Adin plant and headquarters is located in northern Israel and employs highly skilled staff each of whom play 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 works closely with the industry's leading dental professionals, surgeons and technicians, in both private and public sectors, along with dental schools in leading universities 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 the 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.



# TMA<sup>TM</sup> Trans Mucosal Abutments System



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

Adin's Trans Mucosal Abutment System (TMA<sup>™</sup>) is indicated for multiple-unit, screw-retained restorations, and may be used in combination with an implant level framework design.

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<sup>™</sup> 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.

## Instructions for Use

### Abutment Connection for Straight TMA™

- 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.
- Tighten the abutment to 35 Ncm using the Manual Prosthetic Torque Wrench and the TMA<sup>™</sup> 2mm Female Hex Screwdriver.



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

- 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.
- The use of TMA<sup>™</sup> angled Abutments is recommended for use when an implant angle correction is needed. The maximum recomended angle of a tilted implant restored with the TMA<sup>™</sup> system is 30°.
- 3. Unscrew the holder half a turn counter clockwise.
- 4. Tighten the abutment screw using a Star Screwdriver until resistance is felt.

Note: Special attention should be taken when starting to insert the screw. It is important that correct seating is established.

- 5. A radiograph can help to confirm accurate seating of the abutment.
- 6. Unscrew the holder from the abutment by turning it counterclockwise.
- 7. 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<sup>™</sup> screw.

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 RS5001-Plastic Casting Sleeve;

- 1. Assemble the impression coping and TMA<sup>™</sup> replica and position into impression.
- 2. Fabricate a working model with removable gingival material.
- Attach the RS5001 Plastic Casting Sleeves into TMA<sup>™</sup> 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 RS4900-Temporary Coping TMA<sup>™</sup> 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<sup>™</sup>- MU STL files are available with most of the suppliers.

## Connection of Final Restoration

- 1. Verify the abutment retaining screw tightness of 35 Ncm.
- 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.



The dental implants system has not been evaluated for safety and compatibility in the MR environment. The dental implants system has not been tested for heating or migration in the MR environment.

The abutments are shipped not-sterile and shall be sterilized prior to use by using steam sterilization in gravity displacement autoclave at 132/269.6 for 4 minutes exposure time, 20 minutes drying time.

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

NP0032	NP Straignt Trans Mucosal Abutment 1mm	Ti Grade 5
NP0033	NP Straignt Trans Mucosal Abutment 2mm	Ti Grade 5
NP0034	NP Straignt Trans Mucosal Abutment 3mm	Ti Grade 5
NP3729	NP Straignt Trans Mucosal Abutment 4mm	Ti Grade 5
NP3730	NP Straignt Trans Mucosal Abutment 5mm	Ti Grade 5
NP0035	NP Angled Trans Mucosal Abutment 17° 3mmL	Ti Grade 5
NP0038	NP Angled Trans Mucosal Abutment 17° 4mmL	Ti Grade 5
NP0036	NP Angled Trans Mucosal Abutment 30° 3.5mmL	Ti Grade 5
NP0037	NP Angled Trans Mucosal Abutment 30° 5mmL	Ti Grade 5

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

RP0032	RP Straight Trans Mucosal Abutment 1mm	Ti Grade 5
RP0033	RP Straight Trans Mucosal Abutment 2mm	Ti Grade 5
RP0034	RP Straight Trans Mucosal Abutment 3mm	Ti Grade 5
RP3729	RP Straight Trans Mucosal Abutment 4mm	Ti Grade 5
RP3730	RP Straight Trans Mucosal Abutment 5mm	Ti Grade 5
RP3734	RP Angled Trans Mucosal Abutment 17° 2.5mm	Ti Grade 5
RP3737	RP Angled Trans Mucosal Abutment 17° 3.5mm	Ti Grade 5
RP3735	RP Angled Trans Mucosal Abutment 30° 3mm	Ti Grade 5
RP3738	RP Angled Trans Mucosal Abutment 30° 4mm	Ti Grade 5

#### Touareg CloseFit<sup>™</sup> - WP 4.3mmD and 5.0mmD (Wide Platform)

WP3731	WP Straight Trans Mucosal Abutment 1mm	Ti Grade 5
WP3732	WP Straight Trans Mucosal Abutment 2mm	Ti Grade 5
WP3733	WP Straight Trans Mucosal Abutment 3mm	Ti Grade 5
WP3729	WP Straight Trans Mucosal Abutment 4mm	Ti Grade 5
WP3730	WP Straight Trans Mucosal Abutment 5mm	Ti Grade 5
WP3734	WP Angled Trans Mucosal Abutment 17° 2.5mm	Ti Grade 5
WP3737	WP Angled Trans Mucosal Abutment 17° 3.5mm	Ti Grade 5
WP3735	WP Angled Trans Mucosal Abutment 30° 3mm	Ti Grade 5
WP3738	WP Angled Trans Mucosal Abutment 30° 4mm	Ti Grade 5

#### Standard Internal Hex Connection - RS

RS3731	RS Straight Trans Mucosal Abutment 1mm	Ti Gvrade 5
RS3732	RS Straight Trans Mucosal Abutment 2mm	Ti Grade 5
RS3733	RS Straight Trans Mucosal Abutment 3mm	Ti Grade 5
RS3729	RS Straight Trans Mucosal Abutment 4mm	Ti Grade 5
RS3730	RS Straight Trans Mucosal Abutment 5mm	Ti Grade 5
RS3734	RS Angled Trans Mucosal Abutment 17° 2mm	Ti Grade 5
RS3737	RS Angled Trans Mucosal Abutment 17° 3mm	Ti Grade 5
RS3735	RS Angled Trans Mucosal Abutment 30° 3mm	Ti Grade 5
RS3738	RS Angled Trans Mucosal Abutment 30° 4mm	Ti Grade 5

Accessories & Tools

	RS4900	TMA Titanium Temporary Copying	Ti Grade 5
	RS5001	TMA Plastic Casting Sleeve w / Prosthetic Screw	Plastic
	RS5004	TMA Abutment Replica	Stainless Steel
	RS5005	TMA Healing Cap	Ti Grade 5
	RS5006	TMA Impression Coping Open Tray	Ti Grade 5
ONNEL	RS5011	TMA Closed Tray Transfer	Ti Grade 5
	RS6080	1.27 Hex Torque Driver - Short	Stainless Steel
	RS6082	1.27 Hex Torque Driver - Long	Stainless Steel
	RS6094	1.27 Hex Hand Driver - Medium	Stainless Steel
	RS6095	1.27 Hex Hand Driver - Short	Stainless Steel
	RS6191	TMA/FC Female Hand Hex Driver - Long	Stainless Steel
	RS6193	TMA/FC Female Hand Hex Driver - Short	Stainless Steel
	RS6196	TMA/FC Hex Torque Driver - Long	Stainless Steel
	RS6197	TMA/FC Hex Torque Driver - Short	Stainless Steel
¢()	RS6194	TMA/FC Hex Handpiece Adapter - Short	Stainless Steel
¢(	RS6195A	TMA/FC Hex Handpiece Adapter - Long	Stainless Steel
	RS9030	1.27 Hex Driver for Handpiece - Short	Stainless Steel
	RS9035	1.27 Hex Driver for Handpiece - Long	Stainless Steel
	RP0064	Star Hand Driver - Short	Stainless Steel
	RP0004	Star Hand Driver - Long	Stainless Steel
	RP0065	Star Torque Driver - Short	Stainless Steel
	RP0005	Star Torque Driver - Long	Stainless Steel
	RP0018	Star Handpiece Driver - Short	Stainless Steel
	RP0019	Star Handpiece Driver - Long	Stainless Steel

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



#### www.adin-implants.com

ADIN products comply with the standards set by the FDA and other regulatory agencies. All ADIN products are CE-marked in accordance with the Council Directive 93/42/EEC and Amendment 2007/47/EC. ADIN complies with ISO13485:2012 and the Canadian Medical Devices Conformity Assessment System (CMDCAS). Product availability may vary between countries. For more information, please contact your local ADIN office.