

TORQTECH



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Thinking ahead. Focused on life.

# TORQTECH

An exquisite instrument with every feature any dentist could want.

TORQTECH design puts the benefits to the dentist before all other considerations: Excellent Handling, Safety, and Durability have all been thought of. MORITA's advance technology has all been devoted to making this the ideal instrument.





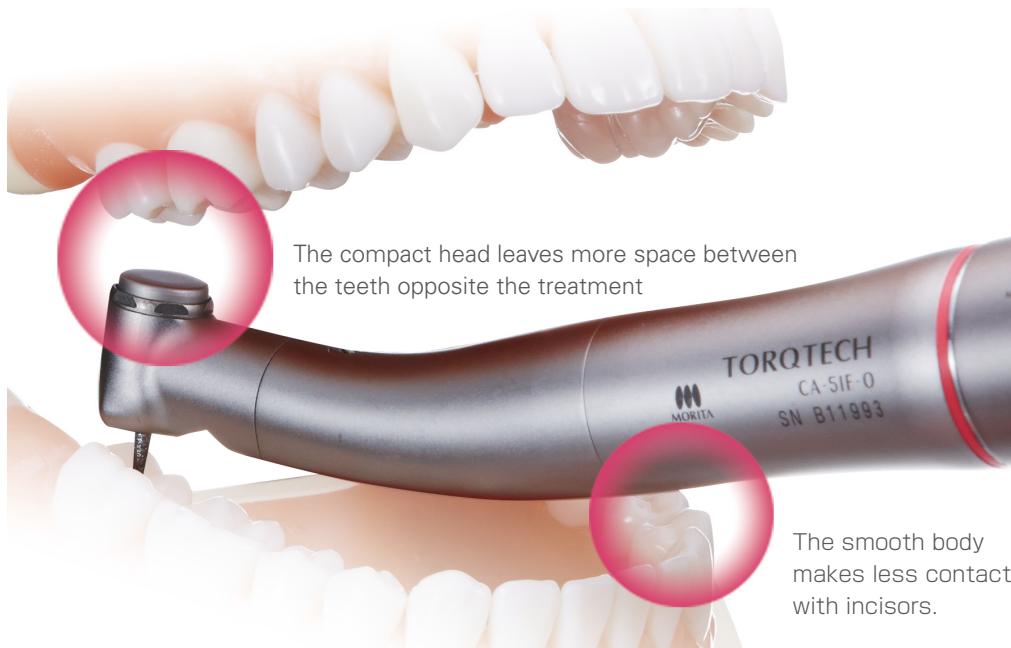
- 1 CA-5IF-O : Contra Angle with 5:1 speed up gear ratio with light.
- 2 CA-DC-O : Contra Angle with 1:1 gear ratio with light.
- 3 CA-DC : Contra Angle with 1:1 gear ratio but no light.
- 4 ST-DH : Straight Attachment without light.
- 5 CA-10RC-O : Contra Angle with 1:10 slow down gear ratio with light.
- 6 CA-10RC : Contra Angle with 1:10 slow down gear ratio but no light.
- 7 CA-4R-PP : Prophy contra angle without light.
- 8 CA-4R-O-PF : Up-down action contra angle with light.

- Three gear assembly for super durability.
- Involute gears for super durability.
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- Precisely balanced and wobble-free rotation.
- Designed to reduce air blown in the direction of the bur.
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- Durable thrust bearings.
- Up and down mechanism with precision movement and little vibration.

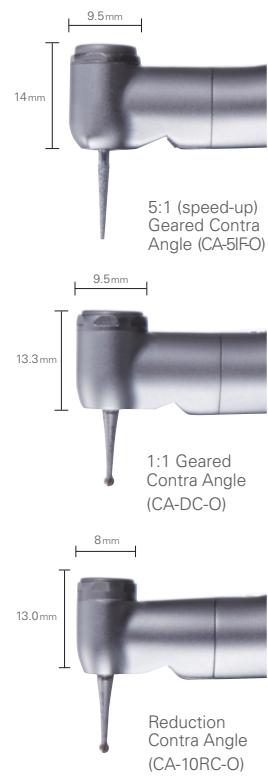
# Operability

## The compact head gives easy access to treatment area.

The compact head and smooth body make it possible to easily reach treatment areas. The ion-plated surface is hygienic and also provides a secure grip.



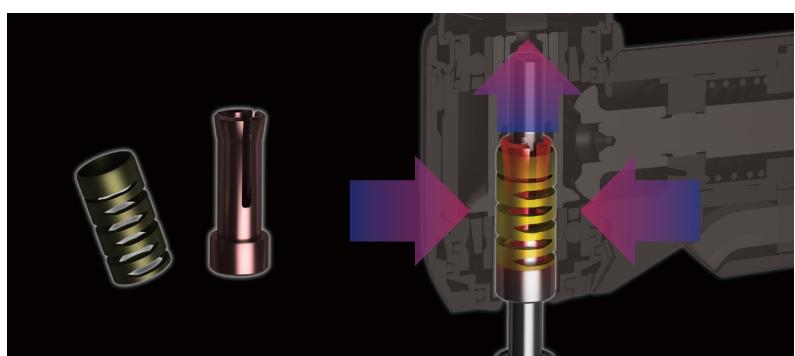
The compact head and smooth body give easy access to and make it easier to see molar regions and inside the oral cavity of people who have a small mouth opening. There is less contact with antagonistic teeth opposite the treatment area.



# Safety

## Chuck holds burs with great security.

MORITA has invented a unique chuck design that uses three prongs and a three-dimensional spring mechanism so that the chuck is held both vertically and horizontally. The chuck is highly durable and its gripping strength is hardly at all affected by wear and metal fatigue. (CA-5IF-O)



# Durability

The three gear system plus double internal gears and involute gears all contribute to super durability.

While enhancing both handling and safety, durability has also been greatly improved by the use of the three gear system plus double internal gears and involute gears. This instrument stands up against repeated autoclaving astonishingly well.



## Super Durable Three Gear System

With only 2 gears, the gear teeth must be smaller. The three gear system uses bigger gears by employing internal and involute gears that gradually increase the speed. This makes the whole system more durable and less vulnerable to wear. (CA-5IF-O)



Three Gears :Larger teeth carrying the load (CA-5IF-O)



Two Gears:Loads is concentrated on smaller gear teeth.

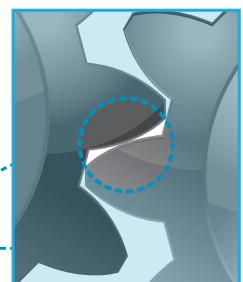
## Internal Gear System for Maximum Activity

Space In order to use larger gears within the limited space inside the handpiece, two internal gears are used. These have the teeth on the inside rather than the outside as with conventional gears.



## Involute Gears

These gears contribute greatly to better durability because they move more smoothly against each other, reduce friction, and lessen wear.

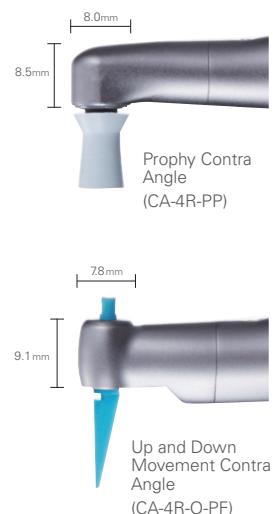


Involute Gear: Gears that use an involute tooth shape.

# Professional Mechanical Tooth Cleaning

A PMTC instrument made possible by easy access and great durability.

The ultra mini head not only provided great access but also reduces patient discomfort by having a rounded shape. Also the rotation shaft has special thrust bearings to reduce the load in the direction the head is pressed to make it more durable.

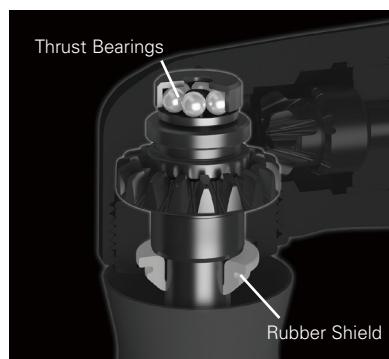


Full-scale



## Prophy Contra Angle

Tooth cleaning is performed with special PMTC cups and brushes. A rubber shield stops polishing paste from getting inside and thrust bearings are used to reduce the load in the direction the head is pressed to make it more durable.



## Up and Down Movement Contra Angle

EVA Tips<sup>\*1</sup> and Lamineer Tips<sup>\*1</sup> are used to clean between teeth and in the gingival margins. This can be done to give the areas a smooth polish, to remove filling material etc. The angle of the tips can be adjusted.

# Specifications

				
Name	TORQTECH			
Models	CA-5IF-O	CA-DC-O	CA-DC	ST-DH
Gear Ratios	1:5 (speed-up)	1:1	1:1	1:1
Maximum Rotation Speed (rpm)	40,000	40,000	40,000	40,000
Head Diameter (mm)	Φ 9.5	Φ 9.5	Φ 9.5	-
Head Height (mm)	14.0	13.3	13.3	-
Total Length (mm)	94	94	94	83
Weight (g)	68	67	67	73
Glass Rod Light Guide	○	○	-	-
Surface Treatment	Ion plating			
Spray Holes	3	1	1	1
Spray Filter	○	○	-	-
Bur Insertion/Removal Method	Push button	Push button	Push button	Mechanical locking
Usable Burs <sup>2</sup> *3	Shaft Type 3 (FG)	Shaft Type 1 (CA)	Shaft Type 1 (CA)	Shaft Type 2 (HP)
Usable Motors	Motor that conform to JIS T5908/ JIS T5909/ ISO 13294/ ISO 11498 with connection ends that conform to JIS T5904/ ISO 3964.			

				
Name	TORQTECH			
Models	CA-10RC-O	CA-10RC	CA-4R-PP	CA-4R-O-PF
Gear Ratios	10:1 (reduction)	10:1 (reduction)	4:1 (reduction)	4:1 (reduction) Up and Down Movement
Maximum Rotation Speed (rpm)	40,000	40,000	10,000	20,000
Head Diameter (mm)	Φ 8.0	Φ 8.0	Φ 8.0	Φ 7.8
Head Height (mm)	13.0	13.0	8.5	9.1
Total Length (mm)	94	94	94	94
Weight (g)	69	69	67	67
Glass Rod Light Guide	○	-	-	○
Surface Treatment	Ion plating			
Spray Holes	1	1	-	1
Spray Filter	○	-	-	○
Bur Insertion/Removal Method	Push button	Push button	Screw	Friction grip
Usable Burs <sup>2</sup> *3	Shaft Type 1 (CA)	Shaft Type 1 (CA)	Screw Type(No.1-72UNF)	EVA Tips <sup>*1</sup> Lamineer Tips <sup>*1</sup>
Usable Motors	Motor that conform to JIS T5908/ JIS T5909/ ISO 13294/ ISO 11498 with connection ends that conform to JIS T5904/ ISO 3964.			

\*1 :EVA Tips and Lamineer Tips are trademarks or registered trademarks of Dentatus.

\*3 :Use burs that conform to ISO1791-1 or JIS T 5504 -1.

\*2 :Cannot be connected to motors without lights.



## Spray Filter

Contras with lights have a spray filter to keep the filter from plugging up. It is easy to take out, clean, and replace. Therefore, hygienic.



## LS Spray

This is a special lubricant to optimize the performance of TORQTECH instruments, and it is extremely durable.



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