

RESTORATIVE & PROSTHETICS



Create it 

RESTORATIVE & PROSTHETICS

**NSK**

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# NSK TECHNOLOGY & FUNCTION

**Push Button Chuck**

Push Button Chuck is NSK's original push button auto-chuck mechanism that tightens the bur grip during rotation. It allows one-touch bur insertion and removal without tools. The bur lock mechanism is designed so that bur retention strength increases when high loads are applied to the bur.

**Ceramic Bearings**

Ceramic Bearings are 25% harder than conventional steel bearings but are only half the weight. Because frictional wear between the ball bearings and the bearing retainer is significantly reduced the efficiency and durability is significantly increased.

**Autoclavable**



All NSK handpieces offer superior durability and continued performance, even when frequently autoclaved. All handpieces may be autoclavable up to 135°C.

**Thermo-disinfector Ready**



Disinfecting handpieces prior to autoclaving is a recommendable practice for more effective infection control. The symbol mark on your NSK product means you can cleanse and disinfect the handpiece using a thermo-disinfector.

**DURAGRIP**

The unique non-slip, non-scratch surface treatment improves durability and ensures a comfortable grip.

**DURACOAT**

Smooth scratch-resistant surface coating, comfortable to hold.

**Microfilter**

A 0.3 mm diameter microfilter keeps contaminants out of the water spray system, dramatically reducing blockages and enhancing treatment hygiene.

**Quattro Water Spray**

The NSK Quattro Water Spray effectively cools the entire surface of the bur with a high cooling effect, leaving no areas uncovered.

**Cellular Glass Optic**

Cellular Glass Optic delivers brilliant illumination, is highly durable and will not deteriorate due to repeated sterilization.

**Clean Head System**

The Clean Head System has an anti-suck back mechanism that stops blood and foreign matter from entering the head from the oral cavity. As a result, the ball bearings and mechanical parts last longer.

**Anti-Retraction Valve**

Prevents retraction of contaminated water from entering the water lines.





# Ti-Max Z

## Air Turbine



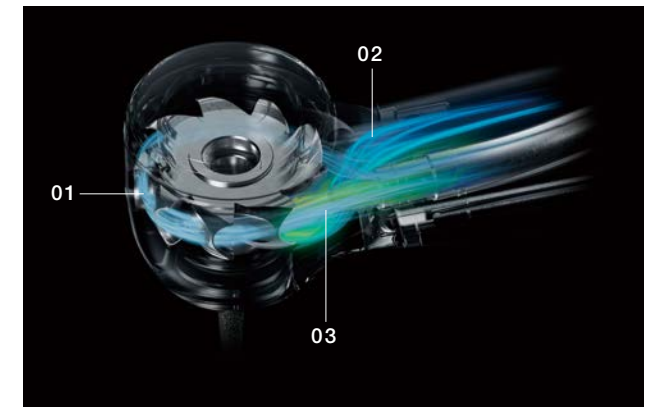
## Unprecedented Power

Experience like never before, the unprecedented cutting power of the industry's best-in-class 44W turbine as it delivers unprecedented cutting strength. Makes zirconia removal easy, reducing chairside time and minimising patient discomfort.

## DYNAMIC POWER SYSTEM

Equipped with a new system, the "DYNAMIC POWER SYSTEM" that provides a revolutionary cutting feel. The enlarged exhaust port, optimized nozzle structure, and enlarged rotor chamber achieve the highest rotational power in its category.

\*Only Z990L / Z890L.



### 01. Expanded Rotor Blade Surface

The air exposure area is twice that of conventional models. The large chamber surface takes in air with no waste to achieve high torque.

### 02. Expanded Exhaust Groove

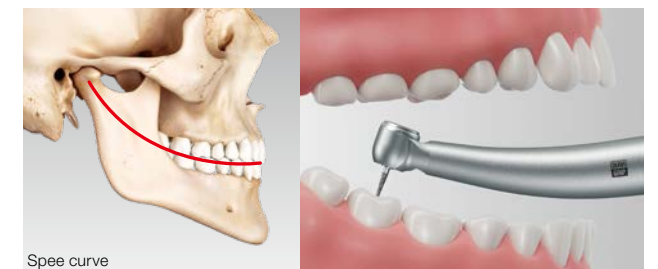
The enlarged exhaust groove quickly discharges air received by the chamber. A smooth exhaust improves torque in the low rpm range.

### 03. Extended Cylindrical Nozzle

The optimized nozzle structure reduces air. Air power is converted into highly efficient rotational power.

## Lightweight titanium body and 100° angle head

The internal structure has been revised and the weight has been reduced by 16% compared to the previous model (the lightest metal exterior in major competitive comparisons). Considering the physiological curves of the oral cavity (Curve of Spee and Curve of Wilson), the 100° angled head enables easier access and high-torque cutting for efficient treatment in the oral cavity.



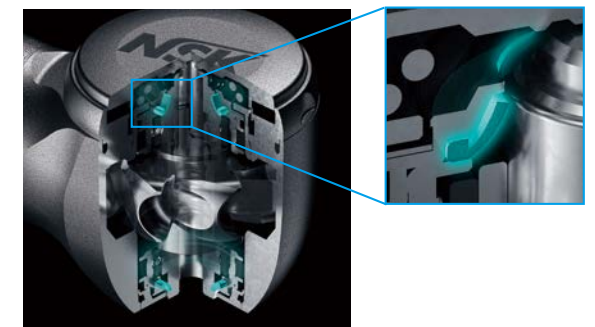
Comparison with previous model



## Quick Stop

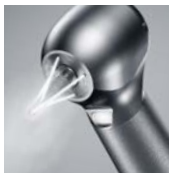
The Quick-stop function, which stops high-speed rotation in approximately 1 second, is mounted on the front and back of the head. The two Quick-stop functions allow for a abrupt stop to prevent inertial rotation and to reduce the risk of intraoral entrapment and suck back, thus ensuring an extremely safe treatment.

\*The two Quick-stop functions only Z990L / Z890L.



When the air supply is stopped, the rubber of the stopper makes contact with the rotating shaft to apply a braking effect. With stoppers attached to the front and rear of the head, contact is increased, making it possible to abruptly stop the rotation.

Ti-Max Z



DYNAMIC POWER SYSTEM\*  
Head at a 100° angle  
Quick Stop  
Titanium Body  
DURAGRIP  
Cellular Glass Optics  
Ceramic Bearings  
Push Button Chuck  
Quattro Spray  
Simple Cartridge Change  
Clean Head System  
Microfilter\*  
\*Only Z990L / Z890L



**Micro Head**  
• Power : 20 W  
• Speed : 380,000-450,000 min<sup>-1</sup>  
• Head Size : ø9.0 x H 10.8 mm



**Miniature Head**  
• Power : 41W  
• Speed : 320,000-400,000 min<sup>-1</sup>  
• Head Size : ø10.6 x H 10.8 mm



**Standard Head**  
• Power : 44 W  
• Speed : 280,000-360,000 min<sup>-1</sup>  
• Head Size : ø12.1 x H 12.7 mm

NSK Couplings

Head	Optic	MODEL	ORDER CODE
Micro	●	Z micro	PA2357
Miniature	●	Z890L	PA23720001
Standard	●	Z990L	PA23730001

KaVo® Couplings

Head	Optic	MODEL	ORDER CODE
Micro	●	Z micro KL	PA2358
Miniature	●	Z890KL	PA23740001
Standard	●	Z990KL	PA23750001

Dentsply Sirona® Couplings

Head	Optic	MODEL	ORDER CODE
Micro	●	Z micro SL	PA2359
Miniature	●	Z890SL	PA23760001
Standard	●	Z990SL	PA23770001

W&H® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	Z890WL*	PA23860001
Standard	●	Z990WL*	PA23870001

\*Compatible Turbines with Integral LED

Bien Air® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	Z890BL*	PA23840001
Standard	●	Z990BL*	PA23850001

\*Compatible Turbines with Integral LED

S-Max M



Stainless Steel Body  
Ceramic Bearings  
Push Button Chuck  
Quattro Spray  
Clean Head System  
Cellular Glass Optics  
3X-Power System  
Simple Cartridge Change



**Miniature Head**  
• Power : 23 W  
• Speed : 380,000-450,000 min<sup>-1</sup>  
• Head Size : ø10.6 x H 12.4 mm



**Standard Head**  
• Power : 26 W  
• Speed : 325,000-430,000 min<sup>-1</sup>  
• Head Size : ø12.1 x H 13.3 mm

NSK Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	M800L	P1253
Miniature	—	M800	P1255
Standard	●	M900L	P1254
Standard	—	M900	P1256

KaVo® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	M800KL	P1257
Standard	●	M900KL	P1258
Standard	—	M900K	P1259

Dentsply Sirona® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	M800SL	P1261
Standard	●	M900SL	P1262

W&H® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	M800WL*	P1265
Standard	●	M900WL*	P1266
Standard	—	M900W	P1287

\*Compatible Turbines with Integral LED

Bien Air® Couplings

Head	Optic	MODEL	ORDER CODE
Miniature	●	M800BL*	P1263
Standard	●	M900BL*	P1264

\*Compatible Turbines with Integral LED

# S-Max pico



Stainless Steel Body  
Ceramic Bearings  
Push Button Chuck  
Single Spray  
Clean Head System  
Cellular Glass Optics



- Power : 9 W
- Speed : 380,000-450,000 min<sup>-1</sup>
- Head Size : ø8.6 x H 9.0 mm
- For short shank burs / ultra short shank burs

### NSK Couplings

Optic	MODEL	ORDER CODE
●	S-Max pico	P1140

### KaVo® Couplings

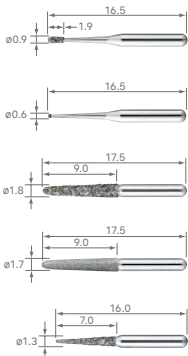
Optic	MODEL	ORDER CODE
●	S-Max pico KL	P1142

### Dentsply Sirona® Couplings

Optic	MODEL	ORDER CODE
●	S-Max pico SL	P1143

### pico bur

MODEL	ORDER CODE
<b>PC1</b> • Pack of 3	<b>Y1001817</b>
<b>PC2</b> • Pack of 3	<b>Y1001818</b>
<b>PC3</b> • Pack of 3	<b>Y1001819</b>
<b>PC3ff</b> • Extra fine bur • Pack of 3	<b>Y1002019</b>
<b>PC4</b> • Pack of 3	<b>Y1001820</b>



### W&H® Couplings

Optic	MODEL	ORDER CODE
●	S-Max pico WLED*	P1145

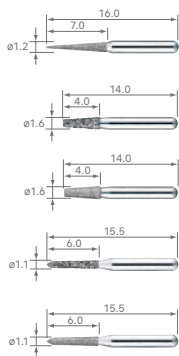
\*Compatible Turbines with Integral LED

### Bien Air® Couplings

Optic	MODEL	ORDER CODE
●	S-Max pico BLED*	P1144

\*Compatible Turbines with Integral LED

MODEL	ORDER CODE
<b>PC4ff</b> • Extra fine bur • Pack of 3	<b>Y1002020</b>
<b>PC5</b> • Pack of 3	<b>Y1001821</b>
<b>PC5ff</b> • Extra fine bur • Pack of 3	<b>Y1002021</b>
<b>PC6</b> • Pack of 3	<b>Y1001822</b>
<b>PC6ff</b> • Extra fine bur • Pack of 3	<b>Y1002022</b>



# Ti-Max X450



Titanium Body with Scratch  
Resistant DURACOAT  
Ceramic Bearings  
Push Button Chuck  
Triple Water Jet  
Clean Head System  
Cellular Glass Optics



- Power : 21 W
- Speed : 380,000-450,000 min<sup>-1</sup>
- Head Size : ø11.2 x H 13.5 mm
- 45° Angle Head
- For FG extra-long burs (25 mm) only

### NSK Couplings

Optic	MODEL	ORDER CODE
●	X450L	P1078

### KaVo® Couplings

Optic	MODEL	ORDER CODE
●	X450KL	P1079

### Dentsply Sirona® Couplings

Optic	MODEL	ORDER CODE
●	X450SL	P1080

### W&H® Couplings

Optic	MODEL	ORDER CODE
●	X450WLED*	P1082

\*Compatible Turbines with Integral LED

### Bien Air® Couplings

Optic	MODEL	ORDER CODE
●	X450BLED*	P1081

\*Compatible Turbines with Integral LED



# Pana-Max PLUS



- Stainless Steel Body
- Ceramic Bearings
- Push Button Chuck
- Quattro Spray
- Clean Head System
- Anti-Retraction Valve
- Air Pressure Regulating Valve



**Miniature Head**  
• Speed : 380,000-450,000 min<sup>-1</sup>  
• Head Size : ø10.6 x H 12.4 mm



**Standard Head**  
• Speed : 340,000-410,000 min<sup>-1</sup>  
• Head Size : ø12.1 x H 13.3 mm

Midwest 4 hole (Direct-connect / Screw-on Type)			
Head	Optic	MODEL	ORDER CODE
Miniature	—	PAP-MU M4	P1021
Standard	—	PAP-SU M4	P1022

Borden 2 hole (Direct-connect / Screw-on Type)			
Head	Optic	MODEL	ORDER CODE
Miniature	—	PAP-MU B2	P1023
Standard	—	PAP-SU B2	P1024

# Pana-Max2



- Stainless Steel Body
- Ceramic Bearings
- NSK Ultra Push Chuck
- Single Spray
- Clean Head System
- Simple Cartridge Change
- Anti-Retraction Valve (M4/B2)
- Air Pressure Regulating Valve (M4/B2)



• Speed : 350,000-450,000 min<sup>-1</sup>  
• Head Size : ø11.2 x H 13.4 mm



• Speed : 350,000-450,000 min<sup>-1</sup>  
• Head Size : ø11.2 x H 13.4 mm

NSK Couplings		
Optic	MODEL	ORDER CODE
—	Pana-Max2 PTL	P1211
KaVo® Couplings		
Optic	MODEL	ORDER CODE
—	Pana-Max2 KV	P1212

Midwest 4 hole (Direct-connect / Screw-on Type)		
Optic	MODEL	ORDER CODE
—	Pana-Max2 M4	P1154
Borden 2 hole (Direct-connect / Screw-on Type)		
Optic	MODEL	ORDER CODE
—	Pana-Max2 B2	P1155

NSK Couplings



Optic	MODEL	ORDER CODE
●	PTL-CL-LED	P1001600

- Stainless Steel Body • Titanium coating • Anti-Retraction Valve
- For NSK • LED incorporated in coupling



Optic	MODEL	ORDER CODE
●	KCL-LED	P1005600

- Stainless Steel Body • Titanium coating • Anti-Retraction Valve
- For KaVo® MULTIflex® LUX with water volume adjuster
- LED incorporated in coupling



Optic	MODEL	ORDER CODE
—	FM-CL-M4	P434051

- Stainless Steel Body • Anti-Retraction Valve



Optic	MODEL	ORDER CODE
●	PTL-CL-LED III	P1001601

- Stainless Steel Body • Titanium coating • Anti-Retraction Valve
- For NSK with water volume adjuster
- LED incorporated in coupling



Optic	MODEL	ORDER CODE
●	SCL-LED	P1009600

- Stainless Steel Body • Titanium coating • Anti-Retraction Valve
- For Sirona® Quick Coupling with water volume adjuster
- LED incorporated in coupling



Optic	MODEL	ORDER CODE
—	FM-CL-B2/B3	P432051

- Stainless Steel Body • Anti-Retraction Valve

Fitting Chart By Series

	NSK (Optic)	NSK (Non-Optic)	KaVo® (Optic)	KaVo® (Non-Optic)	Dentsply Sirona®	W&H® (Optic)	W&H® (Non-Optic)	Bien Air®
Ti-Max Z	○	—	○	—	○	○	—	○
S-Max M	○	○	○	○ (M900K)	○	○	○ (M900W)	○
S-Max pico	○	—	○	—	○	○	—	○
Ti-Max X450	○	—	○	—	○	○	—	○
Pana-Max2	—	○	—	○	—	—	—	—
Coupling Type	 NSK Coupling (PTL type) 		 KaVo® Multiflex® 		 Sirona® Quick Coupling 	 W&H® Roto Quick®		 Bien Air® UNIFIX®



Contra-angles

# NSK TECHNOLOGY & FUNCTION

**Anti Heat System**

Our Anti Heat System dramatically reduces heat generation to prevent burning.

**Push Button Chuck**

NSK's original push button auto-chuck mechanism tightens the bur grip during rotation. It allows one-touch bur insertion and removal without tools. The bur lock mechanism is designed so that bur retention strength increases when high loads are applied to the bur.

**Ceramic Bearings**

Ceramic Bearings are 25% harder than conventional steel bearings but are only half the weight. Because frictional wear between the ball bearings and the bearing retainer is significantly reduced the efficiency and durability is significantly increased.

**Cellular Glass Optic**

Cellular Glass Optic delivers brilliant illumination, is highly durable and will not deteriorate due to repeated sterilization.

**Clean Head System**

The Clean Head System has an anti-suck back mechanism that stops blood and foreign matter from entering the head from the oral cavity. As a result, the ball bearings and mechanical parts last longer.

**Quattro Water Spray**

The NSK Quattro Water Spray effectively cools the entire surface of the bur with a high cooling effect, leaving no areas uncovered.

**Autoclavable**



All NSK handpieces offer superior durability and continued performance, even when frequently autoclaved. All handpieces may be autoclavable up to 135°C.

**Thermo-disinfector Ready**



Disinfecting handpieces prior to autoclaving is a recommendable practice for more effective infection control. The symbol mark on your NSK product means you can cleanse and disinfect the handpiece using a thermo-disinfector.

**DURAGRIP**

The unique non-slip, non-scratch surface treatment improves durability and ensures a comfortable grip.

**DURACOAT**

Smooth scratch-resistant surface coating, comfortable to hold.

**Microfilter**

A 0.3 mm diameter microfilter keeps contaminants out of the water spray system, dramatically reducing blockages and enhancing treatment hygiene.

**Amazing Silence and Minimal Vibration**

The marriage of micro-precision parts and gears has lowered noise and vibration even more.

**Anti-Retraction Valve**

Prevents retraction of contaminated water from entering the water lines.



# Ti-Max Z

## Contra-angle

# Maximum Comfort

Smallest head  
Amazing silence and minimal vibration



## The Ultimate in Handpieces

### The Result of Invaluable Clinical Feedback

The handpiece is more user-friendly, cleaner, and safer. By reviewing everything from the shape of the instrument, to hygiene aspects and safety features using the most advanced technologies, we have made the contra-angle more ergonomic and comfortable for the clinician and safer for the patient, reducing stress for clinicians and patients alike. Only NSK's Ti-Max Z premium range offers these unique features.

## The Smallest\* Head

The head is angled 2° more than on the X95L for much better visibility and accessibility even for molars and other areas that are difficult to treat.

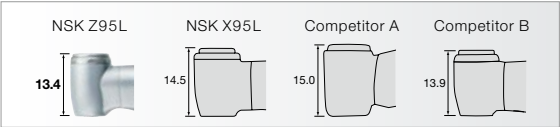
\*Compare with our previous model and products offered by other manufacturers.

## The Slimmest Neck

The slimmer neck provides much better visibility compared to existing products, delivering wide visibility of all treatment areas.

## Easier Access

The slimmer handpiece body and neck enhances access to molars without touching anterior teeth.



## Two-Way Spray Function (Z95L, Z45L)

The world's first Two-Way Spray Function function allows you to instantly choose between a mist or jet spray. Chose in an instant depending on the conditions and procedure. The water jet spray prevents subcutaneous emphysema in surgical procedures whilst still cooling during restorative procedures. When spray mist can be used again without restriction just switch again. No equipment modification required.



## Anti Heat System (Z95L, Z85L, Z84L, Z45L)

Our proprietary Anti Heat System dramatically reduces the heat typically experienced with speed increasing contra-angles. This feature improves patient safety without compromising maneuverability.



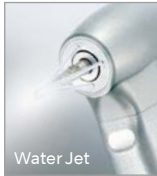


Ti-Max Z



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	Z95L	C1034
• Max Speed : 200,000 min <sup>-1</sup> • For FG burs (ø1.6) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Ceramic Bearings • Quattro Spray (with Two-Way Spray Function) • Microfilter • Anti Heat System • Clean Head System • Cellular Glass Optics			

Two-Way Spray Function



The world's first Two-Way Spray Function allows you to instantly choose between a mist or jet spray. When using the water jet only it reduces aerosols as the spray air is switched off. Just flick the switch at the bottom of the handpiece to revert to a water/air mist. No equipment modification required.

Easy On/Off Switch



Switch between water jet (water only) and water spray (water and air mist) in an instant.



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	Z25L	C1038
• Max Speed : 40,000 min <sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Single Spray (with Two-Way Spray Function) • Microfilter • Clean Head System • Cellular Glass Optics			



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	Z24L	C1126
• Miniature Head • Max Speed : 40,000 min <sup>-1</sup> • For CA burs (ø2.35) • Titanium Body with Scratch Resistant DURAGRIP • Push Button Chuck • Single Spray • Microfilter • Cellular Glass Optics			



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	Z85L	C1062
• Miniature Head • Max Speed : 200,000 min <sup>-1</sup> • For FG burs (ø1.6)* • Titanium Body with Scratch Resistant DURAGRIP • Push Button Chuck • Single Spray • Ceramic Bearings • Microfilter • Anti Heat System • Clean Head System • Cellular Glass Optics *For short shank burs only			



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	Z15L	C1039
• Max Speed : 10,000 min <sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Single Spray (with Two-Way Spray Function) • Microfilter • Clean Head System • Cellular Glass Optics			

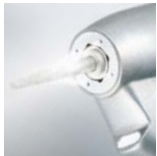


Gear Ratio	Optic	MODEL	ORDER CODE
1:4.5 Increasing	●	Z84L	C1135
• Miniature Head • Max Speed : 180,000 min <sup>-1</sup> • For FG burs (ø1.6)* • Titanium Body with Scratch Resistant DURAGRIP • Push Button Chuck • Quattro Spray (with Two-Way Spray Function) • Ceramic Bearings • Microfilter • Anti Heat System • Clean Head System • Cellular Glass Optics *For short shank burs only			



Gear Ratio	Optic	MODEL	ORDER CODE
16:1 Reduction	●	Z10L	C1040
• Max Speed : 2,500 min <sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Single Spray • Microfilter • Clean Head System • Cellular Glass Optics			

# Ti-Max Z45L



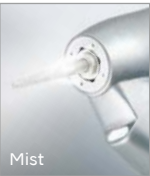
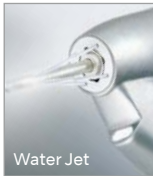
Gear Ratio	Optic	MODEL	ORDER CODE
1:4.2 Increasing	●	Z45L	C1064
• Max Speed : 168,000 min <sup>-1</sup> • For FG burs (ø1.6) • 45° Angle Head • Titanium Body with Scratch Resistant DURAGRIP • Push Button Chuck • Ceramic Bearings • Quattro Spray (with Two-Way Spray Function) • Microfilter • Anti Heat System • Clean Head System • Cellular Glass Optics			

### Superior Accessibility



The 45-degree angled head allows easy access to the molar region, minimizing interference from the front teeth and adjacent teeth.

### Two-Way Spray Function



The world's first Two-Way Spray Function allows you to instantly choose between a mist or jet spray depending on the conditions and procedure. The water jet spray prevents subcutaneous emphysema in surgical procedures, and the mist spray effectively cools the bur while cutting.

## Superior Accessibility Enables a Vast Variety of Clinical Applications

### Sectioning a Mandibular Left Impacted Third Molar



You can gain a comfortable finger rest without stress thanks to the extra space the slim Ti-Max Z45L creates between the front teeth. It is also easy to maintain the bur at an optimal angle and achieve precise sectioning, even when the operating depth is close to apex.

### Caries Removal from a Maxillary Left Lateral Incisor's Cervical Area



Securing a solid finger rest on a front tooth enables stable cutting without interference from other teeth. Since you can also freely control the angle of the bur, minimal intervention treatments are also possible.

### Caries Removal from a Maxillary Left Second Premolar on Palatal Side



When working on the palatal side of a second premolar, Ti-Max Z45L ensures that you can operate smoothly and have plenty of working space between the maxillary adjacent teeth.

### Clarifying the Root Canal Orifice of a Mandibular Right Second Premolar



Ti-Max Z45L enables you to prep smoothly without interference from the rubber dam clamp. Its flexibility also makes treatments safer and more precise.

# Ti-Max nano



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	nano95LS	C1099
• Max Speed : 200,000 min <sup>-1</sup> • For FG burs (ø1.6) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Ceramic Bearings • Quattro Spray • Microfilter • Anti Heat System • Clean Head System • Cellular Glass Optics			



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	nano25LS	C1100
• Max Speed : 40,000 min <sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Single Spray • Microfilter • Clean Head System • Cellular Glass Optics			



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	nano15LS	C1101
• Max Speed : 10,000 min <sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck • Titanium Body with Scratch Resistant DURAGRIP • Single Spray • Microfilter • Clean Head System • Cellular Glass Optics			

### Straight Handpiece



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	nano65LS	H1048
• Max Speed : 40,000 min <sup>-1</sup> • For HP burs (ø2.35)* • CA burs (ø2.35)* • Titanium Body with Scratch Resistant DURAGRIP • Single Spray • Clean Head System • Cellular Glass Optics <small>*Need to insert the supplied bur stopper</small>			



Ti-Max X



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	X95L	C600
1:5 Increasing	—	X95	C610

- Max Speed : 200,000 min<sup>-1</sup> • For FG burs (ø1.6)
- Titanium Body with Scratch Resistant DURAGRIP
- Push Button Chuck • Ceramic Bearings • Quattro Spray • Microfilter
- Anti Heat System • Clean Head System • Cellular Glass Optics



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	X25L	C601
1:1 Direct Drive	—	X25	C611

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Titanium Body with Scratch Resistant DURAGRIP
- Push Button Chuck • Single Spray • Microfilter • Clean Head System
- Cellular Glass Optics



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	X15L	C602
4:1 Reduction	—	X15	C612

- Max Speed : 10,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Titanium Body with Scratch Resistant DURAGRIP
- Push Button Chuck • Single Spray • Microfilter • Clean Head System
- Cellular Glass Optics



External water coolant

Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	—	X95EX	C1072

- Max Speed : 200,000 min<sup>-1</sup> • For FG burs (ø1.6)
- Titanium Body with Scratch Resistant DURAGRIP
- Push Button Chuck • Ceramic Bearings • Quattro Spray
- Clean Head System



Gear Ratio	Optic	MODEL	ORDER CODE
10:1 Reduction	●	X35L	C620
10:1 Reduction	—	X35	C624

- Max Speed : 4,000 min<sup>-1</sup> • For Hand File & Engine File • 60° Twist
- Titanium Body with Scratch Resistant DURAGRIP
- Push Button Chuck • Single Spray • Microfilter • Cellular Glass Optics



MODEL	ORDER CODE
QF Adaptor	C877701



Gear Ratio	Optic	MODEL	ORDER CODE
16:1 Reduction	●	X57L	C609
16:1 Reduction	—	X57	C619

- Max Speed : 2,500 min<sup>-1</sup> • For Screw-in Cups and Brushes
- 360° Rotation • Special Dust Proof
- Titanium Body with Scratch Resistant DURAGRIP
- w/o Spray • Cellular Glass Optics



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	X55L	C608
4:1 Reduction	—	X55	C618

- Max Speed : 10,000 min<sup>-1</sup> • For Profin Tip / EVA Tip / Orthodontics File (Shank ø2.36-2.40 mm)\* • Vertical Reciprocating (Stroke Length 1.4 mm)
- Titanium Body with Scratch Resistant DURAGRIP • Single Spray
- Microfilter • Cellular Glass Optics • Lamineer Tips not included
- With Tip Lock Mechanism \*Metalic shank cannot be used.

Straight Handpiece

Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	X65L	H273
1:1 Direct Drive	—	X65	H274

- Max Speed : 40,000 min<sup>-1</sup> • For HP burs (ø2.35) • For CA burs (ø2.35)\*
- Titanium Body with Scratch Resistant DURAGRIP
- Single Spray • Clean Head System • Cellular Glass Optics

\*Need to insert the supplied bur stopper

■ Please keep the rotation speed with your file manufactures designate. (X35L / X35)



S-Max M



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	M95L	C1023
1:5 Increasing	—	M95	C1026

- Max Speed : 200,000 min<sup>-1</sup> • For FG burs (ø1.6) • Stainless Steel Body
- Push Button Chuck • Ceramic Bearings • Quattro Spray
- Clean Head System • Cellular Glass Optics



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	M25L	C1024
1:1 Direct Drive	—	M25	C1027

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35) • Stainless Steel Body
- Push Button Chuck • Single Spray • Clean Head System
- Cellular Glass Optics



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	M15L	C1025
4:1 Reduction	—	M15	C1028

- Max Speed : 10,000 min<sup>-1</sup> • For CA burs (ø2.35) • Stainless Steel Body
- Push Button Chuck • Single Spray • Clean Head System
- Cellular Glass Optics



Straight Handpiece

Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	—	M65	H1008

- Max Speed : 40,000 min<sup>-1</sup> • For HP burs (ø2.35) • For CA burs (ø2.35)\*
- Stainless Steel Body • Single Spray • Clean Head System

\*Need to insert the supplied bur stopper

FX series



Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	FX25m	C1052001

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35) • Stainless Steel Body
- Ball Bearing • Push Button Chuck • Clean Head System
- External Water Spray



Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	FX22	C1129

- Max Speed : 30,000 min<sup>-1</sup> • For CA burs (ø2.35) • Latch type
- External Water Spray



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	FX15m	C1053001

- Max Speed : 10,000 min<sup>-1</sup> • For CA burs (ø2.35) • Stainless Steel Body
- Ball Bearing • Push Button Chuck • Clean Head System
- External Water Spray



Gear Ratio	MODEL	ORDER CODE
16:1 Reduction	FX75m	C1055001

- Miniature Head • Max Speed : 1,250 min<sup>-1</sup> • For engine files
- Stainless Steel Body • 360° Rotation • Push Button Chuck
- External Water Spray



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	FX57m	C1054001

- Max Speed : 5,000 min<sup>-1</sup> • For screw-in cups and brushes
- Stainless Steel Body • 360° Rotation • Paste Defense System
- External Water Spray



Straight Handpiece

Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	FX65m	H1014001

- Max Speed : 40,000 min<sup>-1</sup> • For HP burs (ø2.35), disposable prophy angle
- Stainless Steel Body • Clean Head System
- External Water Spray

EX series

Heads for General Application  
(External Water Spray)

MODEL	ORDER CODE
FPB-Y	C875

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Clean Head System • Push Button Chuck
- Ball Bearing



MODEL	ORDER CODE
NAC-Y	C032002

- Max Speed : 30,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Latch type



MODEL	ORDER CODE
BB-Y	C037

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Latch type • Ball Bearing



MODEL	ORDER CODE
NBBW-Y	C211

- Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Latch type • Ball Bearing • With Water Nozzle



MODEL	ORDER CODE
NM-Y	C247

- Max Speed : 30,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Miniature Head • Latch type



MODEL	ORDER CODE
FFB-Y	C884

- Max Speed : 40,000 min<sup>-1</sup> • For FG burs (ø1.6)
- Clean Head System • Push Button Chuck



MODEL	ORDER CODE
NRS2-Y	C549

- Max Speed : 3,000 min<sup>-1</sup> • For CA burs (ø2.35)
- Clean Head System • Push Button Chuck
- 10:1 Reduction



Heads for Prophylaxis Application

MODEL	ORDER CODE
AR-Y (S)	C187

- Max Speed : 5,000 min<sup>-1</sup>
- For screw-in cups and brushes



MODEL	ORDER CODE
AR-Y (K)	C188

- Max Speed : 5,000 min<sup>-1</sup> • For snap-on cups



MODEL	ORDER CODE
EVA-Y	C235

- Max Speed : 10,000 min<sup>-1</sup> • For Eva tips
- Vertical Reciprocating (Stroke Length 1.4 mm)



Heads for Endodontic Application

MODEL	ORDER CODE
MP-Y	C547

- Max Speed : 20,000 min<sup>-1</sup> • Miniature Head
- Push Button Chuck



MODEL	ORDER CODE
MPA-Y	C548

- Max Speed : 20,000 min<sup>-1</sup> • Miniature Head
- Connection for Apex locator (For long shank)
- Push Button Chuck



MODEL	ORDER CODE
MPAS-Y	C882

- Max Speed : 20,000 min<sup>-1</sup> • Miniature Head
- Connection for Apex locator (For short shank)
- Push Button Chuck



MODEL	ORDER CODE
TEQ-Y	C849001

- Max Speed : 4,000 min<sup>-1</sup> • 80° Twist
- For engine files (ø2.35) • Push Button Chuck



MODEL	ORDER CODE
TET-Y	C837001

- Max Speed : 4,000 min<sup>-1</sup> • 60° Twist
- For hand files • Push Button Chuck



Shanks

MODEL	ORDER CODE
EC-30	C100008
EC-30M	C100007

- 1:1 Direct Drive



MODEL	ORDER CODE
ER4	C634
ER4M	C634002

- 4:1 Reduction



MODEL	ORDER CODE
ER10	C635

- 10:1 Reduction



MODEL	ORDER CODE
ER16	C636

- 16:1 Reduction



Straight Handpieces



Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	EX-6B	H260001

- Max Speed : 40,000 min<sup>-1</sup> • For HP burs (ø2.35) • Clean Head System



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	EX-5B	H262

- Max Speed : 10,000 min<sup>-1</sup> • For HP burs (ø2.35), disposable prophy angle
- Clean Head System



MODEL	ORDER CODE
Spray Nozzle	H019711

- For EX-6B, EX-5B (Optional)

isoE-LUX Light Probe



Optic	MODEL	ORDER CODE
●	isoE-LUX	Z1265

- E-Type Optic Motor Connection • Stainless Steel Body
- Glass Fiber Optics

■Shanks and heads are sold separately. You can combine shanks and heads according to your preference and speed required for the indication.

Electric Micromotors

NLX nano

Electric Micromotor Portable System

Speed : 2,000 – 40,000 min<sup>-1</sup>, Torque : 3.4 Ncm

Internal Water Spray

Optic	MODEL	ORDER CODE
●	NLX nano S230 (230 V)	Y1001362

Contents

• Control unit • Motor • Cord • AC Adaptor

Specifications

[Control Unit]	[Micromotor]	[Micromotor only]
• Rated Input : AC 28 V 50/60 Hz	• Dimensions : ø22 × L 70 mm	
• Dimensions : W 127 x D 149 x H 54 mm	• Weight : 61 g	
• Weight : 517 g		



Electric Micromotor Integrated System

Speed : 1,000 – 40,000 min<sup>-1</sup>, Torque : 3.4 Ncm



NLX plus

Electric Micromotor Integrated System

Speed : 1,000 – 40,000 min<sup>-1</sup>, Torque : 4.0 Ncm, with Endo Function

Features

- Torque control & Auto reverse feature  
3 working modes: Auto-reverse on, Auto-stop or Auto-reverse off
- Autoclavable titanium body
- LED illumination
- Installable built-in type conforms to most dental equipments by employing original NLX BF power module



Air Motors

Ti-Max X205L

Internal Water Spray

Optic	MODEL	ORDER CODE
●	X205L	M1013

- Max Speed : 23,000 min<sup>-1</sup> ±10% • 360° Swivel with LED illumination
- 32,000 LUX • Titanium body with scratch-resistant DURACOAT
- Anti-Retraction Valve



S-Max M205

Internal Water Spray

Optic	MODEL	ORDER CODE
—	M205	M1007

- Max Speed : 22,000 min<sup>-1</sup> ±10% • Midwest 4 hole
- Stainless Steel Body • Anti-Retraction Valve



FX205m

External Water Spray

Optic	MODEL	ORDER CODE
—	FX205m M4	M1005001
—	FX205m B2	M1006001

- Max Speed : 22,000 min<sup>-1</sup> ±10% (M4), Max Speed : 25,000 min<sup>-1</sup> ±10% (B2)
- Midwest 4 hole / Borden 2 hole • Stainless Steel Body





Ultrasonic Scaler

Varios 970

Optic	MODEL	ORDER CODE
●	VA970 LUX 230V S1	Y1004161
—	VA970 230V S1	Y1004160

- Contents
- Control unit
  - Handpiece
  - Handpiece cord
  - 3 Scaling tips (G4, G8, G16)
  - Foot control (FC-70)
  - 2 x Irrigation bottles
  - 3 x Tip wrench with torque limiter
  - AC power cord
  - Sterilization case



Air Scaler

Ti-Max S970

NSK Couplings		
Optic	MODEL	ORDER CODE
●	S970L	T1005
—	S970	T1020

KaVo® Couplings		
Optic	MODEL	ORDER CODE
●	S970KL	T1013



- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics • 3 level Power Ring
- Includes 3 tips (S1, S2 & S3), Tip Wrench (CR-20) and Tip Cover (L)

Restorative Minimal Intervention

MODEL	ORDER CODE
G61D	Z217601

- Diamond coated



MODEL	ORDER CODE
G62D	Z217602

- Diamond coated



MODEL	ORDER CODE
G65D	Z217605

- Diamond coated



MODEL	ORDER CODE
G66D	Z217606

- Diamond coated



MODEL	ORDER CODE
G67D	Z217607

- Diamond coated



MODEL	ORDER CODE
G68D	Z217608

- Diamond coated



Condensing

MODEL	ORDER CODE
G21	Z217010

- Water not required • For anterior teeth
- 3 caps supplied



MODEL	ORDER CODE
G28	Z217208

- Water not required
- For amalgam condensation



V-TIP System

MODEL	ORDER CODE
V30	Z217030

- Includes E-Tip replacement wrench
- V-Tip Holder • Tip is optional



Restorative (V-TIP) Minimal Intervention

MODEL	ORDER CODE
V-G70	Y900118

- Diamond coated • Pack of 3



V-G71	Y900119
• Diamond coated • Pack of 3	



V-G72	Y900120
• Diamond coated • Pack of 3	



V-G75	Y900121
• Diamond coated • Pack of 3	



V-G76	Y900122
• Diamond coated • Pack of 3	



Finishing / Trimming / Polishing

MODEL	ORDER CODE
V-G77	Y900165

- Diamond coated • Normal Grade
- Pack of 3



V-G78	Y900166
• Diamond coated • Fine Grade	
• Pack of 3	



V-G79	Y900167
• Diamond coated • Super Fine Grade	
• Pack of 3	



Caries Removal

MODEL	ORDER CODE
V-S1	Y900161

- Stainless Tip • Pack of 3



V-S3	Y900162
• Stainless Tip • Pack of 3	



V-S33	Y900163
• Stainless Tip • Pack of 3	



Restorative Minimal Intervention

MODEL	ORDER CODE
S65D	Z252465

- Diamond coated



MODEL	ORDER CODE
S66D	Z252466

- Diamond coated



MODEL	ORDER CODE
S67D	Z252467

- Diamond coated



MODEL	ORDER CODE
S68D	Z252468

- Diamond coated



Restorative Preparation of Crown Cores

MODEL	ORDER CODE
S81D	Z252469

- Diamond coated



MODEL	ORDER CODE
S82D	Z252462

- Diamond coated



MODEL	ORDER CODE
S83D	Z252461

- Diamond coated



MODEL	ORDER CODE
S86D	Z252460

- Diamond coated



MODEL	ORDER CODE
S71D	Z252471

- Diamond coated







MODEL	ORDER CODE
S72D	Z252472





- Diamond coated






Spare Parts



Ti-Max Z



MODEL	PRODUCTS	ORDER CODE
<b>TiZ9-SU03</b> Cartridge for Standard head		<b>PA2381X001</b>
<b>TiZ9-MU03</b> Cartridge for Miniature head		<b>PA2380X001</b>
<b>SX3-NU03</b> Cartridge for Z micro		<b>PA2307X001</b>
<b>S970 O-ring Set</b> Z990L, Z890L		<b>Y1001953</b>


MODEL	PRODUCTS	ORDER CODE
<b>TiZ9-SU04</b> Head cap for Standard head		<b>PA2381X050</b>
<b>TiZ9-MU04</b> Head cap for Miniature head		<b>PA2380X050</b>
<b>SX-NU04</b> Head cap for Z micro		<b>PA2307X050</b>
<b>PTL O-ring Set</b> (Pack of 5)		<b>Y900580</b>

MODEL	PRODUCTS	ORDER CODE
<b>TiZ9-SU05</b> Head cap wrench for Miniature head & Standard head		<b>PA2381X765</b>
<b>SX-NU05</b> Head cap wrench for Z micro		<b>PA2307X765</b>
<b>Cleaning Wire</b>		<b>Z144101</b>



S-Max M

MODEL	PRODUCTS	ORDER CODE
<b>SX-MU03</b> Cartridge for Miniature head		<b>P1280</b>
<b>SX-SU03</b> Cartridge for Standard head		<b>P1281</b>

MODEL	PRODUCTS	ORDER CODE
<b>PTL O-ring Set</b> (Pack of 5)		<b>Y900580</b>
<b>SX-MU04</b> Head cap for Miniature head		<b>P1001500</b>

MODEL	PRODUCTS	ORDER CODE
<b>SX-SU04</b> Head cap for Standard head		<b>P1027500</b>
<b>SX-SU05</b> Head cap wrench for Miniature head & Standard head		<b>20000535</b>



S-Max pico

MODEL	PRODUCTS	ORDER CODE
<b>SX-PU03</b> Cartridge for S-Max pico		<b>P1140200</b>
<b>PTL O-ring Set</b> (Pack of 5)		<b>Y900580</b>

MODEL	PRODUCTS	ORDER CODE
<b>SX-PU04</b> Head cap for S-Max pico		<b>P1140500</b>

MODEL	PRODUCTS	ORDER CODE
<b>SX-PU05</b> Head cap wrench for S-Max pico		<b>20002803</b>



Ti-Max X450



MODEL	PRODUCTS	ORDER CODE
<b>TiX45-SU03</b> Cartridge for Standard head		<b>Y1001906</b>
<b>PTL O-ring Set</b> (Pack of 5)		<b>Y900580</b>

MODEL	PRODUCTS	ORDER CODE
<b>TiX45-SU04</b> Head cap for Standard head		<b>P1078500</b>

MODEL	PRODUCTS	ORDER CODE
<b>Head-cap wrench for X450</b>		<b>P624765</b>


Pana-Max PLUS

MODEL	PRODUCTS	ORDER CODE
<b>SX-MU03</b> Cartridge for Miniature head		<b>P1280</b>
<b>SX-SU03</b> Cartridge for Standard head		<b>P1281</b>


MODEL	PRODUCTS	ORDER CODE
<b>SX-MU04</b> Head cap for Miniature head		<b>P1001500</b>
<b>SX-SU04</b> Head cap for Standard head		<b>P1027500</b>

MODEL	PRODUCTS	ORDER CODE
<b>SX-SU05</b> Head cap wrench for Miniature head & Standard head		<b>20000535</b>

Pana-Max2



MODEL	PRODUCTS	ORDER CODE
<b>PAX2-SU03</b> Cartridge		<b>P1190</b>


MODEL	PRODUCTS	ORDER CODE
<b>PAX2-SU04</b> Head cap		<b>P1190050</b>

MODEL	PRODUCTS	ORDER CODE
<b>PAX2-SU05</b>		<b>P1190765</b>


Couplings



MODEL	PRODUCTS	ORDER CODE
<b>Anti-Retraction Valve</b>		<b>P401054</b>
<b>TA Bulb</b> for KCL-6 (Pack of 3)		<b>Y900132</b>



MODEL	PRODUCTS	ORDER CODE
<b>PTL Bulb</b> for PTL (Pack of 3)		<b>Y900529</b>
<b>O-ring Set</b> for KCL-6/LED		<b>Y900211</b>

MODEL	PRODUCTS	ORDER CODE
<b>O-ring Set</b> for SCL-LED		<b>S900060</b>

FX Series

MODEL	PRODUCTS	ORDER CODE
<b>FX25-04</b> Head cap for FX25m		<b>C1052500</b>
<b>FX25-03</b> Cartridge for FX25m		<b>C1052700</b>





MODEL	PRODUCTS	ORDER CODE
<b>FX Spray nozzle</b> For FX25m/FX15m		<b>C1052702</b>
<b>Spray Nozzle</b> For FX65m		<b>H019711</b>

MODEL	PRODUCTS	ORDER CODE
<b>FX Wrench</b> For FX25m		<b>C1052701</b>
<b>Tube</b>		<b>Z166101</b>

EX Series

MODEL	PRODUCTS	ORDER CODE
<b>FPB-03</b> Cartridge for FPB		<b>C875060</b>
<b>NAC-03</b> Cartridge for NAC		<b>C030011</b>
<b>BB-03</b> Cartridge for BB		<b>C037015</b>
<b>NBB-03</b> Cartridge for NBBW		<b>C210015</b>

MODEL	PRODUCTS	ORDER CODE
<b>FFB-03</b> Cartridge for FFB		<b>C884060</b>
<b>Spray Nozzle</b> For NAC, BB, FPB, FFB, TEP		<b>C032701</b>
<b>Spray Nozzle</b> For EX-5B, EX-6B		<b>H019711</b>
<b>FPB-02</b> Middle Gear		<b>C875012</b>

MODEL	PRODUCTS	ORDER CODE
<b>NAC-02</b> Middle Gear		<b>C032012</b>
<b>Cap Wrench</b> For AR-Y(S)		<b>C185751</b>
<b>Cap Wrench</b> (Black)		<b>C071751</b>
<b>Tube</b>		<b>Z166101</b>

Ti-Max X95EX

MODEL	PRODUCTS	ORDER CODE
<b>Tube</b>		<b>Z166101</b>

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