

RESTORATIVE & PROSTHETICS



Createit

RESTORATIVE & PROSTHETICS

NSK

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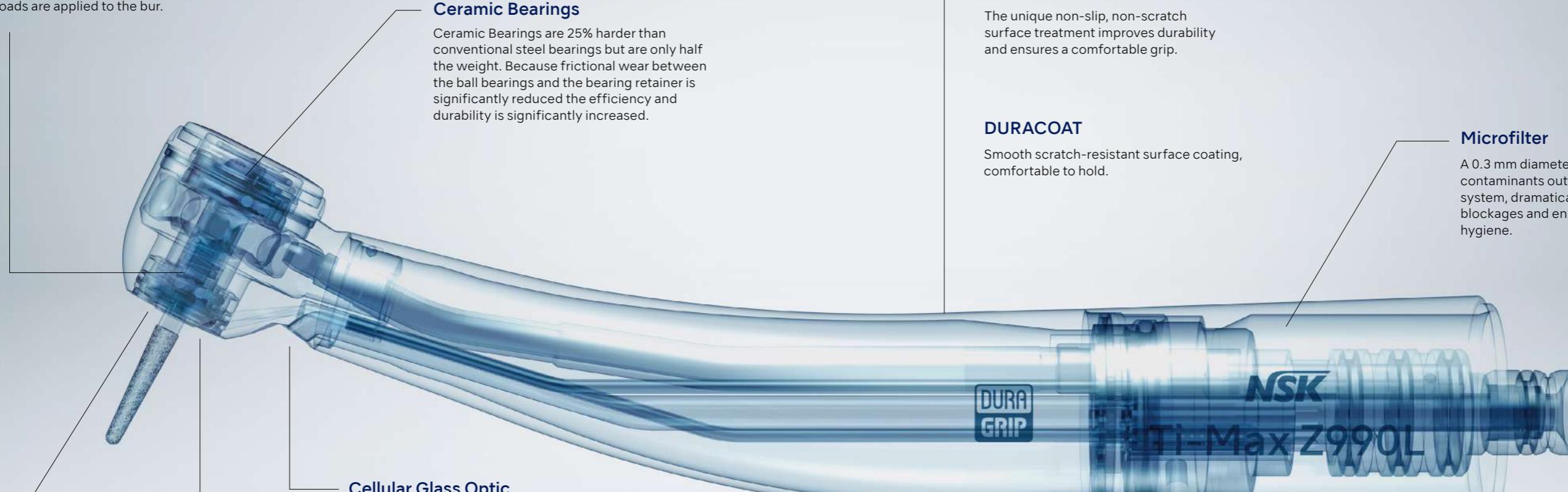
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# NSK TECHNOLOGY & FUNCTION

## 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.



## 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.

## 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.



## Anti-Retraction Valve

Prevents retraction of contaminated water from entering the water lines.



# Ti-Max Z

## Air Turbine



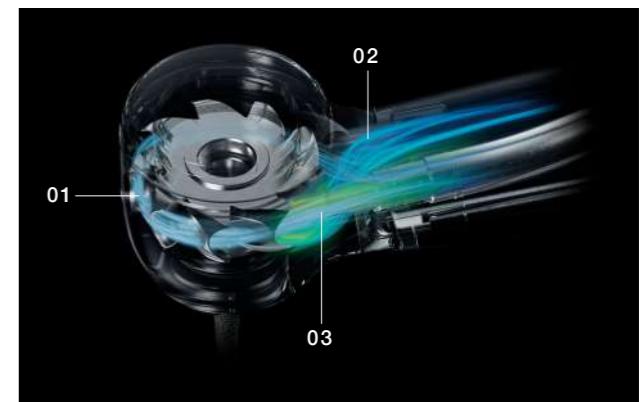
## Unprecedented Power

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

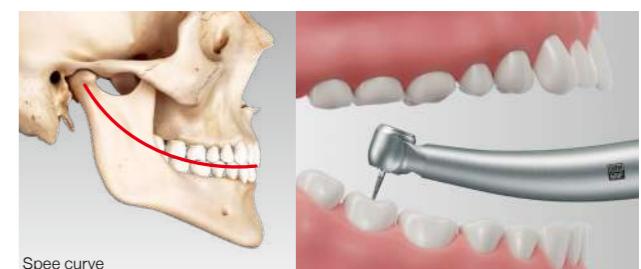
The enlarged exhaust groove quickly discharges air received by the chamber. A smooth exhaust improves torque in the low rpm range.

### 03. Extended Cylindrical Nozzle

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

## Lightweight titanium body and 100° angle head

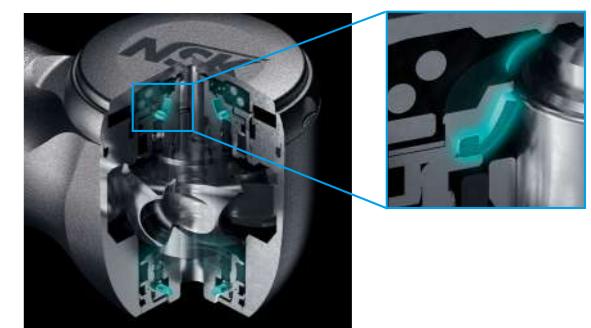
The internal structure has been revised and the weight has been reduced by 16% compared to the previous model (the lightest metal exterior in major competitive comparisons). Considering the physiological curves of the oral cavity (Curve of Spee and Curve of Wilson), the 100° angled head enables easier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



## 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 an 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 : 41 W  
 • 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 : ø10.6 x H 12.7 mm

# 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
Micro	●	Z micro	PA2357
Miniature	●	Z890L	PA23720001
Standard	●	Z990L	PA23730001

W&H® Couplings			
Head	Optic	MODEL	ORDER CODE
Micro	●	Z micro WL	PA23610001
Miniature	●	Z890WL*	PA23860001
Standard	●	Z990WL	PA23870001

\*Compatible Turbines with Integral LED

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

Bien Air® Couplings			
Head	Optic	MODEL	ORDER CODE
Miniature	●	Z890BL*	PA23840001
Standard	●	Z990BL*	PA23850001

\*Compatible Turbines with Integral LED

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

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
●	<b>S-Max pico</b>	<b>P1140</b>

## KaVo® Couplings

Optic	MODEL	ORDER CODE
●	<b>S-Max pico KL</b>	<b>P1142</b>

## Dentsply Sirona® Couplings

Optic	MODEL	ORDER CODE
●	<b>S-Max pico SL</b>	<b>P1143</b>

## 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
●	<b>S-Max pico WLED*</b>	<b>P1145</b>

\*Compatible Turbines with Integral LED

## Bien Air® Couplings

Optic	MODEL	ORDER CODE
●	<b>S-Max pico BLED*</b>	<b>P1144</b>

\*Compatible Turbines with Integral LED

# 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
●	<b>X450L</b>	<b>P1078</b>

## KaVo® Couplings

Optic	MODEL	ORDER CODE
●	<b>X450KL</b>	<b>P1079</b>

## Dentsply Sirona® Couplings

Optic	MODEL	ORDER CODE
●	<b>X450SL</b>	<b>P1080</b>

## W&H® Couplings

Optic	MODEL	ORDER CODE
●	<b>X450WLED*</b>	<b>P1082</b>

\*Compatible Turbines with Integral LED

## Bien Air® Couplings

Optic	MODEL	ORDER CODE
●	<b>X450BLED*</b>	<b>P1081</b>

\*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

# 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

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

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

NSK Couplings		
Optic	MODEL	ORDER CODE
—	<b>Pana-Max2 PTL</b>	<b>P1211</b>

KaVo® Couplings		
Optic	MODEL	ORDER CODE
—	<b>Pana-Max2 KV</b>	<b>P1212</b>

Midwest 4 hole (Direct-connect / Screw-on Type)		
Optic	MODEL	ORDER CODE
—	<b>Pana-Max2 M4</b>	<b>P1154</b>

Borden 2 hole (Direct-connect / Screw-on Type)		
Optic	MODEL	ORDER CODE
—	<b>Pana-Max2 B2</b>	<b>P1155</b>

## NSK Couplings



Optic	MODEL	ORDER CODE
●	<b>PTL-CL-LED</b>	<b>P1001600</b>

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



Optic	MODEL	ORDER CODE
●	<b>PTL-CL-LED III</b>	<b>P1001601</b>

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



Optic	MODEL	ORDER CODE
●	<b>KCL-LED</b>	<b>P1005600</b>

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



Optic	MODEL	ORDER CODE
●	<b>SCL-LED</b>	<b>P1009600</b>

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



Optic	MODEL	ORDER CODE
—	<b>FM-CL-M4</b>	<b>P434051</b>

- Stainless Steel Body • Anti-Retraction Valve



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

- 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®
<b>Ti-Max Z</b>	○	—	○	—	○	○	—	○
<b>S-Max M</b>	○	○	○	○ (M900K)	○	○	○ (M900W)	○
<b>S-Max pico</b>	○	—	○	—	○	○	—	○
<b>Ti-Max X450</b>	○	—	○	—	○	○	—	○
<b>Pana-Max2</b>	—	○	—	○	—	—	—	—

### Coupling Type



# NSK TECHNOLOGY & FUNCTION

## 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.

## Anti Heat System

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

## 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.

## 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.

## Cellular Glass Optic

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

## 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.

## Amazing Silence and Minimal Vibration

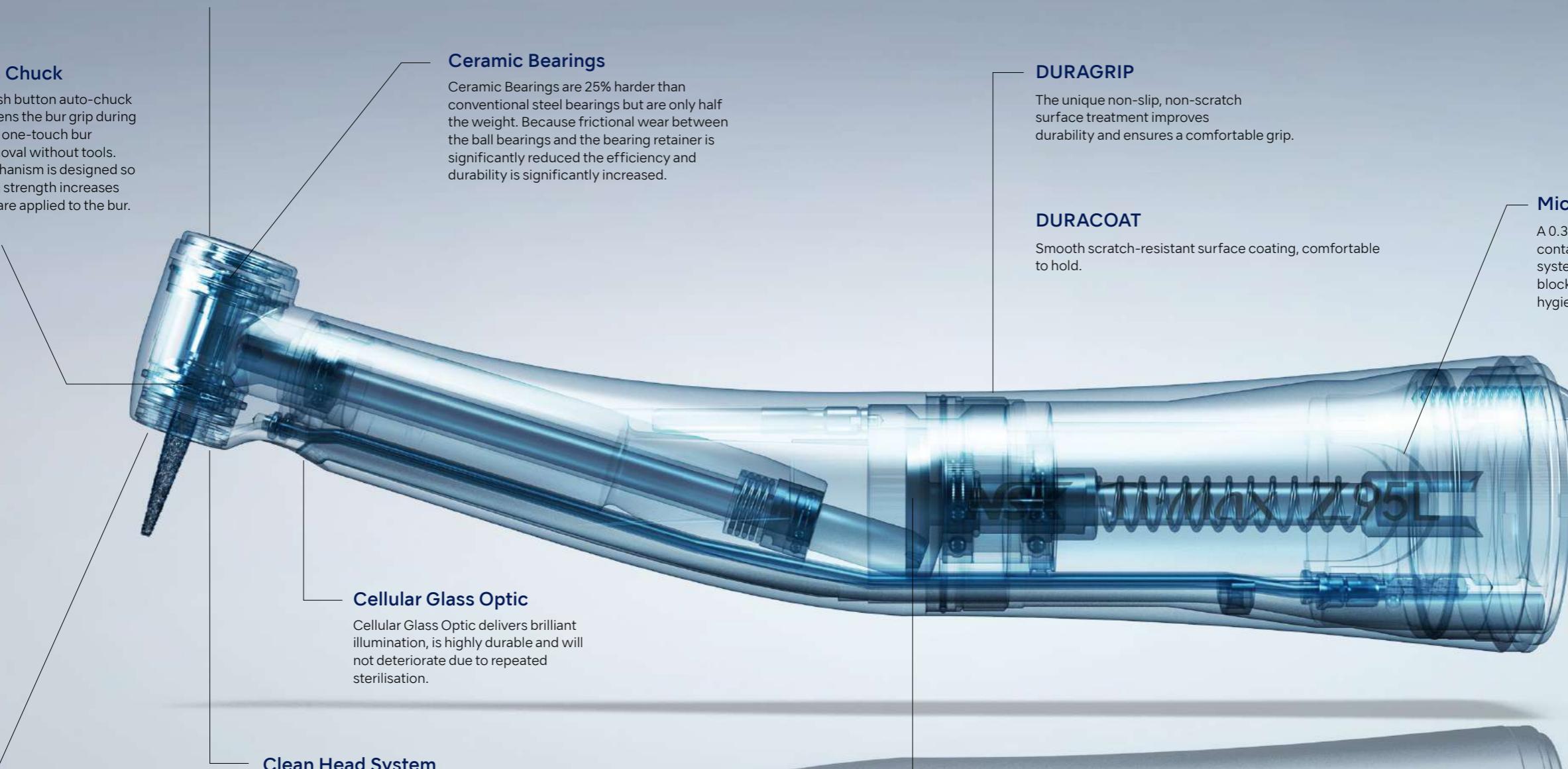
The marriage of micro-precision parts and gears has lowered noise and vibration even more.

## Microfilter

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

## Anti-Retraction Valve

Prevents retraction of contaminated water from entering the water lines.



# Ti-Max Z

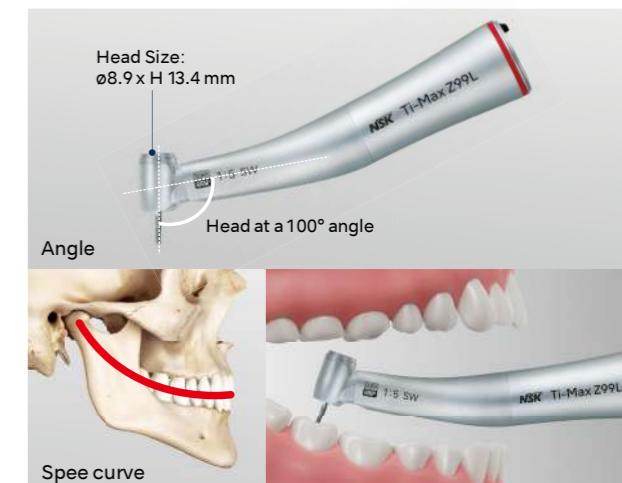
Contra-angle

## Smooth Cutting at its Peak. Durability at its Core.



### 100° Angled head – for easy access

Designed with the oral cavity's natural anatomical curves in mind (Curve of Spee and Curve of Wilson), enabling high-torque cutting for more efficient treatment.



### Optimised Gear Structure – for smooth cutting

The handpiece features an optimized internal structure with the ideal number and shape of gears, for more efficient power transmission. This enhances motor torque delivery and provides a smoother cutting experience.



### Quattro Spray

Features a four-port water spray system that irrigates from two angles, helping to reduce the risk of cooling failure – regardless of bur shape or the conditions inside the oral cavity.



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	<b>Z99L</b>	<b>CA13140001</b>

- Max Speed : 200,000 min<sup>-1</sup> • For FG burs (ø1.6) • 100° Angle Head
- Titanium Body with Scratch Resistant DURAGRIP
- DURAPOWER CHUCK • Ceramic Bearings
- Quattro Spray (with Two-Way Spray Function) • Microfilter
- Anti Heat System • Clean Head System • Cellular Glass Optics



## Maximum Comfort

**Smallest head**  
Amazing silence and  
minimal vibration

### 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.

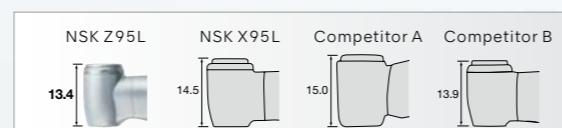
\*Compare with our previous model and products offered by other manufacturers.

### 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.



## Ti-Max Z



Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	<b>Z95L</b>	<b>C1034</b>

• 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

Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	●	<b>Z85L</b>	<b>C1062</b>

• 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
1:1 Direct Drive	●	<b>Z25L</b>	<b>C1038</b>

• 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	●	<b>Z24L</b>	<b>C1126</b>

• 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
4:1 Reduction	●	<b>Z15L</b>	<b>C1039</b>

• 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

# Ti-Max Z45L



Gear Ratio	Optic	MODEL	ORDER CODE
1:4.2 Increasing	●	Z45L	C1064
<ul style="list-style-type: none"> <li>• Max Speed : 168,000 min<sup>-1</sup> • For FG burs (ø1.6) • 45° Angle Head</li> <li>• Titanium Body with Scratch Resistant DURAGRIP</li> <li>• Push Button Chuck • Ceramic Bearings</li> <li>• Quattro Spray (with Two-Way Spray Function) • Microfilter</li> <li>• Anti Heat System • Clean Head System • Cellular Glass Optics</li> </ul>			

## 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 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.

### 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.

### 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
<ul style="list-style-type: none"> <li>• Max Speed : 200,000 min<sup>-1</sup> • For FG burs (ø1.6) • Push Button Chuck</li> <li>• Titanium Body with Scratch Resistant DURAGRIP • Ceramic Bearings</li> <li>• Quattro Spray • Microfilter • Anti Heat System • Clean Head System</li> <li>• Cellular Glass Optics</li> </ul>			



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	nano25LS	C1100
<ul style="list-style-type: none"> <li>• Max Speed : 40,000 min<sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck</li> <li>• Titanium Body with Scratch Resistant DURAGRIP</li> <li>• Single Spray • Microfilter • Clean Head System • Cellular Glass Optics</li> </ul>			



Gear Ratio	Optic	MODEL	ORDER CODE
4:1 Reduction	●	nano15LS	C1101
<ul style="list-style-type: none"> <li>• Max Speed : 10,000 min<sup>-1</sup> • For CA burs (ø2.35) • Push Button Chuck</li> <li>• Titanium Body with Scratch Resistant DURAGRIP</li> <li>• Single Spray • Microfilter • Clean Head System • Cellular Glass Optics</li> </ul>			

## Straight Handpiece

Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	nano65LS	H1048
<ul style="list-style-type: none"> <li>• Max Speed : 40,000 min<sup>-1</sup> • For HP burs (ø2.35)* • CA burs (ø2.35)*</li> <li>• Titanium Body with Scratch Resistant DURAGRIP</li> <li>• Single Spray • Microfilter • Clean Head System • Cellular Glass Optics</li> <li>*Need to insert the supplied bur stopper</li> </ul>			

# Ti-Max X



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

- 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
- Anti Heat System • Clean Head System • Cellular Glass Optics



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

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



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

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



External water coolant			
Gear Ratio	Optic	MODEL	ORDER CODE
1:5 Increasing	—	<b>X95EX</b>	<b>C1072</b>

- 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	●	<b>X35L</b>	<b>C620</b>
10:1 Reduction	—	<b>X35</b>	<b>C624</b>

- 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 • Cellular Glass Optics

MODEL	ORDER CODE
<b>QF Adaptor</b>	<b>C877701</b>



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

- 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	●	<b>X55L</b>	<b>C608</b>
4:1 Reduction	—	<b>X55</b>	<b>C618</b>

- 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
- Cellular Glass Optics • Lamineer Tips not included
- With Tip Lock Mechanism \*Metallic shank cannot be used.



Straight Handpiece			
Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	<b>X65L</b>	<b>H273</b>
1:1 Direct Drive	—	<b>X65</b>	<b>H274</b>

- 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 manufacturer's designation.  
(X35L / X35)

Washable in the thermodisinfector

135° Autoclavable



## Built to Last

Dramatically improved durability  
Updated internal body design and  
chuck mechanism



**S-Max M**  
Contra-angle

## S-Max M



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

- 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
1:4 Increasing	●	<b>M94L</b>	<b>CA13170001</b>

- Max Speed : 160,000 min<sup>-1</sup> • For FG burs (Ø1.6) • Stainless Steel Body
- Push Button Chuck • Quattro Spray • Clean Head System
- Cellular Glass Optics



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

- 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	●	<b>M15L</b>	<b>C1025</b>
4:1 Reduction	—	<b>M15</b>	<b>C1028</b>

- 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



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	—	<b>M65</b>	<b>H1008</b>

- 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

Washable in the thermodisinfector

Autoclavable

# FX series



## General Applications

Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	<b>FX25m</b>	<b>C1052001</b>

- 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	<b>FX20m</b>	<b>CA13190001</b>

- Max Speed : 40,000 min<sup>-1</sup> • For FG Burs (Ø1.6) • Stainless Steel Body
- Ball Bearing • Push Button Chuck • Clean Head System
- External Water Spray



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	<b>FX15m</b>	<b>C1053001</b>

- 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
1:1 Direct Drive	<b>FX22</b>	<b>C1129</b>

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



Gear Ratio	MODEL	ORDER CODE
16:1 Reduction	<b>FX75m</b>	<b>C1055001</b>

- Max Speed : 2,500 min<sup>-1</sup> • Stainless Steel Body
- 360° Rotation • Miniature Head • Push Button Chuck



Gear Ratio	MODEL	ORDER CODE
16:1 Reduction	<b>FX74m</b>	<b>CA13200001</b>

- Max Speed : 2,500 min<sup>-1</sup> • For Engine Files (Ø2.35) / 80° Twist
- Stainless Steel Body • Push Button Chuck



Gear Ratio	MODEL	ORDER CODE
16:1 Reduction	<b>FX70m</b>	<b>CA13250001</b>

- Max Speed : 2,500 min<sup>-1</sup> • For Hand Files /60°Twist
- Stainless Steel Body • Push Button Chuck



## Prophylaxis Applications

Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	<b>FX57m</b>	<b>C1054001</b>

- Max Speed : 2,500 min<sup>-1</sup> • For screw-in cups and brushes
- Stainless Steel Body • 360° Rotation • Paste Defense System



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	<b>FX58m</b>	<b>CA13210001</b>

- Max Speed : 2,500 min<sup>-1</sup> • For snap-on cups and brushes
- Stainless Steel Body • Paste Defense System • 360° Rotation



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	<b>FX55m</b>	<b>CA13160001</b>

- Max Speed : 10,000 min<sup>-1</sup> • For EVA Tip / Profin Tip / Orthofile
- Stainless Steel Body • Vertical Reciprocating (Stroke Length 1.4 mm)



Gear Ratio	MODEL	ORDER CODE
4:1 Reduction	<b>FX50m</b>	<b>HA12050001</b>

- Max Speed : 2,500 min<sup>-1</sup> • Disposable prophylaxis angle
- Stainless Steel Body



Gear Ratio	MODEL	ORDER CODE
1:1 Direct Drive	<b>FX65m</b>	<b>H1014001</b>

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



MODEL	ORDER CODE
FX205m M4 Set	<b>Y1002752</b>

Characteristics:

- Midwest 4-hole
- External Water Spray



Contents:

- Air motor (FX205m) • Straight handpiece (FX65m)
- Angle handpiece (FX25m)

# EX series

## Heads for General Application (External Water Spray)

MODEL	ORDER CODE
<b>FPB-Y</b>	<b>C875</b>



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

MODEL	ORDER CODE
<b>NAC-Y</b>	<b>C032002</b>



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

MODEL	ORDER CODE
<b>BB-Y</b>	<b>C037</b>



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

## Heads for Endodontic Application

MODEL	ORDER CODE
<b>MP-Y</b>	<b>C547</b>



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

MODEL	ORDER CODE
<b>MPA-Y</b>	<b>C548</b>



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

MODEL	ORDER CODE
<b>MPAS-Y</b>	<b>C882</b>



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

## Heads for Prophylaxis Application

MODEL	ORDER CODE
<b>AR-Y (S)</b>	<b>C187</b>



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

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

## Shanks

MODEL	ORDER CODE
<b>EC-30</b>	<b>C100008</b>



MODEL	ORDER CODE
<b>EC-30M</b>	<b>C100007</b>

• 1:1 Direct Drive

MODEL	ORDER CODE
<b>ER4</b>	<b>C634</b>



MODEL	ORDER CODE
<b>ER4M</b>	<b>C634002</b>

• 4:1 Reduction

MODEL	ORDER CODE
<b>ER10</b>	<b>C635</b>



• 10:1 Reduction

MODEL	ORDER CODE
<b>ER16</b>	<b>C636</b>

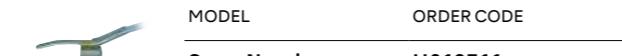
• 16:1 Reduction



Gear Ratio MODEL ORDER CODE

4:1 Reduction	<b>EX-5B</b>	<b>H262</b>
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- Max Speed : 10,000 min<sup>-1</sup> • For HP burs (ø2.35), disposable prophylaxis
- Clean Head System



MODEL ORDER CODE

<b>Spray Nozzle</b>	<b>H019711</b>
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• For EX-6B, EX-5B (Optional)

## isoE-LUX Light Probe



Optic	MODEL	ORDER CODE
●	<b>isoE-LUX</b>	<b>Z1265</b>

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

Contra-angles

## Electric Micromotors

### NLZ E

#### Electric Micromotor Portable System

##### Internal Water Spray

Optic	MODEL	ORDER CODE
●	NLZ E S230	Y1004004

##### Contents

- NLZ E U (Control Unit & Main Unit) • NE180 (AC adaptor)
- NLZ (Motor) • NLZ CD (Motor Cord 1.8 m) • NLZ U BRACKET

##### Specifications

[Unit]	[Motor] (Micromotor only)
• Dimension Control Unit : W 76 x D 87.1 x H 63.4 mm	• Motor Type : Brushless Micromotor
• Dimension Main Unit : W 146 x D 75 x H 48 mm	• Max Torque : 4.2 Ncm
• Power Supply : 230 V 50/60 Hz	• Endodontics Torque : 0.3 - 6.0 Ncm*
• Programs : General Application Mode / 6 programs	• Motor Speed : 100 - 40,000 min <sup>-1</sup>
Rotary Endo Mode / 6 programs	• Dimension : ø22 x H 68.8 mm
	• Weight : 59 g (motor only)
	• Light : White LED



### NLZ Endo

#### 6:1 Reduction

Optic	MODEL	ORDER CODE
—	NLZ Endo	C1130

- Max Speed : 1,000 min<sup>-1</sup> (Input Max Rotation Speed of the Motor : 6,000 min<sup>-1</sup>)
- Engine Files (ø2.35) \*For Rotary Endo mode
- Wave-One Reciprocating Files (ø2.35) \*For ReciproEndo Mode
- Push Button Chuck



### NLX plus

#### Electric Micromotor Integrated System

Speed : 100 - 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



# Spare Parts

## Ti-Max Z

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

MODEL	PRODUCTS	ORDER CODE
<b>TiZ9-SU04</b> Head cap for Standard head		PA2381X0765
<b>TiZ9-MU04</b> Head cap for Miniature head		PA2380X050
<b>SX-NU05</b> Head cap wrench for Z micro		PA2307X765
<b>Cleaning Wire</b>		Z144101

MODEL	PRODUCTS	ORDER CODE
<b>TiZ9-SU05</b> Head cap wrench for Miniature head & Standard head		PA2381X765
<b>SX-NU04</b> Head cap for Z micro		PA2307X050

## S-Max M

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

MODEL	PRODUCTS	ORDER CODE
<b>PTL O-ring Set</b> (Pack of 5)	○○○○○	Y900580
<b>SX-SU04</b> Head cap for Standard head		P1027500
<b>SX-SU05</b> Head cap wrench for Miniature head & Standard head		20000535

## S-Max pico

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

MODEL	PRODUCTS	ORDER CODE
<b>SX-PU04</b> Head cap for S-Max pico		P1140500
<b>SX-PU05</b> Head cap wrench for S-Max pico		20002803

## Ti-Max X450

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

MODEL	PRODUCTS	ORDER CODE
<b>TiX45-SU04</b> Head cap for Standard head		P1078500
<b>Head-cap wrench for X450</b>		P624765

## Pana-Max PLUS

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

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

## Pana-Max2

MODEL	PRODUCTS	ORDER CODE
<b>PAX2-SU03</b> Cartridge		P1190
<b>PAX2-SU04</b> Head cap		P1190050
<b>PAX2-SU05</b>		P1190765

## Couplings

MODEL	PRODUCTS	ORDER CODE
<b>Anti-Retraction Valve</b>		P401054
<b>PTL Bulb</b> for PTL (Pack of 3)		Y900529
<b>TA Bulb</b> for KCL-6 (Pack of 3)		Y900132
<b>O-ring Set</b> for KCL-6/LED	○○○○○	Y900211

## FX Series

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

## EX Series

MODEL	PRODUCTS	ORDER CODE
<b>FFB-03</b> Transmission Shaft		10000946
<b>FPB-03</b> Cartridge for FPB		C875060
<b>NAC-03</b> Cartridge for NAC		C030011
<b>BB-03</b> Cartridge for BB		C037015
<b>NBB-03</b> Cartridge for NBBW		C210015
<b>FPB-02</b> Middle Gear		C875012

## Ti-Max X95EX

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

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