

Air Turbine  
**Ti-Max Z Series**

Z990L / Z890L / Z micro



Create it 

**NSK**

# 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.

## New Ti-Max Z Series Air Turbine

Z990L / Z890L



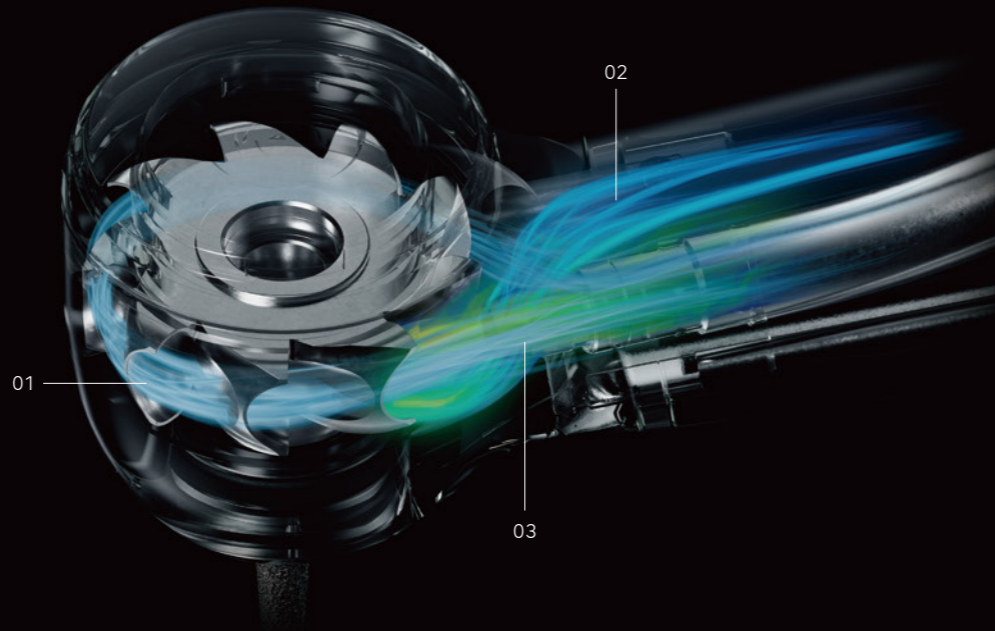
# Ti-Max Z Series Air Turbine Technology/Function

## 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.



Check out our demonstration video for amazing cutting power



### 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.

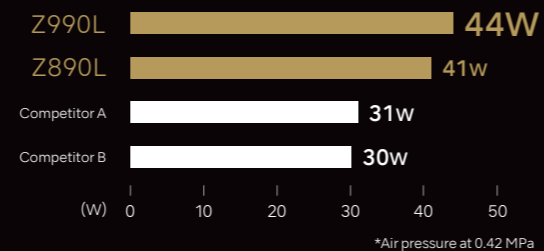
### 03. Extended Cylindrical Nozzle

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

## The best technologies are combined to bring outstanding power.

The "DYNAMIC POWER SYSTEM" has been developed using the latest fluid simulation Software. This enables efficient conversion of air into power to achieve a significant increase in power from 26W to 44W\*. Packed with NSK's technologies, such as the fusion of unprecedented high torque and power, head angle, and grip, the new model Z990L is NSK's flagship turbine. \*Z990L

● Power comparison with competitive products (in-house research)\*



### 04. New chuck mechanism with outstanding bur grip

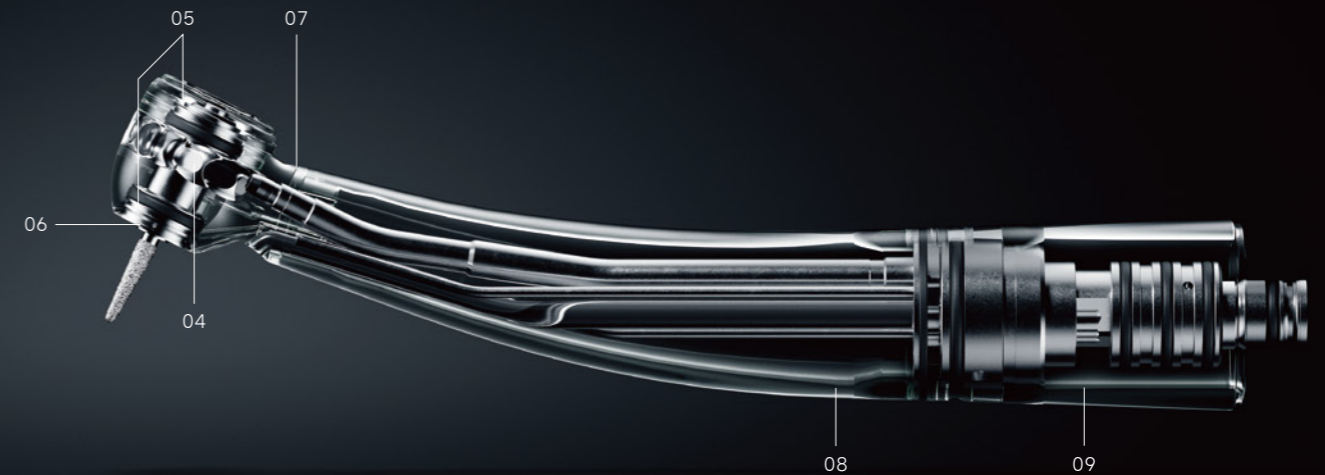
Equipped with "DURAPOWER CHUCK" a new chuck\* that provides a more sustained gripping force, to reduce the risk of a bur slipping compared to conventional models.

### 05. New quick-stop function

A new design furnished with a high-speed rotation emergency stop function on the front and back of the air turbine head reduces the risk of intraoral entrapment and suck-back, enabling safer treatment.

### 06. New 4-port water spray with expanded cooling range

Efficiently cools the entire bur without impairing visibility. Water injected from two directions allows for proper cooling of burs of varying lengths.



### 07. Easy-access head angle

Improved 100° angle head provides easy access to the molars.

### 08. Slip-resistant DURAGRIP coating

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

### 09. Lightweight titanium body

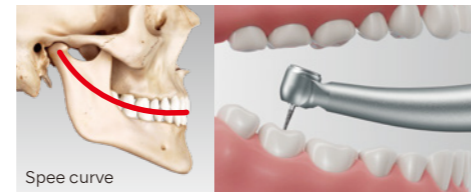
The body is made of lightweight, high-strength pure titanium.

\*The chuck is the part of the handpiece that holds the bur (cutting tool). The new improved chuck mechanism has improved durability.

# USABILITY

## 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

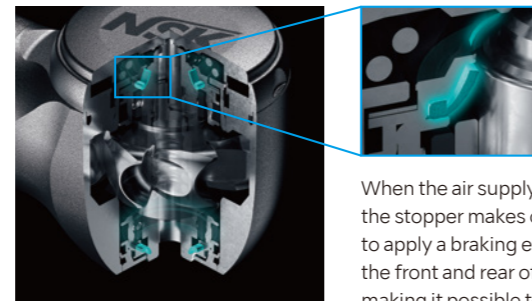


# SAFETY & INFECTION CONTROL

## 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.

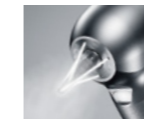
\*The two Quick-stop functions only Z990L / Z890L.



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.

# LINE UP

Washable in the thermoisinfector 135°C Autoclavable



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



**Standard Head**  
• Power : 44 W  
• Speed : 280,000-360,000 min<sup>-1</sup>  
• Head Size :  $\phi 12.1 \times H 12.7$  mm



**Miniature Head**  
• Power : 41 W  
• Speed : 320,000-400,000 min<sup>-1</sup>  
• Head Size :  $\phi 10.6 \times H 10.8$  mm



**Micro Head**  
• Power : 20 W  
• Speed : 380,000-450,000 min<sup>-1</sup>  
• Head Size :  $\phi 9.0 \times H 10.8$  mm

## Fitting Chart

Coupling		NSK	KaVo®	Dentsply Sirona®	W&H®	Bien Air®
<b>Standard Head</b>	MODEL	Z990L	Z990KL	Z990SL	Z990WL*	Z990BL*
	ORDER CODE	PA23730001	PA23750001	PA23770001	PA23870002	PA23850002
<b>Miniature Head</b>	MODEL	Z890L	Z890KL	Z890SL	Z890WL*	Z890BL*
	ORDER CODE	PA23720001	PA23740001	PA23760001	PA23860002	PA23840002
<b>Micro Head</b>	MODEL	Z micro	Z micro KL	Z micro SL	-	-
	ORDER CODE	PA2357	PA2358	PA2359	-	-

\*Compatible Turbines with Integral LED

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Specifications are subject to change without notice.