

# AIR TURBINES

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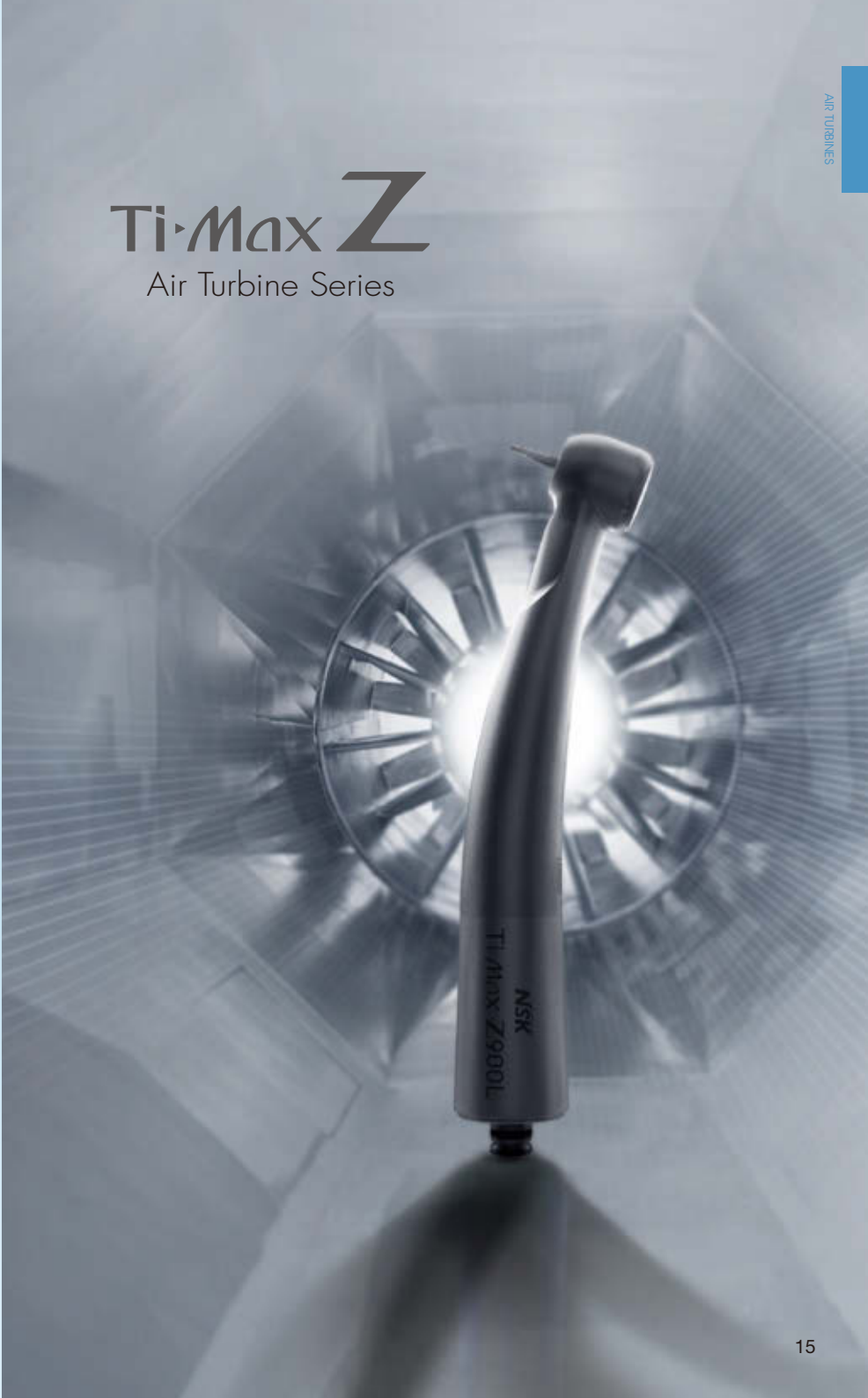
# Which handpiece?

Choose the handpiece that matches your hand.

	Ti·Max Z	S·Max M	Ti·Max X450	S·Max pico	Pana·Max2
					
Rank	Premium	Advanced	Special	Special	Basic
Body	Titanium	Stainless	Titanium	Stainless	Stainless
DURAGRIP	●				
DURACOAT			●		
Ceramic Bearings	●	●	●	●	●
Cellular Glass Optics	●	●	●	●	
Clean Head System	●	●	●	●	●
Push Button Chuck	●	●	●	●	●
Water Spray	Quattro	Quattro	Triple	Single	Single
Microfilter	●				
Ergo Grip	●	●	●	●	●

# Ti·Max Z

Air Turbine Series



# POWERFUL

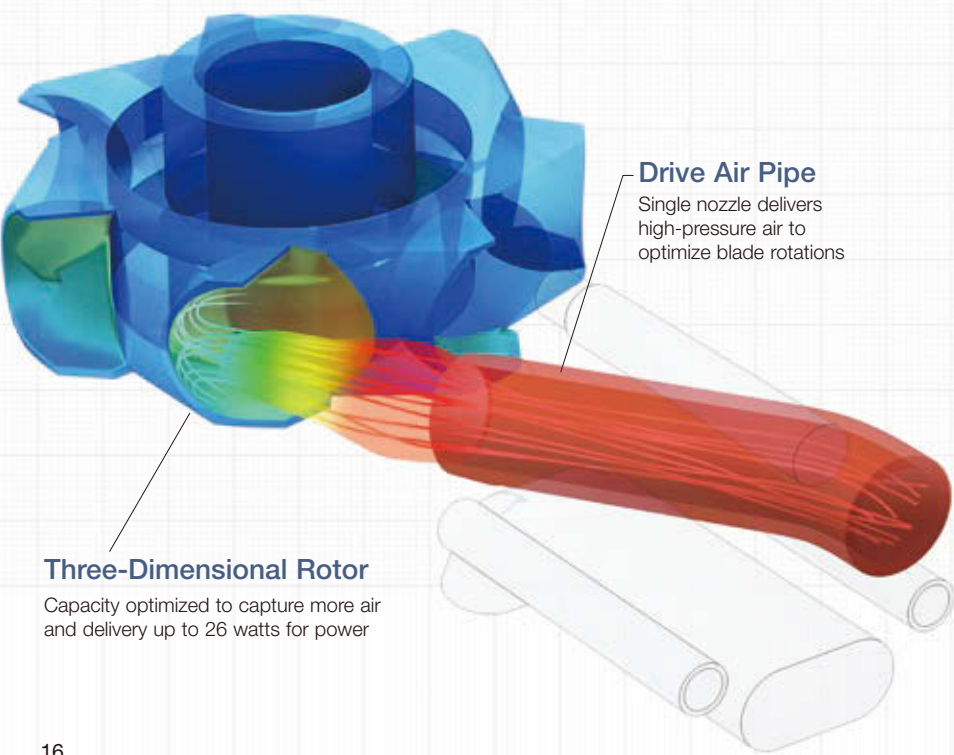
## Evolving to Re-define Performance

The Z turbine delivers consistent power, and due to its ergonomic design it is easier to handle and gives a more comfortable patient experience. Z series turbines deliver everything and more than you would expect from a high performance air turbine.

All of this is the result of our ethos of consistently aiming to exceed expectations, uncompromising product design and ultra precision manufacturing technology to deliver ever improving levels of comfort for clinicians and patients.

With up to an incredible 26 watts\* of output, our air turbines will revolutionize your dental practice.

\*With the Z900L



Miniature Parts for Maximum Power, Reflecting NSK's Pursuit of the Optimum Rotor Shape

## New Three-Dimensional Rotor

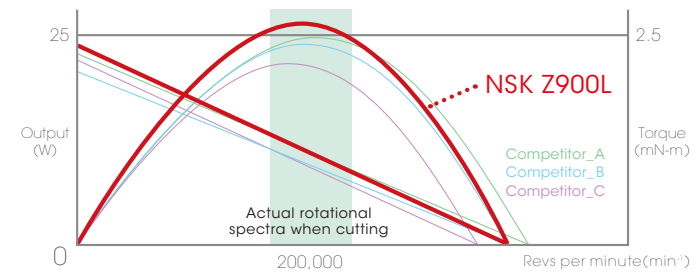
We harnessed the latest computer analysis software to develop a rotor with higher output. We created a new three-dimensional curved shape after relentless simulations and pilot production. The blade is 50% larger than that of the Ti-Max X Air Turbine. With this new rotor, the air turbine delivers an amazing 26 watts\* of power.

\*With the Z900L



## High Output for Smoother Cutting

The 26 watts power output from the new rotor significantly enhances the performance during clinical applications. This can dramatically reduce treatment time and noticeably improve treatment comfort for the clinician and patient alike.

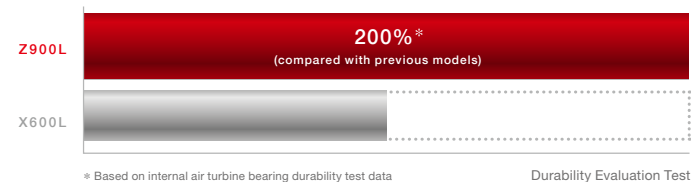


# DURABILITY

Our powerful and durable air turbines maintain long-term comfort and stability



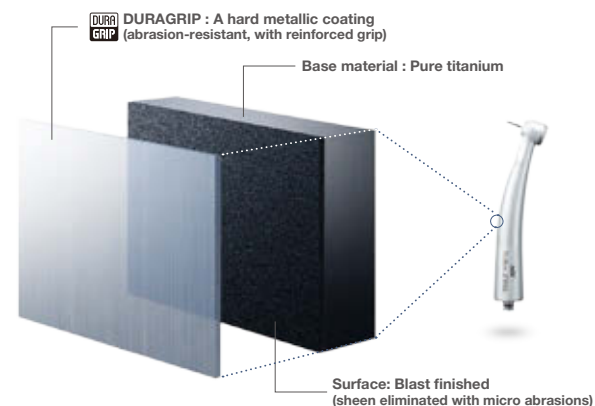
Advanced technology a Key Factor  
in Significantly Increased Durability of Ti-Max Z



We completely redesigned the shape and found better materials for the bearing retainer to reduce frictional resistance and developed a new type of bearing to almost double the durability to accommodate constant thermodisinfector and autoclave usage.

## DURAGRIP Non-Slip, Scratch-Resistant Surface Treatment Technology

We blast-finish the pure titanium body surface utilising micro-abrasion before applying the DURAGRIP surface finish. The micro-abrasion enhances resistance to scratches and contributes to the firm, reliable non-slip grip.





# TECHNOLOGY & FUNCTION

## New Bearings

These bearings enable outstanding high-speed rotation and stability and are twice as durable as existing counterparts.

## New Three-Dimensional Rotor

We created a three-dimensional curved rotor to deliver an impressive 26 watts power output.

(only for Z900L)

## DURAGRIP

Our proprietary scratch- and abrasion-resistant surface treatment increases durability and ensures a reliable grip.

## Microfilter

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

## Clean Head System

The patented NSK Clean Head System automatically keeps oral fluids and other contaminants out of the instrument head, prolonging the life of the bearing and ensuring more hygienic treatment.

## Compatible with Other Couplings

The line-up features models that are compatible with most coupling systems currently available in the market.

# Ti-Max Z

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics • Ceramic Bearings • Clean Head System
- Push Button Chuck • Quattro Spray • Microfilter

Connect to NSK Couplings  



Quattro Spray



**Optic** MODEL **Z800L** ORDER CODE **P1110**

**Miniature Head :** Power : 23 W, Speed : 360,000~440,000 min<sup>-1</sup>, Head Size : ø10.8 x H12.1 mm



**Optic** MODEL **Z900L** ORDER CODE **P1111**

**Standard Head :** Power : 26 W, Speed : 320,000~400,000 min<sup>-1</sup>, Head Size : ø12.5 x H13.1 mm



Washable in the  
thermoisinfecteur



135°C Autoclavable  
up to 135°C

Connect Direct to KaVo® MULTIflex®  



**Optic** MODEL **Z800KL** ORDER CODE **P1112**

**Miniature Head :** Power : 21 W, Speed : 360,000~440,000 min<sup>-1</sup>, Head Size : ø10.8 x H12.1 mm



**Optic** MODEL **Z900KL** ORDER CODE **P1113**

**Standard Head :** Power : 24 W, Speed : 320,000~400,000 min<sup>-1</sup>, Head Size : ø12.5 x H13.1 mm



Washable in the  
thermoisinfecteur



135°C Autoclavable  
up to 135°C

# Ti-Max Z

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics • Ceramic Bearings • Clean Head System
- Push Button Chuck • Quattro Spray • Microfilter

Connect Direct to Sirona®, W&H®, Bien-Air® Couplings



Quattro Spray

**Miniature Head :** Power : 21 W, Speed : 360,000~440,000 min<sup>-1</sup>, Head Size : ø10.8 x H12.1 mm  
**Standard Head :** Power : 24 W, Speed : 320,000~400,000 min<sup>-1</sup>, Head Size : ø12.5 x H13.1 mm



Miniature **Optic** MODEL Z800SL ORDER CODE P1114  
 Standard **Optic** MODEL Z900SL ORDER CODE P1115

**LED** Compatible Turbines with Integral LED



Miniature **Optic** MODEL Z800BL ORDER CODE P1116  
 Standard **Optic** MODEL Z900BL ORDER CODE P1117

**LED** Compatible Turbines with Integral LED



Miniature **Optic** MODEL Z800WL ORDER CODE P1120  
 Standard **Optic** MODEL Z900WL ORDER CODE P1121

# S·Max M



## Slim Ergonomic Design and Unrivalled Cutting Performance

S-Max M series air turbines feature unrivalled cutting performance, a slim ergonomically designed body and excellent visibility. It has been developed to realize what dentists need in their practice.

For easy maintenance of S-Max M air turbines, cartridges can be replaced easily in your practice helping you to control cost and down-time. S-Max M series has been designed without compromise to pay attention to every detail.

# S·Max M

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

Connect to NSK Couplings  **LED**



Quattro Spray



**Optic** MODEL **M500L** ORDER CODE **P1001**  
**Non-Optic** MODEL **M500** ORDER CODE **P1003**

**Miniature Head** : Power : 16 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø10.6 x H12.4 mm



**Optic** MODEL **M600L** ORDER CODE **P1002**  
**Non-Optic** MODEL **M600** ORDER CODE **P1004**

**Standard Head** : Power : 20 W, Speed : 360,000~430,000 min<sup>-1</sup>, Head Size : ø12.1 x H13.3 mm



# S-Max M

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

Connect Direct to KaVo® MULTIflex®  **LED**



Quattro Spray



**Optic** MODEL M500KL ORDER CODE P1005  
**Non-Optic** MODEL M500K ORDER CODE P1007

**Miniature Head** : Power : 16 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø10.6 x H12.4 mm



**Optic** MODEL M600KL ORDER CODE P1006  
**Non-Optic** MODEL M600K ORDER CODE P1008

**Standard Head** : Power : 20 W, Speed : 360,000~430,000 min<sup>-1</sup>, Head Size : ø12.1 x H13.3 mm

Connect Direct to Sirona®, W&H®, Bien-Air® Couplings

**Miniature Head** : Power : 16 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø10.6 x H12.4 mm  
**Standard Head** : Power : 20 W, Speed : 360,000~430,000 min<sup>-1</sup>, Head Size : ø12.1 x H13.3 mm




**LED** Sirona® LED Coupling

**Miniature** **Optic** MODEL M500SL ORDER CODE P1009  
**Standard** **Optic** MODEL M600SL ORDER CODE P1010

**LED** Compatible Turbines with  
Integral LED



  
W&H® Roto Quick

**Miniature** **Optic** MODEL M500WLED ORDER CODE P1095  
**Standard** **Optic** MODEL M600WLED ORDER CODE P1096

**LED** Compatible Turbines with  
Integral LED



  
Bien-Air® Unifix®

**Miniature** **Optic** MODEL M500BLED ORDER CODE P1056  
**Standard** **Optic** MODEL M600BLED ORDER CODE P1057

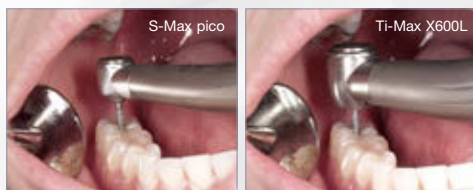
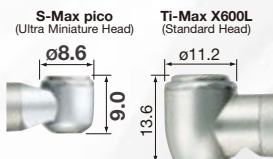
# S-Max pico

The innovative air turbine with ultra mini head and super slim body shape

The NSK S-Max pico series has been developed for the operation of Minimal Intervention (M.I.). The ultra mini head and super slim handpiece design is the result of fine NSK precision engineering allowing a wider view of the operational field, and greater flexibility for dexterity.



Comparison of head sizes



## Improve the accuracy of operation with the microscope

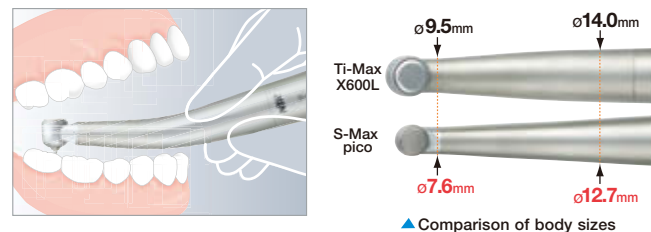


The ultra mini head delivers expanded operational visibility and greater flexibility. Patient comfort is increased.

In combination with mirror technique



## Size specifications of the S-Max pico series



## Dedicated burs for S-Max pico series

NSK has developed special ultra short shank burs to operate specifically with the pico handpiece. These high quality precision burs are concentric and durable. Use of NSK ultra short shank burs maximises the mini advantage of the pico handpiece.



Original bur of high precision (Rotational speed: 400,000/min<sup>-1</sup>)



Accessory bur set (PC1-6/six-pack)

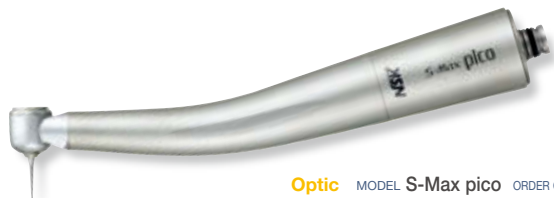
# S-Max pico

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

Connect to NSK Couplings



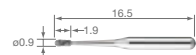
Single Spray



Optic MODEL S-Max pico ORDER CODE P1140

Power : 9 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø8.6 x H9.0 mm  
 • For short shank burs / ultra short shank burs ■ Accessory bur set

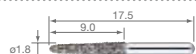
## pico bur product line-up



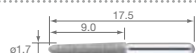
MODEL PC1 ORDER CODE Y1001817  
 • Pack of 3



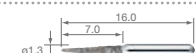
MODEL PC2 ORDER CODE Y1001818  
 • Pack of 3



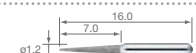
MODEL PC3 ORDER CODE Y1001819  
 • Pack of 3



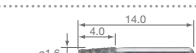
MODEL PC3ff ORDER CODE Y1002019  
 • Extra fine bur • Pack of 3



MODEL PC4 ORDER CODE Y1001820  
 • Pack of 3



MODEL PC4ff ORDER CODE Y1002020  
 • Extra fine bur • Pack of 3



MODEL PC5 ORDER CODE Y1001821  
 • Pack of 3



MODEL PC5ff ORDER CODE Y1002021  
 • Extra fine bur • Pack of 3



MODEL PC6 ORDER CODE Y1001822  
 • Pack of 3



MODEL PC6ff ORDER CODE Y1002022  
 • Extra fine bur • Pack of 3

Connect Direct to KaVo®, Sirona®, W&H®, Bien-Air® Couplings

Power : 9 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø8.6 x H9.0 mm  
 • For short shank burs / ultra short shank burs ■ Accessory bur set



Optic MODEL S-Max pico KL ORDER CODE P1142



Optic MODEL S-Max pico SL ORDER CODE P1143

LED Compatible Turbines with Integral LED



Optic MODEL S-Max pico WLED ORDER CODE P1145

LED Compatible Turbines with Integral LED

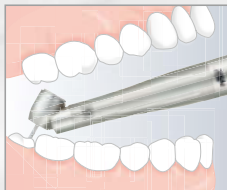


Optic MODEL S-Max pico BLEED ORDER CODE P1144

# Ti-Max X450

Unique 45-degree angled head provides incredible accessibility.

The slim-form Ti-Max X450 series possesses a unique 45-degree angled head specially designed to access hard-to-reach areas for sectioning and extraction of third molars and other impacted teeth. The X450's robust 21 watts of cutting power and effective cooling system - featuring triple water jets - ensure safe and effective treatment during a variety of surgical procedures.

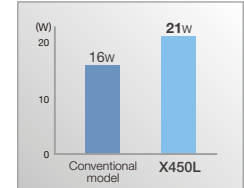


## Superior Accessibility

The 45-degree angled head offers excellent accessibility and visibility during root separation procedures and the removal of hard tissue covering impacted third molars.

## A Potent 21W of Cutting Power

NSK's original twin-nozzle head fully transmits the power of the air turbine to the X450's rotor, generating the high torque needed for powerful, consistent cutting.



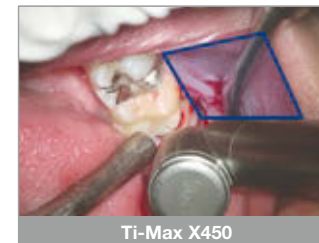
## Triple Water Jets & Cellular Glass Optics

NSK's Triple Water Jet system efficiently bathes the bur at all operating speeds, providing maximum cooling.



The Ti-Max X450 permits optimal access to molars and a diverse range of operative procedures.

## Mandibular Right Third Molar Extraction



Ti-Max X450

The labial and cheek mucous membranes do not interfere with treatment, and the bur can be maintained at a safe and optimal angle due to no contact on the turbine body. The X450's slim form factor also provides maximum visibility.



Standard Turbine's Head Angle

Extending the labial or cheek mucous membranes is hard, which makes feel delicate tactile sense while cutting difficult. Maintaining the bur at an optimal angle and direction is also problematic.

# Ti-Max X450

- Titanium Body with Scratch Resistant DURACOAT
- 45° Angle Head • Cellular Glass Optics • Ceramic Bearings
- Clean Head System • Push Button Chuck • Triple Water Jet

Connect to NSK Couplings



Triple Water Jet



**Optic** MODEL X450L ORDER CODE P1078

Power : 21 W, Speed : 380,000~450,000 min<sup>-1</sup>  
Head Size : ø11.2 x H13.5 mm  
• For FG extra-long burs (25mm) only

Connect Direct to KaVo®, Sirona®, W&H®, Bien-Air® Couplings

Power : 18 W, Speed : 380,000~450,000 min<sup>-1</sup>, Head Size : ø11.2 x H13.5 mm  
• For FG extra-long burs (25mm) only



**Optic** MODEL X450KL ORDER CODE P1079



**Optic** MODEL X450SL ORDER CODE P1080

**LED** Compatible Turbines with Integral LED



**Optic** MODEL X450WLED ORDER CODE P1082

**LED** Compatible Turbines with Integral LED



**Optic** MODEL X450BLED ORDER CODE P1081



# Pana-Max2

## Evolution of PANA-MAX

Pana-Max2 offers much more endurance and power than previous models, while being just as easy to handle. Its sleek design provides maximum visibility of the operating field, easily reaching all areas of the oral cavity.



### Slim-Line Stainless Steel Body

Pana-Max2's slim-line body guarantees excellent accessibility to the entire oral cavity. As a result visibility of the treatment area is maximized, allowing you to work with total efficiency.

## Unsurpassed Durability

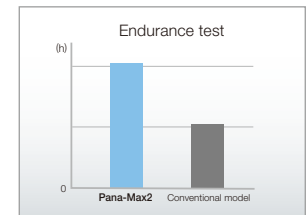
**Built to excel in clinical situations. Featuring a scratch-resistant stainless steel body and sturdier turbine head.**

Thanks to its uniquely designed shock-resistant head design, Pana-Max2's turbine rotor won't get damaged even if dropped from two meters onto a concrete floor.



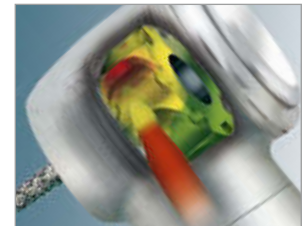
### Exceptional longevity.

Newly designed bearing structure with greater wear resistance and extended lifespan.



## 30% Power Boost

Pana-Max2 is dramatically more powerful than its predecessors thanks to the combination of NSK's air turbine simulation technologies. Rated at a maximum of 20 watts, this new model boasts the highest power rating in its class. That concentrated power, along with the bur's high rotational accuracy, creates a synergistic effect that ensures fast, precise treatments.



# Pana·Max2

- Stainless Steel Body
- Ceramic Bearings
- Clean Head System
- NSK Ultra Push Chuck
- Single Spray

Direct-connect / Screw-on type



Single Spray



**Non-Optic** MODEL Pana·Max2 M4 ORDER CODE **P1154**



Speed : 350,000~450,000 min<sup>-1</sup>, Head Size : ø11.2 x H13.4 mm

- Midwest 4 hole



**Non-Optic** MODEL Pana·Max2 B2 ORDER CODE **P1155**



Speed : 350,000~450,000 min<sup>-1</sup>, Head Size : ø11.2 x H13.4 mm

- Borden 2 hole



Washable in the  
thermoisinfectant



135°C Autoclavable  
up to 135°C

# PHATELUS LIGHT PACK

Compact Unit For Illumination Control of 2 Optic Handpieces.  
For Integration Into All Dental Equipment.

## Features

- Special integrated circuitry to increase the bulb life.
- Illumination intensity is adjustable individually for 2 optic handpieces.
- Automatic activation of handpiece illumination.
- Illumination delay (adjustable between 0.5-4.5 seconds) can be set individually for 2 handpieces.
- Illumination can remain active after the handpiece has stopped rotation.
- Simple installation into any brand of new or existing dental unit.
- Indicator lamp confirms correct operation of the system.
- Phatelus optic hoses fit directly to all brands of LUX handpiece couplings.
- Lightweight Phatelus hose reduces hand fatigue.
- The Phatelus hose may be cleaned with reputable disinfectants.
- Operates all brands of optic handpieces.



## Phatelus Optic Complete Set



MODEL **PTL Optic Pack** ORDER CODE **Y103723**

### Contents

- PTL Control Module
- Hose (PTL-4HP)
- PTL Adaptor

## Individual Components



MODEL **PTL Control Module** ORDER CODE **U360011**

- Dimension : W50 x L90 x H26 (mm)
- Weight : 120 g



MODEL **PTL Adaptor** ORDER CODE **U360032**



MODEL **PTL-4HP** ORDER CODE **P405**

- Optic Hose
- LUX Coupling