THE SINGULAR ESSENCE OF QUALITY

As specialists in ultra-high-speed rotary equipment, NSK is passionate about creating innovative products that deliver outstanding value. NSK manufactures almost all parts in-house to guarantee the highest precision, reliability and unmatched performance of all products. The Ti-Max Z contra-angle and air turbine series resulted from NSK’s constant quest to make the impossible possible.

INDEX

Contra-angle Series ........................................ P 03-14
Air Turbine Series ........................................... P 15-22
DURABLE

A stunningly durable and reliable handpiece

NSK has combined advanced design and world-class processing technology to create incredibly durable instruments. The gear is coated with special diamond-like carbon to make wear resistance up to five times greater than on previous models. NSK’s advanced technologies have boosted sterilization resistance, delivering even better reliability for dental practices.
COMFORT

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 NK's TMAX 2 premium range offers these unique features.

ADVANCED TECHNOLOGY

Amazingly Silent Operation

Amazing silence and minimal vibration. The marriage of micro-precision parts
and gears has lowered noise and vibration even more to provide comfort for
clinicians and patients alike.

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

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

Z95L

13.4

8.9

14.6

10.0

10.3

9.6

NSK X95L

Competitor A

Competitor B

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.

The Slimmest Neck

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

Easier Access

The slimmer handpiece body and neck enhances access to molars without touching anterior teeth.
Ti-Max Z CONTRA-ANGLE LINEUP

Gear Ratio 1:5 Increasing

**MODEL:** Z95L  **ORDER CODE:** C1034
- Max Speed: 280,000 rpm
- For FG Burs (1/8"
- Head Size: 1.4 x 18 UFL
- Titanium Body & DURAGRIP®
- DLC Coating
- Anti Heat System
- Ceramic Bearings
- Push Button Chuck
- Quattro Water Spray
- Microfiber Clean Head System
- Collar Grip Option

Gear Ratio 1:6 Increasing Mini Head

**MODEL:** Z84L  **ORDER Code:** C1195
- Max Speed: 160,000 rpm
- For FG Burs (1/8"
- Head Size: 1.6 x 14 UFL
- Titanium Body & DURAGRIP®
- DLC Coating
- Anti Heat System
- Ceramic Bearings
- Push Button Chuck
- Quattro Water Spray
- Microfiber Clean Head System
- Collar Grip Option

Gear Ratio 1:5 Increasing Mini Head

**MODEL:** Z85L  **ORDER CODE:** C1052
- Max Speed: 250,000 rpm
- For FG Burs (1/8"
- Head Size: 1.4 x 18 UFL
- Titanium Body & DURAGRIP®
- DLC Coating
- Anti Heat System
- Ceramic Bearings
- Push Button Chuck
- Single Spray
- Microfiber Clean Head System
- Collar Grip Option

Gear Ratio 1:4.2 Increasing 45° Head

**MODEL:** Z45L  **ORDER Code:** C1064
- Max Speed: 150,000 rpm
- For FG Burs (1/8"
- Head Size: 1.6 x 14 UFL
- Titanium Body & DURAGRIP®
- DLC Coating
- Anti Heat System
- Ceramic Bearings
- Push Button Chuck
- Quattro Water Spray with two way spray function
- Microfiber Clean Head System
- Collar Grip Option
Ti-Max Z CONTRA-ANGLE LINEUP

Gear Ratio 1:1 Direct Drive

ORDER CODE: C1036
- Max Speed: 43,000 RPM
- For C-Arms (22.5°) / Head Size: 48/62 / 110/144 mm
- Titanium Body & DuraGRIP
- Push Button Chuck / Single Spray / MicroLok / CeraHead System / CeraHead Glass Optics

Gear Ratio 4:1 Reduction

ORDER CODE: C1039
- Max Speed: 10,750 RPM
- For C-Arms (30°) / Head Size: 14/26 / 105/144 mm
- Titanium Body & DuraGRIP
- Push Button Chuck / Single Spray / MicroLok / CeraHead System / CeraHead Glass Optics

Gear Ratio 1:1 Direct Drive Mini Head

ORDER CODE: C1126
- Max Speed: 43,000 RPM
- For C-Arms (22.5°) / Head Size: 48/62 / 110/144 mm
- Titanium Body & DuraGRIP
- Push Button Chuck / Single Spray / MicroLok / CeraHead Glass Optics

Gear Ratio 16:1 Reduction

ORDER CODE: C1040
- Max Speed: 2,730 RPM
- For C-Arms (30°) / Head Size: 14/26 / 105/144 mm
- Titanium Body & DuraGRIP
- Push Button Chuck / Single Spray / MicroLok / CeraHead System / CeraHead Glass Optics
Ti-Max Z

AIR TURBINE

TECHNOLOGY & FUNCTION

- Highly Accessible Head Angle
- Slim Neck for Greater Visibility
- Easy-Grip Body Shape
- Compatible with Other Couplings
- New Three-Dimensional Rotor
- New Bearings
- Titanium Body
- DURAGRIP
- Push Button Chuck
- Quattro Water Spray
- Microfilter
- Clean Head System
POWERSFUL

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 TiMax X Air Turbine. With this new rotor, the air turbine delivers an amazing 26 watts* of power.

*With the ZPR0L

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.

Drive Air Pipe
Single nozzle delivers high-pressure air to optimise blade motion

Three-Dimensional Rotor
Capacity optimized to capture more air and deliver up to 26 watts for power

Water Supply Tube
Channels water from unit to cool the bur and the operating site

Spray/Chip Air Tube
Delivers air to generate coolant mist spray and chip air

Light Guide
A light conductor employing a highly transparent glass rod

TiMax Z Cartridge

TiMax X Cartridge

 NSK Z9000L

Output (Watt)

Output (Watt)

Actual rotational speed when spinning

Compared at

Compared to

Base performance (max)
Our powerful and durable air turbines maintain long-term comfort and stability.

Outstanding durability and long-term operator and patient comfort are the result of NSK’s technological advances in sophisticated design and precision machining. Our latest bearing design has doubled the life expectancy compared to conventional turbine bearings. Our extended warranty is testament to our confidence in our workmanship.

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<table>
<thead>
<tr>
<th>Z800L</th>
<th>X800L</th>
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</thead>
<tbody>
<tr>
<td>200%*</td>
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</table>

*Based on internal turbine bearing durability test data

Durability Evaluation Test
TiMax Z Air Turbine Lineup

Standard Head

** NSK Couplings**

**OPTIMA MODEL: Z900L ORDER CODE: P1111**
- Power: 290 W
- Speed: 200,000-450,000 rpm
- Head size: 0.412 x 0.112 mm
- Titanium Body & DIAPARK®
- Ceramic Bearing
- Push Button Chuck
- Quattro Water Spray
- Microfiber
- Clean Head System
- Collar Glass Optics

KaVo® MULTIFLEX® Couplings

**OPTIMA MODEL: Z900XL ORDER CODE: P1113**
- Power: 290 W
- Speed: 200,000-450,000 rpm
- Head size: 0.412 x 0.112 mm
- Titanium Body & DIAPARK®
- Ceramic Bearing
- Push Button Chuck
- Quattro Water Spray
- Microfiber
- Clean Head System
- Collar Glass Optics

Lineup for Couplings of Other Manufacturers

We offer a wide range of models in Ti couplings of different manufacturers to allow connections to various units.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>NSK</th>
<th>KaVo*</th>
<th>Sirona*</th>
<th>W&amp;H**</th>
<th>BienAir*</th>
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**NSK United Kingdom Ltd**

Specifications are subject to change without notice.

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