Which Handpiece?
Choose the handpiece that matches your hand.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Ti-Max Z</th>
<th>Ti-Max Z45L</th>
<th>Ti-Max nano series</th>
<th>Ti-Max X</th>
<th>S-Max M</th>
<th>FX series</th>
</tr>
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<tbody>
<tr>
<td>Head Size</td>
<td>Ø9.9 x H 13.4 mm (Super mini)</td>
<td>Ø9.6 x H 14.4 mm</td>
<td>Ø9.9 x H 13.4 mm (Super mini)</td>
<td>Ø10.0 x H 14.4 mm</td>
<td>Ø10.0 x H 14.4 mm</td>
<td>Ø9.6 x H 13.4 mm</td>
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<tr>
<td>Body</td>
<td>Ti-Max Z</td>
<td>Ti-Max Z45L</td>
<td>Ti-Max nano series</td>
<td>Ti-Max X</td>
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<td>FX series</td>
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<td>✓</td>
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<td>Clean Head System</td>
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<td>Push Button Chuck</td>
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</tbody>
</table>
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 NSK’s Ti-Max Z premium range offers these unique features.

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)

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

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, delivering wide visibility of all treatment areas.
**Microfilter**
A 0.3 mm diameter microfilter keeps contaminants out of the water spray system, dramatically reducing blockages and enhancing treatment hygiene.

**DURAGRIP**
Our proprietary scratch- and abrasion-proof surface treatment increases durability and ensures a secure grip.

**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.

**DLC Coating**
We have boosted anti-wear performance by coating the gear with special diamond like carbon. *(Only in models with increasing gear ratios.)*

**Amazing Silence and Minimal Vibration**
The marriage of micro-precision parts and gears has lowered noise and vibration even more.

**Anti Heat System**
Our proprietary Anti Heat System dramatically reduces heat generation to prevent burning. *(With Z95L/Z85L/Z84L)*

**TECHNOLOGY & FUNCTION**
**Ti-Max Z PREMIUM**

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics  • Push Button Chuck
- Clean Head System (Exclude Z24L)  • Microfilter
- Quattro Spray  • Exceptional Durability  • For FG burs (ø1.6)  • Ceramic Bearings  • DLC Coating  • Anti Heat System  • Max Speed: 200,000 min⁻¹

**Model Order Code**

**Z95L** C1034 1:5 Increasing  • Exceptional Durability  • Quattro Spray  • For FG burs (ø1.6)  • Ceramic Bearings  • DLC Coating  • Anti Heat System  • Max Speed: 200,000 min⁻¹

**Z85L** C1062 1:5 Increasing  • Exceptional Durability  • Single Spray  • Miniature Head  • For FG burs (ø1.6)  • Ceramic Bearings  • DLC Coating  • Anti Heat System  • Max Speed: 200,000 min⁻¹  • Short Shank burs only

**Z84L** C1135 1:4.5 Increasing  • Exceptional Durability  • Quattro Spray  • Miniature Head  • For FG burs (ø1.6)  • Ceramic Bearings  • DLC Coating  • Anti Heat System  • Max Speed: 180,000 min⁻¹  • Short Shank burs only

**Z85L** C1034 1:5 Increasing  • Exceptional Durability  • Single Spray  • For CA burs (ø2.35)  • Max Speed: 10,000 min⁻¹

**Z15L** C1039 4:1 Reduction  • Single Spray  • For CA burs (ø2.35)  • Max Speed: 2,500 min⁻¹

**Z25L** C1038 16:1 Reduction  • Single Spray  • For CA burs (ø2.35)  • Max Speed: 40,000 min⁻¹

**Z24L** C1126 1:1 Direct Drive  • Single Spray  • Miniature Head  • For CA burs (ø2.35)  • Max Speed: 40,000 min⁻¹

**Z10L** C1040 1:1 Direct Drive  • Single Spray  • Miniature Head  • For CA burs (ø2.35)  • Max Speed: 40,000 min⁻¹

**Head size comparison**

255L offering extraordinary visibility and accessibility.
45-degree Angled Head Supplies Superior Accessibility and Maximum Visibility

The world’s first 45-degree contra-angle, Ti-Max Z45L provides effortless access to hard-to-reach molars that a standard contra-angle simply can’t match. The slim-form Ti-Max Z45L also offers excellent visibility and high operability, creating more space between adjacent teeth and the handpiece body. Ti-Max Z45L’s powerful and consistent cutting shortens treatment time for time-consuming sectioning and third-molar extractions compared to standard contra-angles, dramatically reducing stress for both clinicians and patients.

2015 Edison Awards Gold Award Winner

The Ti-Max Z45L, the premium model in NSK’s Contra-angle Series, won the gold in the newly-established “Dental & ENT Surgical Tools” category of the 2015 Edison Awards as the world’s first 45-degree contra-angle.
Shorter, Perfectly Balanced

Shorter, lighter and perfectly balanced, "nano series" instruments are designed to be natural extensions of the clinician’s hand, ensuring smoother procedures. Even during implant operations that require delicate and precise movements, a "nano series" faithfully mirrors the user’s intent. NSK continues to challenge the limits of manufacturing and pioneer next-generation contra-angles.

Perfect Balance

NSK’s nano series preserves the high performance NSK contra-angles are known for, while these new instruments are approximately 10 percent smaller and lighter than conventional models. Yet, in combination with NLX nano micromotor nano series gives you the ease of manoeuvrability and accuracy you are used to from your air-turbine.

Reducing size and weight shifts the center of gravity to an optimal position, dramatically reducing fatigue during procedures and improving your fingertip dexterity.

Smaller and Slimmer

nano95LS has smaller head and slimmer neck dimensions.

Outstanding Durability

The nano95LS gear shapes have been designed using High Spec 3D simulation software to achieve optimal results in terms of durability and noise level minimization. In addition, special DLC Coating (Diamond-Like-Carbon) is applied to the gears, dramatically increasing durability.

Features

- Perfect Balance
- Exceptionally Small Head and Slim Body
- Clear Visibility and Easy Access
- Amazingly Quiet Operation

nano Series instruments are compatible with NSK motor line up (NLX nano, NLX plus, M40LED, NBX, NBX N, X20SL, M205LG and SGL70M micromotors) and other motors with insert less than 23 mm.
nano series SPECIAL

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck (except nano65LS)

Quattro Spray

Optic MODEL: nano95LS ORDER CODE: C1099
1:5 Increasing
- Exceptional Durability
- Quattro Spray
- For FG burs (ø1.6)
- Ceramic Bearings
- Microfilter
- Anti-Heat System
- DLC Coating
- Max Speed: 200,000 min⁻¹

Single Spray

Optic MODEL: nano25LS ORDER CODE: C1100
1:1 Direct Drive
- Single Spray
- For CA burs (ø2.35)
- Microfilter
- Max Speed: 40,000 min⁻¹

Optic MODEL: nano15LS ORDER CODE: C1101
4:1 Reduction
- Single Spray
- For CA burs (ø2.35)
- Microfilter
- Max Speed: 10,000 min⁻¹

Model nano65LS ORDER CODE: H1048
1:1 Direct Drive
- Single Spray
- For HP / CA burs (ø2.35)*
- Max Speed: 40,000 min⁻¹
- Need to insert the supplied bur stopper

Straight Handpiece

Optic MODEL: nano65LS ORDER CODE: H1048
1:1 Direct Drive
- Single Spray
- For HP / CA burs (ø2.35)*
- Max Speed: 40,000 min⁻¹
- Need to insert the supplied bur stopper

SPECIAL
- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck (except nano65LS)

CONTRA-ANGLES

- Washable in the thermodisinfector
- Autoclavable up to 135°C

CONTRA-ANGLES

- Washable in the thermodisinfector
- Autoclavable up to 135°C

CONTRA-ANGLES

- Washable in the thermodisinfector
- Autoclavable up to 135°C
Clean Head System
The patented NSK Clean Head System is a special mechanism designed to automatically prevent the entry of oral fluids and other contaminants into the handpiece head prolonging the life of the bearings.

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. (X65L / X65)

Ti-Max X

- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics • Clean Head System
- Push Button Chuck (Exclude X65L / X65)
- Microfilter (Exclude X65L / X65)

Quattro Spray
1:5 Increasing
- Quattro Spray • For FG burs (ø1.6) • Ceramic Bearings
- Max Speed: 200,000 min⁻¹

Single Spray
1:1 Direct Drive
- Single Spray • For CA burs (ø2.35)
- Max Speed: 40,000 min⁻¹

Color Code

- Optic - Blue
- Non-Optic - Magenta

Model Orders

- X15 - Non-Optic
- X15L - Optic
- X25 - Non-Optic
- X25L - Optic
- X25 - Non-Optic
- X25L - Optic
- X95 - Non-Optic
- X95L - Optic
- X65 - Non-Optic
- X65L - Optic
- X65H - Non-Optic
- X65LH - Optic

Ceramic Bearings

- 25% harder than conventional steel bearings
- Half the weight
- Frictional wear reduced
- Efficiency and durability increased

Clean Head System

- Patented mechanism
- Prevents entry of oral fluids
- Prolongs bearing life

Straight Handpiece

- 1:1 Direct Drive
- Single Spray
- For CA burs (ø2.35)
- Max Speed: 40,000 min⁻¹

Need to insert supplied bur stopper

- Titanium Body
- Scratch Resistant DURACOAT
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck
- Microfilter

Autooclavable

- Up to 135ºC
- Washable in the thermodisinfector

Washable in the thermodisinfector
Ti-Max X Advanced

- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics
- Microfilter (Exclude X57L/X57/X95EX)

**External Water Spray**

- Single Spray
- Quattro Spray

**Endodontic Handpiece**

- Optic: Model X35L Order Code C620
  - Non-Optic: Model X35 Order Code C624
  - 10:1 Reduction
  - Single Spray
  - For Hand File & Engine File
  - Max Speed: 4,000 min⁻¹

**Prophylaxis Handpiece**

- Optic: Model X57L Order Code C609
  - Non-Optic: Model X57 Order Code C619
  - 16:1 Reduction
  - For Screw-in Cups and Brushes
  - Max Speed: 200,000 min⁻¹

**External Water Spray**

- Non-Optic: Model X95EX Order Code C1072
  - 1:5 Increasing
  - Ceramic Bearings
  - Max Speed: 200,000 min⁻¹

**Please keep the rotation speed with your file manufactures designate. (X55L/X35L)**
Incomparable Powerful Cutting and Superb Grip

S-Max M Series contra-angles allow cost-effective powerful cutting. Durable and quiet, the ergonomic and well-balanced instrument allows good accessibility and has superb grip. The NSK S-Max M Series has been designed without compromise. Experience it for yourself.

S-Max M ADVANCED

- Stainless Steel Body
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck (Exclude M65)

1:5 Increasing
- Quattro Spray
- For FG burs (ø1.6)
- Ceramic Bearings
- Anti-Heat System
- Max Speed: 200,000 min⁻¹

M95 C1026
MODEL ORDER CODE
Non-Optic

M95L C1023
MODEL ORDER CODE
Optic

4:1 Reduction
- Single Spray
- For CA burs (ø2.35)
- Max Speed: 10,000 min⁻¹

M15 C1025
MODEL ORDER CODE
Non-Optic

M15L C1028
MODEL ORDER CODE
Optic

1:1 Direct Drive
- Single Spray
- For CA burs (ø2.35)
- Max Speed: 40,000 min⁻¹

M25 C1027
MODEL ORDER CODE
Non-Optic

M25L C1024
MODEL ORDER CODE
Optic

1:1 Direct Drive
- Single Spray
- For CA burs (ø2.35)
- Max Speed: 40,000 min⁻¹

Need to insert the supplied bur stopper

Straight Handpiece

- Stainless Steel Body
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck (Exclude M65)

M65 H1008
MODEL ORDER CODE
Non-Optic

M65L H1008
MODEL ORDER CODE
Optic

1:1 Direct Drive
- Single Spray
- For HP burs (ø2.35)
- For CA burs (ø2.35)
- Max Speed: 40,000 min⁻¹

Need to insert the supplied bur stopper

Washable in the thermodisinfector
Autoclavable up to 135ºC
Integrated Handpieces : Ergonomic : Functional : Reliable

After 35 years of outstanding global success, the classic NSK EX handpiece series has now evolved into a new stage. - NSK FX handpiece series - a modernization of the EX series. The traditional NSK simple design technology, functional reliability, durability, and cost effective pricing still remains, but FX has been updated to an integrated design in response to modern demands.

Improved Visibility : Ideal Balance

The extra slim head and body design greatly improves direct and indirect visibility to the oral operational field. This includes increased visibility of even difficult access areas in the oral cavity.

The slim, lighter weight design delivers an entirely comfortable ergonomic balance, especially when used in conjunction with the new NSK FX Mini Air motor.

Easy Cartridge Replacement

In some instances cartridges are easily replaced in surgery with the accessory tools supplied with the new product. Service costs and downtime are reduced (FX25m).

Clean Head System

The patented NSK Clean Head System is a special mechanism designed to automatically prevent the entry of oral fluids and other contaminants into the handpiece head prolonging the life of the bearings. (FX25m / FX15m / FX65m)

FX57m Paste Defense System

The prophylaxis handpiece head incorporates the unique NSK Paste Defense System which prevents dust and polishing paste debris from entering the handpiece. In addition, the NSK DLC coating on the rotor prevents possible breakage caused by surface abrasions from the polishing paste. These are some features that illustrate extended FX handpiece durability.

Durable Stainless Steel Body

Stainless is lighter and more durable than brass. Handpiece weight is considerably reduced and ergonomic hand comfort is greatly enhanced with a realistic tactile sense.
FX series BASIC

General Applications Handpiece
External Water Spray
1:1 Direct Drive

- Non-Optic
- MODEL FX25m ORDER CODE C1052001
- For CA burs (ø2.35)
- Push Button Chuck
- Stainless Steel Body
- Clean Head System
- Ball Bearing
- Max Speed: 40,000 min⁻¹

Endodontic Handpiece
External Water Spray
16:1 Reduction

- Non-Optic
- MODEL FX75m ORDER CODE C1055001
- Miniature Head
- For engine files
- Stainless Steel Body
- 380° Rotation
- Push Button Chuck
- Max Speed: 2,300 min⁻¹

Prophylaxis Handpiece
4:1 Reduction

- Non-Optic
- MODEL FX22 ORDER CODE C1129
- For CA burs (ø2.35)
- Latch type
- Max Speed: 30,000 min⁻¹

Paste Defense System

Straight Handpiece
1:1 Direct Drive

- Non-Optic
- MODEL FX15m ORDER CODE C1053001
- For CA burs (ø2.35)
- Push Button Chuck
- Stainless Steel Body
- Clean Head System
- Ball Bearing
- Max Speed: 10,000 min⁻¹

- Non-Optic
- MODEL FX65m ORDER CODE H1014001
- For HP burs (ø2.35)
- Stainless Steel Body
- Clean Head System
- Max Speed: 40,000 min⁻¹

Washable in the thermodisinfector (FX25m, FX15m)
Autoclavable up to 135°C
**EX Series**  
**BASIC**

**Heads for General Application**  
*Non-Optic*  
*External Water Spray*

<table>
<thead>
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<th>Model</th>
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<td>NRS2-Y</td>
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**Heads for Prophylaxis Application**  
*Non-Optic*

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**Heads for Endodontic Application**  
*Non-Optic*

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<td>ER10</td>
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<tr>
<td>ER16</td>
<td>C636</td>
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</tbody>
</table>

- Shanks and heads are sold separately. You can combine Shanks and heads according to your wishes and the indication.

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**Heads for Prophylaxis Application**  
*Non-Optic*  
*External Water Spray*

- FPB-Y, FFB-Y, NRS2-Y, AR-Y (S), AR-Y (K) and EVA-Y can be washed in the thermodisinfector.

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**Heads for Endodontic Application**  
*Non-Optic*  
*External Water Spray*


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**Heads for General Application**  
*Non-Optic*  
*External Water Spray*
**EX Series**  
BASIC

External Water Spray

1:1 Direct Drive

- **Non-Optic**  
  MODEL NAC-EC  
  ORDER CODE Y110148
  - For CA burs (ø2.35)  
  - Latch type  
  - Max Speed: 30,000 min⁻¹

- **Spray Nozzle**  
  ORDER CODE C032701
  - For NAC (Optional)

Straight Handpieces

1:1 Direct Drive

- **Non-Optic**  
  MODEL EX-6B  
  ORDER CODE H260001
  - For HP burs (ø2.35)  
  - Clean Head System  
  - Max Speed: 40,000 min⁻¹

- **Spray Nozzle**  
  ORDER CODE H019711
  - For EX-6B, EX-5B (Optional)

4:1 Reduction

- **Non-Optic**  
  MODEL EX-5B  
  ORDER CODE H262
  - For HP burs (ø2.35)  
  - Clean Head System  
  - Max Speed: 40,000 min⁻¹
**isoE-LUX** Light Probe

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

**Optic** MODEL isoE-LUX ORDER CODE Z1265

Washable in the thermodisinfector Autoclavable up to 135°C