**Ti-Max SOLID TITANIUM**

- **Features:**
  - Cellular Glass Optics
  - Ceramic Ball Bearings
  - Solid Titanium Body
  - Clean Head System
  - Ultra Push Chuck
  - Triple Spray
  - In-surgery replacement turbine cartridge

- **Non-Optic Versions for NSK FlexiQuik Coupling** are also available.

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**Solid titanium handpieces**

**For NSK FlexiQuik Coupling**

- A500L
  - Miniature Head
- A600L
  - Standard Head
- A700L
  - Torque Head

- **PTL-CL-4HV-T**
  - Light bulb included in coupling
- **PTL-CL-III-T**
  - Light bulb included in coupling
  - With water volume adjuster

**For All Brand Coupling**

- M
  - Miniature Head
- S
  - Standard Head
- T
  - Torque Head

**Ti-Max Series Cartridges**

- Ti-MU03
  - For Miniature Head
- Ti-SU03
  - For Standard Head
- Ti-TU03
  - For Torque Head

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**Features**

- Cellular Glass Optics
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- Solid Titanium Body
- Clean Head System
- Ultra Push Chuck
- Triple Spray
- In-surgery replacement turbine cartridge

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**Specifications are subject to change without notice.**

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**Powerful Partners®**
Introducing the cutting edge... the new solid titanium Ti-Max handpiece range

The highest level of handpiece performance has now been raised

After extensive in-house research, experimentation and testing, NSK has selected Titanium as the perfect material for the new NSK Ti-Max handpiece series. Titanium is lightweight, durable and corrosion resistant. These inherent qualities make Titanium the ideal material for the Aerospace industry, nuclear power plants, and many other industrial applications where metal components must endure and function under extreme conditions. Due to complex and costly production procedures, the application of solid Titanium has, until now, been virtually non existent in dental instrumentation.

Now NSK has developed and perfected the advanced new level of production technology required to precisely and economically produce the first solid titanium handpiece body series ever in the world. This NSK achievement is the result of decades of accumulated experience plus an investment in specially designed automated production machinery. The new automated machinery has the capability to precisely craft solid titanium into high performance, superbly balanced, high speed and low speed handpiece bodies. This achievement places NSK at the cutting edge of handpiece precision production technology.

Ti-Max handpieces offer the perfect weight and balance for all Clinicians

The very nature of Titanium allows for a firm, tactile grip even when held in gloved hands. Using Titanium allows NSK to produce handpieces that are lighter in weight, yet stronger and more durable, than other handpieces. 30% lighter than stainless steel, the Ti-Max titanium body, combined with exceptional balance, results in a handpiece that will significantly reduce hand and wrist fatigue caused by prolonged and complex clinical procedures.

Durable and corrosion resistant

Titanium has excellent resistance to corrosion caused by acidity and alkality. Ti-Max handpieces maintain their original "new" appearance, and will not degenerate even when exposed to various chemicals used in dental clinics. The stress of repeated autoclaving has virtually no affect on titanium.

Clean Head System

The NSK Clean Head System (Patented) is located in the handpiece head section. It is a special mechanism designed to prevent air retraction, and therefore the entry of oral fluids and other minute foreign substances into the turbine head. This is automatically and instantly effective when the air pressure changes as the turbine stops spinning. An additional application is to prolong the life of the turbine bearings since micro contaminants can never enter the turbine. Since the handpiece itself automatically prevents air retraction, infection control is greatly enhanced. The validity of the NSK Clean Head System has been proved and documented by experiments performed by renowned Universities worldwide.

Non-Retraction Valve

The NSK Non-Retraction Valve mechanism (Patented) is integrated into the NSK couplings. This mechanism prevents air retraction of oral contaminants specifically into the water line. It also helps to prevent water drip after the handpiece stops rotating. In combination with the Clean Head System, the Non-Retraction Valve provides an effective method in preventing cross-contamination.

Ultra Push Chuck

NSK triple grip Ultra Push Chuck (Patented) is an original design. The push button auto-chuck mechanism securely grips the bur during grinding conditions, and allows one-touch bur insertion and removal. The auto chuck lock mechanism is designed so that the bur retention capability increases when high load is applied to the bur.

Ceramic Ball Bearings

Because ceramic is 25% harder than stainless steel, it resists damage should debris enter the turbine. Ceramic is also 50% lighter in weight than stainless steel and therefore results in reduced friction with the bearing retainer. In combination, these factors are responsible for significantly extending bearing life.

Tactile Sense Increases

The nature of Titanium allows for a firm, tactile grip even in gloved hands. Using Titanium allows NSK to manufacture handpieces that are lighter in weight, yet stronger than other handpieces on the market. When using Ti-Max handpieces, Clinicians will notice a marked increase in their tactile sense.

Triple Water Spray

The NSK triple water spray system ensures efficient cooling of the bur and the tooth surface. Through this system, the water spray flows virtually parallel to the bur, direct to the tooth preparation site.

Cellular Glass Optics

NSK Cellular Glass Optic rods are 60% brighter than conventional fibre optic technology. Light intensity will not deteriorate even after repeated autoclaving.

Sterilization Durability

NSK titanium and stainless steel turbine handpieces are extremely durable against repeated autoclaving. Handpiece bodies appear in new condition for years.

Other Features

- **New Cartridge Design**
  As a result of many years of NSK research, a new higher performance turbine has been developed, offering increased torque in all head sizes.

- **Bur Runout : Less than 10 Microns**
  NSK high quality control and ultra-precision micro production technology ensures bur runout of less than 10 microns, which ensures consistent cutting and grinding.

- **Greater Convenience**
  The head design is very compact, and the cartridge style turbine allows easy in-surgery replacement.

- **Quiet and SMOOTH**
  NSK ultra-precision micro machining technology ensures remarkably reduced vibration and reduced noise level, resulting in increased comfort for patients and Clinicians. The handpieces are noticeably quieter and smoother running since the introduction of the NSK ceramic ball bearing turbines.