NT’s original “Easy To Operate” optical tool presetter.

User friendly!

- Contactless measurement does not damage cutting edges. Suitable for expensive cutting tools such as diamond and CBN.
- Easy operation reduces human errors.
- Cutting tools in various shapes can be measured.
- Tightening of collet holder is possible on the presetter. (Up to 60Nm)
  Please move the camera away from the spindle when tightening.

Max Measurement
X-axis: ø400mm
Z-axis: 500mm

NT TOOL CORPORATION
**Easy to use! Well thought out operational design. Designed by customer's voices.**

### User Friendly Mechanical Body

- **Fine Adjustment Dial for Z-axis / X-axis**
  - Quick camera positioning by rotating the dial.

- **Camera Handle**
  - Simple one-hand operation. Movable in X-axis direction or Z-axis direction separately/simultaneously.

- **Camera Arm**
  - Measurement up to dia.400mm is possible.

- **Mechanical Clamp**
  - 400kg air cylinder firmly clamps the tool holder. Good repetitive accuracy of tool holder clamping/unclamping.

- **Motor driven** (Option)
  - Tightening of a collet holder is possible. (Up to 60Nm)
  - Move the camera away from the spindle when tightening.
  - Enables the following processes to be consolidated:
    - Collet subduction correction.
    - Adjusting the protruding length of the cutter.
    - Measuring Runout.

- **Adapter Trays**
  - Included.
  - Frequently used adapters and holders can be placed nearby.

- **Cutting Tool Projection Length Adjustment (Option)**
  - An operation handle for cutting tool projection length adjustment can be added.
Easy-to-use Software with Tutorial Function.

**Real screen**

- **Break**
  Spindle can be stopped at any location.

- **Index Break**
  Spindle can be pin-locked at 90 degrees.

- **Clamp / Unclamp**

- **Coordinates**
  \[ X = \text{Radius}/Diameter, \quad Z = \text{Height}, \quad C = \text{Rotational Position}. \]
  *X and Z values indicate position of the camera center when not measuring.*

**Overview**

- **Camera (Captured Image)**
  - Actual field of view: 9.0mm × 6.5mm
  - 30× Magnification
  - 35× Digital Zoom

**Operation Field**

- **Spindle Control**
  - Forward / reverse to the next / previous cutting edge.
  - : Free the motor.

**"Magic Eye" shows the positions of cutting edges.**

Target cutting edge is always clear even with endmills and facemill cutters.

**Beginning of measurement**

The ring turns green in accordance with cutting tool rotation. Numbers are assigned on the detected cutting edges.

**Detection of cutting edges completed.**

Shows position of cutting edges in real-time.
**Measurement function**

**Runout measurement of the cutting edge**
Capture the area you want to measure. Then, turn the spindle 360 degrees. The measurement result against target value can be shown as **○** (good) and **×** (bad), along with sound effects. The result can be also shown as a graph.

**Target Bar**
Easy diameter adjustment for boring bars with presetting target shown on the screen.

**Measuring Afterimage**
The cutting tool’s profile is plotted by rotating the spindle 360 degrees.

**Measuring Step Drill**
Each step can be measured separately.

**Measuring Radius**
Nose-radius can be measured based on the contour of the cutting edge.

**Real image of cutting edge**
Wearing and chipping on cutting edge can be inspected.
Customization Case 01: Sharing measurement data.

The AOTP measurement data can be customized to be saved onto your server. Measurement data accumulated in the saved server location, then can be shared with connected AOTP devices, or transferred to a machine system (M / C, NC lathe) for use. *The machine system side needs data sharing capability with the server to perform the task.

By accumulating the measurement data of an individual AOTP in your server, you can...

Share data with multiple AOTPs!

Transfer measurement data to machine tool (M / C, NC lathe) and utilize it!

Accumulate measured data

Your server

Measurement program

Machine tool (M / C, NC lathe)

Measurement result

Customization Case 02: Using QR codes to create faster, more efficient processes.

By registering the tool information into a QR code, printing the code out, and attaching it to the holder with a tag, you can bring up the tool information from then on, simply by reading the QR code attached to the tool. The operator will not need to search for the tool information from a list, or other time consuming method. This makes it possible to eliminate human error, such as selection mistake.

① Register the tool data (Measurement, contents, etc.) of each holder into its own individual QR code. Then attach the corresponding code to the matching holder with a tag or other method in advance.

② When measuring each holder, scan the QR code into the presetter, it will instantly display the tool data (measurement, contents, etc.) on the presetter screen and start the measurement process immediately.

Tool Data Preparation Steps
AOTP

<table>
<thead>
<tr>
<th>Code</th>
<th>Model</th>
<th>Retention Stud</th>
</tr>
</thead>
<tbody>
<tr>
<td>4940 00 50011</td>
<td>AOTP-500-1A</td>
<td>PSB-7, PSB-8, PSB-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSB-19, PSB-7-CH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSB-8-CH</td>
</tr>
<tr>
<td>4940 00 50013</td>
<td>AOTP-500-1C</td>
<td>PSB-17</td>
</tr>
<tr>
<td>4940 00 50024</td>
<td>AOTP-500-2D</td>
<td>PSB-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSC50-1</td>
</tr>
</tbody>
</table>

Code ※ is M specification: 1, P specification: 2, MP specification: 3.
1. Please select a model based on the retention stud type.
2. Retention stud not shown in the above chart can be also used.
   Please contact NT Tool Corporation for details.

Unit Options

<table>
<thead>
<tr>
<th>Spindle rotation</th>
<th>Standard</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manual</td>
<td>Automatic (Motor driven)</td>
</tr>
<tr>
<td>Cutting edge height adjustment</td>
<td>—</td>
<td>Height adjustment handle can be added to the front.</td>
</tr>
</tbody>
</table>

In addition to those options, customization of software and body is possible upon request. Please contact NT TOOL for details.

Ordering Example

AOTP-500-1A

Without cutting edge height adjustment: Leave blank
With cutting edge height adjustment: Add "P"

Manual Spindle Rotation: Leave blank
Automatic Spindle Rotation: Add "M"

Specifications of AOTP

- **External dimensions**: 1730mm x 600mm x 1780mm (WxDxH)
- **Weight**: 300kg
- **Power supply**: 100 ~ 240V AC, 50/60Hz
- **Power consumption**: 300W
- **Air pressure**: 0.4 ~ 0.6Mpa
- **Measurement**: X-axis: ø400mm, Z-axis: 500mm
- **Minimum reading**: 0.001mm
- **Spindle size**: BT50 (Adapters for different spindle sizes available.)
  1. When using an adapter, Z-axis measurement area will be narrower due to the height of the adapter.
  2. Manual spindle rotation, Motor drive can be added as an option.
- **Clamp method**: Mechanical clamp
- **Specifications of camera**: 1.3 million pixel CCD monochrome
- **Screen magnification ratio**: 30× Magnification
- **Display size**: 21.5"
- **Cutting edge measurement range**: 9.0 x 6.5mm
- **Menu manipulation method**: Touch panel, mouse, keyboard
- **Language selection**: English, Japanese, Korean
- **Accessories**: Adapter tray

1. Switchable between Inch and Metric display.
2. Label printer is sold separately.
3. Specifications and design of the product are subject to change without notice.
Adapters (Sold Separately)

To measure tool holders other than BT50 shank size, adapters are necessary. Please contact NT TOOL for details.

### For BT, CAT and SK

- **BT30, BT40, CAT40, SK40**

- Please designate the type of retention stud in use.

### For HSK

- **HSK32, HSK40, HSK50, HSK63, HSK100**

### For UTS

- **UTS6350, UTS10080**

### For C

- **C3, C4, C5, C6**

Accessories

<table>
<thead>
<tr>
<th>Label printer (Sold Separately)</th>
<th>Code</th>
<th>Model</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4944 10000014</td>
<td>AOTP-PRINT-BRO</td>
<td>Thermal printer. No need for cartridges. Measured values can be printed. Tool name, model, and comments registered beforehand can be printed together.</td>
</tr>
</tbody>
</table>

**Ordering Example**

AOTP-PRINT-BRO

<table>
<thead>
<tr>
<th>Label for printer (Sold Separately)</th>
<th>Code</th>
<th>Model</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4944 10000015</td>
<td>AOTP-PRINT-BRO-LA</td>
<td>Approx. 64 labels. Label size : 100 X 24mm</td>
</tr>
</tbody>
</table>

**Ordering Example**

AOTP-PRINT-BRO-LA

<table>
<thead>
<tr>
<th>Cleaning putty (Included with AOTP)</th>
<th>Code</th>
<th>Model</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4944 10000013</td>
<td>AOTP-DUST-C</td>
<td>To clean the cutting edge for accurate measurement.</td>
</tr>
</tbody>
</table>

**Ordering Example**

AOTP-DUST-C
Presetter Series

Contactless Optical Tool Presetter

Simple and Compact! High-performance presetter - affordable price!

Tighten the cap of the collet holder on the machine is possible!

*Option / MAX 60 Nm

Measurement
X-axis ・・・ φ300mm
Z-axis ・・・ 400mm

Mechanical Clamping
A pneumatic cylinder clamps the holder securely in place, guaranteeing excellent accuracy through repeated mounting of holders.

Contact / Projection Type Tool Presetter

NTP-400
- Column movement method
  Lever (Auto)
- Measurement range
  (X axis) 0～ø400mm
  (Z axis) 50～500mm

NTP-300A
- Column movement method
  Handle (Manual)
- Measurement range
  (X axis) 0～ø300mm
  (Z axis) 50～500mm

Contact / Projection Type Tool Presetter

Presetter Series

Simple and Compact! High-performance presetter - affordable price!

Tighten the cap of the collet holder on the machine is possible!

*Option / MAX 60 Nm

Measurement
X-axis ・・・ φ300mm
Z-axis ・・・ 400mm

Mechanical Clamping
A pneumatic cylinder clamps the holder securely in place, guaranteeing excellent accuracy through repeated mounting of holders.

Contact / Projection Type Tool Presetter

NTP-400
- Column movement method
  Lever (Auto)
- Measurement range
  (X axis) 0～ø400mm
  (Z axis) 50～500mm

NTP-300A
- Column movement method
  Handle (Manual)
- Measurement range
  (X axis) 0～ø300mm
  (Z axis) 50～500mm

Contact / Projection Type Tool Presetter

Presetter Series

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Tighten the cap of the collet holder on the machine is possible!

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X-axis ・・・ φ300mm
Z-axis ・・・ 400mm

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A pneumatic cylinder clamps the holder securely in place, guaranteeing excellent accuracy through repeated mounting of holders.