Raptor

AOTP·A - AUTO type

Contactless Optical Tool Presetter **Aegis-i** Series

Reduce work hours with programmed automatic measurement!

Increases productivity in the field!

- **Max Measurement** **X-axis** ø400mm **Z-axis** 500mm
- Contactless measurement does not damage cutting edges.
- Easy operation reduces human error.
- Mechanical clamp system with stable repeatability.
- Tightening of a collet holder is possible on the presetter.

NT TOOL CORPORATION

Easy to use! Well thought out operational design.

Designed by customer's input / feedback.

Lens Guard

NEW

Protects the lens from accidental impact.

Camera Arm

The X/Z axis is automatically driven by the motor based on the measurement program. It reduces operation time and increases productivity on the job site.

Max Measurement   X-axis : ø 400mm
                            Z-axis : 500mm

Adapter Trays are included.

Frequently used adapters and holders can be placed nearby.

Tightening of a collet holder is possible on the presetter.

Up to 60 Nm. Move the camera away from the spindle when tightening.

Enables the following processes.
- Collet subduction correction.
- Adjusting the protruding length of the cutter.
- Measuring Runout

Mechanical Clamp

400kg (0.5MPa) air cylinder firmly clamps the tool holder.
Good repetitive accuracy of tool holder clamping/unclamping.

Easy-to-use Software with Tutorial Function.

Suitable for inexperienced operator! Tutorial can be displayed by one click.

Never operated? Don't worry!
The machine guides you in what to do!

Operation screen lined up in working sequences!

Well thought out layout of the operation screen minimizes operation time.

Real screen
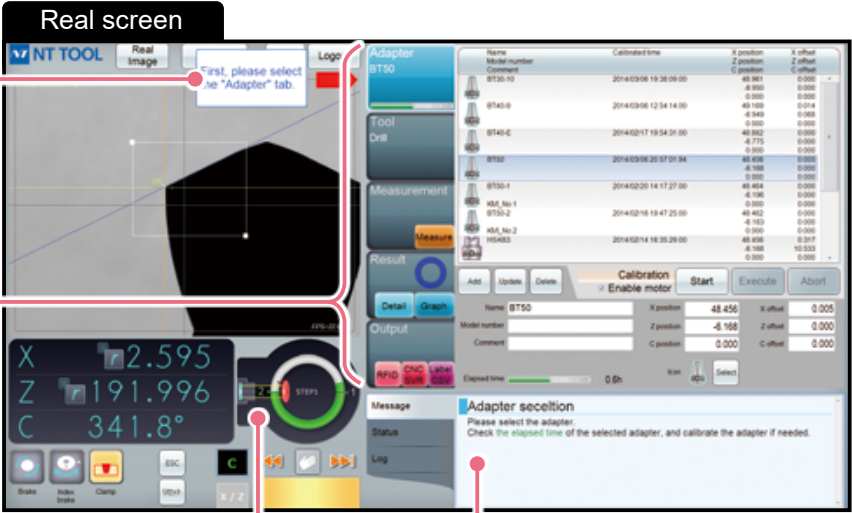
"Magic Eye" shows the positions of cutting edges.

Shows position of cutting edges in real-time.

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

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

Actual cutting edges

Measurement position

1

Magic eye

ステップ1

Ring

cutting edges

Just follow comands on the message screen!

Information about current operational status and function in use are shown in the special field.

Advantages of Automatic Camera Movement

Operator's standing time for stepped drill measurement

AOTP manual measurement

85 Seconds

Step by step manual adjustment is required by the operator.

Actual measurement time: about 85 seconds

AOTP-AUTO automatic measurement

0 Seconds!

Press the start button to measure automatically. The operator is free during automatic measurement.

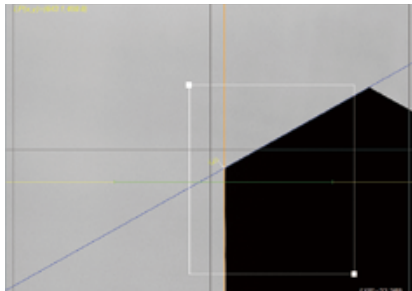Actual measurement time: about 60 seconds

Measurement Function

Runout Measurement of The Cutting Edge

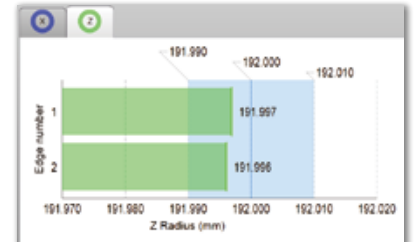Capture the area you want to measure. Then, turn the spindle.

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.
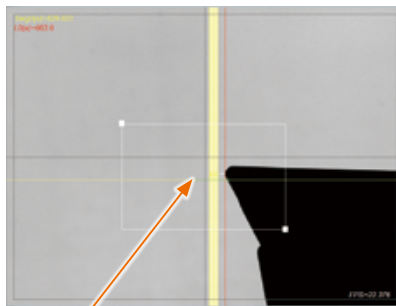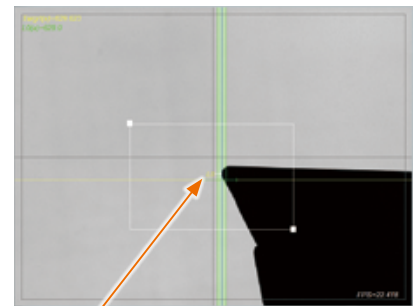

○: Good, ×: Bad

Measurement result

Graph

Tolerance Area Display

The tolerance area is displayed on the screen for easy adjustment of the boring bar diameter.

The yellow line is the tolerance area.

The tool edge will turn green when it enters within the tolerance area.

Measuring Afterimage

The cutting tool's profile is plotted by rotating the spindle 360 degrees.
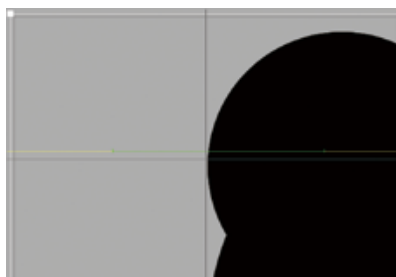
Before afterimage measurement
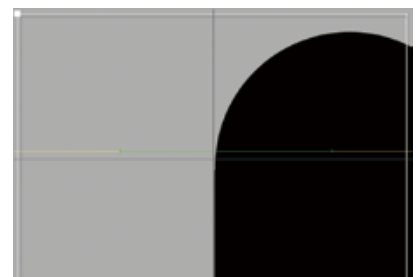
After afterimage measurement (afterimage of rotated tool is shown.)

Measuring Step Drill

Each step can be measured separately.

Step 1

Step 2

←Tab

Measuring Radius

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

Real Image of Cutting Edge

Wear and chipping on cutting edge can be inspected.

Customization Case

① Sharing Measurement Data

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

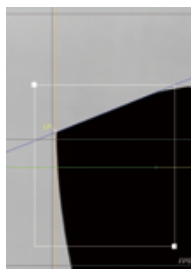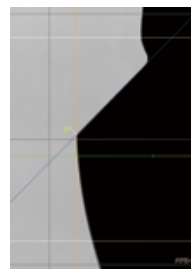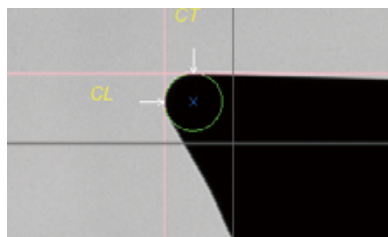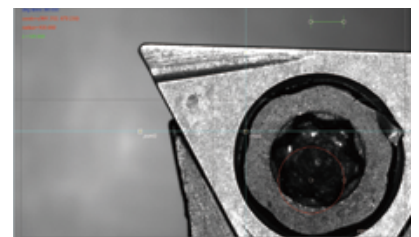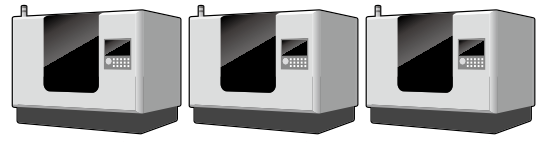| Share data with multiple AOTPs! | Transfer measurement data to machine tool (M / C, NC lathe) and utilize it! |

*The machine system side needs data sharing capability with the server to perform the task.

Measurement program

Measurement result

Your server

Accumulate measured data

② Using QR Codes to Create Faster, More Efficient Processes

Tool Data

Procedure

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.

Merit

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.

③ Responding to User Needs of The Presetter Automation System   ~Aim for Full Automation~

Use of ID Chips

By utilizing the ID chip for tool holder, the process of reading information which was manually done by QR code is also automated.
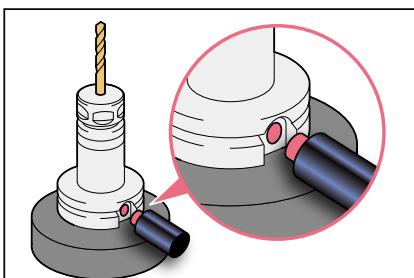
Linking with Robots

It works with a robot to automate the replacement of tool holders and blades.
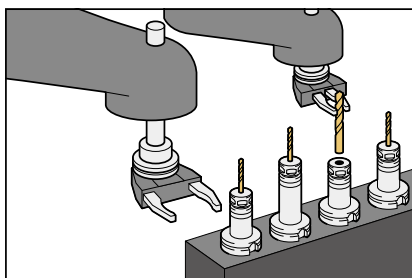
Automatic Tightening of Tool Holder

It automates the tool holder blade tightening operation.

Example of a hydraulic chuck | Example of a collet holder

AOTP-AUTO

Model

AOTP-500A-AUTO

- The spindle lead-in collet is sold separately.

- When using a BT50, SK50, or CAT50 tool holder, specify the type of retention stud.

- Customization of software and body is possible upon request. Please contact NT TOOL for details.

Specifications of AOTP-AUTO

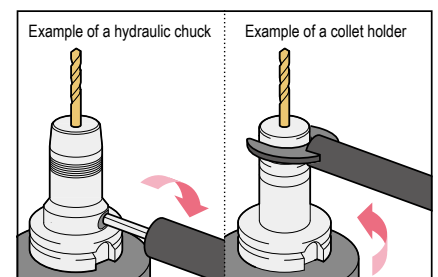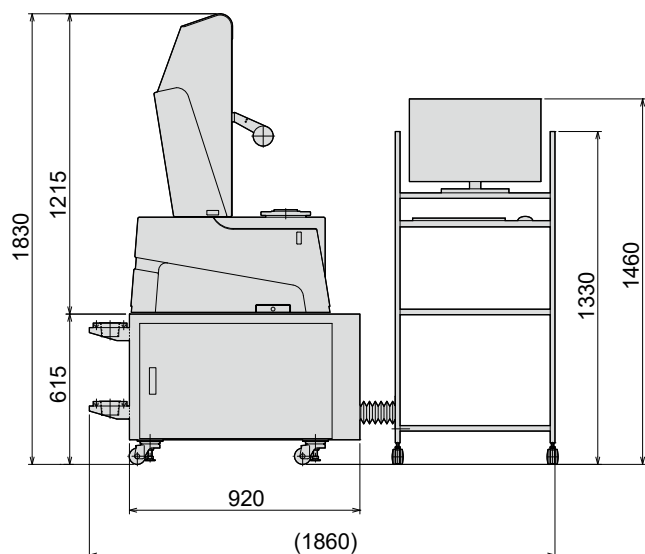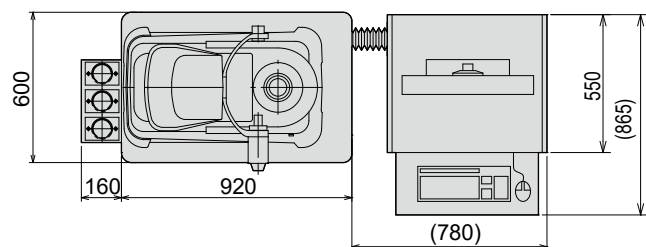| External Dimensions	See left figure
Weight	400kg
Power Supply	100~240V AC, 50/60Hz
Power Consumption	300W
Air Pressure	0.4~0.6Mpa
Max Measurement	X-axis : ø400mm Z-axis : 500mm *1
Minimum Reading	0.001mm
Spindle Size	BT50 (Adapters for different spindle sizes available.)
Clamp Method	Mechanical clamp
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, Chinese, Spanish
Accessories	Adapter tray, Cover, Cleaning putty

*1 The measurement range of the Z-axis is narrowed by adapter's thickness.
· Switchable between Inch and Metric display.
· Specifications and design of the product are subject to change without notice.

Adapters (Sold Separately)

NEW Rust-proof case

It can be placed on the presetter's adapter tray with the rust-proof case still attached.

- To measure tool holders other than BT50 shank size, adapters are necessary.
- Rust-proof case included to protect the adapter from rust. *Not included for HSK100A, UTS10080, and C6 size.

For BT, CAT and SK	For HSK	For UTS	For C
BT30, BT40, CAT40, SK40 *Please designate the type of retention stud in use.	• **HSK25E, HSK32E** • **HSK32A, HSK40A, HSK50A, HSK63A, HSK100A**	**UTS5040, UTS6350, UTS10080**	**C3, C4, C5, C6**

Accessories

Label printer
(Sold Separately)

Code	Model	Note
4944 10000018	**AOTP-PRINT-BRO2**	Power supply AC100V 50/60Hz 2.0A
4944 10000019	**AOTP-PRINT-BRO3**	Power supply AC100-240V 50/60Hz 1.5A

Thermal printer. No need for cartridges. Measured values can be printed. Tool name, model, and comments registered beforehand can be printed together.

Ordering Example
AOTP-PRINT-BRO2

Label for printer
(Sold Separately)

Code	Model	Note
4944 10000020	**AOTP-PRINT-BRO2-LA**	Approx. 400 labels. Label size : 29 x 90 mm

Ordering Example
AOTP-PRINT-BRO2-LA

Cleaning putty
(Included with presetter)

Code	Model	Note
4944 10000013	**AOTP-DUST-C**	To clean the cutting edge for accurate measurement.

Ordering Example
AOTP-DUST-C

Contactless Optical Tool Presenter Aegis-i Series — Eagle (AOTP·A type)

A tool presenter developed completely in-house with the customer's ease of use in mind!

Customizable software to fit your needs!

Milling chucks can be tightened on-machine*.
* MAX 100 Nm
NEW

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

Contactless Optical Tool Presenter Aegis-i Series — Falcon (SOTP type)

Simple and compact! High performance presetter - affordable price!

Collet holder nut can be tightened on the machine * MAX 60 Nm

Max Measurement
X-axis : ø300mm
Z-axis : 400mm

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

NT TOOL CORPORATION

HEAD OFFICE : www.nttool.com (Web in English available)
NT USA CORPORATION : www.nttoolusa.com   EUROPE OFFICE : www.nttooleurope.com

	Address	Tel.	Fax.	E-mail
HEAD OFFICE & FACTORY	1-7-10, Yoshikawa-cho, Takahama-City, Aichi, 444-1386 Japan	81-(0)566-54-0101	81-(0)566-54-0111	osb@nttool.co.jp
IIDA FACTORY	311-1, Osegi, Iida City, Nagano, 395-0157 Japan	81-(0)265-25-5200	81-(0)265-25-5225	iidaplant@nttool.co.jp
SALES OFFICES in JAPAN (TOKYO / NAGOYA / OSAKA / HIROSHIMA / KYUSHU)				
NT USA CORPORATION	318 Seaboard Lane Suite 301 Franklin TN, 37067 U.S.A.	1-615-771-1899	1-615-771-0121	sales@nttoolusa.com
NT TOOL DE MEXICO S.A. DE C.V.	Blvd. Aeropuerto No.648, Local 5, Col. San Jose el Alto, Leon, Guanajuato, Mexico C.P. 37545	52-477-194-4587		sales@nttool.com.mx
NT TOOL EUROPE GmbH	Siemensstrasse 17A, 61449 Steinbach / Ts., Germany	49-(0)6171-91639-0	49-(0)6171-91639-90	info@nttooleurope.com
NT TOOL (SHANGHAI) CO., LTD.	Room 2301A, 2304, No.167 Jiangning Rd.,Jing'an District, Shanghai, China, 200041	86-(0)21-6361-9540	86-(0)21-6360-7845	nt-shanghai2@nttool.co.jp
NT TOOL THAI CO., LTD.	26/24 MOO 3 LAMLUKKA ROAD, LAT SAWAI, LAMLUKKA, PATHUMTHANI 12150	66-(0)2117-9323	66-(0)2117-9324	sales@nttoolthai.co.th
NT TOOL (THAILAND) CO., LTD.	222 Moo 1, Hi-tech Industrial Estate, Banpho, Bang pa-in, Ayutthaya 13160, Thailand	66-(0)3531-4180	66-(0)3531-4182	nt_thai@ksc.th.com
PT. NT INDONESIA	Kawasan Industri Jababeka Tahap 6, Blok B 2A, Desa Jatireja, Kecamatan Cikarang Timur, Kabupaten Bekasi, 17530, Indonesia	62-(0)212-851-8066	62-(0)212-851-8067	nt-indonesia@nttool.co.jp

Touch The Future
NT TOOL

TECHNO MAIL
technomail@nttool.co.jp

For techical question,
please contact us by technomail.

WORLDWIDE NETWORK

2023.12. v2

8