

Contactless Tool Presetter OTP

Contactless tool presetter

OTP400 OTP600

OTP400/600
IC1



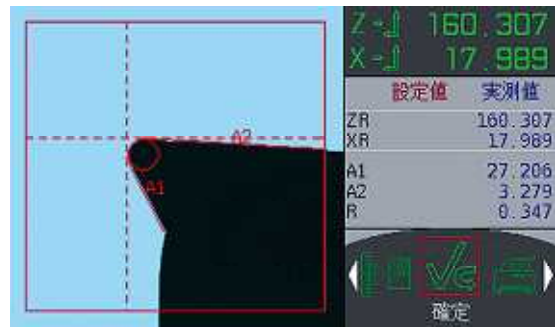
Improvement of work ability

Advantages of OTP

- Protect cutting edge by contactless measuring. Ideal method for diamond and CBN tools.
- Various cutting edge shapes can be measured.
- Speedy shape recognition.
- Reduces human errors by image processing.

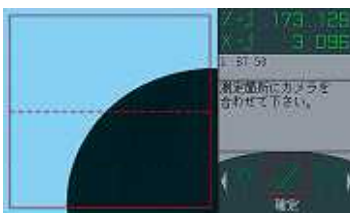
Basic screen of OTP-IC1

Displaying height, diameter, and cutting edge angle.



Primary functions of OTP-IC1

R-shape radius measurement



Tip nose radius and R-shape of ball-nosed end mill etc. can be measured by automatic recognition or manual operation. (Three or more measurement points are necessary.)

Runout measurement of cylindrically-shaped tools



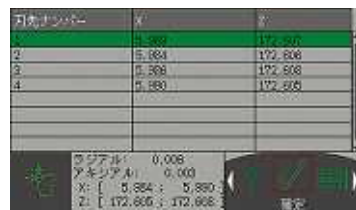
Cylinder runout can be checked if align the measuring line (standard line) on the display to the cylinder circumference, and rotate the spindle by 360-degree.

Real image check on cutting edge



Abrasion and tipping on the cutting edge can be checked in real pictures by switching to the front light during measurement.

Runout measurement for multiple cutting edges



Enter the number of teeth and its shape of the cutting edge to be measured, and then rotate the spindle by 360-degree. The unit automatically recognizes the maximum and minimum values to allow users to check runout accuracy.

Contactless Tool Presetter OTP

OTP400/600
IC3



Perfect contact by a vacuum clamp.

Basic screen of OTP-IC3

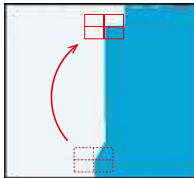
Displaying height, diameter, and cutting edge angle.



Primary functions of OTP-IC3

Extensive measuring methods

Change in measurement spot



If there are a number of measurement spots on the display, measurement points can be changed quickly by moving the measurement range with a mouse without moving the camera.

Manual measurement



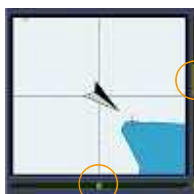
Height, diameter (Z,X), and nose radius can be measured by overlapping cross lines and a circle on cutting edge measuring section.

Real image observation



If cutting edge shadow is invisible, manual measurement can be performed while observing a real image of the cutting edge by switching to the front light.
*Effective in measuring O.D. boring etc.

Guide to preset values



The tool set-point can be displayed with an arrow within the screen to have it guide the presetting. The distance from the present cutting tool location to the set point is displayed with a bar in the screen. When the bar becomes a smallest dot (green), guiding is ready.

Comparison with set tolerances



Setting tolerances for tools allows the unit to make comparison with measurement results and determine whether pass or failure.

Cutting edge measurement



Rotating the spindle by 360-degree allows the unit to recognize the maximum and minimum values of plural pieces of Cutting edges and measure their run out. The measurement results can be graphically displayed on the screen.

Observation of real image of cutting edge



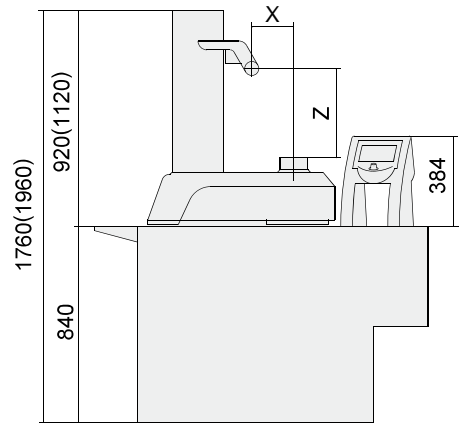
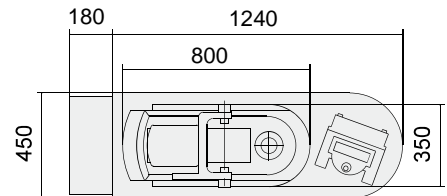
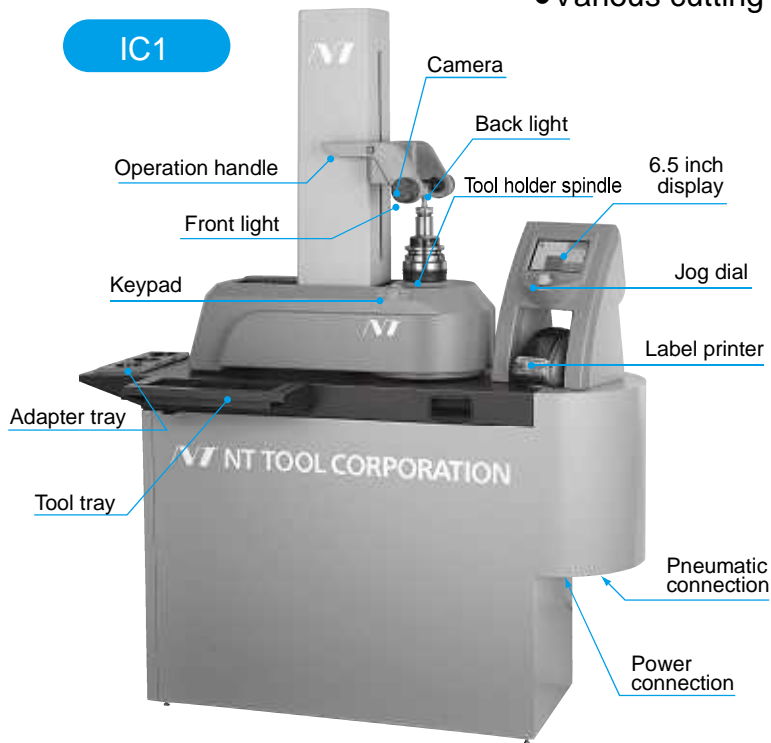
Images can be observed at 20 to 100-fold magnification to check for abrasion or tipping on the cutting edge.

Contactless Tool Presetter OTP

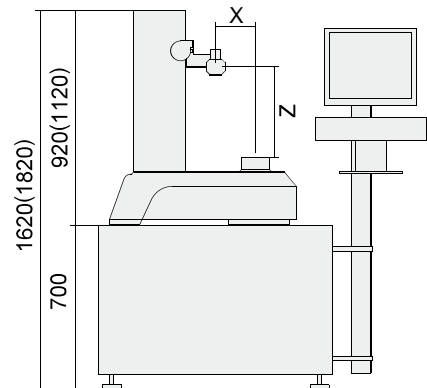
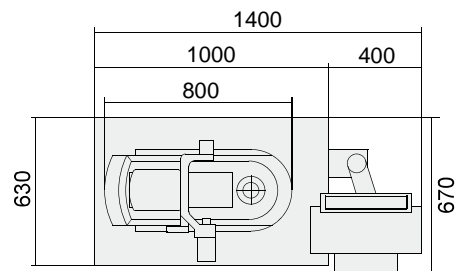
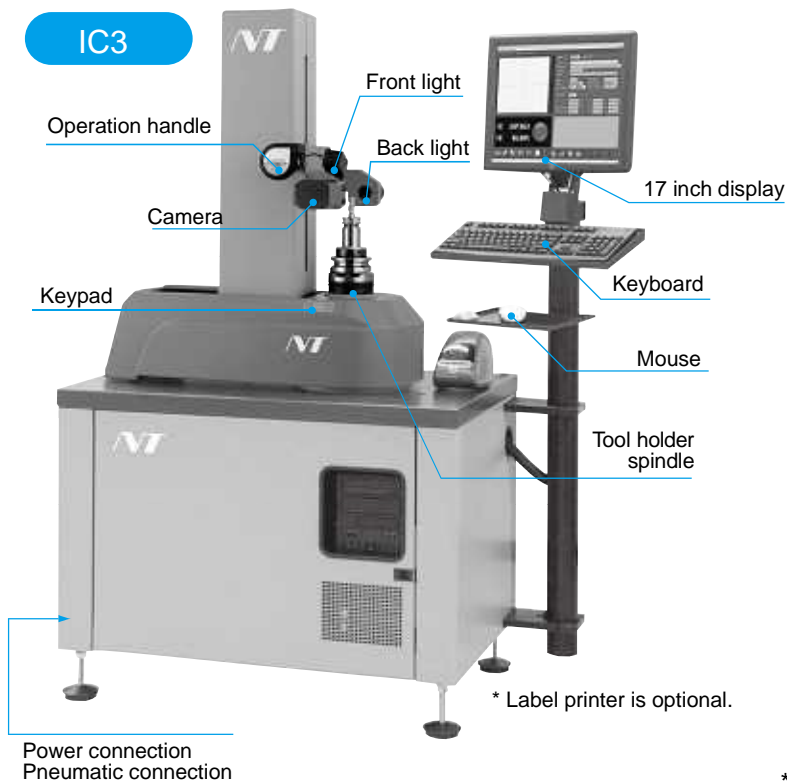
Feature

- Protect cutting edge by contactless measuring.
- Various cutting edge shapes can be measured.

IC1



IC3



* Label printer is optional.

*The value in the () is size for OTP600.

Contactless Tool Presetter OTP

Specifications	OTP400-IC1	OTP600-IC1	OTP400-IC3	OTP600-IC3
External dimensions	1420x450x1760 (DxWxH)	1420x450x1960 (DxWxH)	1400x670x1620 (DxWxH)	1400x670x1820 (DxWxH)
Weight	110kg	115kg	180kg	185kg
Power supply	85 - 265V AC, 50/60Hz		100/120/200/230V AC, 50/60Hz	
Power consumption	100VA or less		1000VA or less	
Air pressure	0.4 - 0.6MPa			
Measurement	X axial : \varnothing 0 - 400mm Z axial : 0 - 400mm	X axial : \varnothing 0 - 400mm Z axial : 0 - 600mm	X axial : \varnothing 0 - 400mm Z axial : 0 - 400mm	X axial : \varnothing 0 - 400mm Z axial : 0 - 600mm
Min. readable unit	X axial : \varnothing 0.001mm Z axial : 0.001mm X-axis: \varnothing 0.001mm Z-axis:0.001mm			
Spindle size	Please use a adapter when using a holder other than NT50.			
Clamp method	(Vacuum clamp is optional.)		Vacuum clamp	
Specifications of camera	488x468pixel		768x494pixel	
Screen magnification ratio	12-Times		20 to 100-Times	
Display size	6.5'		17'	
Cutting edge measurement range	6.5mmx6mm		7.5mmx7.5mm	
Menu manipulation method	Jog dial (knob button)		Touch panel, mouse, keyboard	
Language selection	Japanese, English, German			
Accessories	Label printer, Label for printer, Adapter tray, Tool tray		-	

* Values can be set in millimeter as well as in inch.

Ordering Example OTP400-IC1

Contactless Tool Presetter OTP Adapters

Choose from the following adapters when using shanks other than NT50:

*The measurement range of the Z-axis is narrowed by adapters' thickness

Ordering Example

OTP-NT50-NT30

For National taper shank

Model	CAT/BT size	Z-axis meas. Range Reduced value (mm)
OTP-NT50-NT30	CAT/BT30	20
OTP-NT50-NT40	CAT/BT40	20

Tool Presetters with vacuum mechanism draws in a holder with drawing force in proportion to the area of the holder.

- Built-in calibration edge.

For HSK shank

Model	HSK size	Z-axis meas. Range Reduced value (mm)
OTP-NT50-HSK32A	HSK32A(C,E) , HSK40F(B,D)	50
OTP-NT50-HSK40A	HSK40A(C,E) , HSK50F(B,D)	50
OTP-NT50-HSK50A	HSK50A(C,E) , HSK63F(B,D)	50
OTP-NT50-HSK63A	HSK63A(C,E) , HSK80F(B,D)	50
OTP-NT50-HSK80A	HSK80(C,E) , HSK100F(B,D)	60
OTP-NT50-HSK100A	HSK100A(C,E) , HSK125F(B,D)	100

- Built-in calibration edge.
- Without drive key.

* Measuring the tools without clamp function.
The clamping function is not included.

For HSK shank with drawing-in mechanism

Model	HSK size	Z-axis meas. Range Reduced value (mm)
OTP-NT50-HSK32A	HSK32A(C,E) , HSK40F(B,D)	75
OTP-NT50-HSK40A	HSK40A(C,E) , HSK50F(B,D)	75
OTP-NT50-HSK50A	HSK50A(C,E) , HSK63F(B,D)	75
OTP-NT50-HSK63A	HSK63A(C,E) , HSK80F(B,D)	75
OTP-NT50-HSK80A	HSK80(C,E) , HSK100F(B,D)	105
OTP-NT50-HSK100A	HSK100A(C,E), HSK125F(B,D)	105

- Built-in calibration edge.
- Drawing-in mechanism for HSK shanks (Wrench-operated)
- Adapter may conveniently remain attached to the presetter spindle when clamping tools that hold cutters with/without drive key.

Contactless Tool Presetter OTP Accessories

Convert adapter board

Model
OTP-BORDDC3-A

Convert adapter board to attach to IC3 tables. Accommodates max.3 adapters.

Label printer (IC1 standard acc.)

Model
OTP-PRINT-DY

Cartridge-free thermal printer for printing out measured values, annotated with tool numbers, cutter numbers, adapters applied, and other information.

Label printer board

Model
OTP-BORDDC3-LA

Label printer board to attach to IC3 tables.

Label roll

Model
OTP-LABEL-DY

260 Labels (size 89 x 36mm) per roll.

Cleaning paste

Model
OTP-PUTTY

Cleanses the cutting edge for precise measurement.

Dust cover

Model
OTP-PROTECTION

Dust cover for IC1 and IC3 of OTP400/OTP600 series PVC-made, clear & colorless.