Quick Change System for Swiss-type Automatic Lathe

CIToolingSystem

ALPS TOOL   Quick Change System   with AQ^2 Polygon Taper

ALPS TOOL
That's the way!
www.alpstool.com

Jointly developed by 3 companies   *ALPS TOOL*   **NTK CUTTING TOOLS** (Member IMC Group)   **CITIZEN**
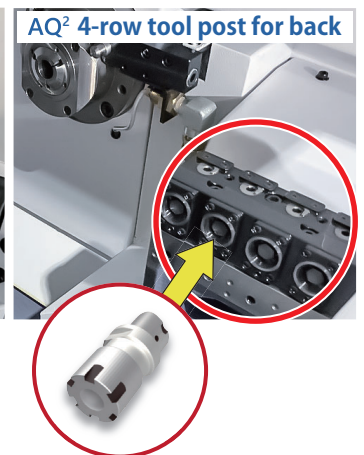
Optimized for small Swiss-type Automatic Lathe with clamp units、 adapters and machine tools.

AC3 3-Position Hybrid Unit
Quick Change×3
Square Shank×2

ALPS CAPTO
C3 Available

AQ^2 3-Position Hybrid Unit
Quick Change×3
Square Shank×3

AQ^2 **5-row tool post for turning**

AQ^2 3-row tool post for face

AQ^2 **4-row tool post for back**

Maximum grip diameter 10㎜
AQ^2 Collet Adapter

CI CIToolingSystem

ALPS TOOL   **NTK CUTTING TOOLS**   CITIZEN

ALPS TOOL

AQ^2 **Collet Adapter**   +   **AR Collet Chuck**

・16° Taper Collet (DIN6499/ISO15488 compliant)
・Grade AAA 3 μm,Grade AA 5 μm,Grade A 8 μm

Passed strict inspections

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with AQ^2 Polygon Taper

＊**Prototype evaluation result**

Quick change system with polygon tapered shank.
The unique coupling structure significantly reduces setup time and tool change time,
ensures repeatability of the cutting edge position, and provides rigidity during machining.

Easy to handle and operate
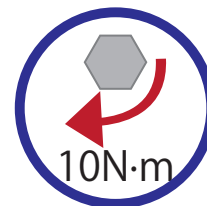

Ckeck the phase of the head

Insert the head

Equipped with Temporary Holding Function
It won't fall even if you let go of it, so you can work with one hand.
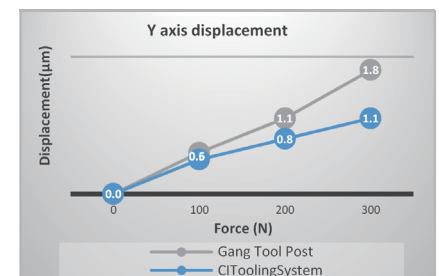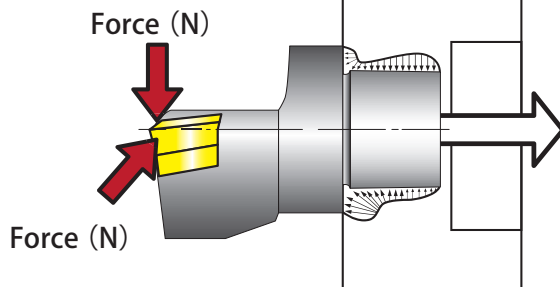
Tighten with a torque wrench

10N·m
Tightening Torque

Replace completed

High Rigidity

Force（N）

Force（N）

Z axis displacement

Displacement(μm)

Force (N)

| 0 | 100 | 200 | 300 |

4.6
3.0
1.4
1.1
0.7
0.3
0.0

Gang Tool Post
CIToolingSystem

Y axis displacement

Displacement(μm)

Force (N)

| 0 | 100 | 200 | 300 |

1.8
1.1
1.1
0.8
0.6
0.0

Gang Tool Post
CIToolingSystem

Efficient tool change

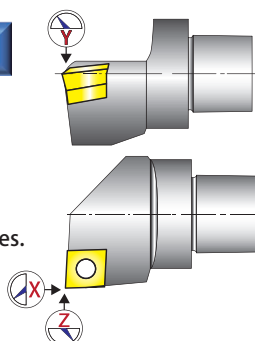| Repeatability	± 2 μm

X-axis(Radial direction)
Y-axis(Center height direction)
Z-axis (Length direction)

Repeatability of ±2 μm on all three axes.
Replaces square shank tools
with Quick Change

AQ^2 Adapter Lineup

・Made by ALPS TOOL   AR Collet Adapter   AR11,AR16
                       Side Lock Adapters   various types
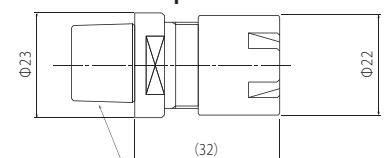
・Made by NTK   Cutting Heads（Original ・ISO）

Supported Machine Tools

・Starting with Citizen Machinery Φ20 model.

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Dimensions

ex.Collet Adapter AR16

Φ23   Φ22

(32)

AQ^2 Polygon Taper

ALPS TOOL   **NTK** CUTTING TOOLS   **CITIZEN**

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