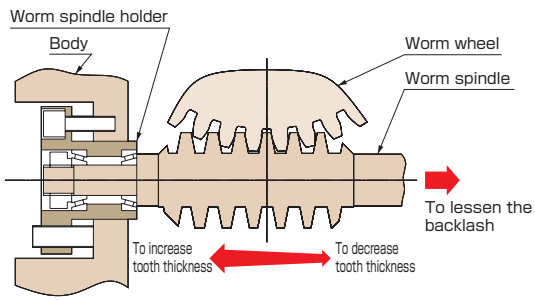
EXCELLENT BALANCE OF SMOOTHNESS, POWER AND DURABILITY BY SPECIAL GEAR SYSTEM ASSURES THE ULTIMATE IN PERFORMANCE

TSUDAKOMA specially designed double-lead worm gears with full-depth teeth

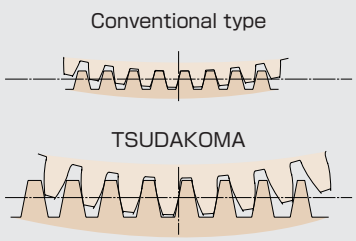
The setting of the lead amount on this gear system is different depending on the rotating direction of the worm wheel and the worm spindle. By moving the worm spindle axially, the tooth engagement can be changed successively. As the backlash between the worm wheel and the worm spindle can be adjusted while keeping them in their proper positions, the ideal tooth engagement is maintained.

gear system



Tooth profile

The adoption of full depth gear teeth, instead of standard teeth, results in higher strength equal to that of a gear of a size larger in module.



Materials

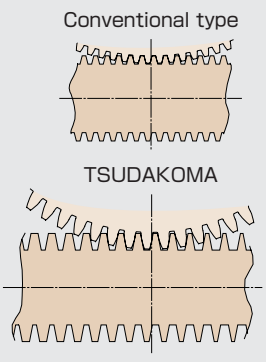
Worm spindle: Case-hardened alloy steel
Worm wheel: Special high-tensile brass equal in strength to a steel alloy

Torque transfer efficiency

The combination of iron and brass makes the friction coefficient smaller. A more effective transfer of the motor torque is achieved compared with other combinations of materials.

Larger worm wheel

The worm wheel with a large pitch circle diameter creates a large engagement area and less pressure on the contact surface, resulting in high durability against wear compared with conventional gear systems.



HIGH-LEVEL PERFORMANCE PROVEN IN MACHINING FIELDS

NC Rotary Tables

Basic models

RNA-series

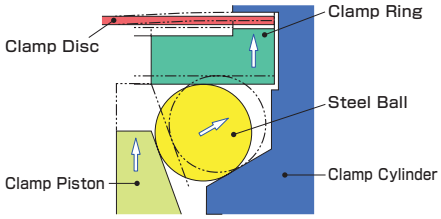
New standard for the ultimate in power and speed

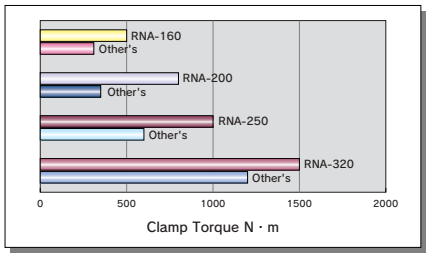
High Speed

The specially designed double-lead worm gear system with full-depth teeth of increased torque transfer efficiency minimizes the speed reduction ratio, improving the indexing speed by 20% (RNA-200) more than that of a conventional table.
So, the machining cycle time can be further reduced.

Strong Clamp Torque

The newly developed clamp mechanism (patent pending) using pneumatic pressure realizes enables powerful clamping at least 2.5 times (RNA-200) more than that of a conventional table.
The cutting feed speed can be further increased.





NC Rotary Tables

Big bore models

RBA-series

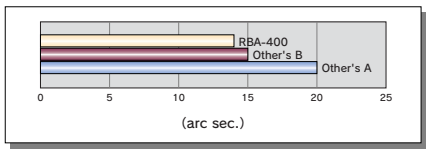
Flagship models of single-axis NC table

Dual Disc Clamp Mechanism

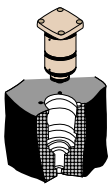
This unique clamping mechanism using dual discs can double the clamp torque compared with the capacity of our conventional type. As the mechanism is placed right under the table, the displacement of the table due to clamp movement is minimized.

Cumulative indexing accuracy of 14 sec., guaranteed

TSUDAKOMA has taken another step forward to elevate the indexing accuracy of NC rotary table, thanks to its high level of quality control.



Built-in type Air-Hydraulic Booster Unit



This unit is a clamping booster which converts the pressure of the supplied air to hydraulic pressure 7 times as high as air pressure. It is more compact than the conventional unit and can be contained in the frame. This unit is available even on a machine tool notprovided with hydraulic power source and, thus, saves the setting space. (* Optional)

Enhanced Security

All the switches and the solenoid valves are waterproofed and conform to CE standards. An air-purge function in the motor housing greatly facilitates maintenance.

NC Rotary Tables

Basic tilting models

TN-series

Best partner for five-axis machining

High Speed

The specially designed double-lead worm gear system with full-depth teeth of increased torque transfer efficiency minimizes the speed reduction ratio, improving the indexing speed by 50% more than that of a conventional table.
So, the machining cycle time can be further reduced.

Variety of Options

In addition to the automatic work mounting and dismounting arrangements by pull-stud device as well as pneumatic or hydraulic rotary joint, high precision specification using scale is also available.

Strong Clamp Torque

The newly developed clamp mechanism (patent pending) using pneumatic pressure realizes enables powerful clamping at least 2.5 times (TN-131) more than that of a conventional table.
It is rigid enough for machining even at a position far from the tilting axis.