

Miyano

BNA42MSY

Fixed Headstock Type CNC Automatic Lathe







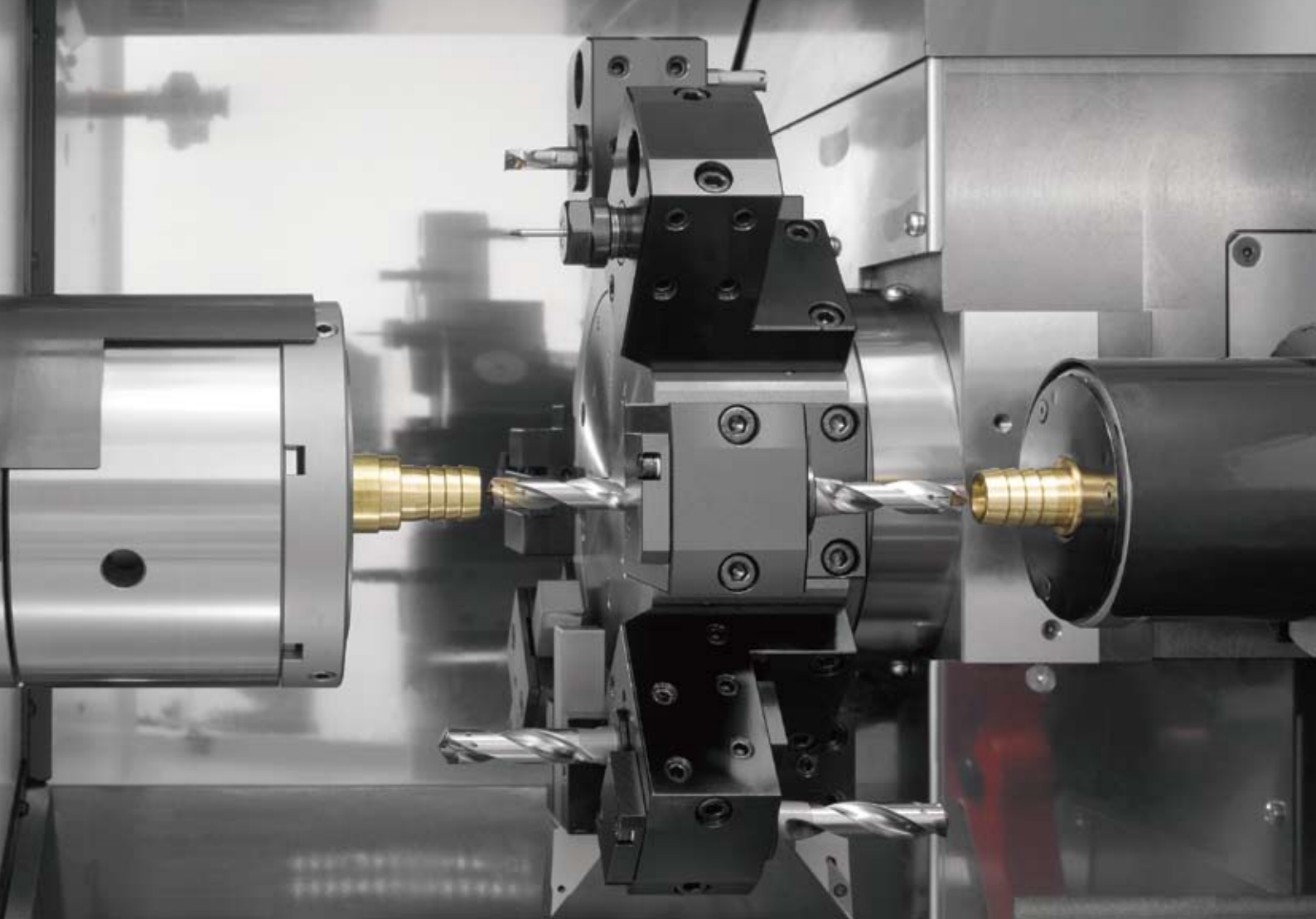
MSY

Configured with two spindles and one turret and equipped with a Y axis and X2 axis, the BNA42MSY is able to handle complex machining, with short cycle times and fast set ups.

The X2 axis to sub-spindle enables simultaneous independent machining of the front and back of the workpiece. This, in effect, provides the benefits of a twin turret machine with the significant cost savings of a single turret model.

- 2 tool simultaneous cutting
- renowned Miyano accuracy
- quick to set up and changeover
- highly efficient for small and medium batch sizes (lots)
- compact design for improved floor space efficiency



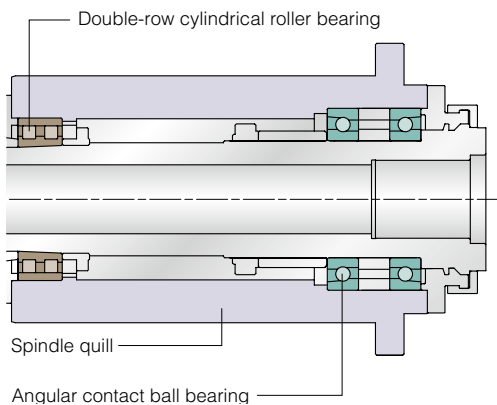


Cycle time shortened by superimposition control

A turret incorporating X, Y and Z axes (HD1) and a sub spindle incorporating X and Z axes (SP2) open up the possibility of machining by superimposition control, where the sub spindle synchronizes with the turret to machine a workpiece in the main spindle (SP1), a very effective way to shorten cycle time.

High-rigidity spindle

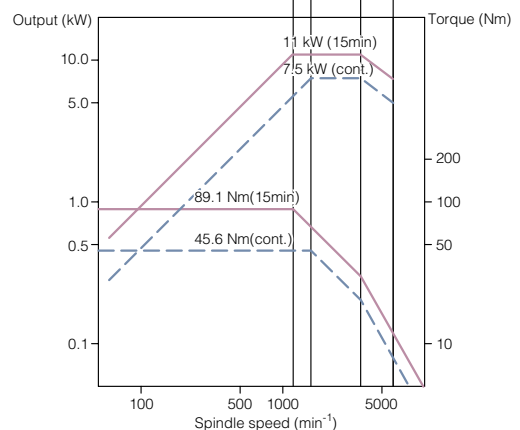
To achieve powerful cutting, the spindle, which is the key component in machining, is equipped with angular contact ball bearings at the front and double-row cylindrical roller bearings at the rear.



Spindle Motors with Increased Output

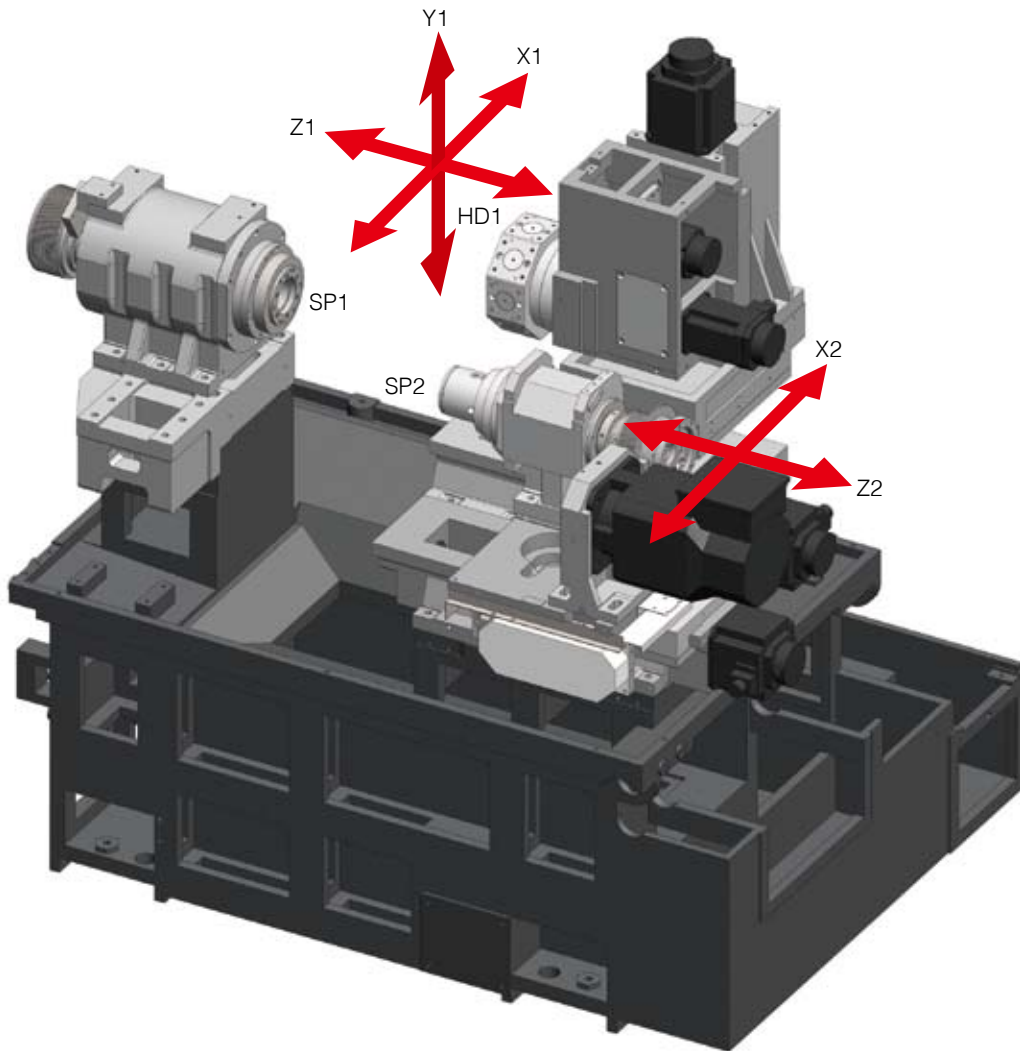
The spindle 1 motor has the highest output in the BNA series. This enables powerful cutting.

Motor pulley diameter: ϕ 125mm Moto r(min^{-1}) 1500 2000 4500 7632
 Speed-reduction rate: 0.786
 Spindle pulley diameter: ϕ 159mm Spindle (min^{-1}) 1179 1572 3537 6000



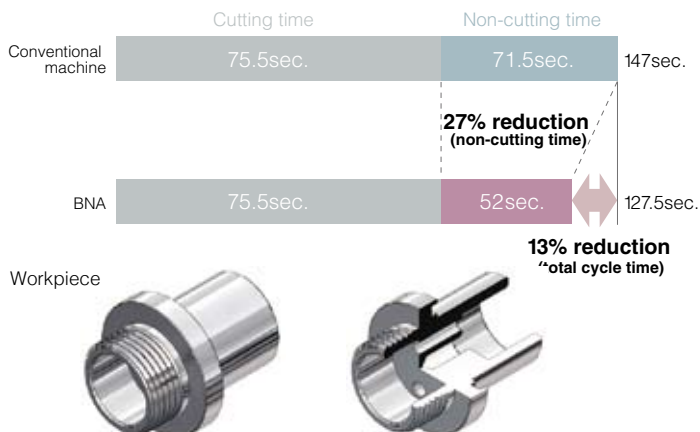
Basic Construction

High-rigidity scraped slideways are used on all axes. These slideways with face contacts have exceptional rigidity and damping characteristics, achieve powerful cutting, and help to prolong cutting tool life.



Substantial Reduction in Non-cutting Time

The unique control system cuts non-cutting time by 27% (compared to earlier equivalent Miyano products). The result is a 13% reduction in cycle time.

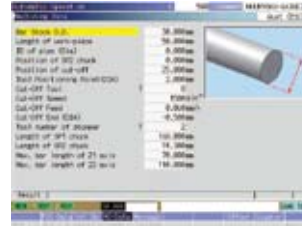
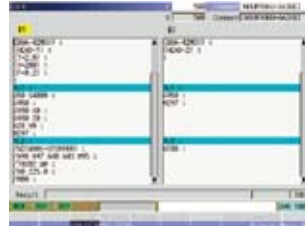


Easy to Use Tooling System

The turret has 8 stations, but the half-indexing mechanism makes it possible to mount tools at up to 16 positions. The use of optional multiple tool holders can further increase the number of tool positions.



Support Screens Improve Operating Convenience



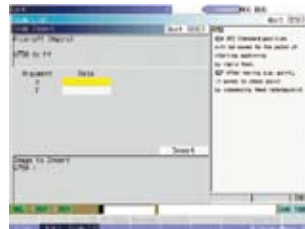
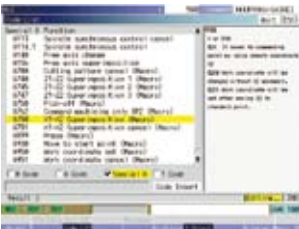
The program screen, organized for easy reading, can be displayed in synchronization with the editing screen. This simplifies the editing of complex programs with a lot of queuing.

All you have to do is input the machining length, chucking length and so on, and the escape and approach positions are automatically calculated. This is useful for collision prevention and shortening setup times.

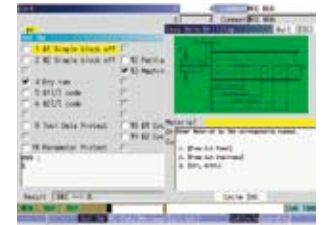
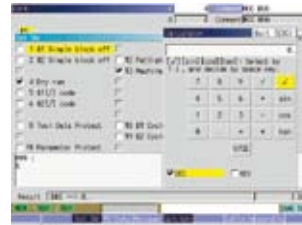
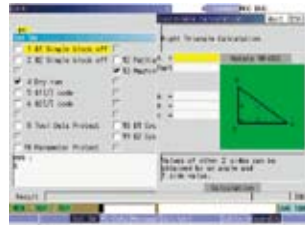
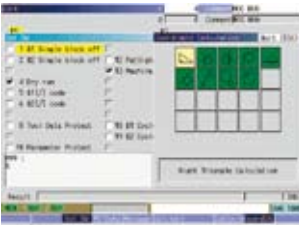


HMI (Human Machine Interface) Adopted

Graphics displayed for each item and screens that display all the necessary information in one place greatly improve operating convenience.



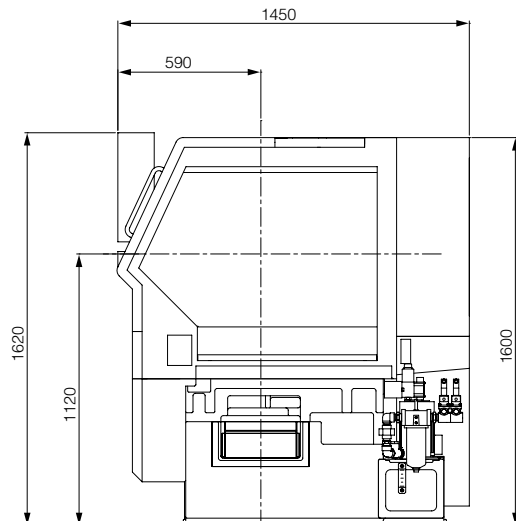
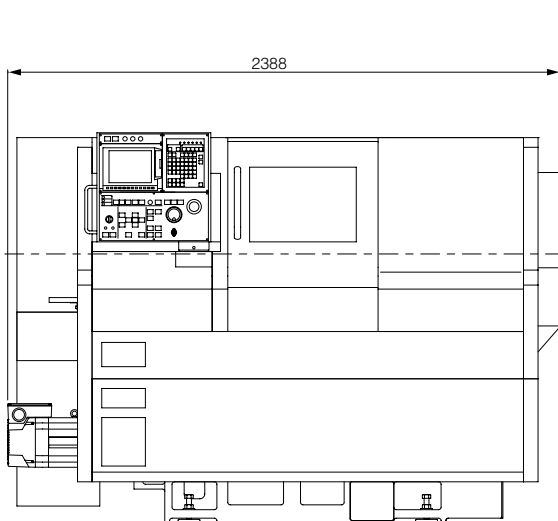
The function displays the list of G and M codes including explanations of the arguments to support programming.



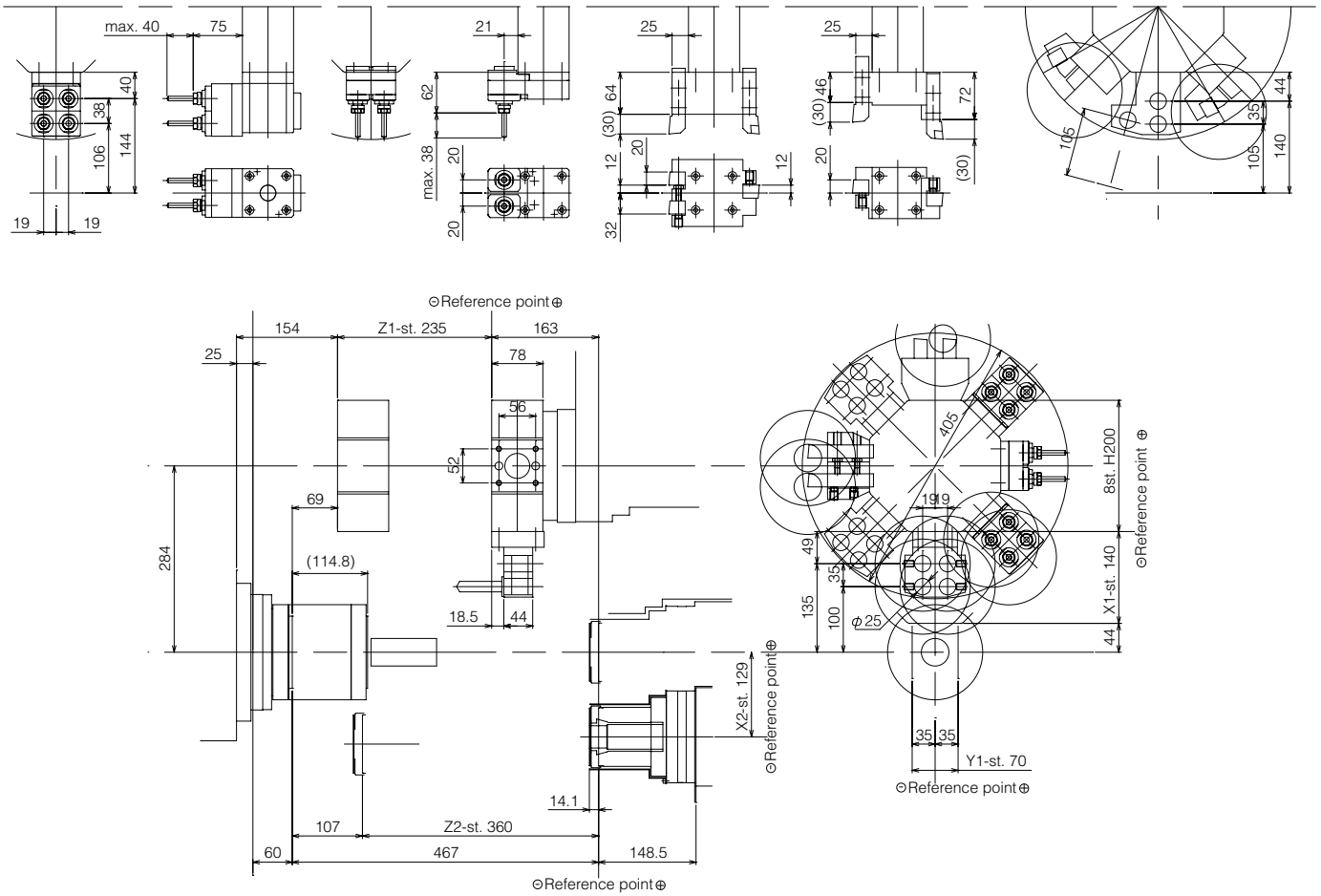
The coordinate calculation function and calculator function incorporated in the NC unit can be used for complex intersection point calculations.

Programs for canned cycles etc. can be created in the conversational style.

External view



Tooling area



Tooling system

