

# **Cincom Miyano Products Guide**

### Citizen Machinery Miyano provides production innovation solutions that are at the cutting edge in global terms through the new value of "Mass Customization", which is a response to a transformation of manufacturing.

Citizen Machinery Miyano believes that the requirements in 21st century manufacturing are greater efficiency to achieve "volume" and diversity to achieve "individualization", and that "innovative manufacturing" that integrates and concurrently achieves these two conflicting goals is the new value for the manufacturing required in the 21st century. Through it, we grasp and interpret the transformation of manufacturing, and provide production innovation solutions.

In recent years, in the automotive field and other areas of the manufacturing world, there have been efforts to come up with a response to diverse requirements that are spreading globally by skillfully combining standardized common parts and common modules. This is a new trend to innovatively evolve conventional manufacturing in order to efficiently make mass-produced products that are tailored to regions and tastes.

### Efforts Toward a Sustainable Society Together with Our Customers.

CITIZEN MACHINERY is pursuing an approach together with customers to help resolve issues with a view to achieving a sustainable society, through "production innovation solutions" that energize people and machines.



#### 46% reduction in CO2 emissions

By Using machine power consumption minimization technology & Citizen Control's <sup>1,2</sup> cycle time reduction technology.

- 1. Full Servo Technology
- 2. Optimized Air Control
- 3. Multi-axis multi-system by brid control

### **Reducing Work Time**

37% reduction in manual labor time by using Citizen's automation and labor-saving technologies.

- 1. Automatic Measurement & Correction
- 2. Thermal Displacement Correction

# Proprietary Technologies to Increase Productivity

1. LFV technology

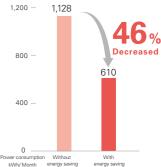
2. Leftover Material Reduction Function

3. Automatic Tool Changer

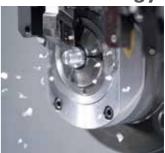
### **FA Friendly**



#### Effects of Energy-Saving

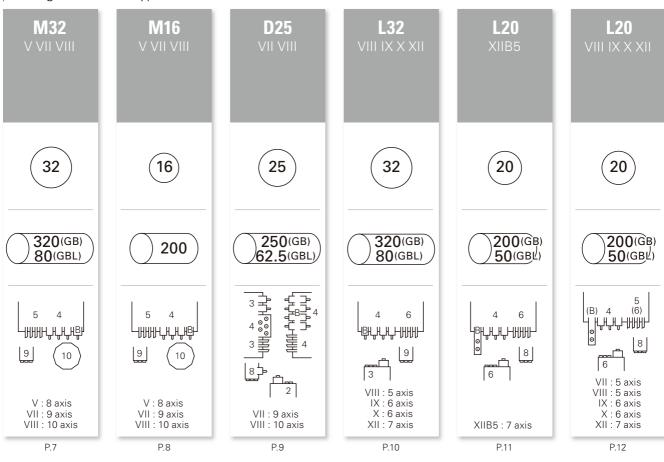


LFV technology



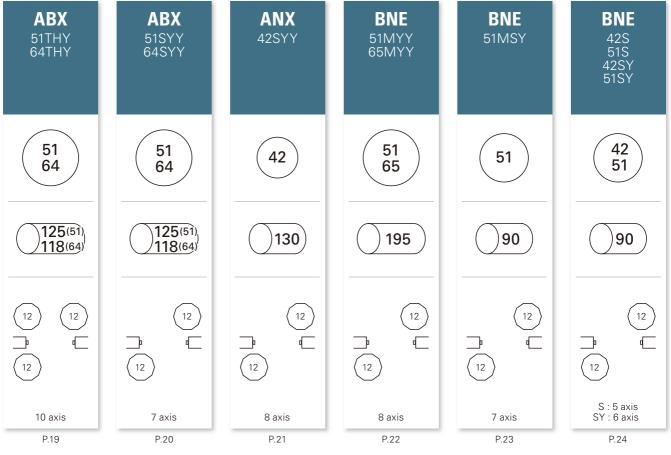
### Cíncom

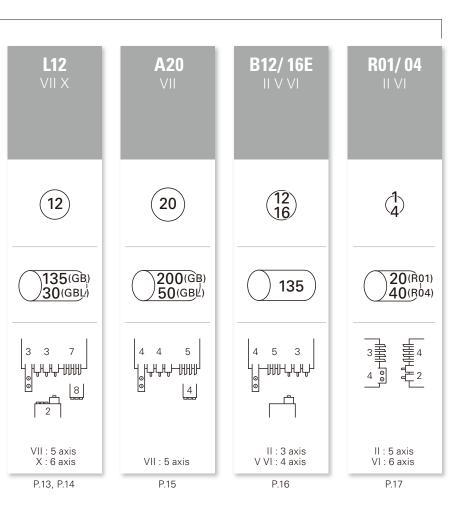
#### Sliding Headstock Type CNC Automatic Lathe

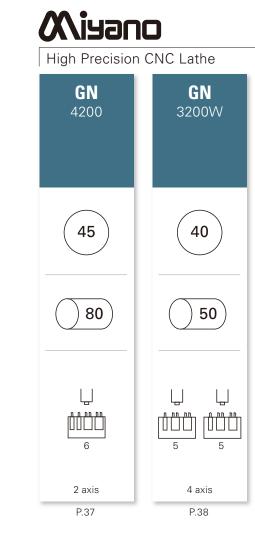


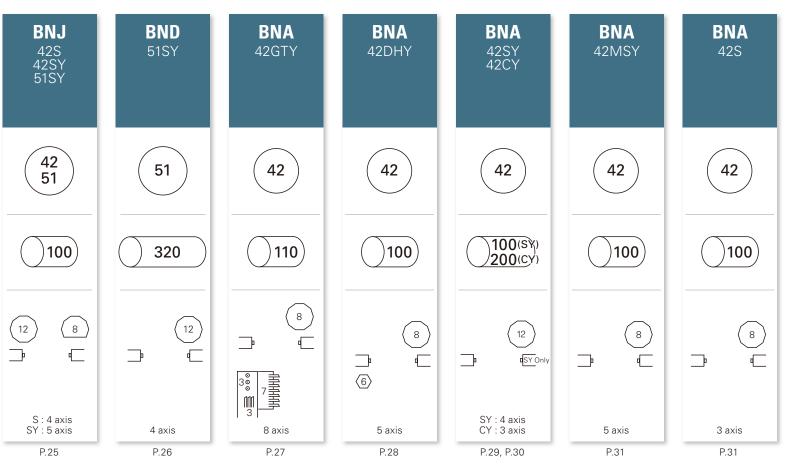
### Miyano

Fixed Headstock Type CNC Automatic Lathe

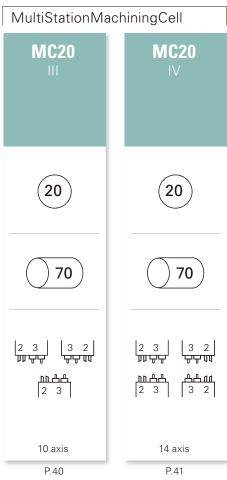


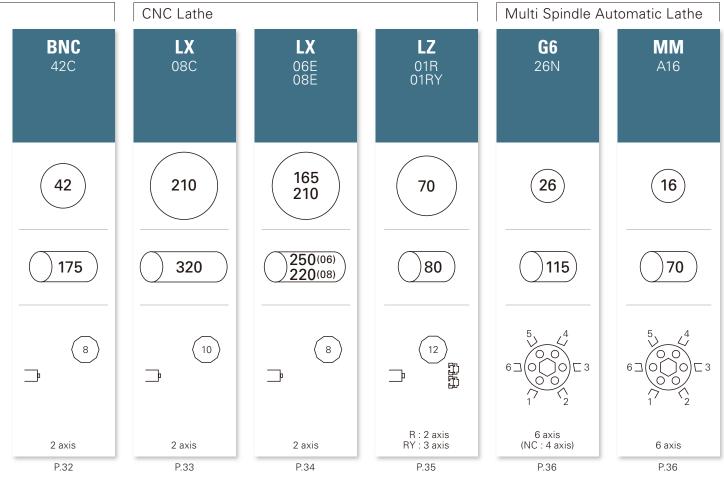














Cincom is synonymous with CNC automatic lathes that have a high level of versatility and can handle a wide range of complex machining. The sliding headstock type machines, which are in their element with the machining of long, small-diameter workpieces using a guide bushing, support the supply of bar stock from 1 mm diameter to 32 mmdiameter.



### The ultimate gang tool + turret Revamped M32

Sliding Headstock Type CNC Automatic Lathe



High-rigidity design aiming at the optimum balance between strength and weight through structural analysis.

Revamped turret tooling with "single drive" adopted for rotary tools and beefed-up rotary tool motors.

Degree of freedom in allocation of machining processes increased by featuring a B axis spindle on the gang tool post<sup>(Type VIII)</sup> and an angle adjustable spindle on the back tool post<sup>(Type VIII)</sup> to bolster back machining.





MODEL NAME		M32 V	M32 VII	M32 VIII
Control axis / line control group			9-axes, 3-lines control groups	10-axes, 3-lines control groups
Max. machining diameter	mm dia.	32 ( 38 <sup>°DP.</sup> )	32 ( 38 <sup>° op.</sup> )	32 ( 38 <sup>° OP.</sup> )
1 chuck machining length	mm	320(GB) 2.5D(GBL)	320(GB) 2.5D(GBL)	320(GB) 2.5D(GBL)
Max. spindle speed	min <sup>-1</sup>	8,000	8,000	8,000
No. mountable tools	tools	31 +	35 +	36 +
Spindle motor	kW	5.5 / 7.5	5.5 / 7.5	5.5/7.5



#### The M16: A High-end Model Covering 16 mm.

The B axis function of rotary tools on the gang tool post and the back tool post Y axis function give the advantage with complex shapes and secondary machining.

Sliding Headstock Type CNC Automatic Lathe



On the M16 type VIII, the rotary tools on the gang tool post feature a B axis as standard, and four tools each can be mounted for back and front machining.

The back tool post can accommodate holders at three positions, and up to nine tools can be used (type VII and VIII).





Control axis / line control group		8-axes, 3-lines control groups	9-axes, 3-lines control groups	10-axes, 3-lines control groups
Max. machining diameter	mm dia.	16	16	16
1 chuck machining length	mm	200	200	200
Max. spindle speed	min <sup>-1</sup>	12,000	12,000	12,000
No. mountable tools	tools	25+	29+	36+
Spindle motor	kW	2.2/3.7	2.2/3.7	2.2/3.7





### Double Gang Tool Post with B Axis Control. Comprehensive tool configuration supporting high productivity.

Sliding Headstock Type Automatic CNC Lathe



The double gang tool construction allows a tool not engaged in machining to be prepared for the next machining, shortening non-cutting time.

Full range of machining realized with a total of up to 59 diverse front/back tools.

Cutting time shortened by machining with three tools simultaneously: two front tools and a tool on the independent back tool post. Featuring a B axis control that can be used for either front or back machining and allows contouring with simultaneous 5-axis control, expanding the range of turning work.





Control axis / line control group		9 axes, 3 axis control groups	10 axes, 3 axis control groups
Max. machining diameter	mm dia.	25	25
Machining length per chucking	mm	250(GB) 2.5D(GBL)	250(GB) 2.5D(GBL)
Spindle speed	min <sup>-1</sup>	10,000	10,000
Number of mountable tools	tools	59	43
Spindle motor	kW	3.7/ 5.5	3.7/ 5.5



### Cincom's Time-tested L Series Adopts Modular Design

Sliding Headstock Type CNC Automatic Lathe



Ranging from a 5-axis machine with excellent cost performance to a high-end machine equipped with B axis and back tool post Y axis.

Workpiece conveyor equipped as standard.





MODEL NAME		L32 VIII	L32 IX	L32 X	L32 XII
Control axis / line control group		5-axes,2-lines control groups	6-axes,2-lines control groups	6-axes, 2-lines control groups	7-axes, 2-lines control groups
Max. machining diameter	mm dia.	32 38 <sup>0P</sup>	32 38 <sup>0P</sup>	32 38 <sup>0P</sup>	32 38 <sup>0P</sup>
1 chuck machining length	mm	320(GB) 80(GBL)	320(GB) 80(GBL)	320(GB) 80(GBL)	320(GB) 80(GBL)
Max. spindle speed	min <sup>-1</sup>	8,000	8,000	8,000	8,000
No. mountable tools	tools	30	36	44	40
Spindle motor	kW	3.7/7.5	3.7/7.5	3.7/7.5	3.7/7.5
Spindle motor	kW	3.7/7.5	3.7/7.5	3.7/7.5	3.7/7.5



### The L20 XIIB5 finally enables simultaneous 5-axis control. Improved basic performance, along with great advances in ease of use.

Sliding Headstock Type CNC Automatic Lathe



B-axis tools expand the machining range for the front spindle to 110°. This allows more complex machining with higher accuracy. The number of turning tools is increased to six, resolving tool shortages.

LFV can now be used for back machining, eliminating problems with chip entanglement.

The available peripheral units include motor-driven knock-out devices, loaders/ unloaders, ATC units, and servo-driven chucking devices.





MODEL NAME		L20 XIIB5
Control axis / line control group		7-axes, 2-lines control groups
Max. machining diamete	mm dia.	20 25.4 <sup>OP</sup>
1 chuck machining length	mm	200(GB) 50(GBL)
Max. spindle speed	min <sup>-1</sup>	10,000
No. mountable tools	tools	41
Spindle motor (Cont./ 15min./ 10%ED	kW	2.2/ 3.7/ 5.5

Sliding Headstock Type



### L series revamped. B axis for rotary tools, and Y2 axis control for the opposite tool post.

Sliding Headstock Type CNC Automatic Lathe



Ranging from a 5-axis machine with excellent cost performance to a high-end machine equipped with B axis and opposite tool post Y axis.

The detachable guide-bushing device is easy to change.





MODEL NAME		L20 VIII	L20 IX	L20 X	L20 XII
Control axis / line control group		5-axes, 2-lines control groups	6-axes, 2-lines control groups	6-axes, 2-lines control groups	7-axes, 2-lines control groups
Max. machining diameter	mm dia.	20 25 <sup>0P</sup>	20 25 <sup>0P</sup>	20 25 <sup>0P</sup>	20 25 <sup>0P</sup>
1 chuck machining length	mm	200(GB) 50(GBL)	200(GB) 50(GBL)	200(GB) 50(GBL)	200(GB) 50(GBL)
Max. spindle speed	min <sup>-1</sup>	10,000	10,000	10,000	10,000
No. mountable tools	tools	37	33	44	40
Spindle motor	kW	2.2/3.7	2.2/3.7	2.2/3.7	2.2/3.7





### Modular Tooling System Adopted Y2 Axis Added for Greater Functionality

Sliding Headstock Type CNC Automatic Lathe



Versatile tooling layout achieved, including slanted hole machining with the angle adjustable end face spindle.

Back machining capability enhanced by equipping the back spindle with a Y2 axis Built-in motor adopted as the drive system for the back spindle: realizes a maximum spindle speed of 12,000 min<sup>-1</sup>





Control axis / line control group			6-axes, 2-lines control groups
Max. machining diameter	mm dia.		12
1 chuck machining length	mm	GB GBL	135 30
Max. spindle speed	min <sup>-1</sup>	GB GBL	15,000 12,000
No. mountable tools	tools		38
Spindle motor	kW		2.2/3.7



# The L12: Handling All Small-diameter Work with 5-axis Control. Detachable Guide Bushing and 15,000 min<sup>-1</sup> High-speed Spindle.

Sliding Headstock Type CNC Automatic Lathe



The guide bushing can be fitted and removed simply.

It shortens cycle times with a front spindle capable of high-speed rotation of 15,000  $\rm min^{-1}$  and 10,000  $\rm min^{-1}$  rotary tools.

A full range of optional tooling is available. it possible to mount end face rotary tools and a slitting spindle for back machining.





MODEL NAME		L12 VII		
Control axis / line control group		5-axes,2-lines control groups		
Max. machining diameter	mm dia.	12		
1 chuck machining length	mm	135(GB) / 30(GBL)		
Max. spindle speed	min <sup>-1</sup>	15,000		
No. mountable tools	tools	27		
Spindle motor	kW	2.2/3.7		





## An evolving 5-Axis CNC sliding head machine, featuring the ability to switch between guide bush and non-guide bush types.

Sliding Headstock Type CNC Automatic Lathe



New capability to switch between guide bush and non-guide bush operating modes. A20 is capable of machining bar stockup to 25 mm dia. by installing the optional 25 mm size chuck device.



MODEL NAME		
Control axis / line control group		5-axes, 2 lines control groups
Max. machining diameter	mm dia.	20, 25 <sup>op.</sup>
1 chuck machining length	mm	200(GB)/50(GBL)
Max. spindle speed	min <sup>-1</sup>	10,000
No. mountable tools	tools	21
Spindle motor	kW	2.2/3.7





### Cincom's B series 'best seller' model has been revamped to expand the machining range up to 16 mm. And the cost has been substantially reduced.

Sliding Headstock Type CNC Automatic Lathe



Running the calculations in NC programs in advance shortens the processing time during operation, which helps to cut cycle times.

Virtual XY axis control is used to achieve a tool layout that is not too focused on the ball screw axis.



MODEL NAME			B12/16E V	
Control axis / line control group		3/ 1	4/1	4/ 1
Max. machining diameter	mm dia.	B12E : 12 B16E : 16	B12E : 12 B16E : 16	B12E : 12 B12E : 16
1 chuck machining length	mm	135 (60 with RGB)	135 (60 with RGB)	135 (60 with RGB)
Max. spindle speed	min <sup>-1</sup>	B12E : 12,000 (8,000 with RGB) B16E:10,000 (8,000 with RGB)	B12E : 12,000 (8,000 with RGB) B16E:10,000 (8,000 with RGB)	B12E : 12,000 (8,000 with RGB) B16E:10,000 (8,000 with RGB)
No. mountable tools	tools	9 / 11	13	16
Spindle motor	kW	2.2/3.7	2.2/3.7	2.2/3.7





### New R series - the solution for ultra-small-diameter parts.

Sliding Headstock Type CNC Automatic Lathe



The R01/04 Type I has a compact design with a depth of only 455 mm. This means it can be installed in restricted spaces in plants. All the models in the R/RD series achieve a

All the models in the R/RD series achieve a maximum continuous spindle speed of 20,000 min<sup>-1</sup>. These spindles can be used together with a rotary guide bushing device.



MODEL NAME		R01/04 II	R01/04 VI
Control axis / line control group		5-axes, 2-lines control groups	6-axes, 2-lines control groups
Max. machining diameter	mm dia.	R01 : 1 R04 : 4	R01 : 1 R04 : 4
1 chuck machining length	mm	R01 : 20 R04 : 40	R01 : 20 R04 : 40
Max. spindle speed	min <sup>-1</sup>	20,000	20,000
No. mountable tools	tools	13	17
Spindle motor	kW	0.5/0.75	0.5/0.75



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Bar machines for complex processing that address a broad range of needs for more advanced production work the field of bar work processing, which has been transformed by great improvements in precision of parts and sophistication of functions.

Chuckers for complex processing, designed for everything from intensive cutting of stock materials to secondary processing of sophisticated parts, combining loading systems for significant labor savings.

Traditional 6-spindle Automatics, boasting both high productivity and high accuracy.

> Miyano's product line offers the optimum solution for almost any conceivable need.



### The flagship of Miyano CNCs for bar work The perfect turning center

Fixed Headstock Type CNC Automatic Lathe



Upper/lower turrets equipped with Y-axis function and left/right spindles for simultaneous left and right processing, enabling faster completion of products requiring front/back processing.

Up to 36 revolving tools (40 Nm) realize high rigidity and stable milling.



MODEL NAME			ABX-51THY	ABX-64THY
Max Machining Diameter of Bar Work	SP1 / SP2	mm dia.	51 / 51	64/51
Standard Machining Length		mm	125	118
Spindle Motor (30 min. / Cont.)	SP1	kW	15 / 11	15 / 11
	SP2	kW	7.5/5.5	7.5 / 5.5
Spindle Speed Range	SP1 / SP2	min <sup>-1</sup>	5,000 / 5,000	4,000 / 5,000
Type of Turret	HD1, HD2 & HD3		12 St.Turret	12 St.Turret
Max. Number of Revolving Tools		tools	36	36



# Simultaneous left/right machining with 2 Y-axis turrets enables faster processing

Fixed Headstock Type CNC Automatic Lathe



Both 2 turrets with the Y-axis function means flexible tooling without any concern for processing balance restrictions.

Up to 24 high-rigidity, high-torque (40 Nm) revolving tool stations.



MODEL NAME			ABX-51SYY	ABX-64SYY
Max Machining Diameter of Bar Work	SP1 / SP2	mm dia.	51 / 51	64 / 51
Standard Machining Length		mm	125	118
Spindle Motor (30 min. / Cont.)	SP1	kW	15/ 11	15 / 11
	SP2	kW	7.5/5.5	7.5/5.5
Spindle Speed Range	SP1/SP2	min <sup>-1</sup>	5,000 / 5,000	4,000 / 5,000
Type of Turret	HD1 & HD2		12 St.Turret	12 St.Turret
Max. Number of Revolving Tools		tools	24	24





## Now a turret lathe from Miyano brand is equipped with LFV technology for the first time.

Fixed Headstock Type CNC Automatic Lathe

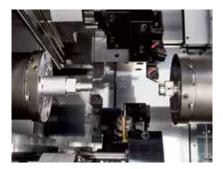


The machine is configured with two spindles, two turrets and a double Y axis, and the rapid traverse rate has been increased by adopting linear guides for all axes.

The spindles have built-in motors, which shortens acceleration/deceleration times and improves response time.

Compact machine body only 2,650 mm wide. The ANX achieves advanced functions, space savings and high productivity.





			ANX-42SYY
Max Machining Diameter of Bar Work	SP1 / SP2	mm	42/42
Standard Machining Length		mm	130
Spindle Motor (30 min. / Cont.)	SP1 & SP2	kW	11 / 7.5
Spindle Speed Range	SP1 & SP2	min-1	6,000
Type of Turret	TR1 & TR2		12 St.Turret
Max. Number of Revolving Tools		tools	24



Two 12-station turrets with Y-axis provide even more flexible tooling due to optimal process allocation that is not restricted by machining balance limitations

Fixed Headstock Type CNC Automatic Lathe



The two turrets equipped with a Y axis, and mechanical structure formed from the front and back spindles serve to reduce cycle times by enabling high-efficiency machining such as simultaneous left/right and up/down machining for superimposed and similar types of machining.

A new HMI (Human Machine Interface)equipped operating panel with a 15-inch touch panel has been adopted to improve machine operability for workers.



MODEL NAME			BNE-51MYY	BNE-65MYY
Max Machining Diameter of Bar Work		mm dia.	51	65
Standard Machining Length		mm	195	195
Spindle Motor (30 min. / Cont.)	SP1	kW	18.5 / 15	18.5 / 15
(15 min. / Cont.)	SP2	kW	11 / 7.5	11 / 7.5
Spindle Speed Range	SP1 & SP2	min <sup>-1</sup>	5,000	5,000
Type of Turret	TR1 & TR2		12 st. turret	12 st. turret
Max. Number of Revolving Tools		tools	12 +12	12 +12





### Realizes "simultaneous hole machining at both ends" and "simultaneous machining with three tools" using superimposition control

Fixed Headstock Type CNC Automatic Lathe



Mitsubishi's NC unit is used. Its useful support screens for programming assistance and other purposes present the necessary information in an easy-to-find manner, helping to improve operating convenience.

The machining diameter on SP2 has been increased to 51 mm dia., expanding the range of products.



Max Machining Diameter of Bar Work	SP1 & SP2	mm dia.	51
Standard Machining Length		mm	90
Spindle Motor (30 min. / Cont.)	SP1	kW	15/11
	SP2	kW	7.5/5.5
Spindle Speed Range	SP1 & SP2	min <sup>-1</sup>	5,000
Type of Turret	HD1 & HD2		12 st. turret
Max. Number of Revolving Tools		tools	12+12



# 2 spindle + 2 Turret Model enables high productivity, high-accuracy and complex processing.

Fixed Headstock Type CNC Automatic Lathe



Upper/lower turrets enable balanced cutting and complex machine,



MODEL NAME			BNE-42S / 42SY	BNE-51S / 51SY
Max Machining Diameter of Bar Work	SP1/SP2	mm dia.	42/ 42	51/42
Standard Machining Length		mm	90	90
Spindle Motor (30 min. / Cont.)	SP1	kW	15 / 11	15/ 11
	SP2	kW	5.5/3.7	5.5/3.7
Spindle Speed Range	SP1/SP2	min-1	6,000/5,000	5,000/ 5,000
Type of Turret	HD1		12 St.Turret	12 St.Turret
	HD2		8 St.Turret	8 St.Turret
Max. Number of Revolving Tools		tools	24	24





# Uniquely shaped back-working turret reduces production time greatly

Fixed Headstock Type CNC Automatic Lathe



Overlap control on main turret with both of main and Sub-Spindles, or independent simultaneously machining on main spindle to main turret and sub-spindle to Sub-turret for fast production.

Compact floor space although 2 spindles and 2 turrets machine construction.



MODEL NAME			BNJ-42S / 42SY	BNJ-51SY
Max Machining Diameter of Bar Work	SP1/SP2	mm dia.	42 / 42	51 / 42
Standard Machining Length		mm	100	100
Spindle Motor (30 min. /Cont.)	SP1	kW	15/11	15/11
	SP2	kW	7.5 / 5.5	7.5 / 5.5
Spindle Speed Range	SP1/SP2	min <sup>-1</sup>	6,000/5,000	5,000/5,000
Type of Turret	HD1		12 St.Turret	12 St.Turret
	HD2		8 St.Turret	8 St.Turret
Max. Number of Revolving Tools	SP1	tools	12	12



### Multipurpose midsize CNC turning center 51mm bar capacity, 2 spindles and 1 turret with Y-Axis

Fixed Headstock Type CNC Automatic Lathe



Y-axis function is more capable for complex high-value parts.

Mono block slant bed and square slide for efficient chip flow and high accuracy.



MODEL NAME			
Max Machining Diameter of Bar Work	SP1 / SP2	mm dia.	51 / 42
Standard Machining Length		mm	320
Spindle Motor (30 min. /Cont.)	SP1	kW	15 / 11
	SP2	kW	5.5/3.7
Spindle Speed Range	SP1 / SP2	min <sup>-1</sup>	5,000 / 5,000
Type of Turret	HD1		12 St.Turret
Max. Number of Revolving Tools		tools	12





The high speed of gang tools is added to the diversity of the turret, opening up a wide range of machining possibilities.

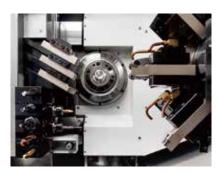
Fixed Headstock Type CNC Automatic Lathe



The machine can handle balance cutting and pinch milling in addition to 3-axiscontrol-group overlapping, giving exceptional machining efficiency.

By using 4 hole tool holder and tool holders for back machining, up to 45 tools can be mounted.





MODEL NAME			BNA-42GTY
Max Machining Diameter of Bar Work	SP1/SP2	mm dia.	42/34
Max. Machining Length for Bar Work		mm	110 mm
Spindle Motor (30 min. / Cont.)	SP1	kW	11 / 7.5
	SP2	kW	5.5/3.7
Spindle speed range	SP1/SP2	min <sup>-1</sup>	6,000/5,000
Type of Turret	HD1		8-station turret
	HD2		Gang tool post
Maximum mountable tools			45



### Main turret with Y-axis function Equipped with sub turret with 2 turrets for rapid processing of complex-shaped work

Fixed Headstock Type CNC Automatic Lathe



Simultaneous left/right processing with a main turret and compact sub-turret and overlap processing sharply cut the machining time.

In addition to its 5-inch power chuck on the front spindle, the back spindle can also mount a 4-inch power chuck for flexible accommodation of forged parts.



MODEL NAME			BNA-42DHY
Max Machining Diameter of Bar Work	SP1 / SP2	mm dia.	42/34
Standard Machining Lengtha		mm	100
Spindle Motor (15 min. / Cont.)	SP1	kW	7.5 / 5.5
	SP2	min-1	5.5/3.7
Spindle Speed Range	SP1/SP2		6,000 / 5,000
Type of Turret	HD1		8 St.Turret
	HD2		6 St.Turret
Max. Number of Revolving Tools		tools	8





### Base and Turret Rigidity Increased Basic Performance as a Bar Work Machine Improved

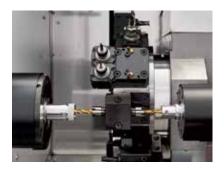
Fixed Headstock Type CNC Lathe



With 12 stations and increased rigidity, the turret achieves high efficiency through a wide range of tools and left and right simultaneous machining, including superimposition machining.

Inheriting the traditional platform construction of the Miyano brand, the bed features improved damping characteristics with the increased weight and greater size.





MODEL NAME			BNA-42SY
Max Machining Diameter of Bar Work	SP1/SP2	mm dia.	42/34
Standard Machining Lengtha		mm	100
Spindle Motor (15 min. / Cont.)	SP1	kW	11/ 7.5 / 5.5
	SP2	kW	5.5/3.7
Spindle Speed Range	SP1/SP2		6,000 / 5,000
Type of Turret	HD1	min-1	12 St.Turret
Max. Number of Revolving Tools		tools	12

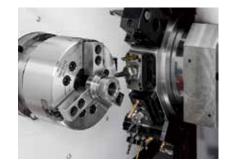


### CY type enables use as a chucker machine

Fixed Headstock Type CNC Automatic Lathe



Standard equipment includes mounting eyes for the legs of the gantry loader. This chip conveyor allows for rear discharge in addition to the current side discharge.



MODEL NAME			BNA-42CY
Max Machining Diameter of Bar Work	SP1	mm dia.	42
Max. Machining Length for Bar Work		mm	200
Spindle Motor (15%/ 15 min/ cont.)	SP1	kW	11/ 7.5 / 5.5
Spindle Speed Range	SP1	min <sup>-1</sup>	6,000
Type of Turret	TR1		12st. turret
Max. Number of Revolving Tools			12
Power Chuck Size	SP1		5" / 6" hollow chucks





The unique control system improves productivity by enabling overlap control and reduction of non-cutting time.

Fixed Headstock Type CNC Automatic Lathe



The turret features a Y axis and half-indexing, expanding the machining possibilities. The machine is equipped with the largest spindle motor in the series, enabling powerful cutting.



<b>ASY</b>
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rret



Space-saving design combined with advanced functions and high accuracy A new standard for bar work machines

Fixed Headstock Type CNC Automatic Lathe



Miyano's unique control technology cuts nonmachining time by 27% (compared to earlier equivalent Miyano product).



MODEL NAME			BNA-42S
Max Machining Diameter of Bar Work	SP1/SP2	mm dia.	42/34
Standard Machining Length		mm	100
Spindle Motor (15 min. / Cont.)	SP1	kW	7.5 / 5.5
	SP2	kW	5.5/3.7
Spindle Speed Range	SP1/SP2	min-1	6,000 / 5,000
Type of Turret	HD1		8 St.Turret
Max. Number of Revolving Tools		tools	8



# We have revamped the concept for the BNC, a renowned machine in the Miyano heritage, and resurrected it as an "NC barfeed/chucking lathe".

Fixed Headstock Type CNC Automatic Lathe



Structured for powerful cutting by combining a high-rigidity bed with a platform construction and hand scraped box slideways, featuring exceptional rigidity and damping characteristics, on all axes.

Comes with a comprehensive custom menu screen, which includes a machining support function that helps shorten non-cutting time called the "spindle speed attainment level changing function".



MODEL NAME			BNC-42C
Max Machining Diameter of Bar Work	SP1	mm dia.	42
Standard Machining Length		mm	175*
Spindle Motor (15 min. / Cont.)	SP1	kW	7.5 / 5.5
Spindle Speed Range	SP1	min-1	6,000
Type of Turret	HD1		8 St.Turret
Max. Number of Revolving Tools		tools	8

\*Restrictions apply depending on the chuck. JPN24, B&S#22D, 5" power chuck ... 175 mm, DIN173E ... 160 mm, H-S20 ... 150 mm





Chucker featuring high-rigidity, mono block slant bed, and 10-position turret for intensive machining work

CNC Lathe



Powerful 10 station turret, powerful curvic coupling, positive tool holding by direct wedge clamping for OD Turning, mono block slant bet for efficient chip flow and rigid spindle construction. Ideal for High powered and accurate machining such as hardened material work pieces.



MODEL NAME			LX-08C
Power Chuck Size	oil hydraulic	inch	8
Max. Turning Dia.		mm	210
Max. Turning Length		mm	320
Spindle Motor (30 min. / Cont.)		kW	11 / 7.5
Spindle Speed Range		min <sup>-1</sup>	4,000
Type of Turret			10St.Turret
Max. Number of Revolving Tools		tools	



The high levels of rigidity are ideal for "Hard Turning" applications which can eliminate expensive grinding operations

CNC Lathe



Combines a gantry loader and NC loader for labor-saving operation.



MODEL NAME			LX-06E	LX-08E
Power Chuck Size	oil hydraulic	inch	6	8
Max. Turning Dia.		mm dia.	165	210
Max. Turning Length		mm	250	220
Spindle Motor (30 min. / Cont.)		kW	7.5/5.5	11 / 7.5
Spindle Speed Range		min-1	5,000	4,000
Type of Turret			8 St.Turret	8 St.Turret





# Chucker featuring movable spindle and automation system, for high-speed loading

CNC Lathe



Reduces loading time substantially, a movable spindle that transfers processed work pieces to a hand inside the machine.



MODEL NAME			
Power Chuck Size	oil hydraulic	inch	6
Max. Turning Dia.	SP1	mm	70
Max. Turning Length		mm	80
Spindle Motor (30 min. / Cont.)	SP1	kW	7.5/5.5
Spindle Speed Range	SP1	min <sup>-1</sup>	6,000
Type of Turret	HD1		12st.Turret
Max. Number of Revolving Tools		tools	6
Max. Work Size		mm dia.	70×80
Max. Work Weight		kg	0.7 (×2)





# Combines NC with a traditional 6-spindle Automatics, for high-accuracy, volume production, even for processing long work pieces

Multi spindle CNC Automatic Lathe



Positioning on the spindle carrier is performed by a curvic coupling, and any time differential between axes is corrected by an offset function. An NC slide for finishing results realizes a level of accuracy that has never been possible before.



MODEL NAME		G6-26N
Max Machining Dia. of Bar Work	mm dia.	26
Bar feeding length	mm	115
Max. Bar length	mm	4,000
Spindle Motor / Cam Axis Motor	kW	15 / 4
Spindle Speed Range	min <sup>-1</sup>	4,000
No. of Tools on End-slide		6
No. of Cross Slide		6
No. of NC slide		2



### Multi-spindle automatic lathe for the most sophisticated needs

A multi-spindle Automatics that boasts both high accuracy and high productivity Multi spindle Automatic Lathe



Features a Hirth coupling carrier positioning, for higher repeatability acczuracy. Extremely fine control, independent variablespeed and gearless main motor and feed motor.



		MM-A16
Max Machining Dia. of Bar Work	mm dia.	16
Bar feeding length	mm	70
Max. Bar length	mm	4,000
Spindle Motor / Cam Axis Motor	kW	15/4.5
Spindle Speed Range	min-1	4,000
No. of Tools on End-slide		6
No. of Cross Slide		6
No. of NC slide		2





# Advanced high precision machining is achieved with extended slide stroke and higher rapid feed on slides.

**Ocean technology** 



Designed for high-precision machining, A tool table with an X-axis slide stroke 50 mm bigger than on existing machines allows a wide range of tools. Can of course be handled manually, but the machine also flexibly accommodates high-speed gantry loaders or robots.



MODEL NAME			GN-4200
Power Chuck (Precision)		inch	4
Collet Chuck	Stationary Type/ Pull Type	mm dia.	35 / 40
Max.Machining Length		mm	80
Spindle Motor (15 min. / Cont.)		kW	5.5/3.7
Spindle Speed Range	Standard type	min <sup>-1</sup>	8,000
Type of turret			Horizontal Linear Turret



# Functions equivalent to two GN-3200 have been integrated into one for further improvement of productivity

Ocean technology High Precision CNC Lathe



Various automation needs are met by combining peripheral devices such as the high-speed gantry loader that allows selection of either one or two 2 saddles, in/out stocker, etc.



MODEL NAME			GN-3200W
Power Chuck (Precision)	Pneumatic	inch	3(4)
Collet Chuck	Stationary Type/ Pull Type	mm dia.	35/40
Diaphragm Chuck		inch	4
Max.Machining Length		mm	50
Spindle Motor (15 min. / Cont.)		kW	2.2/1.5
Spindle Speed Range		min-1	8,000
Type of turret			Horizontal Linear Turret



## Space-saving, high-prevision chucker inheriting the traditional high-accuracy design

#### Ocean technology

High Precision CNC Lathe

### GN3200

Heat symmetric machine frame and bed, wing type headstock and separate coolant tank that all for high precision.



Power Chuck (Precision)	Pneumatic	inch	3 (4)
Collet Chuck	Stationary Type/ Pull Type	mm dia.	35/40
Diaphragm Chuck		inch	4
Max.Machining Length		mm	50
Spindle Motor (15 min. / Cont.)		kW	2.2/1.5
Spindle Speed Range		min <sup>-1</sup>	8,000
Type of turret			Horizontal Linear Turret





## The compact design requiring only 1.0m2 of floor space saves space and reduces cost

CNC Lathe



Compact yet highly-rigid base realizes high accuracy.

Optional parts feeder enables loading, machining and unloading on a single machine.



			RL01 III	RL01 V
Collect Chuck	StationaryType/ Pull Type	mm dia.	10	10
Diaphragm chuck	Pneumatic	inch	3	3
Max.Machining Length		mm	50	50
Spindle Motor (15 min. / Cont.)		kW	0.4 (Inverter)	1.1 / 0.55 (AC Spindle)
Spindle Speed Range		min-1	6,000	6,000
Max. Number of Revolving Tools			Horizontal Linear Turret	Horizontal Linear Turret



# Opening up new possibilities in machining technology with LFV

High Precision CNC Lathe



Vibrating slide makes chips split, reducing the troubles of tangled chips. Low cutting resistance reduces the load on a chuck.





MODEL NAME			VC03
Maximum bar diameter (Pull type collet chuck)	Pneumatic	mm dia.	40
Maximum work length	StationaryType/ Pull Type	mm	50
Spindle Motor (15 min. / Cont.)		kw	3.7/2.2
Spindle Speed Range		min-1	8,000
Rapid feed rate (X-axis/Y-axis)		m/min	20/30



### Integrating three NC lathes into a single machine unit with three modules realizes an ultra-high-productivity machine

MultiStationMachiningCell

### **MC20** III

Machining processes are shared by three modules. Simultaneous multi-spindle machining improves productivity.

It is possible to substantially reduce the floor space requirements while maintaining the same production capacity.

No loader between processes is required: improves accuracy and reduces setup time.





Model name		MC20 III
Chuck size	inch	4
Max. through-spindle workpiece diameter	mm dia.	20
Max. workpiece length	mm	70
Number of tools to be mounted (standard machining specification)	tools	5(1Module)
Spindle speed	min <sup>-1</sup>	8,000
Motor for front spindle	kW	2.2/3.7



### Incorporating Four Modules Further Evolution of the Multi-station Machining Cell

#### MultiStationMachiningCell



Efficiency improved by sharing machining processes among the four modules. Line comprising four single-spindle lathes

integrated into a single machine. Improves the productivity per unit area. The machine features a 15-inch touch

panel as the operation panel. The graphical HMI improves visibility and allows intuitive operation.





		MC20 IV
Chuck size	inch	4
Maximum through-spindle workpiece diameter	mm	20
Maximum workpiece length	mm	70
Number of tools to be mounted (standard machining specification)		5(one module)
Spindle speed	min-1	8,000
Spindle motor	КW	2.2/ 3.7



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