CITIZEN





Fixed Headstock Type CNC Automatic Lathe



The BNA series packs sophisticated functions and high accuracy into a space-saving compact body.

The BNA series aims to set the new standard for machines for cutting bar stock, based on the concept of "space savings and sophisticated functions".

The BNA-42S enables back machining with its 2 spindles and 1 turret and combines a high level of basic performance with convenience of use.

The BNA-42DHY achieves further shortening of cycle times by adding a compact sub-turret to provide superimposition machining and other forms of simultaneous machining.

The BNA series offers high performance in compact space, round-the-clock stability and accuracy; ease of use for fast set-ups and quick changeovers.







DHY



Basic construction and axis configuration

High-rigidity scraped slideways support powerful cutting

High-rigidity scraped slideways are used on all axes except for X axis of SP2. These slideways with face contacts have exceptional rigidity and damping characteristics, achieve powerful cutting and help to prolong the lives of cutting tools.



Y-axis function and sub-turret

The combination of the Y-axis function incorporated in the main turret (HD1) and the compact 6-station sub-turret (HD2) can achieve further reductions in machining time through overlap processing and other forms of machining performed simultaneously on the main and sub spindles.



Simultaneous front/back machining



Power chuck on back spindle

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.



S



Basic construction and axis configuration

Stable, accurate and strong

The machine bed has a platform structure with traditional square, hand-scraped slidways for assured accuracy and long tool life.

The unit mounting faces are not distorted by the effects of heat and even if the units are subject to thermal expansion they are all displaced in the same direction (perpendicular to their mounting faces), minimising relative deviations between the workpiece and cutting tools.



Sub-spindle enables complete machining

The S model delivers increased versatility with the provision of a sub-spindle for pick-off and back machining. Multiple tool holders enable the use of many tools for unrivalled flexibility in a bar turning machine of this compact size.

All BNA models incorporate the latest control technology for reduced non-cutting time and improved productivity.



Back machining using tools installed in a triple sleeve holder

Extensive tool range

The 8 station turret with half indexing in combination with multi tool holders helps to standardise set-ups and enable fast changeover to a different workpiece.

With double, triple and even quad tool holders you are assured of sufficient tool positions even for complex workpieces.



Substantial reduction in non-cutting time

Miyano's unique control system cuts non-cutting time by 27% (compared to previous model), achieving a 13% reduction in terms of total cycle time.



Workpiece used for data measurement



Program handwheel (DHY)

Easy prove-out is assured by using the hand-wheel function.





Options



Part catcher Catches

workpieces without damaging them and transfers them to the part conveyor.



Part conveyor

Transports workpieces received from the part catcher to outside the machine.

Chip conveyor

Ejects chips smoothly. Various types are available to suit the application.



Bar feeder

A range of barfeeders are available for short or long bars.



Support software

Arbitrary point control by B (Z2) axis

The approach for secondary operation can be made at any required point on the B (Z2) axis, so there is no need to consider the position of the B (Z2) axis when setting the offset for tools that operate on the sub-spindle (SP2).

Wasted motion is eliminated and a smooth transition from primary to secondary operation can be made at turret index, helping to reduce cutting time.

B (Z2) axis independent commands (S Type)

B (Z2) axis independent multiple block commands can make it possible for B (Z2) axis programs input in advance to run independently from the main program.

B (Z2) axis commands can contain maximum 10 blocks.



Machining program example

O1000; G591; G0 B-260.; G01 B-290.43 F4000.; M408; M118; G590;	G591 : B-axis program registration start [—] B-axis forward B-axis positioning M408 : M403 completion confirmation M118 : SP2 chuck close G590 : B-axis program registration end	
N8 (CUT OFF) M91; G28U0; M291; T0808M117; G0G97Z0.S2000M403P11; X23.0; M290; G506K0.05F500; G99G1X-1.0; G0X50.0M205;	M91 : SP1 position coder selection X-axis origin point return M291 : B-axis program execution start Turret selection, M117 : SP2 chuck open Z-axis positioning, M403SP1&Z Synchronous forward Immediate completion X-axis positioning M290 : B-axis program execution completion confirmation G506 : B-axis incremental move Cut off M205 : SP1&2 Synchronous stop	Synchronous Execution from M291

Machining support screens

You can call up the various support screens with a single touch, greatly improving working efficiency.



Machining data

Entering the machining length and position of the cut-off here makes it easier to measure geometry offsets and to set tools.



Total & preset counter Used to set the stop value for the product counter and to reset the count value.



Spindle and revolving tool unit

Allows you to set the speed range (in manual operation) of the spindle and revolving tools and to set the spindle override.

NO.	X1	Z1		
881	-80.000	188. 121		MACHINE
002	0.000	0.000	XI	0.000
803	0.000	0.000	21	0.000
004	0.000	0.000	X2	0.000
805	0.000	0.000	22	0.000
006	0.000	0.000		
807	8.000	0.000		
008	0.000	0.080		
009	0.000	0.000		
010	0.000	0.000		

Tool setting

Used to measure geometry offsets. It can also be used for tool mounting support, to ensure that the overhang of all tools is fixed at a constant value.

HU1 P	DI PUWER MUNITUR(CTCLE TIME) [KUN]					
	Power	∕hour	Operat.Time			
Γ	0.000	0.000	0.000			
1 [0,000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			

Power consumption monitor

Allows monitoring of the power consumption per cycle time, day, or month.



Maintenance Used to access maintenance settings.

NO.	CURRENT	PRESET	X-WEAR	Z-WEAR
881	271	800	0.802	0.000
002	770	1000	0.000	0.000
003	8	0	0.001	9.000
004	100	500	0.000	0.000
005	0	0	0.000	0.000
886	8	0	0.000	0.000
887	8	8	8.000	0.000
800	519	2000	0.000	0.000
009	0	0	0.000	0.000
810	9	0	0.000	0.000

Tool counter

Informs you of the timina (count-up) for tool changes in accordance with the set tool counter stop value. You can also enter wear offsets

DEV.	COUNT	PRESET	STATE
KMC1	1000	1000	REPLACE
KMC2	600	1000	
KMH1	950	1000	CAUTION
KMW1		0000	INVALID
ME LIME	. IU REPLI	HUE THE S	WITCH.

Electromagnetic switch maintenance

Used to set the ON/OFF usage count range for electromagnetic switches for notifying the replacement interval for these switches.

TO	DL MON	TOR	MONI	TORING	No	. 81	
N.	25	50	75	100	125	150	PEAK
x	*****						100
z		****	*****	****			103
Y							
B							
С							
A							
S1							
52							5

Tool monitor (option) Allows the user to set limit values for load on individual tools. This can help to prevent damage to tools by automatically stopping the machine if the tool load increases.

	Cutting	NotCutting	Operating
I	36.848	38.128	74.976
1	0.000	0.000	0.000
2	0.000	9.809	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	9.000	0.000	0.000
6	0.000	0.000	0.000
7	0.000	0.000	0.000

Cycle time

Allows you to measure the cutting time, non-cutting time and running time in each cycle.

MACHINE READY	-ORIGIN POS-
OPTION DEVICE POS.	X2 C2
DOOR	
CHUCK	
ALARM	
START SW.	OVERRIDE: 95
HODE SW.	SP OVERRIDE: 100
ETC.	

*TURRET MAINTENANCE Start condition

Displays information on the start conditions for automatic running.

Availability of machining support
software for each machine model

	DHY	S
Machining data	V	V
Tool setting	V	V
Tool counter	V	V
Cycle time	V	V
Automatic running monitor	√	\checkmark
Start condition	V	V
Total & preset counter	V	-
Power consumption monitor	V	-
Electromagnetic switch maintenance	V	-

Tooling system



DHY





External view

S









Machine specification

Itoms		DNA 4282		BNA-42S2	
Machining consoity		DINA-4232	DNA-42DHT3	NC Specification	MIYANO-FANUC 0i-TD
Machining capacity		400		Controlled axis	X, Z, B axis (BNA-S2)
Max. work length		100 mm		Min input increment	0.001mm (Diameter for X axis), 0.001deg
Max. machining diameter	0.54			Min. output increment	X axis: 0.0005 mm, Z axis: 0.001 mm
of dar work	SP1	42 mm Dia.	10	Parts program storage capacity	1Mbyte (2560 m Tape length)
	SP2	34 mm Dia.	42mm	Spinale function	Directly specified (G97).
Slide stroke					Constant Cutting speed control (G96)
l urret slide stroke	X1 axis	135 mm	140 mm	Cutting feed rate	F3.4 digit per revolution,
	Z1 axis	235 mm		Cutting feed rate override	0- 150% (in 10% increments)
	Y1 axis		70 (±35) mm	Rapid traverse rate	X, Z, B axis : 20m/ min (S2)
Spindle slide stroke	X2 axis		140 mm		X1, Z1, Z2 axis: 20m/ min
	Z2 axis		360 mm	Interpolation	G01, G02, G03
	B axis	310 mm		Threading	G32, G92
Spindle				Canned cycle Work coordinate setting	G90, G92, G94
Number of spindle		2		work coordinate setting	position memory and the geometry offset.
Spindle speed range	SP1	60- 6,000 min ⁻¹		Tool selection and work	Tool selection and work coordinate settings are selected
	SP2	50- 5,000 min ⁻¹		coordinate settings, and	from1-64 by T AABBCC at the specified position for
Inner diameter of draw tube	SP1	43 mm Dia.		Direct input of tool position	by measured MDI
	SP2	30 mm Dia.		Input/Output interface	PC card slot
Collet chuck type	SP1	Hardinge S20, DIN173	E, B&S#22D,	Automatic operation	1 cycle operation/Continuous operation, Single block,
		JPN34, Hainbuch			Dry run feed hold
	SP2	DIN173E, B&S#22D, JI	PN	Others	8.4" colour LCD,
Power chuck type	SP1	5" thru-hole chuck			No of registered programs: 800,
	SP2		4" thru-hole chuck		denerator Memory protect
Turret	012				AC digital servo motor, etc.
Number of turret		1	2	NC standard functions	Chamferring/ Corner R,
		1 8 ST	2		Constant peripheral speed (G96).
Type of turiet		0.01.	C OT		Background editing,
Charle beight of anyong turning tool	ΠUZ		031.		Programmable data input (G10),
Shank height of square turning tool		20 mm Sq.			Multiple repetitive canned cycle (G70 -G76)
Diameter of drill shank		25 mm Dia.			Rigid tap function (Main & sub),
Revolving tools					Cylindrical interpolation, Custom macro B,
Number of revolving tools		Max.8			Drilling canned cycle (G80 -G86)
		AL 1 AL 1			Tool life management system.
Type of revolving tools		Single Clutch			Tool life management system.
Type of revolving tools Tool spindle speed range		Single Clutch 50- 5,000 min ⁻¹		BNA-42DHY3	Tool life management system.
Type of revolving tools Tool spindle speed range Feed rate		Single Clutch 50- 5,000 min ⁻¹		BNA-42DHY3 NC Specification	Tool life management system. MIYANO - FANUC 0i-TD
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min		BNA-42DHY3 NC Specification Controlled axis Min. inout increment	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis). 0.001deo.
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis Z1 axis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min		BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment	Tool life management system. MIYANO - FANUC 0i - TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis Z1 axis Y1 axis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min	12 m/ min	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Extinctly area for a directly area find (202)
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis Z1 axis Y1 axis X2 axis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 	12 m/ min 12 m/ min	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96)
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis Z1 axis Y1 axis X2 axis Z2 axis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 	12 m/ min 12 m/ min 20 m/ min	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed 54-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution,
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min	12 m/ min 12 m/ min 20 m/ min 	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, 6 digit per minute, directly specified
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min	12 m/ min 12 m/ min 20 m/ min 	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rabid traverse rate	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis; 2007 min
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ con	12 m/ min 12 m/ min 20 m/ min 	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/ min Y1, X2 axis : 12m/ min
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ con 5.5/ 3.7 kw (15min./ con	12 m/ min 12 m/ min 20 m/ min nt)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 C220, C03
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw	12 m/ min 12 m/ min 20 m/ min nt)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw	12 m/ min 12 m/ min 20 m/ min nt)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2660 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz)	12 m/ min 12 m/ min 20 m/ min nt) nt)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset.
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz)	12 m/ min 12 m/ min 20 m/ min nt) tt) t1.0/0.75kw (60/50Hz)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m/min Y1, X2 axis: 12m/min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-39(HD1) or 1-20 (HD2) by Taabb at the
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz)	12 m/ min 12 m/ min 20 m/ min nt) t) t) 1.0/0.75kw (60/50Hz)	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m /min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-39(F101) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 5.8/ 1.0 kw 0.18 kw 0.18 kw 1.0 6.6 kw (60/ 50Hz) 7L 2L	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate setting, and tool wear compensation	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis: 20m /min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(F101) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb.
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 0.18 kw 1.0 0.6 kw (60/ 50Hz) 7L 2L 165L	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool sear compensation Direct input of tool position Input/Output interface	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis : 20m/ min Y1, X2 axis : 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot USB port
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed 540 might provide (367), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per revolution, F1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot USB port 1 cycle operation/Continuous operation, Single block, Block
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per revolution, 71, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 0.4 codiv e1 CD
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per revolution, 71, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4* colou r LCD, No of registered programs: 800,
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed 54-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, 74, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4° colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator,
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 72 28 KVA 100 A 100 A 0.5 MPa	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001nm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 nm 1Mbyte (2560 m Tape length) Spindle speed 54-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, X1, Z1, Z2 axis : 20m/ min Y1, X2 axis : 12m/ min G01, G02, G03 G32, G32 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4° colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferrino/Corner B
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions Machine heinbt	X1 axis Z1 axis Y1 axis X2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1.660 mm	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others NC standard functions	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed 54-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4 ⁴ colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation,
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions Machine height	X1 axis Z1 axis Y1 axis X2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA 1,700 mm W/2 350 × D1 454 mm	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others NC standard functions	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate setting see seefide position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4' colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96),
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions Machine height Floor space	X1 axis Z1 axis Y1 axis X2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm W2,150 x D1,290 mm 2,800 kc	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA 1,700 mm W2,350 × D1,454 mm 3,100 kz	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, 76 digit per revolution, X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate setting are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4 ⁴ colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96), Background editing, Programmable data input (G10)
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Coolant tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine height Floor space Machine weight	X1 axis Z1 axis Y1 axis X2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm W2,150 x D1,290 mm 2,800 kg	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 1.0/0.75kw (60/50Hz) 18L 1,700 mm W2,350 x D1,454 mm 3,100 kg	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, 76 digit per revolution, X1, Z1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate setting setting selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4 ⁴ colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96), Background editing, Programmable data input (G10), Operating time/ Parts No. display,
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Coolant tank capacity Fuse Air supply Machine dimensions Machine height Floor space Machine weight Optional accessories David ta tip but a tip tart to the solution	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm W2,150 x D1,290 mm 2,800 kg	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA 1,700 mm W2,350 × D1,454 mm 3,100 kg	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others NC standard functions	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, 71, X2 axis: 12m/ min C01, G02, G03 G32, G92 G30, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate setting setting setting for 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4* colou r LCD, No of registered porgrams: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96), Background editing, Programmable data input (G10), Operating time/ Parts No. display, Multigle repetitive canned cycle (G70-G76)
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Motors Spindle drive Revolving tool drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions Machine height Floor space Machine weight Optional accessories Spindle air blow, Spindle Brake, Hig Coolant ing A theorem	X1 axis Z1 axis Y1 axis X2 axis Z2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm W2,150 x D1,290 mm 2,800 kg	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA 1,700 mm W2,350 × D1,454 mm 3,100 kg rich, Signal tower,	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate settings, and tool selection and work coordinate settings, and tool wear compensation Direct input of tool position Input/Output interface Automatic operation Others NC standard functions	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per revolution, F1, Z2 axis: 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G30, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate setting setlected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. bby measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10.4* colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96), Background editing, Programmable data input (G10), Operating time/ Parts No. display, Multiple repetitive canned cycle (G70-G76) Rigid tap function (Main & sub), Cvindricai uteronglation. Custom macro B
Type of revolving tools Tool spindle speed range Feed rate Rapid Feed rate Rapid Feed rate Motors Spindle drive Coolant pump High pressure coolant drive Tank capacity Hydraulic oil tank capacity Lubricating oil tank capacity Lubricating oil tank capacity Coolant tank capacity Power supply Capacity Fuse Air supply Machine dimensions Machine height Floor space Machine weight Optional accessories Spindle air blow, Spindle Brake, Hig Coolant mistcollector, Automatic pow	X1 axis Z1 axis Y1 axis X2 axis Baxis SP1(Cs) SP2(Cs)	Single Clutch 50- 5,000 min ⁻¹ 20 m/ min 20 m/ min 20 m/ min 7.5/ 5.5 kw (15min./ cor 5.5/ 3.7 kw (15min./ cor 2.8/ 1.0 kw 0.18 kw 1.0/ 0.6 kw (60/ 50Hz) 7L 2L 165L 28 KVA 100 A 0.5 MPa 1,660 mm W2,150 × D1,290 mm 2,800 kg	12 m/ min 12 m/ min 20 m/ min nt) 1.0/0.75kw (60/50Hz) 18L 175L 30KVA 1,700 mm W2,350 × D1,454 mm 3,100 kg rich, Signal tower, x, Parts catcher,	BNA-42DHY3 NC Specification Controlled axis Min. input increment Min. output increment Parts program storage capacity Spindle function Cutting feed rate Cutting feed rate overridex Rapid traverse rate Interpolation Threading Canned cycle Work coordinate setting Tool selection and work coordinate settings, and Direct input of tool position Input/Output interface Automatic operation Others NC standard functions	Tool life management system. MIYANO - FANUC 0i-TD X1, Z1, Y1, X2, Z2 axis 0.001mm (Diameter for X axis), 0.001deg. X axis: 0.0005 mm, Z axis: 0.001 mm 1Mbyte (2560 m Tape length) Spindle speed S4-digits, Directly specified (G97), Constant Cutting speed control (G96) F3.4 digit per revolution, F6 digit per revolution, F6 digit per revolution, F6 digit per revolution, F0 digit per minute, directly specified 0 - 150% (in 10% increments) X1, Z1, Z2 axis : 20m/ min Y1, X2 axis: 12m/ min G01, G02, G03 G32, G92 G90, G92, G94 Automatic Setting, 64 work coordinate setting by the tool position memory and the geometry offset. Tool selection and work coordinate settings are selected from 1-99(HD1) or 1-20 (HD2) by Taabb at the specified position for each turret tool wear compensation is selected by bb. by measured MDI PC card slot, USB port 1 cycle operation/Continuous operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, feed hold 10-4* colou r LCD, No of registered programs: 800, Decimal point input, Manual pulse generator, Memory protect, AC digital servo motor, etc. Chamferring/ Corner R, Tool nose R compensation, Constant cutting speed control (G96), Background editing, Programmable data input (G10), Operating time/ Parts No. display, Multiple repetitive canned cycle (G70-G76) Rigid tap function (Main & sub), Cylindrical interpolation, Custom macro B, Drilling canned cycle (G80-G86)

CITIZEN

CITIZEN MACHINERY CO., LTD.

Japan	
Europe - Germany	
Europe - UK	

 HINERY CO., LTD.
 Citizen Machinery Co Ltd
 4017-6 Miyota, Miyota-machi, Kitasaku-gun, Nagano-ken, 389-0206, Japan
 ny Citizen Machinery Europe GmbH
 Mettinger Strasse 11, D-73728 Esslingen, Germany
 Citizen Machinery UK Ltd
 1 Park Avenue, Bushey, WD23 2DA, UK

 Tel: 81-267-32-5901
 Fax: 81-267-32-5908

 Tel: 49-711-3906-100
 Fax: 49-711-3906-106

 Tel: 44-1923-691500
 Fax: 44-1923-691599

www.citizenmachinery.co.uk

All specifications are subject to change without prior notice. This product is an export control item subject to the foreign exchange and foreign trade act. Thus, before exporting this product, or taking it overseas, contact your CITIZEN machine dealer. Please inform your CITIZEN machine dealer in advance of your intention to re-sell, export or relocate this product. For the avoidance of doubt products includes whole or part, replica or copy, technologies and software. In the event of export, proof of approval to export by government or regulatory authority must be evidenced to CITIZEN. You can operate the machines after the confirmation of CITIZEN is a registered trademark of Citizen Holdings Co., Japan.