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TAKISAWA® TAIWAN

Distributor

2018.02

TAKISAWA® TAIWAN

NEX

NEX-108M
NEX-108Y
NEX-110M
NEX-110Y

CNC LATHE

NEX-108M | NEX-108Y
NEX-110M | NEX-110Y

1. Modulized structure with optional C and Y axis.
2. The Takisawa in-house turret and spindle features high rigidity and accuracy with easy maintenance.
3. Minimum footprint, maximum working space.
4. High productivity to investment cost ratio.

Specifications

NEX-108M

Max. swing	480 mm
Max. turning length	446.8 mm
Max. turning diameter	260 mm
Max. bar work capacity	52 mm
Spindle speed	4000 rpm
Chuck size	8”

NEX-108Y

Max. swing	480 mm
Max. turning length	444.5 mm
Max. turning diameter	260 mm
Max. bar work capacity	52 mm
Spindle speed	4000 rpm
Chuck size	8”

※ Specifications are subject to change without notice.

NEX-110Y

Specifications

NEX-110M

Max. swing	560 mm
Max. turning length	629.8 mm
Max. turning diameter	350 mm
Max. bar work capacity	75 mm
Spindle speed	3500 rpm
Chuck size	10”

NEX-110Y

Max. swing	560 mm
Max. turning length	635 mm
Max. turning diameter	350 mm
Max. bar work capacity	75 mm
Spindle speed	3500 rpm
Chuck size	10”

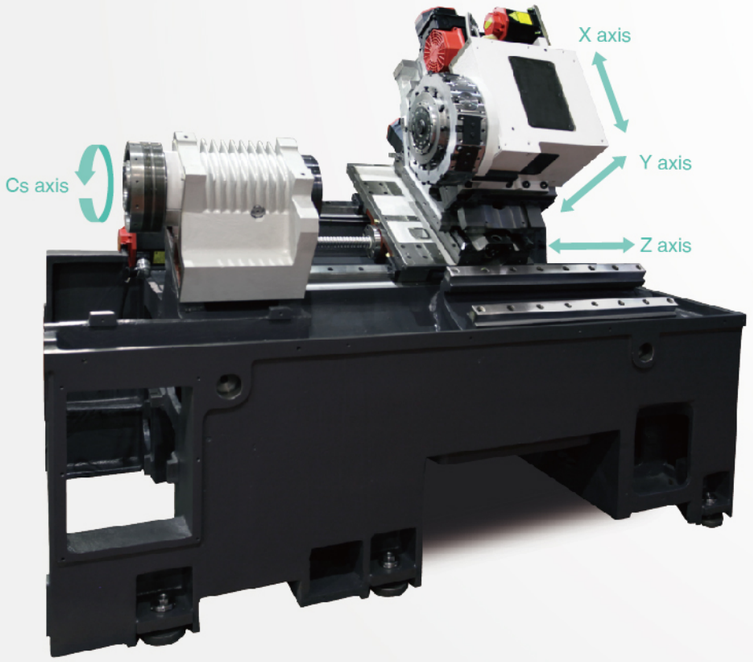
※ Specifications are subject to change without notice.

NEX-108M

NEX-110M

NEX-108M | NEX-108Y | NEX-110M | NEX-110Y

The NEX series can be tailored for greatly improved productivity by incorporating a gantry loading arm for loading and unloading and an automated feeding system for raw materials and finished components.



Travel & Feedrate

NEX-108M / NEX-108Y

X axis travel	180 / 195 mm
X axis rapid traverse rate	20 m/min
Z axis travel	530 mm
Z axis rapid traverse rate	24 m/min
Y axis travel	-- / ±40 mm
Y axis rapid traverse rate	-- / 10 m/min

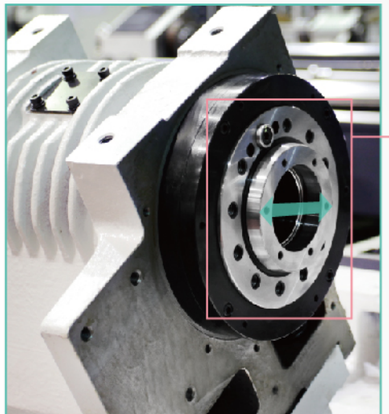
NEX-110M / NEX-110Y

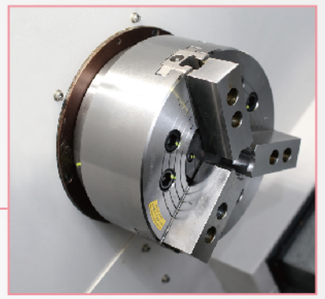
X axis travel	220 mm
X axis rapid traverse rate	20 m/min
Z axis travel	710 mm
Z axis rapid traverse rate	20 m/min
Y axis travel	-- / ±50 mm
Y axis rapid traverse rate	-- / 10 m/min

Spindle specifications

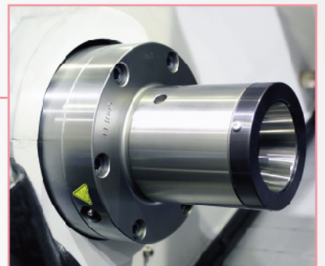
The spindle incorporates double rows of cylindrical bearings to improve the quality and accuracy of machining. Different chucks can be fitted to suit the machining of particular components.

NEX-108M/108Y Spindle nose：A2-6
NEX-110M/110Y Spindle nose：A2-8





3 Jaw through-hole power chuck(Std.)

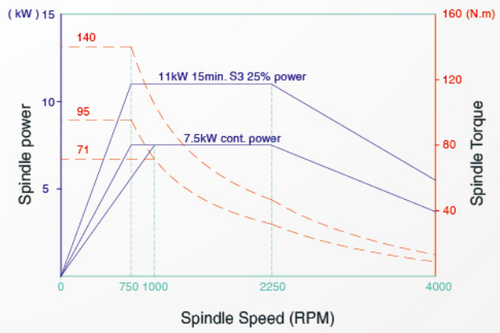


Collet chucks(OP)

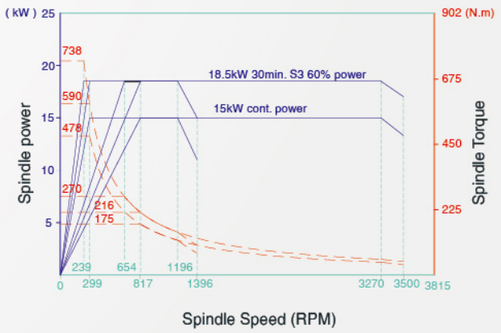
Spindle output diagram

Powered by FANUC MOTOR for high stability & high accuracy.

NEX-108M , NEX-108Y | β8/8000i



NEX-110M , NEX-110Y | αil 15/7000



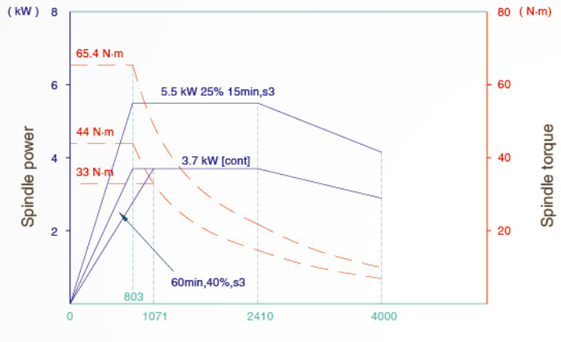
NEX-108M/NEX-108Y
NEX-110M/NEX-110Y

Turret specifications

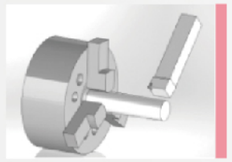
The turret is designed for extreme rigidity through its wide and heavy build, inclusion of heavy duty oversized couplings and enhanced clamping pressure.

Power chart of milling tool

NEX-108M / NEX-108Y / NEX-110M / NEX-110Y

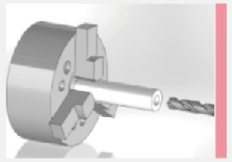


Machining performance - NEX-108Y(β II 8/8000)



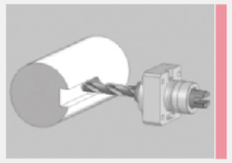
O.D. heavy cutting

Tool	25*25 mm	Cutting depth	6 mm
Spindle speed	1500 rpm	Feed per rev.	0.35 mm/rev
Cutting feedrate	185 m/min		



Drill

Tool	Drill	Cutting depth	5 mm
O.D. drill	22.5 mm	Feed per rev.	0.2 mm/rev
Spindle speed	220 rpm		

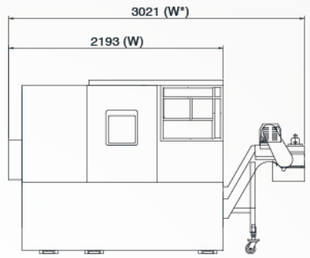


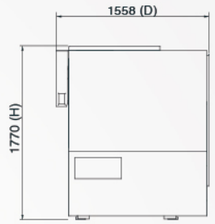
Heavy milling

Tool	Milling	Cutting depth	12 mm
O.D. milling	12 mm	Feed per rev.	0.2 mm/rev
Milling speed	1300 rpm		

Machine dimensions

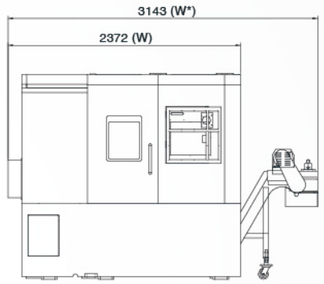
NEX-108M/NEX-108Y
NEX-110M/NEX-110Y

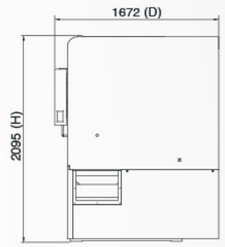




Width*	3021 mm
Width	2193 mm
Height	1770 mm
Depth	1558 mm

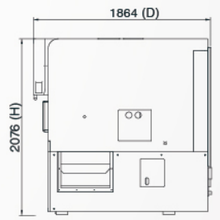
NEX-108M





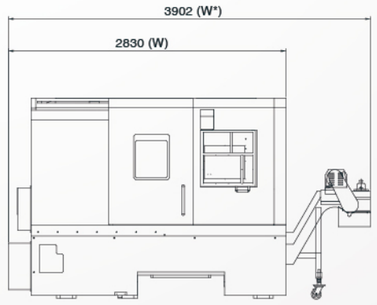
Width*	3143 mm
Width	2372 mm
Height	2095 mm
Depth	1672 mm

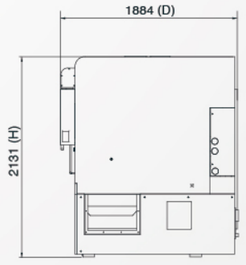
NEX-108Y



Width*	3902 mm
Width	2830 mm
Height	2076 mm
Depth	1864 mm

NEX-110M



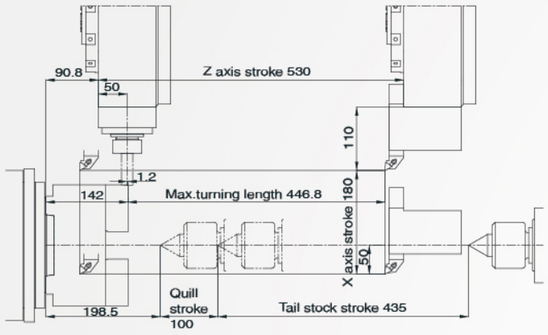


Width*	3902 mm
Width	2830 mm
Height	2131 mm
Depth	1884 mm

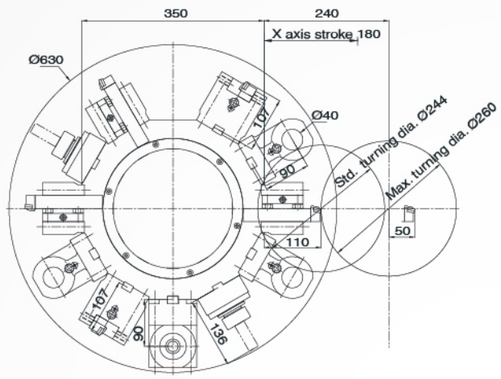
NEX-110Y

Working range | Interference diagram

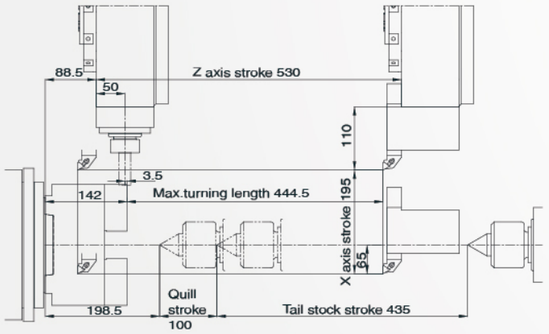
NEX-108M Working range



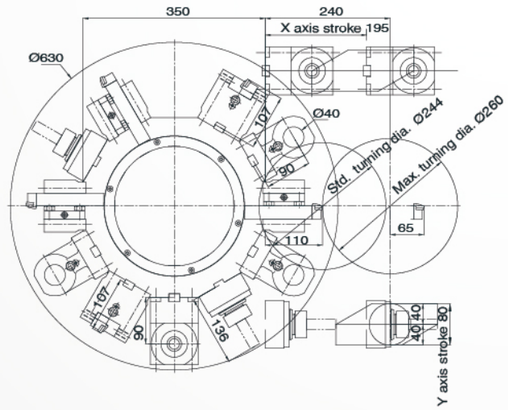
NEX-108M Interference diagram



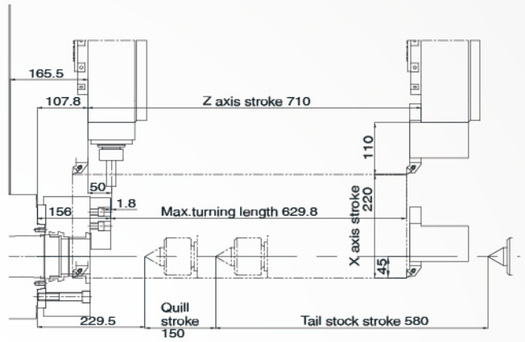
NEX-108Y Working range



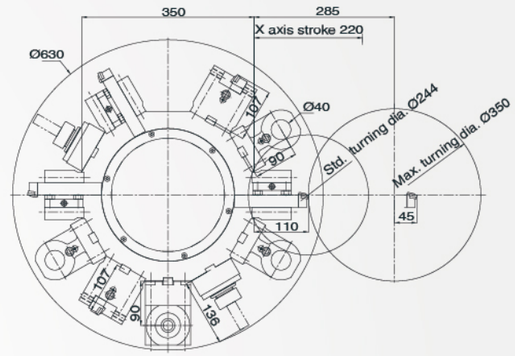
NEX-108Y Interference diagram



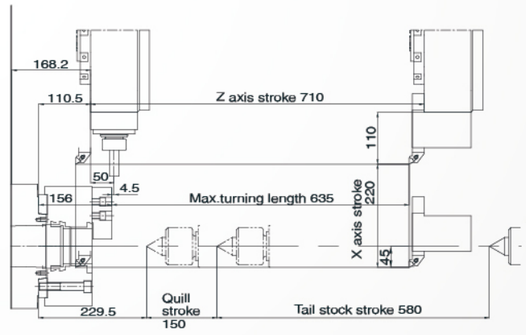
NEX-110M Working range



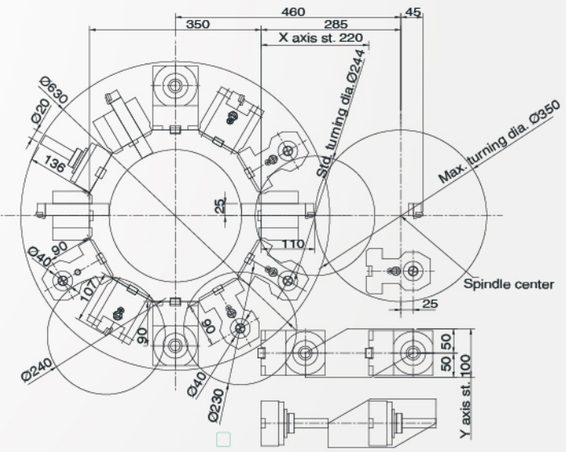
NEX-110M Interference diagram



NEX-110Y Working range

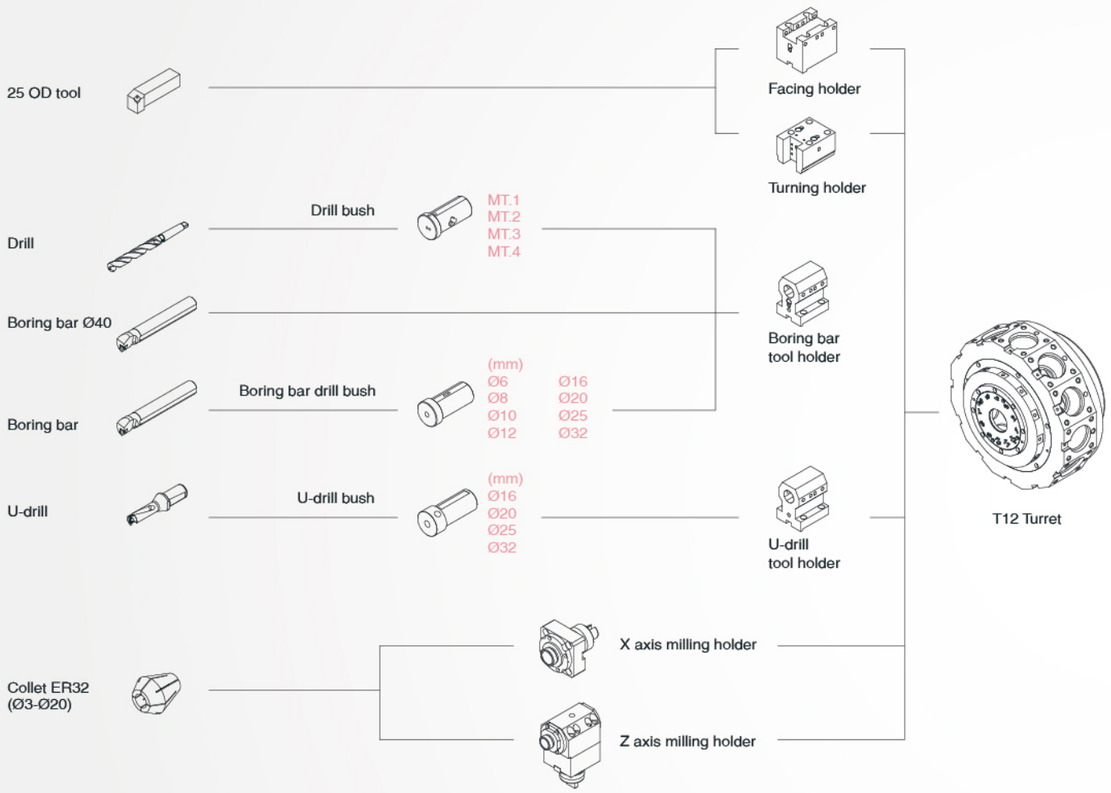


NEX-110Y Interference diagram



Tooling system

NEX-108M / NEX-108Y / NEX-110M / NEX-110Y



Specifications

Remark：M = Milling Y = Y axis

Item	Unit	NEX-108M	NEX-108Y	NEX-110M	NEX-110Y
Capacity					
Max. swing	mm	480	480	560	560
Std. turning diameter	mm	244	244	244	244
Max. turning diameter	mm	260	260	350	350
Max. turning length	mm	446.8	444.5	629.8	635
Max. bar work capacity	mm	52	52	75	75
Travel					
X axis travel	mm	180	195	220	220
Z axis travel	mm	530	530	710	710
Y axis travel	mm	---	±40	---	±50
Spindle					
Spindle speed	rpm	4000	4000	3500	3500
Chuck size		8”	8”	10”	10”
Spindle nose		A2-6	A2-6	A2-8	A2-8
Through hole diameter	mm	63	63	86	86
Bearing diameter	mm	100	100	120	120
Turret					
Number of tools		T12	T12	T12	T12
Turning tool shank	mm	25	25	25	25
Boring bar shank diameter	mm	40	40	40	40
Milling tool shank diameter	mm	20	20	20	20
Tailstock					
Tailstock travel	mm	435	435	580	580
Tailstock spindle diameter	mm	75	75	110	110
Taper hole of tailstock spindle		MT.4	MT.5	MT.5	MT.5
Tailstock spindle travel	mm	100	100	150	150
Feedrate					
X axis rapid traverse rate	m/min	20	20	20	20
Z axis rapid traverse rate	m/min	24	24	20	20
Y axis rapid traverse rate	m/min	---	10	---	10
Motor					
Spindle drive motor	kW	7.5/11	7.5/11	15/18.5	15/18.5
Milling motor	kW	3.7/5.5	3.7/5.5	3.7/5.5	3.7/5.5
Turret index motor	kW	1.2	1.2	1.2	1.2
X axis drive motor	kW	1.2	2.5	1.2	2.5
Z axis drive motor	kW	2.5	2.5	2.5	2.5
Y axis drive motor	kW	---	2.5	---	2.5
Size					
Width	mm	2193	2372	2830	2830
Height	mm	1770	2095	2076	2131
Depth	mm	1558	1672	1864	1884
Weight	kg	4300	4500	6000	6500

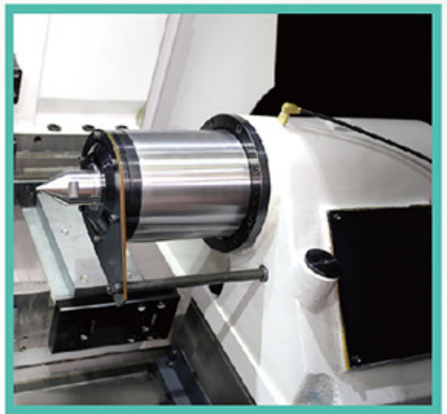
※ Specifications are subject to change without notice.

Standard and optional accessories

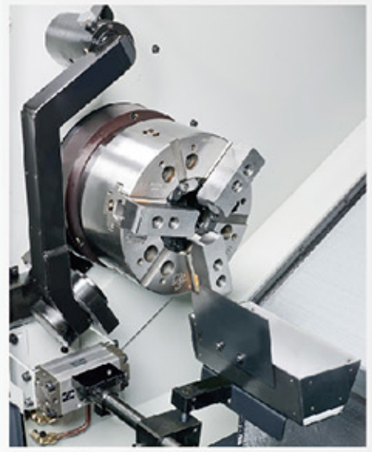
※ Specifications are subject to change without notice.

☆ : Standard accessories --- : N/A ◎ : Optional accessories

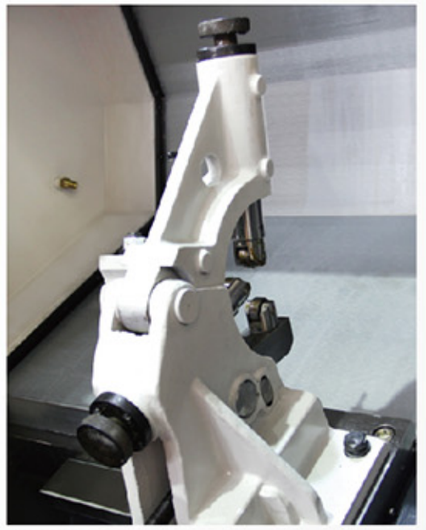
Item	NEX-108M	NEX-108Y	NEX-110M	NEX-110Y
Accessories				
Variable speed spindle	☆	☆	---	---
Hi-low Gearbox Spindle	---	---	☆	☆
Built in spindle motor	◎	◎	◎	◎
Hydraulic servo turret	☆	☆	☆	☆
Hydraulic tailstock	☆	☆	☆	☆
Manual tailstock base	☆	☆	---	---
Manual PIN tailstock base	☆	☆	☆	☆
Automatic PIN tailstock base	◎	◎	◎	◎
Boring bar tool holder (4PCS)	☆	☆	☆	☆
U-drill tool holder (1PCS)	☆	☆	☆	☆
Angle type tool holder (1PCS)	☆	☆	☆	☆
OD tool holder(1PCS)	☆	☆	☆	☆
Boring bar bush ø6 , ø8 , ø10 , ø12 , ø16 , ø20 , ø25 , ø32	☆	☆	☆	☆
U-drill bush ø16 , ø20 , ø25 , ø32	☆	☆	☆	☆
Drill bush MT.1 , MT.2 , MT.3 , MT.4	◎	◎	◎	◎
X axis live tool holder (1PCS)	☆	☆	☆	☆
Z axis live tool holder (1PCS)	☆	☆	☆	☆
Hanger (2PCS)	◎	◎	◎	◎
Leveling pad	☆	☆	☆	☆
Wedge	☆	☆	☆	☆
Working lamp	☆	☆	☆	☆
Tool box	☆	☆	☆	☆
Operation manual	☆	☆	☆	☆
Hydraulic chuck	☆	☆	☆	☆
Foot switch	☆	☆	☆	☆
Optional accessories				
Chip conveyor & chip cart	◎	◎	◎	◎
Tool setter	◎	◎	◎	◎
Parts catcher	◎	◎	◎	◎
Parts conveyor	◎	◎	◎	◎
Barfeeder & Interface	◎	◎	◎	◎
Air blow	◎	◎	◎	◎
Automatic Power-off	◎	◎	◎	◎
Parts counter	◎	◎	◎	◎
Collet chuck	◎	◎	◎	◎
Manual steady rest	---	---	◎	◎
Hydraulic steady rest	---	---	◎	◎
Rotating tail stock	---	---	◎	◎
Oil mist collector	◎	◎	◎	◎



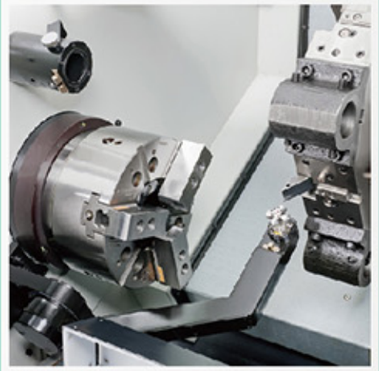
Rotating tail stock
High thrust and clamping forces provide maximum stability especially when working with long workpieces.



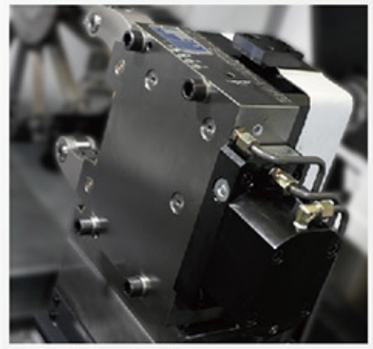
Parts catcher



Manual steady rest



Tool setter



Hydraulic steady rest

NC unit specifications

Composition

☆ : Standard ◎ : Optional ⊕ : Special --- : N/A △ : Parameter setting is required

Specifications / Contents	NEX-108M / 108Y / 110M / 110Y
NC Unit	
8.4" Color LCD	☆
10.4" Color LCD	◎
Safety device	
Front door interlock	◎
Front door locking mechanism	◎
Safety relay	◎
Control panel breaker with tripper	◎

Main function list

☆ : Standard ◎ : Optional ⊕ : Special --- : N/A △ : Parameter setting is required

Specifications / Contents	NEX-108M / 108Y / 110M / 110Y
Controlled axes	
Least input increment	☆
Maximum programmable dimension(±999999.999)	☆
Least Input increment C	△
Inch/metric selection	☆
Interlock	☆
Machine lock	◎
Emergency stop	☆
Stored stroke check 1	☆
Stored stroke check 2,3	☆
Stroke limit check before movement	△
Chuck tailstock barrier	△
Mirror image (each axis)	△
Chamfering ON/OFF	⊕
Overload detection	◎
Position switch	⊕
Operation	
Auto run (memory)	☆
MDI run	☆
DNC run	⊕
DNC run with memory card	⊕
Program number search	☆
Sequence number search	☆
Sequence number collation and stop	☆
Wrong operation prevention	△
Buffer register	☆
Dry run	☆
Single block	☆
Jog feed	☆
Manual reference point return	☆
Dogless reference point setting	☆
Manual handle feed, 1 unit	☆

Specifications / Contents	NEX-108M / 108Y / 110M / 110Y
Interpolating functions	
Poitioning (G00)	☆
Exact stop mode (G61)	☆
Tapping mode (G63)	☆
Cutting mode (G64)	☆
Exact stop (G09)	☆
Linear interpolation (G01)	☆
Circular interpolation (G02/03)	☆
Dwell (G04)	☆
Polar coordinate interpolation	☆
Cylindrical interpolation	☆
Thread cutting	☆
Multiple thread cutting	☆
Thread cutting cycle and retraction	☆
Continuous thread cutting	☆
Variable lead thread cutting	☆
Reference point return (G28)	☆
Reference point return check (G27)	☆
2nd reference point return (G30)	☆
3rd, 4th reference point return	⊕
Feed function	
Rapid traverse override (F0,25%,50%,100%)	☆
Feed per minute	☆
Feed per revolution	☆
Constant tangential speed control	☆
Cutting feedrate clamp	☆
Automatic acceleration/deceleration	☆
Rapid traverse bell-shaped accel/decel	---
Linear accel/decel after feedrate interpolation	☆
Feedrate override (15 steps)	☆
Jog override (15 steps)	☆
Override cancel	☆
Manual feed per revolution	△
Program input	
Tape code (EIA/ISO auto recognition)	☆
Label skip	☆
Parity check	☆
Control in/out	☆
Optional block skip, 1 piece	☆
Optional block skip (2 to 9 pieces)	⊕
Program number O4 digits	☆
Program file name 32 characters	---
Sequence number N5 digits	☆

※ Specifications are subject to change without notice.

NC unit specifications

Main function list

☆ : Standard ◎ : Optional ⊕ : Special --- : N/A △ : Parameter setting is required

Specifications / Contents	NEX-108M / 108Y / 110M / 110Y
Program input	
Sequence number N8 digits	---
Absolute/incremental command	☆
Decimal point input/Pocket calculator type decimal point input	☆
diameter /radius programming (X-axis)	☆
Auto coordinate /Coordinate system setting(G50)	☆
Drawing dimension direct input	△
G-code system A	☆
G-code system B/C	△
Chamfering/Corner R programming	☆
Programmable data input	☆
Sub program call (10 levels)	☆
Custom macro	☆
Additional custom macro common variables	☆
Single canned cycle	☆
Combined canned cycle I/II	☆
Drilling canned cycle	☆
Arc radius programming	☆
Macro executor	◎
Coordinate system shift/shift direct input	☆
Miscellaneous function/spindle functions	
M function (M3 digits)	☆
Second miscellaneous function (B function)	☆
Spindle functions (S4 digits)	☆
Constant surface speed control	☆
Spindle orientation	☆
Rigid tap (spindle center) /(rotary tool)	☆
Tool functions/tool offset functions	
T function (T2+2 digits)	☆
Tool offsets, 64 pieces	☆
Tool offsets, 99 pieces	◎
Tool offsets, 200/400 pieces	---
Tool geometry size data, 100 pieces	---
Tool position offset	☆
Tool diameter /nose R compensation	☆
Tool geometry /wear compensation	☆
Tool offset counter input	☆
Tool offset measured value direct input	☆
Tool offset measured value direct input B	◎
Tool life management	△
Accuracy offset functions	
Backlash compensation/by rapid traverse/feedrate	☆
Editing	

Specifications / Contents	NEX-108M / 108Y / 110M / 110Y
Part program memory capacity 128Kbyte (320m)	---
Part program memory capacity 320Kbyte (800m)	☆
Part program memory capacity 512Kbyte (1280m)	◎
Part program memory capacity 1Mbyte/2Mbyte	---
Registrable programs, 63 programs	---
Registrable programs, 400 programs	☆
Registrable programs, 1000 programs	---
Program editing/protection	☆
Extended program editing	☆
Background editing	☆
Setting/display	
Status display	☆
Clock function	☆
Current position display	☆
Program comment display (31 characters)	☆
Parameter setting and display	☆
Alarm display/Alarm log display	☆
Operator/ operation message log display	☆
Run hours and parts count display	☆
Actual speed display	☆
Actual spindle speed and T code display	☆
Floppy cassette directory display	☆
Grouped directory display and punching	☆
Servo adjustment screen	☆
Maintenance information screen	☆
Data protection key, 1 kind	☆
Help function	☆
Self diagnostic function	☆
Scheduled maintenance screen	☆
Hardware & software system configuration display	☆
Graphic display	☆
Dynamic graphic display	◎
Display languages	
English	☆
Japanese (Kanji))	△
Other language	△
Display language dynamic switching	☆
Data I/O	
RS-232C interface for 1 ch	☆
Fast data server	⊕
External message	☆
External workpiece number search	⊕
Memory card I/O	☆

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