



More

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Distributor

2014.05

TAKISAWA
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NEX

**NEX-506
NEX-906
NEX-908**



**CNC
LATHE**

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NEX-506
NEX-906
NEX-908

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Spindle specifications



Twin built-in motor spindles.
Precision indexing of 0.001 degrees for both spindles.
Highly accurate machining in all axes.

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Tooling system

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Standard and optional
accessories

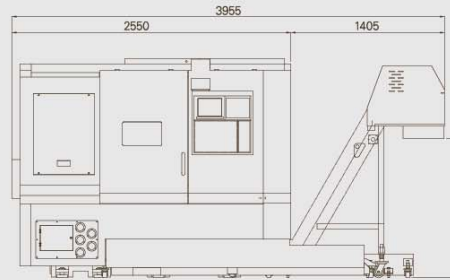
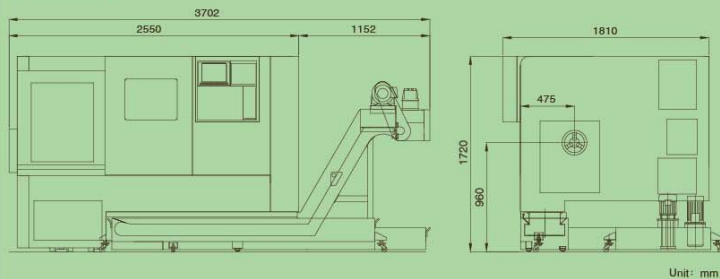


NEX-506 | NEX-906 | NEX-908

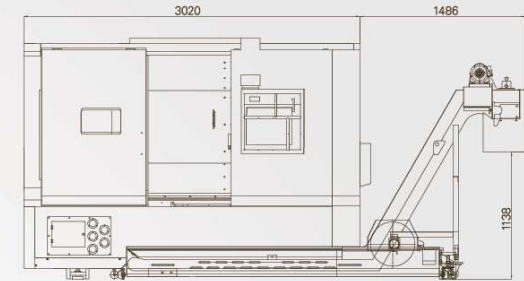
1. Precisely aligned spindles with speed synchronisation to automate rapid parts transfer between spindles for complex machining.
2. Modulized structure with either C axis or both C and Y axes.
3. Every turret position can be fitted with a driven tool for machining flexibility.
4. The turret is manufactured in-house to ensure high rigidity and accuracy with easy maintenance.



NEX-506



NEX-906



NEX-908

NEX-506 / 906 / 908





Spindle specifications



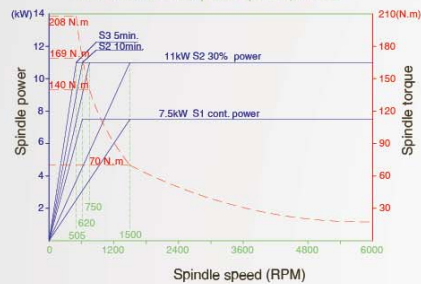
- Twin built-in motor spindles.
- Both spindles can be rotated and locked in any position with an indexing accuracy of 0.001 degrees.
- Highly rigid spindle design both for holding the position of orientation and avoiding vibration while drilling.



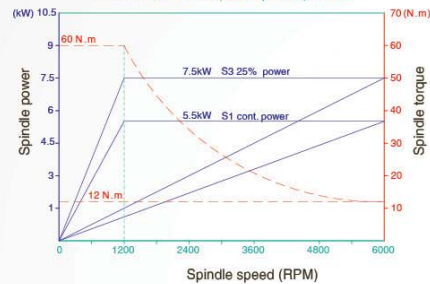
Spindle output diagram

Powered by FANUC MOTOR for high stability & high accuracy.

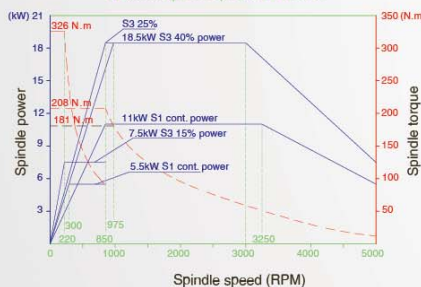
NEX-506, NEX-906 | Main spindle β 11 160S



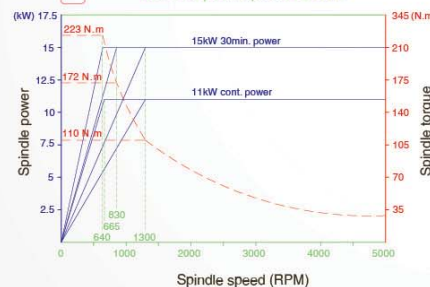
NEX-506, NEX-906 | Sub spindle β 11 112S



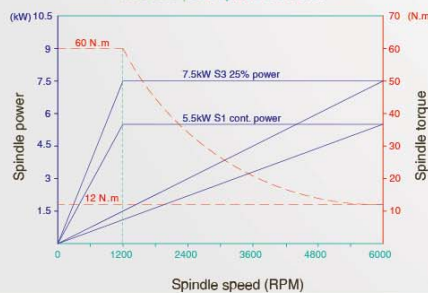
NEX-908 | Main spindle 11/18.5kW



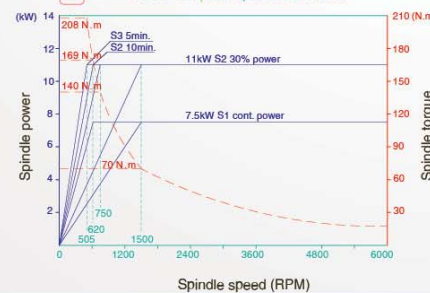
NEX-908 | Main spindle 11/15kW



NEX-908 | Sub spindle 5.5/7.5kW



NEX-908 | Sub spindle 5.5/7.5kW



Turret specifications

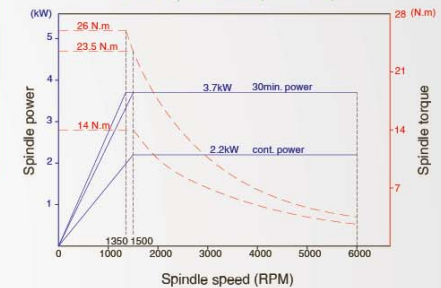


- Manufactured in house to ensure rigidity and accuracy for precise drilling tapping and milling.
- Servo controlled with high speed indexing to reduce idle time and increase productivity.
- Every turret position can be fitted with a power tool to provide extensive machining options.
- Z-axis live tool holders designed to position tools on either side increase the flexible use of tooling.

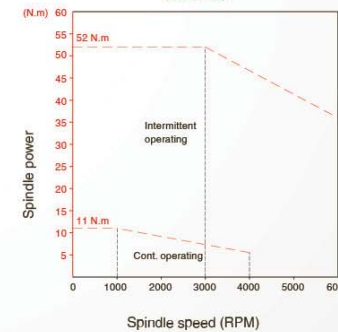


Power chart of milling tool

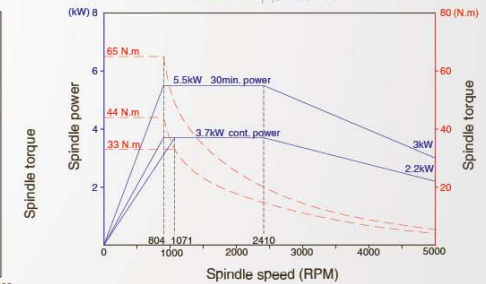
NEX-906 | α 2/10000 (6000RPM)



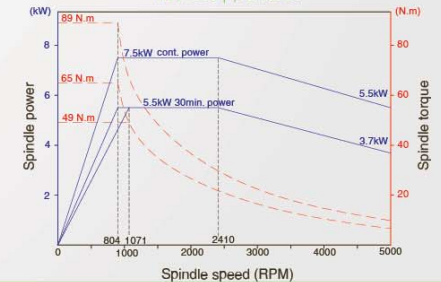
NEX-506



NEX-908 | β 3/10000



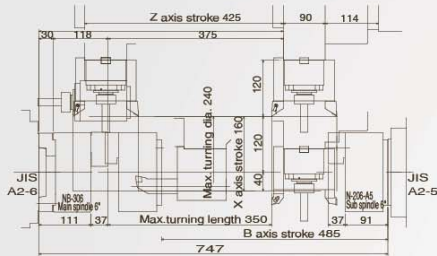
NEX-908 | β 6/10000



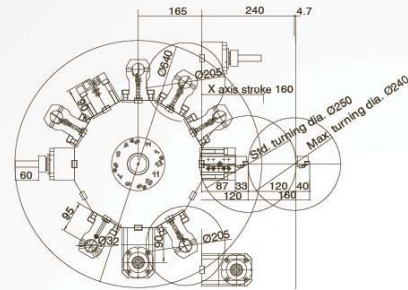


Working range | Interference diagram

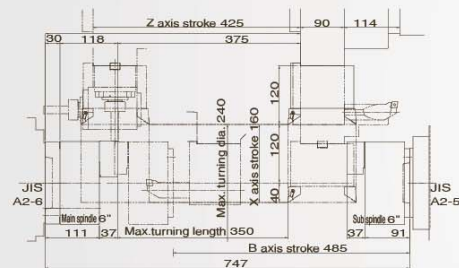
NEX-506 Working range



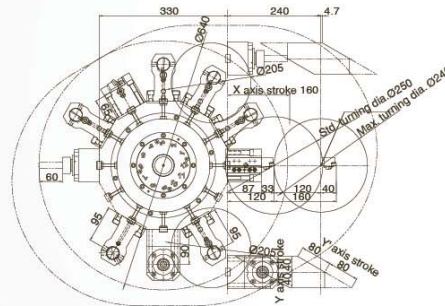
NEX-506 Interference diagram



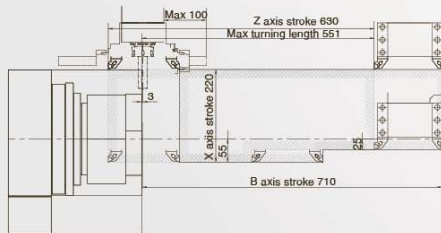
NEX-906 Working range



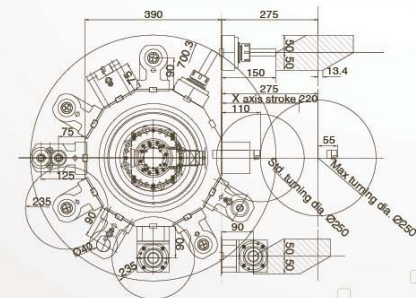
NEX-906 Interference diagram



NEX-908 Working range

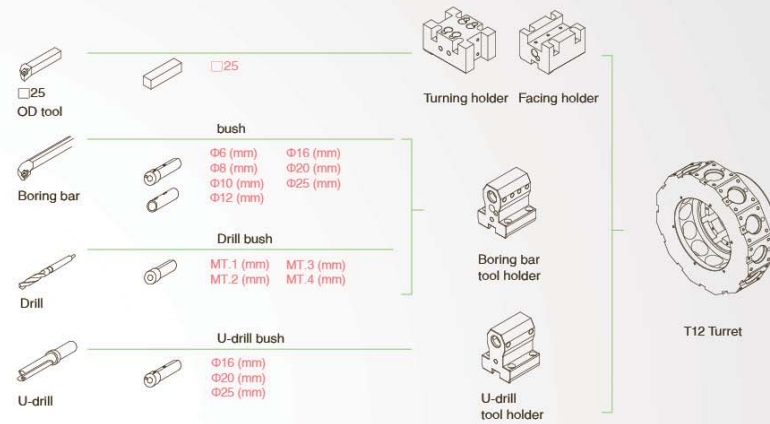


NEX-908 Interference diagram

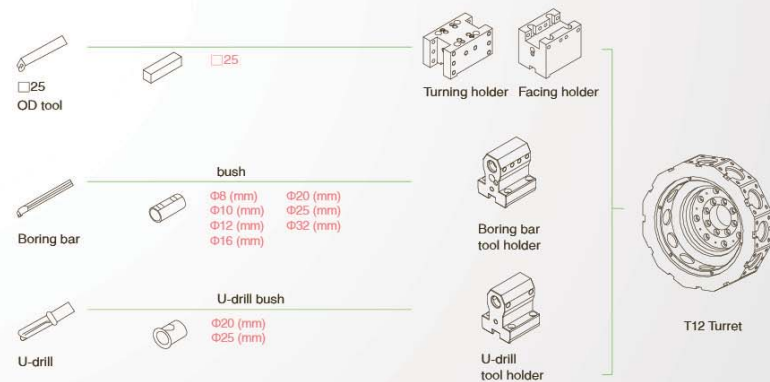


Tooling system

NEX-506/906 Tooling system



NEX-908 Tooling system





Specifications

Item	Unit	NEX-506	NEX-906	NEX-908
Capacity				
Max. swing	mm	650	650	670
Swing on cross slide	mm	440	440	450
Std. turning diameter	mm	250	250	250
Max. turning diameter	mm	240	240	330
Max. turning length	mm	350	350	551
Max. bar work capacity	mm	52/35	52/35	52(65)/35(52)
Travel				
X axis travel	mm	160	160	220
Z axis travel	mm	425	425	630
Y axis travel	mm	—	±40	±50
B axis travel	mm	485	485	710
Spindle				
Spindle speed	rpm	5000	5000	5000(4500)
Chuck size		6"	6"	6"
Spindle nose		A2-6	A2-6	A2-6
Through hole diameter	mm	63	63	63(75)
Bearing diameter	mm	100	100	100(110)
Sub spindle				
Spindle speed	rpm	6000	6000	5000
Chuck size		6"	6"	6"
Spindle nose		A2-5	A2-5	A2-5(A2-6)
Through hole diameter	mm	44	44	46(63)
Bearing diameter	mm	90	90	90(100)
Turret				
Number of tools		T12	T12	T12
Turning tool shank	mm	20	20	25
Boring bar shank diameter	mm	32	32	40
Milling speed	rpm	6000	6000	4000
Max bush diameter	mm	16	16	20
Feedrate				
X axis rapid traverse rate	m/min	20	20	20
Z axis rapid traverse rate	m/min	24	24	24
Y axis rapid traverse rate	m/min	—	10	10
B axis rapid traverse rate	m/min	20	20	20
Motor				
Spindle drive motor	kW	7.5/11	7.5/11	11/18.5(11/15)
Sub spindle drive motor	kW	5.5/7.5	5.5/7.5	5.5/7.5(7.5/11)
Turret index motor	kW	1.2	1.2	1.2
X axis drive motor	kW	2.5	2.5	2.5
Z axis drive motor	kW	2.5	2.5	2.5
Y axis drive motor	kW	1.8	1.8	2.5
B axis drive motor	kW	1.2	1.2	1.2
Milling motor	kW	2.2/3.7(3.7/5.5)	2.2/3.7(3.7/5.5)	3.7/5.5(5.5/7.5)
Size				
Height	mm	1720	2000	2165
Depth X Width	mm	2550X1810	2550X1860	3020X1954
Weight	kg	3900	4500	6000

Remark: () Option

※ Specifications are subject to change without notice.



Standard and optional accessories

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

Item	NEX-506	NEX-906	NEX-908
Accessories			
Built-in spindle	☆	☆	☆
Hydraulic servo turret	☆	☆	☆
Boring bar tool holder (4PCS)	☆	☆	☆
U-drill tool holder (1PCS)	☆	☆	☆
Angle type tool holder (1PCS)	☆	☆	☆
OD tool holder(1PCS)	☆	☆	☆
Boring bar bush ø6	☆	☆	---
Boring bar bush ø8	☆	☆	☆
Boring bar bush ø10	☆	☆	☆
Boring bar bush ø12	☆	☆	☆
Boring bar bush ø16	☆	☆	☆
Boring bar bush ø20	☆	☆	☆
Boring bar bush ø25	☆	☆	☆
Boring bar bush ø32	---	---	☆
U-drill bush ø16	☆	☆	---
U-drill bush ø20	☆	☆	☆
U-drill bush ø25	☆	☆	☆
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	⊗	⊗	⊗

※ Specifications are subject to change without notice.



NC unit specifications

Composition

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

Specifications / Contents	NEX-506	NEX-906	NEX-908
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-506	NEX-906	NEX-908
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 barrie	△	◎	◎
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 preventive	△	△	△
Buffer register	☆	☆	☆
Dry run	☆	☆	☆
Single block	☆	☆	☆
Jog feed	☆	☆	☆
Manual reference point return	☆	☆	☆
Dogless reference point setting	☆	☆	☆
Manual handle feed, 1 unit	☆	☆	☆

Specifications / Contents	NEX-506	NEX-906	NEX-908
Interpolating functions			
Poitioning (G00)	☆	☆	☆
Exact stop mode (G61)	☆	☆	☆
Tapping mode (G63)	☆	☆	☆
Cutting mode (G64)	☆	☆	☆
Exact stop (G09)	☆	☆	☆
Linear interpolation (G01)	☆	☆	☆
Circular interpolation (G02/G03)	☆	☆	☆
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-506	NEX-906	NEX-908
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-506	NEX-906	NEX-908
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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