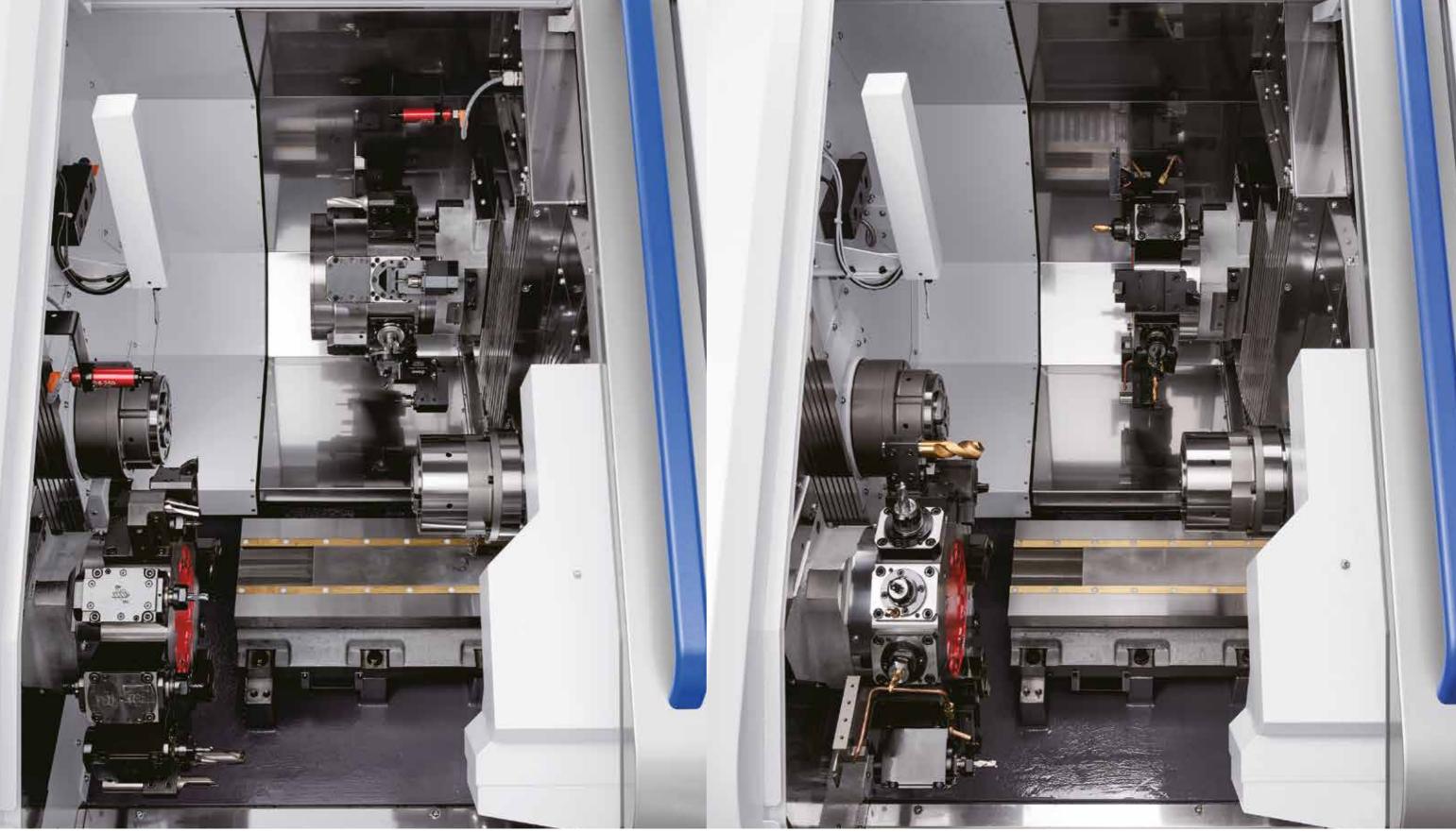
## CITIZEN



# **BNE-51** мүү/мѕв **BNE-65** мүү/мѕв

Fixed Headstock Type CNC Automatic Lathe





BNE65MSB

# Equipped with twin Y axes and a B axis. New BNE series models: Improved superimposed machining

These four new BNE Series models, developed from the existing BNE range have inherited the characteristics of high rigidity and precision for which the BNE Series has been greatly praised. Made up of MYY models with a Y axis equipped to both upper and lower turrets, and MSB models that are also equipped with a B axis on the upper turret.

The cover has been completely redesigned with a large window to provide excellent visibility. It has also been equipped with a new HMI (Human Machine Interface). Use of a touch panel for ease of operation, and its use with the new NC units also improves productivity.

BNE65MYY



## MSB models equipped with B axis function

4

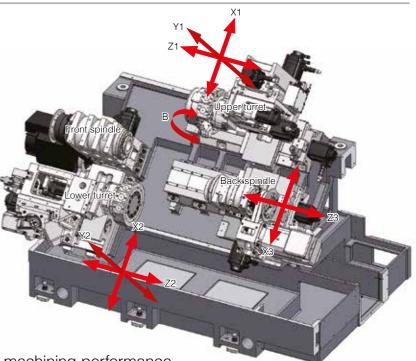
The BNE-51MSB and BNE-65MSB are equipped with a B axis function on the upper turret. The B axis function increases your range of freedom for machining due to the 360° range of movement that enables machining on both main and sub spindles.

It also allows you to execute NC programs for the normally difficult angular machining by simple commands using dedicated G codes.



#### Basic structure and axis configuration

These new models have inherited the slide structure of the BNE that makes it easy for swarf to drop away. Rectangular lapped slides have been adopted for all slides except for the X3 axis. The sliding contact between surfaces provides excellent rigidity and damping performance, enabling heavy metal removal while also helping to extend cutting tool life.



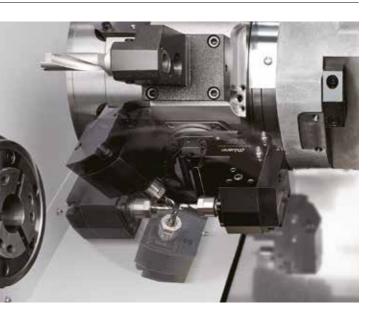
### Equipping of B axis to improve complex machining performance

The B axis tool, which can be mounted to the upper turret, can occupy five of the 10 stations. The 360° range of movement enables machining on the back spindle to increase your range of machining options.



#### Max. machining bar diameter of 65 mm

The BNE65 Series can take 65mm bar diameter through the main spindle. The output of the front and back spindle motors has been greatly increased in order to improve machining capability. Additionally, increasing the maximum speed to 5,000 RPM enables optimal conditions for cutting of small diameter workpieces.





Graph of BNE65MYY/65MSB front spindle torque



#### Upper/Lower Y-axis machining

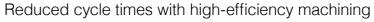
### **MYY models equipped with twin Y axes**

The upper and lower turrets of the BNE-51MYY and BNE-65MYY are equipped with a Y axis. Operating with the same capabilities, these two 12-station turrets complete tooling flexibility thus maximising balanced machining operations.



#### Basic structure and axis configuration

These new models have inherited the slide structure of the BNE that makes it easy swarf to drop away. Rectangular lapped slides have been adopted for all slides except for the X3 axis. The sliding contact between surfaces provides excellent rigidity and damping performance, enabling heavy metal removal, while also helping to extend cutting tool life.



The two turrets equipped with a Y axis, on rigid construction, serve to reduce cycle times by enabling highly efficient machining. Utilising simultaneous and superimposed machining.

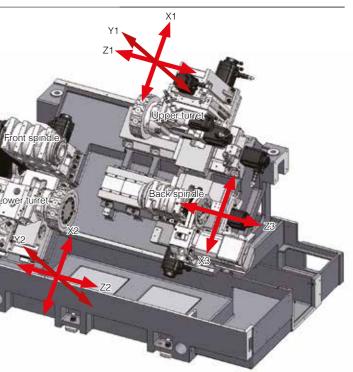


#### New HMI (Human Machine Interface) operating panel

A new HMI (Human Machine Interface) equipped operating panel with a 15-inch touchscreen has been added to improve ease of use for the machine operator.

Consideration has been given to the different ways colours are perceived in order to ensure that information is provided in a manner that is readily visible and easily understood by anyone.







Superimposed machining



### Machine Specification

| Item   |                     | BNE-51MYY                         | BNE-51MSB                         | BNE-65MYY        | BNE-65MS     |
|--|---------------------|-----------------------------------|-----------------------------------|------------------|--------------|
| Machining capacity   |                     | 2.12 0.111                        | 2.12 01.102                       | 2.1.2 00         | 2.12 00.110  |
| Max. machining length  |                     | 195 mm                            |                                   |                  |              |
| Max. machining diameter  |                     | 51 mm dia.                        |                                   | 65 mm dia.       |              |
| Max. drilling diameter   | SP1                 | 25 mm dia.                        |                                   |                  |              |
|  | SP2                 | 20 mm dia.                        |                                   |                  |              |
| Max. tapping diameter  | SP1                 | M22 × 2.5                         |                                   |                  |              |
|  | SP2                 | M20 × 2.0                         |                                   |                  |              |
| Spindles   |                     |                                   |                                   |                  |              |
| Number of spindles   |                     | 2                                 |                                   |                  |              |
| Main spindle speed   | SP1 & SP2           | Max. 5,000 min                    | -1                                |                  |              |
| Main spindle collet chuck  | SP1                 | Hardinge S22                      |                                   | Hardinge S26     |              |
|  |                     | DIN 177E                          |                                   | DIN 185E         |              |
|  |                     | HAINBUCH 51                       |                                   | HAINBUCH 65      |              |
|  | SP2                 | Hardinge S22                      |                                   | Hardinge S26     |              |
|  |                     | DIN 177E                          |                                   | DIN 185E         |              |
| 5 1 1 1  | 0010.000            | HAINBUCH 51                       |                                   | HAINBUCH 65      |              |
| Power chuck type   | SP1 & SP2           | 6" 3-claw chucl                   | <, 6" 2-claw chucl                | k                |              |
| Travel distance  | V auto              | V1: 005 V/                        | 005 V0. 10                        |                  |              |
| Slide travel distance  | X axis              |                                   | 2: 205 mm, X3: 15                 |                  |              |
|  | Z axis<br>Y axis    | 21: 380 mm, 22<br>Y1: +60/ - 40mi | 2: 175 mm, Z3: 50<br>m X2: +40 mm |                  |              |
| Tool posts   | 1 0/13              | 11. <del>+</del> 00/ <b>-</b> 40m | n, 12. ±40 mm                     |                  |              |
| Number of tool posts   |                     | 2                                 |                                   |                  |              |
| Type of tool post  | HD1                 | 12 ST.                            | 10 ST.                            | 12 ST.           | 10 ST.       |
| Type of tool poor  | HD2                 | 12 ST.                            | 10 011                            | 12 011           | 10 011       |
| Dimensions of tools used   |                     | 20 mm                             |                                   |                  |              |
| Dimensions of tool post holes  | 5                   | 25 mm dia.                        |                                   |                  |              |
| Rotary tools   | ·                   |                                   |                                   |                  |              |
| Number of installed rotary tools   | HD1                 | Max.12                            | Max.10                            | Max.12           | Max.10       |
| ,,   | HD2                 | Max.12                            |                                   |                  |              |
| Type of rotary tool drive  |                     | Independent cl                    | utch drive                        |                  |              |
| Rotating speed of rotary tools   | 3                   | 6,000 min-1                       |                                   |                  |              |
| Machining capacities   | Drill               | 16 mm dia.                        |                                   |                  |              |
| 0  | Тар                 | M12 × 1.75                        |                                   |                  |              |
| B axis (MSB only)  | Drill               | 10 mm dia.                        |                                   |                  |              |
|  | Тар                 | M6 × 1.0                          |                                   |                  |              |
|  |                     | Max. M8×1.25                      | for BSBM                          |                  |              |
| Feed rate  |                     |                                   |                                   |                  |              |
| Rapid feed rate  | X1, Z1, X3, Z3 axes | 20 m/ min                         |                                   |                  |              |
|  | X2, Z2 axes         | 18 m/ min                         |                                   |                  |              |
|  | Y1, Y2 axes         | 12 m/ min                         |                                   |                  |              |
| Slide thrust   |                     |                                   |                                   |                  |              |
|  | X1, Z1, X3 axes     | 8.5 KN                            |                                   |                  |              |
|  | X2 axis             | 11.3 KN                           |                                   |                  |              |
|  | Z2, Y1 axes         | 6.6 KN                            |                                   |                  |              |
|  | Z3 axis             | 5 KN                              |                                   |                  |              |
|  | Y2 axis             | 5.8 KN                            |                                   |                  |              |
| Motors   |                     |                                   |                                   |                  |              |
| Spindle motor  | SP1                 | 18.5/ 15 kW (30                   |                                   |                  |              |
|  | SP2                 | 11/ 7.5 kW (15r                   | nin./ cont.)                      |                  |              |
| Rotary tools motor   | SP1 & SP2           | 4.0 kW                            |                                   |                  |              |
| Required power source  |                     | 10.000                            |                                   |                  |              |
| Power supply   |                     | AC 200 ± 10%                      |                                   |                  |              |
| Power supply capacity  |                     | 47 KVA                            |                                   |                  |              |
| Air pressure source  |                     | 0.5 MPa                           | 0                                 |                  | 0            |
| Air pressure flowrate  |                     | 120 NL/MIN. (W                    | hen using air blo                 | wertor 1 sec. in | 3 locations) |
| Tank capacity  |                     | 101                               |                                   |                  |              |
| Hydraulic oil tank capacity  |                     | 18 L                              |                                   |                  |              |
| Lubricating oil tank capacity  |                     | 5 L                               |                                   |                  |              |
| Coolant tank capacity  |                     | 350 L                             |                                   |                  |              |
| Machine dimensions   |                     | 2.070                             |                                   |                  |              |
| Machine height   |                     | 2,070 mm                          | 100 mm                            |                  |              |
| Floor space  |                     | W 2,860 × D 2,                    | 190 MM                            | 0.1201           |              |
| Machine weight   |                     | 8,080 kg                          |                                   | 8,130 kg         |              |
| Ortion   |                     |                                   |                                   |                  |              |
| Option   | ologtor Automotiv   | fire outle                        | Automotic co                      | r abut off Obia  | <u></u>      |
| Option<br>Spindle brake, Air blow, Work<br>Parts conveyor, Coolant level s |                     |                                   |                                   |                  |              |

Chip conveyor, Signal tower, Filler tube, Spindle inner bushing Bar feeder inner bushing, Cut-off confirmation, Parts carrier Left over catcher, Thermal displacement correction function

| NC units         MITSUBISHI M830W (BNE-MS)<br>MITSUBISHI M850W (BNE-MS)           Command specified axes         HD1         X1, Z1, V1, BI(BNE-MSB)           HD2         X2, Z2, Y2           SP1         C1           SP2         C2           Auxiliary axes         HD1 Index         T1           HD2 Index         T1           HD2 Index         T1           HD2 Index         T1           HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minut           Override function         Rapid feeding/Cut feeding 0 to           Zero return function         Manual zero return           On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory.           Spindle C-axis function         0.01°           Standard function         2           Zero return function, On-machine program check function, Manual feed function           Manual pulse pulse   | NC specifications  |   |   |  |
|--|--|---|---|--|
| Command specified axes HD1 X1, Z1, Y1, B1(BNE-MSB)<br>HD2 X2, Z2, Y2<br>SP2 C2<br>SP2 Side X3, Z3<br>Auxiliary axes HD1 Rotary tool S3<br>HD1 Rotary tool S3<br>HD1 Rotary tool S3<br>HD1 Rotary tool S4<br>HD2 Rotary S4<br>Feed command system Incremental and absolute<br>Number of tool offsets 99<br>Feed command system Per rotation feed and per minut<br>Override function Rapid feeding/Cut feeding 0 to<br>Zero return function Manual pulse generator<br>Program operation storage capacity 960 Kbyte (2400 m)<br>Input/Output Interface SD card slot and USB memory<br>Spindle C-axis function 0.001°<br>Standard function<br>Zero return function, On-machine program check function, Manual feed function<br>Manual data input (MD1) function, Back up function, Operation time display, Pro<br>counter display<br>Eco display, Cycle time check function, Automatic screen off function<br>4-Group simultaneous spindle speed command, 3-group simultaneous M comm<br>Superimposition of freely selected axis function<br>ME-MYY/MSB-dedicated macros, Optional block skip, Optional stop<br>Cut-off check function, Corner chamfering/ Radius function, Arc radius specific<br>Canned cycles for threading<br>Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sal<br>monitoring<br>Program parameters input, Tool tip machining command (BNE-MSB)<br>Tool oblique face machining (BNE-MSB)<br>Standard operating functions<br>Calculator function Code list display, Code insert, Coordinate calculation functi<br>format check<br>Alarm block display function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Ceck adjustment function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Ceck adjustment function, Scale | NC units   |   | MITSUBISHI M830W (BNE-MY)   |  |
| HD2         X2, Z2, Y2           SP1         C1           SP2         C2           SP2 Silde         X3, Z3           Auxiliary axes         HD1 Index         T1           HD2 Rotary tool         S4           HD2 Index         T1           HD2 Rotary tool         S4           HD2 Index         T2           Control axis groups         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minutu           Override function         Rapid feeding/Cut feeding to to           Zero return function         Manual zero return           On-machine program check function         Manual zero return function, On-machine program check function, Manual KBB memory.           Spindle C-axis function         0.001°           Standard function         Sack up function, Operation time display, Pro counter display           Eco display, Cycle time check function, Automatic screen off function           A-Group simultaneous spindle speed command, 3-group simultaneous M comr Superimposition of freely selected axis function           BNE-MY/MSB-dedicated macros, Optional block skip, Optional stop           Cut-off check function, Corner chamfering/ Radius function, Arc radius specific: Canned cycle for threading           Rotary tool synchr  | 0 1 10 1   | 1104  |   |  |
| SP1         C1           SP2         SP2           Auxiliary axes         HD1 Rotary tool         S3           HD1 Index         T1           HD2 Rotary tool         S4           HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minute           Override function         Rapid feeding/Cut feeding 0 to           Zero return function         Manual zuise generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory           Spindle C-axis function         0.001°           Standard function         Sack up function, Operation time display, Pro           Zero return function, Con-machine program check function, Arc radius specific           Superinoposition of freely selected axis function           Standard function         Sacwup simultaneous spindle speed command, 3-group simultaneous M com           Superinoposition of freely selected axis function         Canned cycle for threadig           Rotary tool synchronous tap function, Spindle synchronizing control function, M  | Command specified axes   |   |   |  |
| SP2         C2           Auxiliary axes         HD1 Rotary tool         S3           HD1 Index         T1           HD2 Rotary tool         S4           HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minut           Override function         Rapid feeding/Cut feeding/Cut feeding 0 to           Zero return function         Manual zero return           On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory           Spindle C-axis function         0.001°           Standard function         0.001°           Zero return function, On-machine program check function, Operation time display, Procounter display         Cycle time check function, Automatic screen off function           Acroup simultaneous spindle speed command, 3-group simultaneous M comm         Superimposition of freely selected axis function           Store Spinal, Cycle time check function, Control skip, Optional stop         Cut-of theck function, Connet chamfering/ Radius function, Arcr   |  |   |   |  |
| Auxiliary axes         HD1 Rotary tool         S3           HD1 Index         T1           HD2 Rotary tool         S4           HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minut           Override function         Manual zero return           On-machine program check function         Manual zuero return           On-machine program check function         Manual zero return           On-machine program check function         Manual zero return           On-machine program check function         0.001*           Standard function         Zero return function, On-machine program check function, Manual feed function           Zero return function, On-machine program check function         Manual atea input (MDI) function, Back up function, Operation time display, Procounter display           Eco display, Cycle time check function, Automatic screen off function         4-Group simultaneous spindle speed command, 3-group simultaneous M com           Super Standard function         Conned cycle for threading         Fortamedicycle for drilling           Rotary tool synchronous tap function, Spindle synchronizing control function, Mcann  |  |   |   |  |
| HD1 Index         T1           HD2 Rotary tool         S4           HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minute           Override function         Manual zero return           On-machine program check function         Manual zero return           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory:           Spindle C-axis function         0.001*           Standard function         Zero return function, On-machine program check function, Manual feed function           Manual data input (MDI) function, Back up function, Operation time display, Pro counter display           Eco display, Cycle time check function, Automatic screen off function           At-Group simultaneous spindle speed command, 3-group simultaneous M comr Superimposition of freely selected axis function           BNE-MYY/MSB-dedicated macros, Optional block skip, Optional stop           Cut-off check function, Corner chamfering/ Radius function, Arc radius specific Canned cycle for threading           Rotary tool synchronous tap function, Inch/Millimeter switching function, Sat monitoring  |  | SP2 Slide   | X3, Z3  |  |
| HD2 Rotary tool S4<br>HD2 Index T2<br>Control axis groups<br>Input code ISO<br>Command input system Incremental and absolute<br>Number of tool offsets 99<br>Feed command system Per rotation feed and per minut<br>Override function Rapid feeding/Cut feeding 0 to<br>Zero return function Manual zero return<br>On-machine program check function Manual zero return<br>On-machine program check function Manual zero return<br>On-machine program check function SD card solute MUSB memory<br>Spindle C-axis function 0.001°<br>Standard function<br>Zero return function, On-machine program check function, Manual feed function<br>Manual data input (MDI) function, Back up function, Operation time display, Pro<br>counter display<br>Eco display. Cycle time check function, Automatic screen off function<br>Superimposition of freely selected axis function<br>BNE-MYYMSB-dedicated macros, Optional block skip, Optional stop<br>Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:<br>Canned cycle for threading<br>Program parameters input, Tool tip machining command (BNE-MSB)<br>Tool oblique face machining (INFM)<br>Milling interpolation, HeliCal interpolation, Inch/Millimeter switching function, Sal<br>monitoring<br>Program parameters input, Tool tip machining command (BNE-MSB)<br>Tool oblique face machining (INFMSB)<br>Standard operating functions<br>Start position automatic return, Waiting point automatic return, Back spindle ret<br>return, Turret retrat: return<br>Automatic cut-off machining function, Tool set function, Sal monitoring<br>Calculator function, Code list display, Code insert, Coordinate calculation function<br>Handle operation function<br>Zeroing operation function<br>Alarm block display function, Background editing, Simultaneous 3-system progr<br>editing<br>Option<br>Program operation function<br>Set of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program memor<br>range of 100 MB<br>Network I/O function, R5-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, tool setter<br>Tool monitor, 3D chamfering function, Variab  | Auxiliary axes   |   |   |  |
| HD2 Index         T2           Control axis groups         3 groups           Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minute           Override function         Rapid feeding/Cut feeding 0 to           Zero return function         Manual zero return           On-machine program check function         Manual zero return           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory:           Spindle C-axis function         0.001°           Standard function         Zero return function, On-machine program check function, Manual feed function           Manual data input (MDI) function, Back up function, Operation time display, Pro         counter display           Eco display, Cycle time check function, Automatic screen off function         4-Group simultaneous spindle speed command, 3-group simultaneous M comr           Superimposition of freely selected axis function         Selected axis function           Ratary stool synchronous tap function, Spindle synchronizing control function, M         Canned cycle for threading           Rotary tool synchronous tap function, Spindle synchronizing control function, M         Canned cycle for threading  |  |   |   |  |
| Control axis groups       3 groups         Input code       ISO         Command input system       Incremental and absolute         Number of tool offsets       99         Feed command system       Per rotation feed and per minute         Override function       Manual zero return         On-machine program check function       Manual zero return         Program operation storage capacity       960 Kbyte (2400 m)         Input/Output interface       SD card slot and USB memory:         Spindle C-axis function       0.001*         Standard function       Zero return function, On-machine program check function, Manual feed function         Manual data input (MDI) function, Back up function, Operation time display, Pro counter display       Eco display, Cycle time check function, Automatic screen off function         4-Group simultaneous spindle speed command, 3-group simultaneous M comm Superimposition of freely selected axis function       BNE-MYY/MSB-dedicated macros, Optional block skip, Optional stop         Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:       Canned cycles for turning, Canned cycle for drilling         Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sa tran opsition automatic return, Waiting point automatic return, Back spindle returetur, Turet retract return         Automatic out-off machining function, Tool set function, Spindle speed set funct Tool select function <t< td=""><td></td><td></td><td></td></t<>   |  |   |   |  |
| Input code         ISO           Command input system         Incremental and absolute           Number of tool offsets         99           Feed command system         Per rotation feed and per minute           Override function         Rapid feeding/Cut feeding 0 to           Zero return function         Manual zero return           On-machine program check function         Manual zero return           Input/Output interface         SD card slot and USB memory:           Spindle C-axis function         0.001°           Standard function         Count of the display. Procount inter display. Procount eigplay           Eco display, Cycle time check function, Automatic screen off function         4-Group simultaneous pindle speed command, 3-group simultaneous M commodiant Superimposition of freely selected axis function           BNE-MYYMSB-dedicated macros. Optional block skip, Optional stop         Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:           Canned cycles for turning, Canned cycle for drilling         Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sation automatic return, Waiting point automatic return, Back spindle retureturn, Turret retract return           Automatic cut-off machining function, Tool set function, Spindle speed set funct           Tool oblique face machining (UNE-MSB)           Standard operating functions           Stard poly automatic return, Waiting point automatic   | Control axis groups  | TID2 IIIdex   |   |  |
| Number of tool offsets         99           Feed command system         Per rotation feed and per minute           Override function         Rapid feeding/Cut feeding (Cut feeding Ot to Zero return function           Manual zero return         Manual zero return           On-machine program check function         Manual pubs generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory           Spindle C-axis function         0.001°           Standard function         Zero return function, On-machine program check function, Manual feed function           Manual data input (MDI) function, Back up function, Operation time display, Pro counter display         Eco display, Cycle time check function, Automatic screen off function           4-Group simultaneous spindle speed command, 3-group simultaneous M corn         Superimposition of freely selected axis function           Superimposition of freely selected axis function         Rotary tool synchronous tap function, Spindle synchronizing control function, M canned cycle for threading           Rotary tool synchronous tap function, Sindle synchronizing control function, Sat monitoring         Program parameters input, Tool ip machining command (BNE-MSB)           Tool oblique face machining (BNE-MSB)         Tool oblique face machining function, Tool set function, Spindle speed set funct Tool select function           Calead dystemet functions         Start positi   |  |   |   |  |
| Feed command system         Per rotation feed and per minute           Override function         Rapid feeding/Cut feeding 0 to           Zero return function         Manual zero return           On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory:           Spindle C-axis function         0.001°           Standard function         Query Standard function           Zero return function, On-machine program check function, Manual feed function         Manual data input (MDI) function, Back up function, Operation time display, Procoupt simultaneous spindle speed command, 3-group simultaneous M commodulates function           Superimposition of freely selected axis function         BNE-MYYMSB-dedicated macros, Optional block skip, Optional stop           Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:         Canned cycles for turning, Canned cycle for drilling           Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sat monitoring         Program parameters input, Tool tip machining command (BNE-MSB)           Tool oblique face machining function, Tool set function, Spindle speed set funct         Standard operating function           Check adjustment function, Auxiliary manual operation function (AUX), Jog funct         Handle operation function           Check adjustment function, Auxiliary   |  |   | Incremental and absolute  |  |
| Override function         Rapid feeding/Cut feeding 0 to<br>Zero return function           On-machine program check function         Manual zero return           On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory.           Spindle C-axis function         0.001°           Standard function         Zero return function, On-machine program check function, Manual feed function           Adata input (MDI) function, Back up function, Operation time display, Procounter display.         Codisplay, Cycle time check function, Automatic screen off function           4-Group simultaneous spindle speed command. 3-group simultaneous M comr         Superimposition of freely selected axis function           Val-Group Simultaneous spindle speed command. 3-group simultaneous specific:         Canned cycle for threading           Rotary tool synchronous tap function, Spindle synchronizing control function, M         Canned cycles for turning, Canned cycle for drilling           Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sal         Sol and operating functions           Start position automatic return, Waiting point automatic return, Back spindle ret         return, Turret retract return           Automatic cut-off machining function, Tool set function, Spindle speed set funct         Tool select function           Check adjustment functio   |  |   |   |  |
| Zero return function         Manual zero return           On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory           Spindle C-axis function         0.001°           Standard function         Zero return function, On-machine program check function, Manual feed function           Manual data input (MDI) function, Back up function, Operation time display, Pro counter display         Zeo display, Cycle time check function, Automatic screen off function           4-Group simultaneous spindle speed command, 3-group simultaneous M comr Superimposition of freely selected axis function         BNE-MYY/MSB-dedicated macros, Optional block skip, Optional stop           Cut-off check function, Corner chamfering/ Radius function, Arc radius specific: Canned cycle for threading         Retary tool synchronous tap function, Spindle synchronizing control function, M canned cycle for threading           Rotary tool synchronous tap function, Spindle synchronizing control function, Sat monitoring         Program parameters input, Tool tip machining command (BNE-MSB)           Tool oblique face machining (BNE-MSB)         Standard operating functions           Start position automatic return, Waiting point automatic return, Back spindle retur return. Turet retract return           Automatic cut-off machining function, Tool set function, Sulf speed set funct Tool select function           Check adjustment function, Auxiliary  |  |   |   |  |
| On-machine program check function         Manual pulse generator           Program operation storage capacity         960 Kbyte (2400 m)           Input/Output interface         SD card slot and USB memory:           Spindle C-axis function         0.001°           Standard function         0.001°           Zero return function, On-machine program check function, Manual feed function         Manual data input (MDI) function, Back up function, Operation time display, Procounter display           Eco display, Cycle time check function, Automatic screen off function         4-Group simultaneous spindle speed command, 3-group simultaneous M comr           Superimposition of freely selected axis function         BNE-MYYMSB-dedicated macros, Optional block skip, Optional stop           Cut-off check function, Corner chamfering/ Radius function, Arc radius specific         Canned cycle for threading           Rotary tool synchronous tap function, Inch/Millimeter switching function, Sal         Manual pulse           Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sal         Monitoring           Program parameters input, Tool tip machining command (BNE-MSB)         Standard operating function           Standard operating function         Shek spindle speed set funct           Tool oblique face machining (UNE-MSB)         Standard operation function           Standard operating functions         Start position automatic return, Waiting point automatic return, Back spindle r   |  |   |   |  |
| Program operation storage capacity       960 Kbyte (2400 m)         Input/Output interface       SD card slot and USB memory:         Spindle C-axis function       0.001°         Standard function       Zero return function, On-machine program check function, Manual feed function         Manual data input (MDI) function, Back up function, Operation time display. Procounter display       Eco         Eco display, Cycle time check function, Automatic screen off function       4-Group simultaneous spindle speed command, 3-group simultaneous M comr         Superimposition of freely selected axis function       BNE-MYY/MSB-dedicated macros., Optional block skip, Optional stop         Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:       Canned cycle for threading         Rotary tool synchronous tap function, Spindle synchronizing control function, M       Canned cycle for turning, Canned cycle for drilling         Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sat       Monitoring         Program parameters input, Tool tip machining command (BNE-MSB)       Tool oblique face machining (INE-MSB)         Standard operating functions       Start position automatic return, Waiting point automatic return, Back spindle return, turter tertact retur         Automatic cut-off machining function, Tool set function, Spindle speed set function       Check adjustment function, Auxiliary manual operation function (AUX), Jog function, Spindle speed function         Editing support function   |  | k function  |   |  |
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| Spindle C-axis function         0.001*           Standard function         Zero return function, On-machine program check function, Manual feed function           Manual data input (MDI) function, Back up function, Operation time display, Procounter display         Eco display, Cycle time check function, Automatic screen off function           4-Group simultaneous spindle speed command, 3-group simultaneous M comr         Superimposition of freely selected axis function           BNE-MYY/MSB-dedicated macros, Optional block skip, Optional stop         Cut-off check function, Corner chamfering/ Radius function, Arc radius specific:           Canned cycle for threading         Rotary tool synchronous tap function, Spindle synchronizing control function, M           Rotary tool synchronous tap function, Inch/Millimeter switching function, Sal         monitoring           Program parameters input, Tool tip machining command (BNE-MSB)         Tool oblique face machining (BNE-MSB)           Standard operating functions         Stant position automatic return, Waiting point automatic return, Back spindle returetur, Turet retract return           Automatic cut-off machining function, Tool set function (AUX), Jog function set dijustment function         Standard operation function           Zeroing operation function         Zeroing operation function         Calculator function           Automatic cut-off machining function, Tool set function, (AUX), Jog function, Background editing, Simultaneous 3-system prograding operation function         Calculator function           Cal   |  | oupdoily  |   |  |
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| Zero return function, On-machine program check function, Manual feed function<br>Manual data input (MDI) function, Back up function, Operation time display, Pro<br>counter display<br>Eco display, Cycle time check function, Automatic screen off function<br>4-Group simultaneous spindle speed command, 3-group simultaneous M comr<br>Superimposition of freely selected axis function<br>BNE-MYY/MSB-dedicated macros, Optional block skip, Optional stop<br>Cut-off check function, Correr chamfering/ Radius function, Arc radius specific<br>Canned cycle for threading<br>Rotary tool synchronous tap function, Spindle synchronizing control function, M<br>canned cycles for turning, Canned cycle for drilling<br>Milling interpolation, Helical interpolation, Inch/Millimeter switching function, Sal<br>monitoring<br>Program parameters input, Tool tip machining command (BNE-MSB)<br>Tool oblique face machining (BNE-MSB)<br>Standard operating functions<br>Start position automatic return, Waiting point automatic return, Back spindle retr<br>return, Turret retract return<br>Automatic cut-off machining function, Tool set function, Spindle speed set funct<br>Tool select function<br>Calculator function<br>Zeroing operation function<br>Zaroing operation function<br>Zaroing operation function<br>Zaroing operation function<br>Calculator functions<br>Calculator functions<br>Calculator functions<br>Calculator function, Code list display, Code insert, Coordinate calculation functi<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system prog-<br>editing<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading 1, 2-System simultaneous threading II, High-sp<br>tapping function, Tool Ifer management 1   |  |   |   |  |
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| Program parameters input, Tool tip machining command (BNE-MSB)<br>Tool oblique face machining (BNE-MSB)<br>Standard operating functions<br>Start position automatic return, Waiting point automatic return, Back spindle retr<br>return, Turret retract return<br>Automatic cut-off machining function, Tool set function, Spindle speed set funct<br>Tool select function<br>Check adjustment function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Zeroing operation function<br>Editing support functions<br>Calculator function, Code list display, Code insert, Coordinate calculation functi<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system progrediting<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sp<br>tapping function, Tool Ife management 1  | Milling interpolation, Helica  | I interpolation, Inch   | Millimeter switching function Saf   |  |
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| Standard operating functions<br>Start position automatic return, Waiting point automatic return, Back spindle retur<br>return, Turret retract return<br>Automatic cut-off machining function, Tool set function, Spindle speed set funct<br>Tool select function<br>Check adjustment function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Zeroing operation function<br>Editing support functions<br>Calculator function, Code list display, Code insert, Coordinate calculation function<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system progred<br>editing<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program range of<br>100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sp<br>tapping function, Tool life management 1  |  |   |   |  |
| Start position automatic return, Waiting point automatic return, Back spindle retr<br>return, Turret retract return<br>Automatic cut-off machining function, Tool set function, Spindle speed set funct<br>Tool select function<br>Check adjustment function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Zeroing operation function<br>Editing support function<br>Calculator function, Code list display, Code insert, Coordinate calculation functi<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system progree<br>diting<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, I-System simultaneous threading I, High-sp<br>tapping function, Tool life management I   | Program parameters input,  | Tool tip machining  |   |  |
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| return, Turret retract return<br>Automatic cut-off machining function, Tool set function, Spindle speed set funct<br>Tool select function<br>Check adjustment function, Auxiliary manual operation function (AUX), Jog func<br>Handle operation function<br>Zeroing operation function<br>Editing support functions<br>Calculator function, Code list display, Code insert, Coordinate calculation functi<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system prog-<br>editing<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program range of<br>100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sp<br>tapping function, Tool Ife management 1  | Program parameters input,<br>Tool oblique face machining   | Tool tip machining<br>g (BNE-MSB)   |   |  |
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| Handle operation function<br>Zeroing operation function<br>Editing support functions<br>Calculator function, Code list display, Code insert, Coordinate calculation functi<br>Format check<br>Alarm block display function, Background editing, Simultaneous 3-system prog-<br>editing<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program r<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sp<br>tapping function, Tool Ifer management I  | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic return<br>return, Turret retract return  | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a   | command (BNE-MSB)   |  |
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| editing<br>Option<br>Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program m<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sy<br>tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic retired<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Handie operation function<br>Zeroing operation function<br>Editing support functions   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual c   | command (BNE-MSB)<br>utomatic return, Back spindle retrr<br>function, Spindle speed set functi<br>operation function (AUX), Jog func  |  |
| Program operation memory capacity of 1,920 Kbyte (4,800 m), Program memor<br>capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program m<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading 1, 2-System simultaneous threading II, High-sj<br>tapping function, Tool life management I  | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic return<br>return, Turret retract return<br>Automatic cur-off machining<br>Tool select function<br>Check adjustment function<br>Handle operation function<br>Zeroing operation function<br>Zeldting support functions<br>Calculator function, Code li   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual c   | command (BNE-MSB)<br>utomatic return, Back spindle retrr<br>function, Spindle speed set functi<br>operation function (AUX), Jog func  |  |
| capacity of 10 MB<br>Program memory range of 20 MB, Program memory range of 50 MB, Program m<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sy<br>tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic reti-<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Check adjustment function<br>Zeroing operation functions<br>Calculator | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Walting point a<br>g function, Tool set<br>Auxiliary manual c<br>st display, Code ins   | command (BNE-MSB)<br>utomatic return, Back spindle retr<br>function, Spindle speed set funct<br>operation function (AUX), Jog func  |  |
| Program memory range of 20 MB, Program memory range of 50 MB, Program m<br>range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sp<br>tapping function, Tool life management I  | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position autoratic reti-<br>return, Turret tretart return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function,<br>Handle operation function<br>Zeroing operation function<br>Editing support functions<br>Calculator functions<br>Calcu | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>Auxiliary manual c<br>st display, Code in<br>n, Background edit  | command (BNE-MSB)<br>utomatic return, Back spindle retro<br>function, Spindle speed set functi<br>operation function (AUX), Jog func<br>sert, Coordinate calculation functio<br>ing, Simultaneous 3-system progr  |  |
| range of 100 MB<br>Network I/O function, RS-232C, Automatic power shut-off function, Thermal<br>displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-sj<br>tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic reti-<br>return, Turret retract return<br>turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Andle operation function<br>Zeroing operation functions<br>Calculator function, Code li<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>Auxiliary manual c<br>st display, Code in<br>n, Background edit  | command (BNE-MSB)<br>utomatic return, Back spindle retro<br>function, Spindle speed set functi<br>operation function (AUX), Jog func<br>sert, Coordinate calculation functio<br>ing, Simultaneous 3-system progr  |  |
| displacement correction function, tool setter<br>Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-si<br>tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic reti<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Handle operation function<br>Handle operation function<br>Zeroing operation function<br>Zeroing operation functions<br>Calculator function, Codel li<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory<br>capacity of 10 MB  | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Walting point a<br>g function, Tool set<br>, Auxiliary manual c<br>st display, Code in:<br>n, Background edit   | command (BNE-MSB)<br>uutomatic return, Back spindle retra<br>function, Spindle speed set functi<br>operation function (AUX), Jog func<br>sert, Coordinate calculation functio<br>ing, Simultaneous 3-system progr   |  |
| Tool monitor, 3D chamfering function, Variable lead threading, Arc threading,<br>2-System simultaneous threading I, 2-System simultaneous threading II, High-s<br>tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic retr<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Handle operation function<br>Zeroing operation function<br>Zeroing operation functions<br>Calculator function, Code li<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory<br>capacity of 10 MB   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual o<br>st display, Code in:<br>n, Background edit<br>r capacity of 1,920<br>20 MB, Program ma   | command (BNE-MSB)<br>utomatic return, Back spindle retr<br>function, Spindle speed set funct<br>operation function (AUX), Jog func<br>sert, Coordinate calculation function<br>ing, Simultaneous 3-system program<br>Kbyte (4,800 m), Program memory<br>amory range of 50 MB, Program memory  |  |
| 2-System simultaneous threading I, 2-System simultaneous threading II, High-s<br>tapping function, Tool life management I  | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic reti-<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Handle operation function<br>Zeroing operation function<br>Zeroing operation functions<br>Calculator function, Code li<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory<br>capacity of 10 MB<br>Program memory range of 12<br>range of 120 MB   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual c<br>st display, Code in:<br>n, Background edit<br>r capacity of 1,920<br>20 MB, Program m<br>32C, Automatic poo  | command (BNE-MSB)<br>utomatic return, Back spindle retr<br>function, Spindle speed set funct<br>operation function (AUX), Jog func<br>sert, Coordinate calculation function<br>ing, Simultaneous 3-system program<br>Kbyte (4,800 m), Program memory<br>amory range of 50 MB, Program memory  |  |
| tapping function, Tool life management I   | Program parameters input,<br>Tool oblique face machining<br>Stant doperating function<br>Start position automatic reti-<br>return, Turret tertact return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function,<br>Handle operation function<br>Zeroing operation functions<br>Calculator function, Code li<br>Format check<br>Alarm block display function<br>editing<br>Option<br>Program operation memory<br>capacity operation memory<br>capacity of 10 MB<br>Program memory range of<br>2 range of 100 MB<br>Network I/O function, RS-22<br>displacement correction ful   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual o<br>st display, Code in:<br>n, Background edit<br>r capacity of 1,920<br>20 MB, Program me<br>32C, Automatic por<br>nction, tool setter  | command (BNE-MSB)<br>uutomatic return, Back spindle retrr<br>function, Spindle speed set functi<br>speration function (AUX), Jog func<br>sert, Coordinate calculation functio<br>ing, Simultaneous 3-system progr<br>Kbyte (4,800 m), Program memory<br>amory range of 50 MB, Program memory<br>emory range of 50 MB, Program memory  |  |
|  | Program parameters input,<br>Tool oblique face machining<br>Stant position automatic reti<br>return, Turret tertact return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Handie operation function<br>Zeroing operation function<br>Zeroing operation functions<br>Calculator function, Code li<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory<br>capacity of 10 MB<br>Program to function S-22<br>fange of 100 MB<br>Network I/O function, S-22<br>displacement   | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual o<br>st display, Code in:<br>n, Background edit<br>r capacity of 1,920<br>20 MB, Program m<br>32C, Automatic po<br>action, tool setter<br>g function, Variable                        | command (BNE-MSB)<br>utomatic return, Back spindle retro<br>function, Spindle speed set functi<br>operation function (AUX), Jog func<br>sert, Coordinate calculation functio<br>ing, Simultaneous 3-system progr<br>Kbyte (4,800 m), Program memory<br>amory range of 50 MB, Program m<br>wer shut-off function, Thermal<br>lead threading, Arc threading,  |  |
|  | Program parameters input,<br>Tool oblique face machining<br>Standard operating function<br>Start position automatic reti-<br>return, Turret retract return<br>Automatic cut-off machining<br>Tool select function<br>Check adjustment function<br>Andle operation function<br>Zeroing operation function<br>Zeroing operation functions<br>Calculator function, Code Ii<br>Format check<br>Alarm block display functio<br>editing<br>Option<br>Program operation memory<br>capacity of 10 MB<br>Program memory range of 2<br>range of 100 MB<br>Network I/O function, RS-22<br>displacement correction fun<br>Tool monitor, 3D chamfering<br>2-System simultaneous hire  | Tool tip machining<br>g (BNE-MSB)<br>ns<br>urn, Waiting point a<br>g function, Tool set<br>, Auxiliary manual c<br>st display, Code in:<br>n, Background edit<br>r capacity of 1,920<br>20 MB, Program m<br>32C, Automatic por<br>nction, tool setter<br>g function, Variable<br>adding 1, 2-System | command (BNE-MSB)<br>utomatic return, Back spindle retr<br>function, Spindle speed set funct<br>operation function (AUX), Jog func<br>sert, Coordinate calculation function<br>ing, Simultaneous 3-system program<br>Kbyte (4,800 m), Program memory<br>amory range of 50 MB, Program memory<br>range of 50 MB, Program memory<br>amory range of 50 MB, Program memory<br>at shut-off function, Thermal<br>lead threading, Arc threading, |  |

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