

# CHEVALIER®

Grinding / Turning / Milling

**FSG-H818CNC/B818CNC**

**/C1224CNC**

**HIGH EFFICIENCY PRECISION CNC PROFILE GRINDER  
HEAVY DUTY CNC CREEPFEE & PROFILE GRINDER**



### HIGH EFFICIENCY PRECISION HEAVY DUTY CNC CREEPFEED

#### FSG-H818CNC • B818CNC

##### HIGH EFFICIENCY PRECISION CNC PROFILE GRINDER

The FSG-H818CNC & FSG-B818CNC grinding machines are high precision, high efficiency multi purpose CNC profile grinders. These machines are designed to meet current and future grinding requirements such as intricate profiles, mold components and are well suited for parts of aircraft, automobile, electronic, medical, machine tool, and defense industries.

##### ■ High Precision

Column and wheelhead traverse on precision roller bearings and hardened and ground guideways that are pre-loaded and driven by a precision ballscrew, to provide excellent rigidity and precise positioning.

##### ■ High Efficiency

FANUC 0M controller provides full automation through programming in order to grind multi-shaped workpieces and complete the entire grinding processes from rapid approaching, rough grinding, wheel dressing with auto compensation, and fine grinding in one fully automatic cycle.

##### ■ Multi Purpose

Grinding types such as, surface, plunge, pitch, side, profile, form, index, and creepfeed grinding significantly enhance the machine versatility.

#### FSG-C1224CNC

##### HEAVY DUTY CNC CREEPFEED & PROFILE GRINDER

The FSG-C1224CNC grinding machine, with 30HP spindle motor, is a heavy duty, high precision, high efficiency, multi-purpose CNC creepfeed and profile grinder. This machine is designed to meet current and future grinding requirements such as intricate profiles and mold components and is well suited for aircraft, automobile, electronic, medical, machine tool and defense industry parts..

##### ■ High Precision

Wheelhead traverse on Turcite-B laminated guideways, which are driven by a precision ballscrew, provide excellent rigidity and precise positioning. Column travels on linear guideway system which provide precise positioning, high rigidity and smooth movement of the machine. Integrated machine structure with well designed ribs, the machine is suitable for heavy duty creepfeed grinding.

##### ■ Multi Purpose

Advanced grinding cycles such as surface, plunge, pitch, side, profile, form, index, and creepfeed grinding significantly enhance the machine versatility.

##### ■ Totally Enclosed Splash Guard

A forced flood coolant, accompanied by a totally enclosed splash guard cools the workpiece efficiently and helps prevent thermal damage and workpiece distortion.

##### ■ Crossfeed And Elevating Drive

Crossfeed and Elevating axes are positioned by precision ballscrews and an AC servo motor for providing superior accuracy and excellent longevity.

##### ■ Steady And Smooth Table Drive (FSG-H818CNC)

The two mode air cooled hydraulic table drive can be set to low speed for creepfeed grinding or high speed for conventional grinding, to add to the machine versatility.

##### ■ Steady And Precise Table Drive (FSG-H818CNC)

Table is driven by a precision ballscrew and an AC servo motor, to provide precise positioning and achieve optimum speeds needed for creepfeed grinding.

##### ■ Integrated Structure

Integrated machine structure is well suited for heavy duty grinding. Creepfeed grinding can be utilized to grind deep slots with a single pass through high hardness materials.

##### ■ Steady And Precise Table Drive

Precision ballscrew and an AC servo motor provide precise table positioning to achieve optimum speeds for creepfeed grinding.

##### ■ High Efficiency

A FANUC 0M controller provides full automation through programming for grinding multi-shaped workpieces and complete the entire grinding processes. This includes rapid approaching, rough grinding, wheel dressing with auto compensation and fine grinding in one fully automatic cycle. With wheelhead mounted automatic rotary diamond dresser (opt. B13-0818 or B13-1201), the grinding wheel can be dressed continuously. Thus the grinding wheel will be at best condition always for grinding application, and the wheel dressing time can be reduced to minimum. So the machine grinding efficiency can be increased a lot.

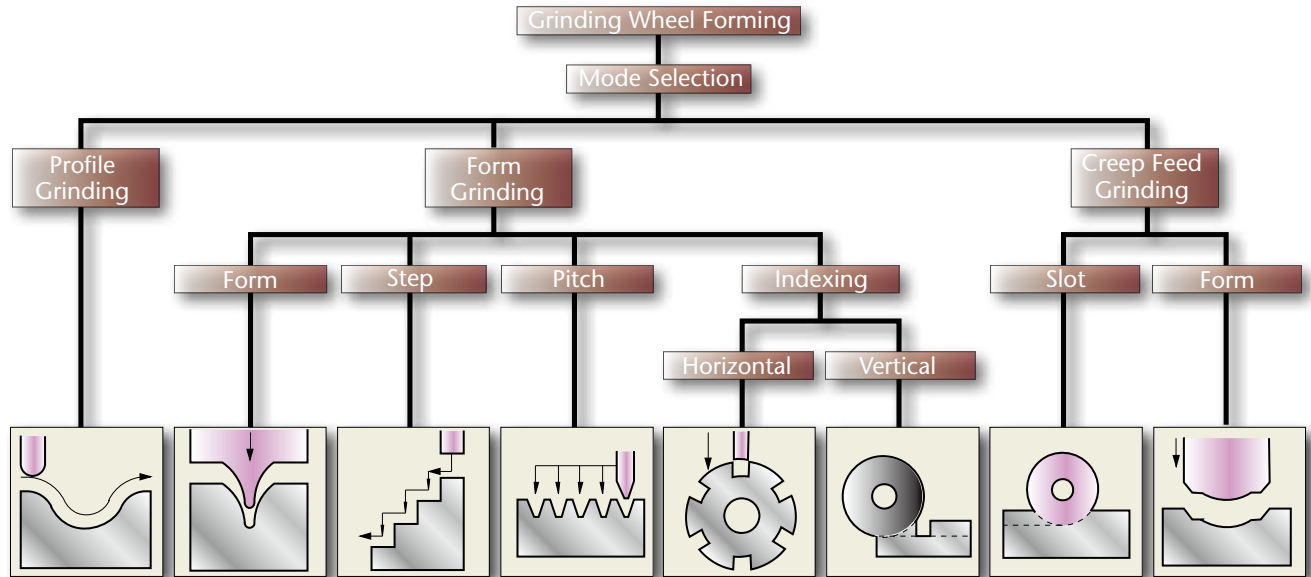
##### ■ Totally Enclosed Splash Guard

A forced flood coolant, accompanied by a totally enclosed splash guard cools the workpiece efficiently and helps prevent thermal damage and workpiece distortion.

##### ■ Crossfeed And Elevating Drive

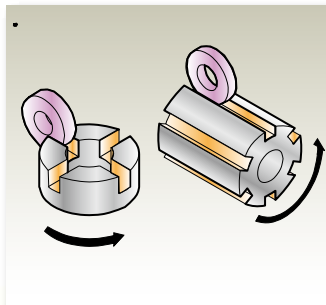
Crossfeed and Elevating axes are positioned by precision ballscrews and an AC servo motor for providing superior accuracy and excellent longevity.

### CNC PROFILE GRINDER & PROFILE GRINDER



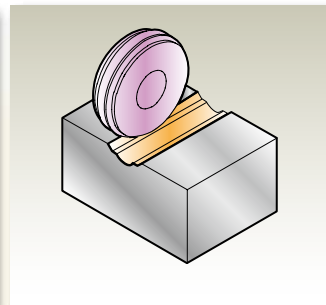
#### Indexing Grinding

By using horizontal or vertical indexer or applicable holding fixture, machine can grind various indexing shapes and slots.



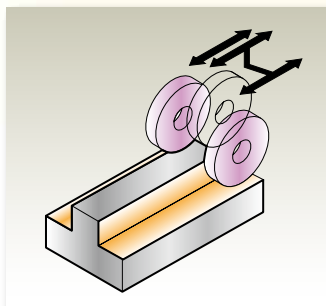
#### Heavy Duty Creepfeed Grinding

Creepfeed grinding can enhance efficiency for form and plunge grinding.



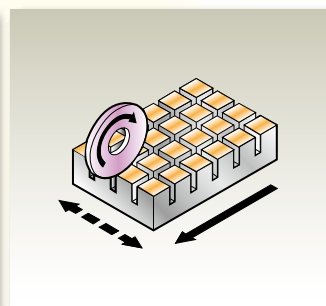
#### Step Grinding

Multi level surface can be ground in one grinding cycle.



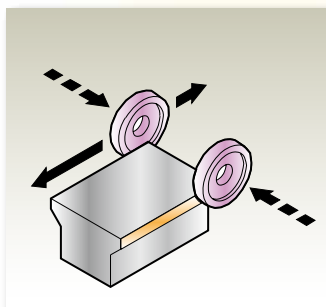
#### Slice Grinding

Thin slices can be creepfeed ground. Excellent results can be obtained when slicing ceramic materials.



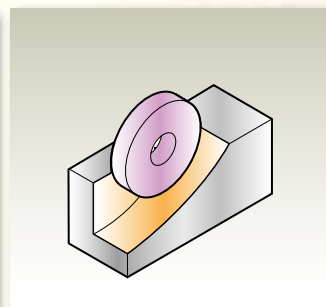
#### Side Grinding

Both sides of workpiece can be ground in one cycle. Two sides of grinding wheel can be dressed and compensated automatically during the grinding cycle.



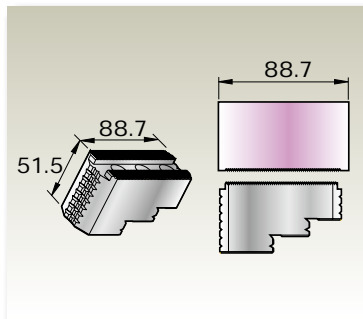
#### Punch Grinding

Various punch shapes can be creepfeed ground to enhance efficiency.

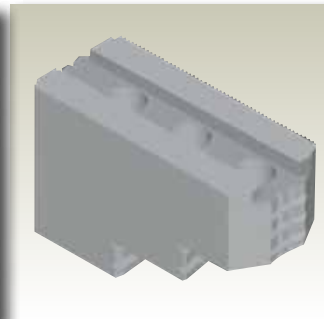


## (Mechanical Industry)

## LATHE CHUCK PART



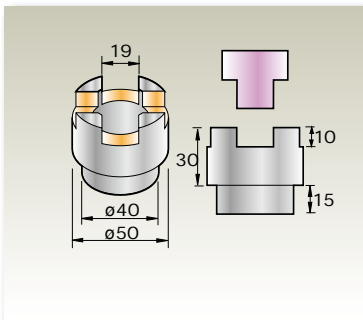
MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	SCM21
Kind of Wheel:	ELBE(81A500LV26)
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	3 min 30 sec
Grinding Mode:	Form Grinding



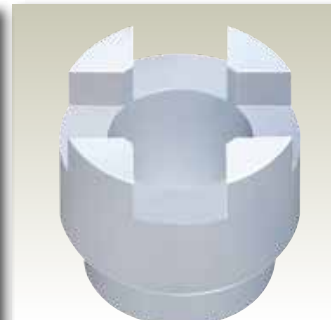
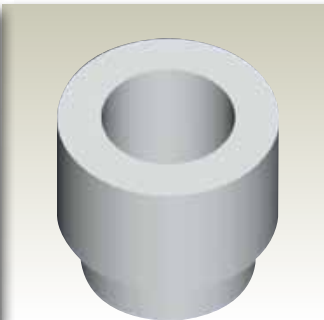
3 min 30 sec

## (Mechanical Industry)

## MOTOR JOINT



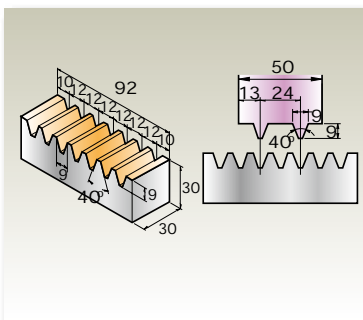
MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	SKD11
Kind of Wheel:	CBN
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0007''$ )
Cycle time:	30 sec
Grinding Mode:	Slot Grinding



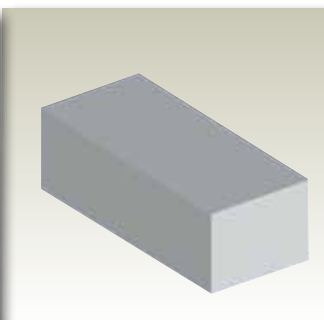
30 sec

## (Mechanical Industry)

## RACK PART



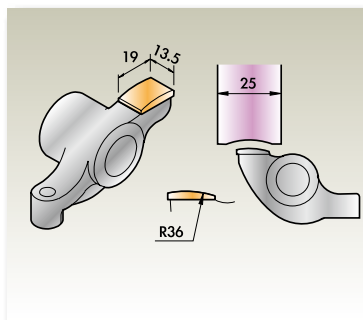
MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	SKD11
Kind of Wheel:	ELBE(81A46-3k12V26)
Form Accuracy:	$\pm 0.006\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	51 sec
Grinding Mode:	Form Grinding (one tooth)



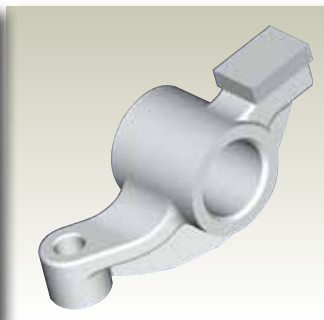
51 sec

## (Automobile Industry)

## RACKER ARM



MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	S55C
Kind of Wheel:	ELBE(81A46-3k12V26)
Form Accuracy:	$\pm 0.006\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	10 sec
Grinding Mode:	Form Grinding



10 sec

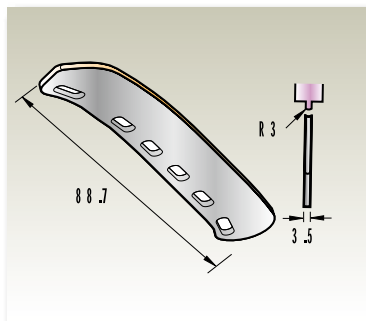


# 224CNC Series

## WORK EXAMPLES (C1224CNC)

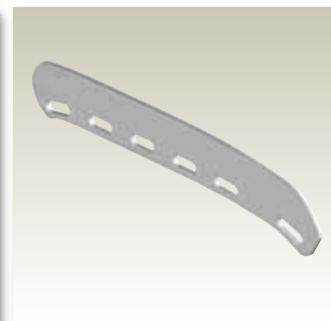
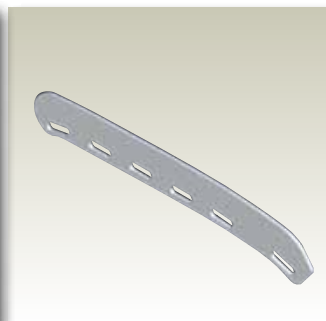
4

### & PROFILE GRINDER

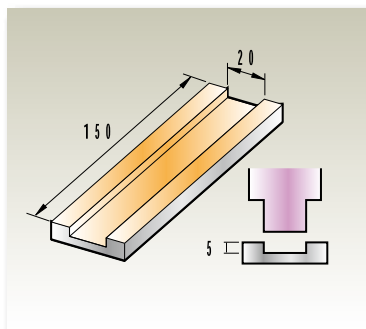


#### BLADES OF ICE SKATES

MODEL:	C1224CNC
Opt. Acce.:	B17-1202
Material:	SK5M
Kind of Wheel:	CBN
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	5 sec
Grinding Mode:	Profile Grinding

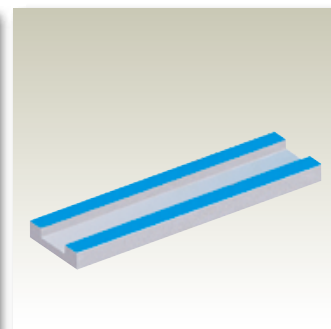
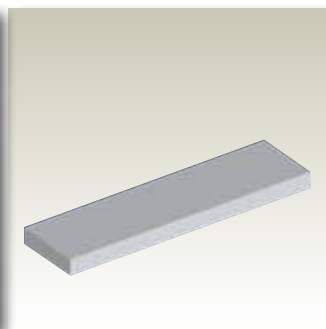


5 sec



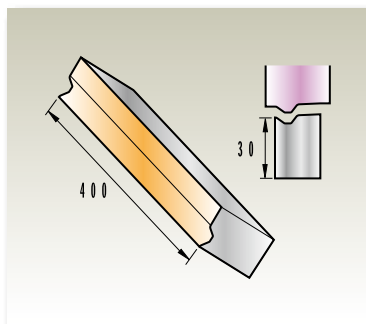
#### MECHANIC PARTS WITH SLOT

MODEL:	C1224CNC
Opt. Acce.:	B17-0802, B42-0801
Material:	SKD11
Kind of Wheel:	CBN
Form Accuracy:	$\pm 0.001\text{mm}$ ( $\pm 0.0003''$ )
Cycle time:	60 sec
Grinding Mode:	Slot Grinding



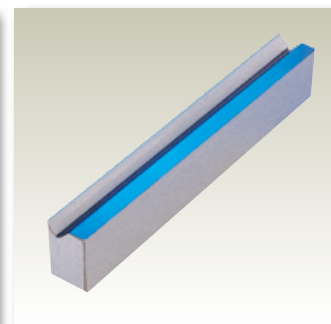
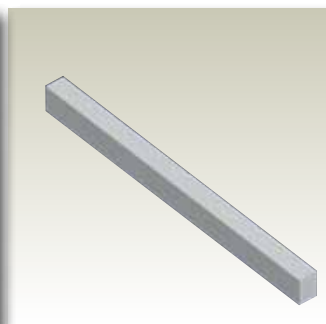
1 min

#### (Textile Industry)



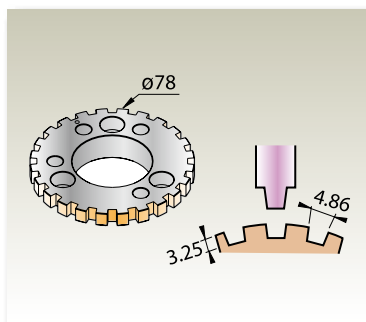
#### TEXTILE PART

MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	SKD11
Kind of Wheel:	ELBE(83A80-4L5V26)
Form Accuracy:	$\pm 0.007\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	68 sec
Grinding Mode:	Form Grinding



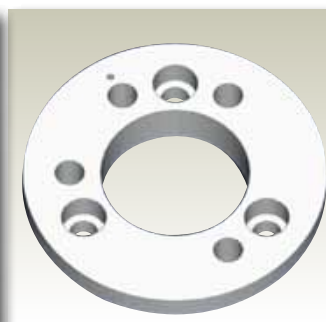
1 min 8 sec

#### (Mechanical Industry)



#### RACK PART

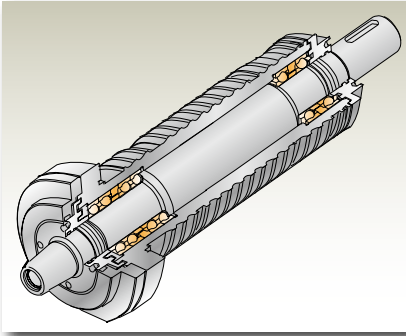
MODEL:	C1224CNC
Opt. Acce.:	B17-1203, B42-0801
Material:	SKS3
Kind of Wheel:	ELBE(81A46-3K12V26)
Form Accuracy:	$\pm 0.007\text{mm}$ ( $\pm 10''$ )
Cycle time:	4 min 36 sec
Grinding Mode:	Form Grinding



4 min 36 sec

### ■ Spindle (including heat emission device)

Supported by six super precision angular contact bearings, spindle can perform heavy duty grinding loads. Spindle is air-cooled to minimize temperature increase and ensure spindle accuracy. (Air compressor is optional)



### ■ Coolant Drainage

The enlarged and properly sloped drainage through on the upper machine base enables rapid coolant drainage needed to accommodate large volume of coolant flow during creepfeed grinding.



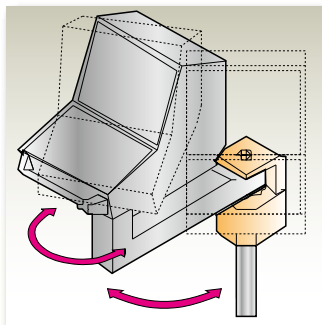
### ■ Totally Enclosed Splash Guard

The unique totally enclosed watertight splash guard accommodates heavy volume coolant flow for optimum grinding capability and provides safer environment for the operator.



### ■ Spindle

Control panel with 8.4" TFT LCD can display grinding position and program execution status, allowing operator to monitor grinding operation. Control panel can also be moved to a comfortable position for operator's convenience.



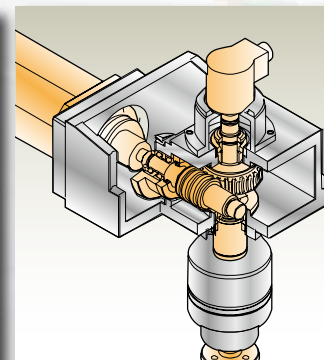
### ■ Single Piece Base Casting

Specially designed single piece base casting offers superior rigidity and extends longevity.



### ■ Elevating Encoder Device

Elevating encoder, mounted on the top of elevating ballscrew, acting with clutch can directly encode the downfeed amount, thus eliminating error, increasing accuracy, and extending longevity.



### ■ Elevating G

Wheelhead travels with adequately precise ballscrew for accurate downfeed increment.



### ■ Lubrication

Forced lubricant supply and mechanism through switch interlock prevents lubrication before lubrication of the machine if lubrication machines longevity.

# G-H/B818/C1224CNC Se

## HIGH EFFICIENCY PRECISION CNC PROFILE GRINDER HEAVY DUTY CNC CREEPFEE & PROFILE GRINDER



**FSG-H818CNC**

Note: Machine shown with optional accessories

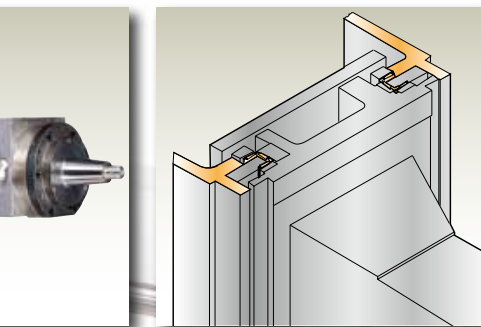


**FSG-C1224CNC**

Note: Machine shown with optional accessories

### Guide Way (818CNC)

on hardened and ground guide ways, interfacing  
e-loaded rollers. The wheelhead is driven by precise  
ate positioning at 0.001mm (0.00005") minimum  
nt.



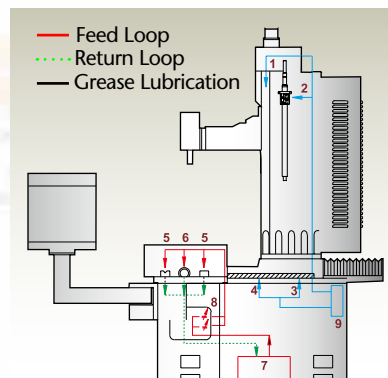
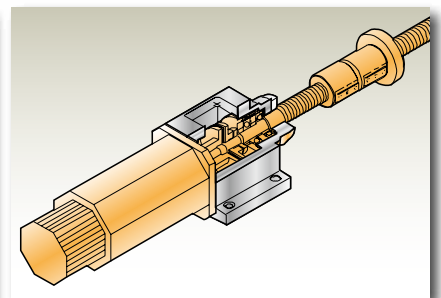
### System (818CNC)

Automatically flows to all guideways  
that require lubrication. A pressure  
vents the spindle from running  
pressure is established and stops  
lubrication supply fails, enhancing the  
and accuracy.



### Longitudinal Mechanism (B818CNC/C1224CNC)

Table travels on double-Vee guide ways coated with Turcite-B anti-friction material offering low friction and enhancing longevity. Driven by precise ballscrew, this mechanism ensures positioning accuracy for creepfeed and heavy duty grinding.

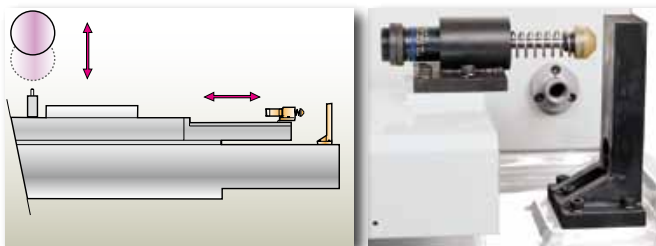


1. Column Slideways
2. Elevating Ballscrew
3. Base Guideways
4. Crossfeed ballscrew
5. Table Guideways
6. Ballscrew Rod
7. Lubricator
8. Flow Divider
9. Grease Gun



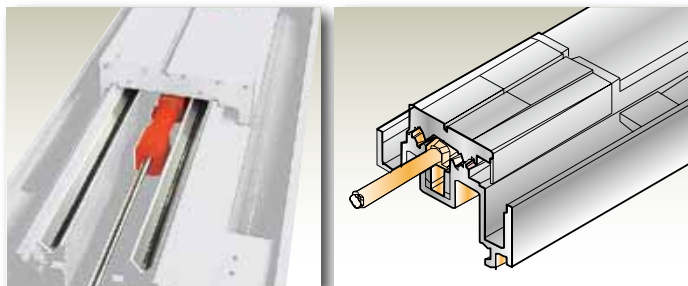
### ■ Automatic Dressing Function (H818CNC)

To reach the dressing position, a hydraulic buffer is used to ensure the positive stop of the table at the exact position. Automatic wheel dressing with compensation is also included. (Diamond dresser is optional)



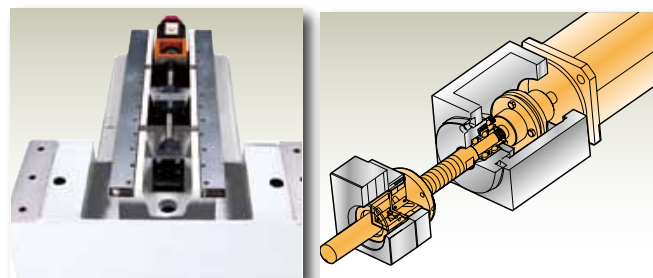
### ■ Longitudinal Mechanism (H818CNC)

Table travels on double-Vee guide ways coated with Turcite-B anti-friction material providing low friction and excellent longevity. Table is driven by hydraulic system, capable of reaching speeds as low as 20 mm/min, to facilitate creepfeed grinding.



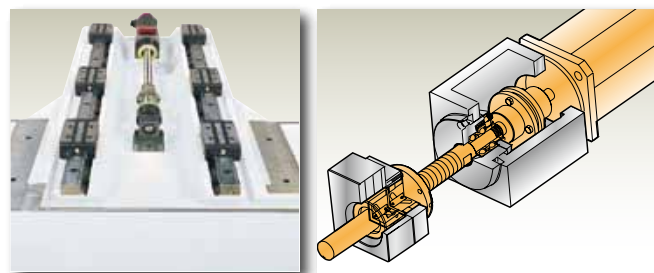
### ■ Crossfeed Guideway System (B/H818 CNC)

Column moves on hardened and ground guide ways, interfacing with adequately pre-loaded rollers. Column driven by precision ballscrew and FANUC AC Servo Control system, providing precise in/out movement.



### ■ Crossfeed Guideway System (C1224CNC)

The guideway system is composed of linear guideway system, and hardened high precision ballscrew interfaced with AC Servo motor. It can effectively arrest shaking and backlash to provide precise in/out movement.

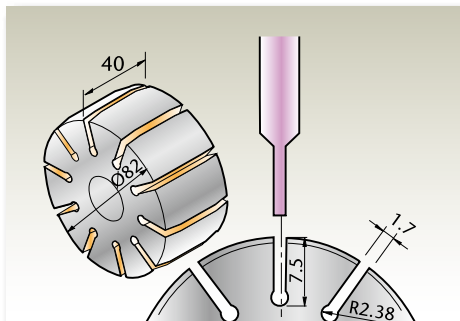


## DISPLAY AND CONTROL PANEL



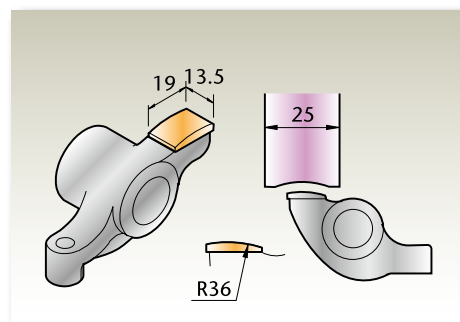
1. All executing function are well indicated. Main power, machine zero, end of program, magnetic chuck voltage, dressing, lubrication conditions are all shown by indicating LEDs.
2. The 8.4" TFT LCD color monitor position, program and working condition as well as self-displayed on the screen for the operator's convenience.
3. One piece soft-key keyboard not only dustproof and waterproof but also offers maintenance free features.
4. Easy to operate switch coped with indicating lights, to assure positive operations.
5. For the operator's convenience, not only the magnetic force can be adjusted but also the demagnetizing time. (operation)
6. Well developed testing functions can verify NC program thoroughly to ensure accident-free operation.
7. With MPG, feedrate override switches and JOG buttons, manual operation becomes easy and convenient.



**(Various Industry)****PUMP ROTOR**

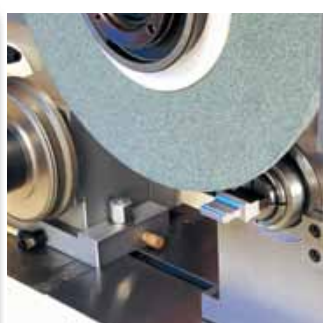
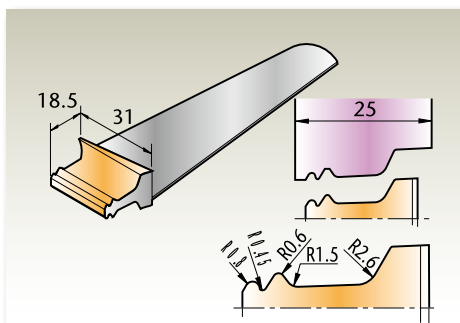
MODEL:	<b>B818CNC</b>
Opt. Acce.:	B45-0802
Material:	SUJ-2
Kind of Wheel:	MC80M7V
Form Accuracy:	$\pm 0.004\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	1 min 10 sec
Grinding Mode:	Indexing Grinding

1 min 10 sec

**(Automobile Industry)****ROCKER ARM**

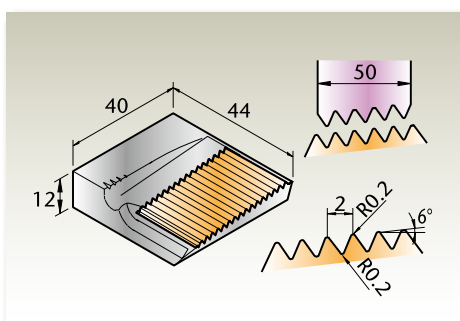
MODEL:	<b>B818CNC</b>
Opt. Acce.:	B13-0804
Material:	SCM-21
Kind of Wheel:	81A46K12V
Form Accuracy:	$\pm 0.006\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	15 sec
Grinding Mode:	Plunge Grinding

15 sec

**(Aircraft & Aerospace Industry)****TURBINE BLADE**

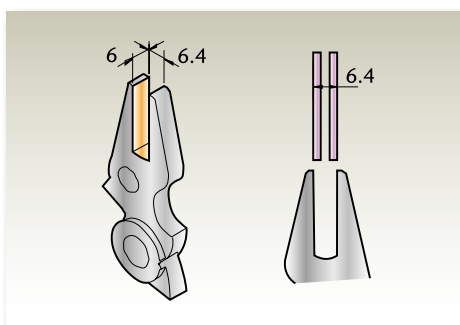
MODEL:	<b>B818CNC</b>
Opt. Acce.:	B13-0810
Material:	INCO-NI
Kind of Wheel:	32A804G13V
Form Accuracy:	$\pm 0.005\text{mm}$ ( $\pm 0.0003''$ )
Cycle time:	86 sec
Grinding Mode:	Form Grinding

86 sec

**(Coustruction Industry)****THREAD ROLLING DIE**

MODEL:	<b>B818CNC</b>
Opt. Acce.:	B13-0801
Material:	SHK-51
Kind of Wheel:	81A80H12V
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	5 min 20 sec
Grinding Mode:	Greep Feed Grinding

5 min 20 sec

**(Textile Industry)****TEXTILE MACHINE LINKAGE**

MODEL:	<b>B818CNC</b>
Opt. Acce.:	B13-0810
Material:	SCM4
Kind of Wheel:	CB120-WBA-100
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	55 sec
Grinding Mode:	Plunge Grinding

55 sec



# SG-H/B818/C1224CNC Serie

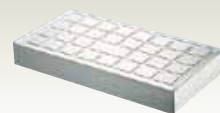
## HIGH EFFICIENCY PRECISION CNC PROFILE GRINDER

### (Construction Industry)

#### TILE'S MOLD

MODEL:	B818CNC
Opt. Acce.:	B13-0810
Material:	SKD11
Kind of Wheel:	CB150-WBA-100
Form Accuracy:	$\pm 0.012\text{mm}$ ( $\pm 0.0005''$ )
Cycle time:	58 min
Grinding Mode:	Form Grinding

58 min



### (Electrical Industry)

#### TERMINAL PRESS MOLD

MODEL:	B818CNC
Opt. Acce.:	B13-0811
Material:	SKD11
Kind of Wheel:	GC32AH5VGW1A
Form Accuracy:	$\pm 0.008\text{mm}$ ( $\pm 0.0003''$ )
Cycle time:	80 sec
Grinding Mode:	Form Grinding

80 sec

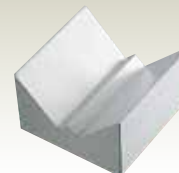


### (Electrical Industry)

#### TERMINAL PRESS MOLD

MODEL:	B818CNC
Opt. Acce.:	B13-0804
Material:	S45C
Kind of Wheel:	RA60153V
Form Accuracy:	$\pm 0.005\text{mm}$ ( $\pm 0.0002''$ )
Cycle time:	15 sec
Grinding Mode:	Form Grinding

15 sec



### (Metal Working Industry)

#### PRESS MOLD

MODEL:	B818CNC
Opt. Acce.:	B13-0811
Material:	S15C
Kind of Wheel:	32A46-I14V
Form Accuracy:	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	50 sec
Grinding Mode:	Plunge Grinding

50 sec

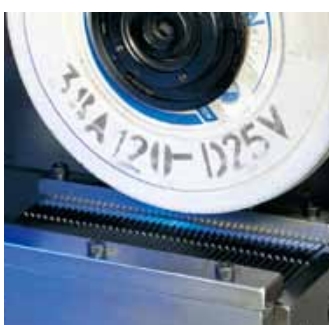
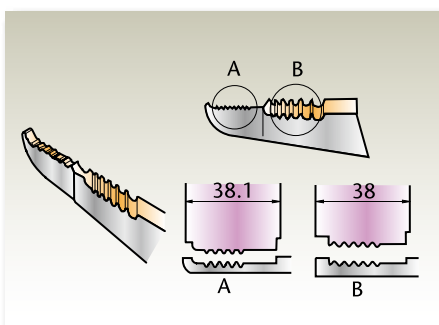
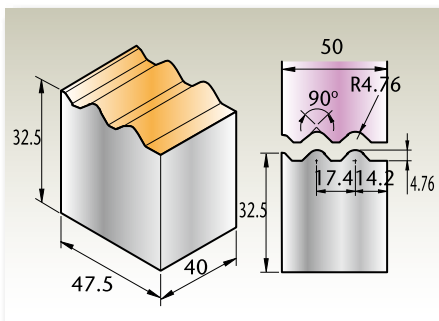
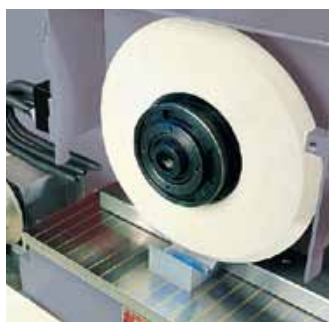
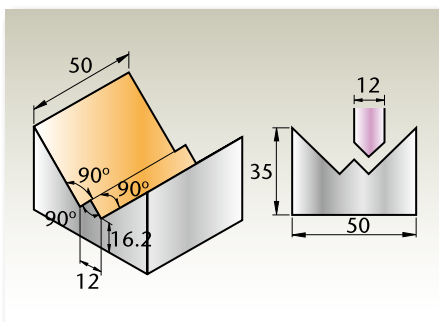
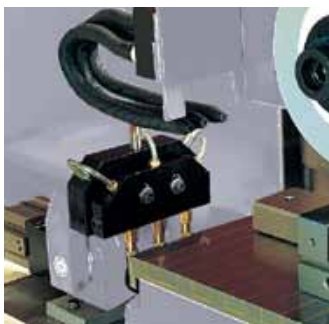
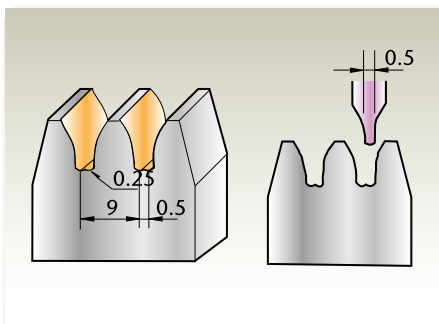
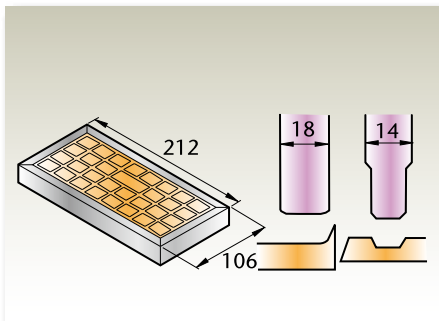


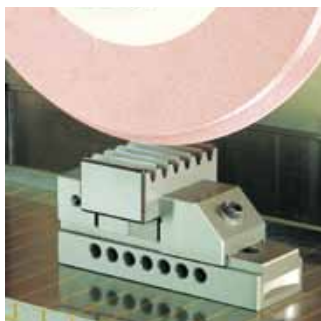
### (Mold Industry)

#### WIRE PILLING PLIER

MODEL:	B818CNC
Opt. Acce.:	B13-0804/1201
Material:	SK2 H.R.C. 50°~60°
Kind of Wheel:	38A120D25V
Form Accuracy:	$\pm 0.008\text{mm}$ ( $\pm 0.0004''$ )
Cycle time:	15 sec
Grinding Mode:	Form Grinding

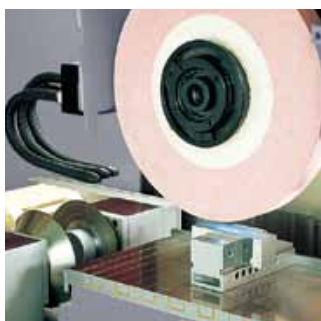
15 sec



**RACK**

MODEL:	<b>B818CNC</b>
Opt. Acce.:	B13-0801
Material:	SKH9
Kind of Wheel:	RA46-H14V
Form Accuracy:	±0.05mm (±0.0002")
Cycle time:	4 min
Grinding Mode:	Pitch Grinding

4 min



## TANK PARTS

MODEL:	B818CNC
Opt. Acce.:	B13-0811
Material:	S45C
Kind of Wheel:	38A120D25VCF2
Form Accuracy:	±0.009mm (±0.0004")
Cycle time:	6 min
Grinding Mode:	Creepfeed Grinding

6 min



## IC PUNCHING MOULD

MODEL:	B818CNC
Opt. Acce.:	B13-0801
Material:	S45C
Kind of Wheel:	WA180J5V
Form Accuracy:	±0.005mm (±0.0002")
Cycle time:	2 min
Grinding Mode:	Creepfeed Grinding

2 min



## R-ANGLE PUNCHING MOULD

MODEL:	B818CNC
Opt. Acce.:	B13-0810
Material:	SKH55
Kind of Wheel:	38A100-E19V
Form Accuracy:	±0.01mm (±0.0004")
Cycle time:	15 min
Grinding Mode:	Form Grinding

15 min





※FANUC 18iMB Control is an Option.

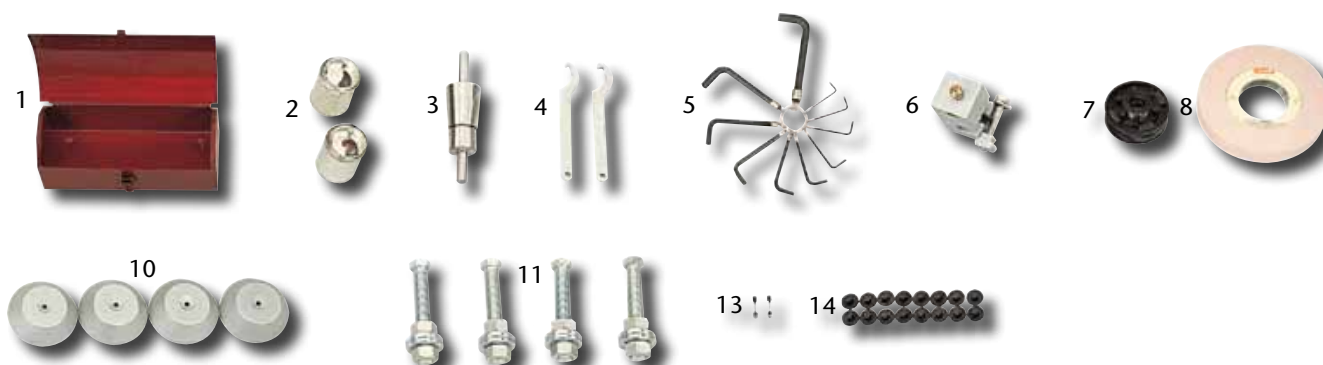
### FANUC 0iM CONTROL

1. Controlled axes	X,Y,Z	24.Program protection	
2. Simultaneous controllable axes	3 axes	25.Self-diagnosis function	
3. Least command increment	0.001mm(0.0001")	26.Emergency stop	
4. Automatic acceleration/deceleration		27.Status display	
5. Feedrate override	0-150% (10%per band)	28.X,Y,Z,B axes servo motor	
6. Manual continuous feed		29.Programmable control	FANUC PMC-SA1
7. Spindle feedrate override	50%-120% (10%per band)	30.NC automatic coordinate system setting	
8. Rapid positioning		31.Inch/metric conversion	
9. Linear interpolation		32.EIA/ISO automatic recognition	
10.Circular interpolation		33.Custom macro	
11.Manual reference point return		34.Part program storage length	640m
12.2nd reference point return		35.Registered programs	400 pieces
13.8.4" LCD color	High-resolution monochrome	36.Program display protection	
14.M.P.G.(Hand-wheel)	1 unit	37.Spindle load current indicator	
15.RS-232Cinterface		38.Mechanical lubrication alarm	
16.Dwell		39.Pitch error compensation	
17.Machine lock		40.Backlash compensation	
18.Skip function		41.Wheel automatic dressing and compensation	
19.Battery alarm		42.PMC-L ladder display	
20.Servo off		43.Magnetic chuck voltage meter	
21.MDI operation		44.Instruction display	
22.Dry run		45.Run hour display	
23.Single block operation		46.PMC-L ladder search	
		47.G codes menu display	

- |                               |                            |
|-------------------------------|----------------------------|
| 1. Tool Box                   | 9. Screw driver            |
| • 2. Touch-up paint           | 10.Leveling pads           |
| • 3. Balancing arbor          | 11.Levelling screws & nuts |
| • 4. Pin spanner wrench       | 12.Adjustable wrench       |
| • 5. Hex. wrenches            | 13.Fuses                   |
| • 6. Diamond dresser(03-0401) | • 14.Plugs                 |
| 7. Wheel flange               | 15.Machine Lamp(C1224CNC)  |
| 8. Grinding wheel             |                            |

### STANDARD ACCESSORIES

Note:The items marked "•" with are stored in the tool box.



Note: Items marked with "•" are recommended to be factory installed



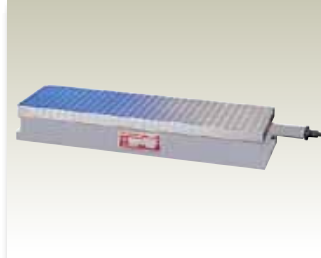
### SPINDLE MOTOR

- **B31-0801**(7.5HP) (818CNC)  
(To order **B48-0801** or **B48-0803**  
Frequency converter is required)
- **B31-0803**(10HP) (818CNC)  
(To order **B48-0805** **B48-0806**  
Frequency converter is required)
- **B31-1202**(50HP) (1224CNC)  
Include Frequency converter.



### WHEEL FLANGE

- B05-0803**  
Suitable for 305x76.2x31.75mm  
(12"x3 "x1 1/4") grinding wheel  
Clamping width:22~ 32mm  
(7/8"~1 1/4")
- B05-1201**(1224CNC)  
Suitable for 355.6x127x102mm  
(14"x5 "x4")



### ELECTROMAGNETIC CHUCK (With standard pole pitch)

- B09-06072**  
200x450mm (7 7/8"x17 3/4")  
(Voltage:110VDC)
- B09-04011**(1224CNC)  
300x600mm (11 3/4"x23 5/8")  
※ To order **B23-0701** chuck  
control is required.



### INCLINABLE ELECTROMAGNETIC CHUCK(With standard pole pitch)

- B09-09011** (B818CNC)  
200x300mm (7 7/8"x11 3/4")  
※ To order **B23-0701** chuck control  
is required.



### PRECISION VISE

- B11-0101**  
50X76mm (2"x3")
- B11-0102**  
63x100mm (2 1/2"x4")
- B11-0103**  
76x100mm (3"x4")
- B11-0104**  
89x127mm (3 1/2"x5")
- B11-0105**  
100x127mm (4"x5")



### TABLE-MOUNTED DOUBLE DIAMOND DISC. DRESSER (Diamond disc is not included)

- B13-0811**(818CNC)  
Motor:1/4HP  
Speed:1750rpm(60HZ)  
Roller Dia: Max.140mm (5 1/2")  
Roller Dia: Min.90mm (3 1/2")  
Clamping width:Max. 30mm  
(1 3/16")  
Dia of shaft: 35mm (1 3/8")



### TABLE-MOUNTED DOUBLE DIAMOND DISC. DRESSER (Diamond disc is not included)

- B13-0810**(818CNC)  
Motor:1/4HP  
Speed:1750rpm(60HZ)/  
1450rpm(50HZ)  
Roller Dia: Max.140mm (5 1/2")  
Roller Dia: Min.90mm (3 1/2")  
Clamping width:Max. 50mm (2 1/8")  
Dia of shaft: 35mm (1 3/8")



### **B13-1202**(C1224CNC)

- Motor:1/4HP  
Speed:1750rpm(60HZ)/1450rpm(50HZ)  
Roller Dia: Max.140mm (5 1/2")  
Roller Dia: Min.90mm (3 1/2")  
Clamping width:Max. 127mm (5")  
Dia of shaft: 45mm (1 4/5")

### **B13-1203**

- Motor:1kw AC SERVO  
Speed:2000rpm  
Roller Dia: Max.140mm (5 1/2")  
Roller Dia: Min.90mm (3 1/2")  
Clamping width:Max. 200mm (8")  
Dia of shaft: 45mm (1 4/5")/52mm (2")



### MACHINE LAMP

- B01-08011**  
(818CNC)24V/50W



### BALANCING STAND (ROLLER TYPE)

- B15-0601**  
Suitable for 203-355mm(8"-14")  
wheel



### ROLLER BALANCING STAND

- B15-0702**(C1224CNC)  
Max. Wheel Dia.:508mm (20")



### BALANCING STAND

- B15-0703**(C1224CNC)  
Max. Wheel Dia.:406mm (16")



### HYDRAULIC TEMPERATURE REGULATOR FOR SPINDLE AND DISC DRESSER

**B42-0801**

Cooling capacity: 700 kcal/hr



### TOWER TYPE OF COOLANT SYSTEM

**B17-1201**(1224CNC)

Volume:1250L

High pressure pump:4.5kg/cm<sup>2</sup>

Coolant Capacity: 66L/min



### CHUCK CONTROLLER

**B23-0701**

Input Voltage: 140VAC

Output Voltage: 110VDC

(With variable holding power, auto demagnetization.)



### GRINDING WHEEL DYNAMIC BALANCING SYSTEM

• **B44-0801**(818CNC)

• **B44-1201**(1224CNC)



### CNC CONTROLLED HORIZONTAL INDEXER

(This indexer, driven by AC servo motor and cooperated with CNC controller.)

• **B45-0802**

Resolution: 0.001°/STEP

Max.rpm: 33.3rpm

The tolerance of positioning is within: 0°0'20"



### FIXED ANGLE VERTICAL INDEXER

• **B45-0803**(818CNC)

Resolution: 0.133°/STEP

Max.rpm:33.3rpm

The tolerance of positioning is within: 0°0'5"

Pressure: 5kg/cm<sup>2</sup>



### AUTOMATIC DOOR SYSTEM FOR SPLASH GUARD

• **B19-0802**(818CNC)

• **B19-1201**(1224CNC)

※(To order B43-0801 low noise air compressor is required)



### AUTO RETRACTING TABLE MOUNT DRESSER

• **B13-0801**

※(To order B43-0801 low noise air compressor is required)



### COOLANT SYSTEM WITH AUTO PAPER FEEDING DEVICE&MAGNETIC SEPARATOR (With 1 Roll of Paper)

**B17-0802**(818CNC)

Volume: 250L

Coolant Capacity: 1/4HPx2

Pump: 80L/min

Space: 1600x1100mm

(63"x43")

Height: 750mm (29 1/2")

**B17-0806**(818CNC)

Medium pressure pump:2.3kg/cm<sup>2</sup>

Coolant Capacity: 66L/min

**B17-0807**(818CNC)

Extra high pressure pump:4.5kg/cm<sup>2</sup>

Coolant Capacity: 66L/min

**B17-1203**(C1224CNC)

Volume: 500L

Extra high pressure pump:4.5kg/cm<sup>2</sup>

Coolant Capacity: 66L/min



### COOLANT SYSTEM WITH AUTO PAPER FEEDING DEVICE (With 1 Roll of Paper)

**B17-0801**(818CNC)

Volume: 250L

Coolant Capacity: 1/4HPx2

Pump: 80L/min

Space: 1600x1100mm

(63"x43")

Height: 750mm (29 1/2")

**B17-0803**(818CNC)

Medium pressure pump:2.3kg/cm<sup>2</sup>

Coolant Capacity: 66L/min

**B17-0804**(818CNC)

Extra high pressure pump:4.5kg/cm<sup>2</sup>

Coolant Capacity: 66L/min

**B17-1202**(C1224CNC)

Volume: 500L

Extra high pressure pump:4.5kg/cm<sup>2</sup>

Coolant Capacity: 66L/min



### WHEELHEAD MOUNTED AUTOMATIC ROTARY DIAMOND DRESSER WITH AUTO WHEEL DRESSING COMPENSATION(Diamond roller is not included)

• **B13-0804**(818CNC)

Motor: 1/4HP

Speed: 1750rpm(60HZ)

1450rpm(50HZ)

Roller Dia:Max.100mm (3 7/8")

Roller Dia:Min.90mm (3 1/8")

Clamping width:

Max.55mm (2 1/8")

Dia of shaft: 35mm (1 3/8")

• **B13-1204**(DIA-3)(C1224CNC)

Motor: 2HP

Speed: 1750rpm(60HZ)

1450rpm(50HZ)

Roller Dia:Max.140mm

Spindle Speed: 930rpm(60Hz)

775rpm(50Hz)

Dia of shaft: 45mm (1 4/5")



### LOW NOISE AIR COMPRESSOR

**B43-0801**

Output: 1HPx2PCS

Max. Pressure: 8 kg/cm<sup>2</sup>

Displacement: 54L/min

Space: 500x500mm (20"x20")

Height: 860mm (34")

**B43-1201**

Output: 5HP

Max. Pressure: 8 kg/cm<sup>2</sup>

Space: 855x605mm

(33 2/3"x23 4/5")

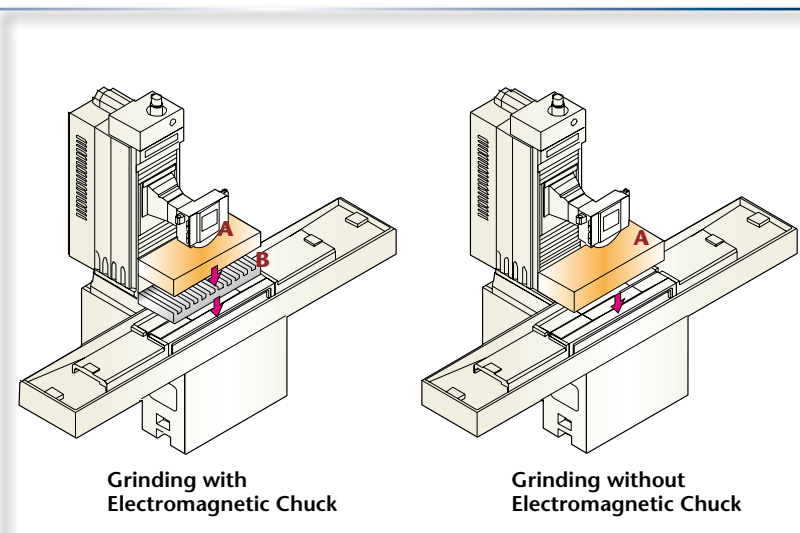
Height: 965mm (38")



Description		FSG-B818CNC	FSG-H818CNC	FSG-C1224CNC
Table Size		203x457mm (8"x18")		305x610mm (12"x24")
Max. Grinding Length	Longitudinal	457mm (18")		610mm (24")
Max. Grinding Width	Crosswise	203mm (8")		305mm (12")
Max. Distance from Table surface to Spindle Centerline		480mm (19")		610mm (24")
Longitudinal Movement (X axis)	Max. table load	200kgs (440lbs)		420kgs (920lbs)
	T-Slot Size x Number	12mmx1 (15/32"x1)		14mmx1 (9/16"x1)
	Table Speed infinitely variable	10~15000mm/min (0.393~590 ipm)   20~25000mm/min (0.787~984 ipm)		10~15000mm/min (0.393~590 ipm)
	Max. Travel	650 mm (25 1/2")		810mm (32")
Cross Transverse Travel (Z axis)	Max. Travel	280 mm (11")		400mm (16")
	Column Feed infinitely variable	0~3000mm/min (0~118 ipm)		0~3000mm/min (0~118 ipm)
	Least Input Increment	0.001mm (0.0001")		0.001mm (0.0001")
	Cross Feed,intermittent/stroke	(by NC Data)		(by NC Data)
Wheelhead Vertical infeed (Y axis)	Speed	0.001mm (0.0001")		0.001mm (0.0001")
	Wheelhead Feed,Infinitely variable	0~1000mm/min (0-39 ipm)		0~1000mm/min (0~39 ipm)
	Auto.infeed	(by NC Data)		(by NC Data)
Grinding Spindle Drive	Speed	500~3500rpm		500~3500rpm
	Power Rating(AC SERVO)	11kw(15HP), Opt.15kw (20HP)		22kw(30HP), Opt.37.5kw(50HP)
Standard Grinding Wheel	Diameter	305 mm (12")		356mm (14")
	Width	31.75mm (1 1/4")		102mm (4")
	Bore	76.2mm (3")		127mm (5")
Rated Power, Approx.		15kw(20HP), Opt. 18.7kw(25HP)		42kw(56HP), Opt. 54kw(76HP)
Floor Space (LxWxH)		3000x3400x3240mm (118"x134"x92")		4000x2940x2660mm (158"x116"x105")
Machine Weight, Approx.		3950kgs (8708lbs)		9000kgs (19800lbs)

※The design, specifications, mechanisms... etc. are for reference only and may change without notification.

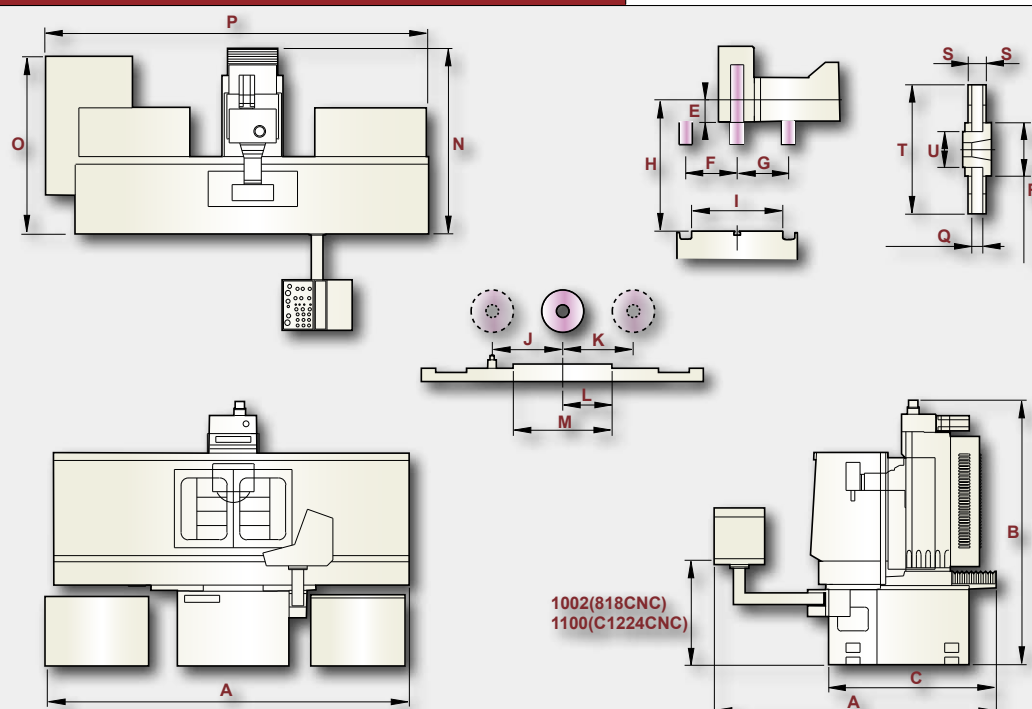
## PERMISSIBLE LOADS OF MACHINE



The total suggested maximum loads of working table are shown as follows

A=Workpiece	B=Magnetic chuck		C=A+B
MODEL	FSG-H818CNC	FSG-B818CNC	FSG-C1224CNC
A kgs(lbs)	165(363)	165(363)	314(690)
B kgs(lbs)	35(77)	35(77)	106(233)
C kgs(lbs)	200(440)	200(440)	420(924)

## DIMENSION DRAWING



1002(818CNC)  
1100(C1224CNC)

ITEM	FSG-H818CNC	FSG-B818CNC	FSG-C1224CNC
A	3000mm(118")	3000mm(118")	4000mm(157 1/2")
B	2290mm(90")	2290mm(90")	2660mm(104 3/4")
C	1700mm(67")	1700mm(67")	2020mm(79 1/2")
D	2800mm(110 1/4")	2800mm(110 1/4")	3065mm(120 5/8")
E	65mm(2 9/16")	65mm(2 9/16")	86mm(3 3/8")
F	140mm(5 1/2")	140mm(5 1/2")	203mm(8")
G	140mm(5 1/2")	140mm(5 1/2")	203mm(8")
H	480mm(19")	480mm(19")	610mm(24")
I	203mm(8")	203mm(8")	305mm(12")
J	355mm(14")	355mm(14")	406mm(16")
K	295mm(11 5/8")	295mm(11 5/8")	406mm(16")
L	228.5mm(9")	228.5mm(9")	305mm(12")
M	457mm(18")	457mm(18")	610mm(24")
N	2100mm(82 5/8")	2100mm(82 5/8")	2255mm(88 3/4")
O	2300mm(90 1/2")	2300mm(90 1/2")	2300mm(90 1/2")
P	3600mm(141 3/4")	3325mm(131")	3600mm(141 3/4")
Q	20~50mm(0.8"~2")	20~50mm(0.8"~2")	20~100mm(0.8"~4")
S	50mm(2")	50mm(2")	101.6mm(4")
T	305mm(12")	305mm(12")	355.6mm(14")
U	76.2mm(3")	76.2mm(3")	77mm(3.03")



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