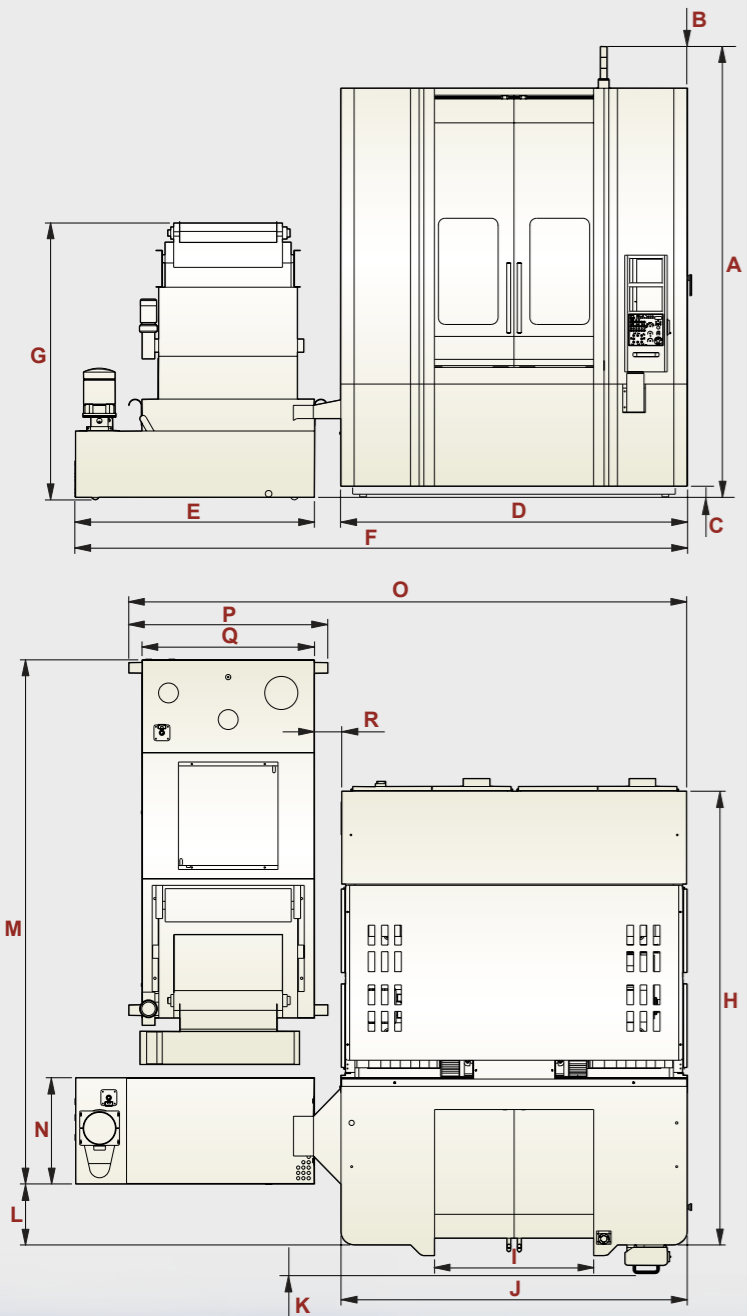


DIMENSIONAL DRAWINGS



ITEM	FMG-1632CNC Series
A	134"(3398mm)
B	15.6"(398mm)
C	3.3"(83mm)
D	103"(2616mm)
E	71"(1805mm)
F	182"(4618mm)
G	82"(2087mm)
H	135"(3420mm)
I	47"(1200mm)
J	102.7"(2610mm)
K	6"(150mm)
L	18"(460mm)
M	155.5"(3950mm)
N	31.5"(800mm)
O	165.5"(4205mm)
P	59"(1500mm)
Q	51"(1300mm)
R	8"(205mm)

※ Note: The manufacturer reserves the right to modify the design, specifications, mechanisms... etc. of the machine without prior notice. All the specifications shown above are just for reference.

©2003-2005 CHEVALIER® All Rights Reserved. Arch-STUDIO 050415 Ver1.0 P1
CAT: 0416-0006C00 / 20050426 / 1000 P1

CHEVALIER®

FMG-1632CNC Series

High Efficiency Profile Grinding Center



FALCON MACHINE TOOLS CO., LTD.
 No. 34, Hsing Kong Road, Shang Kang, Chang Hua
 TAIWAN 509
 TEL: 886-4-7991126 FAX: 886-4-7980011
<http://www.chevalier.com.tw>
 E-mail: overseas@chevalier.com.tw
 TA-YA Factory TEL:886-4-25673266

U.S.A. OFFICE
CHEVALIER MACHINERY INC.
 9925 Tabor Place Santa Fe Springs, CA 90670 U.S.A
 TEL:(562)903-1929 FAX:(562)903-3959





※ Note: The manufacturer reserves the right to modify the design, specifications, mechanisms... etc. of the machine without notice. All the specifications shown above are just for reference.

Description	FMG-1632CNC-DH	FMG-1632CNC-DV
Table Size	16" x 32"(410 x 810mm)	
Max. grinding length	32"(810mm)	
Max. grinding width	16"(410mm)	
Max.Distance from Table Surface to Spindle Centerline	32"(810mm)	20"(510mm)
Max.Table Load	3326lbs(1500kg)	
T-slots(Dim.xQty)	15/32" x 3(12mm x 3)	
X Axis	36"(920mm)	
Longitudinal Travel	0.032-88fpm(10-25000mm/min)	
Rapid Feed rate		
Z Axis	20"(510mm) 8"(203 mm)	
Cross Trave	0-12.5fpm(0-3800mm/min)	
Rapid Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
CrossFeed,Intermittent/stroke		
Y Axis	23.6"(600mm) 11.8"(300mm)	
Vertical Travel	0-12.5fpm(0-3800mm/min)	
Max.Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
Auto. Infeed		
Grinding Spinding Wheel	For Servo motor 25HP (18KW)/6000rpm	For Servo motor 25HP (18KW)/6000rpm
Power Rating	For High speed spindle(opt.) Servomotor 25HP(18KW)/6000rpm	
Standard Grinding Wheel (dia.Xwid.Xbore)	18" x 6" x 5" (450 x 150 x 127mm) For High speed spindle(opt.) 10" x 2" x 3" (250 x 50 x 76.2mm)	16" x 2" x 5" (400 x 50 x 127mm)
Rated Power (Approx.)	50HP(37.3kW)	
Floor Space (LxWxH)	149"X157"X118" (3800 x 4000 x 3000mm)	
Machine Weight (Approx.)	24274 lbs(11000kg)	25353 lbs(11500kg)

Description	FMG-1632CNC-TH	FMG-1632CNC-TV
Table Size	47.2"x39.4"(1200x1000mm)	
Max. grinding length	32"(810mm)	
Max. grinding width	16"(410mm)	
Max.Distance from Table Surface to Spindle Centerline	32"(810mm)	20"(510mm)
Max.Table Load	13326lbs(600kg)	
T-slots(Dim.xQty)	15/32" x 3(12mm x 3)	
X Axis	36"(920mm)	
Longitudinal Travel	0.032-88fpm(10-25000mm/min)	
Rapid Feed rate		
Z Axis	20"(510mm) 8"(203 mm)	
Cross Trave	0-12.5fpm(0-3800mm/min)	
Rapid Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
CrossFeed,Intermittent/stroke		
Y Axis	23.6"(600mm) 11.8"(300mm)	
Vertical Travel	0-12.5fpm(0-3800mm/min)	
Max.Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
Auto. Infeed		
Grinding Spinding Wheel	For Servo motor 25HP (18KW)/6000rpm	For Servo motor 25HP (18KW)/6000rpm
Power Rating	For High speed spindle(opt.) Servomotor 25HP(22KW)/15000rpm	
Standard Grinding Wheel (dia.Xwid.Xbore)	18" x 6" x 5" (450 x 150 x 127mm) For High speed spindle(opt.) 10" x 2" x 3" (250 x 50 x 76.2mm)	16" x 2" x 5" (400 x 50 x 127mm)
Rated Power (Approx.)	50HP(37.3kW)	
Floor Space (LxWxH)	149"X157"X118" (3800 x 4000 x 3000mm)	
Machine Weight (Approx.)	26455 lbs(12000kg)	25353 lbs(11500kg)

Description	FMG-1632CNC-RH	FMG-1632CNC-RV
Table Size	Ø39.4"(Ø1000mm)	
Max. grinding length	Ø31.5"(Ø800mm)	
Max. grinding width		
Max.Distance from Table Surface to Spindle Centerline	32"(810mm)	20"(510mm)
Max.Table Load	3326lbs(1500kg)	
T-slots(Dim.xQty)	15/32" x 8 (12mm x 8)	
Max. Table Rotating Speed	60rpm	
Rapid Feed rate	0.032-88fpm(10-25000mm/min)	
Z Axis	20"(510mm) 8"(203 mm)	
Cross Trave	0-13fpm(0-00mm/min)	
Rapid Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
CrossFeed,Intermittent/stroke		
Y Axis	23.6 "(600mm) 11.8"(300mm)	
Vertical Travel	0-12.5fpm(0-3800mm/min)	
Max.Feed Rate	0.0001"(0.001mm)	
Least Input Increment	By NC Data	
Auto. Infeed		
Grinding Spinding Wheel	For Servo motor 25HP (18KW)/6000rpm	For Servo motor 25HP (18KW)/6000rpm
Power Rating	For High speed spindle(opt.) Servomotor 25HP(22KW)/15000rpm	
Standard Grinding Wheel (dia.Xwid.Xbore)	18" x 6" x 5" (450 x 150 x 127mm) For High speed spindle(opt.) 10" x 2" x 3" (250 x 50 x 76.2mm)	16" x 2" x 5" (400 x 50 x 127mm)
Rated Power (Approx.)	50HP(37.3kW)	
Floor Space (LxWxH)	149"X126"X118" (3800 x 3200 x 3000mm)	
Machine Weight (Approx.)	14330 lbs(6500kg)	13227 lbs(600kg)

FMG-1632CNC Series

3

MACHINE CONSTRUCTION

APPLICATION

4

High Efficiency Profile Grinding Center

FMG-1632CNC

With accumulated experience in designing, production, application and software integration of CNC profile grinding machine, and combine with the market demand for more automatic and higher efficient machine, this high production grinding centers has been developed. The flexible and creative design and powerful function make the machine suitable for current and future grinding requirement, such as complicated shape workpieces, difficult machining material & hard and brittle material with high grinding efficiency and high accuracy.

FMG-1632CNC

- Automobile industry
- Punch mould industry
- Medical instrument industry
- Ceramic and quartz industry
- Semiconductor industry
- IT industry
- Aerospace industry
- Textile industry
- Cam plate and shape machining industry
- Many other applications

■ Spindle Speed

6000rpm
15000rpm(option)

■ Rapid on (X/Y/Z) Axes

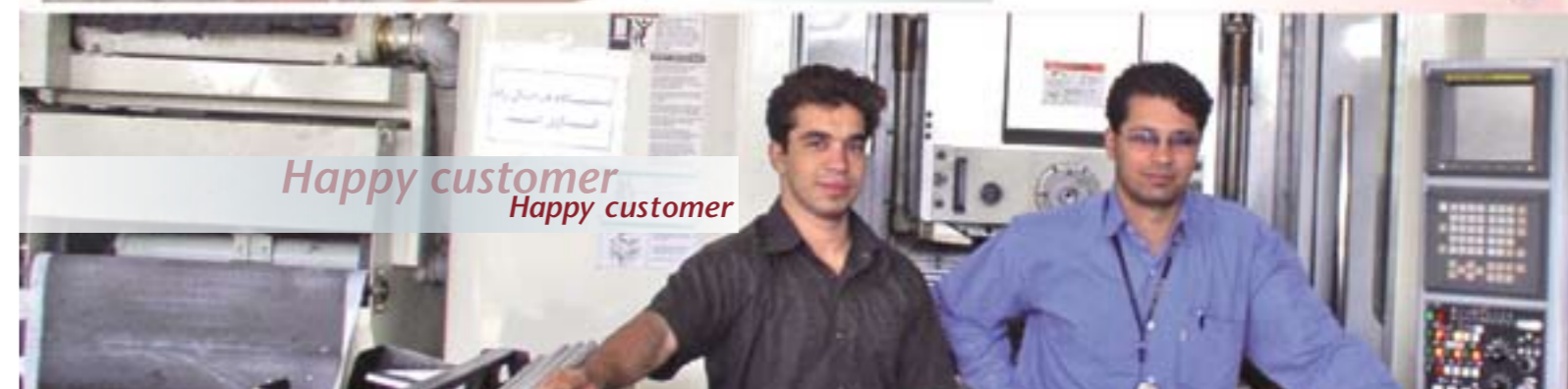
25/3.8/4m/min

■ Positioning Accuracy

JIS B6338-1985 0.004mm
VDI 3441 P0.010mm

■ Repeatability Accuracy

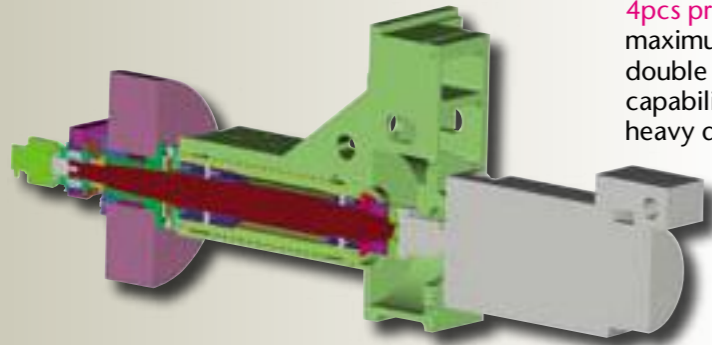
JIS B6388-1985 ±0.002mm
VDI 3441 PS0.010mm



F M G - 1 6 3 2 C N C Series

High Efficiency Profile Grinding Center

25~30HP Powerful AC Servo



Double supported Spindle Design

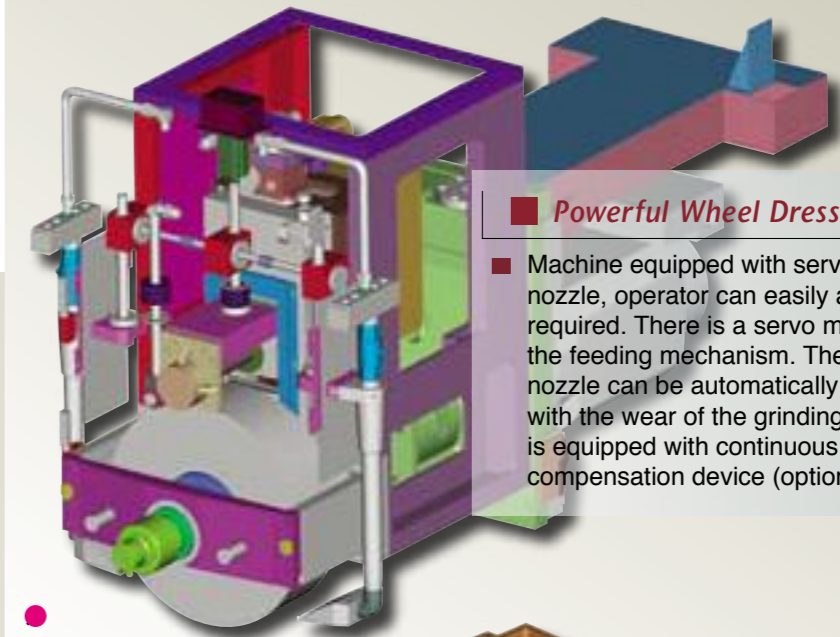
- The spindle is supported by 10 pcs of bearings (6pcs precision bearings in front and 4pcs precision bearings in rear), and with the best span arrangement to obtain the maximum rigidity of the spindle. There are extra bearings in the front of spindle to double support the spindle. Cooperated with powerful servo spindle motor, the cutting capability of the machine is greatly enhanced. The machine is able to do high-speed heavy duty grinding with up to 150mm width grinding wheel.

Rigid Column Design

- Specially designed column guide ways are offering highest grinding rigidity on the common grinding height.
- X, Y and Z axis adopt with precision linear guide ways for smooth movement. Spindle head is counter balanced by dual air cylinders. Cooperated with double supported large diameter (ø 50mm) ballscrew and speed reducing mechanism, the feeding and grinding accuracy of this machine is very reliable and stable.

Powerful Wheel Dressing and Coolant

- Machine equipped with servo powered coolant nozzle, operator can easily adjust to the height required. There is a servo motor cooperated with the feeding mechanism. The height of the coolant nozzle can be automatically adjusted to match with the wear of the grinding wheel if the machine is equipped with continuous wheel dressing and compensation device (option).



RIGID MACHINE CONSTRUCTION

- 3D Integrated Design and Finite Elements Analysis The geometric model of the machine was created by using 3D integrated design computer software and finite elements analysis to avoid blind spot. The structure analysis were carried out with the help of Pro / MECHANICA to ensure superior stability and rigidity of the machine for heavy duty grinding.

Large coolant returning

Saddle, Machine Base and Table

- Double supported pre-tensioned ballscrew is installed in the middle of saddle to obtain better balance and better feeding accuracy.
- Large diameter (ø63mm) pre-tensioned dual pitch ballscrew is set on machine base. Thus the machine can move smoothly and quietly even at 25m/min for surface grinding. High efficiency and better surface finish can be obtained during heavy duty creep-feed grinding.
- The advantage of this column travel machine is the loading capacity of table can be increased and grinding accuracy will not be influenced by the weight of workpiece as the table is not moving and the floor space required can be reduced. The large flow of coolant water is designed for accepting high-pressure coolant water and to cool down workpiece for better grinding result.

