

CGP-816/12

1 MACHINE FEATURES

CGP-Series
Cylindrical Grinders are designed accordingly to the human engineering, easy operation with great precision.

Hydraulic Cylindrical Grinding



Tailstock



Vertical head



CGP-816

Note: Machine shown with optional accessories.



■ Grinding wheel head

Made of high grade Nichrome steel SNCM-220, and are Normalized, Tempered, Carbonize Hardened.

To ensure trouble free performance throughout the life of spindle, it has to under going sub-zero treatment and super finished.

Special arrangement for wheel head spindle make the machine super rigidity.

■ Wheel Bearings

There are two choices for wheel bearings:

Hydrostatic bearing-It is the most suitable for precision grinding. It has features of light weight and fast speed without metal to metal friction, no heating, no changer with its characters, which is a special bearing for permanent using.

■ Slide Way of Wheel

Equipped with precision ball screw. The feeding is smooth, accurate and quick speeds. Wheel head swivel range is ± 30 degrees.

■ Spindle head

It is firmly supported by the precision bearing so that the grinding precision of external and internal diameters and end face could be guaranteed. Spindle head for machine CGP-816 is inverter type for changing speed ; model CGP-12 series is infinite variable speed which is able to use servo motor adequately.

The swivel range is $+90$ degrees and -30 degrees.

■ CGP-Series

Full automation driven by servo motor for On-and Backward movement and controlled by PLC programmable plunge grinding cycle.

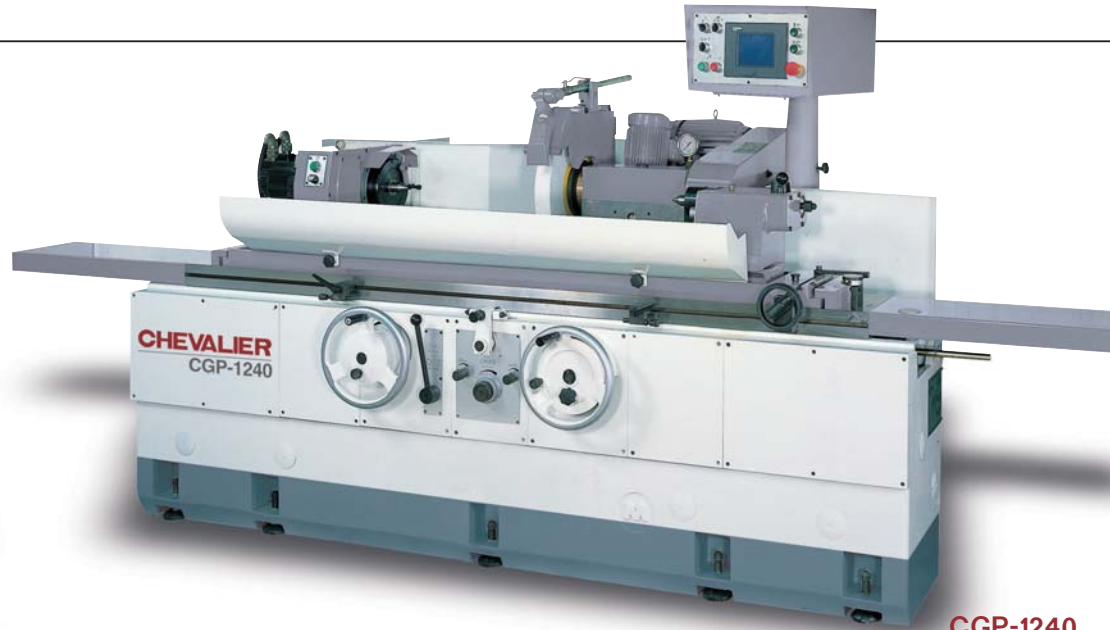


24/1240/1260 Series



CGP-1224

Note: Machine shown with optional accessories.



CGP-1240

Note: Machine shown with optional accessories.

GRINDING EXAMPLES

■ Straight Grinding

Small quality : auto. infeed+sparkout timer could obtain good grinding result. For mass production, 2-steps auto infeed + 2-steps auto mearsuer(optional) increased should provide the best productivity and quantities.



■ Shoulder Grinding

Finish the work both on external and shoulder grinding at one time. The workpiece is supported by two centers and it is available to install the wheel on the right side of the wheel head. Turn the wheel head to a certain degree to proceed the grinding.



■ Longitudinal Grinding

Intermittent automatic infeed and hydraulic-driven table provide the workpiece with the most effective longitudinal grinding.



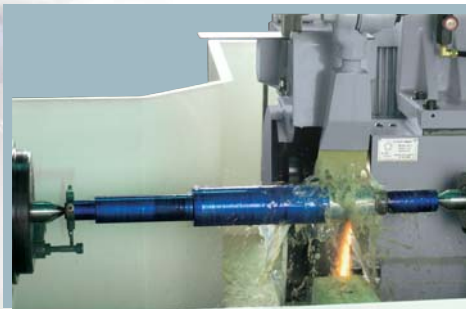
■ End Surface Grinding

Dismantle the cover of the spindle head. Install a 3-jaw or 4-jaw chuck. Change the position of the pin so as rotate the chuck. Place the pin at 90 degrees for end surface grinding.



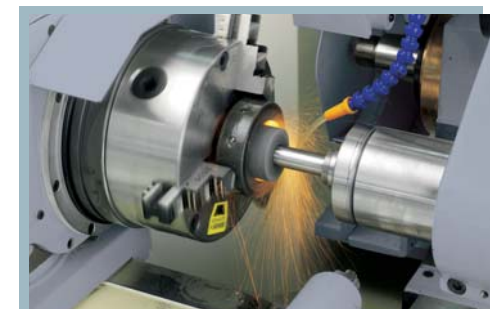
■ Taper Grinding

Hold the workpiece by chuck or two centers. The table and the wheel head can swivel. The adjustment is easy.



■ Internal Grinding

To proceed the internal grinding with a hinge type attachment(optional accessory), you may pull down the internal spindle and then fix it as well.



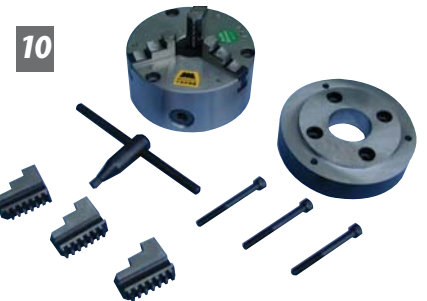
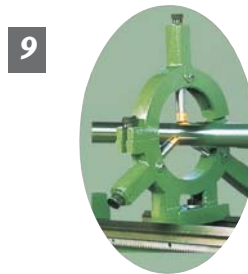
Standard Accessory

1. Grinding wheel with flange
2. Diamond tool holder (Table mounted type)
3. Tools and kits (Spanner, screw-driver...etc)
4. Carbide-tipped work centers morse taper No.2 or No.4
5. Coolant equipment
6. Standard electric equipment
7. Spindle device
8. Hydraulic tank with pump
9. Work lamp



Optional Accessory

1. Diamond tool holder for In-and External grinding wheel (Table mounted type)
2. Diamond tool holder (Tailstock mounted type)
3. Diamond tool holder for In-and External grinding wheel (Side opened type)
4. Angular Trimming Device
5. Radius Trimming Device
6. Cam-Locked driving dogs (6pcs/set)
7. 2-point steady rest (Table mounted type)
8. 2-point steady rest (For long bar grinding)
9. 3-point steady rest
10. Adjustable 3-jaw scroll chuck 7" 7"(178mm)
11. Adjustable 4-jaw scroll chuck 8" 7.8"(200mm)
12. Magnetic coolant separator 20L/ 40L
13. Paper band filter 20L/20L
14. Wheel forming device
15. Wheel balancing stand & arbor



SPECIFICATIONS

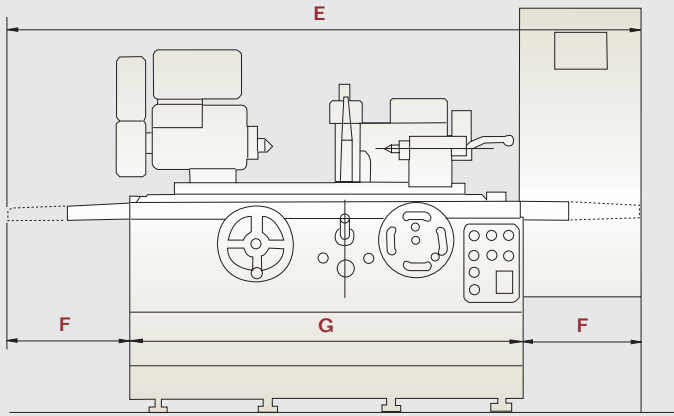
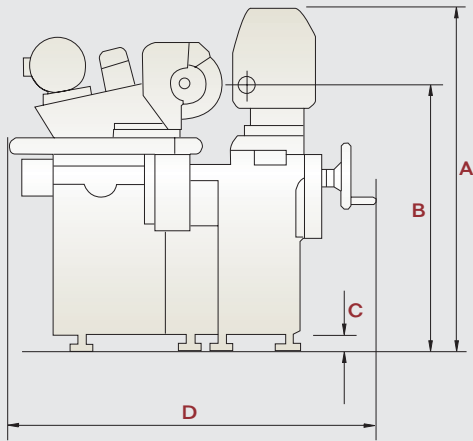
WORK EXAMPLES

Description	CGP-816	CGP-1224	CGP-1240	CGP-1260
Capacity				
Distance between centers	15.7"(400mm)	23.6"(600mm)	39.3"(1000mm)	59"(1500mm)
Swivei over table	7.9"(200mm)		12.5"(320mm)	
Maxi. load of centers	132lbs(60kg)		330lbs(150kg)	
Maxi. external grinding	6.3"(160mm)		11"(280mm)	
Wheel Head				
Swivel angel			± 30°	
Manual Distance	5.2"(135mm)		6.3"(160mm)	
Auto Rapid traverse	1.98"(25mm)		1.57"(40mm)	
Sliding Seat Supplementary Displacement			3.7"(95mm)	total11.6"(295mm)
Min. Feeding Count		0.0002"(0.005mm)/0.00004"(0.001mm)		
One Turn Of Hand Wheel (Graduation/rev.)		0.04"(1mm)0.0025"(0.0025mm)		
Wheel				
O.D. x width x I.D.		For 816 12"(305mm)x1.5"(38mm)x5"(127mm) For 12 14"(355mm)x2"(50mm)x5"(127mm)		
Speeds(Belt Type)	2085/2495		1783/1940	
Spindle Head				
Swivel Angel			120°(± 30°,-30°)	
Center Slope	MT:3		MT:4	
Spindle Speeds			16"450(inverter type)	
Tailstock				
Center Slope	MT:3		MT:4	
Spindle Stroke	0.78"(20mm)		0.98"(25mm)	
Table				
Swivel Angel	120°	12°	10°	8°
Traverse Speed				
Auto Return Min stroke		0.11"(3mm)		
One Return Min Stroke		0.78"(20mm)		
Motor				
Wheel Spindle	3HP(4P)		5HP(4P)	
Workhead Spindle	1HP(4P)		1HP Servo Motor	
P40T-1	1HP(6P)		1HP(6P)	
Lubricating Pump		1/4HP(2P)		
Coolant Pump	1/4HP(2P)		1/4HP(2P)	
Internal Spindle	1/4HP(2P)		1HP(2P)	
Tank Capacity				
Lubricating tank			12L	
Hydraulic tank			65L	
Coolant tank			150L	
Machine Weight				
lbs(Kg)	4400lbs (2000 kg)	5940lbs (2700kg)	6820lbs (3100kg)	8800lbs (4000kg)

Notice: 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.



GENERAL SPECIFICATIONS



ITEM	CGP-816	CGP-1224	CGP-1240	CGP-1260
A	60.7"(1540mm)			
B	46.5"(1180mm) 48.2"(1230mm)			
C	1.2"(30mm)			
D	70"(1780mm)			
E	86.6"(2200mm)	139"(3542mm)	177"(4497mm)	220"(5612mm)
F	19.6"(500mm)	29.9"(761mm)	39.8"(1011mm)	
G	51.9"(1320mm)	79.5"(2020mm)	97.4"(2475mm)	136.8"(3475mm)

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Ta-Ya Factory



Chuang Hsing Factory



U.S.A Office and warehouse

U.S.A. OFFICE **CHEVALIER MACHINERY INC.**

9925 TABOR PLACE
SANTA FE SPRINGS, CA 90670
TEL: (562)903-1929
<http://www.chevalierusa.com>
E-mail: info@chevalierusa.com

FAX: (562)903-3959

