## SPECIFICATIONS

### General Dimension

<table>
<thead>
<tr>
<th>Model</th>
<th>L</th>
<th>W</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGP-816/1224/1240/1260/1280</td>
<td>1,425 (56&quot;)</td>
<td>5,210 (205&quot;)</td>
<td>1,560 (61&quot;)</td>
</tr>
<tr>
<td>CGP-1624/1640/1660/1680</td>
<td>1,265 (50&quot;)</td>
<td>3,815 (150&quot;)</td>
<td>1,285 (51&quot;)</td>
</tr>
<tr>
<td>CGP-1624/1640/1660/1680</td>
<td>1,150 (45&quot;)</td>
<td>2,485 (98&quot;)</td>
<td>1,090 (43&quot;)</td>
</tr>
<tr>
<td>CGP-1624/1640/1660/1680</td>
<td>800 (31&quot;)</td>
<td>1,685 (66&quot;)</td>
<td>830 (33&quot;)</td>
</tr>
</tbody>
</table>

### Work Example

- Wheel (Graduation): 2.000mm
- Min. Feeding Count: 0.001mm
- Max External Grinding: 180mm (7.09")
- Max Load of Centers: 60kg (132lbs)
- Swivel Over Table: 200mm (7.9")
- Wheel Spindle: 3HP (4P)
- Motor: 13HP (AC Servomotor)
- Spindle Speeds: 10~300 (Inverter Type)
- Center: MT3
- Hand Wheel: 2-step
- Traverse Speed: 50/4,000mm/min
- Auto Reciprocate: 50/4,000mm/min
- Feed of One Turn of Hand: 8mm (0.3")
- Min. Stroke: 8mm (0.3")
- Auto Rapid Traverse: 25mm (1.98")
- Manual Distance: 135mm (5.2")
- ±30˚
- Swivel Angle: 120˚ (+90˚, -30˚)
- O.D. x Width x I.D: 305mm x 38mm x 127mm
- Speeds (rpm): 50HZ/60HZ
- 2,085/2,495
- 1,783/1,940
- 1,783/1,940
- 4,400lbs
- 5,720lbs
- 5,720lbs
- 6,160lbs
- 6,160lbs
- 7,040lbs
- 6,000lbs
- 7,480lbs
- 7,480lbs
- 7,040lbs
- 7,480lbs
- 7,040lbs
- 7,040lbs
- 7,040lbs
- 7,480lbs
- 7,480lbs

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All content is for reference only and may be subject to change without prior notice or obligation.
Wheelhead repeatability of ±0.000050"

High-grade Nichrome steel SNCM-220 wheelhead

Mitsubishi PLC control with touch screen operation

Precision ballscrew driven by AC digital servo motor

Friction-free hydrostatic spindle bearing for precision grinding

- Wheelhead retracts to park unload point after grinding cycle is completed
- Rough grinding, fine grinding and spark-out in one automated cycle.
- Tailstock center is capable of absorbing thermal expansion of work piece
- Machine castings are fully ribbed and are made of dense, high-grade Meehanite cast iron
- Variable speed workhead 10-300rpm

Hydrostatic Spindle

The CGP cylindrical grinders are ergonomically design to enhance rigidity, increase stability and allow easy of use.

Wheelhead

Boring

Vertical head

Tailstock

CGP-Series

Principle of static pressure bearing

Ps

Ps

h

R

Hydraulic Cylindrical Grinder

Note: Machine shown with optional accessories.

GRINDING INSTRUCTIONS

Face Grinding

Rocks the workpiece 90-degrees to face the spindle.

Shoulder Grinding (manual operation)

External and in situ grinding can be finished at one time. The workpiece is supported by two supports and is capable of rotating the wheelhead to a certain degree to grind.

Traverse Grinding

Rough infeed to a preset point, then switch to a fine infeed increment and spark out the desired depth. Once cycle is finished, wheel will retract to the load unload position.

Internal Grinding

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

INTERNAL GRINDING ATTACHMENT (Optional Accessory)

To switch from O.D. grinding to I.D. grinding, simply swing down the I.D. spindle into position and lock it in place. This enables both O.D. and I.D. precise grinding with a single chucking. The internal grinding spindle is driven by its own 1HP (0.75kW) motor.

ACCESSORIES

1. Diamond tool holder for internal and external grinding (tailstock mounted type)
2. Diamond tool holder for internal and external grinding (table mounted type)
3. Angular dressing device
4. Radius dressing device
5. 3-point steady rest
6. 3-point steady rest (long bar grinding)
7. 2-point steady rest (table mounted type)
8. 2-point steady rest (tailstock mounted type)
9. Adjustable 3-jaw scroll chuck 5”-7”
10. Adjustable 5-jaw scroll chuck 5”-8”
11. Coolant system with paper filter 25L/40L
12. Wheel balancing stand and arbor
13. Coolant hose and nozzle
14. Hydraulic driven table provides the workpiece with the most effective longitudinal grinding.
15. Load recirculation slide surface
16. Load recirculation arcuate type attachment (optional accessory), you may pull down the internal spindle and then fit it as well.
17. Hydraulic table supports the workpiece in the most effective longitudinal grinding.
18. Hydraulic driven table provides the workpiece with the most effective longitudinal grinding.
19. Load recirculation slide surface
20. Load recirculation arcuate type attachment (optional accessory), you may pull down the internal spindle and then fit it as well.
21. Hydraulic driven table provides the workpiece with the most effective longitudinal grinding.
22. Load recirculation slide surface
23. Load recirculation arcuate type attachment (optional accessory), you may pull down the internal spindle and then fit it as well.

MACHINE FEATURES

Hydraulic Cylindrical Grinder

CGP-816/1224/1240/1260/1280/1624/1640/1680

Note: Machine shown with optional accessories.