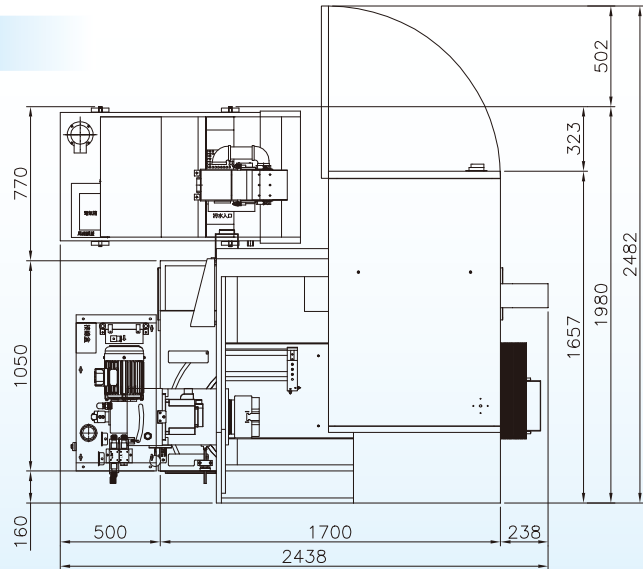


SPECIFICATIONS		GI-150NC	GI-150CNC
CAPACITY	ID Grinding Range	Ø6~Ø150 (Ø0.25"~Ø6")mm	
	Max. Grinding Depth	125(5")mm	
	Max. Swing to Dresser	Ø220 (8.6")mm	
	Swing of Chuck Cover	Ø260 (10.2")mm	
	Spindle Center Height	1050(41.3")mm	
	Chuck Type	6" Hydraulic Chuck (Opt. 8")	
	Max. Loading	50 kg	
WORK HEAD	Spindle Speed (Variable)	0~1000 rpm	
	Swiveling Angle	C.W. 15° ~ C.C.W. 5°	
	Spindle Motor	1.5 kw	
X-AXIS	Feedback System	None	Closed-Loop System
	Stroke	200(7.9")	
	Rapid Traverse Speed	10 m/min	
	Min. Infeed Increment	0.0001	
	X-axis Servo Motor	1.2 kw	1.2 kw
Z-AXIS	ID Spindle Motor	2.2 kw(2P)	
	ID Spindle Speed	8,000~30,000 rpm (special speed by request)	
	Stroke	560 (22")	
	Z-axis Driven by	Hydraulic Cylinder	Servo Motor 1.8 kw
	Rapid Traverse Speed	30~7000 mm/min	10 m/min
COOLANT SYSTEM	Equipments	Electro Magnet Separator + Magzet (Opt. Paper Filter)	
	Tank Volumn	120 L	
	Capacity	40 L/min	
	Motor	0.1 kw(4P)	
LUBE SYS.	Tank Volumn	2 L	
	Motor	45 w	
HYD. SYS.	Tank Volumn	10L	
	Motor	1 HP(4P)	
DIMENSION / WEIGHT	Machine Cover Type	Full Enclosure Splash Guard / Manual Door	
	Net Weight	3500 kgs	3500 kgs
	Gross Weight	4000 kgs	4000 kgs
	Packing (L x W x H)	2980 x 2280 x 2250 mm	2980 x 2280 x 2250 mm

Note: Factory reserves the rights to change design / specifications / mechanisms to improve machine performance without prior notice.

Outline Drawing



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FAX: +1-562-220-1677
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E-mail: info@supertecusa.com

Designed by 886-4-2312 7072

Precision Internal Grinder

GI-150 NC/CNC

PROFESSIONAL
GRINDER
MANUFACTURE

[ID Grinders] [Surface Grinders] [Cylindrical Grinders] [Centerless Grinders]

Features

Highly Reliable Design of Machine

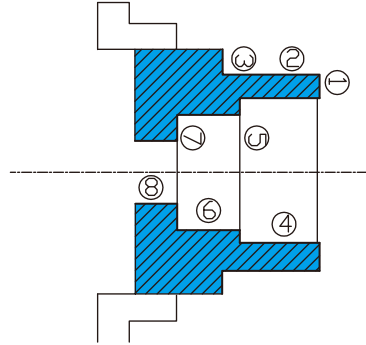
- CNC controlling 2 axes of table left, right feed and grinding wheel federate. X-axis closed-loop design, applying 0.05μm resolution linear scale to ensure the positioning and repeatability accuracy of the feeding axis.
- Apply linear guide that enables fine feed of 0.1μm, the minimum setting unit of both table guide face and cut guide face. By improving position definition and repetition accuracy, power on edge face and dead-end grinding is brought out.
- With certain tension and regardless to grinding resistance, belt of grinding wheel spindle is expanded and without slippage that its rotation accuracy is improved.
- Chuck core is as low as 1000mm, change such as work disconnection, grinding wheel replacement is easy and without troublesome.



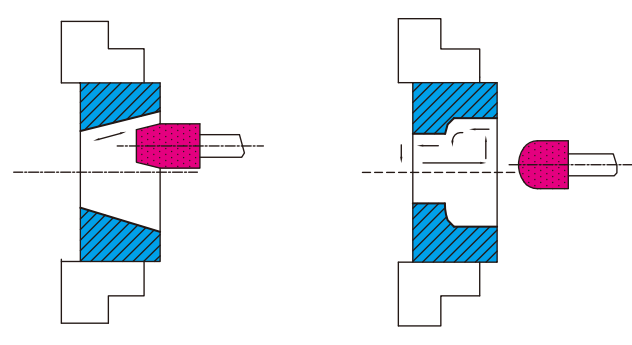
Grinding Applications

Grinding Position

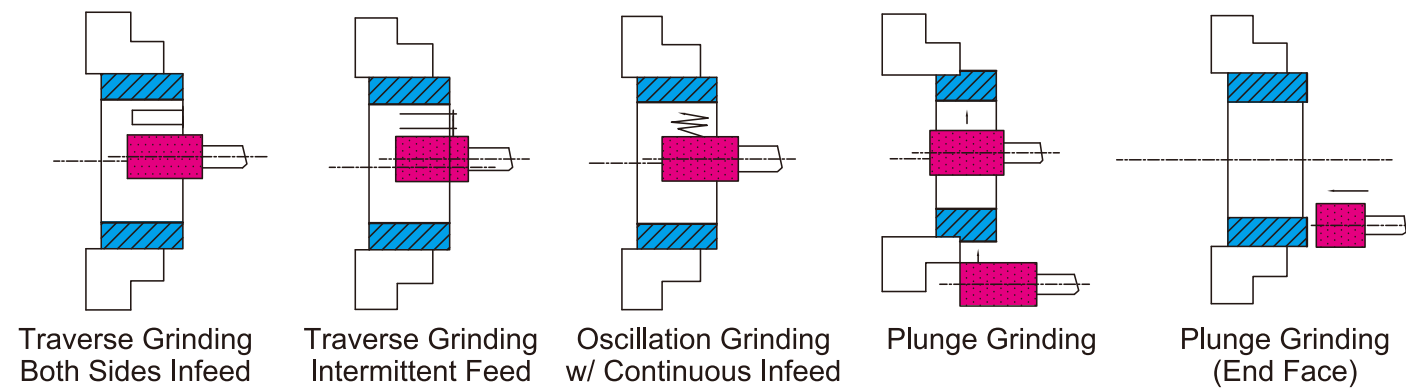
1. OD Face 2 OD
3. OD Face 4 ID
5. ID Face 6 ID
7. ID Face 8 ID



G CODE Form Grinding Examples



Grinding Methods



Grinding Cycle

- Automatic Grinding
- Compensation Grinding
- Short Stroke Compensation Grinding
- Manual Grinding
- Short Stroke w/ Manual Compensation

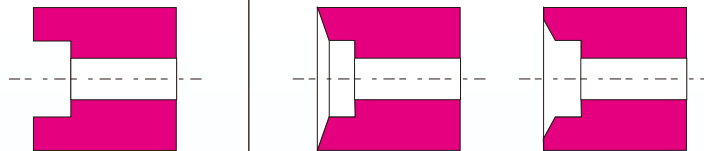
Interrupt Function During Auto. Cycle

- Dressing Interruption
- Feed Retract
- Cycle Stop
- Return to Start Point
- Feed Hold

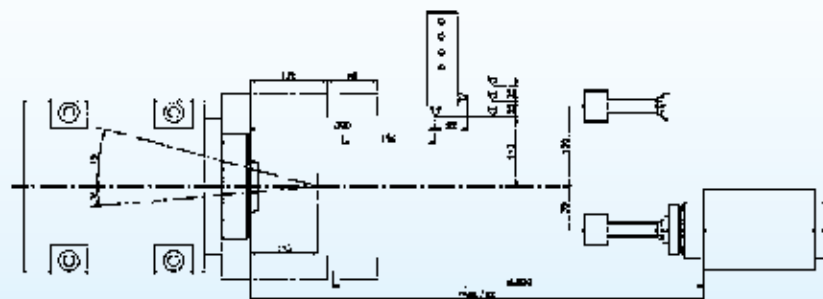
Grinding Wheel Data

OD Grinding:
May Be Used
for OD and ID
Grinding

Tapered Face:
For Grinding Inner and Outer
End Faces



Position Diagram of Workpiece, Grinding Wheel and Dresser



ID SPINDLE SPECIFICATIONS

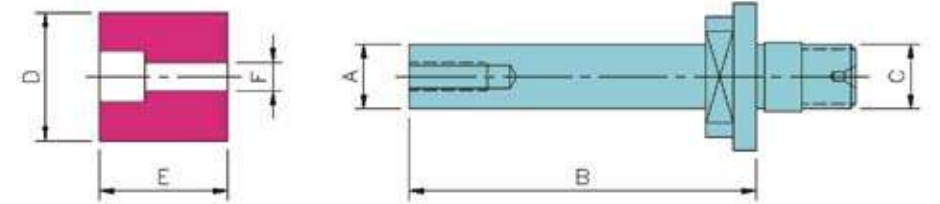
Spindle Speed	Speed Range	Frequency Range
30,000 rpm	25,000 ~ 30,000 rpm	50 ~ 60 Hz
20,000 rpm	15,000 ~ 20,000 rpm	50 ~ 60 Hz
15,000 rpm	8,000 ~ 15,000 rpm	50 ~ 60 Hz
8,000 rpm	6,000 ~ 8,000 rpm	50 ~ 60 Hz

Wheel Dimensions, Quill and Wheel Spindle Speed Information

Principles of Choosing ID Grinding Wheel Dimension :

ID Wheel Diameter (D) : Around 60%~80% of the Workpiece Internal Diameter.

ID Wheel Thickness (E) : E is equal to D when D is equal or smaller than Ø30mm : when D is larger than Ø30mm then the range of E is from 25 to 50mm, depending on the length of workpiece



ID Spindle Speed (rpm)	Peripheral Speed (m/min)	ID Wheel (mm)				Quill (mm)		
		ØD Range	ØD	E	F	A	B	C
30,000	2000	Ø26~Ø21	Ø25	6/10/13/16/19/25	4.77	13	39	M10x1.5
20,000	2000	Ø42~Ø32	Ø38	10/13/16/19/25/32/38	9.53	25	84	M16x1.5
			Ø45	10/13/16/19/25/32/38	9.53	25	84	M16x1.5
15,000	2000	Ø64~Ø42	Ø50	10/13/16/19/25/32/38	9.53	25	84	M16x1.5
			Ø65	10/13/16/19/25/32/38	12.7	25	84	M16x1.5
8,000	2000	Ø100~Ø80	Ø90	10/13/16/19/25/32/38	15.88	40	101	M26x2.0
			Ø100	10/13/16/19/25/32/38	15.88	40	101	M26x2.0

Note: For ID holes between Ø6~ Ø20 mm, it might be needed to apply high-frequency spindle with built-in motor and special ID wheel with quill, thus, please consult SUPERTEC sales for detail information.

GRINDING WHEEL SPECIFICATION RECOMMENDATION

Wheel OD (D)	STEEL		ALLOY		TOOL STEEL		STAINLESS		CASTING	
	< HRc25	> HRc25	< HRc55	> HRc55	< HRc60	> HRc60	300	400	Normal	Special
> 16mm	FA80M	WA80L-M	WA80L-M	WA80L	WA80L	WA80K	C54K	WA80L	C80K	GC80J
19~32mm	FA60L	WA60K-L	WA60K-L	WA60K	WA60K	WA60J	-	WA60K	C60J	GC60I
38~50mm	FA54K	WA54J-K	WA54J-K	WA54J	WA54I	WA54I	C36K	WA54J	C54I	GC54H
65~75mm	FA46K	WA46J-K	WA46J-K	WA46J	WA46J	WA46I		WA46J	C46I	GC46H
< 90mm	FA46J	WA46I-J	WA46I-J	WA46I	WA46I	WA46H		WA46I	C36I	GC36H

Note: Above information is for your reference only. Actual specification please consult the makers.