

Parts Manufacturing Machines

- Grinding Machine

Centerless Grinding Machine

◆ Centerless Grinder (SGC-200)

- ✓ Grinding Type
: Centerless through-feed or in-feed
- ✓ Workpiece Mounting
: Workrest support
- ✓ Machining Dia. Range: 2 – 120
- ✓ Machining Length Range
: Max. 200mm
- ✓ Loading: Through-feed or In-feed
- ✓ Dress Type
: Traverse type point diamond dresser
- ✓ G.W. (mm)
: 510 (D) x 255 (W) x 304.8 (B)
- ✓ R.W. (mm)
: 305 (D) x 255 (W) x 177.8 (B)
- ✓ R.W. Table: AC servo 3.0kW
- ✓ G.W. Drive: 1.5kW 4P AC motor
- ✓ R.W. Drive
:1.5kW 4P (gear reducer type)

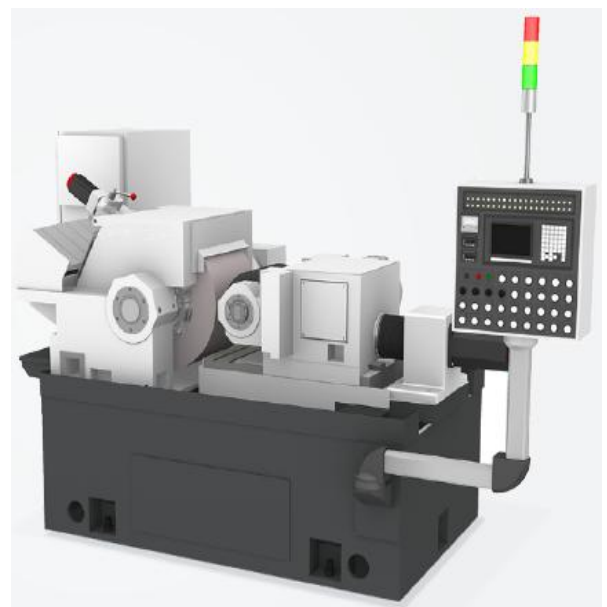
Equipment Image



◆ Centerless Grinder (SGC-300)

- ✓ Grinding Type
: Centerless through-feed or in-feed
- ✓ Workpiece Mounting
: Workrest support
- ✓ Machining Dia. Range: 4 – 120
- ✓ Machining Length Range
: Max. 300mm
- ✓ Loading: Through-feed or In-feed
- ✓ Dress Type
: Traverse type point diamond dresser
- ✓ G.W. (mm)
: 610 (D) x 305 (W) x 304.8 (B)
- ✓ R.W. (mm)
: 330 (D) x 305 (W) x 203.2 (B)
- ✓ R.W. Table: AC servo 3.7kW
- ✓ G.W. Drive: 22kW 4P AC motor
- ✓ R.W. Drive
:2.2kW 4P (gear reducer type)

Equipment Image



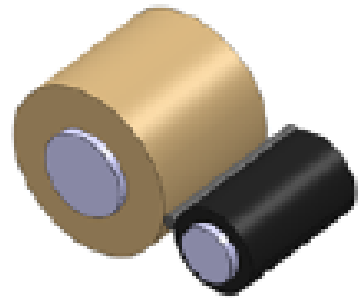
Parts Manufacturing Machines

- Grinding Machine

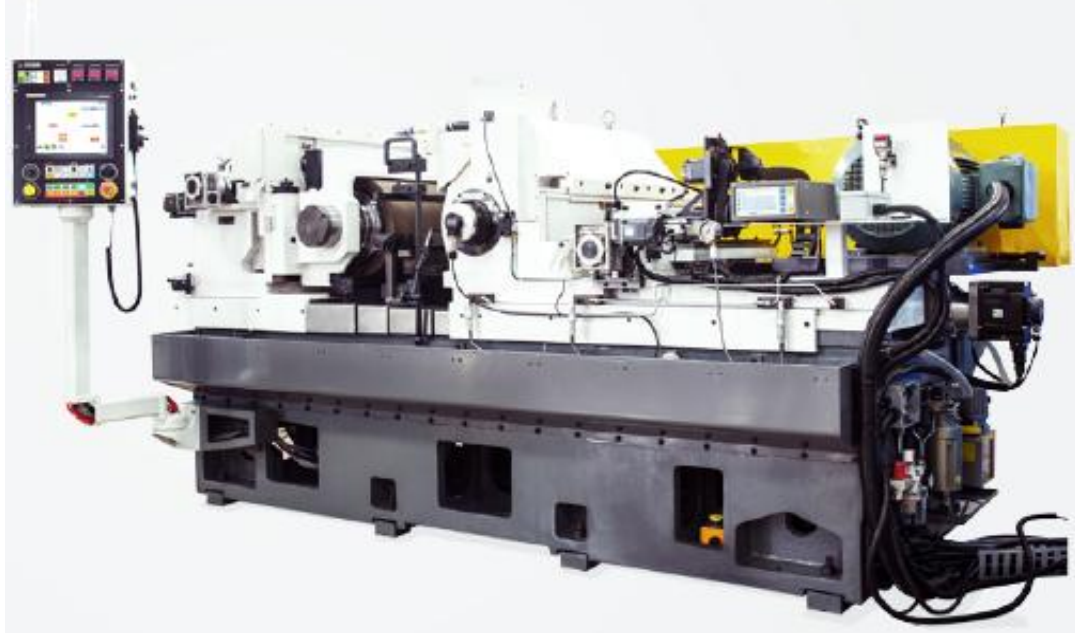
Centerless Grinding Machine

◆ Centerless Grinder (SGC-500)

- ✓ Grinding Type: Centerless through-feed or in-feed
- ✓ Workpiece Mounting: Workrest support
- ✓ Machining Dia. Range: 10 – 150
- ✓ Machining Length Range: Max. 500mm
- ✓ Loading: Through-feed or In-feed
- ✓ Dress Type: Traverse type point diamond dresser
- ✓ G.W. (mm): 610 (D) x 510 (W) x 304.8 (B)
- ✓ R.W. (mm): 380 (D) x 510 (W) x 254 (B)
- ✓ G.W. Table: AC servo 3.7kW
- ✓ R.W. Table: AC servo 3.7kW
- ✓ G.W. Drive: 45kW(37kW) 4P AC motor
- ✓ R.W. Drive: 5.5kW 4P (gear reducer type)



Equipment Image



Parts Manufacturing Machines

- Grinding Machine

Centerless Grinding Machine

◆ Centerless Grinder (DC-18AT)



Machine Structure & Design

- ① Symmetrical base structure
- ② Certified rigid structure by FEM Evaluation
- ③ Excellent vibration absorption & stability
- ④ Consistent heat conductivity with limited temperature flow
- ⑤ Operation optimization with ergonomic design features

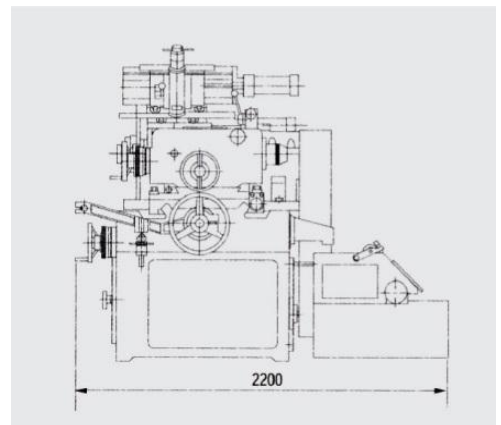
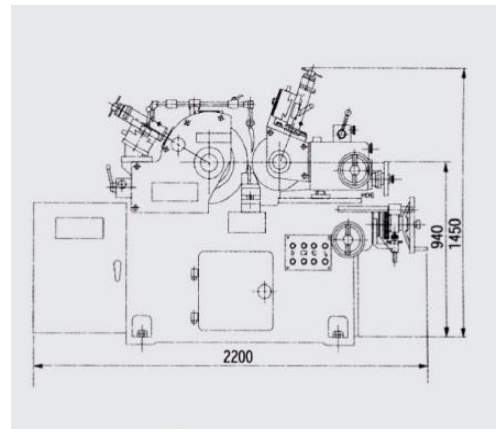
High Precision / High Efficiency / High Quality

- ① Spindle
 - High rigidity & high precision hydrodynamic bearings
- ② Feed Shaft
 - Multiple layer slide structure provides long term precision, and stable and repeatable precision for micron control
- ③ Dressing Shaft
 - High precision feed control provides stable wheel dressing

Excellent Operator Controls

- ① Feed Controls
 - Operative convenience and versatile application (upper / lower slides)
- ② Horizontal Tilting Controls
 - Tilts up to $\pm 2^\circ$, and eases control of axle and taper angle during operation
- ③ Operation
 - **Reverse control** tilts up to $\pm 5^\circ$, and allows a wide range of change of passage rate
 - Stepless Variable Speed control

An Innovative Machine with Excellent Features



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◆ DC-18AT

Thrufeed Carbide Blade & Infeed Carbide Blade	
WORK SIZE(Ø)	Carbide Blade Thickness
1.5 ~ 2.0mm	T= 1mm
3.0 ~ 4.0mm	T= 2mm
4.0 ~ 5.0mm	T= 3mm
5.0 ~ 7.0mm	T= 4mm
6.0 ~ 8.0mm	T= 5mm
8.0 ~ 10mm	T= 6mm
10 ~ 16mm	T= 7mm
12 ~ 20mm	T= 10mm
15 ~ 30mm	T= 12mm
25mm ~	T= 20mm

Standard & Special Accessories

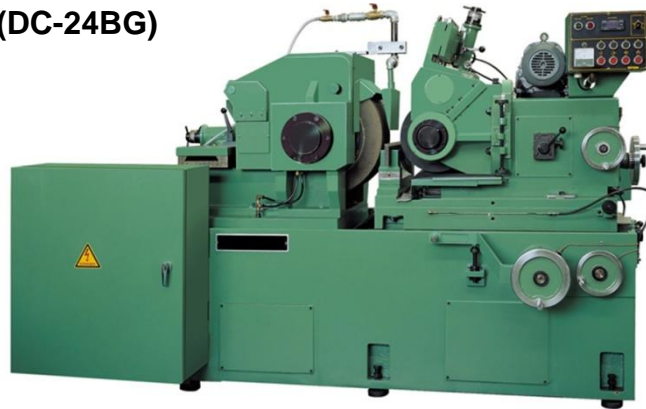
Standard	Special	
Grinding wheel(G/W)	Balancing stand & arbor	Long bar grinding att.
Regulating wheel(R/W)	Magnetic separator(80L)	Auto large base feeding EQPT
G/W flange	Auto lubrication unit	Work ejection system
R/W flange	Jib crane(attached body)	Automation loading / Unloading system
G/W diamond dresser	Coolant cooling system	CNC control machine
R/W diamond dresser	Oil cooling system	In & post process gauge system
Standard workrest(T/F or I/F)	Paper filter	
Standard blade(T/F or I/F)	Cyclone system(Spiclon filter)	
Liner	Mist collector	
Guide plate	Special workrest & base	
Coolant pump with tank	Special dressing device & base	
Filter element	Auto feeding device for R/W	
Auto lubrication unit	Auto feeding device for G/W	
Maintenance tools	Auto work feeder	

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Centerless Grinding Machine

◆ Centerless Grinder (DC-24BG)



DC-24BG Machine Features

- ① Great rigid structure
- ② Hard turning centerless grinder; dual support on spindle shaft enables high precision and high efficiency.
- ③ Specially designed spindle bearing (taper roller & angular ball bearing) with optimal pre-load, configuration and forced blast lubrication allow maximum precision and longer lifespan.
- ④ Precision ball screw used; high precision feeding guaranteed with optimal high quality assurance even during hard turning.

STANDARD ACCESSORIES	SPECIAL ACCESSORIES
Grinding wheel with flange	1. Programed auto balancer
Regulating wheel with flange	2. Carbide blades of different size
Coolant pump with tank	3. Equipment for long bar grinding
Standard thrufeed workrest with carbide blade 5/6"(8mm)	4. Profile dressing device
Liner	5. Automatic truing device for grinding wheel
Filter element	6. Work ejector (Hydraulic pneumatic electromagnetic system)
Maintenance tools	7. Electro-hydraulic automatic infeed attachment
	8. Automatic work feeder for infeed or thrufeed grinding attachment
	9. Magnetic coolant separator
	10. Jib crane
	11. Spiclone filter

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Additional Centerless Grinding Machine

SPECIFICATIONS		DC-18
Grinding capacity		1mm~40mm(25mm~100mm)
Grinding wheel (Diameter × Width × Bore)		Ø455×205×Ø228.6mm
Regulating wheel (Diameter × Width × Bore)		Ø255×205×Ø111.2mm
R.P.M of grinding wheel		1,500 R.P.M. (2,000 m/min)
R.P.M of regulating wheel		10~308 R.P.M. (Stepless)
Motor for grinding wheel spindle		Standard 11kw(15HP)×4P, Special 15kw(20HP)×4P
Motor for regulating wheel spindle		1.5kw(20HP)×4P
Tilting angle of regulating wheel		±5°
Swiveling angle of regulating wheel		±2°
Floor space		2,000mm×1,200mm
Net weight		3,000kg
Resolution of table		0.1 μm
Dressing device		Y-axis(manual), Z-axis(hydraulic)
Coolant device		Pump capacity - 150liter/min, Tank capacity - 80liter
Etc. specifications	Coolant device	Supported by 3 sets of hydrodynamic bearings
		Inverter stepless - LS
	Hydraulic motor	0.75kw
	Coolant motor	0.18kw

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Additional Centerless Grinding Machine

SPECIFICATIONS		DC-24HS(25)	DC-24BG(40)
Grinding capacity		Ø2~Ø100mm	Ø2~Ø160mm
Grinding wheel (Diameter × Width × Bore)		Ø610×205(255)×Ø304.8mm	Ø610×305(255)×Ø304.8mm
Regulating wheel (Diameter × Width × Bore)		Ø355×205(255)×Ø177.8mm	Ø355×305(405)×Ø203.2mm
R.P.M of grinding wheel		1,400 R.P.M. (2,700 m/min)	1,250 R.P.M. (2,400 m/min)
R.P.M of regulating wheel		Stepless 10~190 R.P.M	Stepless 10~190 R.P.M
Motor for grinding wheel spindle		1.5kw(20HP)×Special 22kw(30HP)	22kw(30HP), 37kw(50HP)
Motor for regulating wheel spindle		1.5kw(2HP)×Special 2.25kw(3HP)	1.5kw(2HP)×Special 2.25kw(3HP)
Tilting angle of regulating wheel		±5°	±5°
Swiveling angle of regulating wheel		±3°	±3°
Floor space (Approx.)		2,700mm×2,600mm	2,900mm×2,600mm
Net weight (Approx.)		4,500kg (5,000kg)	6,500kg(7,500kg)
Resolution of table		0.1 μm	0.1 μm
Coolant device		Pump & Tank capacity – 200liter/min 120(240)liter	Pump & Tank capacity - 200liter/min 240liter
Etc. specifications	Grinding & regulating spindle	Support by 3 sets of hydrodynamic bearings	Dual support bearings
		Inverter stepless - LS	Inverter stepless - LS
	Hydraulic motor	1.5kw	0.75kw
	Coolant motor	0.25kw	0.4kw



LPR Global, Inc.

344 Bloor Street W, Suite #607 Toronto, ON M5S 3A7 Canada

www.lprglobal.com | www.uskoreahotlink.com

Tel: +1 416-423-5590

E-Mail: info@lprglobal.com

