

UC series centerless grinder



CNC model



NC model



S model

Thrufeed grinding operation

Through adjusting the regulating wheel inclining angle to achieve axial infeed, which is suitable for continuous grinding of long parts, shafts without center hole, and sleeve parts.

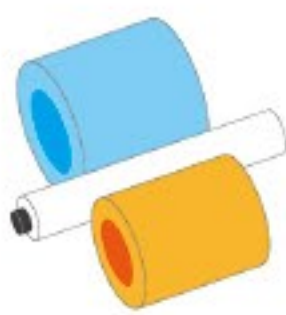
Infeed grinding operation

Through moving the regulating wheel seat toward the grinding wheel direction to grind parts with shoulder, cone and multiple steps.

Grinding applications



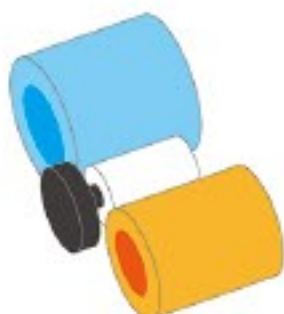
Thrufeed grinding



Thrufeed grinding



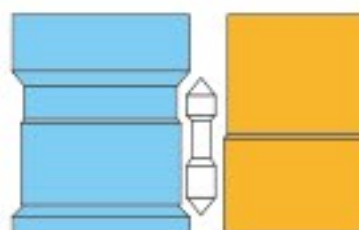
Infeed grinding



Infeed grinding



Infeed grinding



Infeed grinding

Machine specifications



Model		UC-1206 S
GRINDING CAPACITY	Part diameter (std. workrest)	Ø2-30 mm
	Part diameter (special workrest)	Ø30-50 mm
	Size (OD x Width x Bore)	Ø305 x 150 x Ø120 mm
	Spindle speed	1900 rpm
	Dressing increment (gra. / rev.)	0.01 / 1.5 mm
REGULATING WHEEL	Size (OD x Width x Bore)	Ø205 x 150 x Ø90 mm
	Spindle speed (infinite variable)	15-300 rpm
	Upper slide handwheel	gra. 0.02 / rev. 4 mm
	Upper slide micro-feed handwheel	gra. 0.001 / rev. 0.1 mm (Opt.)
	Swiveling angle (left / right)	±5°
	Inclining angle (front / rear)	+5° ~ -3°
	Dressing increment	gra. 0.01 / rev. 1.5 mm
	Lower slide handwheel	gra. 0.05 / rev. 7 mm
	Lower slide micro-feed handwheel	gra. 0.001 / rev. 0.2 mm
MOTOR	Grinding wheel motor	5.5 kw
	Regulating wheel servo motor	2 kw
	Hydraulic motor	0.75 kw
WEIGHT	Net weight	1800 kg
	Gross weight	2200 kg
PACKING SIZE	Length x width x height	226 x 195 x 182 cm

* Uni-tech reserves the right to modify the design, specification mechanisms etc. without prior notice. *

Machine specifications



Model		UC- 1808 / 1810 / 1812 S	UC- 2008 / 2010 / 2012 S
GRINDING CAPACITY	Part diameter (std. workrest)	Ø2-60 mm	Ø2-60 mm
	Part diameter (special workrest)	Ø60-100 mm	Ø60-100 mm
GRINDING WHEEL	Size (OD x Width x Bore)	Ø455 x 205 x Ø228.6 mm (08)	Ø508 x 205 x Ø304.8 mm (08)
		Ø455 x 255 x Ø228.6 mm (10)	Ø508 x 255 x Ø304.8 mm (10)
		Ø455 x 305 x Ø228.6 mm (12)	Ø508 x 305 x Ø304.8 mm (12)
	Spindle speed	1400 rpm	1300 rpm
	Dressing increment	gra. 0.01 / rev. 2 mm	gra. 0.01 / rev. 2 mm
REGULATING WHEEL	Size (OD x Width x Bore)	Ø255 x 205 x Ø111.2 mm (08)	Ø305 x 205 x Ø127 mm (08)
		Ø255 x 255 x Ø111.2 mm (10)	Ø305 x 255 x Ø127 mm (10)
		Ø255 x 305 x Ø111.2 mm (12)	Ø305 x 305 x Ø127 mm (12)
	Spindle speed (infinite variable)	15-300 rpm	15-300 rpm
	Upper slide handwheel	gra. 0.05 / rev. 3.5 mm	gra. 0.05 / rev. 3.5 mm
	Upper slide micro-feed handwheel	gra. 0.001 / rev. 0.07 mm	gra. 0.001 / rev. 0.07 mm
	Swiveling angle (left / right)	±5°	±5°
	Inclining angle (front / rear)	+5° ~ -3°	+5° ~ -3°
	Dressing increment	gra. 0.01 / rev. 2 mm	gra. 0.01 / rev. 2 mm
	Lower slide handwheel	gra. 0.05 / rev. 9 mm	gra. 0.05 / rev. 9 mm
	Lower slide micro-feed handwheel	gra. 0.001 / rev. 0.2 mm	gra. 0.001 / rev. 0.2 mm
MOTOR	Grinding wheel motor	11 kw	15 kw
	Regulating wheel servo motor	3 kw	3 kw
	Hydraulic motor	0.75 kw	0.75 kw
WEIGHT	Net weight	3300 kg	3400 kg
	Gross weight	3600 kg	3700 kg
PACKING SIZE	Length x width x height	275 x 225 x 185 cm	275 x 225 x 185 cm

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Machine specifications

NC model

The regulating wheel lower slide seat is driven by servo motor and precision ballscrew, the infeed location can thus be precisely located.

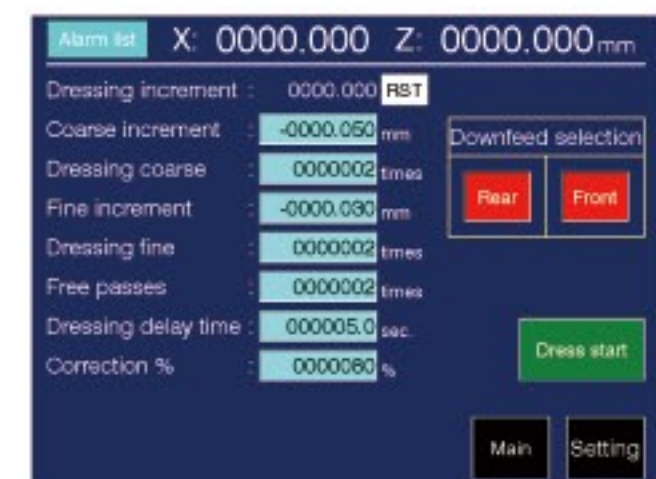
Additional advantages for productivity and operation accuracy by using the convenient user-friendly PLC touch screen control system.



Operation screen



Alarm display

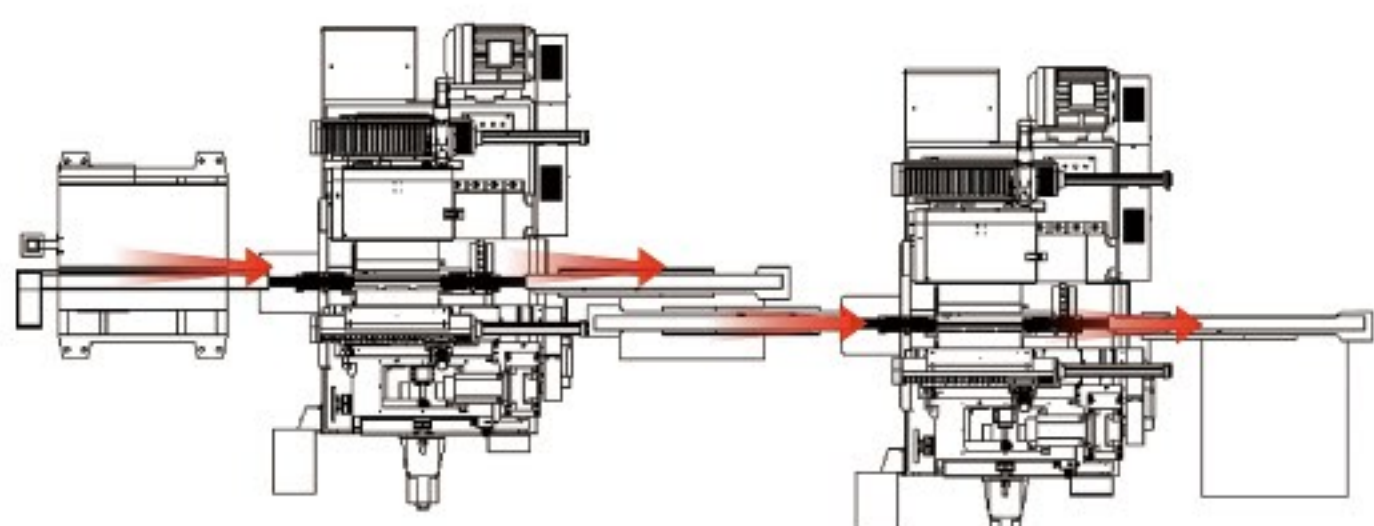


Auto. dressing & compensation function (opt.)

Model		UC-1206 NC
GRINDING CAPACITY	Part diameter (std. workrest)	Ø2-30 mm
	Part diameter (special workrest)	Ø30-50 mm
	Size (OD x Width x Bore)	Ø305 x 150 x Ø120 mm
	Spindle speed	1900 rpm
	Dressing increment	gra. 0.01 / rev. 1.5 mm
REGULATING WHEEL	Size (OD x Width x Bore)	Ø205 x 150 x Ø90 mm
	Spindle speed (infinite variable)	15-300 rpm
	Upper slide handwheel	gra. 0.02 / rev. 4 mm
	Upper slide micro-feed handwheel	gra. 0.001 / rev. 0.1 mm (Opt.)
	Swiveling angle (left / right)	±5°
	Inclining angle (front / rear)	+5° ~ -3°
	Dressing increment	gra. 0.01 / rev. 1.5 mm
	Lower slide MPG x1, x10, x100	0.001 / 0.01 / 0.1 mm
MOTOR	Grinding wheel motor	5.5 kw
	Regulating wheel servo motor	2 kw
	Lower slide Infeed servo motor	1 kw
	Hydraulic motor	0.75 kw
WEIGHT	Net weight	1800 kg
	Gross weight	2200 kg
PACKING SIZE	Length x width x height	226 x 195 x 182 cm

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Machine specifications



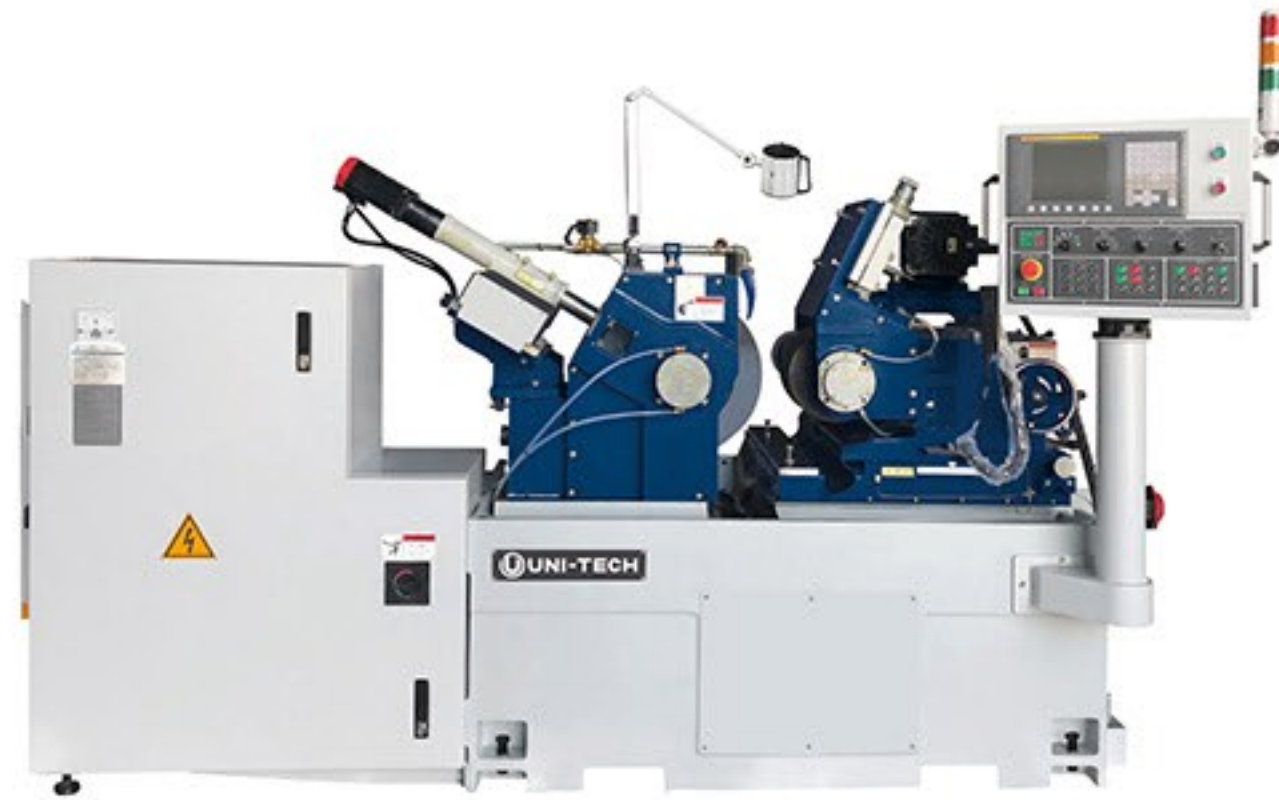
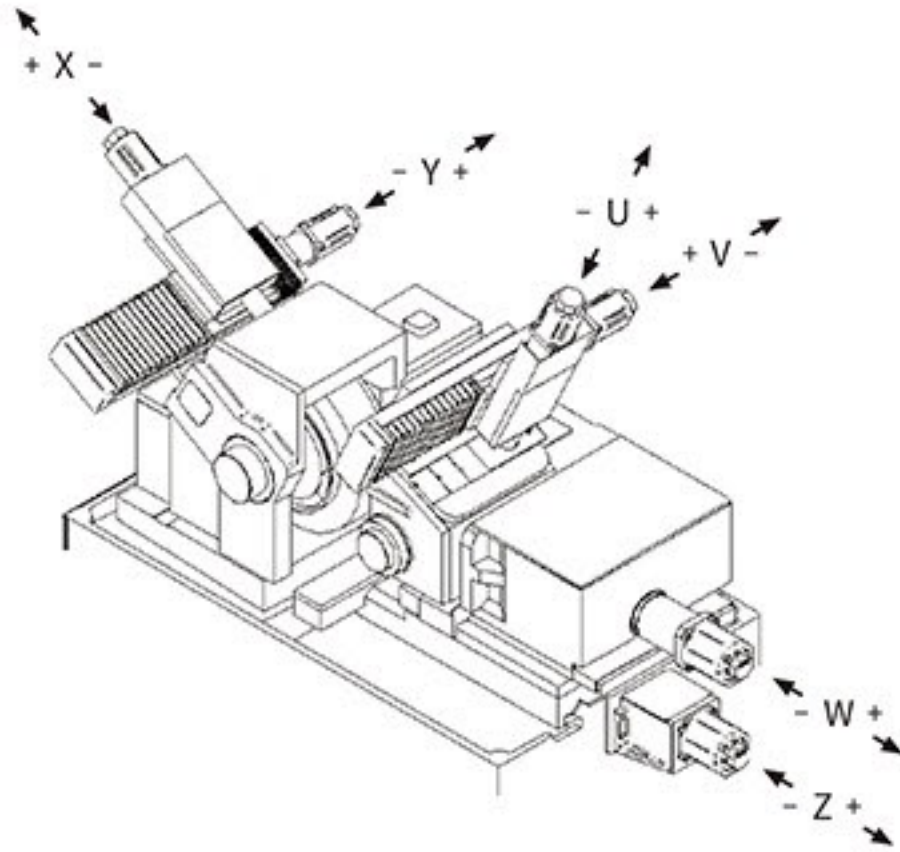
Thrufeed automation system

Multiple machines can be linked to automation system as a complete production line for rough, medium, and fine grinding operation for saving machine adjustment time consumption, reduce part loading & unloading time, and increase operation efficiency.

Model		UC- 1808 / 1810 / 1812 NC	UC- 2008 / 2010 / 2012 NC
GRINDING CAPACITY	Part diameter (std. workrest)	Ø2-60 mm	Ø2-60 mm
	Part diameter (special workrest)	Ø60-100 mm	Ø60-100 mm
GRINDING WHEEL	Size (OD x Width x Bore)	Ø455 x 205 x Ø228.6 mm (08)	Ø508 x 205 x Ø304.8 mm (08)
		Ø455 x 255 x Ø228.6 mm (10)	Ø508 x 255 x Ø304.8 mm (10)
		Ø455 x 305 x Ø228.6 mm (12)	Ø508 x 305 x Ø304.8 mm (12)
	Spindle speed	1400 rpm	1300 rpm
	Dressing increment	gra. 0.01 / rev. 2 mm	gra. 0.01 / rev. 2 mm
REGULATING WHEEL	Size (OD x Width x Bore)	Ø255 x 205 x Ø111.2 mm (08)	Ø305 x 205 x Ø127 mm (08)
		Ø255 x 255 x Ø111.2 mm (10)	Ø305 x 255 x Ø127 mm (10)
		Ø255 x 305 x Ø111.2 mm (12)	Ø305 x 305 x Ø127 mm (12)
	Spindle speed (infinite variable)	15-300 rpm	15-300 rpm
	Upper slide handwheel	gra. 0.05 / rev. 3.5 mm	gra. 0.05 / rev. 3.5 mm
	Upper slide micro-feed handwheel	gra. 0.001 / rev. 0.07 mm	gra. 0.001 / rev. 0.07 mm
	Swiveling angle (left / right)	±5°	±5°
	Inclining angle (front / rear)	+5° ~ -3°	+5° ~ -3°
	Dressing increment	gra. 0.01 / rev. 2 mm	gra. 0.01 / rev. 2 mm
	Lower slide MPG x1, x10, x100	0.001 / 0.01 / 0.1 mm	0.001 / 0.01 / 0.1 mm
MOTOR	Grinding wheel motor	11 kw	15 kw
	Regulating wheel servo motor	3 kw	3 kw
	Lower slide Infeed servo motor	1 kw	1 kw
	Hydraulic motor	0.75 kw	0.75 kw
WEIGHT	Net weight	3300 kg	3400 kg
	Gross weight	3600 kg	3700 kg
PACKING SIZE	Length x width x height	275 x 225 x 185 cm	275 x 225 x 185 cm

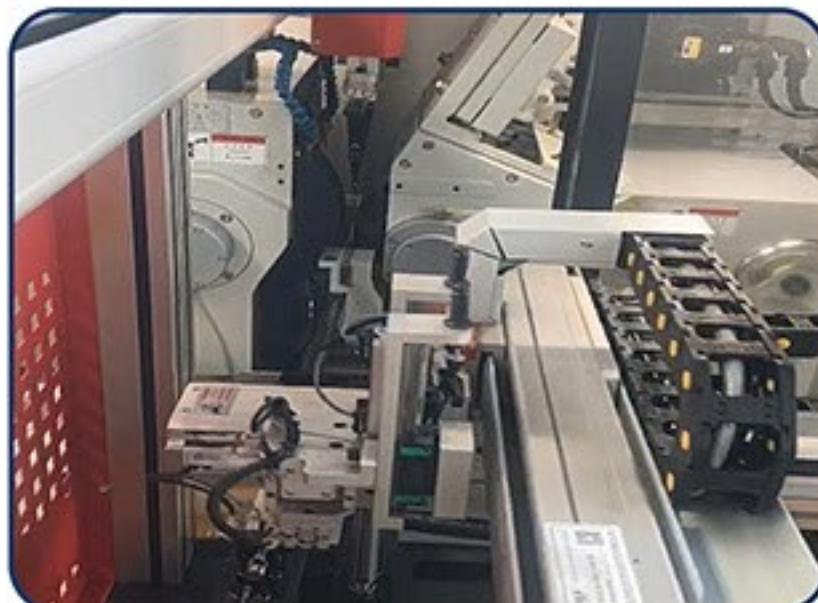
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CNC control system



- X axis : Grinding wheel dressing infeed (vertical)
- Y axis : Grinding wheel dressing traverse movement (horizontal)
- Z axis : Regulating wheel lower slide infeed
- U axis : Regulating wheel dressing infeed (vertical)
- V axis : Regulating wheel dressing traverse movement (horizontal)
- W axis : Regulating wheel upper slide infeed

Automation solution

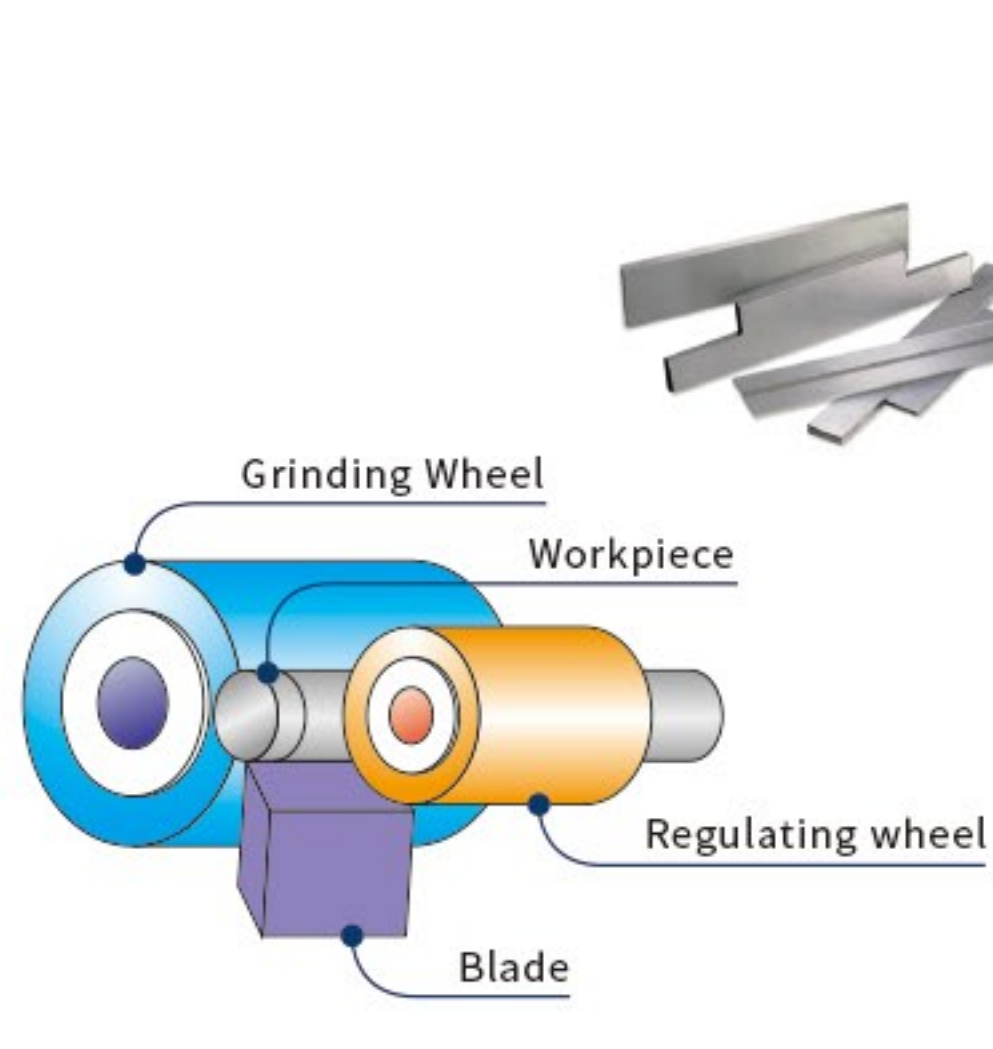


Machine specifications

Model		UC- 1808 / 1810 / 1812 CNC	UC- 2008 / 2010 / 2012 CNC
GRINDING CAPACITY	Part diameter (std. workrest)	Ø2-60 mm	Ø2-60 mm
	Part diameter (special workrest)	Ø60-100 mm	Ø60-100 mm
GRINDING WHEEL	Size (OD x Width x Bore)	Ø455 x 205 x Ø228.6 mm (08)	Ø508 x 205 x Ø304.8 mm (08)
		Ø455 x 255 x Ø228.6 mm (10)	Ø508 x 255 x Ø304.8 mm (10)
		Ø455 x 305 x Ø228.6 mm (12)	Ø508 x 305 x Ø304.8 mm (12)
	Spindle speed	1400 rpm	1300 rpm
REGULATING WHEEL	Size (OD x Width x Bore)	Ø255 x 205 x Ø111.2 mm (08)	Ø305 x 205 x Ø127 mm (08)
		Ø255 x 255 x Ø111.2 mm (10)	Ø305 x 255 x Ø127 mm (10)
		Ø255 x 305 x Ø111.2 mm (12)	Ø305 x 305 x Ø127 mm (12)
	Spindle speed (infinite variable)	15-300 rpm	15-300 rpm
	Swiveling angle (left / right)	±5°	±5°
	Inclining angle (front / rear)	+5° ~ -3°	+5° ~ -3°
MOTOR	Grinding wheel motor	11 kw	15 kw
	Regulating wheel servo motor	3 kw	3 kw
	(X) Grinding wheel dressing infeed servo motor	0.75 kw	0.75 kw
	(Y) Grinding wheel dressing traverse servo motor	0.75 kw	0.75 kw
	(Z) Regulating wheel lower slide infeed servo motor	1.2 kw	1.2 kw
	(U) Regulating wheel dressing infeed servo motor	0.75 kw	0.75 kw
	(V) Regulating wheel dressing traverse servo motor	0.75 kw	0.75 kw
	(W) Regulating wheel upper slide infeed servo motor	1.2 kw	1.2 kw
	Hydraulic motor	0.75 kw	0.75 kw
WEIGHT	Net weight	3500 kg	3600 kg
	Gross weight	3800 kg	3900 kg
PACKING SIZE	Length x width x height	335 x 228 x 200 cm	335 x 228 x 200 cm

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Blade selection




Part diameter	Blade thickness	Part diameter	Blade thickness
Ø 1.5 ~ 2.5	1	Ø 10 ~ 16	8
Ø 2.6 ~ 4	2	Ø 12 ~ 25	10
Ø 4 ~ 6	3	Ø 15 ~ 30	10/13
Ø 7 ~ 8	4	Ø 30 ~ 50	13/20
Ø 8 ~ 10	6	Ø 40 ~ 60	20

Unit : mm

Standard accessories



Grinding & regulating wheel



Grinding wheel & regulating wheel flange



Wheel extractor



Thrufeed workrest & thrufeed blade



Infeed workrest & infeed blade



Leveling bolts & pads



Balancing arbor & stand



Standard coolant tank



Hydraulic tank



Tools & tool box



Working light



Diamond dresser

Optional accessories



Thrufeed input & output guide



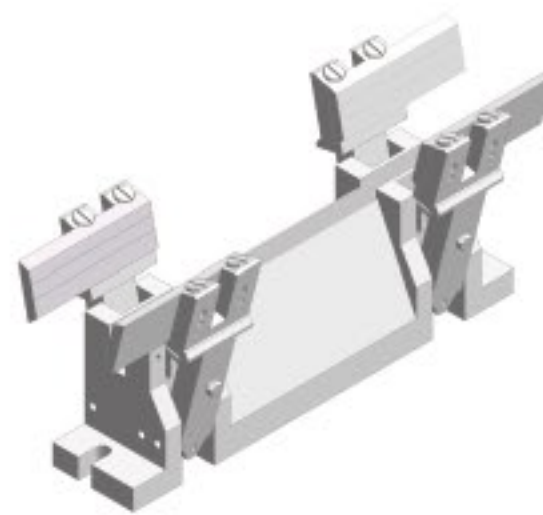
Thrufeed safety device



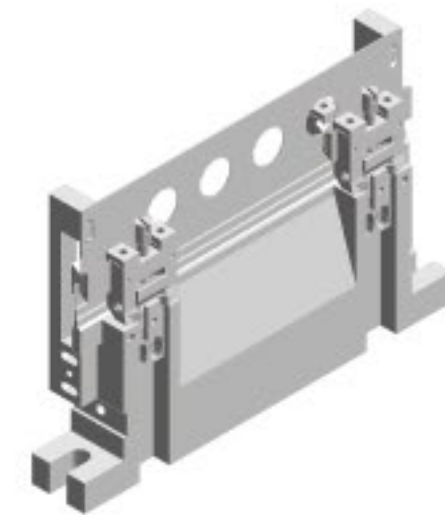
Forming attachment



Infeed part ejector



Special thrufeed workrest



Minor thrufeed workrest



Long thrufeed guides (in & out)



Thrufeed auto. loading system



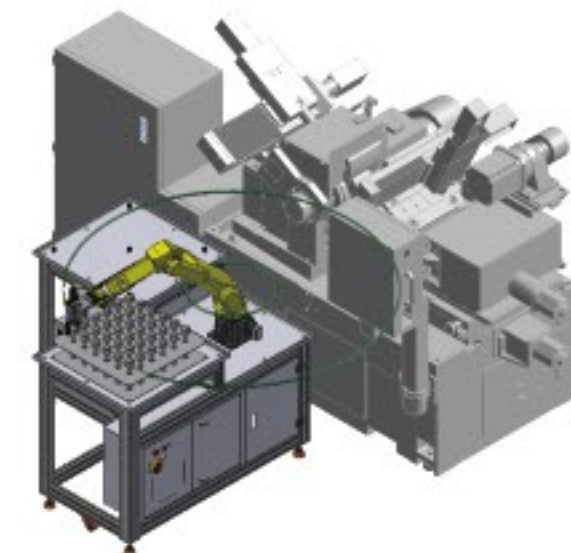
Thrufeed auto. unloading system



Vibration feeder loading system



Gantry type automation



Joint robot automation



Infeed manual loader



Magnetic separator



Magnetic separator & paper filter