COMPANY HISTORY

1968 Designed the first centerless grinder RC-10 and started to manufacture and sell.

1984 Announced hydrostatic bearings of grinding spindle and applied on universal cylindrical grinding machine and centerless grinding machine.

1990 Announced CNC centerless grinding machine, CNC internal grinding machine, and CNC
1994 cylindrical grinding machine .

1998 The whole serial products of internal grinding machine, centerless grinding machine and CNC cylindrical grinding machine were approved by the German SGS verification, and acquired the CE safety Certificate, MD, LVD and EMC Certificate.

2003 Acquired the ISO9001 certificate of international quality management system.

2006 Moved to Tanzi new plant of 16500 square meters equipped with brand new air condition. Finished the new technique development hydrodynamic & hydrostatic compound technology and adopted by Korea automotive manufactory.

2007 Finish the development of RTG-100CNC, RTG-215CNC (universal type) twin-spindle compound grinder and GAH-3540CNC, GAH-3580CNC angular cylindrical grinder (heavy-duty).

2008 Announced GA/GU-2020CNC angular / plunge cylindrical grinder (mini type).

2009 Announced Ultra GU-3250CNC polygon grinder for non-round and eccentric parts.

2011 Exhibit new developed RHC-650CNC and GUH/GAH-35150CNC in Taipei International Machine Tool Show.

2011 Signed the contract with German tool grinder manufacturer who authorized PARAGON sales high precision 5-axis tool grinder as PARAGON's own brand.

2012 Exhibit high precision 5-axis tool grinder in domestic and oversea exhibition, favored by both domestic and foreign manufacturer.

2013 Announced RDC-20CNC double-feed centerless grinder and SuperB GU-35/GU-32 B-Axis multi-spindle wheelheads universal cylindrical grinder, which have been displayed respectively inTaipei International Machine Tool Show and EMO Hannover show.

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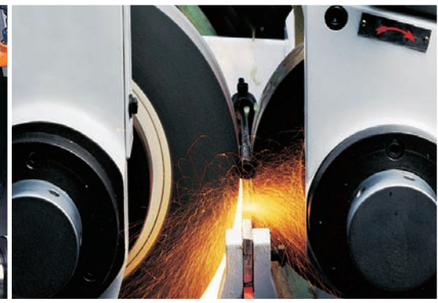
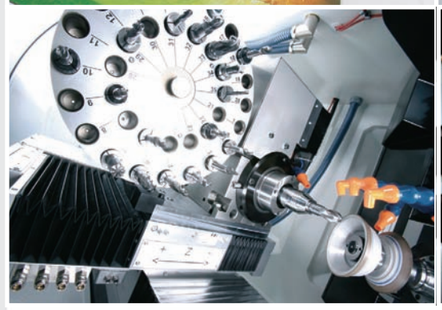
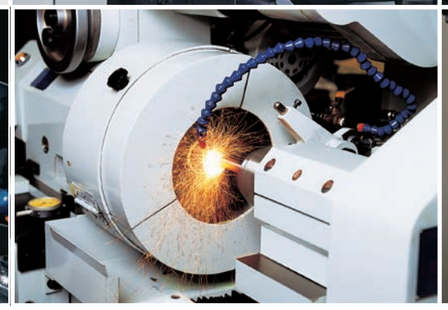
Feb, 2014

PARAGON since 1968

Unparalleled, Choice CNC Grinding Solutions




GRINDING MACHINES LINE-UP

- ID/OD Twin-Spindle Grinding Machine
- Internal Grinding Machine
- Centerless Grinding Machine
- Angular Cylindrical Grinding Machine
- Universal Cylindrical Grinding Machine
- Tool Grinding Machine

CE

PARAGON MACHINERY CO., LTD.

PARAGON Machinery Co., Ltd., founded in 1968, always keeps with the concepts of optimism, entrepreneurship, good faith and responsibility. We exceed with our innovations and progresses, applying sophisticated designs and products with outstanding techniques to provide high-quality and high-precision grinders to meet our client's needs in various aspects of the grinding work field.

During the years of our hard-working progress and growth along with the pulse of Taiwan's economic developments, starting by manufacturing small-sized centerless grinding machines, have now evolved to a company specializing in researching, developing and making of all aspects of CNC and automatic grinders; our product includes centerless grinders, cylindrical grinders, internal grinders, cam grinders and composite grinders. Under the brand of PARAGON, we sell our products from Taiwan to the rest of the world through our omnipresent service network. With a staff consisting of more than one hundred quality elite members, PARAGON endeavors to provide the clients with better products and services every moment.

UNPARALLELED QUALITY ASSURANCE AND CONTROL

PARAGON's systematic development, production and assembly are carried out in a process oriented manner and in strict compliance with ISO 9001 directives. Our Q.C. Staff conducts rigorous quality control throughout the entire manufacturing process before shipment. Our quality control process includes: a) Incoming Materials Inspection; b) Geometric Accuracy Inspection; c) Unloaded Spindle Test; d) Grinding Test.

EXAMPLE OF WORKPIECES

ID/OD TWIN-SPINDLE GRINDING MACHINE

- Twin spindle configuration for internal and cylindrical grinding
- Guaranteed accuracy of circularity and concentricity
- Safe environment with fully enclosed splash guard
- Eliminates repetitive chucking error of workpiece
- Multi-face grinding accomplished in one cycle

RTG-100CNC

MODEL
RTG-100CNC

SPECIFICATIONS	UNIT	RTG-100CNC
CAPACITY		
Max. grinding diameter	(mm)	ϕ320
Outer Grinding wheel	(mm)	ϕ305×25×127
Max length of outer grinding	(mm)	70
Range of inner dia	(mm)	6~100
Max.depth of grinding	(mm)	100
Max.clamping length	(mm)	150
Distance from wheel spindle to floor	(mm)	1,150
CONTROL SYSTEM		
Controller		FANUC/SIEMENS/MITSUBISHI
FEED SLIDE		
Y, Z-axis travel	(mm)	400+250(Manual)
Y, Z-axis rapid feed rate	(m/min)	18
Y, Z-axis minimum resolution increment	(mm)	0.0001
WORKHEAD		
X-axis rapid feed rate	(m/min)	10
X-axis minimum increment	(mm)	0.0001
X-axis minimum resolution increment	(mm)	0.0001
Swivel angle(manual)	(deg)	+15 ~ -5
Spindle speed	(r.p.m.)	0~1,000
OTHERS		
Capability of hydraulic oil tank	(l)	40
Capability of Coolant tank	(l)	90
Machine dimensions (WxDxH)	(mm)	2,600×2,000×2,020
Machine weight	(kg)	5,000

*Design and specifications are subject to change without prior notice

INTERNAL GRINDING MACHINE

- Flexible workhead for equipping various chuck applications
- Engineered with high reliability and convenient operation
- CNC controlled model delivers increased productivity
- Designed according to diversification needs

RIG-150CNC

MODELS
RIG-150
RIG-150NC
RIG-150CNC

SPECIFICATIONS	UNIT	RIG-150CNC	RIG-150NC	RIG-150
CAPACITY				
Grinding range(dia.)	(mm)	6~150	6~150	6~150
Grinding depth(max.)	(mm)	150	150	150
Swing over table	(mm)	520	520	520
Swing in chuck guard	(mm)	320	320	320
Max. table traverse	(mm)	400	540	540
CONTROL SYSTEM				
Controller		FANUC / SIEMENS / MITSUBISHI	PROFACE	-
WORKHEAD				
Spindle speed	(rpm)	5-800	5-800	5-800
Swiveling angle	(deg)	+13 ~ -5	+13 ~ -5	+13 ~ -5
WHEELHEAD				
X-axis rapid movement	(m/min)	6	-	-
X-axis minimum increment	(mm)	0.0001	0.001	0.001
Max. table speed Z-axis	(m/min)	20	÷9	÷9
Z-axis minimum increment	(mm)	0.0001	10 ~14	10 ~14
X-axis minimum increment	(mm)	0.0001	0.001	0.001
Y-axis minimum increment	(mm)	-	0.001	-
Height from wheel spindle to floor	(mm)	1,290	1,180	1,180
OTHERS				
Machine dimension (WxDxH)	(mm)	3,145X2,690X1,950	2,465X2,420X1,830	2,645X1,860X1,630
Machine weight	(kg)	3,000	2,400	2,200

*Design and specifications are subject to change without prior notice.

HIGH-SPEED CENTERLESS GRINDING MACHINE

- Excellent for mass production processing
- Guaranteed high circularity accuracy
- Extra rigid machine base and extra large grinding wheel
- Time-saving and high efficiency in cycle and setup

RHC-650CNC

MODELS
CNC Series
RHC-620CNC
RHC-630CNC
RHC-650CNC
B Series
RHC-620B

SPECIFICATIONS	UNIT	RHC-620CNC / B	RHC-630CNC	RHC-650CNC
Grinding range (dia.)	mm	10-100	10-125(200 optional)	10-125(200 optional)
G.W. size (dia. x width x hole)	mm	610 x 205 x 304.8	610 x 305 x 304.8	610 x 500 x 304.8
R.W. size (dia. x width xhole)	mm	305 x 205 x 177.8	330 x 305 x 203.2	330 x 500 x 203.2
G.W. speed	rpm	1,550	1,600	1,600
R.W. speed	rpm	15~300	10~200	10~200
R.W. swivel angle	deg	+5°~ −2.5°	+5°~ −2.5°	+5°~ −2.5°
R.W. tilt angle	deg	−3° ~ +5°	5°	0 ~+4.5°
G.W. motor	HP	20(15)	30(37.5 optional)	75
R.W. servo motor	Kw	2.9	2.9	4.4
R.W. lower slide servo motor	Kw	0.9(CNC)	0.9	1.4
G.W. dressing servo motor	Kw	0.5(CNC)	0.5	0.75
Hydraulic pump motor	HP	1	1	1
Coolant pump motor	HP	1	1	1
Machine dimension(WxDxH)	mm	3,200 x 1,900 x 1,700	3,750 x 2,100 x 2,350	4,120 x 3,080 x 2,350
Machine weight	kg	5,200	8,000	9,500

*Design and specifications are subject to change without prior notice.
***B and CNC series :** The R.W. spindle uses cylindrical roller bearings instead of alloy bearings and is driven by servo motor providing infinite variable speed.
***RHC-630 CNC :** The G.W. spindle uses angular contact ball bearings and cylindrical roller bearings.
***G.W.:** Grinding Wheel; ***R.W.:** Regulating Wheel

CNC CENTERLESS GRINDING MACHINE

- Efficient CNC controller with powerful functions
- Guaranteed high circularity accuracy
- Carefully engineered for rapid and precise operations
- Greater performance and best cost-value relationship

RC-18CNC

MODELS
RC-12CNC
RC-18CNC
RC-1812CNC
RC-20CNC

SPECIFICATIONS	UNIT	RC-12CNC/NC	RC-18CNC/NC	RC-1812CNC	RC-20CNC
Grinding range (dia.)	mm	1-30	2-50	2-50	2-50
G.W. size (dia. x width x hole)	mm	305x150x120	455x205x228.6	455x305x228.6	510x205x304.8
R.W. size (dia. x width x hole)	mm	230x150x127	280x205x139.7	305x305x177.8	305x205x177.8
G.W. speed (Peripheral Speed)	m/min	2,000	2,000	2,000	2,000
R.W. speed	rpm	10-300	10-300	10-300	10-300
Upper slide feed graduation	mm	–	–	–	–
Upper slide micro feed graduation	mm	–	–	–	–
Lower slide feed graduation	mm	–	–	–	–
Lower slide micro feed graduation	mm	–	–	–	–
Dressing device graduation	mm	–	–	–	–
R.W. swivel / tilt angle	deg	±5° / ±5°	±5° / ±5°	±5° / ±5°	±5° / ±5°
X/Z/Y-axis servo motor	kw	0.75 / 0.75 / 1.6 / 2.0(NC)	0.75 / 0.75 / 4.0/ 3.0(NC)	0.75 / 0.75 / 4.0	0.75 / 0.75 / 4.0
G.W. motor	HP	7.5	15	20	20
R.W. motor (servo motor)	kw	1.3	1.8	2.9	2.9
Hydraulic pump motor	HP	1	1	1	1
Coolant pump motor	HP	1/8	1/4	1/4	1/4
Machine dimension (W×D×H)	mm	2,460 x 2,300 x 1,750	3,200 x 2,830 x 1,730	3,200 x 2,830 x 1,730	3,250 x 3,010 x 1,730
Machine weight	kg	2,100	4,200	4,500	4,800

*Design and specifications are subject to change without prior notice.

Model	Grinding wheel spindle bearing	Regulating wheel spindle bearing
CNC	Hydrostatic / Hydrodynamic bearings	Ball & roller bearings

Note: In the ball & roller bearing series, the regulating wheel has a precise servo motor which provides infinite variable speed change from 10-300 rpm. The servo motor is driven directly by worm and worm gear.

CENTERLESS GRINDING MACHINE

MODELS

Economical
RC-12
RC-18
RC-1812
RC-20

B Series
RC-12B
RC-16B
RC-18B
RC-1812B
RC-20B

NC Series
RC-12NC
RC-18NC

H Series
RC-12H
RC-18H
RC-20H

S Series
RC-12S
RC-18S

RC-18NC

SPECIFICATIONS	UNIT	RC-12	RC-16B	RC-18	RC-1812	RC-20
Grinding range (dia.)	mm	1-30	2-40	2-50	2-50	2-50
G.W. size (dia. x width x hole)	mm	305x150x120	405x205x203.2	455x205x228.6	455x305x228.6	510x205x304.8
R.W. size (dia. x width x hole)	mm	205x150x90 230x150x127	280x205x139.7	225x205x111.2 280x205x139.7	255x305x111.2 305x305x177.8	305x205x127 305x205x177.8
G.W. speed (Peripheral Speed)	m/min	2,000/2,400(H Series)	2,000	2,000/2,700(H Series)	2,000	2,000/2,700(H Series)
R.W. speed	rpm	21~300 (7 steps) /10~300	10~300	13~308 (10 steps) / 10~300	13~308 (10 steps) / 10~300	13~308 (10 steps) / 10~300
Upper slide feed graduation	mm	3.5 (Rev.) 0.05 (Gra)	3.5 (Rev.) 0.05 (Gra)	3.5 (Rev.) 0.05 (Gra)	3.5 (Rev.) 0.05 (Gra)	3.5 (Rev.) 0.05 (Gra)
Upper slide micro feed graduation	mm	0.1 (Rev.) 0.001 (Gra)	0.1 (Rev.) 0.001 (Gra)	0.1 (Rev.) 0.001 (Gra)	0.1 (Rev.) 0.001 (Gra)	0.1 (Rev.) 0.001 (Gra)
Lower slide feed graduation	mm	10 (Rev.) 0.05 (Gra)	10 (Rev.) 0.05 (Gra)	10 (Rev.) 0.05 (Gra)	10 (Rev.) 0.05 (Gra)	10 (Rev.) 0.05 (Gra)
Lower slide micro feed graduation	mm	0.2 (Rev.) 0.001 (Gra)	0.2 (Rev.) 0.001 (Gra)	0.2 (Rev.) 0.001 (Gra)	0.2 (Rev.) 0.001 (Gra)	0.2 (Rev.) 0.001 (Gra)
Dressing device graduation	mm	1.25 (Rev.) 0.01 (Gra)	1.75 (Rev.) 0.01 (Gra)	2 (Rev.) 0.01 (Gra)	2 (Rev.) 0.01 (Gra)	2 (Rev.) 0.01 (Gra)
R.W. swivel / tilt angle	deg	±5° / ±5°	±5° / ±5°	±5° / ±5°	±5° / ±5°	±5° / ±5°
X/Z/Y-axis servo motor	kw	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -
G.W. motor	HP	7.5	10	15	20	20
R.W. motor (servo motor)	kw	0.75 / 1.30	1.50 / 1.80	1.50 / 1.80	1.50 / 2.90	1.50 / 2.90
Hydraulic pump motor	HP	1	1	1	1	1
Coolant pump motor	HP	1/8	1/4	1/4	1/4	1/4
Machine dimension (W×D×H)	mm	1,900 x 1,550 x 1,420	2,000 x 1,590 x 1,450	2,300 x 1,800 x 1,600	2,300 x 2,100 x 1,600	2,500 x 2,150 x 1,600
Machine weight	kg	1,700	2,400	3,300	3,500	3,900

*Design and specifications are subject to change without prior notice.

Model	Grinding wheel spindle bearing	Regulating wheel spindle bearing
NC	Hydrodynamic bearings	Hydrodynamic / Ball & roller bearings
H Series	Hydrostatic bearings	Ball & roller bearings
B Series	Hydrodynamic bearings	Ball & roller bearings
Economical / S Series	Hydrodynamic bearings	Hydrodynamic bearings

DOUBLE-FEED CENTERLESS GRINDING MACHINE

- Great span of guideways and wide surface, accurate hand-scraping with class C1 ballscrew.
- Double feed from both grinding wheel slide & regulating wheel slide, and rapid adjustment of work rest height.
- Long bar grinding and large components are applicable to save tuning time.
- Grinding diameter ranges from ø3 to ø250.

RDC-20CNC

SPECIFICATIONS	UNIT	RDC-20CNC
CAPACITY		
Grinding range (diameter)	mm	3~250
CONTROL SYSTEM		
Controller	set	FANUC/SIEMENS/MITSUBISHI
GRINDING WHEELS		
Dimensions	mm	ø 510 x 205(255op) x ø 304.8
Grinding wheel speed	m/min	2000
REGULATING WHEEL		
Dimensions	mm	ø 3055(255op)x ø 177.8
Regulating wheel speed	rpm	10-300
Swivel angle	deg	±5°
Tilt angle	deg	±5°
DRIVEN MOTOR		
Grinding wheel motor	HP	40
Hydraulic pump	HP	1
Coolant pump motor	HP	1/4
Regulating wheel servo motor	kw	2.9
Grinding wheel feed motor	kw	4
Regulating wheel feed motor	kw	4
Grinding wheel dressing traverse motor	kw	0.75
Grinding wheel dressing feed motor	kw	0.75
OTHERS		
Machine dimensions (WxDxH)	mm	5,740x4,245x2,000
Machine weight	kg	5,100

*Design and specifications are subject to change without prior notice

CNC ANGULAR CYLINDRICAL GRINDING MACHINE

- Wheelhead spindle with hydrostatic-hydrodynamic hybrid bearings
- Suitable for long, multi-steps and profile grinding
- Efficient CNC controller with powerful functions
- Engineered for rapid and precise operations

GA-3535CNC

GA-2020CNC

MODELS
GA-2020CNC
GA-3535CNC
GA-35100CNC

SPECIFICATIONS	UNIT	GA-2020CNC	GA-3535CNC	GA-35100CNC
CAPACITY				
Swing over table	(mm)	200	350	350
Distance between centers	(mm)	200	350	1,000
Max. grinding diameter	(mm)	ϕ 160	ϕ 320	ø 320
Max. grinding wheel dimensions	(mm)	ϕ 355x50x127	ϕ 510x80x203.2	ø 510X80X203.2
Max. load held between centers	(kg)	30	150	150
Max. grinding wheel peripheral speed	(m/s)	33(45)	45	45
CONTROL SYSTEM				
Controller			FANUC / SIEMENS / MITSUBISHI	
FEED SLIDE				
X-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001
X-axis rapid traverse speed	(m/min)	6	6	6
Z-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001
Z-axis max. traverse speed	(m/min)	8	8	8
Z-axis manual swivel	(deg.)	-0.5~7.5	-0.5~5	-0.5~+5
WORKHEAD				
Spindle speed	(r.p.m.)	5~750	5~750	5~750
Center		M.T.3	M.T.4	M.T.4
TAILSTOCK				
Hydraulic sleeve retraction	(mm)	25	35	35
Center		M.T.3	M.T.4	M.T.4
OTHERS				
Machine dimension (WxDxH)	(mm)	1,800×2,300×2,160	2,975×2,000×2,260	3,440X2,000X2,260
Machine weight	(kg)	2,700	4,300	4,900

*Design and specifications are subject to change without prior notice

CNC CYLINDRICAL GRINDING MACHINE (HEAVY-DUTY)

- Extra rigid machine base and extra large grinding wheel
- Time-saving and high efficiency in cycle and setup
- Safe environment with fully enclosed splash guard
- Excellent for mass production processing

GAH-35150CNC

Angular

MODELS

GAH-3540CNC
GAH-3580CNC
GAH-35100CNC
GAH-35150CNC

Plunge

MODELS

GUH-3540CNC
GUH-3580CNC
GUH-35100CNC **GUH-35150CNC**

SPECIFICATIONS	UNIT	3540CNC	3580CNC	35100CNC	35150CNC
CAPACITY					
Swing over table	(mm)	350	350	350	350
Distance between centers	(mm)	400	800	1,000	1,500
Max. grinding diameter	(mm)	ϕ320	ϕ320	ϕ320	ϕ320
Max. grinding wheel dimensions	(mm)	ϕ610x160x203.2 (GAH) ϕ610x100x203.2(GUH)	ϕ610x160x203.2 (GAH) ϕ610x100x203.2(GUH)	ϕ610x160x203.2(GAH) ϕ610x100x203.2(GUH)	ϕ610x160x203.2 (GAH) ϕ610x115x203.2(GUH)
Max. load held between centers	(kg)	150	150	150	150
Max. grinding wheel peripheral speed	(m/s)	45(60 Optional)	45(60 Optional)	45(60 Optional)	45(60 Optional)
CONTROL SYSTEM					
Controller			FANUC / SIEMENS / MITSUBISHI		
FEED SLIDE					
X-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001	0.0001
X-axis rapid traverse speed	(m/min)	6	6	6	10
Z-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001	0.0001
Z-axis max. traverse speed	(m/min)	8	8	8	12
Z-axis manual swivel	(deg.)	-0.5~5	-0.5~5	-0.5~5	-0.5~4.5
WORKHEAD					
Spindle speed	(r.p.m.)	5~750	5~750	5~750	5~750
Center		M.T.4	M.T.4	M.T.5	M.T.5
TAILSTOCK					
Hydraulic sleeve retraction	(mm)	35	35	35	35
Center		M.T.4	M.T.4	M.T.5	M.T.5
OTHERS					
Machine dimension (WxDxH)	(mm)	3,450×2,000×2,260	4,040×2,000×2,260	4,400×2,000×2,260	5,040×2,000×2,260
Machine weight	(kg)	6,600	7,000	7,200	8,500

*Design and specifications are subject to change without prior notice

CNC UNIVERSAL CYLINDRICAL GRINDING MACHINE

- Optional internal grinding attachment for more flexibility [1]
- Greater performance and best cost-value relationship
- Efficient CNC controller with powerful functions
- Easy operation for greater productivity

GU-3250CNC

MODELS

GU-2020CNC
GU-3250CNC
GU-32120CNC

SPECIFICATIONS	UNIT	GU-2020CNC	GU-3250CNC	GU-32120CNC
CAPACITY				
Swing over table	(mm)	200	320	320
Distance between centers	(mm)	200	500	1,200
Max. grinding diameter	(mm)	ϕ160	ϕ280	ø 280
Max. grinding wheel dimension	(mm)	ϕ355 x 50 x 127	ϕ405 x 56 x 127	ø 405 x 56 x 127
Max. load held between centers	(kg)	30	150	150
Max. grinding wheel peripheral speed	(m/s)	33(45)	45	45
CONTROL SYSTEM				
Controller			FANUC / SIEMENS / MITSUBISHI	
FEED SLIDE				
X-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001
X-axis rapid traverse speed	(m/min)	5	6	6
Z-axis min. resolution increment	(mm)	0.0001	0.0001	0.0001
Z-axis max. traverse speed	(m/min)	6	8	8
Z-axis manual swivel	(deg.)	-0.5~8	-0.5~8	-0.5~+5
WORKHEAD				
Spindle speed	(r.p.m.)	5~750	5~750	5~750
Center		M.T.3	M.T.4	M.T.4
TAILSTOCK				
Hydraulic sleeve retraction	(mm)	25	35	35
Center		M.T.3	M.T.4	M.T.4
OTHERS				
Machine dimension (WxDxH)	(mm)	1,800×2,300×2,160	3,000×2,000×2,260	4,200 x 1,900 x 2,260
Machine weight	(kg)	2,500	3,800	4,800

*Design and specifications are subject to change without prior notice.
1. Not available for GU-2020CNC.

CNC UNIVERSAL CYLINDRICAL GRINDING MACHINE
SuperB

- No backlash, high speed and high precision rapid rotary positioning
- Allow highly rigid and precise machining performance
- Heavy-duty cutting ability and highly efficient grinding capability
- Enable compound grinding and multiple machining procedures with one clamping

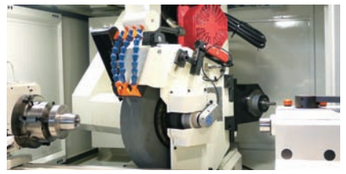
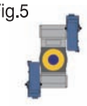
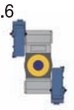
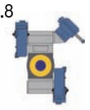


Fig.1 
Fig.2 
Fig.3 
Fig.4 
Fig.5 
Fig.6 
Fig.7 
Fig.8 

MODEL

SuperB GU-35/GU-32

SPECIFICATIONS (For Fig.1, Fig.2)	UNIT	SuperB GU-35100CNC
CAPACITY		
Swing over table	mm	350
Distance between centers	mm	1000
Max. outer grinding wheel dimension	mm	Ø510 / Ø405
Max. load held between centers	kg	100
Max. outer grinding wheel peripheral speed	m/s	45
High frequency ID motor-spindle	rpm	40000
FEED SLIDE		
Max. travel of X-axis	mm	320
Speed (X-axis)	mm/min	6000
Resolution (X-axis)	mm	0.0001
Speed (Z-axis)	mm/min	8000
Resolution (Z-axis)	mm	0.0001 (Opt.)
WORKHEAD		
Spindle speed	rpm	5~750
Center		M.T.4 (M.T.5 Opt.)
TAILSTOCK		
Hydraulic sleeve retraction	mm	35
Center		M.T.4 (M.T.5 Opt.)
DRIVEN MOTORS		
Outer wheel spindle	kw	15
X-axis (servo motor)	kw	1.2
Z-axis (servo motor)	kw	1.2
B-axis (servo motor)	kw	10.5
Workhead	kw	1.2
B-AXIS (WHEELHEAD)		
Resolution	deg	0.00005
Positioning accuracy	sec.	<1
Repeatibility accuracy for positioning	sec.	<1
Rotary speed (180˚)	sec.	<3
Swiveling range	deg	-45˚ ~ +225˚

*Design and specifications are subject to change without prior notice.

UNIVERSAL CYLINDRICAL GRINDING MACHINE

MODELS

P Series(Hydraulic Auto Feed)

GU-3250P

GU-3275P

GU-32100P

S Series(Hand Feed)

GU-3250S

GU-3275S

GU-32100S

NC Series

GU-3250NC

GU-3275NC

GU-32100NC

GU-3250NC

SPECIFICATIONS	UNIT	GU-3250	GU-3275	GU-32100
CAPACITY				
Swing over table	(mm)	320	320	320
Distance between centers	(mm)	500	750	1,000
Max. grinding dia.	(mm)	ϕ280	ϕ280	ϕ280
Max. grinding wheel dimension	(mm)	ϕ405 x 56 x 127	ϕ405 x 56 x 127	ϕ405 x 56 x 127
Max. load held between centers	(kg)	150	150	150
Max. grinding wheel peripheral speed	(m/s)	33	33	33
CONTROL SYSTEM (For NC series only)				
NC Controller		PROFACE	PROFACE	PROFACE
FEED SLIDE				
X-axis min. resolution increment	(mm)	0.001	0.001	0.001
X-axis rapid traverse speed	(m/min)	6	6	6
Z-axis min. resolution increment	(mm)	0.001	0.001	0.001
Z-axis max. traverse speed	(m/min)	4	4	4
Z-axis manual swivel	(deg.)	-0.5~+8	-0.5~+5	0~+5
WORKHEAD				
Spindle speed	(r.p.m.)	5~750	5~750	5~750
Center		M.T.4	M.T.4	M.T.4
TAILSTOCK				
Hydraulic sleeve retraction	(mm)	35	35	35
Center		M.T.4	M.T.4	M.T.4
OTHERS				
Machine dimension (WxDxH)	(mm)	2,810×2,100×1,850	3,665×2,100×1,850	4,630×2,100×1,850
Machine weight	(kg)	2,800	3,700	3,900

*Design and specifications are subject to change without prior notice.
*Optional internal grinding attachment for all series.

TOOL GRINDING MACHINE

- For regrinding and manufacturing of high-precision tools and components.
- Excellent vibration damping of mineral casting materials permit high-precision composite structures with long-term stability.
- Innovative 5 axis technology for tool grinding.
- Uses the worldwide leading user software - NUMroto

MODELS

GT-520

GT-520G

GT-530

SPECIFICATION	UNIT	GT-520	GT-520G
CAPACITY			
Complete machining max. tool length	(mm)	210	210
Complete machining max. diameter	(mm)	Ø120	Ø120
MEASUREMENT SYSTEM			
Standard (tool measurement)		3D measurement probe (Marposs)	
Optional (grinding wheel measurement)		3D measurement probe (Marposs)	
G.W. SPINDLE			
Wheel spindle (direct-drive) (IP65)	(kw)	7.5	12
Wheel spindle regulator (Forward, reverse rotation)	(rpm)	0~9,000	0~10,000
GRINDING WHEELS			
Max. diameter	(mm)	Ø125	Ø125
Grinding wheel per clamping arbour		1~4 wheel	1~4 wheel
GRINDING WHEEL HOLDER			
Standard (HSK50)		Pneumatic auto. chucking	
B-AXIS / STANDARD (DIRECT-DRIVE)			
Speed	degree/sec.	112°	112°
WORKPIECE HOLDERS			
Standard		Mechanical manual	
Optional (grinding wheel measurement)		Pneumatic automatic	
C-AXIS			
Standard		Worm gears (SK50)	Direct-Drive (SK40)
Optional		Direct-Drive (SK40)	-
Wheel speed regulator	(rpm)	65/2000 (opt.)	2000
CONTROLLER			
CNC controller		NUM-Flexium	
AXIS TRAVEL			
Longitudinal (X-Axis)	(mm)	310	310
Lateral (Y-Axis)	(mm)	220	220
Vertical (Z-Axis)	(mm)	190	190
Resolution (X.Y.Z-Axes)	(mm)	0.0003	0.0001
Speed (X.Y.Z-Axes)	(m/min)	15	15
Resolution (B-Axis)	degree	0.0001°	0.0001°
Resolution (C-Axis)	degree	0.0003°/0.0001°(opt.)	0.0001°
MACHINE DIMENSIONS			
Depth / Width / Height	(mm)	2,165 x 1,440 x 1,860	2,270 x 1,440 x 1,910
Machine weight	(kg)	2,800	3,900

*Design and specifications are subject to change without prior notice

TOOL GRINDING MACHINE

- Workpiece Spindle Direct-Drive Motor
- Polymer Casting Machine Base
- Complicated geometric machining operations can be finished in one clamp.

SPECIFICATION	UNIT	GT-530
CAPACITY		
Complete machining max. tool length	(mm)	300
Complete machining max. diameter	(mm)	Ø150
MEASUREMENT SYSTEM		
Standard (tool measurement)		3D measurement probe (Marposs)
Optional (grinding wheel measurement)		3D measurement probe (Marposs)
G.W. SPINDLE		
Wheel spindle (direct-drive) (IP65)	(kw)	12
Wheel spindle regulator (Forward, reverse rotation)	(rpm)	0~10,000
GRINDING WHEELS		
Max. diameter	(mm)	Ø125
Grinding wheel per clamping arbour		1~4 wheel
GRINDING WHEEL HOLDER		
Standard (HSK50)		Pneumatic auto. chucking
B-AXIS / STANDARD (DIRECT DRIVE)		
Speed	degree/sec.	112°
WORKPIECE HOLDERS		
Standard		Mechanical manual
Optional (grinding wheel measurement)		Pneumatic automatic
C-AXIS		
Standard		Direct-Drive (SK50)
Optional		-
Wheel speed regulator	(rpm)	1000
CONTROLLER		
CNC controller		NUM-Flexium
AXIS TRAVEL		
Longitudinal (X-Axis)	(mm)	350/420(opt.)
Lateral (Y-Axis)	(mm)	230
Vertical (Z-Axis)	(mm)	230
Resolution (X.Y.Z-Axes)	(mm)	0.0003
Speed (X.Y.Z-Axes)	(m/min)	15
Resolution (B-Axis)	degree	0.0001°
Resolution (C-Axis)	degree	0.0001°
MACHINE DIMENSIONS		
Depth / Width / Height	(mm)	3,000 x 2,000 x 2,200
Machine weight	(kg)	4,500

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