

PALMARY PRODUCTS

- Centerless Grinder
- Cylindrical Grinder
- Internal Grinder
- Vertical Grinder
- **SURFACE GRINDER**
- Special Purpose Grinder

SURFACE GRINDER

NC
series

PALMARY



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PALMARY



SURFACE GRINDER

HIGH QUALITY-PROVEN GRINDER.
DESIGNED WITH GOOD ACCURACIES
AND MASS PRODUCTIVITY.



The high precision surface grinder from PALMARY offers ultra-high grinding accuracies combined with highly rigid construction throughout and maximum stability. No matter which model you select, it will provide you with lifetime accuracy, stability, and performance dependability needed.



[Model **PSG-3060ACII**]



[Model **PSG-4080ACI**]

NC Auto Infeed Function

User-friendly interface

The conversational HMI with color touch panel which shown letters or graph in stead of light display panel. The customize function is also possible.

High grinding efficiency

The auto grinding cycle with accurate infeed speed and volume setting, which enable the stable and high precision grinding performance, also have the high efficiency & time-saving benefit.

High service quality

To increase the high service quality by offering abnormal report and troubleshooting.



Precision built to create
accurate and efficient
grinding operations

OUTSTANDING FEATURES

High Rigidity

- Machine bed are manufactured with high quality Meehanite cast iron, heat treated before machining in order to make sure its rigidity.
- Each machine mechanism is optimally designed, based on FEA simulation analysis.
- Based on scientific calculation, enlarging supporting construction, arranging with intercostal design to fully support the whole machine unit, to assure total stability while in grinding process.

High Stability

- Both longitudinal and cross-feed slideways are designed for work table supporting completely.
- For bigger grinding capacity, the bigger model with increasing X-axis slider stroke is available.
- Double "V" slideways design enhances total straightness.
- Cross-feed at model 4080 series is designed with square and four slideways for heavy loading requirement without deforming.
- Double-sided constraint design for vertical axis (Y-axis) offers the optimized positioning.

High Precision

- The wheel spindle is manufactured in-house, direct-driving ensures high precision and high stability.
- Full time lubrication with gravity auto lubricating system and lubrication inspection ensures machine works stably.
- Work table is driven by specially designed hydraulic mechanism with non-releasing pressure.

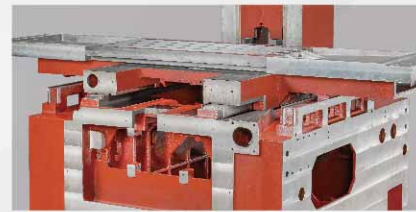
NC CONTROL

One axis NC control (ACI)

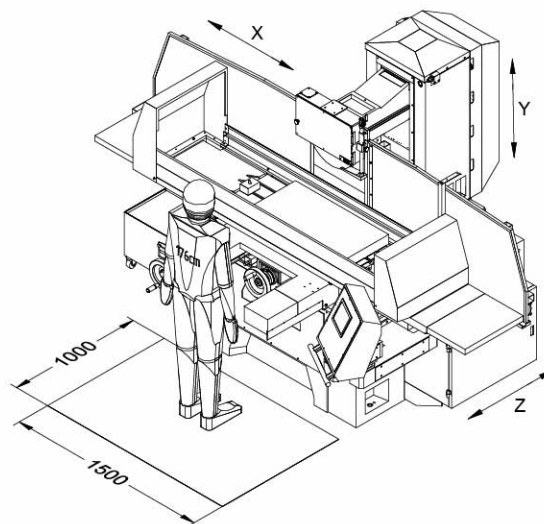
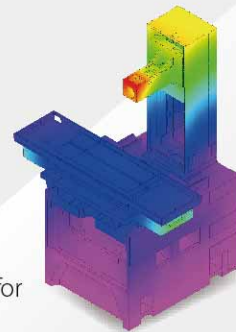
- Vertical axis (Y-axis) is controlled by servo motor.
- Both manual mode and auto mode is available, which can be switched in accordance with different grinding jobs.

Two axes NC control (ACII)

- Vertical axis (Y-axis) and cross-feed axis (Z-axis) both are controlled by servo motor, in addition to flat surface, the multi-steps grinding is also possible.
- Equipped with multi-dresser unit, machine is capable to grind the profile on surface or inclined area. This machine also offer the automatic dressing and offset. Referring to the materials less easy machining, machine is able to do multi-dressing and offset during cycle time, in order to complete various grinding jobs.

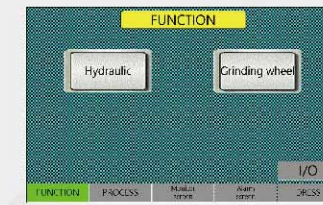


Cross-feed at model 4080 series is designed with square and four slideways

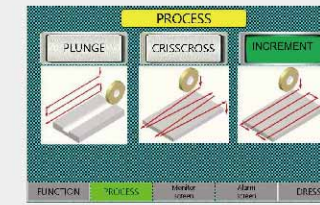


NC CONTROL PANEL

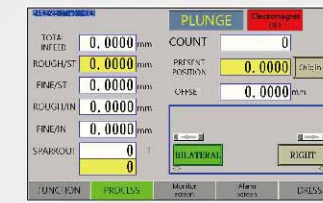
ACI



User-friendly interface



Grinding mode

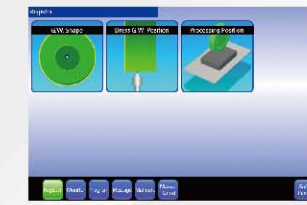


Digitalization



Abnormal report

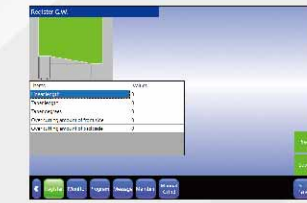
ACII



User-friendly interface



Grinding mode



Digitalization



Real-time monitoring

GRINDING MODE		
Jog grinding	Cross grinding	Groove infeed grinding
End face grinding (rear or front face)	Angular infeed grinding	Ladder grinding (incl. cross, jog and groove)
※ ACII only	※ ACII only	※ ACII only

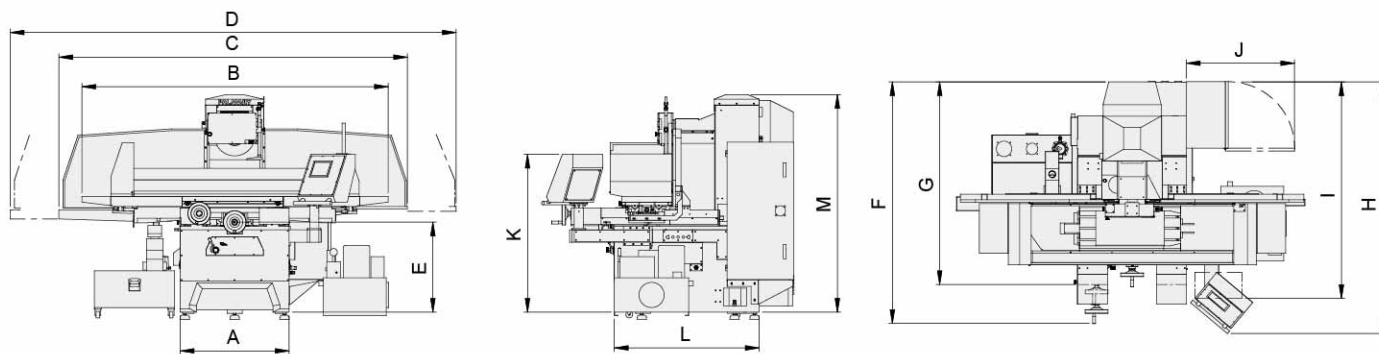
DRESSING MODE (DRESSING & COMPENSATION) ※ ACII only					

MACHINE SPECIFICATIONS

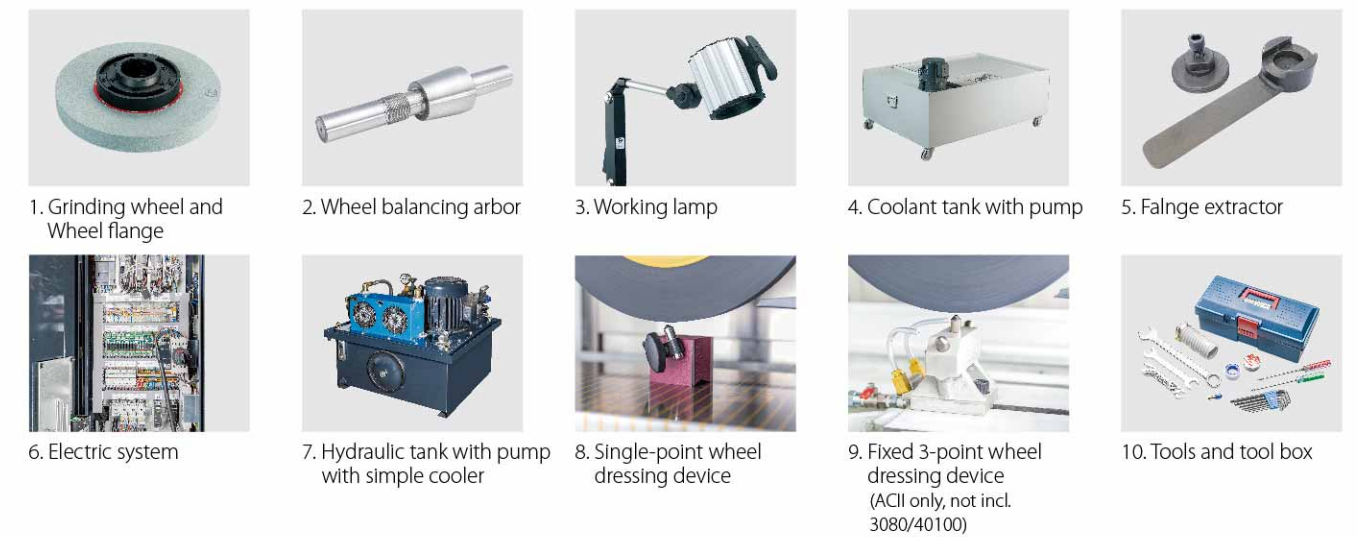
AC series					
ITEM	Unit	PSG-2045	PSG-2550	PSG-3060 / 3080	PSG-4080 / 40100
Capacity					
Table size (length x width)	mm	450 x 200	500 x 250	600 x 300 / 800 x 300	800 x 400 / 1000 x 400
Max. grinding length	mm	450	500	600 / 800	800 / 1000
Max. grinding width	mm	200	250	300	400
Distance from table surface to spindle center	mm	60~450		200~550 (op 200~700)	
Standard mag. Chuck size	mm	450 x 200 x 90	500 x 250 x 75	600 x 300 x 75 / 800 x 300 x 75	800 x 400 x 75 / 1000 x 400 x 75
Table load capacity (incl. Chuck weight)	kg	200	250	420	700
Table (X axis)					
T-slots (width x Q'ty)	mm	17 x 1		17 x 3	
Hydraulic feed (table speed)	mm/min	100~25000		300~25000	
Cross Feed (Z axis)					
Continuous cross feed	mm/min	100~1000		100~1000	
Increment cross feed	mm	0.5~12		0~20	
ACI	Handwheel feed per revolution	mm	5		5
	Handwheel feed per graduation	mm	0.02		0.02
ACII	Minimum setting value	mm	0.0001		0.0001
Wheel Head (Y axis)					
Minimum setting value	mm	0.0001		0.0001	
Traverse speed	mm/min	0~600		0~600	
Grinding Wheel					
Wheel size (Dia x Width x Bore)	mm	180 x 13 x 31.75 (OP.205 x 32 x 31.75 x G16 x P100)		355 x 38 x 127	405 x 50 x 127
Linear velocity	M/min	2000(60HZ) / 1700(50HZ)		2000(60HZ) / 1700(50HZ)	2300(60HZ) / 2000(50HZ)
Motors					
Spindle drive motor	kw	1.5		3.75	5.5
Hydraulic motor	kw	0.75		1.5	1.5
Coolant moter	kw	0.093		0.093	0.093
Y axis servo motor	kw	0.4		0.75	0.75
Z axis servo motor (ACII only)	kw	0.75		0.75	0.75
Tank Capacity					
Hydraulic tank	L	35		80	80
Coolant tank	L	80		120	120
Weight					
Net weight/gross weight (approx.)	kg	1400	1800	3400 / 3500	4700 / 4800
Packing Size					
Length x Width x Height	mm	2300 x 1700 x 1800	2300 x 1800 x 1800	3000 x 2000 x 2000 (op 2100)	3320 x 2200 x 2000 (op 2100)

- Model ACI : standard NC type with the wheel head (Y axis) controlled by servomotor.
- Model ACII : 2-NC type with adding the optional cross feed (Z axis) controlled by servomotor.
- The mentioned specifications & dimensions are subject to change without notice.

MACHINE DIMENSIONS (unit: mm)



STANDARD ACCESSORIES



OPTIONAL ACCESSORIES

- Spare wheel flange
- Balancing stand
- Manual parallel dresser upper grinding wheel (for 2045/2550)
- Hydraulic parallel dresser upper grinding wheel (for 3060~40100)
- Auto. grinding wheel balancing system
- Inverter (for G.W motor)
- Electro magnetic chuck
- Auto. Demagnetizer for chuck
- Wheel side dresser
- Angular trimming device
- Radius trimming device
- Diamond roller dressing device
- Dust suction
- Dust suction with coolant system
- Magnetic Coolant Separator
- Paper filter
- Oil chiller
- Coolant chiller
- Digital Linear scale (Y/Z axis)
- Fully enclosed splash guard

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
PSG-2045	730	1830	2025	2430	740	1500	1260	1900	1700	920	1290	960	1700 (OPT 1850)
PSG-2550	730	1870	2025	2520	740	1590	1300	2000	1800	920	1290	960	1700 (OPT 1850)
PSG-3060 / 3080	950	2680	3045	3530	800	2100	1760	2200	2000	920	1400	1265	1900 (OPT 2050)
PSG-4080 / 40100	1430	3180	3370	4230	800	2400	1960	2400	2050	920	1300	1450	1900 (OPT 2050)