



# GRINDSMART® SERIE R

EN



# GrindSmart® 630RS/630RW/630RW3

## UNMATCHED FLEXIBILITY

To meet the increasing demands of the medtech industries, Rollomatic introduces an evolution of its flagship GrindSmart®630 series, which now incorporates a 6-axis Fanuc robot, offering even greater flexibility and the ability to load tools with up to 500.0 mm overall length.

The GrindSmart®630RW3, RW and RS high-precision 6-axis grinding machines are ideal to produce long drills, particularly in the medical sector. Thanks to their innovative kinematic, these new machine models are perfectly adapted to produce a wide variety of applications covering a range of diameters from 0.1 to 20.0 mm, for both large and small production runs.

The GrindSmart® tool grinders range are equipped with linear and rotary torque motors, that provide enhanced surface finish. When combined with the synchronous spindle this technology ensures constant rotation speed, independent of motor load, for uniform surfaces. The use of the same coolant oil for cooling the linear motors and for grinding, enables high-performance production at constant temperature, without additional energy consumption.



### ADVANTAGES

#### SMART FACTORY READY

*The new GrindSmart®630 RS/RW/RW3 models are ideally suited to unattended production.*

- > Automatic handling of different diameters
- > Smart Laser Measurement for non-contact in-process inspection and automatic compensation
- > SmartChanger®, the ultra-fast automatic wheel and coolant nozzle changer

#### EFFICIENCY AND ERGONOMICS

*The design has been thought through to ensure a minimal footprint and low energy consumption. This new machine model is ideal for tools producers concerned with their energy efficiency and space floor utilization. Equipped with a latest-generation console, it is particularly user-friendly.*

GrindSmart®	630RW3	630RW	630RS	
<b>GRINDING RANGE</b>	Ø 0.1 – 20.0 mm (.004" – .75")	Ø 0.1 – 20.0 mm (.004" – .75")	Ø 0.1 – 16.0 mm (.004" – .63")	
<b>CONTROL</b>	FANUC 30iMB	FANUC 30iMB	FANUC 30iMB	
<b>X axis</b>	Stroke	300 mm (11.8")	300 mm (11.8")	300 mm (11.8")
	Fast travel	12 m/min. (473"/min.)	12 m/min. (473"/min.)	12 m/min. (473"/min.)
	Encoder type	Absolute linear scale	Absolute linear scale	Absolute linear scale
	Resolution	0.00001 mm (.0000004")	0.00001 mm (.0000004")	0.00001 mm (.0000004")
<b>Y axis</b>	Stroke	220 mm (8.6")	220 mm (8.6")	220 mm (8.6")
	Fast travel	12 m/min. (473"/min.)	12 m/min. (473"/min.)	12 m/min. (473"/min.)
	Encoder type	Absolute linear scale	Absolute linear scale	Absolute linear scale
	Resolution	0.00001 mm (.0000004")	0.00001 mm (.0000004")	0.00001 mm (.0000004")
<b>Z axis</b>	Stroke	180 mm (7")	180 mm (7")	180 mm (7")
	Fast travel	12 m/min. (473"/min.)	12 m/min. (473"/min.)	12 m/min. (473"/min.)
	Encoder type	Absolute linear scale	Absolute linear scale	Absolute linear scale
	Resolution	0.00001 mm (.0000004")	0.00001 mm (.0000004")	0.00001 mm (.0000004")
<b>A axis</b>	Stroke	-50° to 90° (140°)	-50° to 90° (140°)	-195° to 30° (225°)
	Fast rotation	6480°/min.	6480°/min.	6480°/min.
	Encoder type	Rotary measuring encoder	Rotary measuring encoder	Rotary measuring encoder
	Resolution	0.0000125°	0.0000125°	0.0000125°
<b>B axis</b>	Stroke	-75° to 135° (210°), direct drive	-75° to 135° (210°), direct drive	-75° to 135° (210°), direct drive
	Fast rotation	8640°/min.	8640°/min.	8640°/min.
	Encoder type	Rotary measuring encoder	Rotary measuring encoder	Rotary measuring encoder
	Resolution	0.00005°	0.00005°	0.00005°
<b>C axis</b>	Stroke	Tool rotation	Tool rotation	Tool rotation
	Fast rotation	300 / 1000 r.p.m.	300 / 1000 r.p.m.	300 / 1000 r.p.m.
	Encoder type	Rotary: on AC motor/ measuring encoder	Rotary: on AC motor/ measuring encoder	Rotary: on AC motor/ measuring encoder
	Resolution	0.0001°	0.0001°	0.0001°

**GRINDING MOTOR SYNCHRONOUS**

Power	11 kW (15 HP), direct drive	11 kW (15 HP), direct drive	7 kW (10 HP), direct drive
Peak Power	14 kW (19 HP)	14 kW (19 HP)	11 kW (15 HP)
Rotation speed	500 – 12000 r.p.m.	500 – 12000 r.p.m.	500 – 10000 r.p.m.
Grinding wheels	Ø 200 mm (7.9")	Ø 200 mm (7.9")	Ø 200 mm (7.9")

\* Specifications are subject to change without notice

GrindSmart®	630RW3	630RW	630RS
<b>WHEEL CHANGER SMARTCHANGER</b>			
Wheel pack capacity	16	6	
Number of wheels per pack	4	4	
Attachment	HSK50E	HSK50E	
<b>CLAMPING</b>			
Clamping system	Adapters Schaublin and Nann	Adapters Schaublin and Nann	Adapters Schaublin and Nann
Clamping range	Ø 0.5 – 20.0 mm (.02" - .75")	Ø 0.5 – 20.0 mm (.02" - .75")	Ø 0.5 – 20.0 mm (.02" - .75")
Clamping type	Mech. spring clamping	Mech. spring clamping	Mech. spring clamping
<b>ROBOT LOAD &amp; UNLOAD</b>			
No. of tools < 275mm	Up to 1000 (3 cassettes)	Up to 1000 (3 cassettes)	Up to 1000 (3 cassettes)
No. of tools > 275mm or SmartFactory	Up to 500 (2 cassettes)	Up to 500 (2 cassettes)	Up to 500 (2 cassettes)
Shank diameter	Ø 1.5 – 20.0 mm (.06" – .75")	Ø 1.5 – 20.0 mm (.06" – .75")	Ø 1.5 – 20.0 mm (.06" – .75")
Max. overall length	500 mm (20")	500 mm (20")	500 mm (20")
Clamping	Pneumatic	Pneumatic	Pneumatic
<b>TOOL SUPPORTS</b>			
Shank support	«V» clamping, Hydraulic	«V» clamping, Hydraulic	«V» clamping, Hydraulic
Cutting portion support	«V» or Half moon, Hydraulic	«V» or Half moon, Hydraulic	«V» or Half moon, Hydraulic
<b>MACHINE</b>			
L x W x H	2185 x 2421 x 2320 mm (86" x 95.3" x 91.3")	2185 x 2240 x 2320 mm (86" x 88.3" x 91.3")	2185 x 1600 x 2320 mm (86" x 63" x 91.3")
Weight	3900 kg (8600 lbs)	3700 kg (8157 lbs)	3500 kg (7495 lbs)
Total power	Maximum 18 kW 3 x 400V/25A	Maximum 18 kW 3 x 400V/25A	Maximum 18 kW 3 x 400V/25A

