

FLUTEGRIND SF

FOR TAPS



TECHNICAL DATA

Direct drive spindle	15 kW, 12.000 RPM max.
Wheel range	Ø100 – 215 mm
Spindle taper	HSK 50 / female
Grinding Range	Ø1 mm / Ø3 – 20 mm
Shaft diam, auto loading ...	Ø3 – 16 mm
Tool Length, auto loading ..	40 – 150 mm
Grinding length	85 mm max.
Table angle	-50° to +90°
Cutting speed	80 m/s
Flange, Bore	Ø76,2 mm
Dresser Diamond Roll	Diameter Ø125 mm, Bore Ø32 mm
Dresser Speed	+/- 500 – 6000 RPM
CNC System & Loading	Fanuc Oi-F+ & Fanuc LR Robot

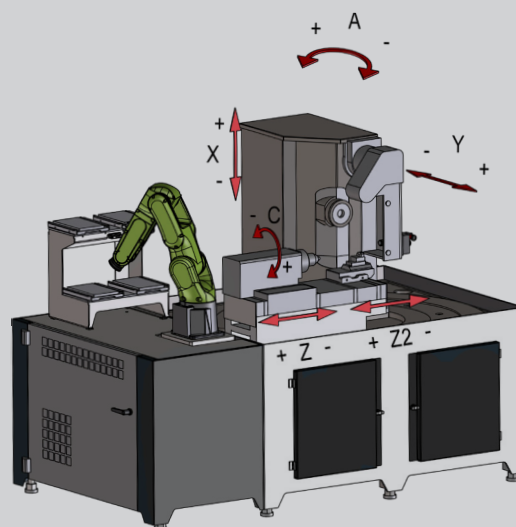
(technical changes reserved)

The machine is equipped with 6 CNC axes:

- X-axis**, wheel spindle vertical travel
- Y-axis**, wheel spindle horizontal travel
- Z-axis**, working table longitudinal travel
- A-axis**, wheel column angle movement (helix angle)
- C-axis**, workpiece drive
- Z2-axis**, center or bushing support



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PRODUCT INFORMATION

The Flutegrind SF series is a stand-alone flute grinding solution for taps.

The machine grinds straight, right and left hand helix taps, with grinding wheels up to 215mm diameter. With up to 2 wheels mounted on the flange, the tap can be ground with discrete profiles for flute and gun point. The built in 2 axis diamond roll dresser has full flexibility to dress different wheel profiles - dressing can be completed during the automatic robot loading cycle, improving floor to floor cycle time. The Fanuc robot with dual head gripper, completes the loading cycle in less than 10

seconds. Standard round collets can be used due to the pre-locating device securing perfect alignment between square and flute. To complete the array of features for tap flute grinding, the SF machines owns a programmable sliding tailstock with the option to grind between centers or with bushing support.

The machine is equipped with a 6 axis Fanuc. Menu driven, user friendly software with clear screen icons and instructions makes operator training easy. The flute profile can be entered by DXF file or through the option available profile calculation settings



Machine example: tap M6

	Spiral flute	Straight flute + gun point
Flute length	27mm	27 mm
Number of flutes	3	3
Flute angle	30°	0°
Cycle time	30sec (incl. loading)	50 sec (incl. loading)

Available options

- Customer specified cassette design
- CNC sliding bushing or center support

Automatic Loading

Cassette type SMS or Reishauer type or by customer request

Capacity standard 2 loaded cassettes, 2 empty
 Ø3 shank, 2 x up to 200 tools
 Ø10 shank, 2 x up to 100 tools

Installation requirements (incl. display)

Dimensions (L x W x H).....2150 x 2500 x 2100 mm

Weight approx. 3.200 kg

Power supply SF 3 x 400 V, 50 Hz,
 20kW, 63 Amp.

Air supply.....min. 6 bar, dry and clean

Color, machine base.....RAL 7016 / Anthracite grey

Color, machine enclosure RAL 7035 / Light grey

Automatic central lubrication oil

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