

# 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

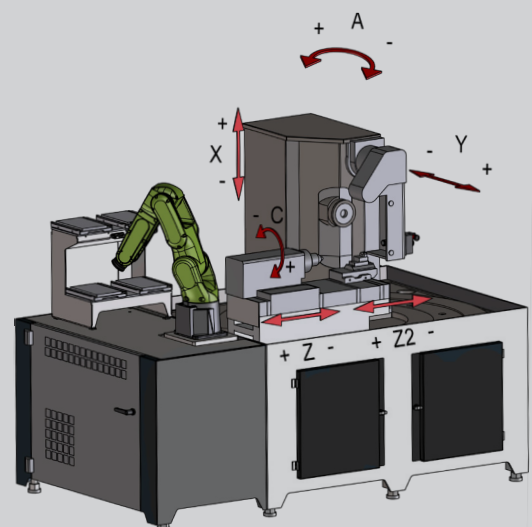
*(technical changes reserved)*

#### 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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