



## Sigma Flexi 3: 3-Axis Machining Centers

### **An innovative product of cutting-edge technology**

- ▶ The new vertical machining centers of the Flexi series with movable worktable are designed for the machining of medium to large workpieces in precision mechanics, the automotive and aerospace, the medical as well as mold and die making industries.
- ▶ Various configurations and optional equipment allow to custom machine equipment to meet the user's manufacturing needs.
- ▶ Thanks to the cast iron structure, the machine bed ensures high rigidity even with full power and torque performance of the motor spindle.
- ▶ Y-axis of 800 mm and the table with loading capacity up to 2500 kg enable large workpieces machining.
- ▶ The Flexi series is equipped with the latest generation of Heidenhain, Siemens and Fanuc controls for accuracy and speed of machining.
- ▶ The ergonomic control panel is positioned on a front flexible arm.
- ▶ The machine housing is designed according to the current criteria of industrial design including: ergonomics, easy access to the working area, wide visibility during machining, easy loading and unloading, optimal dust and chip removal, ease of use and maintenance.

## Sigma Flexi 3: speed, accuracy, power in one solution



The structural concept enhances the rigidity of the machine under extreme power and torque performance of the motor spindle.

### Speed

- ▶ X, Y, Z axes feedrate up to 50 m/min
- ▶ X, Y, Z axes acceleration up to 3.5 m/s<sup>2</sup>

### Accuracy

- ▶ Optical scales on linear axes
- ▶ Counterbalance system on Z-axis
- ▶ Conditioning circuit for head and motorspindle temperature control

### Versatility

- ▶ Cast iron structure enhances machine rigidity under extreme power and torque performance of the motor spindle
- ▶ Y-axis traverse: 800 mm
- ▶ Worktable loading capacity up to 2500 kg



The X-axis movable table enhances the precision and quality of machined workpieces.

### Power

- ▶ The availability of torque, power and speed of the motor spindles guarantees the best constant machining conditions.
- ▶ The basis of the Flexi machining centers is a rigid cast iron structure that guarantees stability and rigidity.
- ▶ The table, which can be moved in the X-axis, is supported over the entire travel path and guarantees highest precision and final quality of the machined workpieces.
- ▶ Large-sized ball screws with double-preloaded nuts in combination with motors and digital direct drives offer high dynamics and traversing speeds of up to 50 m/min.
- ▶ All movements take place with roller recirculation sliding blocks.
- ▶ Machine accuracy is assured by pressurized optical scales on X, Y and Z axes.

3-axis vertical machining centers	type	FLEXI 3S	FLEXI 3M	FLEXI 3L
<b>Working area</b>				
X-axis traverse	mm	1250	1600	2100
Y-axis traverse	mm	800	800	800
Z-axis traverse	mm	715	715	715
X - Y - Z axes feedrate	m/min	50 - 50 - 50	50 - 50 - 50	40 - 50 - 50
X - Y - Z axes acceleration	m/s <sup>2</sup>	3.5	3.5	3.5
<b>Table</b>				
Table surface	mm	700 x 1450	700 x 1800	700 x 2300
Max. load	kg	1500	2000	2500
<b>Spindle unit</b>				
Spindle speed	rpm	15 000	15 000	15 000
Spindle taper	type	SK40 / HSK-A-63 / BT40		
Max. power S1 / S6	kW	25 / 27		
Max. torque S1 / S6	Nm	160 / 235		

Subject to change without notice