

FA 270/320/350



MAIN FEATURES

BEARING STRUCTURES

All structures are made of high-resisting perlitic cast-iron and are thermically stabilized so to be very suitable for induction hardening of the guideways in order to obtain a hardness of approx. 500 Brinell. The geometrical features of the guideways and the correct proportions of the machine-bed create a unit of considerable non-deformability which is necessary to resist the heavy stress coming from the turning process.

HEADSTOCK

The spindle line is largely dimensioned so to have a bar passage which is larger than the usual one and to support chucks with automatic clamping of high performance.

The transmission of power is obtained by a stepless variable speed drive at constant power of brushless motor type using high-quality Vee-belts.

In order to increase the torque-rate at low speed a three-stage gearbox is provided with manual shifting of gears on splined shafts. These shafts are made of NiCrMo case-steel of high resistance and are hardened and ground. A direct transmission of the transducer is provided so to control the electric axis between the spindle and the lead-screw.

The spindle with Cam-lock N $^{\circ}$ 11 runs on high-precision angle ball bearings made purposely for spindles. The spindle is provided either with manual or pneumatic or hydraulic chuck. The lubrication uses a continuous and forced system inside of the headstock.



WORK AXES

The work axes (Z-X) are driven by brushless AC motors which are connected directly to the preloaded ballscrews conforming to the DIN 5 precision class. The structure of the slides is well proportioned in order to allow heavy working without loosing the initial accuracy control.

Read-out of positions is carried out by two rotary transducers, which are directly connected to the respective ball-screws. A lubrication system delivers the oil and controls pressure, delivery-rate and lubrication intervals.

TOOL-HOLDERS

One or two turrets with either manual or electro-mechanical tool-holders can be mounted on the slide of the X axis. These can be either of the 4-position type with vertical rotation or of the 8-position disk type with horizontal rotary axis.

TAILSTOCK

The tailstock is largely dimensioned in order to support heavy duty jobs and can be positioned and locked by hand. A hydraulic drive for the tailstock quill can be provided.

CONTROL PANEL

This panel is located on the sliding door and comprises all controls for manual, semi-automatic, self-learning cycle or automatic operation from program.

The electronic display for all functions to be entered in the different operation modes is located at the upper side. The machine is prepared also for other types of Numerical controls which should be similar to the present control on the machine..



CARATTERISTICHE TECNICHE

| | | FA270 | FA320 | FA350 |
|--|----------------|------------------------|------------------------|------------------------|
| Height of centres | mm | 270 | 320 | 350 |
| Max. swing in gap | mm | 730 | 830 | 890 |
| Max. swing over bed | mm | 540 | 640 | 700 |
| Max. swing over carriage | mm | 308 | 408 | 468 |
| Max distance between centres | mm | 1500 2000 3000 4000 | 1500 2000 3000 4000 | 1500 2000 3000 4000 |
| Controlled Z-axis travel | mm | 1300 1800 2800 3800 | 1300 1800 2800 3800 | 1300 1800 2800 3800 |
| Controlled X-axis travel | mm | 360 | 400 | 440 |
| Spindle bore | mm | 105-154 | 105-154 | 105-154 |
| CAMLOCK nose | n | 8-11 | 8-11 | 8-11 |
| Speed-ranges | n | 2 | 2 | 2 |
| Max speed in range 1 | Ø 105 Ø 154 | 107/470 96/400 | 107/470 96/400 | 107/470 96/400 |
| Max speed in range 2 | Ø 105 Ø 154 | 450/2000 409/1600 | 450/2000 409/1600 | 450/2000 409/1600 |
| Rapid travel on Z and X axis | mm/1' | 8 | 8 | 8 |
| Width of bed | mm | 400 | 400 | 400 |
| Tailstock quill diameter | mm | 100 | 100 | 100 |
| Tailstock quill stroke | mm | 250 | 250 | 250 |
| Morse taper | mm | 5 | 5 | 5 |
| Spindle power-rate | Kw | 15 | 18,5 | 18,5 |
| Totally installed power-rate | Kw | 18 | 20 | 20 |
| Length | mm | 3600 4100 5100 6100 | 3600 4100 5100 6100 | 3600 4100 5100 6100 |
| Width | mm | 1900 | 1900 | 1900 |
| Height | mm | 1850 | 1850 | 1850 |
| Approx.net weight for centre distance 1500 | Kg | 3500 | 3600 | 3700 |
| Approx.net weight for centre distance 2000 | Kg | 3700 | 3800 | 3900 |
| Approx.net weight for centre distance 3000 | Kg | 4000 | 4100 | 4200 |
| Approx.net weight for centre distance 4000 | Kg | 4500 | 4600 | 4700 |

Technical specifications are subject to change without notice.





FRACOM s.a.s.

Via F.lli Vigorelli, 20 20020 Magnago (MI) – Italia Tel. +39.0331.658452 Fax +39.0331.656812 info@fracom.it www.fracom.it