

**2.3 TECHNICAL FEATURES**

The main technical features of this machine are listed below:

Z-axis working stroke:	24 mm
Positioning accuracy:	± 0.003 mm
Repeatability accuracy:	± 0.002 mm
Optical scale resolution:	0.001 mm
Encoder resolution:	1000 imp/turn
X-Y axes positioning rate:	25 m/min
X-Y axes maximum acceleration:	3 m/s ²
Z-axis positioning rate:	25 m/min
Z-axis maximum acceleration:	30 m/s ²
Numerical control:	Sieb & Meyer CNC 44.00 + PC
Slide system:	Pneumostatic
Drive system:	Servomotors + Ball screws
Number of tools:	4
Power supply:	380 V 50 Hz three-phase
Electrical consumption:	8 kW
Final vacuum:	- 650 mm Hg
Pneumatic consumption:	400 NI/min
Supply pressure:	7 bar
Dimensions (machine):	1550 x 1930 x 1760 mm
Weight:	3200 kg
Noise level:	< 75 dB



2.4 VISION SYSTEM

X-ray vision system repeatability:	0.005 mm with the processing of 255 images
Reference pad diameters:	0.75 - 1 - 1.25 - 1.5 - 1.75 mm \pm 10%
Reference hole diameter:	2 mm \pm 10%
Panel reference position with respect to the theoretical dimension:	Included in a square of 4 mm per side

2.5 DRILLING SYSTEM

Type:	WW 1201/21
Rotation speed:	18.000 - 110.000 r.p.m.
Slide system:	Pneumostatic bushing
Air consumption:	56 l/min
Air pressure:	4.8 - 5.0 kg/cm ²
Coolant delivery:	0.8 l/min
Static runout (at 20 mm from the collet):	< 0.0050 mm
Dynamic runout (at 20 mm from the collet):	< 0.0075 mm
Max. radial load at 110 Krev:	8.2 kg
Max. axial load:	25 kg
Radial rigidity at 110 Krev:	0.59 kg/ μ
Axial rigidity at 110 Krev:	1.07 kg/ μ
Collet closing torque:	1.4 kgcm
Weight:	3.24 kg



2.6 TEST SPECIFICATIONS

Tooling plate flatness:	± 0.020 mm
X-axis straightness:	± 0.005 mm
Y-axis straightness:	± 0.005 mm
Flatness of the upper granite table:	± 0.005 mm
Parallelism between granite guides:	± 0.005 mm
Flatness of granite cross rail:	± 0.005 mm
Perpendicularity of spindle axis with respect to the granite table:	< 15 x 10 ⁻⁵ Centesimal degrees

2.7 PANEL SPECIFICATIONS

Panel dimensions:	Minimum: 300 x 300 mm Maximum: 800 x 650 mm
Min. interaxis between references:	300 mm
Maximum panel thickness:	4 mm
Maximum number of copper layers:	12 with the "Shifted reference method" 24 with the "Overlapped reference method"
Inspection area:	241 x (200 - 635) mm per side Fig. 2.1

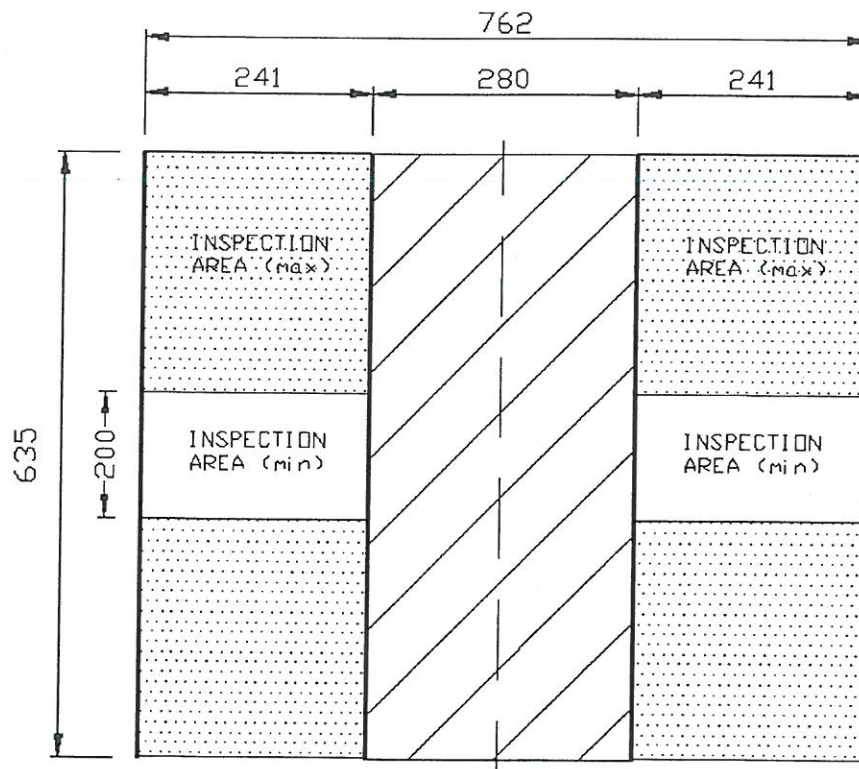


Fig. 2.1