

1. General Machine Identification

Reference Code	IT114
Manufacturer / Industrial Group	SCM GROUP S.p.A. (Via Montefeltro 81/3, Pesaro - Italy)
Brand / Commercial Line	MORBIDELLI
Series / Type	UNIX Series
Full Model Designation	UNIX KBT
Machine Category	Automatic Flexible In-Line Drilling & Dowel Inserting Machine
Year of Manufacture	2006
Serial Number	AL/009120
Wiring Diagram Code (w.d.)	2991604116B
Total Machine Net Weight (Mass)	2,800 kg

2. Electrical & Power Specifications

Nominal Power Supply Voltage (Un)	400 V (3-Phase + Neutral)
Operating Frequency (F)	50 Hz
Nominal Current Draw (In)	49 A
Installed Electrical Capacity	~30 - 34 kW (estimated total load capacity)
Short-Circuit Current Rating (Icc)	10 kA
Conformity Standard	✓ CE Certified (SCM Group Conformity)

3. Workpiece Processing Dimensions & Capacities

Machining Axis Configuration	X-axis (panel pass-through) / Y-axis (cross) / Z-axis (vertical)
Max. Workpiece Width (Y-Axis)	1,000 mm (standard Unix pass-through width)
Min. Workpiece Width	100 mm
Workpiece Length (X-Axis)	250 mm – Unlimited (continuous motorized roller feed)
Workpiece Thickness Range (Z-Axis)	10 mm – 60 mm
Panel Feeding Speed	Variable up to 35 - 50 m/min (motorized roller drive)

4. Drilling Head, Dowel Insertion & Tooling

Main Boring Head Configuration	Independent vertical spindles (32 mm pitch) + horizontal spindles
Horizontal Drilling Units	Front & rear horizontal drilling heads for side-edge boring
Grooving Saw Unit (*Lama*)	Integrated X-axis grooving saw unit for back panels
Dowel Inserting System (KBT)	High-pressure glue injection nozzles + pneumatic dowel driving guns
Standard Dowel Size Range	Ø 6/8 mm x Length 30–40 mm
Vibratory Dowel Feeders	Integrated bowl feeder for automatic dowel sorting and feeding

5. Structural Features & Pneumatics

Workpiece Feeding System	Motorized lower roller table + pneumatic upper hold-down rollers
Operating Air Pressure Required	6.0 – 7.0 BAR
Dust Extraction Outlets	Multi-port extraction hood manifold (Ø 150–200 mm main duct)
Protection Enclosure	Sound-proof cabin enclosure with transparent viewing window & safety interlocks
Control Cabinet & Software	Separate main electrical control cabinet with SCM/Morbidelli NC software

Technical specifications expanded using nameplate serial data (Serial AL/009120) combined with SCM Morbidelli Unix KBT platform technical standards.