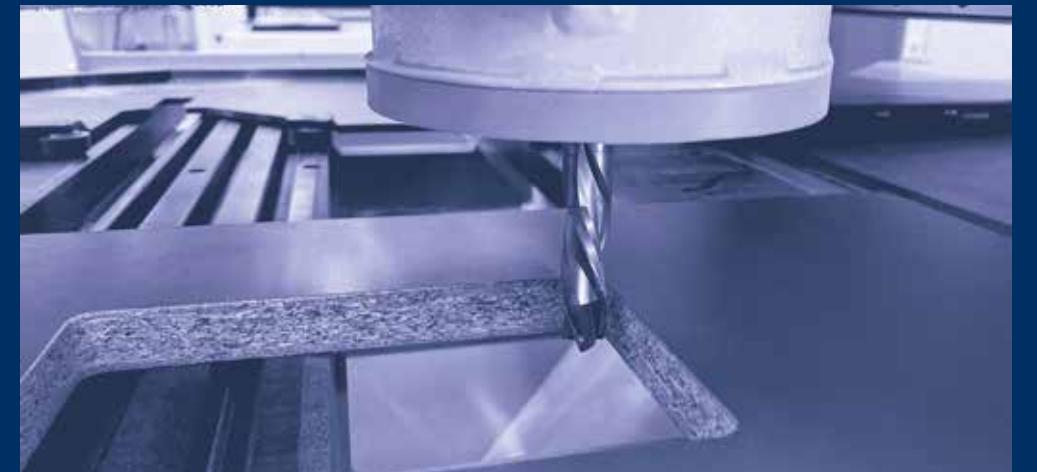
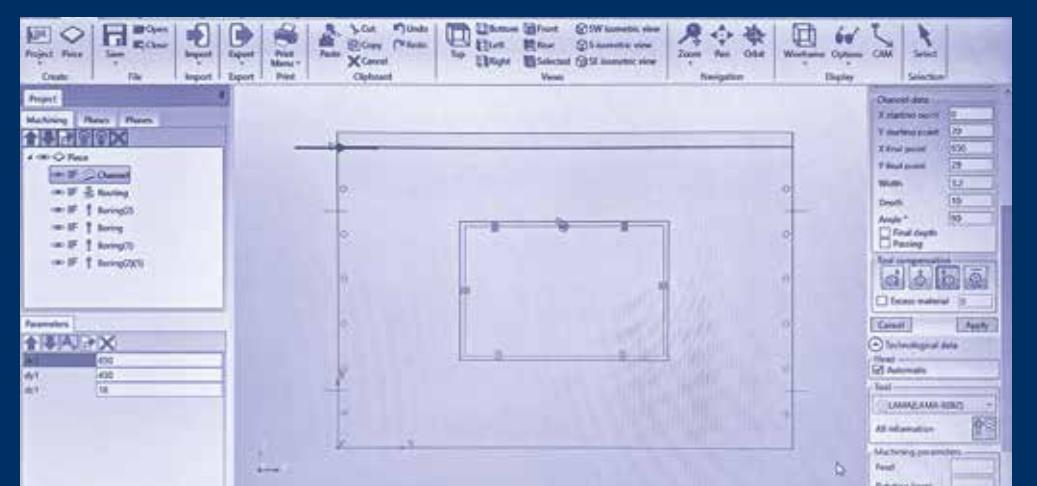
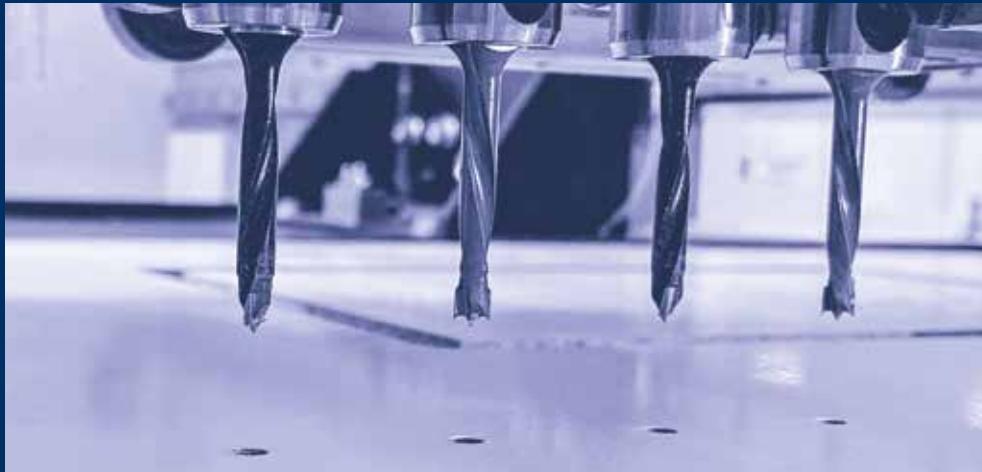


# startech range

drilling and routing machines for the advanced joinery



# All “Made in SCM Italy”

## *From casting iron to finished product.*

Come see our production plants and touch the quality of SCM machines;  
you will be our guest.

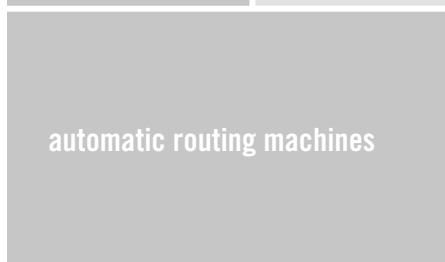
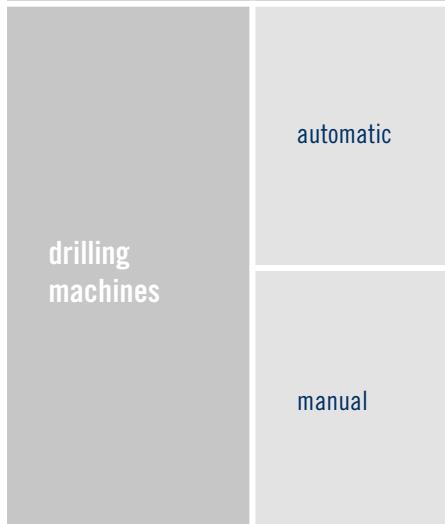


## Drilling and routing machines for the advanced joinery.

SCM's objective is to guarantee customers high quality technologies which meet their requirements in such a way as to make SCM the partner for any needs.

# startech range

For all drilling and routing requirements.



**startech cn plus**  
page 4



**startech cn v**  
page 5



**startech 27**  
page 12



**startech cn k**  
page 20



**startech 21**  
page 13

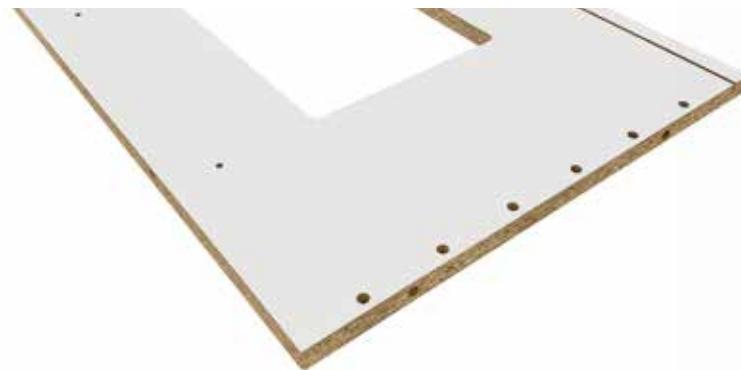


The motors powers in this catalogue are expressed in S6, except where otherwise specified.

In this catalogue, machines are shown in CE configuration and with options.

We reserve the right to modify technical specifications without prior notice, provided that such modifications do not affect safety as per CE norms.

# automatic drilling-routing machine startech cn plus



Max. panel dimensions X-Y-Z

startech cn plus

startech cn v

mm 3050 x 900 x 60

mm 3000 x 900 x 50

Min. panel dimensions X-Y-Z

mm 200 x 80 x 10

mm 300 x 90 x 10

X-Y-Z axes max. speed

m/min 40/40/10

20

Vertical spindles

n. 8 (F14) - 13 (F23)

n. 7 (F11) - 8 (F14)

Horizontal spindles

n. 6 (F14) - 10 (F23)

n. 4 (F11) - 6 (F14)

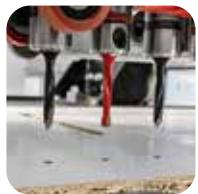
Spindles rotation speed

rpm 4200

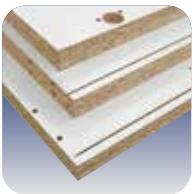
4460

*Find the complete technical specification at page 9*

# automatic drilling machine startech cn v



Drilling from  
the Top  
perfect finish



Elements Production  
versatility



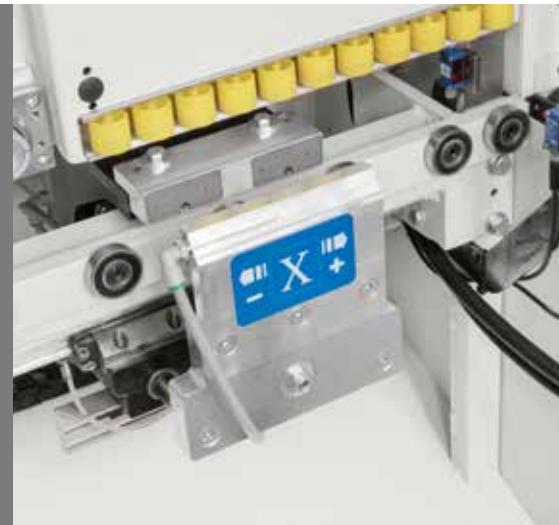
Maestro Software  
easy and intuitive

Compact and performing numerical control  
machines for woodworking shops and  
craftsmen.

# startech cn plus startech cn v operating groups

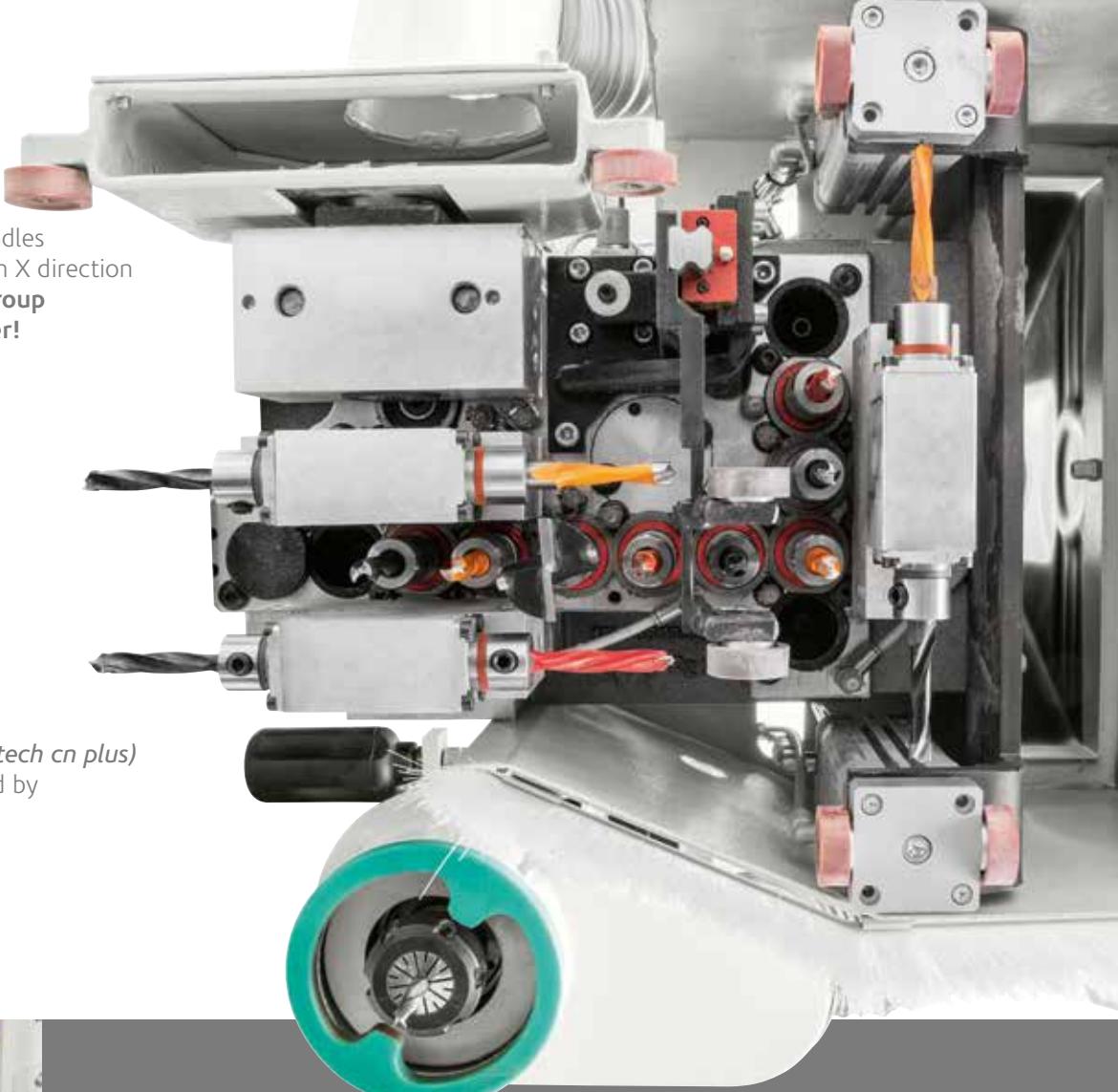


guaranteed reliability  
**Mobile clamp with floating opening**  
Optimal piece stability and high working quality.



## effective Drilling head

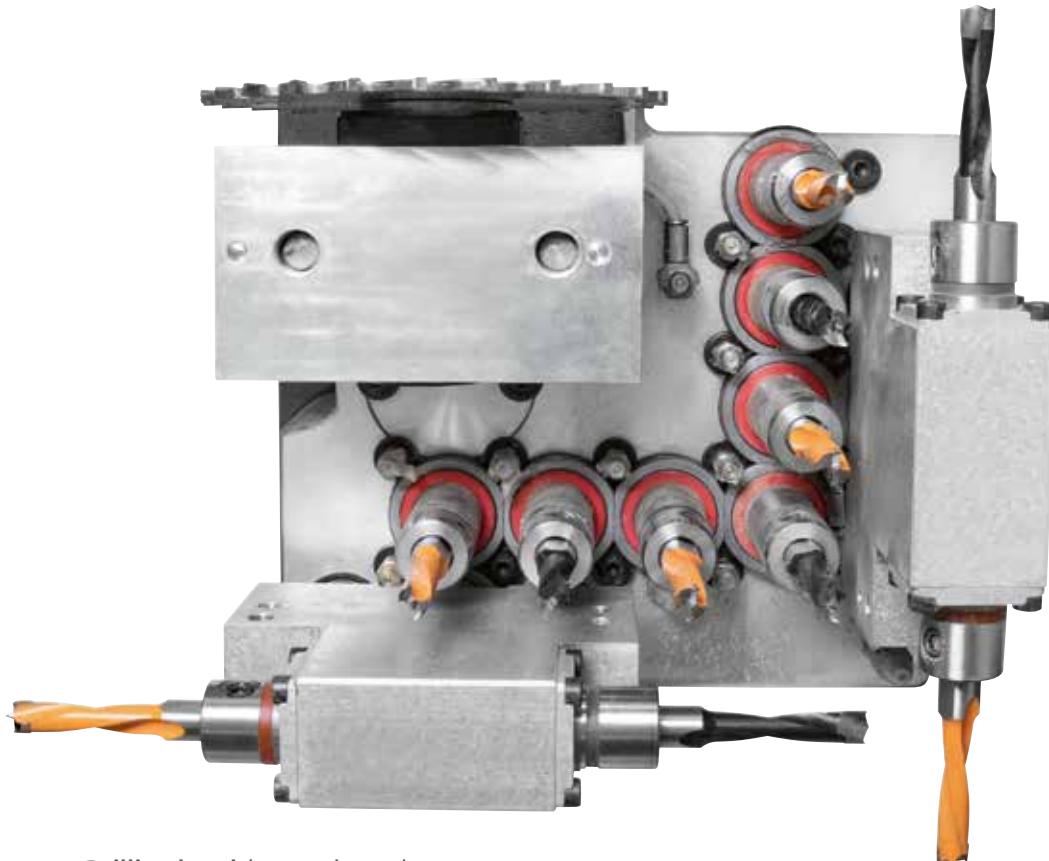
With 14 independent spindles (8 vertical spindles and 6 horizontal spindles), integrated blade in X direction and possibility to add an **optional routing group (startech cn plus)** with 5,5 kW motor power!



## easy panels movement

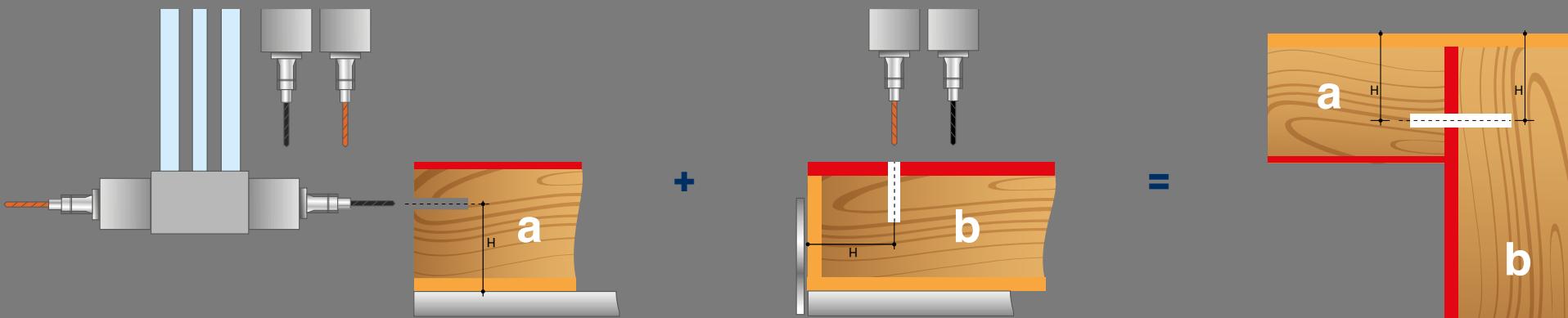
**Automatic side-alignment device (startech cn plus)** with pneumatic positioning and managed by the drilling-routing program.

**Drilling from the Top**  
The drilling head positioned above the panel allows an accurate machining which can be verified in the cabinet assembly phase: the system uses the outside of the panel (in sight) as a reference and thus **any differences in thickness are always on the inside of the cabinet (non in sight)**. Furthermore, the positioning of the drilling head upper the working chips and dust grants a better cleaning and a reduced maintenance.



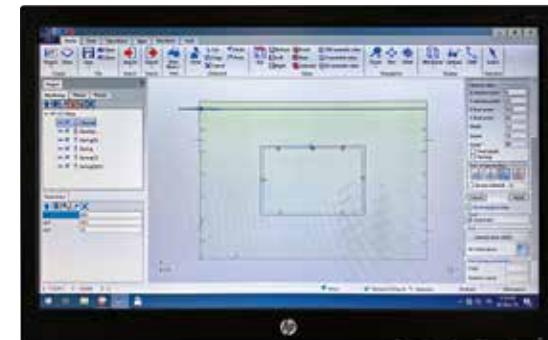
**Drilling head (startech cn v)**

With 11 independent spindles and integrated blade in X direction.



easy and intuitive  
PC with integrated software  
(*startech cn plus*)

The **SCM "Maestro cnc"** software allows to create projects and geometrical drawings to be automatically converted in drilling-routing programs for the machine.



**Numerical control**  
(*startech cn v*)

NC 10" colour touch-screen display and self-diagnosis and signalling system of errors or damages. Head tooling and machining cycle programming without using any mouse or keyboard and with automatic optimization.



# startech cn plus startech cn v main optional devices

**Maestro**  
cnc

Expand your creativity



**scm**  
woodworking technology



Possibility to import and export the drilling programs, even when created with a CAD/CAM software in the office, through USB key (post processor not included).  
(standard on startech cn plus)



## F23 drilling head

High performance and rapid set-up thanks to the drilling unit with 23 independent spindles (13 vertical spindles and 10 horizontal spindles, 6X + 4Y) with integrated blade in X direction.

The possibility to equip the head with several bits of different diameters, guarantees maximum flexibility of use and reduced maintenance.

(startech cn plus)



## Removable side supports

to adjust and support long work-pieces.

(startech cn plus)



**Automatic centralized lubrication**  
managed by the control.

## Barcode reader

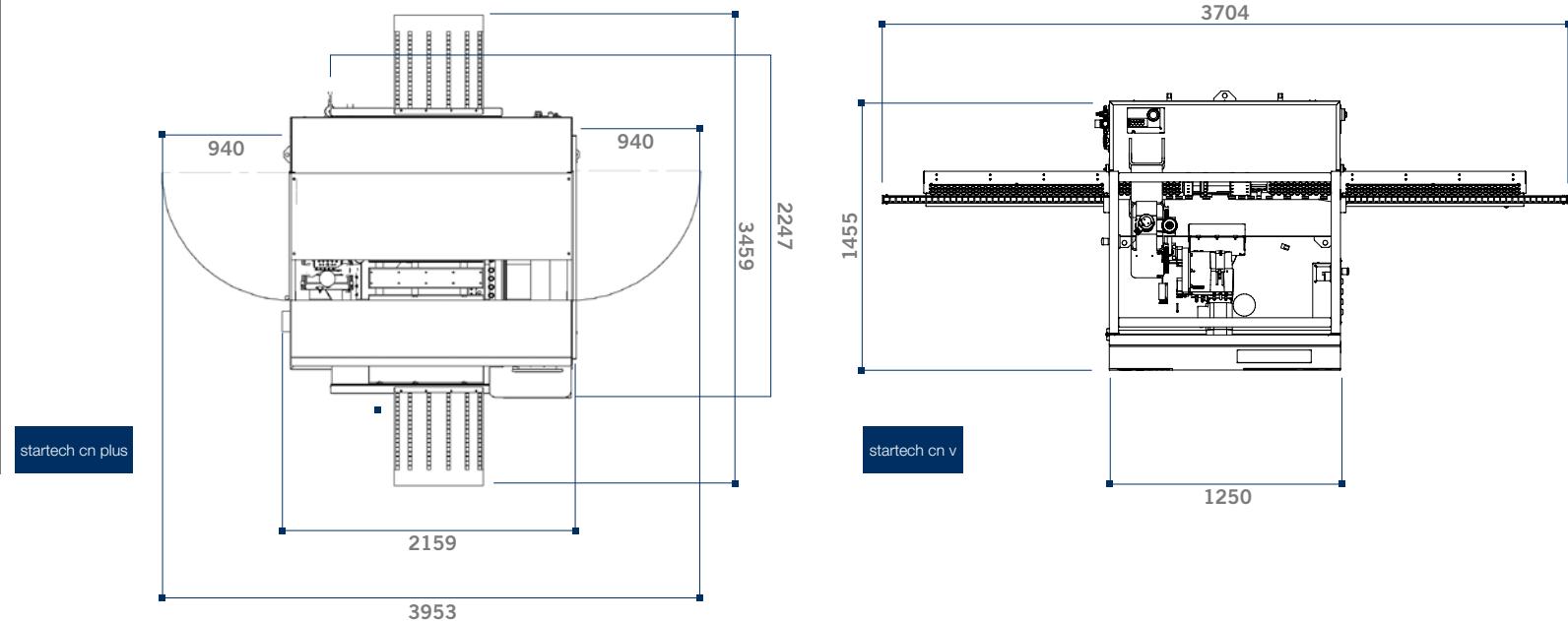
With a simple "click" of the barcode reader, it is very rapid and simple to recall drilling program, correctly stored in the machine control.



# startech cn plus

# startech cn v

## technical data



### TECHNICAL DATA

		startech cn plus	startech cn v
Min. ÷ max. panel length	mm	200 ÷ 3050	300 ÷ 3000
Min. ÷ max. panel width	mm	80 ÷ 900	90 ÷ 900
Min. ÷ max. panel thickness	mm	10 ÷ 60	10 ÷ 50
Max. X-axis speed	m/min	40	20
Max. Y-axis speed	m/min	40	20
<b>drilling head</b>			
Vertical spindles	n.	8 (F14) - 13 (F23)	7 (F11) - 8 (F14)
Horizontal spindles	n.	6 (F14) - 10 (F23)	4 (F11) - 6 (F14)
Motor power	kW (hp)	2,2 (3)	2,2 (3)
Spindles rotation speed	rpm	4200	4460
Fixed integrated disc cutter	direction	X	X
Max. diameter disc cutter	mm	125	125
Disc cutter rotation speed	rpm	5500	5700
<b>electrospindle</b>			
Motor power	kW (hp)	5,5 (6)	-
Min. ÷ max. speed	rpm	1000 ÷ 18000	-
Tool changer		manual	-
Max. tool diameter	mm	20	-
<b>other technical features</b>			
Compressed air consumption	Nl/min	50	90
Extraction air consumption	m <sup>3</sup> /h	1900+540+1200 (+540 for R version)	820
Exhaust air speed	m/sec	30	20
Installed motor power (minimum)	KVA	15,2 (20,7 for R version)	4,5
Exhaust hood diameter	mm	150+120+80 (+80 for R version)	120

# startech cn plus

## startech cn v

### equipment

Standard  
 Option

#### STARTECH CN PLUS

##### EQUIPMENT

	startech cn p F14L	startech cn pr F14L	startech cn p F23L	startech cn pr F23L
Drilling head F14L	S	S	-	-
Drilling head F23L	-	-	S	S
"TP" detecting system for calibrating of opposite panel side reference	S	S	S	S
Panel width measurement device	S	S	S	S
Device to increase the drilling pressure along Z axis	S	S	S	S
5,5kW electrospindle	-	S	-	S
Bakelite work table with low friction	S	S	S	S
Automatic central side-alignment device with pneumatic positioning	S	S	S	S
Centralised lubrication	S	S	S	S
Pc-Office	S	S	S	S
Industria 4.0	S	S	S	S
TELESOLVE teleservice via internet	S	S	S	S
CAD/CAM programs import	S	S	S	S
Hardware key with "Maestro cnc" programming software	S	S	S	S
Voltage other than 380/400V 50/60Hz	O	O	O	O
Electric cabinet with air conditioning device	O	O	O	O
Uninterrupted power supply unit (UPS)	O	O	O	O
Pressure regulator for exhaust hood	-	O	-	O
Automatic lubrication	O	O	O	O
Internal machine lightening	O	O	O	O
Side supports for the machining of long workpieces	O	O	O	O
Additional hardware key for "Maestro cnc"	O	O	O	O
Wireless barcode reader	O	O	O	O

## STARTECH CN V

### EQUIPMENT

	startech cn v F11L	startech cn v F14L
F11L drilling head	S	-
F14L drilling unit	-	S
Work table	S	S
Clamp for the panel movement	S	S
Electrical cabinet cooling fans	O	O
Detecting system for calibrating of opposite panel side reference	O	O
Device to increase the drilling pressure along Z axis	O	S
Automatic lubrication	O	O
Internal machine lightening	O	O
"Maestro CNC" software + preparation for connection with MES	O	O
Keyboard type: Qwerty	O	O
Wireless barcode reader	O	O

manual  
drilling  
machines  
startech 27  
startech 21



	startech 27	startech 21
Spindles	n. 27	21
Worktable dimensions	mm 1096 x 407	905 x 372
Max. panel width under the "beam" structure	mm 1025	833
Max. tool diameter	mm 40	40
Min. ÷ max. panel thickness	mm 10 ÷ 85	10 ÷ 85
Spindles rotation speed	rpm 2800	2800

*Find the complete technical specification at page 17*



**Drilling Head**  
perfect drilling



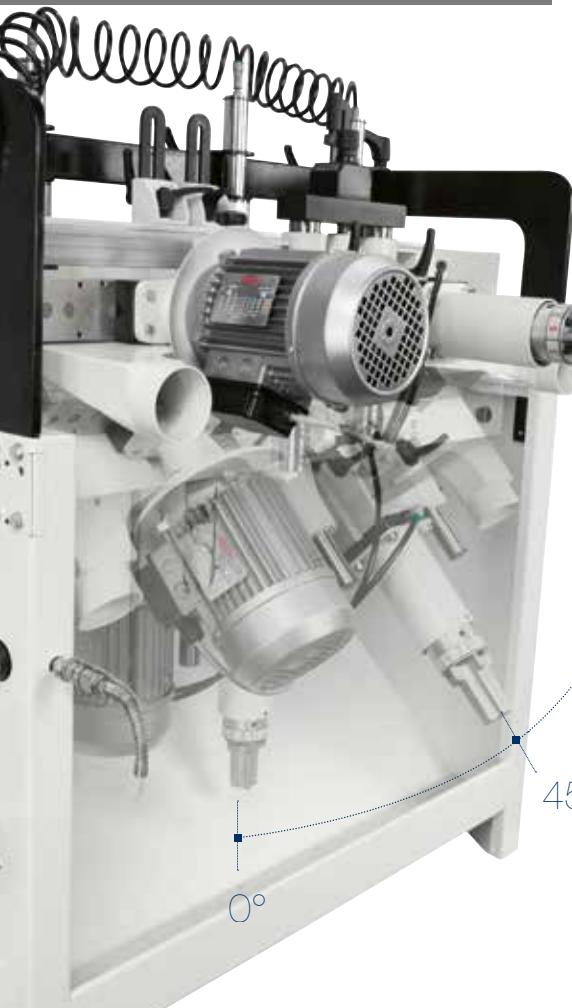
**Cleaning System**  
highly effective



**Hinges Units**  
high-tech accessories

Excellence in manual drilling.

# startech 27 startech 21 operating groups



90°  
45°  
0°

ergonomic  
**Drilling head movement**  
All controls are ergonomically positioned on the front of the machine, including the switch that pneumatically tilt the drilling head, allowing an immediate changeover between operations.

## perfect drilling **Drilling head**

It is made from single-piece aluminium casting, to guarantee absence of vibrations.

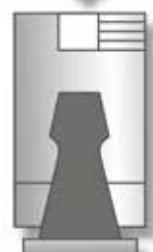
The drilling group runs on two rectified cylindrical guides which guarantee stability and accuracy. The dust extraction system is incredibly efficient.



The machine is equipped with a mechanical revolver with 5 different drilling depth adjustments.



rapid set-up  
**Spindles with quick-release fittings**  
Bits replaced quickly and easily.



fast and precise positioning

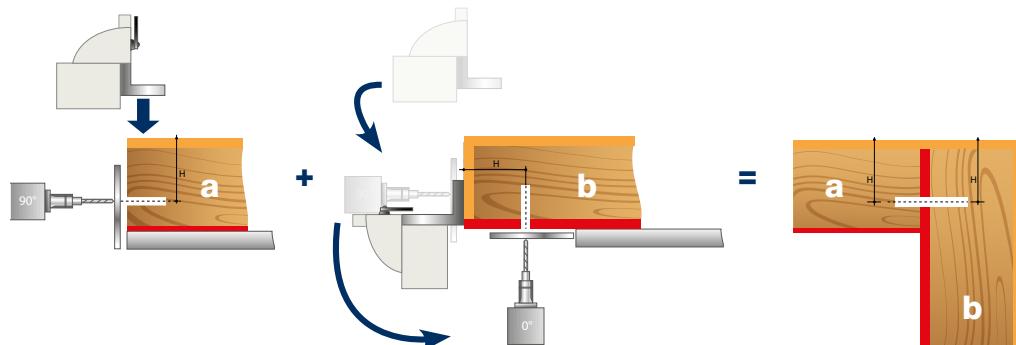
#### Mechanical gauge

It guarantees fast and precise positioning of the lateral fences.



versatile, with many useful options, intelligent  
**3000 mm guide**

For a perfect drilling even of large panels the machines are equipped with a 3000 mm length lateral guide, millimetered and with reversible stops, quickly installable/removed.



effective

#### "Invisible" imperfections

The drilling concept of Startech machines allows to obtain an important advantage which can be verified in the cabinet assembly phase: the system uses the outside of the panel (in sight) as a reference and thus **any differences in thickness are always on the inside of the cabinet (not in sight)**.

#### Cast iron guides

with the nonius decimal scale and micrometric guides travel.



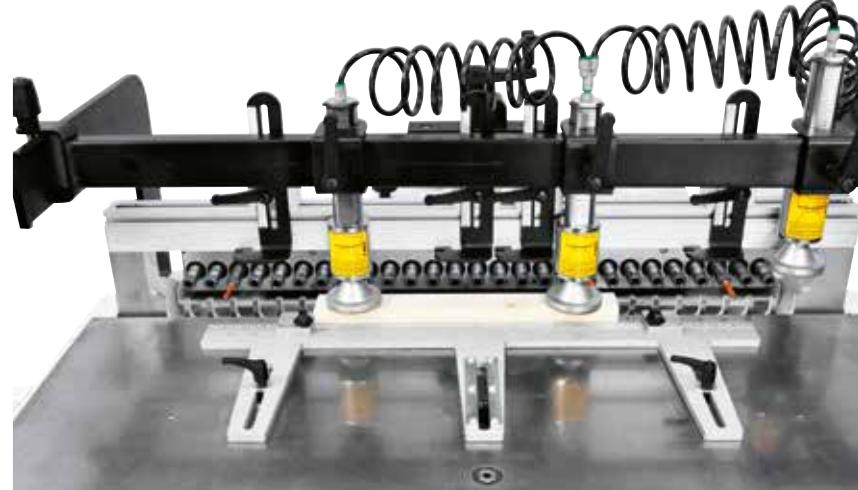
# startech 27

# startech 21

## main optional devices



Device for working narrow work-pieces  
Easy-to-use.



**Hinges units**  
For increased versatility, the quick change chucks can be fitted with various types of bits for different operations, like drilling hinges locations.

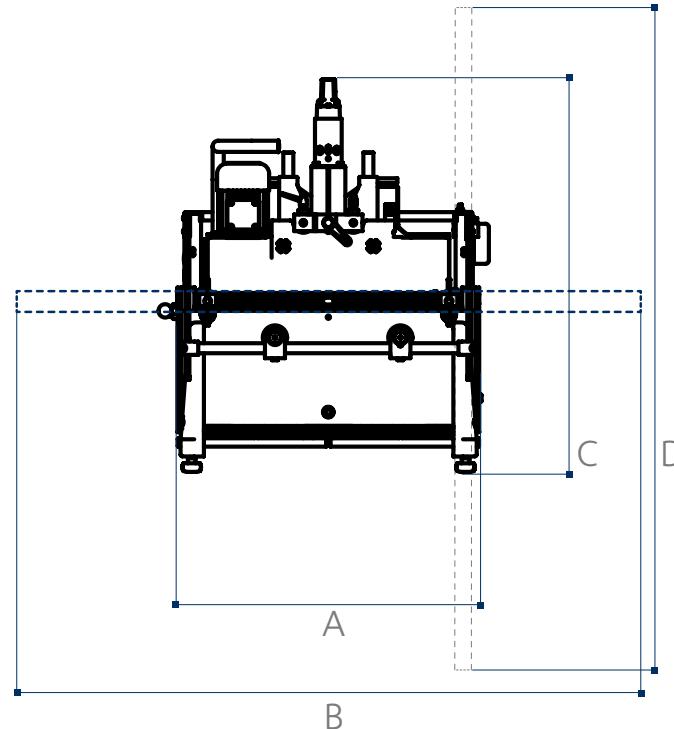


Guide for horizontal drilling at 45°  
Simple and effective.

# startech 27

# startech 21

## technical data



OVERALL DIMENSIONS	startech 27	startech 21
A mm	1500	1000
B mm	3000	3000
C mm	1260	1150
D mm	3000	3000

### TECHNICAL DATA

Worktable dimensions	mm	1096 x 407	startech 21
Worktable height	mm	900	900
Spindles	n.	27	21
Spindles rotation speed (at 50 Hz)	rpm	2800	2800
Distance between spindles	mm	32	32
Maximum drilling inter-axis	mm	832	640
Maximum drilling head stroke	mm	70	70
Maximum horizontal drilling height	mm	60	60
Max. panel width under the "beam" structure	mm	1025	833
Min. ÷ max. panel thickness	mm	10 ÷ 85	10 ÷ 85
Max. tool diameter	mm	40	40
<b>other technical features</b>			
Three-phase motors 1,8 kW (2,5 hp) 50 Hz - 2,2 kW (3 hp) 60 Hz		S	S
Pneumatic system operating pressure	bar	6	6
Compressed air consumption	Nl/cycle	3,5	3,5
Exhaust hood diameter:			
- at the base	mm	120	80
- on the drilling head	mm	2 x 80	2 x 80

# startech 27

# startech 21

## equipment

S Standard  
 O Option

### STARTECH 27

#### EQUIPMENT

	startech 27
Boring unit with n. 27 spindles preset for quick change adaptors and n. 9 drilling bit-holder bushes diameter 10 mm	S
Dust extraction system integrated in the boring head	S
Boring unit locking at 45°	S
Horizontal/vertical automatic positioning of boring unit	S
Height-adjustment of the boring unit by means of hand wheel and mechanical digital readout	S
Boring depth adjustment from 0 to 60 mm by means of 5 positions revolver	S
Down stroke adjustment of the boring speed	S
Adjustable side cast-iron guides unit complete with metrical reading rule	S
Lateral fence (L=3000mm) with retractable stops for large dimensioned panels	S
Compass device	S
No.2 upper pressure cylinders for the workpieces hold-down	S
Servo-assisted boring unit down stroke speed adjustment	O
No. 9 drilling bit-holder bushes 10 mm diameter	O
Fence for horizontal boring at 45°	O
Supplementary top pressure cylinder (Q.ty 1)	O
Device for working narrow workpieces	O
Group for the machining of hinges for cabinet doors	O
Single-phase version 50/60 hz	O

## STARTECH 21

### EQUIPMENT

startech 21

Boring unit with n. 21 spindles preset for quick change adaptors and n. 5 drilling bit-holder bushes diameter 10 mm

S

Dust extraction system integrated in the boring head

S

Boring unit locking at 45°

S

Manual adjustment of the horizontal and vertical boring unit position

S

Height-adjustment of the boring unit by means of hand wheel and mechanical digital readout

S

Boring depth adjustment from 0 to 60 mm by means of 5 positions revolver

S

Down stroke adjustment of the boring speed

S

Adjustable side cast-iron guides unit complete with metrical reading rule

S

Lateral fence (L=3000mm) with retractable stops for large dimensioned panels

S

Compass device

S

No.2 upper pressure cylinders for the workpieces hold-down

S

Horizontal/vertical automatic positioning of boring unit

O

Servo-assisted boring unit down stroke speed adjustment

O

No. 5 drilling bit-holder bushes 10 mm diameter

O

No. 11 drilling bit-holder bushes 10 mm diameter

O

Fence for horizontal boring at 45°

O

No. 1 upper pneumatic clamping cylinder for the holddown and n. 2 supplementary rear stops

O

Group for the machining of hinges for cabinet doors

O

Single-phase version 50/60 hz

O

# automatic routing machine startech cn k



Worktable dimensions

startech cn k

X-Y-Z axes max. speed

mm 1170 x 760

Max. tool diameter

m/min 5-5-2,5

Max. electrospindle speed

mm 60

*Find the complete technical specification at page 26*

rpm 24000



**Integral Protection Cabin**  
maximum safety and cleanliness



**2.4 kW  
Electrospindle**  
unique in its category



**4th Interpolating Axis**  
no limit to creativity

Compact 3-axis machining centre ideal for all types of milling, decorations, engraving, signboard creation and 3D models prototyping.

# startech cn k operating groups

maximum safety and cleanliness

## Protection cabin

The integral cabin, with internal LED lighting, ensures protection for the operator and keeps the surrounding environment clean.



Maximum compactness

Aluminium worktable

with dimensions: 1170x760 mm.

"T" grooves dimensions: 13,5x7 mm

opening 8,5 mm for M8 screw or nut passage.



unique in its category

## Routing unit

The machine has a powerful 2,4 kW electrospindle with R25 tool-chuck generally used on higher-segment machines!

NC movement with 3 interpolating axes. It is possible to use tools with max. 60 mm diameter and max. 16 mm tool holder.



# startech cn k software

"Open" virtual human-machine interface capable of importing G-code from any type of CAD/CAM software (it is advisable to verify with the software supplier that the CAD/CAM provides a G-code that can be read from the interface).

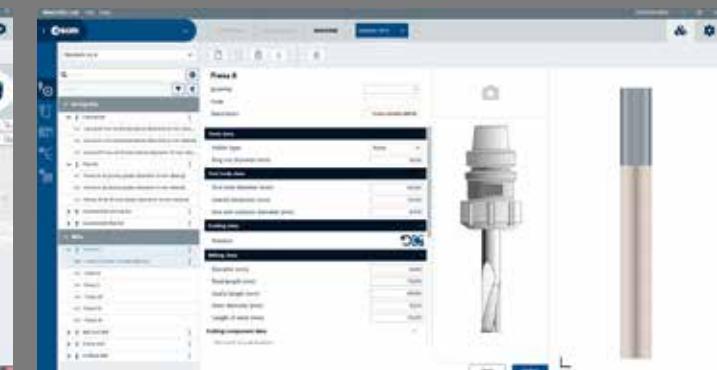
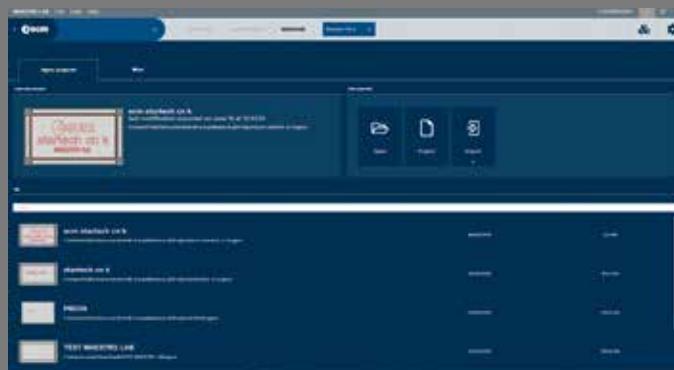
## Machine control



## Maestro LAB 2D

CAD/CAM software developed by SCM for two-dimensional programming. Available as an option for intuitive management of 2D machining operations.

**Simple and integrated programming.**



# startech cn k

## main optional devices



Tool height detection sensor  
Total reliability.



4th interpolating axis  
(lathe processing) on the worktable  
No limit to creativity.



Support base with wheels and  
adjustable feet (500 mm height)  
Easy machine handling.





#### Mobile push-button control panel

Management of the machine's main functions via a handheld controller - including spindle speed and axis movement - for precise supervision and greater operational flexibility during machining.

**Maximum ergonomics and focus.**



**Kit of 5 pneumatic suction cups  
positionable on the worktable**  
Ease-of-use and accuracy.

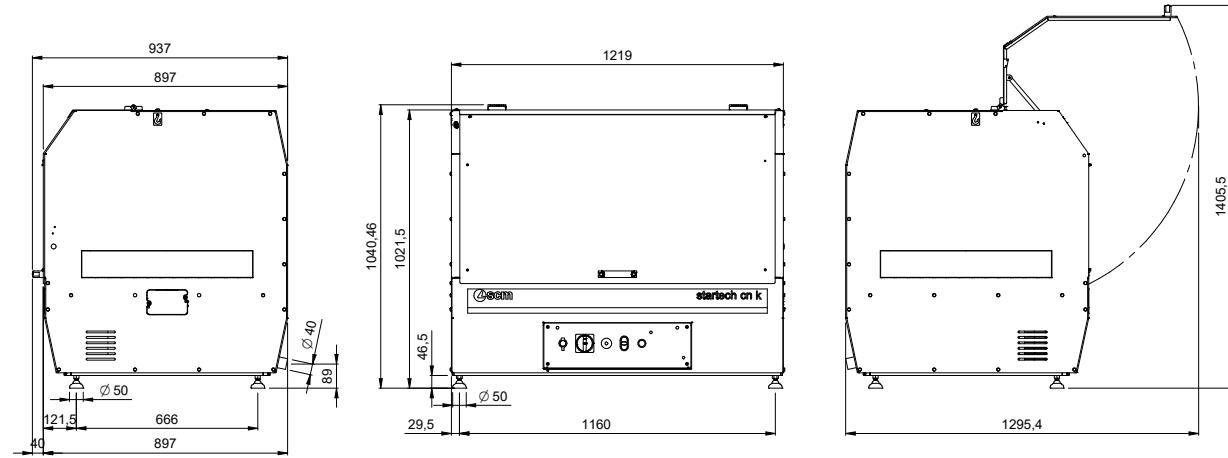


#### Kit of vacuum pump + 5 pneumatic suction cups

Delivering a volume flow rate of 8 m<sup>3</sup>/h, the vacuum pump speeds up and improves vacuum generation, providing greater workpiece stability.  
**Enhanced grip and precision.**

# startech cn k

## technical data



### TECHNICAL DATA

	startech cn k	
Worktable dimensions	mm	1170 x 760
X-Y-Z strokes	mm	915-610-176
Z-axis work-piece clearance	mm	160
X-Y-Z axes max. speed	m/min	5-5-2,5
Max. tool diameter	mm	60
Max. tool-holder diameter	mm	16
Max. electrospindle speed	rpm	24000
Electrospindle motor power	kW	2,4 (S6)
<b>other technical features</b>		
Power supply	V (Hz)	230 (50/60) Single-phase
Rated current	A	16
Extraction air consumption	m <sup>3</sup> /h	115
Exhaust air speed	m/sec	20
Exhaust hood diameter	mm	40

# startech cn k

## equipment

S Standard  
 O Option

### ÉQUIPMENT

	startech cn k
230V 50/60Hz single-phase power supply	S
Cabina integrale di protezione con sportello anteriore in plexiglass	S
NC movement with 3 interpolating axes	S
Ethernet port for user PC connection (PC not included)	S
2,4 kW S6 Hiteco electrospindle (18000/24000 rpm) with R25 attachment	S
Work table avec "T" grooves (screw passage or M8 nut)	S
Internal LED lightening	S
HICAM2 virtual human-machine interface	S
Mobile push-button control	O
Maestro LAB 2D	O
Machine support base with wheels and adjustable feet (500 mm height)	O
Kit of 5 pneumatic suction cups that can be positioned on the worktable	O
Kit of vacuum pump + 5 pneumatic suction cups	O
Tool height detection sensor	O
4th interpolating axis (lathe processing) that can be positioned on the work table	O
Side extensions	O



SERVICE AND MAINTENANCE



TRAINING SERVICE



SPARE PARTS



DIGITAL SERVICES

**scm** | service

**WE'LL GO THE  
EXTRA MILE  
FOR YOU**



CONTACT

**SCM SERVICE**

via Emilia 77 - 47921 Rimini - Italy  
tel. +39 0541 700100  
scmservice@scmgroup.com  
www.scmwood.com

**SCM SPAREPARTS**

Via Emilia, 61 - 47921 - Rimini - Italy  
tel. +39 0541 674111  
spareparts@scmgroup.com  
www.scmwood.com



My Scm

# SCM OFFERS A FULL RANGE OF **HIGHLY SPECIALISED SERVICES** WITH A QUALITY AND RELIABILITY THAT STEM FROM 70 YEARS OF EXPERIENCE IN THE INDUSTRY.

From installation and production start-up to services and maintenance.

From training to the supply of specific original spare parts: **we provide solutions designed around you!**



## SERVICE AND MAINTENANCE

- Remote support
- Scheduled maintenance contracts
- Warranty extension



## TRAINING SERVICE

- Courses for machine operators
- Software and programming courses
- Training in production start-up



## SPARE PARTS

- Recommended spare parts list
- E-shop
- Interactive spare-parts catalogues

- Repairs on electronic parts, glue tanks and electro-spindles



## DIGITAL SERVICES

- Maestro Connect - IoT platform to be constantly connected with your machines
- Smartech - assistance with augmented reality
- My Scm portal - opening of service ticket and single point of access to the apps and Services tools

# SOLUTIONS AND SERVICES ALWAYS CONNECTED FOR YOU



## SCM, A STRATEGIC PARTNER, BY YOUR SIDE AT EACH STAGE OF YOUR BUSINESS PROCESS

SCM has always stood alongside companies in the woodworking sector, with **technological solutions and services which are constantly connected to maximise the machine's efficiency, improve product quality and reduce operating costs.**

**70+** years history

**3** main production sites in Italy

**300.000** square metres of production space

**20.000** machines manufactured per year

**90%** export

**20+** foreign branches

**400** agents and dealers

**500** support technicians

**500** registered patents

## SCM GROUP, THE MOST ADVANCED SKILLS AND KNOW-HOW IN THE FIELDS OF MACHINERY AND INDUSTRIAL COMPONENTS OVER THE LAST 70 YEARS

### INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.



Woodworking  
technology



Composite, aluminium,  
plastic, glass, stone,  
metal technology



Technologies for the  
profiles processing of  
aluminium, PVC and  
light alloy



Automated systems  
for industry

### INDUSTRIAL COMPONENTS

Technological components for the Group's machines and systems, for those of third-parties and for the mechanical industry.



Electrospindles  
and technological  
components



Electrical  
panels



Metalworking  
and mechanical  
machining



Iron castings



**SCM GROUP SPA**

via Casale 450 - 47826 Villa Verucchio, Rimini - Italy  
tel. +39 0541 674111 - fax +39 0541 674274  
scm@scmgroup.com  
www.scmwood.com



00L0590733A