


*L'Invincibile*



## 1952

### A HISTORY OF SUCCESS

Entry into the woodworking machinery sector with the design and manufacture of the new combined woodworking machine with increased machining capability. Immediately industrially manufactured with the L'invincibile brand name becoming very well-known for its quality of construction and competitiveness, features that will bring an immediate and wide acknowledgement, firstly in Europe and then all over the World.



## 2006

### PROUD OF OUR ROOTS L'INVINCIBILE RETURNS!

The historical SCM brand name returns to the market with a new range of classical machines including the most advanced technology with an exclusive and customised product.

# SCM



## State Of The Art

L'invincibile sets **new standards for quality** and incorporates all the experience and expertise of the manufacturer of the widest range of woodworking machines in the World.

Circular Saw	06
Spindle Moulder	16
Surface Planer	22
Thicknessing Planer	24
Combined Surfacing-Thicknessing Planer	28



# APP Thundercut

Technology at your fingertips

SCM Thundercut is the Optimizer/Sequencer App for mobile devices that allows to optimize the panel surface and guides the operator through the cutting sequence.

**High cut speed execution, less material waste and mistake odds minimized, even for not skilled workers!**

Download it now from the AppStore and Google Play:

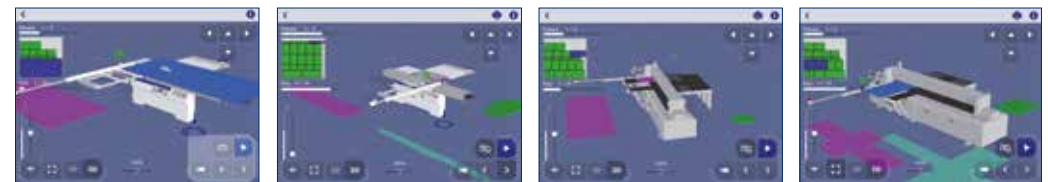
SCM Thundercut



You can manage your circular saws fleet, the material warehouse and many project you are working on.



The 3D sequencer, thanks to its simple and clear design, suggest the ideal settings of the machine for every single cut to be executed.



The App is available for circular saws, circular saws with movable blade unit, saw-shaper combination machines and universal combination machines (you will find the QR code to activate the App in each new machine).



# SCM CLASSICAL MACHINES, QUALITY EVEN MORE GUARANTEED

Since 1952, SCM has been leader in the design and production of woodworking machines.

We went beyond 70 years of company history by offering to our customers knowledge and advanced technologies that distinguish **L'invincibile, class** and **nova** classical machines.

Different ranges united by the strength points: performance, ease-of-use and certified quality. We believe so much in the reliability of our machines to offer to our customers the possibility to have a **warranty extended up to 2 years\***. An extra peace of mind for small artisans workshops and joineries who see SCM as the ideal partner to grow their business.

To activate the 2-year warranty extension, it is compulsory to register on-line the machine on the website:

[scmwood.com/warranty-extension](http://scmwood.com/warranty-extension)

\*Check the models of machines that can take advantage of the initiative on the website:

[scmwood.com/joinery-machines](http://scmwood.com/joinery-machines)



# CIRCULAR SAW

## PROGRAMMED RIP FENCE: QUICK AND ACCURATE POSITIONING.

Movement on a recirculating ball screw mechanism and sliding on linear guide.

The fence can be easily excluded from the working area when it is not used.

## SUPERIOR EFFICIENCY: SQUARING STOPS WITH LENS.

For a better view of the data.

## SOLUTIONS FOR EVERY REQUIREMENT.

The practical "Quick Lock" fence and the extended roller complete the extensive equipment to satisfy all customer's requirement.

06

⊕ satisfaction to operate  
⊖ machine accidents

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# CIRCULAR SAW



## SLIDING CARRIAGE: MAXIMUM CUT QUALITY GUARANTEED OVER TIME.

The carriage will never require adjustment and thanks to its structure with arch-ground steel slideways (SCM exclusive and patented solution) it can bear loads four times higher.

The "arc" profile of the slideways ensures:

- no play and no need for adjustments over time
- higher loading capacity
- $\pm 0,05$  mm tolerance on the entire carriage length for straight and high quality cutting

## CONTROL PUSH-BUTTONS INTEGRATED IN THE SLIDING CARRIAGE: MAXIMUM PRACTICALITY.

The possibility to start or stop the blades motors from the push-buttons located at the ends of the carriage considerably helps when machining large dimensioned panels.



## RELIABILITY AND TECHNOLOGY WITHOUT COMPARISON.

10 years of SCM guarantee for the carriage sliding system.

- ⊕ reliability
- ⊖ maintenance

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## TABLET HOLDER ON THE SLIDING CARRIAGE: EASY TO USE.

Compatible with tablets from 8" to 11".





**TELESCOPIC SWINGING ARM:  
'INVINCIBLE' FLUIDITY OF MOVEMENT.**

The support of the squaring frame is the only one to be made of a large dimensioned extrusion with sliding on prismatic linear guides on recirculating ball bearings. It guarantees:

- best smooth movement of the work-piece
- no play and no noise
- dust protection
- no need for maintenance

**SQUARING FRAME WITH  
"COMPEX" DEVICE:  
BEST-IN-CLASS PERFORMANCE.**

With automatic self-adjustment of stops position in respect of the blade and rule tilting angle.

Furthermore, thanks to the dedicated frame structure, it is possible to carry out tilted cuts keeping the squaring rule comfortably within the operator's reach, both in acute cuts and in obtuse ones, without renouncing to a valid support of the work-piece.

**"FULL SUPPORT" MOBILE FRAME  
FOR ANGULAR CUTTINGS:  
PRECISION MECHANICS.**

It provides maximum support for the panel for any angle due to the exclusive SCM patented solutions consisting of a single centre of rotation for maximum reliability over time. It can support heavy and large dimensioned panels for all angles (from +50° to -50°).

**"WIRELESS" SYSTEM:  
WHEN TECHNOLOGY REALLY HELPS.**

The electronic control updates in real-time the data for the positions of the three stops, always showing the actual size of the required work-piece in any cutting configuration.



⊕ practicality  
⊖ waste of time

# CIRCULAR SAW



## "EYE-S" CONSOLE: THE PLEASURE OF CONTROLLING ALL MACHINE FUNCTIONS FROM THE CONTROL PANEL.

The mobile control panel is fitted with "eye-S" console that, thanks to an articulated support arm, can be oriented horizontally for the best operator's comfort during the programming.

The electronic control allows easy and intuitive machine programming, combining the 15" colour touch-screen display and the **Maestro** active user interface.

Main functions:

- connectivity among machines belonging to the same company network and **4.0 Industry** preset
- sharing of work programs and tools database
- activity monitoring and reporting on the use of the machine
- connectivity with **SCM Thundercut** (optimizer/sequencer App)
- self-diagnosis, tele-service and link to troubleshooting

+ accuracy  
- calculations

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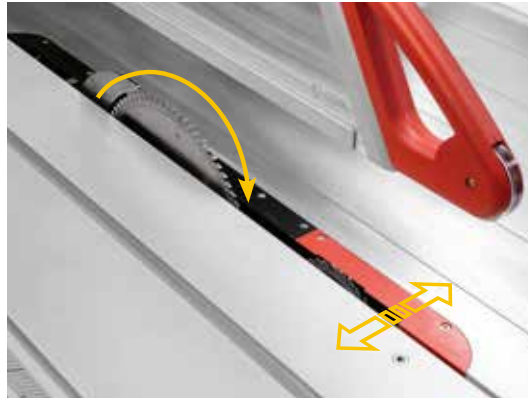


## OPERATOR'S ASSISTANCE: ONE CUT ONLY, THE CORRECT ONE.

The electronic control suggests to the operator information for the correct use of any cutting configuration. It is possible to create the required work-piece with maximum accuracy and without any calculations or cutting tests even with the most complicated of cases.

### TOTALLY AUTOMATIC.

The electronic control can manage the inverter for the adjustment of the saw blade rotation speed and the scoring unit alignment.



### ADJUSTABLE TABLET HOLDER POSITIONED ON THE MOBILE CONTROL PANEL: SIMPLE WORKING.

Compatible with tablets from 7" to 13".

It is equipped with USB port for power supply positioned on the mobile control panel.



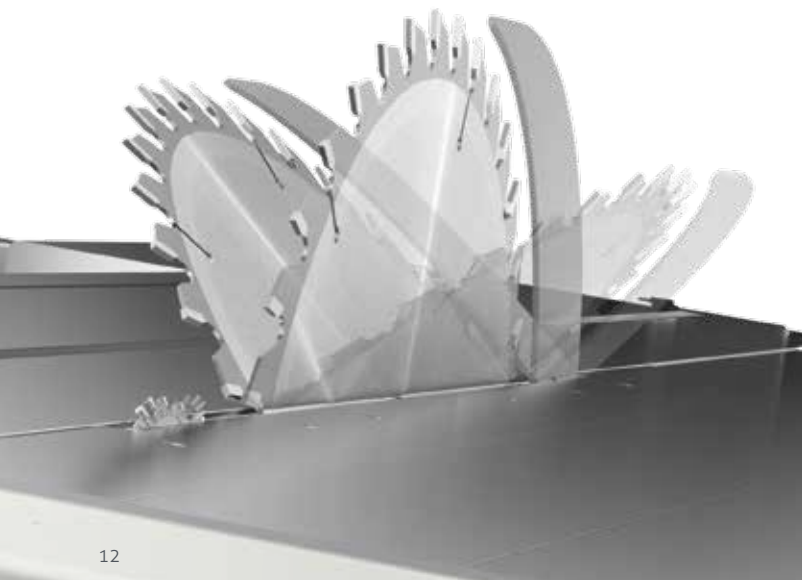
### LIGHTING LAMP: USER FRIENDLY.

The high efficiency LED lamp, positioned under the control panel display, improves the operator's view of the work area.



⊕ ergonomics  
⊖ downtimes

# CIRCULAR SAW



## DOUBLE BLADE TILTING: MAXIMUM HEIGHT CUTTING WITHOUT COMPROMISE.

The SCM solution allows to use a 550 mm saw blade without scoring blade or to use simultaneously a 450 mm saw blade and 160 mm scoring blade, for both 90° and ± 46° inclined cuts, providing the best performance on veneered panels and solid wood components.

*L'invincibile si x*

## SAW UNIT: PERFECT CUT.

Maximum torsional rigidity and total absence of vibration through the closed loop structure of the saw unit, which ensures perfect alignment of the blades during tilted and difficult cuts.

## "LED INDICATING SCORING BLADE UNIT IN OPERATION" DEVICE: SAFETY AS THE FIRST FACTOR.

When the scoring blade is working, the high efficiency LEDs clearly indicate the danger area, making the machine safer than ever.



## AUTOMATIC POSITIONING SYSTEM OF THE OVERHEAD PROTECTION: THE INNOVATION AT THE OPERATOR'S SERVICE.

The overhead protection automatically positions itself as a function of the blade using the **exclusive AP system** (solution patented by SCM). This makes the transition from cuts with different angles even faster and safe, without the operator having to change the settings of the machine.

*L'invincibile si x*



⊕ technology  
⊖ errors

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**EASE-OF-USE WITH THE  
BLADES-HOLDER DRAWER  
INTEGRATED IN THE MACHINE'S  
FRAME.**

It is made of 4 shelves, customizable with labels,  
for the easy replacement of the blades.



**"PRO-LOCK" SYSTEM:  
IMMEDIATELY ON THE  
CORRECT POSITION.**

System for the main blade rapid locking with fast  
and tool-less riving knife adjustment.



**LASER DEVICE:  
"ZERO" ERRORS.**

Laser light for the work-piece alignment with the  
cutting line.



⊕ safety  
⊖ inconveniences

# CIRCULAR SAW

	SI X	SI 5	SI 3	
<b>Equipment</b>				
Electronic control with "eye-5" console 15" touch-screen	S	S	S	
Mobile control panel	S	S	S	
"SCM Thundercut" Optimizer/Sequencer App for tablet	S	S	S	
Programmed rip fence	S	S	S	
Telescopic swinging arm support of the squaring frame	S	S	S	
"Pro-Lock" system for the main blade rapid locking	S	O	O	
Electronic adjustment of the scoring blade unit	O*	S	S	
Expandable scoring blade	-	O	O	
"LED indicating scoring blade unit in operation" device	O	O	O	
Squaring frame with "CompeX" device	-	S	S	
"Full Support" mobile frame for angular cuttings complete with "Wireless" system	S	O	O	
Squaring frame with "Quick Lock" fence	-	O	O	
Control push-buttons integrated in the sliding carriage	S	S	S	
Eccentric clamp	S	S	S	
Cast-iron worktable extensions	O	O	O	
Reinforced worktable extensions	O	O	O	
Squaring fence with 3 digital readouts for stops position	-	O	O	
Fence for angular cuttings on the sliding carriage	O	O	O	
Fence for angular cuttings with self-adjustment	O	O	O	
Fence for angular cuttings with self-adjustment and digital readouts	O	O	O	
Fence for complementary cuttings	O	O	O	
Fence for parallel cuttings on the sliding carriage	O	O	O	
Fence for parallel cuttings on the sliding carriage with digital readouts	O	O	O	
Panels support extension with roller conveyor on rip fence side	O	O	O	
Arrangement for "DADO" machining	-	O	O	
Inverter for electronic speed change of the main blade	S	O	O	
"SavEnergy" intelligent system for the management of the machine's energy consumption	O	O	O	
Adjustable tablet holder positioned on the mobile control panel	O	O	O	
Tablet holder on the sliding carriage	O	O	O	
Laser device	O	O	O	
Blades-holder drawer integrated in the machine's frame	O	O	-	
Lighting lamp	O	O	O	
Barcode reader	O	O	O	
<b>Technical data</b>				
Squaring capacity with 3200 mm carriage	mm	3200x3200	3200x3200	3200x3200
Cutting width on the rip fence	mm	1500	1500	1500
Maximum cutting height at 90°	mm	200	200	140
Maximum cutting height at 45°	mm	130	130	97
Maximum cutting height at -45°	mm	105	-	-
Main blade motor power	kW	9	7	7
Scoring blade motor power	kW	1,3	1,3	1,3

\* Scoring unit available as option

S Standard  
O Option

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# SPINDLE MOULDER

## TOP QUALITY FINISH OF THE PROCESSED WORK-PIECE.

Total absence of vibration and absolute machine rigidity when machining due to a perfectly balanced electrospindle structure and the use of the highest quality materials and components.

Electrospindle controlled by an inverter for speed changes electronically from 900 to 12.000 rpm with maximum available motor power from 3.400 rpm.

16

- ⊕ satisfaction
- ⊖ waste of time

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# SPINDLE MOULDER

## **ELECTROSPINDLE: ACCURACY AND RELIABILITY IN AN UNBEATABLE TIMESCALE.**

The exclusive drive unit consists of an electrospindle specifically designed for all possible spindle moulder applications. The electrospindle's direct drive eliminates maintenance procedures common with conventional belt driven systems. Optimal machine cleaning and a healthy environment due to an efficient exhaust system with side outlets.

## **LESS MOVEMENT FOR FASTER SETTING-UP.**

Speed of setting-up due to the unique movement mechanism of the spindle (SCM patent), which allows the operator to position independently the height of the tool with the tilted spindle and the moulder fence. Maximum performance using the latest technology of the screws with recirculating ball-bearings and the linear guides which guarantee a total absence of vibration and wear, therefore much reduced maintenance (centralised lubrication).



⊕ technology  
⊖ maintenance

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**"EYE-S" CONSOLE:  
THE PLEASURE OF CONTROLLING  
ALL MACHINE FUNCTIONS FROM  
THE CONTROL PANEL.**

The mobile control panel is fitted with "eye-S" console that allows easy and intuitive machine programming, combining the 15" colour touch-screen display and the **Maestro** active user interface.

Main functions:

- connectivity among machines belonging to the same company network and **4.0 Industry** preset
- sharing of work programs and tools database
- activity monitoring and reporting on the use of the machine
- self-diagnosis, tele-service and link to troubleshooting

**TOOL DETECTION SYSTEM:  
SETTING UP SPEEDILY AND SAFELY.**

This system eliminates any manual operation for setting up the required work allowing the operator to automatically input all the work data. Higher operator's safety: the possibility to select only the programs associated with the tool installed eliminates possible dangerous situations. Less input data, fewer errors, immediately ready to work.



**OPERATOR'S ASSISTANCE:  
WORKING BECOMES EASIER  
AND MORE ACCURATE.**

The electronic control can manage the inverter for the adjustment of spindle rotation speed.

For the most recurring machining jobs, it is possible to set the dimensions of the required profile and select the tool to be used.



⊕ safety  
⊖ errors

# SPINDLE MOULDER

	/TI 7	/TI 5	/TF 5	
<b>Equipment</b>				
Electronic control with "eye-5" console 15" touch-screen	S	S	S	
Mobile control panel	S	S	S	
"Flex" spindle moulder fence with automatic movement	S	S	S	
Spindle moulder fence with aluminium tables	S	S	S	
"Fast" sectional table with manual movement	-	S	S	
"Fast" sectional table with automatic movement	S	O	O	
Inverter for speed change from 900 to 12.000 rpm	S	S	O	
7,5kW electrospindle	S	S	O	
11kW electrospindle	O	O	O	
HSK 63B rapid tool changeover	S	O	O	
HSK 63E rapid tool changeover	O	O	O	
Automatic tool detecting system	S	-	-	
MK5 interchangeable spindle	-	S	S	
"T-SET" rapid tool locking	-	O	O	
Automatic feeder support	O	O	O	
Manual feeder support	O	O	O	
"LL" version with 2 profiling extensions	O	O	O	
"TL PRO-10" version for tenoning and profiling	O	O	O	
Glazing bead unit	O	O	O	
"SavEnergy" Intelligent system for the management of the machine's energy consumption	O	O	O	
Barcode reader	O	O	O	
<b>Technical data</b>				
Work table dimensions	mm	1200x750	1200x780	1200x730
Spindle tilting	degrees	±45,50°	±45,50°	-
Spindle speed	rpm	900÷12.000	900÷12.000	3000÷4500÷6000÷ 7000÷10000
Spindle moulder fence stroke	mm	250 (from -125 to +125)	250 (from -125 to +125)	250 (from -125 to +125)

- S Standard
- O Option

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# SURFACE PLANER

## FEEDING ON CONNECTING RODS: CONSTANT PRECISION OVER TIME.

All machining with maximum safety with the movement of the infeed table by means of a parallelogram kinetic mechanism which always gives the same distance between the cutterblock and the table. The system operating directly on the connecting rods avoids any exertion to the table assuring constant planarity over time.

## CONCAVE/CONVEX FUNCTION: PERFECT JOINTS EVERY TIME.

The available settings allow perfect bonding of the components giving excellent coupling and eliminating any joint line. The device allows the setting of previous positions by the use of mechanical stops.

⊕ reliability  
⊖ maintenance



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# THICKNESSING PLANER

## FEEDING ROLLERS ON CONNECTING RODS: PERFECT FINISH.

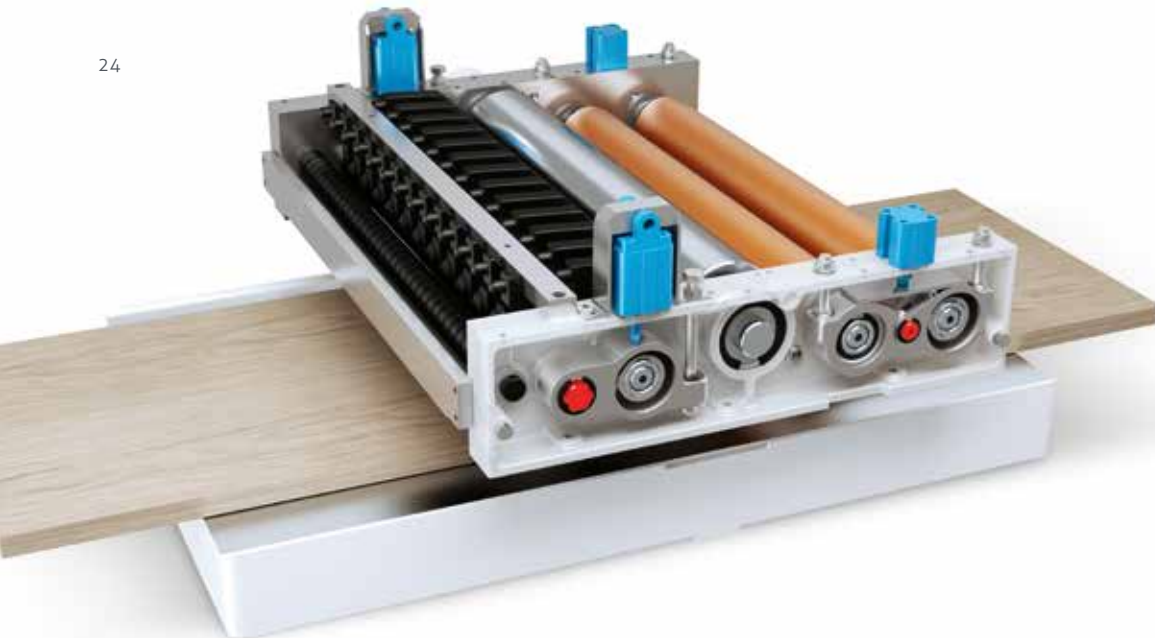
The stopping of the work-piece and the presence of notches on its surface are eliminated due to the movement system on all three rollers that allow their vertical displacement by rotation and the best linear feeding.

## INTERCHANGEABLE ROLLERS: ONE MACHINE FOR EVERY REQUIREMENT.

Perfect finish obtained by quick and easy changeover of the rollers that allows the operator to configure the machine drive function in case of special requirements such as a minimum removal of fine wood and/or batches where multiple pieces of different thicknesses are processed.

⊕ quality  
⊖ waste of time

24



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scm

multihile

# SURFACE PLANER THICKNESSING PLANER

		/ F 7
<b>Equipment</b>		
Mobile control panel		S
Electrical movement of infeed table		S
Electronic digital readout of thickening cutting depth		S
Concave/convex function		S
Planer protection integrated in the machine base		S
"Smart Lifter" for planer protection integrated in the machine base		O
Additional overturning fence		S
"Tersa" monoblock cutterblock with throwaways knives		O
"Xylent" spiralknife cutterblock		O
<b>Technical data</b>		
Working width	mm	520
Total work table length	mm	3008
Cutterblock diameter	mm	120
No. 4 knives	mm	35x3x520
Surface fence dimensions	mm	1500x175
Main motor power	kW	7

		/ S 7
<b>Equipment</b>		
"Ready" electronic control		S
Automatic positioning of working height		S
Feed speed with electronic adjustment from 4 to 20 m/min		S
First front roller in helicoidal grooved steel		S
First front roller with rubber coating		O
First front roller with two different types of rubber		O
First sectional feed roller in steel		O
No. 2 outfeed rubber-coated rollers		S
Pneumatic pressure with independent adjusting on the front/outfeed rollers		S
No. 2 outfeed rubber-coated rollers		O
"Tersa" monoblock cutterblock with throwaways knives		O
"Xylent" spiralknife cutterblock		O
Thickening table extension to be used in infeed or outfeed		O
<b>Technical data</b>		
Work table dimensions	mm	640x1000
Maximum working height	mm	300
Minimum working height	mm	3,5
Cutterblock diameter	mm	120
No. 4 knives	mm	35x3x640
Feeding rollers diameter	mm	85
Main motor power	kW	9
Feed motor power	kW	1,3

S Standard  
O Option





# SURFACE PLANER THICKNESSING PLANER

## SERVO SYSTEM FOR THE OPENING OF THE TABLES: SPEED, ERGONOMICS AND SAFETY.

Changing the process from surfacing to thicknessing is now easy, safe and effortless due to the two buttons on the front of the machine that, as well as automatically raising the work tables, position the related extraction hood and the safety system.

28

- ⊕ practicality
- ⊖ inconveniences

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# SURFACE PLANER THICKNESSING PLANER

FS 7

Equipment		
"Ready" electronic control		S
Automatic positioning of working height		S
Speedy set-up for changeover from surfacing to thickening		S
First front roller in helicoidal grooved steel		S
First front sectioned steel roller		O
Outfeed rubber-coated roller		S
No. 2 outfeed rubber-coated rollers		O
Additional overturning fence		O
"Tersa" monoblock cutterblock with throwaways knives		O
"Xylent" spiralknife cutterblock		O
Thickening table extension to be used in infeed or outfeed		O
Technical data		
Work table dimensions	mm	520x900
Maximum working height	mm	250
Minimum working height	mm	3
Cutterblock diameter	mm	120
Feeding rollers diameter	mm	67
Feed speed	m/min	5-8-12-18
Main motor power	kW	9

- S Standard
- O Option



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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.

# WE'LL GO THE EXTRA MILE FOR YOU



SERVICE AND MAINTENANCE



TRAINING SERVICE



SPARE PARTS



DIGITAL SERVICES

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!**

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My Scm



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

# THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

## SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND

70 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

**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

In SCM's DNA also strength and solidity of a great Group. The SCM Group is a world leader, manufacturing industrial equipment and components for machining the widest range of materials.

## SCM GROUP, A HIGHLY SKILLED TEAM EXPERT IN INDUSTRIAL MACHINES AND COMPONENTS

### INDUSTRIAL MACHINERY

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



WOODWORKING TECHNOLOGIES



TECHNOLOGIES FOR PROCESSING  
COMPOSITE MATERIALS, ALUMINIUM,  
PLASTIC, GLASS, STONE, METAL

### INDUSTRIAL COMPONENTS

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



SPINDLES AND  
TECHNOLOGICAL  
COMPONENTS



ELECTRIC PANELS



METALWORK



CAST IRON



is more

# *Invincibile*

State Of The Art

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