

electronically programmable and manual  
**spindle moulders**

# scm spindle moulders

The widest range of spindle moulders offering the market the latest and most advanced technological solutions urgently required for different types of production.

*L'invincibile*

## L'invincibile

the exclusive choice for your success.

**electronic spindle moulders  
with tilting spindle**

ti 7

ti 5

**electronic spindle moulder  
with fixed spindle**

tf 5

**class**

## class

the best solution for every application.

**electronic spindle moulder  
with tilting spindle**

ti 145 ep

**electric spindle moulder  
with fixed spindle**

tf 130 e

**manual spindle moulder  
with tilting spindle**

ti 120

**manual spindle moulder with fixed spindle**

tf 130

**nova**

## nova

guaranteed quality at your fingertips.

**manual spindle moulder  
with tilting spindle**

ti 105

**manual spindle moulders  
with fixed spindle**

tf 110 - tf 100



TI 7 L'INVINCIBILE  
page 04



TI 5 L'INVINCIBILE  
page 05



TF 5 L'INVINCIBILE  
page 09



TI 145 EP CLASS  
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TI 120 CLASS  
page 06





TF I30 E CLASS  
page 10



TF I30 CLASS  
page 11



TI IO5 NOVA  
page 07



TF I10 NOVA  
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TF IOO NOVA  
page 11



# electronic **spindle moulders** with $\pm 45,50^\circ$ tilting spindle

More quality, more performance, more reliability.



SPINDLE MOULDERS	L'INVINCIBILE		CLASS
	T17	T15	T1145
machine version	electronic	electronic	electronic
work table dimensions	mm 1200 x 750	mm 1200 x 780	mm 1200 x 780
spindle height $\varnothing$ 30-35 ( $\varnothing$ 40-50)	mm 140 (140)	mm 140 (160) M-E version 140 (160) H-E version	mm 140 (180)
spindle base projection from table	mm 54	mm 50	mm 62
max. tool diameter retractable under work table	mm 300 x 75	mm 300 x 80	mm 300 x 45
spindle speed	rpm 900 - 12000	rpm 900 - 12000	rpm 3000 - 4500 - 6000 7000 - 10000
drive unit power (S6 -40%)			
- motor	-	-	7
- electrospindle	kW 7,5	kW 7,5	-
external diameter of suction outlet on the spindle moulder hood	mm 120	mm 120	mm 120
suction outlet diameter on base (forced electrospindle aircooling 7,5 kW)	mm 1 x 150 + (1 x 100)	mm 2 x 100 + (1 x 100)	mm 100
extractor system			
- air speed	m/s 20	m/s 20	m/s 20
- air consumption	m <sup>3</sup> /h 2600	m <sup>3</sup> /h 2500	m <sup>3</sup> /h 1380
operating air pressure	bar 6	bar 6	bar 6
basic machine weight	kg 1100	kg 940	kg 655



# manual spindle moulders with tilting spindle

Investment in performance.



SPINDLE MOULDERS	CLASS		NOVA
	TI 120		TI 105
machine version		manual	manual
work table dimensions	mm	1200 x 810	1200 x 855
- with optional saw carriage		-	1200 x 530
spindle tilting		± 45°	- 45°
spindle height Ø 30-35 (Ø 40-50)	mm	140 (180)	125 (125)
spindle base projection from table	mm	25	2
max. tool diameter retractable under work table	mm	320 x 60	240 x 80
max. tool diameter retractable under work table at 45°	mm	-	150 x 80
spindle speed	rpm	3000 - 4500 - 6000 - 7000 - 10000	3500 - 6000 - 8000 - 10000
motor power (S6 -40%)	kW	5	5
external diameter of suction outlet on the spindle moulder hood	mm	120	120
suction outlet diameter on base	mm	2 x 80	120
extractor system			
- air speed	m/s	20	20
- air consumption	m <sup>3</sup> /h	1550	1550
operating air pressure	bar	6	6
basic machine weight	kg	490	425





# spindle moulder with fixed spindle

Precision and reliability in unbeatable time.



SPINDLE MOULDER		L'INVINCIBILE
		TF 5
machine version		electronic
work table dimensions	mm	1200 x 730
spindle height Ø 30-35 (Ø 40-50)	mm	140 (160) M-E version 140 (140) H-E version
spindle base projection from table	mm	52
max. tool diameter retractable under work table	mm	300 x 85
spindle speed	rpm	3000 - 4500 - 6000 - 7000 - 10000
drive unit power (S6 -40%)		
- motor (standard)		7 / 9
- electrospindle (optional)	kW	9 / 11
external diameter of suction outlet on the spindle moulder hood	mm	120
suction outlet diameter on base (forced electrospindle aircooling 7,5 kW)	mm	1 x 120 + (1 x 100 M-E, H-E versions)
extractor system		
- air speed	m/s	20
- air consumption	m <sup>3</sup> /h	1700 (2200 M-E, H-E versions)
operating air pressure	bar	6
basic machine weight	kg	630





# spindle moulders with fixed spindle

Essential and professional.

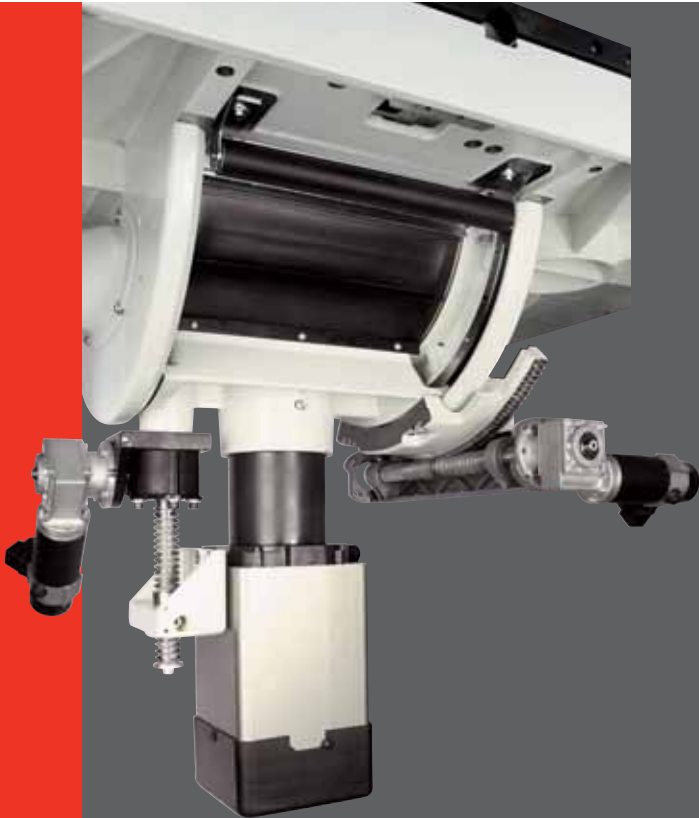


SPINDLE MOULDERS		CLASS		
		TF 130	NOVA TF 110	TF 100
machine version		electric/manual	manual	manual
work table dimensions	mm	1200 x 730	1200 x 730	1080 x 855
spindle height Ø 30-35 (Ø 40-50)	mm	140 (180)	140 (180)	125 (125)
spindle base projection from table	mm	52	5	2
max. tool diameter retractable under work table	mm	320 x 85	320 x 85	240 x 80
spindle speed	rpm	3000 - 4500 - 6000 - 7000 - 10000	3000 - 4500 - 6000 - 7000 - 10000	3500 - 6000 - 8000 - 10000
electrospindle motor power (S6 -40%)	kW	7	5	5
external diameter of suction outlet on the spindle	mm	120	120	120
moulder hood				
suction outlet diameter on base	mm	120	120	120
extractor system				
- air speed	m/s	20	20	20
- air consumption	m <sup>3</sup> /h	1650	1650	1650
basic machine weight	kg	465	405	330



# electronically programmable **spindle moulders**

Exclusive features.

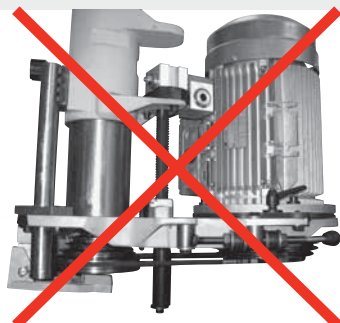


**toptech**

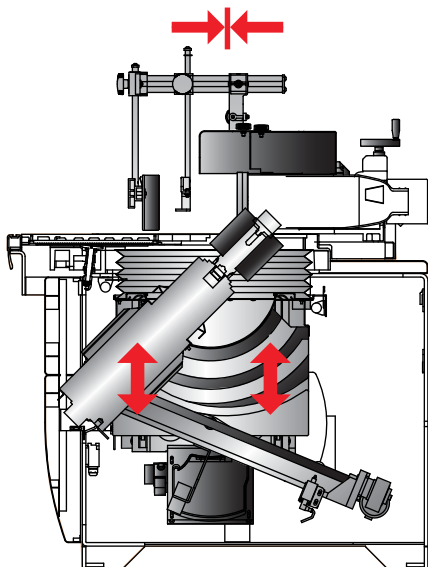
## **ELECTROSPINDLE: MACHINING CENTRE TECHNOLOGY FOR THE WOODWORKER.**

Absolute machining precision and absence of vibration due to the perfectly balanced structure of the electrospindle. Top performance and finishing quality due to the electronic speed control from 900 to 12.000 rpm, with maximum available motor power from 3.400 rpm.

Optimal machine cleaning and healthy environment due to an efficient exhaust system with two side outlets.



No maintenance required.  
The electrospindle's direct drive eliminates any maintenance procedures that are common with conventional belt driven systems.



### toptech

#### LESS MOVEMENT FOR A FASTER SET-UP.

Speed of setting-up due to the unique moving mechanism of the spindle (Scm patent), which allows the operator to independently position the height of the tool with the tilted spindle and the moulder fence.



Top level performance using the latest technology of the screw with recirculating ball-bearings and linear guides which guarantees the total absence of vibration and wear, therefore reducing maintenance (centralised lubrication).



#### RAPID TOOL CHANGEOVER: FAST, FLEXIBLE AND SAFE.

- It cuts setting-up times by 75% compared with traditional systems
- Using the same tools as cnc machining centres allows the spindle moulder to accept the same type of tooling
- Maximum coupling precision with the double air jet system that keeps contact surfaces clean



# electronically programmable spindle moulders

Electronic controls.



## **EASY TOUCH:**

THE ADVANTAGE FROM DAY ONE THAT GUIDES YOU EVERYWHERE.

The satisfaction of fast and easy-to-use control of all machine functions with the 12" large flat touch-screen colour display. The system guides the operator every step of the way offering suggestions that avoid the operator making any mistakes.

Information windows instruct the operator as to what to do on the next operation ensuring the operator works in complete safety.

*ti 7 L'invincibile*



## **EASY:**

THE OPERATING ADVANTAGE FOR EASY ASSISTANCE.

Maximum reliability due to the function pushbuttons and easy-to-use with the electronic control of up to 5 axes with the 7" LCD display, 16:9 format. Integrated and fast control of all dedicated functions. These features translate into immediate improvements in productivity and guarantees the capability of the full potential of the machine.

*ti 5, tf 5 L'invincibile*



## **READY:**

THE PRACTICAL ADVANTAGE FOR AUTOMATIC CONTROL OF THE MAIN POSITIONS.

The programming of the work becomes simple and effective with the electronic control with a 4" LCD colour screen.

Working mode: manual, semi-automatic and automatic with a memory capacity of up to 99 programs.

*ti 145 ep class*



## toptech

### 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 safety: the possibility to select only the programs associated with the tool installed, eliminates any possible dangerous situations.

Less input data, fewer errors, immediately ready for work.

*L'invincibile, class*

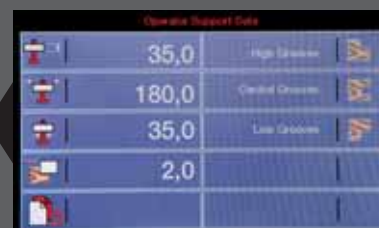


### OPERATOR ASSISTANCE:

WORKING BECOMES EASIER AND MORE PRECISE.

For every tool, the machine can be positioned without the necessity of calculation or to create programs due to the possibility of defining the origin point on three different positions of the tool profile.

For the most recurring machining jobs it is possible to set the dimensions of the required profile and select the tool to be used. The controls will create the dedicated program to carry out the required machining operations.



1. Tool-holder shaft lifting.



2. Tool-holder shaft tilting.



3. Adjustment of the entire profiling fence.



4. Tool-holder shaft speed readout.



# electronically programmable and manual spindle moulders

Devices and options.



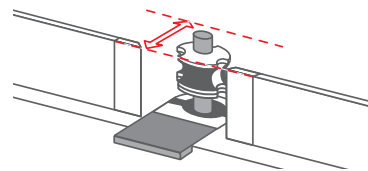
## toptech

### “FLEX” SPINDLE MOULDER FENCE: IMMEDIATELY IN THE CORRECT POSITION.

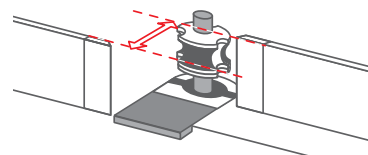
A single, simple movement to retract and re-position instantly and accurately the position of the fence on the worktable with such precision that no other control is necessary (Scm patent).

### “FLEX” SPINDLE MOULDER FENCE WITH AUTOMATIC ADJUSTMENT: PERFORMANCE WITHOUT COMPARISON.

The 250 mm exclusive fence stroke on linear guides with recirculating ball bearings allows the best flexibility for all machining types (machining with  $\pm 45,50^\circ$  tilting and “head” machining).



Electronic positioning of the entire fence according to the minimum tool diameter



Electronic positioning of the infeed fence according to the requested material removal

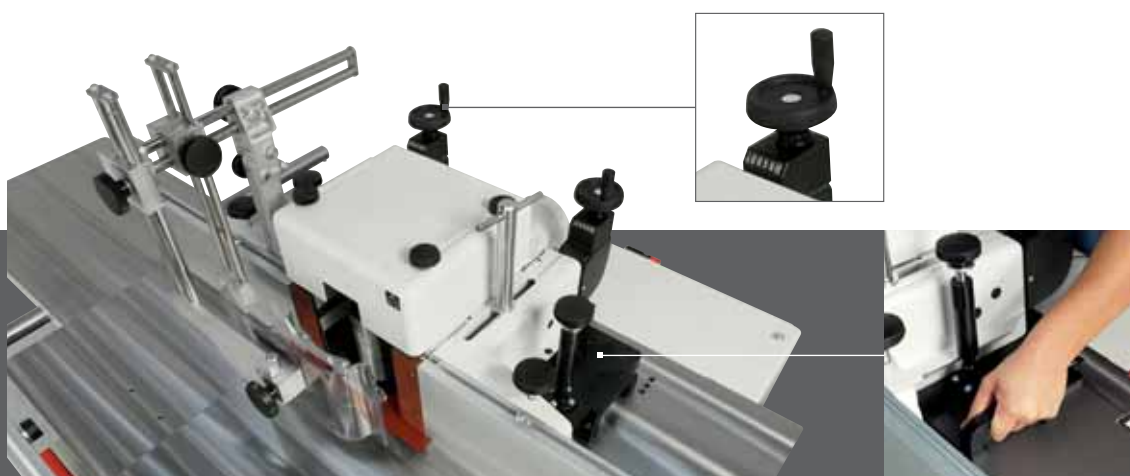


MACHINING WITH TOOLS ON THE SPINDLE HEAD CARRIED OUT WITH THE “FLEX” FENCE. The spindle moulder fence can be located behind the tool allowing the performance of “head” routing using small diameter tools, typical of a router or portable electric tools; all this in compliance with CE safety regulations.



engraving,  
grooving,  
mortising

**“FLEX ONE” SPINDLE MOULDER  
FENCE: AUTOMATIC AND REMOVABLE.**  
Automatic adjustment of the entire fence  
according to the tool diameter.  
User-friendly worktable exclusion system  
with precise re-positioning.



### toptech

**SPINDLE MOULDER FENCE WITH MECHANICAL PROGRAMMING: MAXIMUM SET-UP SPEED AND EASE-OF-USE.**  
No more test runs due to digital readouts that ensure accuracy to a tenth of a millimetre in positioning the two worktables. The side handles make it easy to remove and reposition the fence from the work table.

### ADJUSTABLE SPINDLE MOULDER FENCE.

A handle provides the setting-up of the infeed table, which effects the removal and it is verified by an index on a metric scale.



# electronically programmable and manual spindle moulders

Devices and options.



## ELECTRONIC TOOL SPEED CONTROL:

HIGH QUALITY AND SAFETY ARE GUARANTEED.

- The awkward traditional drive belt operations are eliminated
- The correct speed for the very best finish on all materials. The possibility to lower the speed down to 900 rpm allows polishing, raising the grain, and brushing operations
- Automatic tool braking even when the power supply is cut off. Maintenance and free of wear

electronic version



manual version



## toptech

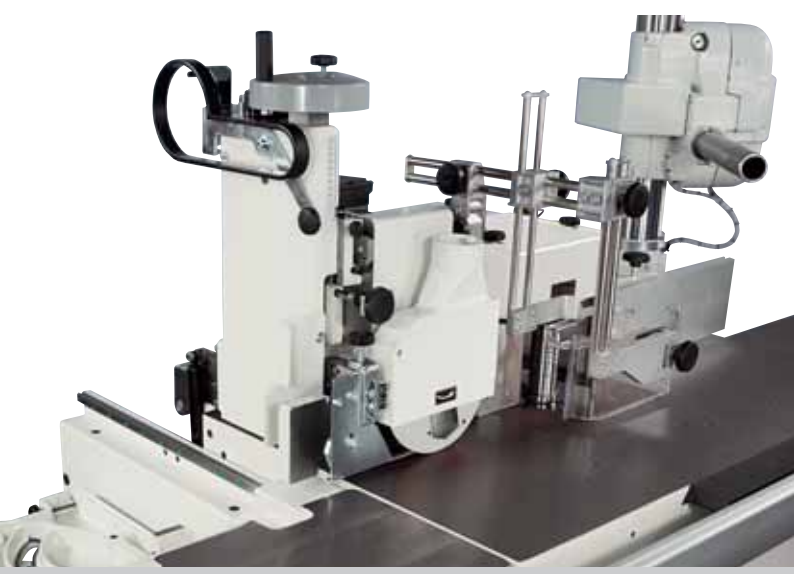
### “FAST” SECTIONAL WORKTABLE: THE BEST SUPPORT FOR THE WORKTABLE.

Provides support for the work piece being machined close to the tool, allowing the adjustment with mounted tools and the very best quality finish when machining narrow pieces. The extremes in machinable material eliminate the disadvantages of a possible collision with the tool.



**FEEDER SUPPORT: THE WORK BECOMES SIMPLER.**

High usable flexibility and no use of worktable space, due to the cross device on the column support of the overhead control panel. The positions are made extremely simple by the control automatic mode or alternatively using manual movements.



**GLAZING BEAD UNIT: TWO MACHININGS WITHIN A SINGLE OPERATION.**

Designed specifically for window manufacturing applications. It allows the simultaneous glazing bead cut and profile machining with the blade unit. This exclusive system allows its total removal from the work table whenever you want to return to standard working such as moulding, rebating and profiling.



# electronically programmable and manual **spindle moulders**

Versions for tenoning and moulding.

## "TL" PRO-10 VERSION



### SPECIALISATION AND PROFESSIONALISM WITHOUT COMPROMISE.

The manual feed carriage is a cast iron structure running on linear guides with recirculating ball bearings, guaranteeing maximum machining precision and stability.



### TOTAL EXCLUSION FOR ABSOLUTE FLEXIBILITY.

The "PRO-10" tenoning table can be retracted easily and within a few seconds to leave the machine ready for the following moulding and contouring operations.

## "TL" VERSION



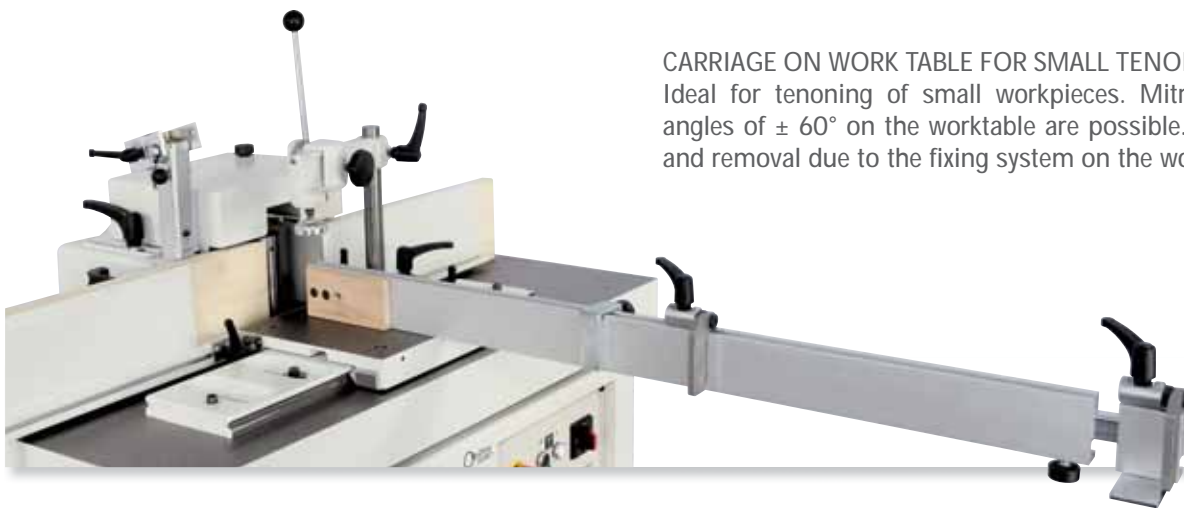
### TOP MACHINING PRECISION AND STABILITY.

Due to the manual feed carriage with cast-iron structure mounted on axial bearings running on slideways made from hardened and ground steel bar.

# VERSIONS WITH FRONT SLIDING CARRIAGE



THE "FLEXIBLE" PAR EXCELLENCE.  
Designed to manage tenoning and moulding operations very easily.



CARRIAGE ON WORK TABLE FOR SMALL TENONING JOBS.  
Ideal for tenoning of small workpieces. Mitre cuts with angles of  $\pm 60^\circ$  on the worktable are possible. Easy fitting and removal due to the fixing system on the worktable.

"LL" VERSION WITH WORK TABLE SIDE EXTENSIONS.  
Ideal when machining very long workpieces due to worktable extensions up to 2500 mm in length. The mobile front bar makes it easy to move large dimensioned workpieces on the worktable, particularly for edge moulding.



# spindle moulders

Equipment sheet.

SPINDLE MOULDER WITH FIXED SPINDLE	NOVA		CLASS			L'INVINCIBILE
	TF 100	TF 110	TF 130	TF 130 E	TF 130 PS	TF 5
Machine type	M	M	M	E	M	P
"LL" version with 2 profiling extensions	O	O	O	O	-	O
Version with front sliding carriage	-	-	-	-	S	-
Carriage on the table for small tenoning operations	O	O	O	O	-	O
"TL" version for tenoning and profiling	-	O	O	O	-	O
"TL" PRO-10 version for tenoning and profiling	-	-	O	O	-	O
Glazing bead unit	-	-	-	-	-	O
Upper mobile control panel	-	-	O	O	-	S
MK interchangeable spindle	O	O	O	O	O	S
HSK rapid tool changeover	-	-	-	-	-	O
Inverter for speed change	-	-	O	O	-	O
Reverse spindle rotation	S	S	S	S	S	S
Manual feeder support	-	-	O	O	-	O
2 axes feeder support controlled from NC	-	-	-	-	-	O
"Fast" sectional table with manual movement	-	-	O	S	-	S
"Fast" sectional table controlled from NC	-	-	-	-	-	O
Adjustable manual spindle moulder fence (CE-USA-Canada)	S	S	S	-	S	-
Spindle moulder fence with mechanical programming	O	O	O	S	O	-
"Flex" spindle moulder fence with mechanical programming	-	-	O	O	O	-
Electronic programming for "Flex" fence from NC	-	-	-	-	-	S
Spindle moulder fence with aluminium tables	O	O	O	O	O	S

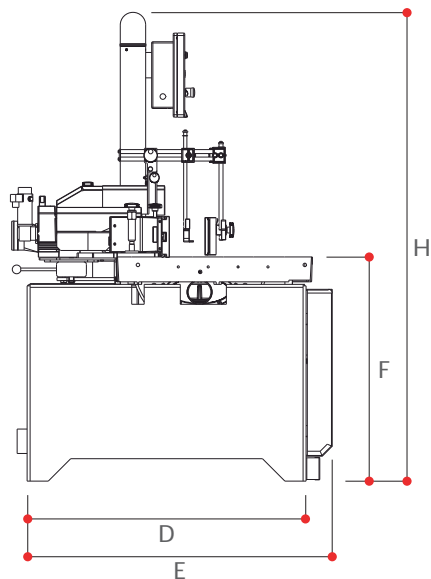
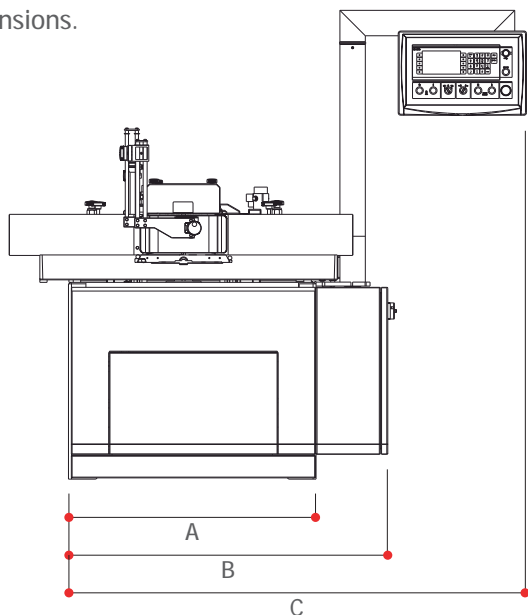
SPINDLE MOULDER WITH TILTING SPINDLE	NOVA		CLASS			L'INVINCIBILE
	TI 105	TI 120	TI 145	TI 5	TI 7	
Machine type	M	M	P	P	P	
"LL" version with 2 profiling extensions	O	O	O	O	O	
Version with front sliding carriage	O	-	-	-	-	
Carriage on the table for small tenoning operations	O	O	O	O	O	
"TL" version for tenoning and profiling	-	O	O	O	-	
"TL" PRO-10 version for tenoning and profiling	-	-	O	O	O	
Glazing bead unit	-	-	-	O	O	
Upper mobile control panel	-	-	O	S	S	
MK interchangeable spindle	O	O	S	S	-	
HSK rapid tool changeover	-	-	-	O	S	
Inverter for speed change	-	-	-	S	S	
Reverse spindle rotation	S	S	S	S	S	
Manual feeder support	-	-	O	O	O	
2 axes feeder support controlled from NC	-	-	-	O	O	
"Fast" sectional table with manual movement	-	-	S	S	-	
"Fast" sectional table controlled from NC	-	-	-	O	S	
Adjustable manual spindle moulder fence (CE-USA-Canada)	S	S	-	-	-	
Spindle moulder fence with mechanical programming	O	O	S	S	-	
"Flex" spindle moulder fence with mechanical programming	-	-	-	O	-	
Electronic programming for "Flex One" fence from NC	-	-	O	-	-	
Electronic programming for "Flex" fence from NC	-	-	-	S	S	
Spindle moulder fence with aluminium tables	O	O	O	O	S	



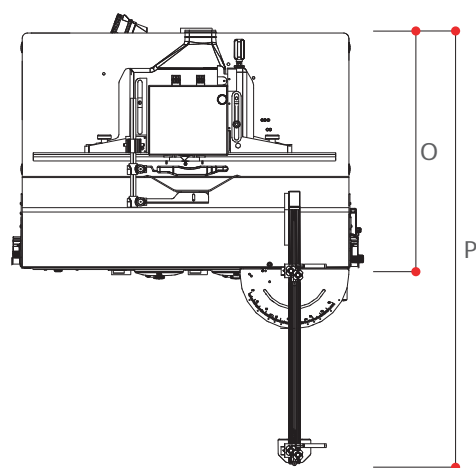
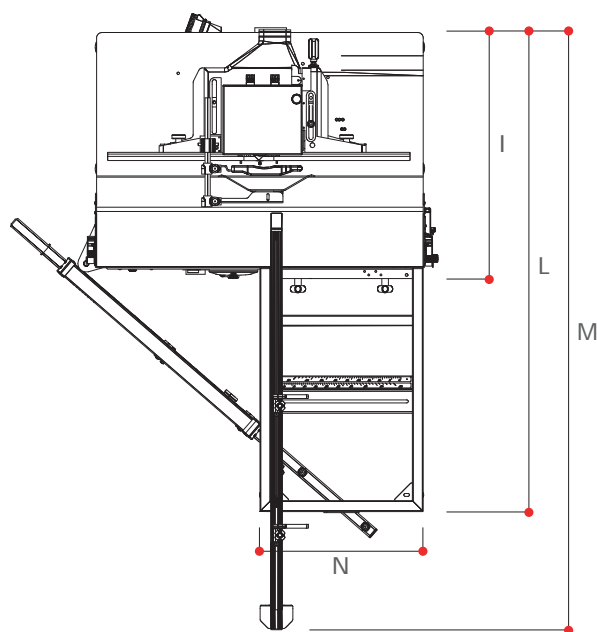


# spindle moulders

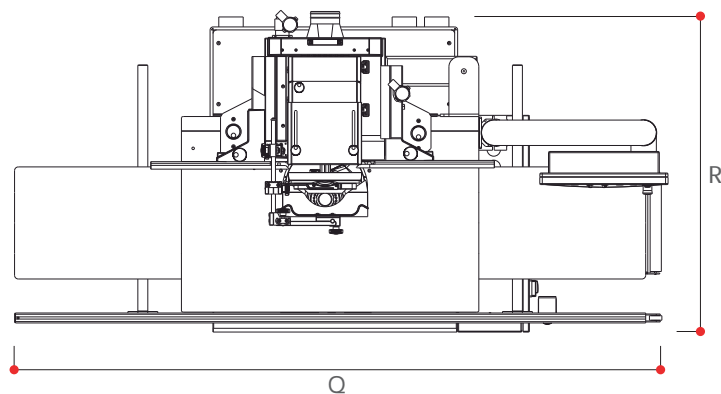
Overall dimensions.



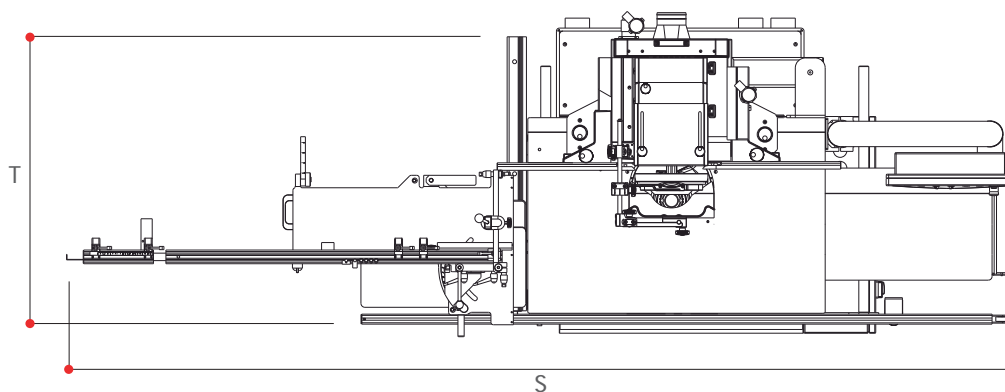
SPINDLE MOULDERS		L'INVINCIBILE			CLASS			NOVA		
		TI 7	TI 5	TF 5	TI 145	TI 120	TF 130	TI 105	TF 110	TF 100
A	mm	990	990	990	990	1030	990	1130	990	830
B	mm	1280	1280	1280	1380	-	1255	-	-	-
C	mm	1850	1850	1850	1850	-	1850	-	-	-
D	mm	990	1120	577	1120	940	577	855	577	616
E	mm	1105	1225	680	1225	1050	680	-	680	-
F	mm	900	900	900	900	923	900	900	900	900
H	mm	1885	1885	1885	1885	-	1885	-	-	-



SPINDLE MOULDERS		CLASS		NOVA	
		TF 130	TI 105	TI 105	TF 100
I	mm	-	-	863	-
L	mm	-	-	1756	-
M	mm	-	-	2190	-
N	mm	-	-	600	-
O	mm	760	-	865	-
P	mm	1720	-	1530	-



SPINDLE MOULDERS		L'INVINCIBILE			CLASS			NOVA		
		TI 7	TI 5	TF 5	TI 145	TI 120	TF 130	TI 105	TF 110	TF 100
Q	mm	2600	2600	2600	2600	2600	2600	2600	2600	2576
R min	mm	1315	1290	1115	1265	1290	790	920	790	720
R max	mm	1715	1660	1450	1575	1705	1340	1480	1340	1220



SPINDLE MOULDERS		L'INVINCIBILE			CLASS			NOVA		
		TI 7	TI 5	TF 5	TI 145	TI 120	TF 130	TI 105	TF 110	TF 100
S	mm	3780	3780	3780	3780	3780	3780	-	3780	-
T	mm	1685	1685	1685	1685	1685	1685	-	1685	-

























The technical data can vary according to the requested machine composition. In this catalogue, machines are shown with options. The company reserves the right to modify technical specifications without prior notice; the modifications do not influence the safety foreseen by the CE Norms. Motor power indicated in S6 -40%.

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