SAVENERGY

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- LOWER CONSUMPTION =
- LOWER COSTS =
+ MORE COMPETITIVE!

Always giving something extra to who selects “Made in Scm Group” technologies. Making complex things simple, thanks to innovative and effective solutions that highlight the advantages for users - from the artisan to large-scale industry. A **link** between the idea, the project, the creativity, and the goods that make everyday life easier and more pleasant. In a simple, effective and affordable way... Another step forward is the use of the **“Save Energy”** package - a set of interventions that guarantee a definite and measurable reduction in consumption levels.

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HOW? IT'S EASY! BY AVOIDING
ONLY WHEN IT'S NEEDED, MA
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TO RESUME FULL EFFICIENCY

Scm Group has always worked to develop technologies that are less energy-intensive and "greener": effective and efficient. With "Save Energy" you can consume less, spend less, increase your competitiveness and, on top of all that, even help the environment.

G WASTE! USING ENERGY
AKING THINGS WORK ONLY
CESSARY. IT MEANS THE
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TANDBY THAT ALLOWS
THERE ARE NO PIECES
OMENT, BUT KEEPS IT READY
Y IN JUST A FEW SECONDS!

MISURE ECO E TECNOLOGIE

POS._	OFFICIAL NAMES_	MEASURES_		TECHNOLOGIES_ NUMERIC CONTROL MACHINING CENTRES_	BORING MACHINES_
1	ADAPTED CUT	Reduction of power needed for the machining	Adapted cut	X	X
2	CLEANER, WITH LESS WASTE	Optimised cleaning of machine parts and pieces during the process	Optimised blowers for the piece and machine parts		
3	ENERGY REGENERATION	Energy regeneration	Use of an axis/spindle driver power supply system via common DC BUS, supplied from a regenerative inverter	X *	X *
4	ELECTRIC MOTORS WITH INVERTERS	Use of inverters for controlling the electric motors	Blower motors / vacuum pumps controlled by inverters	X	
5	COMPRESSED AIR OPTIMISATION	Optimised compressed air system, with minimal losses	Automatic disconnection of the pneumatic supply when the machine is switched off	X	X
6	SMART VALVES	Optimised supply to the pneumatic actuators	Use of proportional valves for the supply to the pneumatic actuators		
7	THE “ECO” BUTTON	For manually selecting the standby mode	Eco button	X	X
8	AUTOMATIC STANDBY	For automatically selecting the standby mode	Automatic standby	X	X
9	CONSUMPTION MONITORING	The visualisation, registration or monitoring of current energy consumption, together with significant production data	Monitoring of electricity consumption	X	X
10	SUCTION WHERE IT’S NEEDED …	Optimisation of the suction system	Automatic suction choking	X ***	X ***
11	OPTIMISATION OF THE SECTIONING PROCESS	Optimisation of the process for panel saws	Automatic adaptation of pusher/ carriage speed in panel saws		
12	ERGONOMIC MOVEMENT	Optimisation of the movement process	Automatic adjustment of axis override		
13	“BETTER” MOTORS	mproved yield of three-phase motors	Use of IE3 motors (or, alternatively, IE2 motors) with combined use of specific inverters		
14	SMART MANAGEMENT OF THE GLUE BOWL DURING EDGEBANDING	Optimisation of the edgebanding machine process	Transit to the glue bowl pre-heating phase		
15	CUSTOMISED CLAMPING OF THE PIECE DURING SANDING	Optimisation of the sanding machine process	Automatic adjustment of the vacuum pump power on the basis of the piece width		
16	SMART MANAGEMENT OF ELECTRO-SPINDLE COOLING	Management optimisation for liquid-cooled electro-spindles	Heat exchanger switch-off	X **	X **

* not for entry-level machines

** if present

*** pre-arrangement only for customer system management

MACHINES FOR WORKING SOLID WOOD _ (flow and stand-alone machines; moulding machines, squaring machines, angle grinders, machines for working window frames)	NUMERIC CONTROL MACHINING CENTRES WITH EDGEBANDING FUNCTIONS_	EDGEBANDING MACHINES_	PANEL SAWS_	SANDING MACHINES_	HANDLING_	TRADITIONAL MACHINES_	SEMI-PROFESSIONAL MINIMAX MACHINES_
X	X						
X				X			
X *	X *				X **		
X **	X		X	X	X		
X	X	X	X	X	X	X **	
			X				
X	X	X	X	X	X		
X	X	X	X	X	X	X	
X	X	X	X	X	X		
X ***	X ***	X ****	X ***	X		X ***	
			X				
					X **		
						X	
	X	X					
				X			
X **	X **					X **	

**** pre-arrangement only for customer system management for

ADAPTED SIZE

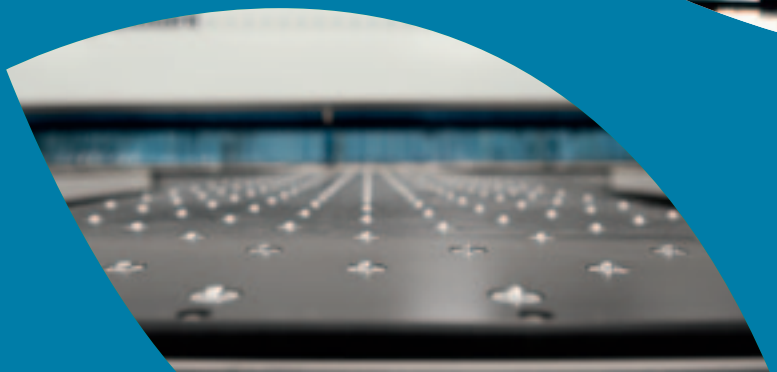
The machine's numeric control adapts the **feed speed** to ensure the **best possible rate at all times.** In this way, the pieces (whether solid wood or panels) are always machined to optimum levels, saving energy and allowing the tool to produce the best results.

CLEANER, WITH LESS WASTE

Blowers that intervene **when necessary.** Machine elements redesigned to increase the **effectiveness** of the cleaning systems; **more efficient nozzles.** The machine and the pieces being worked are perfectly clean, ensuring the maximum process precision while drastically reducing energy consumption.

ENERGY REGENERATION

Optimising the use of compressed air - by interrupting the flow if the machine is inactive - means **avoiding useless consumption and costly waste.** And it's not something the operator has to worry about: it's the machine itself which, on the basis of the instructions received, does everything necessary, when necessary!



ELECTRIC MOTORS WITH INVERTERS

Equipping the blower motors and vacuum pumps with inverters allows you to **“modulate” and continually adjust their power levels.** In practice, they work at higher speeds (and therefore consume more) only when and if it’s really necessary. Another way of saving energy and limiting management costs.

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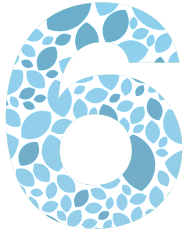


SMART VALVES

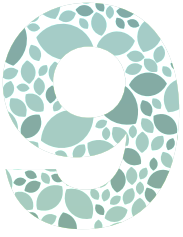
Using proportional valves (true “smart valves”) in the pneumatic systems is extremely effective because they vary the pressure (working more or less, consuming more or less) according to the needs in that specific moment and in that specific phase of the production process.

THE “ECO” BUTTON

Just press a button and the machine goes immediately into standby. The operator can decide to **manually activate the “rest” phase**, during which consumption is reduced to a minimum. This involves only those devices and aggregates that don’t require a great deal of power to be reactivated. And the machine starts up again in the blink of an eye!

AUTOMATIC STANDBY

Prolonged lack of use, or a lengthy pause, and the machine and system go **automatically into standby** to minimise energy consumption. Always bearing in mind the “cost” of reactivating each component. An “idle condition” that can be transformed into full working order in just a few seconds.



CONSUMPTION MONITORING

Actual consumption can be monitored at any time, not just to assess the operating conditions of the machine but also to obtain clear information about energy levels. Information in real time, which can be exported in Excel in order to have a consumption record and can be integrated in the company’s administrative database system.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SUCTION WHERE IT'S NEEDED...

Independent suction sockets opened or closed according to the needs of the current process or work cycle. For the most "attentive", there is also a pre-arrangement whereby the suction inlets can be closed directly from the main system.

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OPTIMISATION OF THE SECTIONING PROCESS

In the panel saws, the correct and precise **synchronisation** of the pusher and blade carriage speeds has a notable effect on energy savings. On the basis of the piece length and the size of the cut, the software evaluates the times needed for their positioning and then automatically determines the return speed of the blade carriage.

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ERGONOMIC MOVEMENT

Movement is a fundamental aspect of the "Save Energy" package. Thanks to the automatic adaptation of the axis transfer speed, the bridges can be moved on the basis of actual machining times: **movement speed** if it's necessary, where it's necessary, when it's necessary….

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“BETTER” MOTORS

We’re ahead of the times! Today we’re already using the “IE3” motors (or, alternatively, the “IE2”) together with specific inverters that the European regulations will be imposing from 1st January 2015. **High-efficiency three-phase motors** that guarantee top performance with a notable energy reduction.

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SMART MANAGEMENT OF THE GLUE BOWL DURING EDGEBANDING

When you’re not actually edgebanding, the **temperature of the glue bowl** is lowered to a pre-established level so that the glue remains in a liquid state and can return to its working temperature in greatly reduced times. This all happens automatically, and with definite energy savings.

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CUSTOMISED CLAMPING OF THE PIECE DURING SANDING

Why should the vacuum hold-down system be active across the whole table, rather than just where it’s needed to block the piece being machined? The smart, automatic management of vacuum pump power lets you activate the **hold on the pieces to be sanded, only where those pieces are actually positioned.**

SMART MANAGEMENT OF ELECTRO-SPINDLE COOLING

The correct and quick management of the liquid-cooled electro-spindles is an important cost-reduction element: keeping the liquid temperature under control, **you can switch off the heat exchanger** when it's not needed. Same performance levels, less strain on the components, no energy waste...

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