

# S<sub>2</sub>

CALIBRATING  
SANDING MACHINE



 Biesse

# NUMEROUS MACHINING OPERATIONS ON A SINGLE MACHINE



## THE MARKET DEMANDS

the ability to **handle orders** of different sizes and types, with **guaranteed delivery times and high quality standards**.

## BIESSE RESPONDS

with **technological solutions** that can be customised according to manufacturing requirements, delivering superb product quality and increased productivity. **S2** is the calibrating sanding machine that offers superior levels of performance with a modest investment. Ideal for small and medium-sized businesses, the S2 ensures maximum reliability and precision, derived from the experience gleaned from high-end machines.



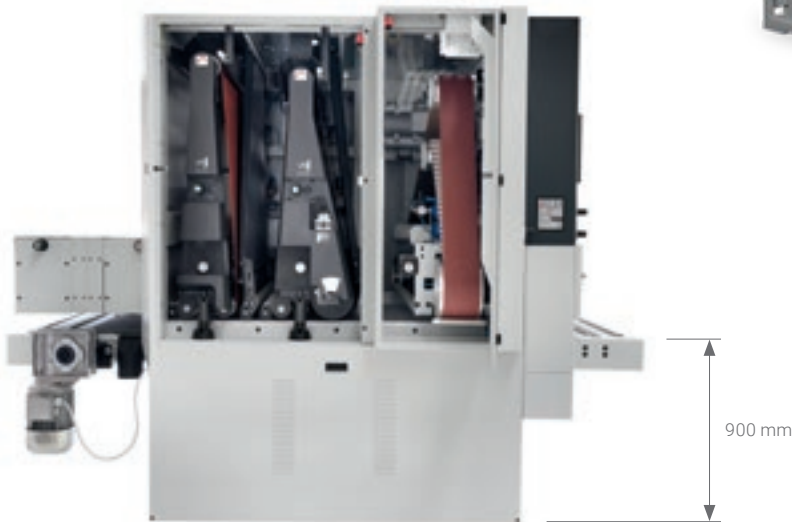
## S<sub>2</sub>

- EXCEPTIONAL FINISH QUALITY
- ENORMOUS VERSATILITY AND FLEXIBILITY OF USE ON A SINGLE MACHINE
- EXCELLENT RESULTS GUARANTEED IN A SINGLE STEP

# EXCEPTIONAL FINISH QUALITY

The robust and stable structure of the S2 ensures precision and reliability.

The **base** has a one-piece frame in welded steel. The generous thickness of the materials used guarantees the stability and durability of the entire structure.



S2 is equipped with a **thick, wear-resistant stainless steel work table** that guarantees precision and sturdiness during any type of machining operation. In the mobile head version (optional), the work table is positioned at 900 mm from the ground, thus ensuring ease of panel loading and unloading.



Pad



Roller



Compact cross unit



Combined

Reduced machining times due to the possibility of achieving a number of results in a single step.

# CAN BE CUSTOMISED IN ACCORDANCE WITH CUSTOMER REQUIREMENTS



S2 is the calibrating sanding machine that can accommodate up to 3 working units, ensuring high finish quality across all products and superb machining flexibility.



Transverse version, combined, pad.



Roller version, roller, pad.

# EXCELLENT RESULTS IN A SINGLE STEP

The possibility of combining rollers of different hardnesses with one or more pads allows the customer to calibrate and smooth the article in a single step.



The **Roller unit** is extremely precise and effective. Depending on the hardness of the rubber used and the roller's cross-section, the unit can be used to calibrate, sand or finish.

Available cross-section sizes:



For calibration operations, the machine can be equipped with 190 or 240 mm cross-section 90 Sh steel or rubber rollers, fitted with 25 Hp motors.



## Braking system

Viet uses disc brakes with floating callipers for every motor installed. This motorcycle-derived system guarantees speed and safety.



The large tensioning roller allows for perfect belt translations in all working conditions.

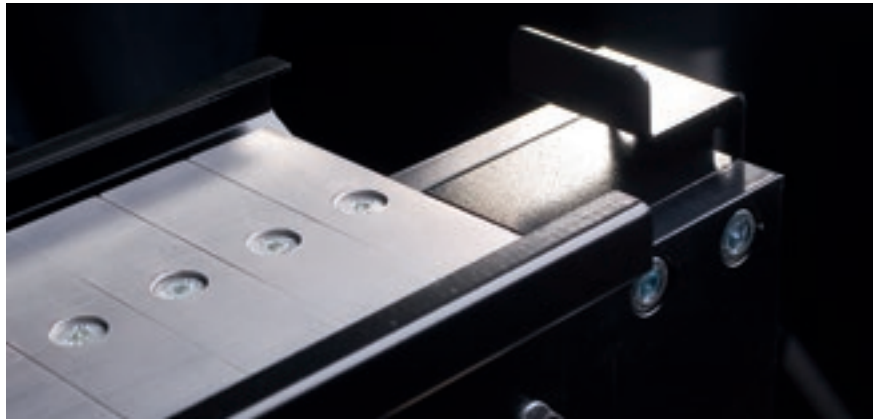
# HIGH-TECHNOLOGY TO ENHANCE MACHINE PERFORMANCE

The S2 is built using the same technology implemented on higher-range machines. Optimal quality, less waste and significant cost reduction.

The **sectioned electronic pad** enables users to perform high-quality sanding operations thanks to the electro-pneumatic sectors that are only actioned on the panel's surface. The vast range of possible adjustments offers specific functionalities for different types of processing operations.

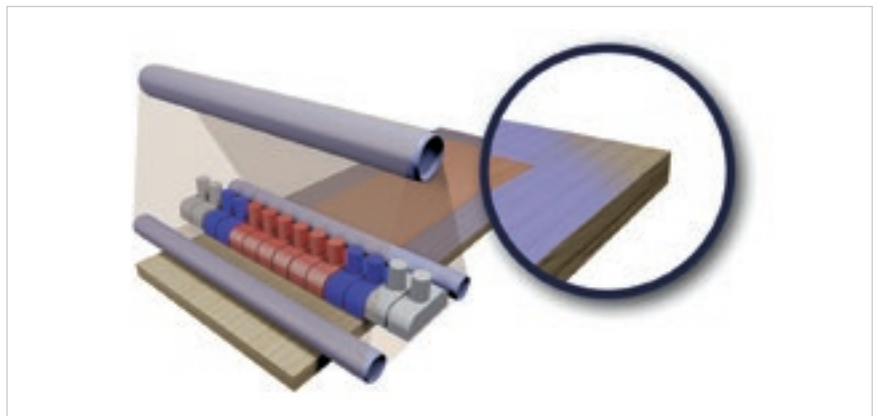
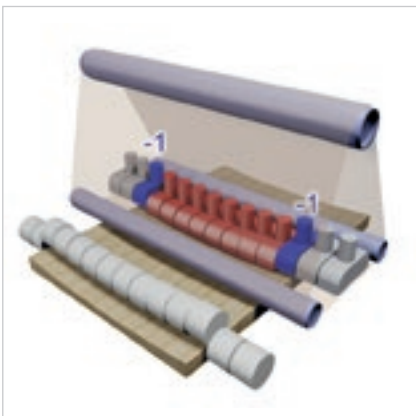
The **electronic pad equipped with HP (High Performance) technology** enhances processing results, both as far as surface flatness and finish are concerned.

- ▶ +30% greater belt life expectancy.
- ▶ -30% consumption of electricity.
- ▶ Higher finish grade.
- ▶ Even surfaces.
- ▶ -20% dust.
- ▶ No excessive sanding.



#### Save corner.

All electric pads, with IPC controls, are fitted with the exclusive, patented Save corner function. The system limits the sanding time on the corners of the panel, thus preserving the most delicate portions of the panel's surface.

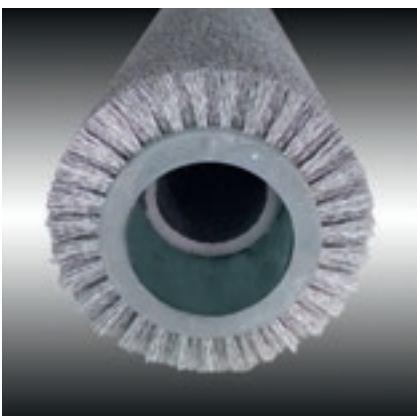


# FINE SURFACE FINISHING AND POLISHING FOR ALL TYPES OF APPLICATION

Technological solutions designed for complex machining operations.



The **compact cross unit** is the ideal solution for complex machining operations on veneered panels, even with glues and junction papers, responding to transverse levelling and finish requirements, whilst occupying a small footprint. The S2 is the best solution for performing complex manual operations that are typical of artisan production.



The **brushing unit** enables the customer to highlight the wood grain of processed panels.



The **brushing unit with abrasive inserts** can be equipped with a transverse oscillation system, to ensure that the finish quality of the product is entirely uniform. Abrasive bristles can be replaced quickly and without the need of removing the unit from the machine.



## Scotch brite

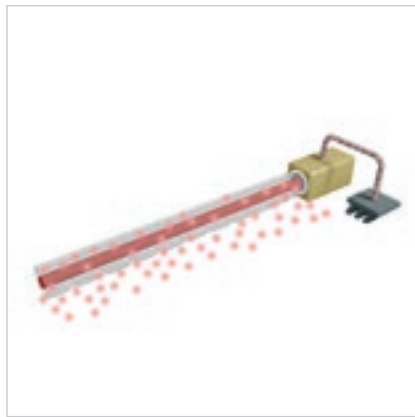
The scotch brite unit is suitable for adding a satin finish to the panels after the smoothing cycle. It provides a uniform finish, using open-pore cycles.



# OPTIMAL PANEL CLEANING WITH A GREAT PRICE/ PERFORMANCE RATIO



The **panel cleaning brush** can be fitted with bristles of different materials to deep clean the machined panels.



The **anti-static bar** eliminates electrostatic charges on painted panels.



The **rotating blower**, positioned downstream of the machine, enables optimal cleaning of the panel's surface at the end of the sanding cycle.

The **linear blower** is used to finish cleaning the panel's edges. Ideally, it should be coupled with the rotating blower.

# ENERGY SAVING SYSTEM

## ECO-FRIENDLY SMOOTHING

With every attention to saving energy, the Viet range of machines includes the E.S.S. system, which allows for energy savings of up to 30% with regard to both electricity consumption and CO2 emissions. A perfect combination of Biesse technology and Italian genius.

The Energy Saving System is a series of devices designed by Viet to minimise energy consumption during machining. They are engineered and designed to ensure a high degree of efficiency, as well as optimising production, with effective suction thanks to the automatic opening of the collectors, in accordance with the units in operation; in addition, an automatic system stops machines and places them on standby after a pre-determined period of inactivity, and the vacuum table system, which operates by means of an inverter, optimizes the vacuum for holding the panel, according to the size of the panel being processed.

**ESS**  
VIET ENERGY SAVING SYSTEM



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39 branch offices, over 300 certified agents, retailers in 120 countries, and spare parts warehouses in America, Europe and the Far East.



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Identification, shipping and delivery of spare parts for every need.



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## **VALUABLE SERVICES**

A wide range of services and software packages to help our customers achieve continuous improvements in performance.

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**+550**

HIGHLY SPECIALISED  
TECHNICIANS AROUND  
THE WORLD, READY TO  
HELP CUSTOMERS WITH  
EVERY NEED

**90%**

OF MACHINE DOWN CASES  
WITH RESPONSE TIME  
UNDER 1 HOUR

**+100**

EXPERTS IN DIRECT  
CONTACT THROUGH  
REMOTE CONNECTIONS  
AND TELESERVICE

**92%**

OF SPARE PARTS ORDERS  
FOR MACHINE DOWNTIME  
PROCESSED WITHIN 24  
HOURS

**+50.000**

ITEMS IN STOCK IN  
THE SPARE PARTS  
WAREHOUSES

**+5.000**

PREVENTIVE  
MAINTENANCE VISITS

**80%**

OF SUPPORT REQUESTS  
SOLVED ONLINE

**96%**

OF SPARE PARTS ORDERS  
DELIVERED IN FULL ON  
TIME

**88%**

OF CASES SOLVED WITH  
THE FIRST ON-SITE VISIT

# EASY OF USE AND POWER

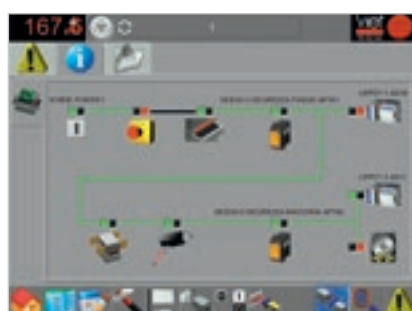
IPC is a range of **control systems** (optional) that are integrated into the machine via 8" or 15" Touch Screen monitors. This control system supports the management of all machine parameters, providing the operator with timely and intuitive information. The industrial PC processor provides control and feedback information to the machine in real time, making it extremely user-friendly for the operator.



The IPC system is the highest expression of sanding machine management technology available on the market.



Sectioned pad management.

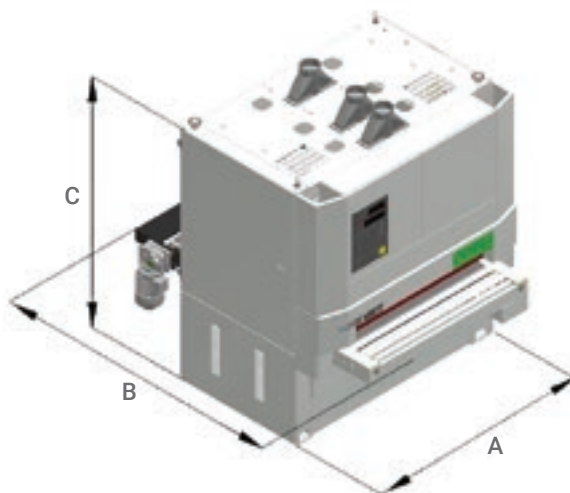


Alarm checks.



Belt wear.

# TECHNICAL SPECIFICATIONS



		S2 (1100)	S2 (1350)
A	mm	1760	2010
B	mm	2870	2870
C max (2200 production)	mm	2235	2235
C max (2620 production)	mm	2445	2445
Maximum operating width	mm	1100	1350
Min-max processing thickness	mm	3 - 160	3 - 160
Dimensions of sanding belts (2200 production)	mm	1130 x 2200	1380 x 2200
Dimensions of sanding belts (2620 production)	mm	1130 x 2620	1130 x 2620
Cross-sanding belt dimensions	mm	150 x 5520	150 x 5520
Advance speed	m/min	3 - 16	3 - 16
Operating pressure	bar	6	6
Weight	Kg	2880	2880
Motor power of up to	kW (HP)	18,5	18,5

The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Biesse Spa reserves the right to carry out modifications without prior notice.

Weighted sound pressure levels at the machine entry operator station: 75.0 dB(A) without load, 76.0 dB(A) with load. Weighted sound pressure levels at the machine exit operator station: 70.5 dB(A) without load, 71.0 dB(A) with load.

Viet Srl. designed the machine to reduce airborne noise emission at source to the lowest possible level, in accordance with the requirements of Community Directive 2006/42/EC, and commissioned a test to determine the sound pressure emission level at the operator station for the smoothing/sanding machine. Standards: The measurement was carried out in compliance with UNI EN ISO 19085-8:2018, UNI EN ISO 11202:2010. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Even though there is a relation between emission levels and exposure levels, this cannot be used reliably to establish whether further precautions are necessary. The factors determining the noise levels to which the operative personnel are exposed include the length of exposure, the characteristics of the work area, as well as other sources of dust and noise, etc. (i.e. the number of machines and processes concurrently operating in the vicinity). In any case, the information supplied will help the user of the machine to better assess the danger and risks involved.

# MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER

**SMART**  
CONNECTION  
Powered by Retuner



**SMARTCONNECTION IS A SOFTWARE PACKAGE FOR MANAGING JOB ORDERS WITHIN THE COMPANY - FROM THE GENERATION PHASE TO SCHEDULING AND PRODUCTION START-UP - IN JUST A FEW SIMPLE, INTUITIVE STEPS.**

**THANKS TO SMARTCONNECTION, PRODUCTION SITE MACHINES CAN BE LINKED UP TO TRANSFORM THE COMPANY INTO A 4.0 ENTITY..**



SmartConnection is a web-based solution that can be used by any device.



**i** Biesse is extending SmartConnection across all geographical areas.  
To check availability in your country, get in touch with your commercial contact.



# MADE WITH BIESSE

## CRAFTSMANSHIP AND CUTTING-EDGE TECHNOLOGY TO MAKE THE SWEET MUSIC OF SUCCESS.

Over 80,000 instruments installed in over 80 countries for Allen Organ, the largest organ manufacturer in the world. Headquartered in Macungie, PA, in the USA, and founded by Jerome Markowitz in 1937, Allen Organ boasts 200 employees and manufacturing facilities with a surface of 225,000 m<sup>2</sup>. "Allen" states Dan Hummel, Manufacturing Director, "has a high degree of vertical integration, which requires the company to have the utmost quality control and the flexibility to make changes in relatively quick time scales, depending on customer needs. We have some very peculiar requirements as far as production and planning of creative solutions are concerned. Our customers demand both customised products and

classic organs that are standard stock items. However, even standard organs are often modified to respond to specific needs". Allen organs are built by combining veneered panels with solid wood. "Everybody works very closely with suppliers to guarantee the best quality solid woods and panels", adds Hummel. The raw material is processed using high-tech machinery during the various production phases, to get to the end product. During the last step, the processed wood is sanded using a Biesse finishing centre. The touch-screen operated sanding centre has a combined roller/roller and sectioned pad unit for the sanding of veneered panels and solid wood.

*Source: Custom Woodworking Business Jan. 2013  
Woodworking Network/Vance Publications.*

*Allen Organ is the leader in the manufacturing of superior-quality digital organs and similar instruments. Quality, craftsmanship and cutting-edge technology.*



Founded in Italy,  
international native.

We simplify your  
manufacturing  
to make the process  
of any material



ur  
g process  
potential  
I shine.

We are an international company that manufactures integrated lines and machines to process wood, glass, stone, plastic and composite materials and what will come next.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution – empowering your imagination.

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