SANDING MACHINE

satos TSQ

steinemann

Surface quality from
start to finish.

TSQ TOTAL SURFACE QUALITY

Total Surface Quality is the goal of every solution we develop for our customers. Every single project imposes unique demands on the machines, abrasives, processing steps and services.
These elements must harmonize perfectly to achieve perfect sanding results that live up to your, and our, high standards of «Total Surface Quality».

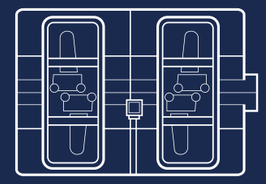
1.Q PROCESSES

The configuration of a sanding process determines whether you reach your quality, performance and efficiency targets. To ensure it does, Steinemann offers not only sanding seminars, but also an innovative process control system called the BQC (Board Quality Cockpit). It provides the machine operator with relevant information on the ongoing processes that helps him produce panels of consistently high quality every time.

2.Q SERVICES

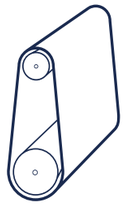
Steinemann's range of services is geared to maintaining the high performance and uptime availability of all machines currently in operation. We support our customers by offering customized, on-site maintenance and operator training classes, online remote servicing and numerous training videos. Our network of service technicians provides on-site service all over the world.

3.Q MACHINES



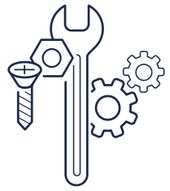
Thanks to innovative technologies, Steinemann wide belt sanders have been setting new standards in quality for over 50 years. Whether the focus is on factors such as sanding results, durability, machine availability, safety, cost-efficiency, or on materials such as particle boards, MDF, plywood, OSB boards or laminates, Steinemann has the right sanding technology for every need.

4.Q ABRASIVES



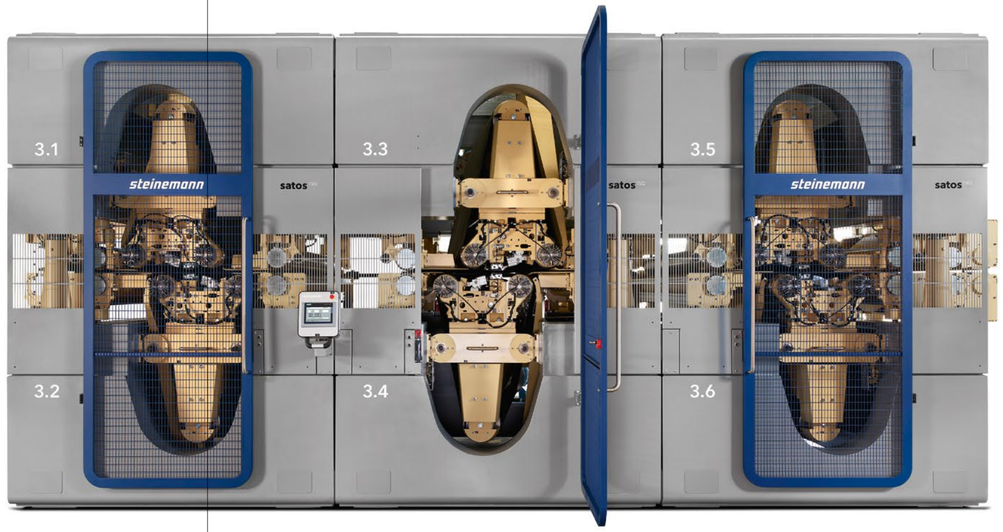
The perfect interplay between abrasives and machines is a key factor in quality panel production. That's why we don't leave anything to chance and manufacture segmented belts ourselves. By doing so, we ensure both the machine and material are a perfect match for a given production process.

5.Q PARTS



Even the best machine is not immune to wear over the long run. To prevent a worn part from causing extended downtime unnecessarily, Steinemann offers an exceptionally well-organized spare parts and repair service with short turnaround times and extensive warranty services.

satos TSQ – the wide belt sander for highest demands in terms of availability, performance and surface quality.



The requirements placed on wide belt sanding machines are also rising with the ever-increasing demands in terms of capacity and quality.

Steinemann has accepted the challenge and developed a machine that is setting new standards in the high-end sector. The results of over 50 years of experience are incorporated into leading-edge technology from a mechanical aspect and also with respect to a future-oriented automation concept. This gives you the assurance you are well equipped to face the challenges of today and tomorrow.
The innovative technology opens ups completely new options and prospects:

- Maximum availability, safety and ease of maintenance
- Great consistency with respect to thickness tolerances and the optimum surface quality
- High investment security and low operating costs
- Pioneering technology and performance
- Integration and networking in the panel production process

KEY FEATURES

Vibration monitoring

Enables the early detection of bearing damage, clear differentiation between different types of damage and offers the basis for detailed root cause analyses.

- Intelligent and predictive maintenance
- Increase in system stability and availability

Motorized contact drum and/or sanding platen adjustment system

Fine adjustment of the contact drums and/or sanding platens through guided position monitoring and a position display on both sides.

- Position display on the HMI
- High adjustment accuracy

Internal thickness measurement

Consistent thickness measurement to monitor the actual and nominal values for each K-unit.

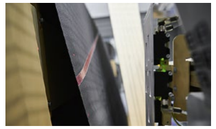
- Managed control of the sanding removal
- Transparent process overview

Quick lock system

Optimized design for ergonomic and simplified belt introduction.

- Sensor-monitored locking device to improve process reliability and occupational safety
- Gentler and faster sanding belt change through larger insertion openings

Self-adjusting sanding belt oscillation



Automatic machine start without manual adjustment of the individual units. Completely self-regulating.

- No belt run off
- Free of play, maintenance-free and easy to operate

Drum braking system

The rollers are gently stopped after a sanding belt rupture. This means that the safety doors can be opened faster.

- Faster response after a sanding belt rupture
- Danger from rotating parts is minimized

Optimized operation of the machine with touchpanels

Central touchpanel (22'') has a clear overview and permits complete operation of the machine from the control room.

- Process control has been simplified
- Remote access is possible

Local control panel (7'') for the on-site control unit and a quick overview of all relevant process data.

- No unnecessary foot traffic
- Faster interaction of the machine operator

TECHNICAL DATA

		satos TSQ **16**	satos TSQ **22**	satos TSQ **28**	satos TSQ **32**
Panel thickness	mm	2.5 – 50	2.5 – 50	2.5 – 50	2.5 – 50
Max. panel width	mm	1,650	2,250	2,850	3,300
Machine opening	mm	0 – 300	0 – 300	0 – 300	0 – 300
Working height	mm	1,585	1,585	1,585	1,585
Feed rate	m/min	15 – 150	15 – 150	15 – 150	15 – 150
Contact drum diameter	mm	455	455	455	455
Sanding belt dimensions					
Max. sanding belt width	mm	1,700	2,300	2,900	3,350
Oscillation (approx.)	mm	15	15	15	15
Sanding belt length	mm	3,200	3,200	3,200	3,200
Motor output					
Sanding motors	kW	up to 132	up to 160	up to 200	up to 200
Feed motors	kW	11	11	15	18
Compressed air					
Compressed air requirement per sanding head	m³/h	0.5	0.5	0.5	0.5
Operating pressure	bar	5	5	5	5
Extractor capacity					
1 K-unit*	m³/h	18,600	25,500	31,600	37,200
1 N-unit**	m³/h	11,600	16,300	20,900	23,200
Dimensions/weights (height 3,100 mm)					
K-unit*					
Length x width	mm	4,400 x 1,700	5,000 x 1,700	5,600 x 1,700	6,100 x 1,700
Weight (approx.)	t	17	19	21	23
N-unit**					
Length x width	mm	3,700 x 2,200	4,300 x 2,200	5,100 x 2,200	5,600 x 2,200
Net weight (approx.)	t	17	19	21	23

Subject to change without notice

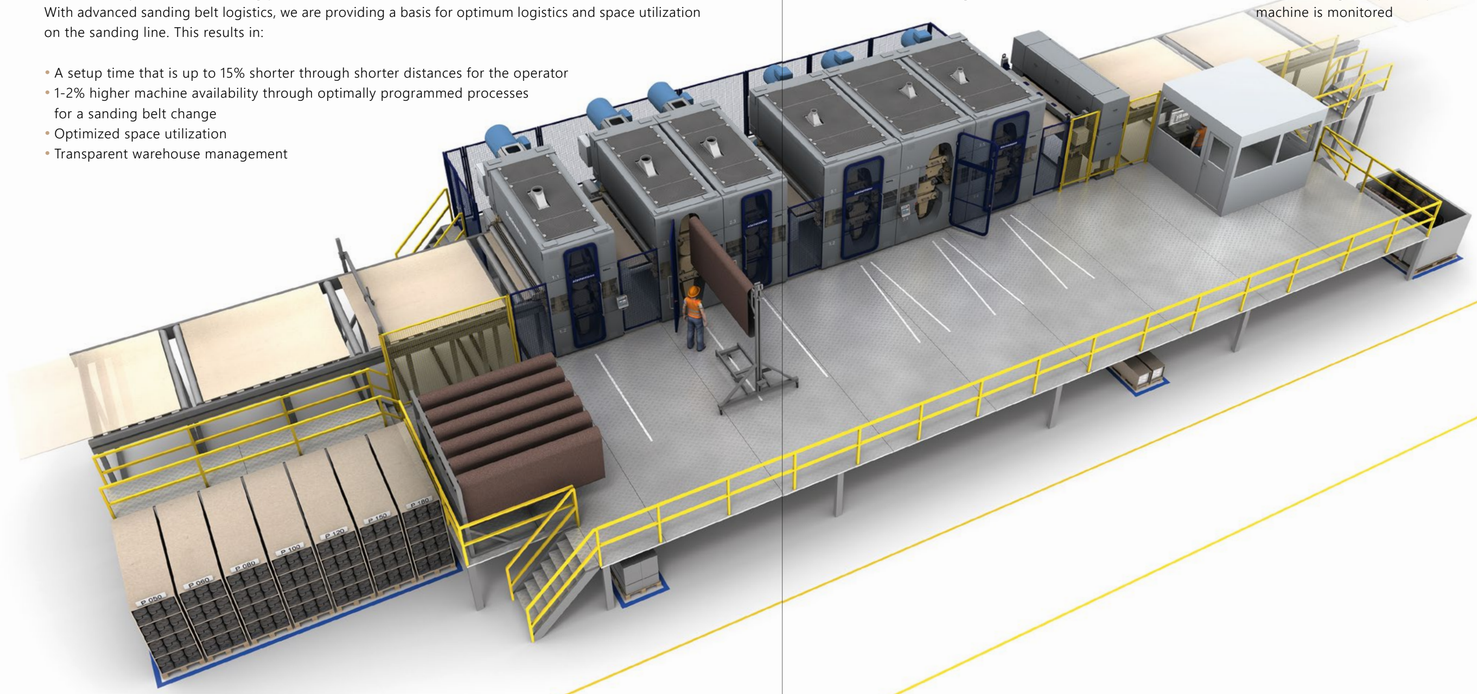
* K-unit = calibration unit with 2 oppositely disposed sanding heads
** N-unit = fine sanding with 2 oppositely disposed sanding heads

The path to an intelligent, fully integrated sanding process.

The latest generation of machines in the satos product range, the satos TSQ, offers the customary Steinemann quality with cutting-edge software and hardware technology. The TSQ is well equipped for the future and includes BQC-readiness and all the necessary software components as standard so that the machine can be fully integrated into the complete production process in wood-based panel production.

The focus goes far beyond the mere sanding of the panel surface with the satos TSQ. In the development of the new generation of machines, the sanding machine is not viewed as an independent part of the sanding line, but as the interacting centerpiece. Steinemann is therefore taking the first major steps towards a fully automated sanding process.
With advanced sanding belt logistics, we are providing a basis for optimum logistics and space utilization on the sanding line. This results in:

- A setup time that is up to 15% shorter through shorter distances for the operator
- 1-2% higher machine availability through optimally programmed processes for a sanding belt change
- Optimized space utilization
- Transparent warehouse management



OTHER FEATURES

Sequential start
- All main drives are started sequentially with the push of a button
- A choice of options enables the initialization of only selected sanding heads

Sanding belt change mode
- Stations for a sanding belt change are selected in sand belt change mode
- Selected sanding heads are slowed in a controlled manner. This ensures the faster realization of a sanding belt change at a lower machine load
- The height of the machine moves to 70 mm

Stand-by button
- All drives are switched off in a controller manner
- Dust extraction butterfly valves are automatically closed
- Sanding belts are then released

New standard sensors
- Monitoring of the sanding belt and insert change
- Locking device is monitored. If it is not closed properly, the machine cannot be started
- Display of the contact drum and sanding platen position on the machine visualization
- Panel tracking, the panel's path through the machine is monitored

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