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Project development & planning
Mechanical construction
Electrical construction
Programming
Pre-assembly
Shipment & logistics
Final assembly
Commissioning
Training for operators
After-sales service

Industries

Automotive
Construction
Flooring
Household
Cosmetic
Furniture
Utility vehicle
Sports
Textile

Your specialist for

- » Nonwoven bonding
- » Heat treatment
- » Thermofix technology
- » Process technology

**INNOVATIVE
BONDINGS**



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From left: Wolfgang Meissner, Nadine Schott, Stefan Meissner, Achim Meissner, Heinz Schott

German engineering since 1986

With pride and an awareness of our responsibility, we can say that SCHOTT & MEISSNER is the global leader in manufacturing heat treatment and nonwoven bonding production lines. Our know-how, innovative strength and "German engineering" is in demand and prized on all continents. As experienced specialists in special-purpose engineering – from construction through to commissioning – we generate exclusively customer-specific solutions at our premises in Blaufelden in the county of Hohenlohe since 1986. Quality and reliability are values that we live and which are therefore naturally incorporated in our products.

The goal of our highly motivated and committed team is to make a reality that which often seems impossible for our customers on a daily basis.

We look forward to receiving your enquiry concerning all issues relating to nonwoven bonding, heat treatment, Thermofix technology and process technology. Further information about SCHOTT & MEISSNER and our products and solutions can be found online at www.schott-meissner.de.

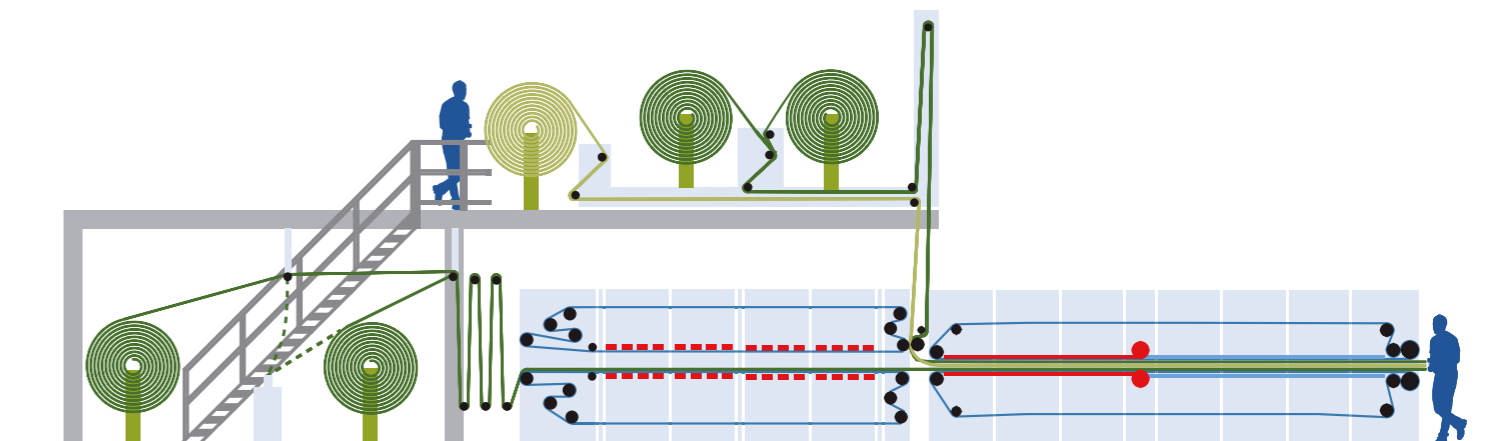
Warm regards

Heinz Schott

Wolfgang Meissner

History & milestones

- 2013 >> Completion of assembly hall 3 and office building 2
- 2011 >> Formal opening of new Technology Centre and expansion of business premises
- 2010 >> Delivery of first drum dryer to Japan
- 2004 >> Delivery of first high-speed thermobonding line to South Africa
- 2000 >> Delivery of the as yet largest flatbed laminator (double belt press Thermofix HP) to the USA.
- 1998 >> New construction of assembly hall 2
- 1992 >> Delivery of the first Thermofix flatbed laminator in Germany
- 1991 >> Move to the new premises in Rudolf-Diesel-Strasse in Blaufelden
- 1990 >> Delivery of the first two rubber thread lines to Malaysia and Turkey
- 1990 >> Delivery of a combined thermobonding and interlining line to Chile
- 1989 >> Delivery of the first RegulAirLP thermobonding line in the USA
- 1987 >> Major contract in Germany for three drying lines
- 1986 >> Delivery of the first belt oven in Germany
- 1986 >> Heinz Schott & Wolfgang Meissner establish the company





Nonwoven bonding
Heat treatment
Thermofix technology
Process technology



Heat treatment and nonwoven bonding production lines

Heat treatment is at the heart of all our production lines. We harness hot air, contact heat and radiant heat to dry, melt or thermoset various materials in a continuous or discontinuous process. We specialise in nonwoven bonding production lines for thermal bonding using fibres and powders or with bonding agents for spray application, foam impregnation or liquid binder bonding.

- 5 >> Heat recovery
- 6-11 >> Ovens & dryers
- 12-13 >> Double belt presses
- 14-15 >> Calenders
- 16-17 >> Cutting equipment
- 18 >> Material accumulators
- 19 >> Winding systems
- 20-21 >> Coating systems
- 22 >> Palletisers & customised production lines
- 23 >> Technology Centre & project planning

„ERTEC“ heat recovery system

Depending on the application, SCHOTT & MEISSNER offers various systems for heat recovery in the ERTEC (EnergyRecoveryTEChnology) range.

„ERTEC-LEAN“

The heat treatment system in the „LEAN“ series is a basic unit that was specially developed for the thermobonding processes of SCHOTT & MEISSNER. The hot exhaust air from the cooling zone is recycled in the process. The high level of heat recycling with a very low investment cost characterises this system.

„ERTEC-CROSS“

The heat recovery system series „CROSS“ is a simple system that functions according to the cross-stream principle and is intended for low exhaust air volumes. „ERTEC-CROSS“ is a complete stand-alone unit and can be seamlessly adapted to a SCHOTT & MEISSNER production line later. The unit is characterised by easy access for cleaning purposes, a high level of heat recycling and a modular design.

„ERTEC-DUO“

The „ERTEC-DUO“ takes the „CROSS“ series one step further with a 2-stage heat recovery process. In the first stage, make-up air is pre-warmed with exhaust air. In the second stage, the water-laden discharged air is brought under the dew point, i.e. the water is condensed out and can therefore be recycled back into the process.

„ERTEC-ROTO“

A heat recovery system fitted with a rotary heat exchanger disk. „ERTEC-ROTO“ is a complete stand-alone unit and can be seamlessly adapted or refitted to a SCHOTT & MEISSNER production line later. This heat recovery system is often used for large exhaust air streams or where there is limited floor-space. This system is characterised by short amortisation periods and a high level of heat recycling.



TopConLP Double Belt Air-Through Oven

The TopConLP (LowPressure) is a double belt oven in a modular design for nonwoven bonding with heated air by means of the convection-air-through principle with an option to change the direction of flow metre by metre. The fabric web is then cooled or bonded in a cooling zone, also by means of the convection-air-through principle. Additional equipment available: magnet system (to keep the upper belt in suspended position), working width adjustment, belt cleaning device, various heating systems, multi-flow zones, and calenders.

TECHNICAL DATA

Useful working width	1,200 - 6,000 mm
Zone length	2,000 mm / 3,000 mm
Free clearance between conveyor belts	max. 300 mm
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 235 °C
Fibres	PES, PP, PA, BiCo, cotton, recycling fibre, flax, hemp, Kenaf, wood fibre and sheep wool
Weight range	20 – 10,000 g/m ²
Web density	max. 250 kg/m ³ (in conjunction with calibrating rollers)
Production speed	max. 300 m/min



END USES

- >> Upholstery for furniture industry
- >> Fibrefills and interlinings for garments
- >> Insulation material buildings and the automotive industry
- >> Moulding parts for the automotive industry
- >> Filtration
- >> Geotextiles
- >> Medical applications and hygiene industry
- >> Interlining

Short lead times due to direct, highly efficient air treatment.

TopConHP Double Belt Oven with Double Hot Air Impingement

TopConHP (HighPressure) is a high-efficiency double belt oven in modular design for the thermally or chemically bonding nonwovens or nonwoven material. The fibre package is held in between the top and bottom conveyor belt and treated from both sides at high air velocity and large volumes of recirculated air. The air nozzles can be found directly on the conveyor belts or the fabric web. The air is pressed through or on the fabric at high pressure; the direct, highly efficient air treatment offers short lead times.

TECHNICAL DATA

Useful working width	1,200 - 6,000 mm
Zone length	2,000 mm
Free clearance	max. 150 mm between the conveyor belts
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 235 °C
Fibres	PES, PP, Viscose, PE, BiCo, PA
Weight range	15 - 1,500 g/m ²
Web density	max. 150 kg/m ³
Production speed	max. 300 m/min



END USES

- >> Wipes
- >> Medical application and hygiene industry
- >> Interlining
- >> Filtration

TopConMAP Double Belt Oven with either Air-Through or Air-Impingement Ventilation Mode

The newly developed TopConMAP (MultiAirPrinciple) double belt oven is a compact all-rounder in a modular design. This oven combines all the well-known and well-proven features of our TopConLP and TopConHP double belt systems in one system. This means, the oven offers adaptable air-through handling per metre and highly efficient impingement ventilation from both sides. The highlights of this oven are its high flexibility, compact design and the newly developed air ventilation principle, which ensures that there is negative pressure on the entire outer oven insulation for optimal leak tightness.

TECHNICAL DATA

Useful working width	1,200 - 6,000 mm
Zone length	2,000 mm
Free clearance	max. 300 mm between the conveyor belts
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 240 °C
Fibres	PES, cotton, recycled fibre, flax, hemp, Kenaf, wood fibre and sheep wool, PP, PE, BiCo
Weight range	20 – 10,000 g/m ²
Web density	max. 250 kg/m ³ (in conjunction with calibrating rollers)
Production speed	max. 200 m/min

AirConTS Double Belt Oven

AirConTS is a sturdily designed double belt oven, especially made for the production of semi- or fully cured material, made of recycled fibre or fibre glass in combination with duroplastic binders, such as phenolic resin or epoxy resin. Heat treatment is by means of the air-through ventilation principle; the air flow per heating zone is fixed. The highlight of this oven is its sturdy design and easy accessibility to the oven interior for cleaning purposes. If required, the oven can also be designed with a steel plate conveyor.

TECHNICAL DATA

Useful working width	1,200 - 3,200 mm
Free clearance	max. 200 mm between the conveyor belts
Heating media	Natural gas, LPG, heat transfer oil
Working temperature	max. 240 °C
Fibres	Recycled fibres, glass fibre
Binders	Phenol or epoxy powder
Weight range	20 – 4,000 g/m ²
Web density	max. 100 kg/m ³
Production speed	max. 25 m/min



Our "all-rounder"

END USES

- >> Upholstery for furniture industry
- >> Fibrefills and interlinings for garments
- >> Insulation material for the building and automotive industry
- >> Moulding parts (semi-finished) for the automotive industry
- >> Filtration
- >> Medical application and hygiene industry
- >> Interlining
- >> Wipes
- >> Application for air-impermeable products
- >> Carpet backing
- >> Double-coated nonwoven materials



END USES

- >> Glass fibre insulation material for building industry
- >> Recycled fibre moulding parts for the automotive industry
- >> Heat-proof fibre glass moulding parts for the automotive industry
- >> High density natural fibre insulation material

DrumDryHP Air-Through Drum Dryer

With its innovative construction, the new drum dryer is a cut above the rest – “old technology” receives new honours! The further developed, improved heating system, based on the mixing chamber principle, in combination with innovative insulation ensure optimal use of the energies used. Never before has it been possible to achieve homogenous and accurate temperature distribution across the entire sieve drum surface and fabric web width! Furthermore, special attention was paid to maintenance friendliness, easy accessibility for cleaning, as well to oven leak-tightness and temperature distribution.

TECHNICAL DATA

Useful working width	1,200 - 5,000 mm
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 235 °C
Fibres	PES, PP, PA, PE, Viscose, Cellulose, etc.
Weight range	10 – 1,000 g/m ²
Production speed	max. 500 m/min



END USES

- >> High-efficiency dryer in spunlace or WET-LAID production lines
- >> Thermosetting for e.g. roofing felts
- >> Thermosetting in spunweb production lines
- >> Direct bonding in ADL production lines (Acquisition Distribution Layer)
- >> High-efficiency dryer for finishing lines
- >> Product examples: Cotton pads, medical cover sheets, wipes, diapers, feminine hygiene products, etc.

RegulAirLP Single Belt Air-Through Oven

The RegulAirLP, in a modular design, works with the air-through process and is usually used for processing lightweight and air-permeable products which do not require a top conveyor. The air is forced to pass vertically through the fabric web, which allows gentle treatment of the fibres at low air velocities. Relevant technical features ensure optimal overall air and temperature distribution in the oven across the entire length and breadth of the ventilation area. The oven can be supplied with an air flow adjustment mechanism and, if needed, it can be fitted with a conveyor cooling zone. The flat design of the production line allows multiple ovens to be arranged on top of each other.



TECHNICAL DATA

Useful working width	1,000 mm - 7,000 mm
Zone length	2,000 mm, 3,000 mm, 4,000 mm, 5,000 mm
Free clearance	max. 400 mm
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 450 °C
Applications	Drying, thermobonding, sintering
Weight range	20 - 8,000 g/m ² (air-permeable)
Production speed	max. 300 m/min

END USES

- >> Fibrefills and interlinings for garments
- >> Thermobonding for lightweight nonwovens (no top conveyor)
- >> Interlining
- >> Drying after impregnation

RegulAirHP Single Belt Oven with Air Impingement Ventilation

RegulAirHP with single air-impingement ventilation.

Single air-impingement ventilation is used to dry the surfaces of mostly air-impermeable products, e.g., after coating, printing or one-sided impregnation. Depending on the product, the nozzles used are either hole-type or slot-type nozzles.

RegulAirHP with double air-impingement ventilation

Double air-impingement ventilation is used for drying heavyweight air-permeable materials such as carpets, or after impregnation from both sides. The air ventilates from both sides to the fabric web. The ratio between the top and bottom air can be adjusted.

TECHNICAL DATA

Useful working width	1,000 mm - 7,000 mm
Zone length	2,000 mm, 3,000 mm, 4,000 mm, 5,000 mm
Free clearance	max. 200 mm between the conveyor belts
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 450 °C
Application	Drying, sintering
Weight range	20 - approx. 1,500 g/m ² (air-impermeable)
Production speed	max. 300 m/min



END USES

- >> Carpet backing
- >> Interlining
- >> Air-impermeable fabric webs
- >> Drying of coated and impregnated fabric webs

Up to 3 different
air treatment systems
can be combined

3-Pass Dryer / Spray Bonding Lines

In its 3-pass dryer, SCHOTT & MEISSNER places special importance on the compact and modular design. If required, up to 3 air treatment systems, e.g. air-through or single- or double air impingement ventilation can be combined in one oven. The compact construction of this dryer ensures that any length treatment sections can be realised in the smallest possible floorspace. SCHOTT & MEISSNER has earned an excellent reputation in particular in the field of spray bonding by means of abrasive dispersion.

TECHNICAL DATA

Useful working width	1,200 - 5,000 mm
Zone length	3,000 mm, 4,000 mm, 5,000 mm
Free clearance	max. 400 mm
Heating media	Natural gas, LPG, heat transfer oil, steam, electric energy
Working temperature	max. 235 °C
Fasern	PES, cotton, flax, hemp, Kenaf, wood fibre and sheep wool
Production speed	max. 200 m/min



END USES

- >> Abrasive webs, (scouring pads)
- >> Spray-bonded PES-nonwovens for winter garments, sleeping bags, etc.
- >> Latex-bonded natural fibre, e.g. coconut fibre mattress pads
- >> Interlining
- >> Spunlace lines, 3-pass dryers as an alternative to drum dryers
- >> Spray application of activated charcoal for filter applications

"IR-Bond" Infrared Channel

SCHOTT & MEISSNER manufactures and designs complete coating production lines, e.g. for coating carpet backings. In addition to coating a backing by means of a doctor blade and dryer, the powder coating can be subsequently integrated in a dryer production line by means of a directly installed powder scatterer and IR oven. The IR channel can, in turn, also act as a pre-dryer for other production line concepts.

The IR channel by SCHOTT & MEISSNER has a modular design. The treatment lengths and useful working widths can be adjusted in accordance with process requirements.



TECHNICAL DATA

Useful working width	1,200 - 6,000 mm
Zone length	1,000 mm, 1,500 mm
Free clearance	max. 300 mm
Heating media	IR emitter (medium-wave/long-wave)
Melt powder	Co-PA, Co-PES, HD-PE, LD-PE, EVA, TPU
Production speed	max. 100 m/min

END USES

- >> Powder coating of carpet backings for later carpet forming or laminating, interior finishing for cars, trucks, etc.
- >> Carpet finishing - carpet backing by means of decor, fabric, foil or foam
- >> IR oven as pre-dryer in front of a convection oven, belt oven or drum dryer
- >> Additional module for a Thermofix double belt press

VapConHT Steam Oven

The steam oven manufactured by SCHOTT & MEISSNER is used in nonwovens bonding by means of phenolic powder or epoxy resin for either semi-curing or assisting in full-curing. The steam penetrates the fibre package and the thermal energy of the steam is used to activate the phenolic resin; this results in a first cohesion between powder and fibre. A double belt oven (TopConLP; AirConTS) is downstream to the steam oven in the full-curing process. Due to the pre-activation of the powder in the steam oven, the fabric web can be hardened in the double belt oven. A relevant thickness calibration can be undertaken via the double conveyor belt.



TECHNICAL DATA

Useful working width	2,000 - 3,200 mm
Zone length	2,000 mm, 3,000 mm
Free clearance	max. 250 mm
Heating media	Steam, heat transfer oil
Working temperature	max. 160 °C
Fibre / application	Cotton, recycled fibre, glass fibre
Powder	Phenol or epoxy powder
Weight range	600 - 4,000 g/m ²
Production speed	max. 15 m/min

END USES

- >> Semi- and fully-cured recycled nonwovens for the automotive industry
- >> Fully-cured insulation material for domestic appliances

MatCon Pre-Heating Oven

We offer various types of pre-heating ovens specifically designed for the needs of the automobile supplier industry in order to heat up nonwoven mouldings before they are taken to cold moulds or to shorten the residence time in hot moulds. The MatCon dryer is characterised by its discontinuous mode of operation. The cycle time of the oven is determined by the cycle time of the stationary moulds. The basic version of our pre-heating oven contains a „double-drawer-system“, which means, while one drawer is drawn in the oven for heating up the moulded part, the second drawer is pulled out for being unloaded and / or loaded with a moulded part. Drawer movement is motor driven.



TECHNICAL DATA

Useful working area	2,400 x 3,200 mm, or as required
Heating media	Natural gas, LPG, heat transfer oil, electric energy
Working temperature	max. 235 °C
Fibres	PES, PP, PA, BiCo, cotton, recycled fibre, flax, hemp Kenaf, wood fibre
Weight range	1,000 - 4,000 g/m ²
Cycle time	approx. 50 sec. (depending on cycle of moulding press)

END USES

- >> Moulding parts for the automotive industry
- >> Moulding parts for the furniture industry

Drying or pre-drying of fast running fabric webs

"CanDry" Cylinder Dryer

SCHOTT & MEISSNER's cylinder dryer is predominantly used for drying or pre-drying of high-speed fabric webs using contact heat, e.g., for interlining or hygiene applications. Inline combinations with one of our drum or belt dryers allows us to offer highly efficient drying concepts with low energy consumption. Speeds of up to 300 m/min can be reached. The number, diameter, etc of the heating drums are fitted and adjusted in accordance with the technical requirements of the process.



TECHNICAL DATA

Useful working width	1,200 - 6,000 mm
Diameter of heating drum	500 mm, 600 mm, 800 mm
Heating media	Heat transfer oil, steam
Working temperature	max. 235 °C
Fibres	PES, PA, Viscose, cotton, etc.
Weight range	20 - 100 g/m ²
Production speed	max. 300 m/min

ANWENDUNG

- >> Medical applications and hygiene industry
- >> Interlining
- >> Wipes
- >> Filtration
- >> Pre-drying
- >> Technical nonwovens

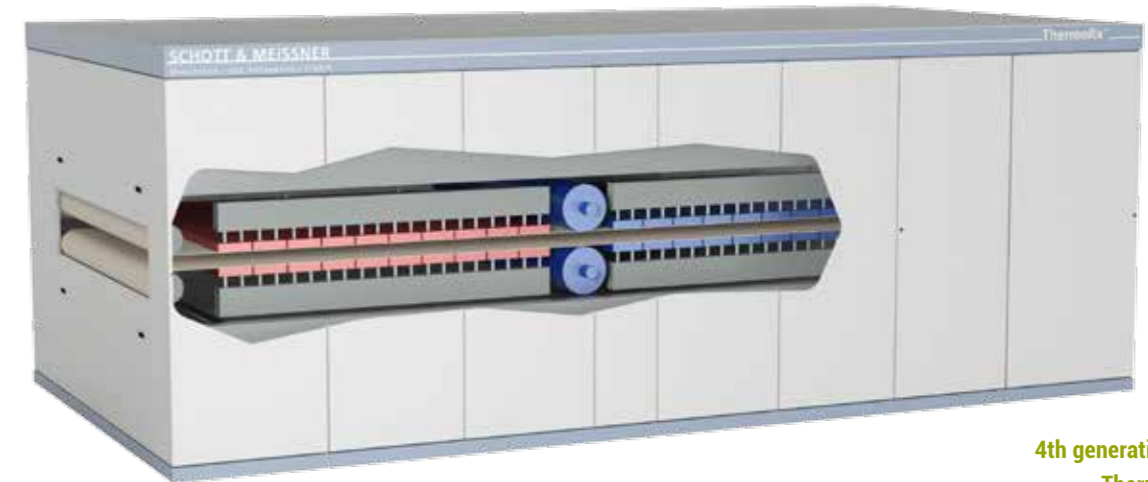
Thermofix®-Technology

The functional principle of Schott & Meissner's flatbed laminator Thermofix® is a combination of contact heat and pressure. The product to be processed is passed through the flatbed laminator or double belt press between two teflon-coated conveyor belts and heated by means of heating plates that are positioned behind the conveyor belts.

The product, still held between the two conveyor belts, is then passed through one or multiple pairs of nip rolls, arranged

inline one after the other and calibrated. After the heating zone, the double belt press has a cooling area. Here, the product is "thermoset" by means of cooling plates, which are also positioned right behind the conveyor belts.

With the lifting unit of the cooling plates, which is separate and independent of the heating zone, the product can, in addition, be calibrated to the required thickness in the cooling zone and thermoset.



4th generation heavy-duty Thermofix (Type III)

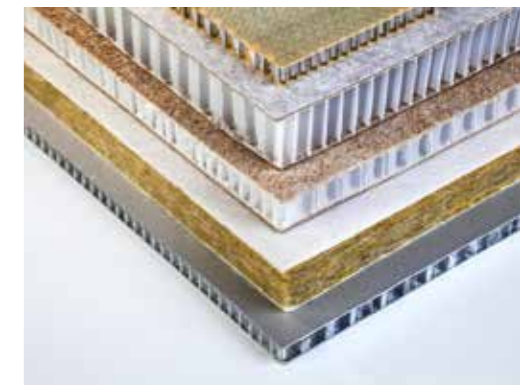


Laminating, backing and consolidation by means of temperature and pressure



TECHNICAL DATA

Dimension	I	II	III
Useful working width	1,000 - 1,800 mm	1,800 - 2,400 mm	2,400 - 3,200 mm
Free clearance	200 mm	200 mm	500 mm
	between the conveyor belts		
Heating media	Heated heat transfer oil using natural gas, LPG, electric energy		
Working temperature	max. 240 °C		
Zone length heating/cooling	1,000 mm, 2,000 mm, 3,000 mm		
Production speed	max. 25 m/min		



END USES

- >> Production of sandwich panels / composites (e.g.: vehicle construction - walls, superstructures, belly plates, interior panels, insulation panels, etc.)
- >> Production of honeycomb panels / composites (e.g.: vehicle construction - walls, superstructures, belly plates, interior panels, sound absorption elements, formwork elements, etc.)
- >> Thermobonding of nonwoven materials, e.g. TWINTEX or glass fibre webs with PP
- >> Thermobonding of grit, e.g. PVC granules to floor coverings
- >> Thermobonding of several textile fabric webs (e.g. interlinings)
- >> Thermobonding of fibre-reinforced plastics (e.g. underbody panels in vehicles)
- >> Thermobonding of recycled material to insulation panels or moulded parts (e.g. interior linings for wheel housings)
- >> Thermal lamination of multiple layers of fabric, foil and foam (e.g. headliners in vehicles)



Nonwoven webs are calibrated to the required density.

Cooling calenders

Cooling calenders made by SCHOTT & MEISSNER are mostly found in combination with a hot air convection oven or a double belt oven (series: TopConLP; Top- ConHP; TopConMAP), in order to thermoset and calibrate well-tempered fabric web to the required high density (up to 300 kg/m³). The cooling calender is characterised by a sturdy and robust design, high precision, maintenance-friendliness and quick roller-change system. Additional components such as cooling units, hydraulic units and special roller surface coatings round off the range.

TECHNICAL DATA	
Useful working width	1,000 - 7,000 mm
Roller diameter	max. 850 mm
Cooling medium	Water
Surface treatment	approx. 20 °C
Surface quality	chrome, Teflon, all types of special coatings
Linear load	max. 50 N/mm (for narrow useful working widths)
Pressure source	pneumatic, hydraulic
Production speed	max. 300 m/min

END USES	
Cooling calender as downstream equipment after double belt oven to compact well-tempered nonwoven webs made of:	
>>	Natural fibres (hemp, flax, etc.)
>>	Recycled fibres
>>	Viscose; PES; PP; PA



Cooling calender with 6,000 mm useful working width



Surface finishing calender for polyester nonwovens with thermal oil heater

Heating calender

One of our best sellers since its introduction to the market, the heating calender made by SCHOTT & MEISSNER is characterised by its temperature accuracy, sturdy design, high precision roller adjustment, maintenance-friendliness and quick roller-change system. Depending on the process requirements and linear pressure range the calender can be fitted either with pneumatic or hydraulic cylinders. Additional components such as the roller gap compensation system, a heating unit, cooling unit, twin motor drive, and special roller surface coatings round off the range.

SCHOTT & MEISSNER's hydraulic heating calender has made an excellent name for itself especially in the field of geotextile production with useful working widths of up to 7,000 mm.

TECHNICAL DATA	
Useful working width	1,000 - 7,000 mm
Roller diameter	max. 850 mm
Heating medium	Heat transfer oil
Surface temperature	max. 240 °C
Surface quality	chrome, Teflon, all types of special coatings
Linear load	max. 100 N/mm
Pressure source	pneumatic, hydraulic
Production speed	max. 300 m/min

END USES	
Surface finishing, thermosetting and	
>>	Geotextiles
>>	Wipes
>>	Interlining
>>	Spun bond fabrics
>>	Fibrefill nonwovens
>>	Natural fibre nonwovens
>>	Spunlace
>>	Technical nonwovens

Longitudinal cutters

„Crush Cut Principle“ Series PLC1 / PLC2

For lightweight webs, which allow a „squeeze“ of the cutting edge or fabric web, e.g. fibrefills for garments, geotextiles or wipes.

- >> Cutting blade: max. Ø 450 mm
- >> Web thickness: max. 150 mm
- >> Web density: max. 60 kg/m³
- >> Weight: up to approx. 2,000 g/m²

“Powered Blade Principle” Standard Design Series RLC 1

For products of heavier weight ranges, which require a right-angled cutting edge. (e.g. wadding for furniture, upholstery or children's mattresses)

- >> Cutting blade: max. Ø 610 mm
- >> Web thickness: max. 220 mm
- >> Web density: max. 80 kg/m³
- >> Weight: up to approx. 2,000 g/m²

“Powered Blade Principle” Special Design Series RLC 2

This longitudinal cutter was especially developed for very thick nonwoven materials, which require a right angled cut on the cutting edge, i.e. for insulation materials of all kinds. If required, each cutting head can be fitted with a sharpening and cooling unit

- >> Cutting blade: max. Ø 810 mm
- >> Web thickness: max. 300 mm
- >> Web density: max. 120 kg/m³
- >> Weight: up to approx. 10,000 g/m²



Used for building insulation, etc.



Cross cutter

Series RXC1 – Rotary Blade, Powered

For lightweight nonwoven webs and slow fabric webs that can be stopped briefly for cross cutting.

- >> Type: powered rotary blade
- >> Cut: fabric web must be stopped briefly for cross cutting
- >> Cutting frequency: approx. 7 cuts/min
- >> Web thickness: max. 180 mm
- >> Web weight: max. 2,000 g/m²
- >> Blade diameter: max. Ø 400 mm
- >> Products: nonwoven filters, needle-punched nonwovens, fibrefills, etc.



Series RXC2 – Rotary Blade, Powered / Cut-On-The-Fly

For lightweight to very heavyweight webs. No temporary stop of fabric web required for the cross cutting. The cross cut is realized synchronously to the web's production speed, in a cut-on-the-fly-principle.

- >> Type: rotary blade, powered and cut-on-the-fly
- >> Cut: cut-on-the-fly cross cut, synchronized to the web's production speed, no line stop required
- >> Cutting frequency: approx. 8 cuts/min
- >> Web thickness: max. 300 mm
- >> Web weight: max. 10,000 g/m²
- >> Blade diameter: max. Ø 810 mm
- >> Products: insulation materials



Series PXC – Pneumatic Guillotine

For lightweight to mediumweight fabric webs that must be cut without stopping

- >> Type: Guillotine / pneumatic knife bar
- >> Cut: fabric web does not need to be stopped for cutting
- >> Cutting frequency: max. 25 cuts/min
- >> Web thickness: max. 145 mm
- >> Web weight: max. 3,000 g/m²
- >> Products: Recycled webs, nonwovens, fibrefills, needle-punched nonwovens



Series HXC1 / HXC2 – Hydraulic Guillotine

For lightweight to heavyweight and high-speed fabric webs that must be cut or perforated without stopping.

- >> Type: Guillotine / hydraulic knife bar
- >> Cut / perforation: Fabric web does not need to be stopped
- >> Cutting frequency: max. 45 cuts/min
- >> Web thickness: max. 185 mm (HXC1), max. 250 mm (HXC2)
- >> Web weight: max. 5,000 g/m²
- >> Special feature: serrated knife for perforation and kerf adjustment
- >> Products: Fibrefill nonwovens, insulation materials, needle-punched nonwovens, recycled webs, nonwovens, etc.



Roller Accumulator

Accumulator with one- or two-slit technology that is characterised by a basic material thread-in as well as precise control of the tensile strength of the material. Suitable for lightweight to heavyweight fabric webs that can be diverted via rollers taking into account the tensile strength.



Material accumulator, i.e. continuous flow of material through various accumulators



J-Box Accumulator

Compact design.
A significant amount of accumulator capacity can be realised with this type of accumulator. A requirement for this is, however, that the fabric web can be loop-accumulated. Draw-in rollers ensure that the fabric web is laid into a sheet metal tray; the tray is emptied by draw-off rollers. Its use is limited to very lightweight materials.

Belt accumulator

Simple design.
A significant amount of accumulator capacities can be realised with this type of accumulator. A requirement for this is, however, that the fabric web can be accumulated in "loops". Draw-in rollers lay the fabric web onto a running belt in loops; they are removed from the conveyor belt by draw-off rollers.

Z-Box Accumulator

The Z-box accumulator made by SCHOTT & MEISSNER is characterised by its compact design. The specific Z-arrangement of the sliding and accumulating areas allows the accumulation of large material quantities, without any compression stress to the material.

Ascending Batch Winder

The ascending batch winder made by SCHOTT & MEISSNER, also known as a surface winder, is a simple standard machine for winding slow fabric webs, however, up to a useful working width of 7,000 mm. These winding systems are used in particular for wadding, nonwoven geotextiles, wipes, technical and needle-punched nonwovens. The ascending batch winder can be upgraded by additional components and to increase the flexibility or the degree of automation. Add-on components can be e.g. a supporting roller for winding compression, an automatic ejection device for final winding or an integrated cross cutter.

TECHNICAL DATA	
Max. useful working width	7,000 mm
Max. roller diameter	1,200 mm / 1,500 mm
Max. production speed	20 m/min (with material accumulator up to 50 m/min)



Centre Winder

The basic centre winder made by SCHOTT & MEISSNER, also known as a batch / winding trolley is used mainly for double belt presses and laminating technology, i.e. where jumbo rolls of nonwoven materials, textiles, foils or other sheet materials must be effectively wound, transported and temporarily stored. Thin fabric webs must be wound up tightly here.

The centre winder can be optionally fitted with pivot bearings, a drive or support arm. Depending on requirements, the centre winder is also available for different diameters. The centre winder by SCHOTT & MEISSNER can of course also serve as a supply hub for offline-lines. Mostly, however, this winder is installed to a line in combination with a material accumulator.

TECHNICAL DATA	
Max. useful working width	7,000 mm
Max. roller diameter	2,000 mm
Max. production speed	20 m/min (with material accumulator up to 50 m/min)



Automatic Winder

SCHOTT & MEISSNER's automatic ascending batch winders can be found in particular in the field of „high-loft“ nonwoven wadding. Very thick and solid fabric webs can be wound with this winder. The special double winding station and automatic ejection of the finished roll allows a virtually flying changeover to a new role without physical material accumulation having to be undertaken. The winder can be fitted with various additional components such as a tape or roller for compression.

TECHNICAL DATA	
Max. useful working width	5,500 mm
Max. roller diameter	1,500 mm
Max. production speed	50 m/min



Wet Coating Systems

Foam Impregnating Unit

Currently the most common, widely-spread and most flexible impregnation principle on the market is surface coating by means of single-, double-sided or full impregnation. As the liquor is "foamed", the water input and thus the amount of moisture to be driven out is very low.

Bath Impregnation

(full impregnation)

The fabric web is conveyed or dipped through a dispersion bath and then squeezed out through a pair of nip rolls. Besides actual web bonding, this type of impregnation can also be used e.g. for the antibacterial finishing of a nonwoven length (hygiene products, clothes, wipes, etc.)

Roller / Air Doctor Blade Impregnation

(single-sided surface coating)

With roll doctor blade: for higher coating volumes; the finish is realised in the gap between the roller and the doctor blade.

With air doctor blade: for lower coating volumes; the doctor blade scrapes the surface of the tightened fabric web without support.

Slope Padding / Kiss Coating

(single-sided surface coating using a scoop roller)

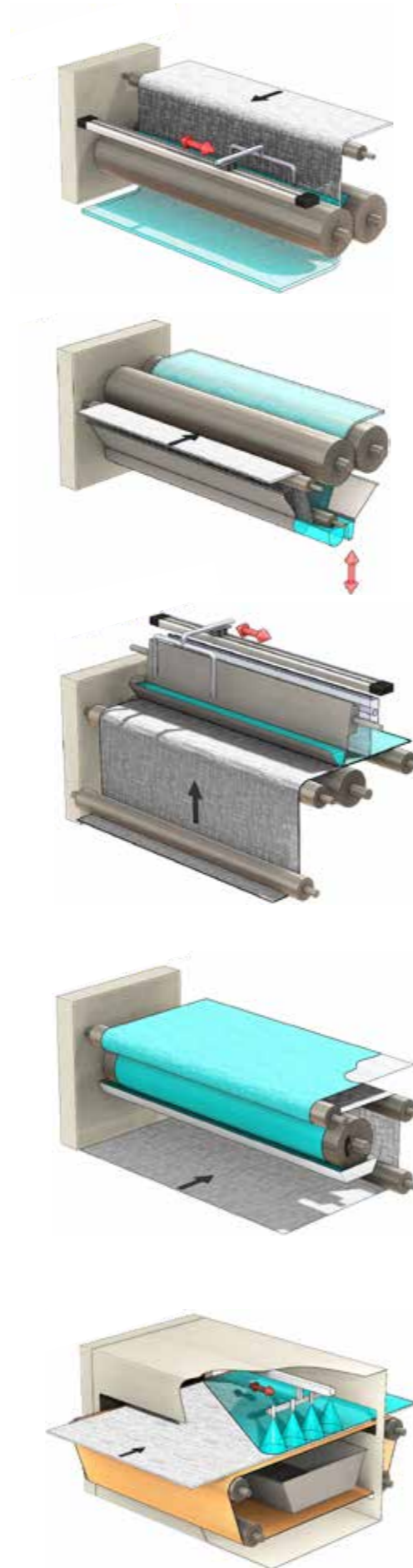
The scoop roller dips into a dispersion bath and then applies the liquor on the fabric web.

"Slope Padding": single-sided finishing by means of high-viscosity dispersion (e.g. for carpet backing); alternatively **"Kiss Coating"** for single-sided finishing by means of low-viscosity dispersion (e.g. for top layers of diapers)

Spray Application

(single- or double-sided surface coating)

This process is mainly used in the production of high quality wadding or abrasive nonwoven materials. Application is by means of alternating spray nozzles, crosswise to the fabric web flow.



Dry Coating Systems

Powder Scattering System "PowderScatt"

This powder scattering system is mainly used for scattering powders such as EVA, PP, HDPE, copolyamide, etc. The particles are brushed off the scattering roller by means of an eccentric wheel driven needle unit.

- >> Useful working width: max. 5,000 mm
- >> Material: powder
- >> Grain size: 100 - 600 µm
- >> Scattering amount: 5 - 250 g/m²

Granule Scatterer „GranScatt“

This granule scatterer is suitable for granules in the form of PVC, wood corundum granules, activated charcoal, etc. A brush roller gently releases the particles off the scattering roller, with no mechanical working of the granules, to prevent any change or damage to the original form.

- >> Useful working width: max. 5,000 mm
- >> Material: granules
- >> Grain size: > 0.5 mm
- >> Scattering amount: 250 - 5,000 g/m²

Universal Scatterer „UniScatt“

Combines the two scattering units „PowderScatt“ and „GranScatt“ in one unit. A quick roller-exchange system allows a fast process changeover from powder to granule. The unit is particularly well-suited if the particles are very varied.

- >> Useful working width: max. 5,000 mm
- >> Material: powder and granules
- >> Scattering amount: 15 - 5,000 g/m²

Fibre Scatterer „FiberScatt“

This unit recycles fibre waste.

It allows shredded fibre waste that arises when moulding non-woven mats (e.g. for vehicle wheel-housing linings) back into the production process.

- >> Useful working width: max. 4,500 mm
- >> Material: shredded fibre waste
- >> Scattering amount: 300 - 2,000 g/m²

Twin Scatterer „TwinScatt“

Combines the two scattering units "PowderScatt" & "FiberScatt" in one unit. When scattering fibre, it may be that the required amount of adhesive is not available. The integrated powder scatterer allows controlled doses of adhesive powder into the process.

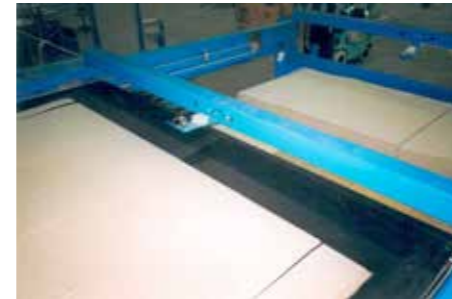


Palletizers

Schott & Meissner's fully automatic palletizer is characterized by short cycle times and precise stacking tolerances. The stacking unit consists of three conveyor belts:

- >> Acceleration belt
- >> Shuttle belt
- >> Stacking belt / transverse belt

Due to the high draw-off speed on the acceleration belt, the nonwoven pads are separated and the distance to the next pad is increased. Time is thus gained for the pads to be piled up on a stack. The nonwoven pads are transferred off the acceleration belt and onto the shuttle belt. In a "return lift", the shuttle belt lays the nonwoven pads onto the stacking belt.



TECHNICAL DATA

Useful working width	max. 5,000 mm
Pad length	max. 3,000 mm
Stack height	max. 1,500 mm (special designs available)
Production speed	max. 20 m/min

Customised Production Lines

Our competence in designing and manufacturing customised production lines, in particular in nonwoven technology, is based on decades of experience.

Combined Ovens

Often, the combination of two different heat treatment systems is crucial to either ensure a better flexibility of the line or to achieve specific product end features. For instance, an oven system (TopConLP, RegulAir LP, etc) can be combined with the Thermofix® double belt press.



Sintering Furnace / High Temperature Furnace

This type of high temperature furnace or sintering oven was especially developed for temperature ranges up to 450°C. The innovative air ventilating system makes it possible for the fabric web to "float" with the result that this oven can also do away with the transport system, if needed. This system is also able to handle heat recovery and thermal incineration.



Shelf Dryer / Compartment Dryer

The dry goods to be treated by either overstream ventilation or dried by hot air, are put onto carriers or trays. The transport trolleys can be manually pushed into the dryer; with higher levels of automation, the trolleys can be cycled from zone to zone through the dryer.



Project Planning

The development, planning and design to the point of final installation of tailor-made machines and complete production lines is our business. Each customer receives his tailor-made production line, specifically designed to his individual needs. We have, however, retained our flexibility in order to ensure that the most recent experiences, technologies and innovations are included on a practical level so that we can continuously improve. Our philosophy is to maintain a continuous and genuine

relationship with our customers. Despite our many years of experience we always strive to incorporate new ideas in our concepts – which is also ultimately to your benefit! Set the course for a successful future for your business. For you we are the guarantors of innovative technologies and maximum production efficiency with low energy consumption.

>> System solutions from one source. Quality made in Germany!



Continuous development & progress through our laboratory facility in Blaufelden

Technology Centre

At our Technology Centre in Blaufelden, we have built a laboratory facility in which we, together with our customers, test new product ideas and determine the setting parameters for the production lines to be produced at a later stage.

We place particular emphasis on using the Technology Centre in as many ways as possible. We can carry out tests with the individual units such as the scattering systems, dryers or

Thermofix® units. The individual units can also be combined into a complete production line for laminating, backing or consolidation. Flexibility through rail systems: Our Thermofix® laboratory is installed on rails. We can therefore take it close as possible to the pre-dryers so that the pre-heated material does not cool down. If a scattering system needs to be placed between the pre-warming and Thermofix stages, it is simply moved back.