



# SOPREM

SWISS QUALITY 

DECOILING  
STRAIGHTENING  
FEEDING

ACCUMULATING  
REWINDING  
TRAVERSING

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- Automotive Industry
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- Aircraft Industry
- Building Industry

SOPREM is your partner for tailor-made solutions in mechanical engineering, from consultation and design through to production and after-sales service. Our company has over 50 years of experience in different industrial sectors. Experience that benefits our customers. We offer comprehensive consultancy and find the most economic solution for every application.

We use high quality materials and the latest drive and control technology in mechanical engineering. This quality awareness produces reliable machines with a long service life. An investment that pays off in the long term.





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### >01 Design and Development

Planning and preparation of the mechanical and electrical design is undertaken by a team of highly experienced designers. They will also design complex lines and the appropriate control units as required, our production capability is supported through partnerships with specially selected companies in the branch.

### >02 Production

Our CNC-controlled production machinery can produce parts economically within the required tolerances. We produce special and larger parts in cooperation with selected partners in top quality. With this constellation, we achieve high flexibility throughout planning and management of our production.

### > 03 Assembly

Our large assembly workshop allows the installation and testing of large, special lines. Mechanical and electrical installation is undertaken by a well-trained team of mechanics, automation engineers and electronics specialists at SOPREM.

### > 04 After-sales services

Our technical after-sales service gives you excellent advice and fault-finding remedies can often be found through a telephone call. SOPREM holds a large variety of spare parts in stock, ready for quick instant dispatch.

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Our decoilers/rewinders are equipped with various mandrels to suit the respective requirements. Precision mandrels with centrally adjustable coil clamping are being used increasingly. This version is kind on the edges of thin and narrow strip and guides it accurately. Decoilers/rewinders for horizontal coil handling as well as for processing of carrier bobbins, also with traversed strip, round off our range.

The most common small decoilers/rewinders from SOPREM are suitable for a coil weight of 30 to 500 kg. Several thousand units are in use world-wide and are particularly popular in the watch-making industry and in the electrical contact industry. SOPREM builds decoilers/rewinders up to a loading weight of 8000 kg. The wide range of options such as different loop controls, decoilers/rewinders for interlayer material, strip transfer systems and pivotable decoilers/rewinders complete our range.



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**> 05 Decoiler/Rewinder**

Loading capacity 1000 – 2000 kg, equipped with a three jaw mandrel with central coil clamping. Options such as different drive and brake systems, pressing arms and various loop controls are available.

**> 06 Double Decoiler/Rewinder**

Loading capacity 2 x 1500 kg. This considerably reduces the retooling time from one coil to the next. Options such as different drive and brake systems, pressing arms and various loop controls are available. All single coilers are also available as double coilers.

**> 07 Decoiler/Rewinder**

Loading capacity up to 100 kg, equipped with a precision mandrel with central coil clamping, an interlayer rewinder/decoiler and loop control by dancer arm. For processing thin, narrow strips and pre-punched material, frequently in the electrical contact and watch industry.

**> 08 Motorised Bobbin Decoiler**

Loading capacity 200 – 1000 kg, equipped with two supporting shafts and rubber-coated drive sleeves. The bobbin is placed on the shafts and is driven by these. Different material loop controls are available.

**> 09 Motorised Bobbin Decoiler**

Loading capacity 200 – 2500 kg, equipped with two quills for clamping, lifting and driving the bobbin. All movements are automated. Different material loop controls are available.

**> 10 Triple Pallet Decoiler**

With fine adjustable strip extractor, suitable for decoiling thin, narrow strips. Our product range includes single, double and triple pallet decoilers. These devices can also be used very well in combination with all of our straighteners. A wide range of options allows us to supply specific client solutions.

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More and more often, the punching industry uses a motorised strip straightener in front of the press. Straightening conserves tools thereby producing more accurate components. As the strip is fed over a loop into the feeder without any pulling force, higher production rates can be achieved.

Part levellers are used in laser technology among other applications. Parts cut out by lasers or punched often have to be straightened afterwards. SOPREM has acquired the Schubert straightener program and offers a wide range of machines.

We determine the most suitable straightener size and the most suitable straightening geometry with you in straightening tests conducted prior to any machine purchase.



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#### > 11 Precision Straightener

With 19 straightening rolls, equipped with an ultrasonic loop control. The upper rocker can be inclined longitudinally and transversally and therefore also enables straightening of strips with wavy edges and sabre shapes. The lower roll assembly block can be pulled out to clean the straightening rolls.

#### > 12 Part Leveller

With 19 straightening rolls, diameter 6 mm. For straightening very thin parts. Automatic feeding and optional automatic ejection of parts. This machine can also be supplied with loop control and can be used as a strip leveller.

#### > 13 Strip Cleaning Unit

Strip cleaning unit with support for installation before the strip straightener or feeder. Dirt collection tray made of stainless steel. Two rotating brushes arranged one above the other with dirt scraper. Adjustable brush rotation speed, fitting for industrial vacuum cleaner.

#### > 14 Strip Straightener

With 9 straightening rolls for medium straightening, equipped with an ultrasonic loop control. With this device, the strip bend can be straightened out and some of the material tensions can be smoothed out. The upper rocker can be lifted by «swing opening» for easier cleaning of the rolls.

#### > 15 Part Leveller

With 23 straightening rolls, diameter 30 mm. For straightening material thicknesses up to 6 mm. Automatic feeding and optional automatic ejection of parts. This machine can also be supplied with loop control and can be used as a strip leveller.



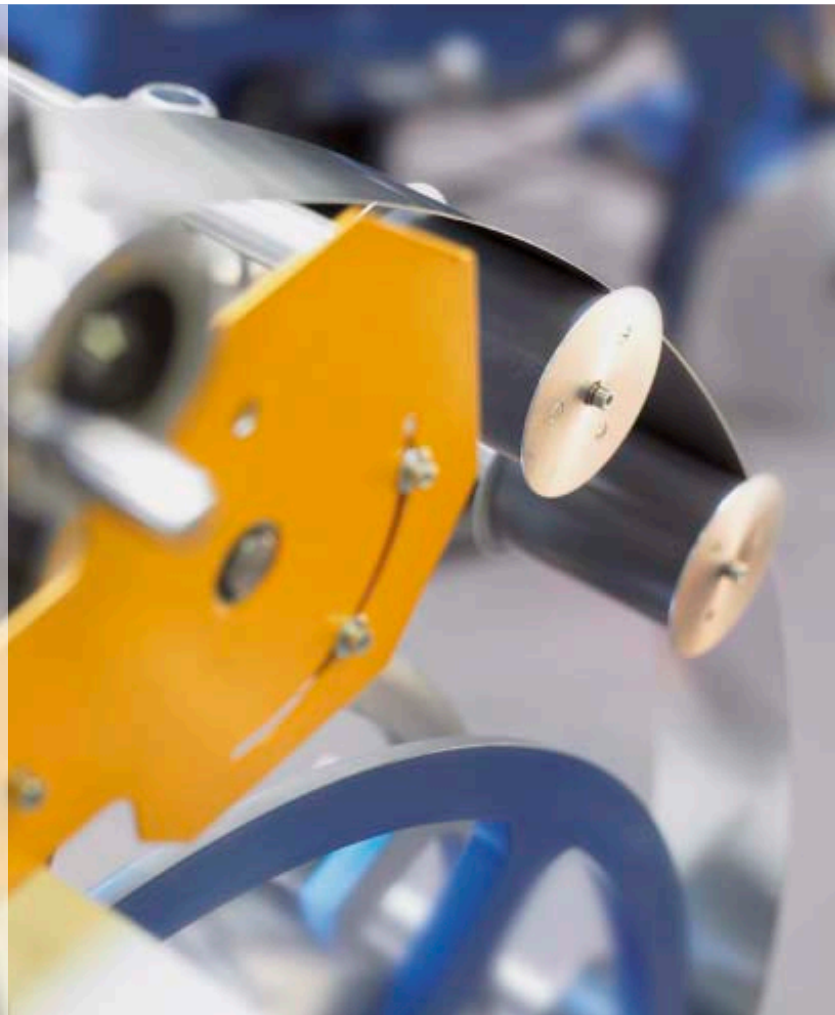
SOPREM'S compact, combination equipment is the ideal solution where space in your production hall is confirmed.

We combine the decoiler with the straightener to a strip feeding system.

The straightener can optionally be designed/programmed as a feeder at the same time.

This provides a strip feeding installation in short design and the loop between the straightener and the press can be omitted.

The combined machines from SOPREM are becoming increasingly popular because they enable optimum exploitation of space in the production buildings.







#### > 16 Decoiling-straightening machine

Consisting of a decoiler with loading weight 2000 kg, a precision straightener with 19 straightening rolls  $\varnothing$  25 mm and an ultrasonic loop control. For processing strip thicknesses up to 3,3 mm.

#### > 17 Decoiling-straightening machine «space saver»

Consisting of a decoiler with loading weight 100 kg, a straightener with 17 straightening rolls  $\varnothing$  10 mm and an ultrasonic loop control. For processing strip thicknesses up to 0,6 mm.

#### > 18 Decoiling-straightening machine

Consisting of a double decoiler with loading weight 2 x 1500 kg, a straightener with 9 straightening rolls  $\varnothing$  44 mm and an ultrasonic loop control. For processing strip thicknesses up to 3,5 mm.

#### > 19 Decoiling, straightening, Feeding installation

Consisting of a decoiler with loading weight 1250 kg, a loop cabinet, a strip gripper and straightener designed as a feeder. This compact unit enables feeding of strips with a maximum width of 300 mm and a thickness up to 8 mm. The strip is straightened and pushed directly into the press with the programmed length, the strip loop is omitted.

#### > 20 Decoiling-straightening machine

Consisting of a pallet decoiler with loading weight 2500 kg and a straightener with 9 straightening rolls  $\varnothing$  32 mm. The strip is led to the straightener with just one deflection, the mobile deflector pulley serves simultaneously as a linear loop control. This installation is ideal for narrow, thin strips.

#### > 21 Roll Feeder or Strip Extractor

With two hardened, ground rolls. Pneumatically adjustable contact force of the upper roll, adjustable strip traction force by torque control. This series enables feeding or transfer of strips into different processes.



The high productivity requirements in composite pipe production demand strip feeding lines with a strip accumulator system.

Non-stop production places the highest demands on the reliability of the strip feeding line and the welding unit.

If the first strip end welding fails, the strip accumulator needs to have sufficient material stocked for the second weld.

SOPREM builds these machines to highest quality standards meeting all the requirements of a 3-shift production.





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#### > 22 Strip Accumulator installation

For composite pipe production. The installation consists of two decoilers connected in series, a strip end welding unit, a linear strip accumulator system, a strip feeder and is ideal for 24/7 operation.

#### > 23 Strip Accumulator installation

For cooling pipe production. The installation consists of a pallet decoiler, a strip end welding unit, a parallel strip accumulator system, a strip feeder and is ideal for 24/7 non-stop operation.

#### > 24 Rewinding/traversing machine

Loading capacity 10 – 60 kg with electronic traversing device. Modern, fully automatic touch screen control with all the necessary setting options for perfect traversing of several material layers. For rewinding thin, narrow strips on carrier bobbins.

#### > 25 Rewinding/traversing machine

Loading capacity 10 – 60 kg with mechanical rolling ring drive. Traversing step and reversing positions can be set by means of a crank handle for precise traversing of thin, narrow strips on carrier bobbins.



Modern production companies automate wire feeding with decoilers, straightening-feeding systems and cut-to-length lines.

When decoiling larger diameter wires used in the production of connecting elements, for example, the wire spring-back must be compensated for. For this, we recommend the loop arm with pull-back spring system. Wires with a very small diameter, used in the production of small tension or compression springs, for example, require loop controls with a very low wire traction force.

For both requirements, SOPREM offers suitable machines with loading capacity of 10 – 6000 kg. The resulting benefit is much greater productivity.





#### > 26 Wire decoiling-straightening-cut-to-length installation

For producing straight axles or rods from wire coils. The following elements are installed in line: Pre-straightener, CNC roll feeder, external length measuring system, horizontal and vertical straightener, hydraulic shear.

#### > 27 Wire Decoiler

Loading capacity 30 – 500 kg, equipped with a loop control for minimum wire traction force. This version is especially suitable for decoiling wires with small diameters. The decoiler is often used in the spring industry.

#### > 28 Wire Decoiler

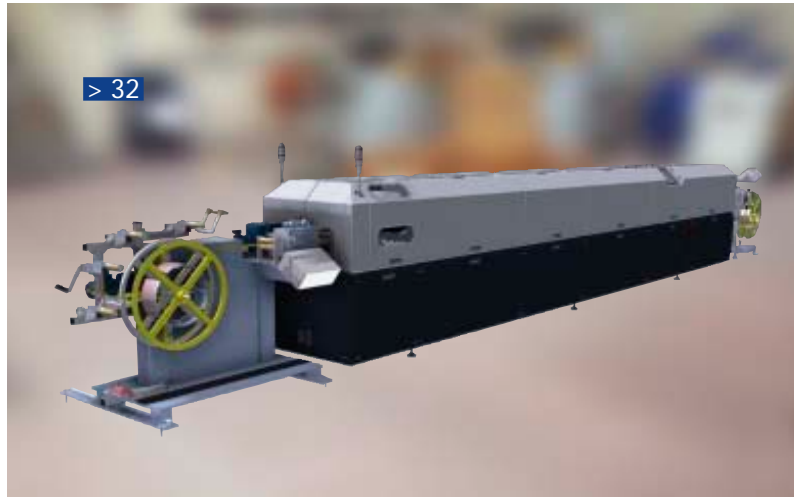
Loading capacity 1000 – 4000 kg, equipped with a loop control of radial dancer and pull-back spring system for compensating the wire spring-back. This version is especially suitable for decoiling wires with large diameters.

#### > 29 Wire rewinding/traversing machine

With electronically controlled wire traversing device, loading capacity 30 – 500 kg. This design is suitable for rewinding wires of medium diameters and for high demands on the wire traversing accuracy. This device is also suitable for rewinding narrow strip.

#### > 30 Passive wire Straightener

Consisting of a horizontal/vertical combination. This design is suitable for straightening wires with a diameter of 0,1 – 15 mm.



Automation is a SOPREM speciality. For over 50 years we have designed and built tailor-made installations for our customers. Especially in the watch-making industry, where we have automated many production processes.

With this experience, we are also able to solve your complex problems in strip and wire feeding.

Please call us, we would be more than pleased to help and advise you.





#### > 31 Strip feeding lines

SOPREM builds strip feeding lines with decoiling, straightening and feeding for strips with a width up to 600 mm and a thickness up to 11 mm. The installations are available in short and long design. The mature technology of our systems will increase the productivity of your process.

#### > 32 Furnace and

#### > 33 Washing installations

With these systems, you can convey material by the metre at constant speed and stretched through the furnace or the washing unit. This achieves accurate heat treatment or maximum cleanliness of the material.

#### > 34 Wire feeding installations

Wire and profile cut-to-length installations from SOPREM with integrated straightener, longitudinal positioning system, hydraulic shear and stacking system. Our range includes flexible machines with short retooling times when changing the material size.

#### > 35 Rewinding installations

We build strip and wire rewinding installations with precision coiling. SOPREM offers you versatile solutions in this field.

#### > 36 Strip cross cutting installations

The strip cross cutting installations consisting of straightener, longitudinal positioning system, hydraulic shear and stacking system enable precision manufacture of flat sheets.

#### > 37 Accumulator installations

Our linear and parallel accumulators are suitable for strip feeding in profiling plants, galvanic coating plants and paint coating plants. You can optimise your production process with our tailor-made solutions.

#### > 38 Part levelling systems

We build part levellers and systems for straightening uneven parts. We determine the most suitable type of machine for your requirements by conducting straightening tests.

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