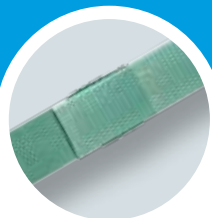


IRON AND STEEL INDUSTRY

FULLY AUTOMATIC STRAPPING MACHINES



 **SORSA**[®]
STRAPPING SOLUTIONS

CUSTOM MADE TECHNOLOGICAL INDUSTRIAL SOLUTIONS



Together, we can make a **difference**. We create our own **future**. This has been and remains our philosophy with everything that we do. We are inspired to reinvent the traditional packaging solutions for storage and transport.

Difference: For SORSA, this does not only mean an alternative for the usual but also our Leitmotiv to be the reference in the market for fully automatic strapping solutions. Custom made global solutions thanks to the latest technology in automatic strapping.

“ We explore our own future. Thanks to continuous research and innovation along with 40 years of experience, we have become leaders in technology for whichever solution in our branch.

DIFFERENT APPLICATIONS

- Cold or hot laminated coil strapping
- Cross sectional and longitudinal slitting lines of coils
- Tubes
- Aluminum or lead Ingots
- Corrugated wire
- Steel service centers

SORSA offers the best technological solution for whichever application thanks to a wide range of PET and steel strapping heads that enable us to propose the most suitable strapping machine.

We have different strapping head versions for PET strap to guarantee efficiency and durability of our machines and the head itself. Compact and with 3 direct independent motors, the strapping heads are the most service friendly heads on the market which makes us leaders of effective and safe strapping of whichever product.

HEAD K8000



HEAD T400



State of the art technology, reliability and output



DURABILITY · RELIABILITY · SAFETY

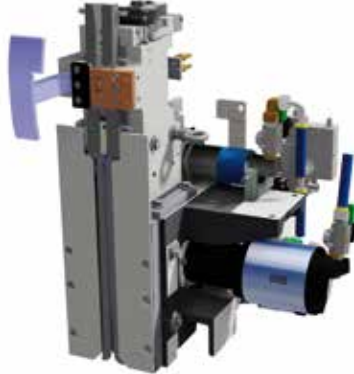
- Inhouse design of strapping machines.
- Highest joint efficiency.
- Continuous innovation.



HEAD VS12-LE



HEAD VS32-L



The TITANARG® welding system is the leading technology for seal less steel strapping.

With the highest joint efficiency of the market, we guarantee the correct packaging of your products, their stability regardless the external influences.

The TIG, (Tungsten Inert gas), technology without direct contact and without welding electrode that could damage the surface or produce sparks, (for the safest working environment).

CIRCUMFERENTIAL COIL STRAPPING



“Circumferential hot coil strapping, the best and most successful strapping solution Sorsa can offer



- FBC-700G L
- FBC-700 LD
- FBC-800 2L
- PFBC-800 2L

Custom made strapping machines for hot coils of more than 800°C require the best joint efficiency in order to guarantee safe storage and handling of the coils afterwards.

“TIG welding strapping heads make all the difference under these extreme conditions.



Circumferential hot or cold coil strapping



“ Strapping solutions with steel strap or PET strap.

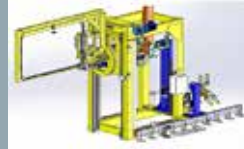
- Hot or cold laminated coil strapping
- Strapping galvanized coils with PET strap
- Strapping machines for pickling lines
- Marking and labelling solutions

Our fully automatic coil strapping machines are integrated in production lines where effectiveness, reliability and cost reduction for strapping galvanized coils or small packs is a requirement of the end user.

We therefore offer solutions with PET strapping heads with heat seal system thus assuring direct and indirect reduction of maintenance costs as well as reliability.

STRAPPING COILS THROUGH THE EYE

“ *F*Strapping coils with horizontal axis through the eye. Vast market experience



• FBR-900L • PFH-600 LX

SORSA offers various models of strapping machines for coils with horizontal axis through the eye. The model varies according to the position of the axis (in the transport direction or perpendicular).

Fully automatic strapping machines with direct communication to the production line in order to have the highest output and productivity.

Adjustable in height and with the strapping head moving towards the coil to strap at different heights according to the diameter of the coils.



“ *SORSA can always offer you the strapping solution for your requirements.*



Strapping steel coils through the eye with steep strap or PET strap



- Custom made solutions according to transport direction of the coils
- Variety of steel and plastic strapping heads
- End of line strappers for galvanized and pickled products
- Marking and labelling systems can be integrated

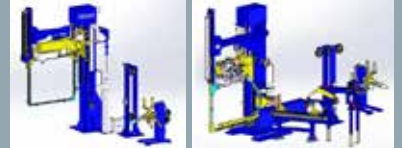
A wide range of options such as printers, label dispensers and marking robots can be perfectly integrated to improve the presentation of your products and their traceability.



STRAPPING OF SLIT COILS



“Strapping in slit coil lines with above all, a high output.”



• FIE-800 LV • FIE-800 LV+LH

Slitting lines are synonym for high output and a wide range of different sizes. These slit coils with “eye to sky” have different inner and outer diameters, different widths and are sometimes packed on pallets and sometimes without.

SORSA has been working together with the most important O.E.M.'s worldwide since many years and with big success to reduce the downtime and the costs of maintenance and at the same time, increase the productivity.



Strapping slit coils on a conveyor



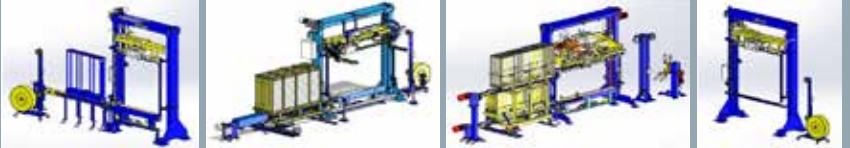
- Strapping individual coils or coils on pallet
- Conveyors, turn tables and centering devices for coils
- Integration of marking and labeling

“In order to increase the time required for strapping coils, we offer machines with multiple strapping heads to strap simultaneously.”

CUT TO LENGTH LINES



“Cut to length sheets, a diversity of options.”



- PI-800
- PI-800 TI
- PI-800 TI+TS
- PI-800 TI+CS
- PI-800 TI ROBOT

SORSA offers a wide range of sheet strapping machines of cut to length lines. Depending on the product, we have a choice of options such as automatic bunk placement under the pack with different magazines, automatic wooden runner placement on top of the pack, automatic corner protection systems, (on top and/or underneath), conveyors etc.

All these options can be perfectly combined with the strapping process. Either steel strap or PET strap can be used. On request, we can also make twin headed machines with both PET and steel heads enabling the customer to choose the type of strap to suit the product being strapped with one machine.



- Strapping sheets with or without pallets
- Integration of bunk feeding or corner protection systems
- Conveyors and product placement on a reference line
- Marking and labeling systems



State of the art technology for strapping metal sheets

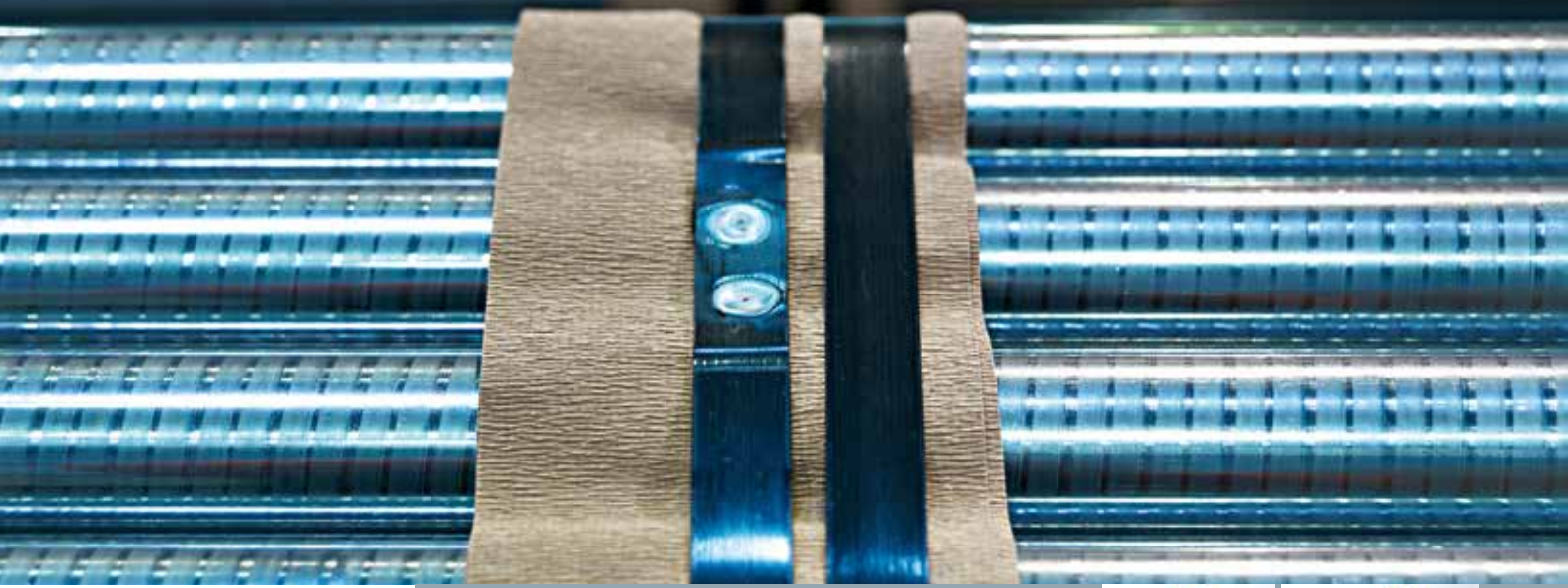


“ *Complete solutions for whichever product.*

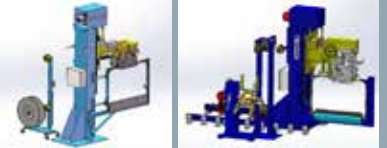
Complete solutions for strapping sheets with steel or PET strap and accessories such as bunk placement or corner protection sometimes with the help of robots to position the bunks or slats.



TUBES, PROFILES AND LONG SHAPED PRODUCTS



“High demands for strapping square or irregularly shaped packs.”



• PIE-800 • PIE-800 D

Strapping packs of tubes or profiles is one of the most demanding applications because we need to take into account not only the shape of the product but also the handling and way of storage once strapped.

In order to meet the customers' requirements, SORSA offers a range of strapping heads for PET strap with heat seal system or friction weld systems whereas with steel strap, we have the choice between the TIG welding and traditional punch joint, all seal less of course.

A choice between strapping machines with 1 single strapping head and twin headed machines for simultaneous strapping, stationary or movable machines, (with maintenance position) or "Twin strap" machines with double track and one single head to weld a steel strap that has been wound around the tubes or profiles twice to increase the break load of the strap.



Quick cycle times for strapping long shaped products

We offer a wide range of options to reduce the cycle time and the down time for changing the coils, service work, different sizes of products etc.

This enables us to guarantee a high reliability and an improvement of productivity as well as cost reduction. We also offer, (preventive), maintenance contracts and training of the end users.



“The reliability of our machines improves the productivity of the production lines.”

- High strapping ratio
- Several options that can be integrated
- Experience with all product shapes and sizes
- Jumbo de-coilers for both PET as well as steel strap



INGOTS - COPPER - WIRE



“Variety of products and strapping methods.”



- PI-800
- PI-800 LD
- FV-600
- FIP-800

In this branch, there are a number of products that need to be grouped, pressed or packed at the end of a production line during strapping.

SORSA therefore offers a wide range of custom made strapping machines to meet the customers' requirements.

Our vast experience worldwide with offering fully automatic strapping machines for products such as zinc, lead or aluminum ingots, billets, corrugated wire or copper cathodes that require to be pressed before strapping, have widened our range of products.



- Specific know how with fully automatic strapping
- Custom made solutions
- Experience with different sizes
- Jumbo de-coilers for PET and steel strap

Custom made technical solutions



We offer custom made solutions like for example a system to strap billets moving from one strapping position to another without moving the product.

Strapping machines with an integrated press of up to 10 tons for copper cathodes, cross strapping thus making transport of the product more economical.

“ Cost reduction due to a more cost-effective packaging for transport.

