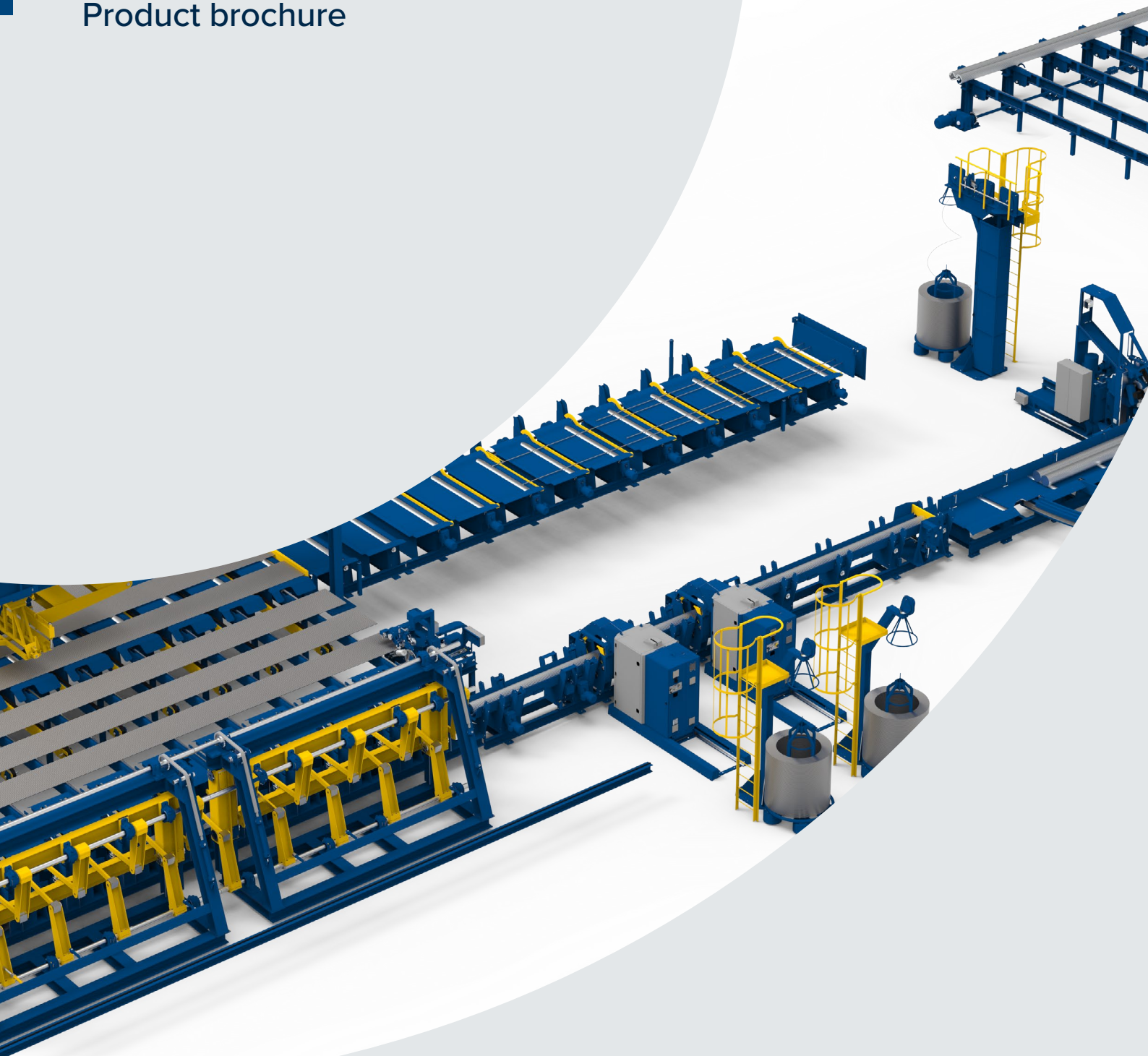


Bar & Section

Bar Handling System

Product brochure





Your solid industrial partner

In a world of technical developments and ever-changing needs, a solid industrial partner is crucial. Sund Birsta has been setting new standards for performance, durability, energy efficiency and safety for decades. Today, we are considered the leading supplier of handling equipment in the rolling mill industry.

Sund Birsta's wide range of solutions can be found in plants of all types and sizes, all over the world. With technology built on over 40 years of know-how.

A versatile bar handling system

The Sund Birsta bar handling system is designed for smooth and gentle handling of bars and bundles, transporting them to various workstations within the mill. It's robust yet straightforward construction, free of delicate components, ensures minimal maintenance requirements. The bar handling system can be configured for both sub bundles and master bundles, or a combination of both. It operates fully automatically but individual sections can also be operated manually.

The bar handling system is designed to fit the mill layout based on capacity, number of workstations, bar and bundle weight, and buffer requirements.

Bar Handling System

A high-quality and cost-efficient bar handling system

The bar handling system has a modern, space-saving design using very little floor space, and has buffer areas to enable efficient operation, providing high capacity through the system. The system uses frequency drives for optimized positioning and speed control with minimum power consumption.



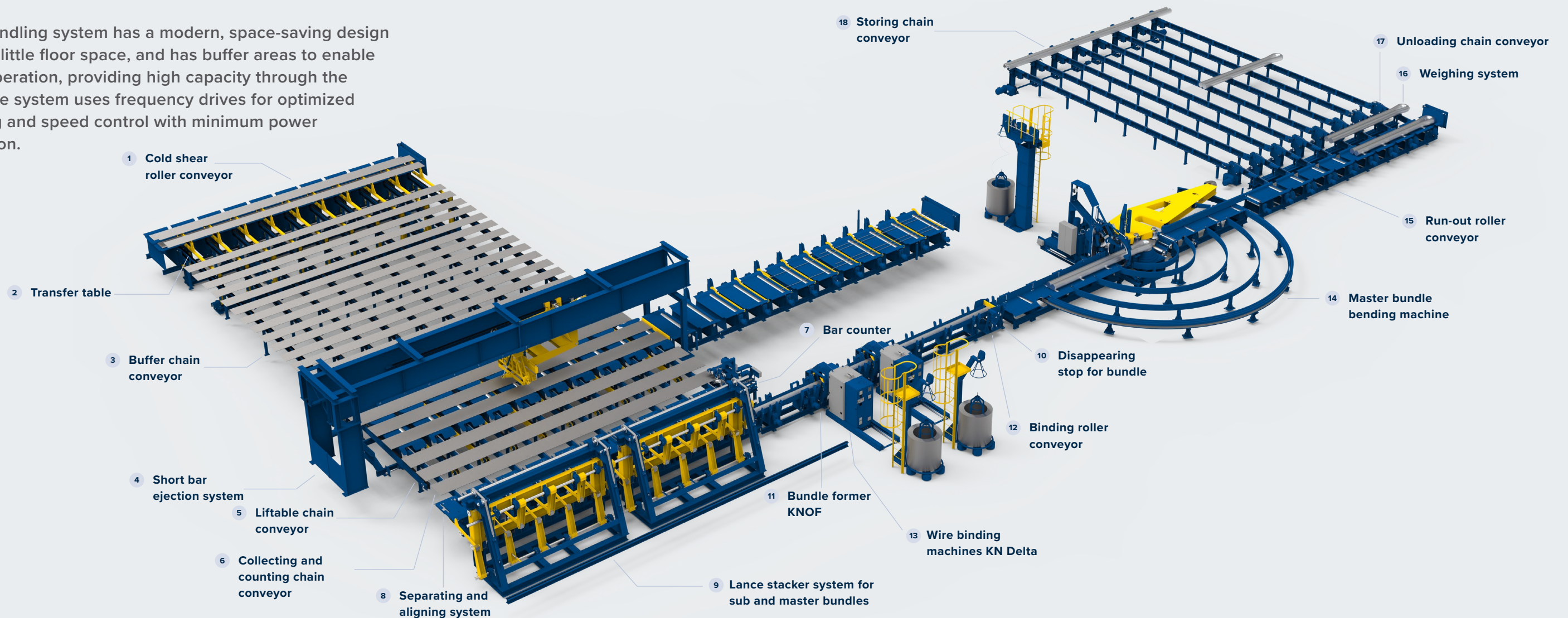
Optimized safety system

Safety is an important issue for Sund Birsta. Our machines and handling equipment are designed to meet high demands on machine safety. Depending on your requirements, we offer an optimized safety system.



Electrical Control System – Tracking

The complete handling system, from exiting the cold shear to unloading of formed and tied or strapped bundle, is fully automatic PLC controlled. Tracking of the sheets and bundles is based on the mill computer system.



1 Cold shear roller conveyor

The cold shear conveyor leads the sheet of cut bars from the cold shear to the transfer station.

2 Transfer table

The transferring station transfers the sheet of bars into the intermediate chain conveyor.

3 Buffer chain conveyor

The buffer chain conveyor transfers the sheet of bars to the next chain conveyor, and is also used for buffering sheets. When transferring over to the next coming chain conveyor the sheet of bars can be slightly separated by using difference in speed between the chain conveyors.

4 Short bar ejection system

The short bar ejection system separates a number of bars in a sheet that does not correspond to the correct length. The sheet of bars is either lowered down to the short bar ejection roller table, or the short bar roller tabel is lifted up above the chain conveyor. The short bar is transferred out on the ejection roller table and ejected into short bar pockets.

5 Liftable chain conveyor

The liftable chain conveyor lowers the sheet of bar down to the short bar ejection roller conveyor and vise versa.

6 Collecting and counting chain conveyor

The collecting and counting chain conveyor transfers the sheet of bars to the bar counter or directly to the bar

collecting station. When transferring from the upstream chain conveyor, the sheet of bars can be slightly separated by using difference in speed between the chain conveyors.

7 Bar counter

The bar counter counts the correct number of bars for each bundle.

8 Seperating and aligning system

The separating system separates the counted bars for a bundle from the uncounted bars, the aligning system makes sure that the bars are aligned after the separation sequence.

9 Lance stacker system for sub and master bundles

The system can simultaneously handle sub and master bundles where

multiple sub bundles are collected into a master bundle. The system automatically switches from sub/master bundling mode to master bundling mode from the operator desk, no manual settings or adjustments is needed. The Lances is stacking the bundle into multiple layers to eliminate entanglement. Bars can either be collected to a pre-set number selected on the bar counter HMI or set to pouring mode to receive full layers. A typical sub bundle is about 50-100 kilos whereas a master bundle is 1-5 tons.

10 Disappearing stop for bundle

The disappearing stop ensures that bundles can't enter the next coming roller table.

11 Bundle former KNOF

The bundle former form the bundle into a tight round bundle and hold the bundle as it's tied.

12 Binding roller conveyor

Binding roller station transports the collected bundle to the position for the bindings of the bundle.

13 Wire binding machines KN Delta

The KN Delta wire binding machine is designed for binding medium sized bundles of bars and sections. It's fast, reliable and durable.

14 Master bundle bending machine

The bending machine is bending the full-length bundle into half the length to make it possible to transport the bundle on smaller trucks.

15 Run-out roller conveyor

The run-out roller conveyor is transporting the bundles of bars to the station for transferring the bundle to the chain storing conveyor.

16 Weighing system

Bundle weighing station is for weighing the bundle.

17 Unloading chain conveyor

The unloading chin conveyor lifts the bundles from the run-out roller conveyor, either to the weighing system or directly to the storing chain conveyor.

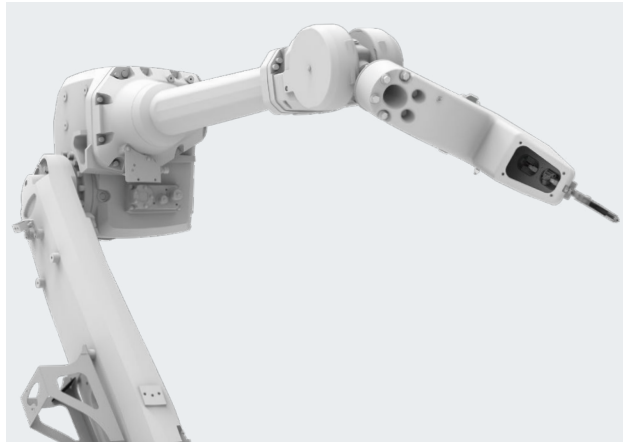
18 Storing chain conveyor

The storing chain conveyor is for transporting and storing the bundles for further transportation with overhead crane or forklift.

Bar Handling System

Upgrades

We offer both standard and custom solutions, based on your specific needs. Here are some of the upgrades and options available for the bar handling system.



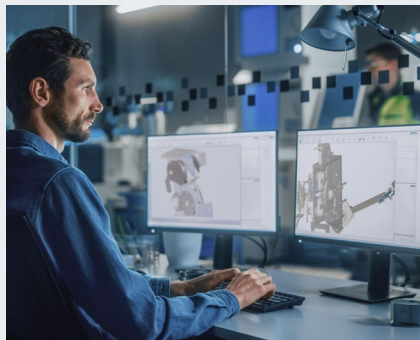
Automatic labelling station

Designed for high availability, great accuracy and low maintenance, the automatic labelling station assures a consistent high quality. It has an integrated bundle inspection system, with a camera that scans possible positions for tagging and then chooses the best one for tagging of the bundle end.



Workshop service

Each machine has its own unique service demands, and we also understand that each of our customers have their own individual requirements. Our services reflect that, and we deliver the best maintenance available for your Sund Birsta system. Contact us with your specific service and inspection needs.



Remote service

With the Sund Birsta IoT solution, our specialist can perform remote diagnostics and troubleshooting of your equipment. This can also allow for improved preventive maintenance and optimization.



Safety

Sund Birsta machines and handling equipment are designed to meet high demands on safety, for both people and property. Machine safety is important and a priority for us.



Working environment

We strive for continuous improvement through design for a better working environment.

A long-term partnership

Service, cost-effective spare and wear parts and upgrade programs. Safety, support and digital tools. We are in it for the long haul, making sure you maximize the return of your investment in Sund Birsta technology.



Spare parts service

Every Sund Birsta unit is built with high-quality industrial components from leading suppliers. We take great pride in offering the same quality components as spare parts, readily from our large stock.



Workshop service

Our workshop staff apply the same level of expertise and attention to detail in looking after your unit, that went into building it. From inspections to full machine rebuilds, we've got everything covered.



A wide range of solutions

We have a wide range of solutions for handling all types of products - from durable infrastructure steel to exclusive materials and surface-treated products that must be handled with great care.



60+ years of experience

We have been supplying handling equipment to satisfied customers in the rolling mill industry for over 60 years and our solutions are suitable for plants of all size and types.

SUND BIRSTA

We increase your productivity.

sundbirsta.com

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A part of Danieli Group