Vakuum portal stacker
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Function
After being cut with cut-to-length shears, the plates are accelerated on subsequent conveyor belts. This results in precisely defined gaps, giving the stacker enough time to remove the plates. Below the vacuum stacker, the plates are decelerated on roller conveyors until they come to a standstill. After the plates have been centered, they are lifted off the active vacuum portals and deposited sideways onto the stack. When the required number of plates is reached, the stack is taken away on chain conveyors.

Design
Due to the modular design of the vacuum stacker, it can be dimensioned for the maximum plate length requested. The number of portals is determined accordingly. The stacks can pass through each portal in the X as well as in the Z axis. Servomotors are used to position the portals. The individual axes are combined to form groups according to the plate length. In many cases, the stacker is dimensioned in such a way, that plates can be stacked at two different points. This ensures a high output because the line can continue to deposit plates on the second stack without any delay when the required number of plates is obtained on the first stack.

In order to keep the design length of the stacker as short as possible, two stacking points are usually used for plate lengths shorter than half of the maximum plate length. For longer plate lengths, the two stacking points are combined to form one long stacking point.

Control
The drive is controlled by means of a modern, scalable, and modular multi-axis system. A SPS that fulfills all demands on modern systems in combination with a safety control is used as higher-level control. The continuous drive and control system leads to transparent solutions, which also bring considerable advantages in maintenance and upkeep.

Characteristics
- Particularly precise stacking result as well as noise-free and dust-free deposition of the plates onto the stack. Easy maintenance and simple design are further advantages compared to other systems.
- No surface damage
- Highest stacking precision
- Low-noise stacking
- No dust raised
- No time loss during product change
- Advanced drive technology

ANDRITZ Sundwig received its first order for the vacuum portal stacker in 2002 from LAURA METAAL Staalcenter in Maastricht, Netherlands. Since then, ANDRITZ has delivered this stacker type to many companies worldwide. The vacuum portal stacker ensures a particularly precise stacking result as well as noise-free and dust-free deposition of the plates onto the stack. Easy maintenance and simple design are further advantages compared to other systems.

Extract from our reference list
- ADC, Antwerp, Belgium
- Aleris, Coblenz, Germany
- LAURA Staalmetaal, Maastricht, Netherlands
- LSC, Bree, Belgium
- Salzgitter Flachstahl, Salzgitter, Germany
- SHOU GANG, Tangshan, China
- TISCO, Taiyuan, China

The scope of electrical equipment supply from ANDRITZ Sundwig includes:
- Low-voltage distribution
- Automation systems (S7-400 / S7-300F)
- Controlled and uncontrolled drives (Siemens SINAMICS)
- All field devices (sensor technology)
- Line visualization
- L2-system with L3-interfacing

The portal stacker for dimensions of up to 25.4 x 12,000 mm
Supply Program

**Turnkey systems**
for the processing of steel, stainless steel, coated metals, non-ferrous metals and special materials

**Cold rolling mills**
for reducing, skin passing, cladding, and finish rolling in 20-high, S6-high (18-high), 12-high, 6-high, 4-high, 2-high designs and combinations of 2-high/4-high or 4-high/S-6 high design, available as one-way, reversing or tandem mill, in-line and offline

**Finishing lines**
for cutting-to-length, slitting, side trimming, rewinding and inspection

**Shape control systems**
for cold rolling mills and strip processing lines

**Roll grinders**

**Strip processing lines**
for annealing, pickling, shot blasting, metal coating, hot-dip galvanizing, plastic coating, painting, surface conditioning, tension leveling, coil preparation, coil build-up, grinding, polishing, etc.

**Automation**
Complete electrical equipment including drive systems, process automation and level-2-systems for cold rolling mills, strip processing lines and finishing lines. Technological control systems for cold rolling mills, such as thickness control systems (AGC) as well as fully automatic roll change systems for rolling mills

**Modernization of existing production equipment**