FORMING THE FUTURE

POWER LINE COIL FEEDING LINES

SCHULER

Member of the ANDRITZ GROUP

POWER LINE COIL FEEDING LINES.
FOR HIGHLY DYNAMIC PRODUCTION PROCESSES.

Schuler's Power Line coil feeding lines have been specially developed to meet the needs of customers in the supplier sector. The product range comprises various high-performance basic models of our coil lines which are suitable for all press types.

Power Line coil feeding lines are well suited to supporting highly dynamic production processes.

Modular design for greater flexibility. The basic models consist of precisely-defined subassemblies. This provides our customers clear cost benefits and fast delivery of both equipment and components. The modular design of the coil feeding lines also enables fast and economical retrofits with a comprehensive range of options. This increases flexibility while keeping costs down - you can react quickly to changing requirements with only modest investments.

BASIC VERSION SPECS IN BRIEF

Coil width [mm]	up to 1,850
Material thickness [mm]	up to 8
Coil weight [t]	up to 23
Coil cross section [mm²]	up to 6,500

WHAT YOU NEED – WHAT WE OFFER

Flexibility:
- Fast delivery of equipment and components
- Adapted to all press types
- Scalable weight classes > Light > Medium > Heavy
- Wide range of retrofit options
- Can be configured for production of structural parts and outer panels
- Meets customer-specific requirements
- Easy, rapid retrofit

Retrofit:
- Flexible interface with existing press systems
- Defined interfaces to key line components

Variable degrees of automation:
- Manual or automated adjustment of parameters
- Visualization/graphic display

Attractive price/performance ratio:
- Clear cost advantage due to modular design and preconfigured components
- High output performance thanks to use of servo technology
- Energy-efficient thanks to optimal drive design

User-friendly line operation:
- Intuitive operation concept
- Easy fault correction/debugging
- Online diagnostics

Time savings:
- Reliable operation, minimal downtime
- Short changeover times
- Optimally adapted to press
- Low maintenance needs

POWER LINE COIL FEEDING LINES.
BROAD PART SPECTRUM.

Power Line coil lines are ideally suited for the production of structural parts and laminations for electric motors. They are also ideal for manufacturing parts using materials with a sensitive surface, such as sinks and stove tops.

Power Line coil feeding lines cover a broad spectrum of parts.

POWER LINE COIL FEEDING LINES.
THE LINE COMPONENTS.

DECOILER

The decoiler is designed for coils with an outside diameter up to 2,000 mm. The strip is drawn off the coil from above by means of a threading wedge. Loading is handled by a stationary coil-loading platform.

Example options:

- Single or double guiding of the coil by means of automatic coil side guiding: during product changeovers, a coil side guiding located on the upright side can be adjusted automatically to the required coil width. The loading-side guiding is hydraulic.
- Enlarging the expansion range: the expansion range can be enlarged for greater inside coil diameters by means of slip-on clamping inserts on the adapter end of the decoiler mandrel or automatically via an expander.

THREADING DEVICE

The threading device consists of a threading wedge to guide the leading edge of the coil strip from above into the draw-in rollers of the straightener and is bolted to the machine frame of the straightener. The coil is threaded by remote control.

STRAIGHTENER

The automatic coil tension controller between the decoiler and the straightener draws the strip from the decoiler and transports the straightened coil material into the loop pit. The traction of the lower draw-in rollers and straightening rollers ensures continuous strip transport and also enables the coils to be rewound in reverse operating mode. By using the automatically calculated adjustment values, the operator can achieve optimal straightening results through individual adjustment.

Example options:

- VARIO straightening roller concept: by using straightening rollers with varying and perfectly coordinated roller diameters, a larger coil thickness range can be straightened.

LOOP UNIT

The loop unit is located between the straightener (running continuously) and the roll feed (start-stop operating mode). The loop control ensures sufficient loop quantity which guarantees cycled strip feeding. The roller cage radius is adapted to the particular strip thickness and yielding point range to prevent plastic deformation of the material (due to the loop's weight).

Example options:

- Flat loop (Loop unit above floor):
  To avoid the need for a loop pit, the loop unit is designed above floor as a so-called flat loop.

ROLL FEED

The roll feed, which advances the strip material, is located on the ifeed side of the press by means of an attachment fixture. This enables flexible adaptation to the press infeed height.

Example options:

- Residual strip processing with magnetic transport belt: a height-adjustable magnetic transport belt is used to bridge the gap between the roll feed and the die. It consists of a central, telescoping magnetic belt and side rollers that can be manually attached or detached depending on coil width. This greatly increases material utilization.
- Zig-zag: this option is particularly interesting for the processing of circular blanks. Automated computer-assisted calculation in conjunction with an intuitive operator interface optimizes the processing of circular blanks.

PROCESS EXPANSION

The machine concept can be flexibly adapted to customer requirements.

Example options:

- With the aid of cut-to-length shears running in sync with the roll feed, blanks can be cut highly precisely in various lengths and widths and transferred to the subsequent process.
- The integration of a stamping unit at the outfeed of the roll feed enables customers to insert their own specific tools. Thanks to the automatic reading of part-specific CAD data, these tools can be flexibly positioned and controlled in the process sequence via highly dynamic servo axes.

POWER LINE – EQUIPMENT

	BASIC MODELS	OPTIONS
Coil loading platform	Coil support	Expansion to two or three coil preparation places
	Hydraulic lift cylinder with locking or guide pillar	
	Manually inserted safety rods to prevent tipping	
Decoiler	Movable machine frame	Automatic coil side guiding
	Driven decoiler mandrel	Double decoiler
	Coil side guiding	Expansion range enlargement
	Pressure roller	
	Automatic draw off	
Threading device	Threading wedge	Threading from above and below
Straightener	Machine frame	Automatic coil side guiding
	Coil side guiding	Automatic straightening roller adjustment
	Draw-in roller	Automatic cleaning device
	Individual adjustment of straightening rollers	VARIO straightening roller concept
	Straightener's head can be opened by the operator	Coil separation via nibblers
		Coil end welding device
Loop unit	Roller cages	Flat loop (loop unit above floor)
	Loop bridge	
	Sensors for loop control	
Roll feed	Press attachment fixture with coil side guiding	Metering wheel
	Coated feed rollers	Automatic coil side guiding
	Servo drive	Off-center adjustment of coil side guiding
	Quick lift feature	Hold-back interlock
	Height-adjustable	Automatic or motorized infeed height adjustment
	Coil side guiding	Strip lubrication unit
	Spare module location for strip lubrication device	Safety cut-off
	TOPOCROM® feed rollers	Performance pack – SP
		Performance pack – HP
		Performance pack – EHP
		Zig-zag
General		Engineering software licensing
		Labeling of the line in other languages
		Safety guarding

POWER LINE – TECHNICAL DATA

BASIC MODELS OF THE COIL LINES IN LONG SPACE DESIGN

System configuration for weight class "Light"						
POWER LINE	L-BS 0650	L-BS 0800	L-BS 1050	L-BS 1300	L-BS 1600
Coil weight max. [t]	5.5	12	12	14.5	17
Strip width min. [mm]	110 [40]			110 [80]	
Strip width max. [mm]	650	800	1,050	1,300	1,600
Strip thickness min. [mm]	0.5				
Strip thickness max. [mm]	4				
Straightening rolls Ø [mm]	53				
Loop radius [mm]	1,000				

System configuration for weight class "Medium"						
POWER LINE	M-BS 0650	M-BS 0800	M-BS 1050	M-BS 1300	M-BS 1600	M-BS 1850
Coil weight max. [t]	13.5	11.5	12.5	13.5	16	22
Strip width min. [mm]	110		120	160	205	
Strip width max. [mm]	650	800	1,050	1,300	1,600	1,850
Strip thickness min. [mm]	0.5					
Strip thickness max. [mm]	6				4	4.5
Straightening rolls Ø [mm]	70					
Loop radius [mm]	1,300					

System configuration for weight class "Heavy"					
POWER LINE	H-BS 0650	H-BS 0800	H-BS 1050	H-BS 1300	H-BS 1600
Coil weight max. [t]	10	15	15	17	23
Strip width min. [mm]	120			205	
Strip width max. [mm]	650	800	1,050	1,300	1,600
Strip thickness min. [mm]	0.5				
Strip thickness max. [mm]	8				6
Straightening rolls Ø [mm]	96				
Loop radius [mm]	1,600				

SCHULER **SERVICE.**
STATE-OF-THE-ART SERVICE FOR MORE PERFORMANCE.

Schuler Service offers a tailored portfolio of services covering the entire life cycle of your equipment.

Schuler Service – Customer-oriented & efficient, worldwide.

Over 900 service employees worldwide provide expert support 24/7 in close cooperation with you – our partners. Our main priority is always to ensure the maximum productivity and safety of your production equipment in order to secure your company's continued success.

With over 175 years of experience and expertise, we can guarantee the best possible support for the operation of your machines – and not only those supplied by Schuler, but by all other manufacturers. Whatever the situation, Schuler Service has the right solution for your specific needs.

OUR SERVICES FOR YOU.

Technical Customer Support:
- Machine inspections
- Safety inspections
- Preventive maintenance
- Repair
- Repair welding
- Production support

Components and Accessories:
- Spare parts and spare part packages
- Maintenance kits
- Repair parts
- Replacement parts

Project Business:
- Modernization
- Retrofits
- Refurbishment
- Machine relocations

Special Services:
- Service contracts
- Hotline and remote service
- Training
- Tailored customer training
- Optimizing plant & processes
- Consulting

Used Machinery:
- Purchase and sale
- Evaluation

MORE INFORMATION

www.schulergroup.com/service_en

ABOUT THE SCHULER GROUP – WWW.SCHULERGROUP.COM

Schuler offers customized first-rate technology in all areas of forming – from the networked press to press shop planning. In addition to press, our product includes automation and software solutions, dies, process know-how and service for the entire metalworking industry. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electronics industries. Presses from the Schuler Group mint coins for more than 180 countries. When it comes to the digital transformation of the forming technology, we support our customers worldwide as a supplier of innovative system solutions. Founded in 1839 with headquarters in Göppingen, Germany, Schuler AG has about 6,600 employees at production sites in Europe, China and America, as well as service companies in more than 40 countries. The company is majority-owned by the Austrian ANDRITZ Group.

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