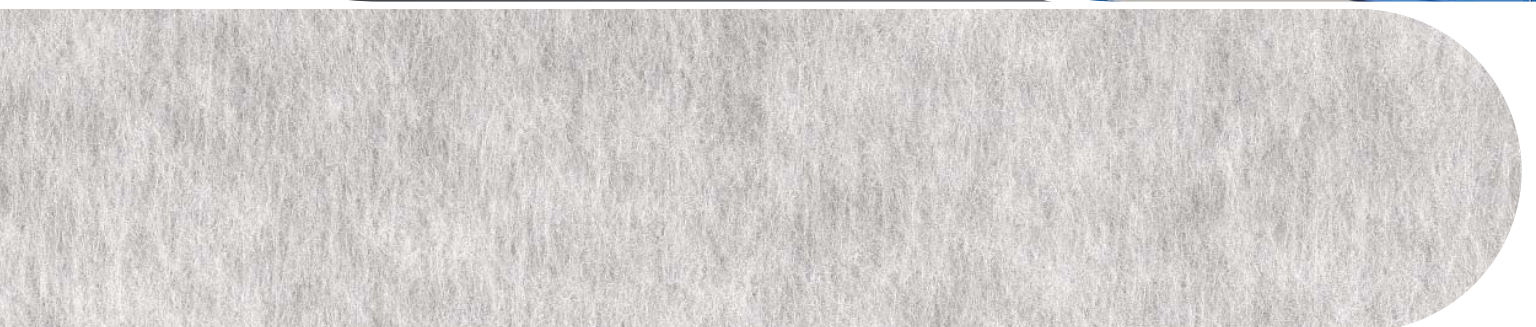
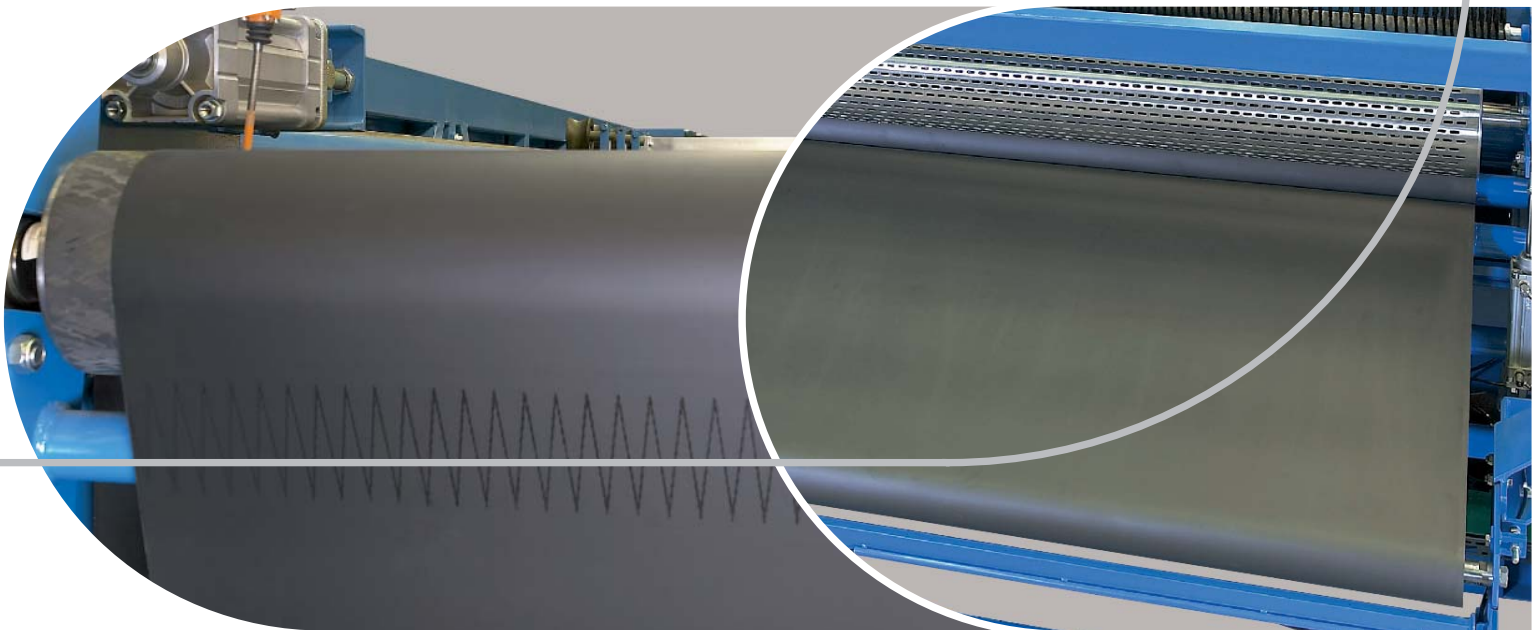


Nonwovens Industry Conveyor and Processing Belts

Habasit—Solutions in motion



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As the world's leading manufacturer of conveying and processing belts, Habasit has developed a specific product range to meet the special requirements of the nonwovens industry.

Satisfied customers

Numerous leading international nonwovens machine manufacturers rely on Habasit conveying and processing belts and choose Habasit belts for their original equipment, including:

- Andritz Asselin-Thibeau S.A.S.
- Autefa Solutions GmbH
- Oskar Dilo Machines GmbH
- Trützschler GmbH & Co. KG
- Oerlikon Neumag
- Technoplants s.r.l.
- Qingdao Hongda Textile Machinery co. Ltd.
- R&S Textile Machinery Inc.
- Zhengzhou Textile Machinery co. Ltd.



Preparation of fibers, conveying nonwovens

Process

- Bale opening
- Automatic blending
- Blending opener
- Carding

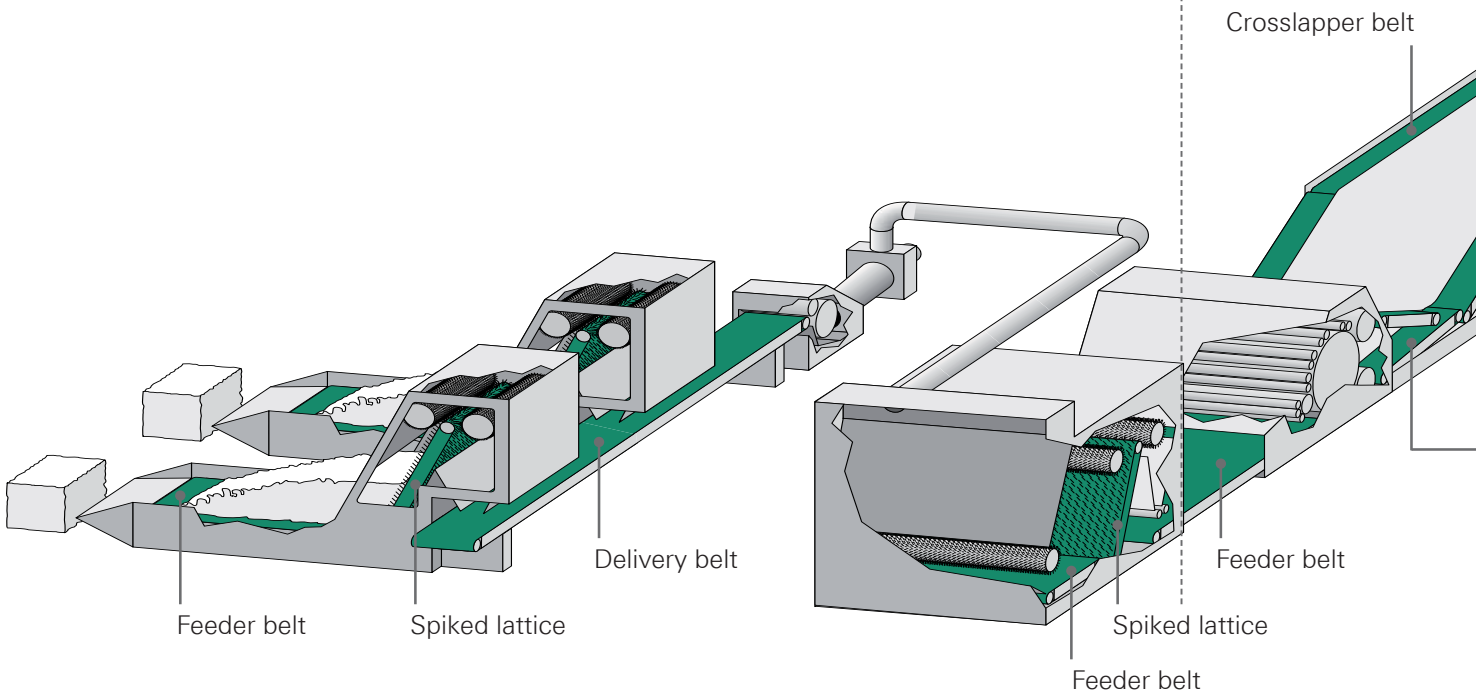
Belts in use

- Feeder belts
- Spiked lattice
- Screen or woven mesh belts
- Delivery belts
- Driving belts

Crosslapper

Process

- Crosslapping



Bonding of nonwovens

Belts in use

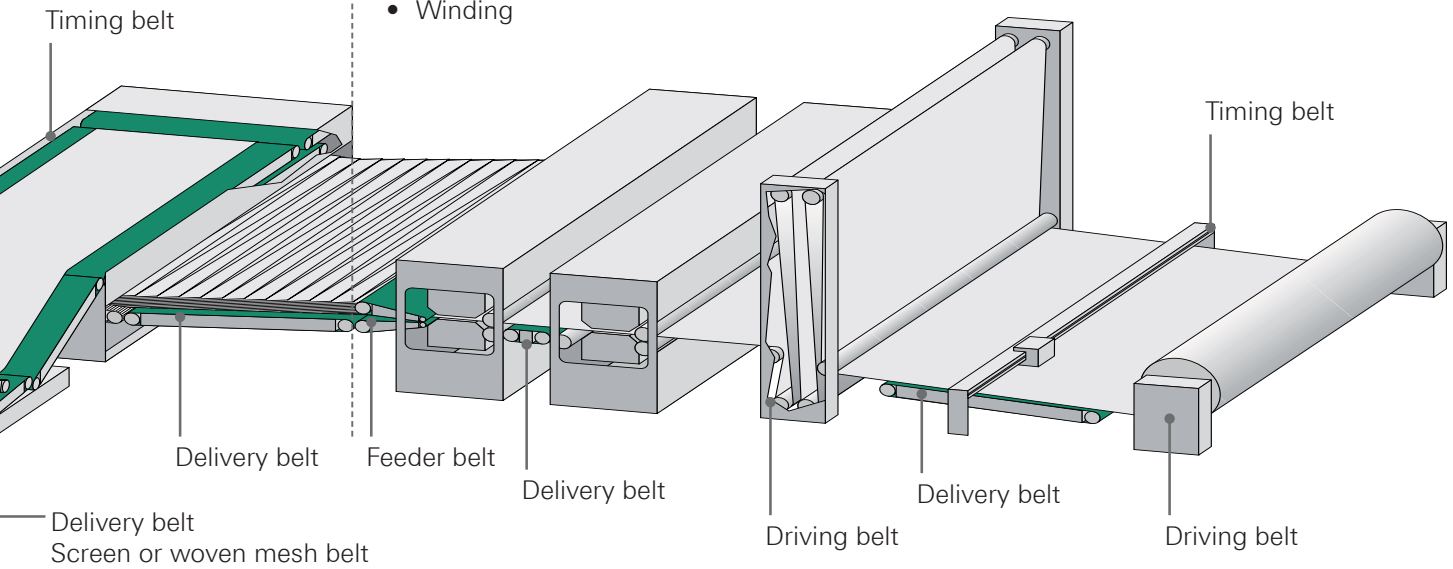
- Crosslapper belts
- Timing belts

Process

- Needle punching
- Spun lace system with hydroentanglement
- Accumulation
- Slitting
- Winding

Belts in use

- Feeder belts
- Delivery belts
- Processing belts
- Driving belts
- Positioning belts



Belts for every application

Habasit conveyor and processing belts are generally made of different layers, with tensile strength provided by synthetic fabric plies. These fabrics are connected with layers of thermoplastic materials. The material, thickness and texture of the conveying side depend on the function of the belt.

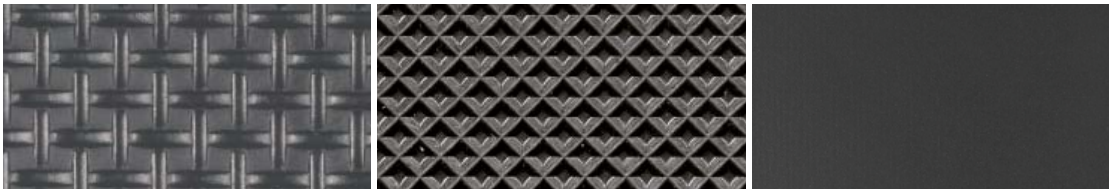
Cover coatings for the nonwoven industry are mainly made of thermoplastic materials like TPU (thermoplastic polyurethane), TPO (thermoplastic polyolefin) and PVC (polyvinyl chloride). The running side is usually a fabric, often impregnated with a thermoplastic material, or with special wear-resistant PUR that provides a low and constant coefficient of friction.

Surface structures

Various surface structures and embossings are available as well as several thicknesses, suitable for every kind of bale opener, blending opener, automatic blending machine, feeder, and regular conveyor application in the bonding and finishing operation of the nonwoven.

A combination of these attributes makes it possible to customize the mechanical, chemical and electrostatic properties of each belt type.

Examples of surface structures



Quadrille surface structure (Type Q)

Inverted pyramid surface structure (Type W) Smooth structure

Profiles

For machines without belt tracking systems and with short center distances, longitudinal profiles are often used. Profiles made of PVC and polyurethane are available in various sizes and shapes.



Quadrangular-shaped profile

V-shaped profile

<p>PVC conveyor belts</p>	<ul style="list-style-type: none"> • Two ply belts • Non-sticky, hard surface • Antistatic (electrostatic) • Grip or blank, smooth surface • Good release properties
<p>TPU conveyor belts</p>	<ul style="list-style-type: none"> • One- or two-ply belts • Non-sticky, hard surface • Antistatic (electrostatic) • Grip or blank, smooth surface • Needed width >3 m to match card width size

HabaSYNC® timing belts

HabaDRIVE® power transmission belts

HabaSYNC® timing belts for synchronization and positioning

HabaSYNC® timing belts support conveying and linear movement applications where optimum performance requires precise product placement and component positioning. High-quality materials coupled with our state-of-the-art manufacturing process and years of experience ensure innovative solutions tailored to your needs.

Timing belts in the nonwovens industry:

- Crosslapper carriage motion control and positioning: AT20, (AT10 for short and narrow machines)
- End line slitting, cutting, sewing, winding lines: T10, AT10
- Card driving, synchronization: Flex belts F AT10 or special fabricated belts

HabaDRIVE® power transmission belts

Habasit power transmission belts are tailor-made to suit specific industry and application needs or machine designs. We offer three different traction layer materials (Polyamide, Polyester and Aramide) used by the following belt concepts:

- Open drive
- Tangential drive
- Multiple pulley drive
- Live roller drive
- Double-sided power transmission

Power transmission belts in the nonwovens industry:

- Machine drive, especially carding, winder, slitter, needle punching
- Polyamide (A- or S-) type style, Polyester (TC- or TCF-) or Aramide (TF-)



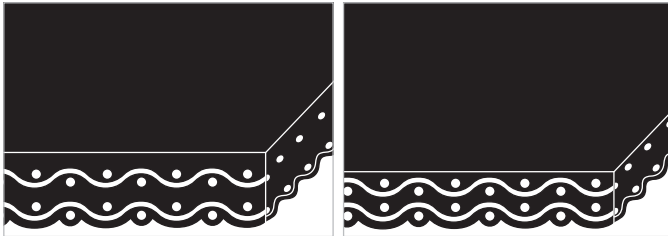
The leading crosslapper belt manufacturer worldwide

Leading machine manufacturers in Germany, France, Italy, Japan, Korea, and China have chosen Habasit crosslapper belts as original equipment thanks to their excellent release properties to the fiber web, fast installation and going operational times, and excellent price/value ratio.

Premium line

Habasit premium crosslapper belts are known in the market for excellent quality and high reliability. The belts are available with widths up to 4,000 mm open prepared or made endless.

They offer an ideal combination of high transversal rigidity, extremely light weight and excellent high mechanical properties such as lateral stiffness, tracking, scratch-, and wear- resistance. Good dimensional stability combined with high conductivity make it possible to lay the nonwoven web perfectly and continuously in order to deliver a high-quality product.



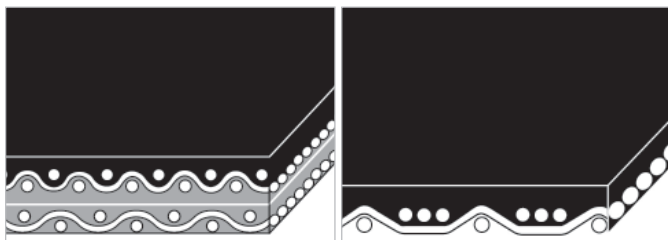
ENB-6EE

ENT-6EE

Performance line

Habasit has developed performance crosslapper belts for general applications and as replacement belts on existing machines. The robust new crosslapper belt has been specially designed for a single motor drive crosslapper layout requiring a stiffer, thicker and stronger belt.

The new light PVC-coated belt NVT-510 has been specially designed for low-speed machines, and less demanding applications requiring a high-performance, reliable belt. The excellent top coating system ensures that our crosslapper belts combine high stability and a long service life.



ENB-9EE

NVT-510

Key features	Your benefits
Premium belts: ENB-6EE and ENT-6EE	
<ul style="list-style-type: none"> • High-grade TPU combined with chemical-resistant polymer special crosslinked surface coating 	<ul style="list-style-type: none"> → Chemically resistant → Non-brittling, ageing or micro cracking of belt surface → No tow formation of fibres → Long belt life → No hooking of fibers on belt surface → Uniform production of lightweight web (< 100 g/m²) possible
<ul style="list-style-type: none"> • High lateral stiffness 	<ul style="list-style-type: none"> → No folding of crosslapper belt → No damaging of the nonwoven web → No folding or over-throwing of nonwoven web → Perfect tracking → Trouble-free and reliable production → Reduced operating costs
<ul style="list-style-type: none"> • High longitudinal flexibility 	<ul style="list-style-type: none"> → Improved operating conditions for high-speed machines → Less tensioning required → Less energy consumption
<ul style="list-style-type: none"> • Highly conductive belt surface • Excellent release properties 	<ul style="list-style-type: none"> → Suitable for all man-made fibers → No sticking of fibers, no fiber fly → No blushing of web
<ul style="list-style-type: none"> • Homogenous Flexproof joining • Various types of joining possible 	<ul style="list-style-type: none"> → Identical properties, as flexible as the rest of the belt → Short downtimes
Performance belt: ENB-9EE	
<ul style="list-style-type: none"> • High-grade TPU combined with chemical-resistant polymer surface coating 	<ul style="list-style-type: none"> → Good chemical resistance → Non-brittle, no ageing or micro cracking of belt surface → Long service life → No hooking of fibres on belt surface
<ul style="list-style-type: none"> • High lateral stiffness • Thick two-ply belt construction 	<ul style="list-style-type: none"> → No folding of crosslapper belt → No damaging or over-throwing of conveyed nonwoven web → Perfect tracking → Trouble-free and reliable production → Reduced operating costs
<ul style="list-style-type: none"> • Conductive belt surface • Excellent release properties 	<ul style="list-style-type: none"> → Suitable for all man-made fibers → No sticking of fibers to belt surface
<ul style="list-style-type: none"> • Homogenous Flexproof joining • Various types of joining possible 	<ul style="list-style-type: none"> → Identical properties, as flexible as the rest of the belt → Short downtimes
Performance belt: NVT-510	
<ul style="list-style-type: none"> • PVC surface coating • Thin one-ply belt construction 	<ul style="list-style-type: none"> → Light belt → Reduced operating costs → Short take up, good tracking
<ul style="list-style-type: none"> • Good release properties 	<ul style="list-style-type: none"> → No sticking of fibers to belt surface
<ul style="list-style-type: none"> • Low noise running side 	<ul style="list-style-type: none"> → Low friction and noise-free running on any sliding bed
<ul style="list-style-type: none"> • Homogenous Flexproof joining • Various types of joining possible 	<ul style="list-style-type: none"> → Identical properties, as flexible as the rest of the belt → Short downtimes

		TPU belts						PVC belts									HabaSYNC® timing belts			
		ENB-6EE	ENB-9EE	ENT-6EE	F-3EXWTF 09	F-5EXWTF 05	H-8EXDT	FAW-8EOWV	NAB-8EEDV 11	NAB-12EEDV 11	NAB-14EEDV	NAQ-8ELBD	NAQ-10ELDV 11	NVT-254	NVT-510	SNB-8E 07	AT-10	AT-20	T-10	F AT-10
Technical data																				
Thickness	mm	1.0	1.2	0.8	0.9	1.2	1.4	2.1	2.0	2.8	4.2	2.4	3.1	3.2	0.8	2.1	NA	NA	NA	NA
	in.	0.04	0.05	0.03	0.04	0.05	0.06	0.08	0.08	0.11	0.17	0.09	0.12	0.13	0.03	0.83				
Mass of belt (belt weight)	kg/m ²	1.0	1.3	0.7	1.0	1.3	1.6	2.3	2.3	3.2	4.0	2.4	3.6	3.5	0.9	2.4	NA	NA	NA	NA
	lbs./sq.ft	2.20	2.86	1.54	2.20	2.86	3.53	5.07	5.07	7.05	8.82	5.29	7.84	7.72	1.98	5.29				
Tensile force for 1% elongation after relaxation (k _{1% relaxed}) per unit of width	N/mm	4	6	4	3.4	6	8	6	6	8	10	7	7	7	3.8	8.5	NA	NA	NA	NA
	lbs./in.	0.90	1.35	0.90	0.76	1.35	1.80	1.35	1.35	1.80	2.25	1.57	1.57	1.57	0.85	1.91				
Pulley diameter minimum without counter flexion	mm	50	50	50	20	15	20	25	32	50	100	40	48	48	40	32	NA	NA	NA	NA
	in.	1.97	1.97	1.97	0.79	0.59	0.79	0.98	1.26	1.97	3.94	1.57	1.89	1.89	1.57	1.26				
Applications																				
Machinery for preparing fibers						•			•					•	•					
Blending and opening machines							•	•	•	•	•	•	•	•	•				•	
General cards and web conveying							•	•	•	•		•	•			•	•		•	
Crosslapper		•	•	•											•		•	•		
Needle machines					•	•			•							•				
Coating, drying machines						•		•	•					•		•	•			
Slitting and cutting machines							•		•	•	•					•	•	•		

NA = Not applicable

Installation

Habasisit provides tailor-made belts all around the world. They are either prepared for hot-pressing on site, or are already joined endless to the required dimensions.

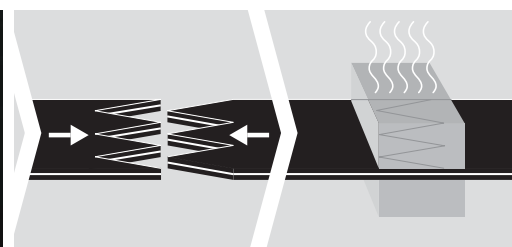
Our simple and rapid Flexproof joining method uses up-to-date fitting equipment and allows on-site splicing to achieve reliable, high-quality belt joints. State-of-the-art fabrication tools support the preparation and splicing of the belt on every type of machine anywhere in the world.

Flexproof

Prepared ends

Hot-press splicing

Pressing device, open



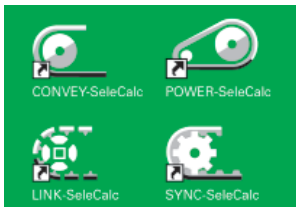
Comprehensive services are central to Habasit's belting solution approach.

As committed partners to our customers, we are dedicated to sharing our knowledge and to providing full support.



Comprehensive consulting and technical support

Habasit offers the best consulting and technical support on the belting market. Everything revolves around our customers and each affiliate has its own belting experts. The Habasit team is proud to provide the highest levels of support together with top-quality products that have been leaders on the global market for decades.



Assistance with belt selection and calculation

We will select and calculate the most suitable belt for your specific application. You also may do this yourself with our state-of-the-art Habasit selection and calculation program "SeleCalc". To order this program free of charge, simply call your nearest Habasit partner or contact: info@habasit.com.



Fabrication, assembly and local installation services for quick reaction times

We make belts endless or assemble modular belts or chains, either at our own locations or on-site directly on your machine or system. Habasit operates over 30 affiliated companies worldwide, each with its own inventory, fabrication, assembly and service facilities. Together with our representative offices and numerous qualified distributors, we can react quickly, competently and reliably to satisfy all your demands.



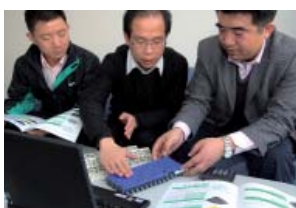
Customer training programs

Habasit offers training programs and provides support tools to ensure optimal use of our products and to prolong their lifetimes. Training on fabrication, installation, assembly, maintenance and belt repair takes place at Habasit sites or at your location.



Belt monitoring, inspections, analyses and process optimization proposals

We organize and handle belt maintenance, inspections, analyses and surveys for your locations. On request we will also work with you to develop optimization proposals, for example, to achieve added value from the machinery or process output.



Design assistance for customized solutions

Habasit believes in partnership. Our engineering team will work closely with your engineers on joint design developments, preferably from a very early stage. We particularly recommend this for projects involving new technologies or large-scale modifications and adaptations.

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Rossi is one of Europe's largest manufacturers of gear reducers, gearmotors, inverters, standard and brakemotors, and is a member of the Habasisit Group.

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