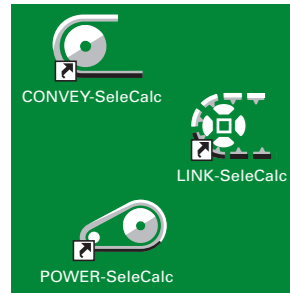




Consulting and technical support

Habasit offers the best consulting and technical support on the belting market for fabric based belts and plastic modular belts founded on the experience and competence acquired in more than 50 years.



Belt selection and calculation

For our customers we select and calculate the most suitable belt for a specific application. However, customers may do it themselves thanks to the state-of-the-art Habasit selection and calculation programs "SeleCalc". For ordering these programs free of charge simply call the nearest Habasit partner or contact: info@habasit.com

CONVEY-SeleCalc = Fabric conveyor belt selection and calculation

LINK-SeleCalc = Plastic modular belt selection and calculation

POWER-SeleCalc = Power transmission belt selection and calculation (available from April 2005)



Testing offer for customers

We offer R&D expertise, laboratory and test equipment for the customer's specific process needs like mechanical endurance testing, influence of process used chemicals / ingredients or thermal influence behavior on belts.



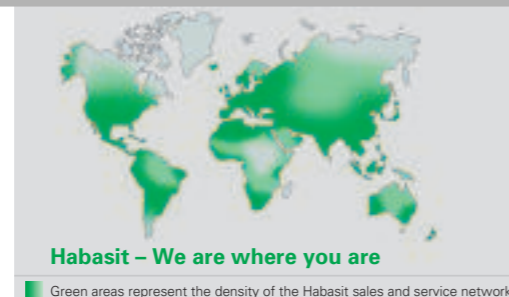
Designing the future: "Partner in Design"

Habasit believes in partnership. For joint design developments our engineering team is looking for strong cooperation with the customer's engineering team, preferably at a very early stage. We recommend this cooperation in particular for projects involving new technologies or large-scale modifications / adaptations. Co-design: We work together for success.



Guaranteed performance

Our faith in our products is such that if one of our sales specialists has recommended a belt for a specific application, we will guarantee its performance. Should for any reason that belt not perform optimally, your money will be refunded unconditionally.



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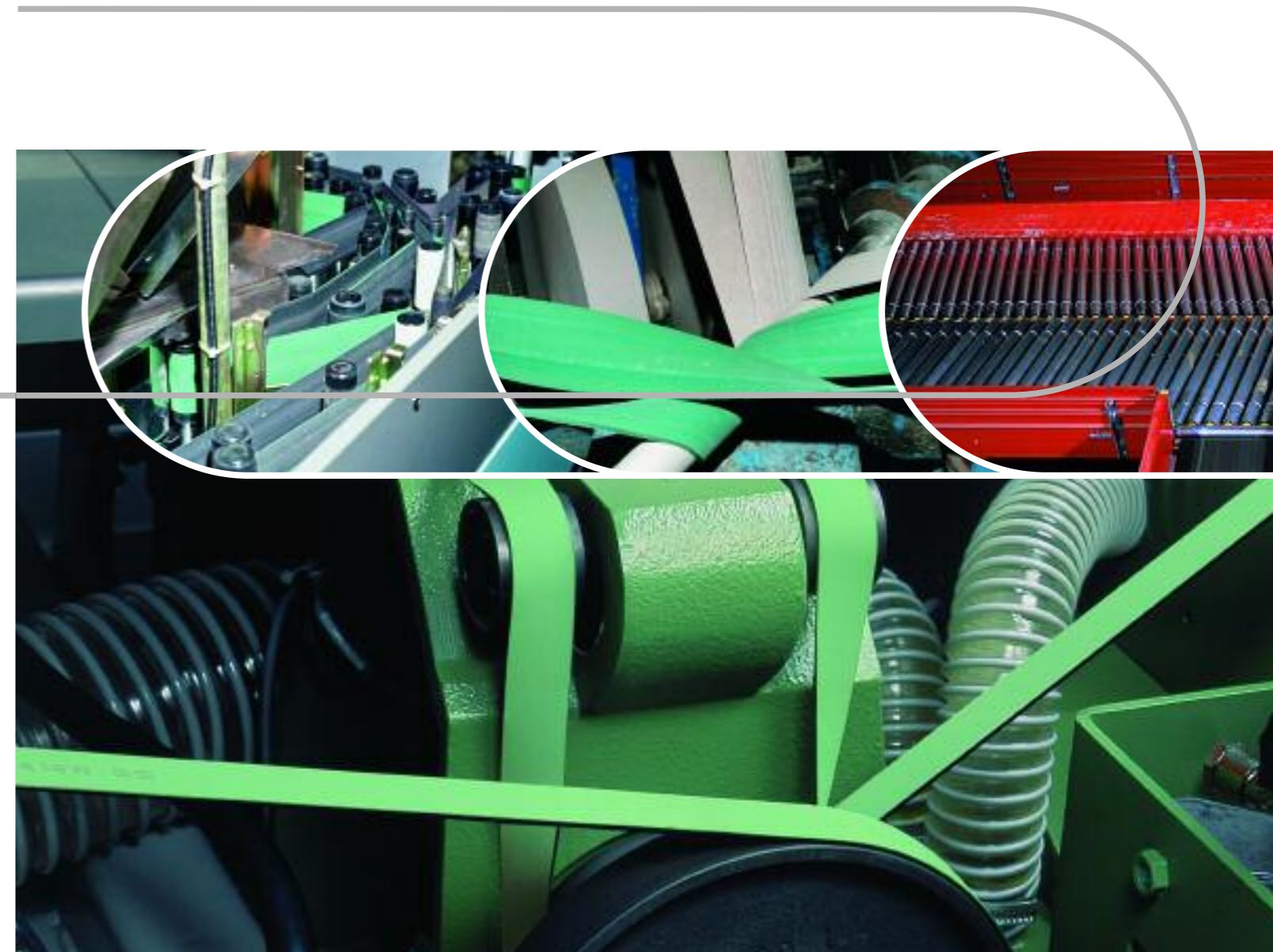
Publication data:
4076FLY.PTB-en0205HQR

Product liability, application considerations If the proper selection and application of Habasit products are not recommended by an authorized Habasit sales specialist, the selection and application of Habasit products, including the related area of product safety, are the responsibility of the customer. All indications/information are recommendations and believed to be reliable, but no representations, guarantees, or warranties of any kind are made as to their accuracy or suitability for particular applications. The data provided herein are based on laboratory work with small-scale test equipment, running at standard conditions, and do not necessarily match product performance in industrial use. New knowledge and experiences can lead to modifications and changes within a short time without prior notice. BECAUSE CONDITIONS OF USE ARE OUTSIDE OF HABASIT'S AND ITS AFFILIATED COMPANIES CONTROL, WE CANNOT ASSUME ANY LIABILITY CONCERNING THE SUITABILITY AND PROCESS ABILITY OF THE PRODUCTS MENTIONED HEREIN. THIS ALSO APPLIES TO PROCESS RESULTS / OUTPUT / MANUFACTURING GOODS AS WELL AS TO POSSIBLE DEFECTS, DAMAGES, CONSEQUENTIAL DAMAGES, AND FURTHER-REACHING CONSEQUENCES.

Habasit TC- and TCF Power Transmission Belts for Textile, Printing & Paper, Letter Sorting and Materials Handling Applications

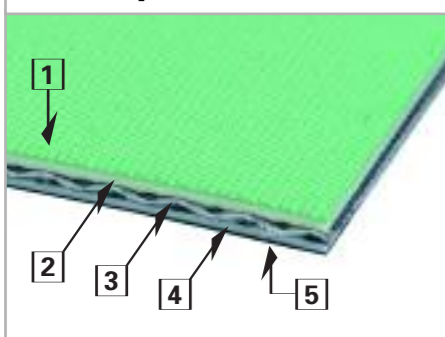
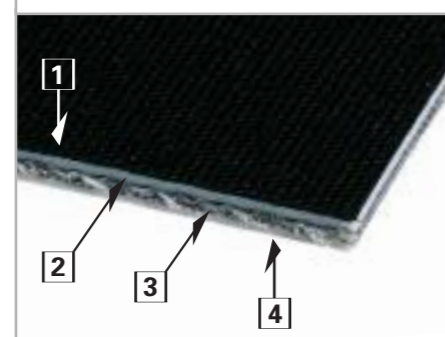
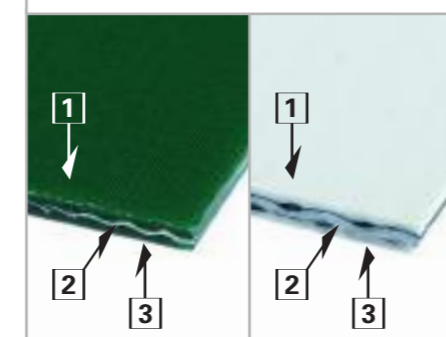
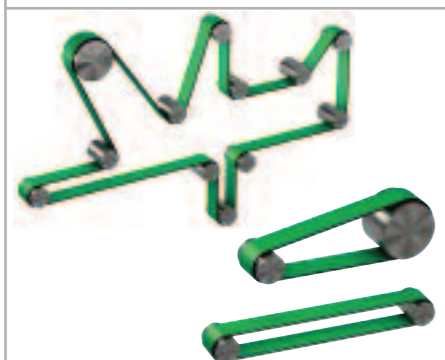

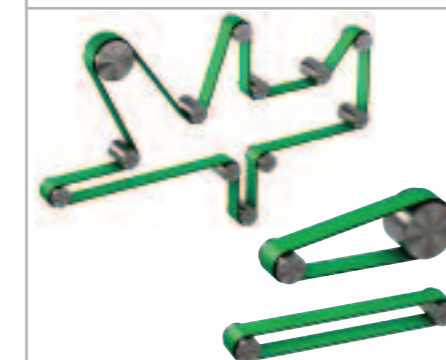
Your benefits:

- Comprehensive product range meeting all customer requirements
- Suitable for a large variety of different applications
- Optimized technical solutions using most advanced materials and product designs
- Outstanding price/value ratio



Habasit has developed a comprehensive range of thermoplastic power transmission belts that allows customers to choose the most suitable belt for their specific application requirements.

Power Transmission Belts

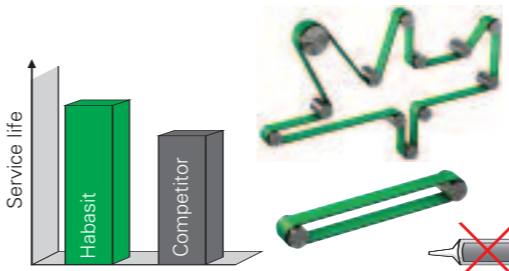
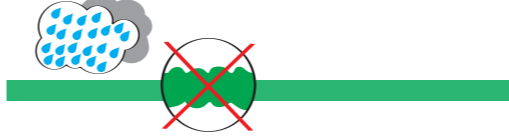
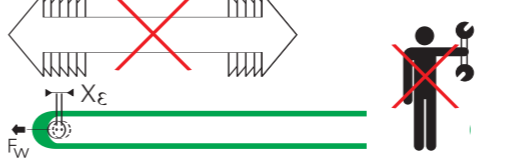
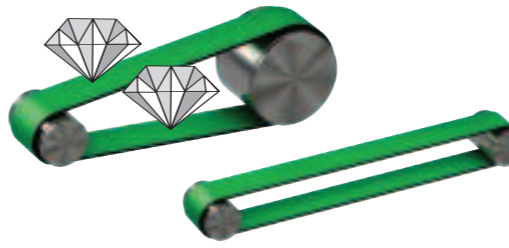
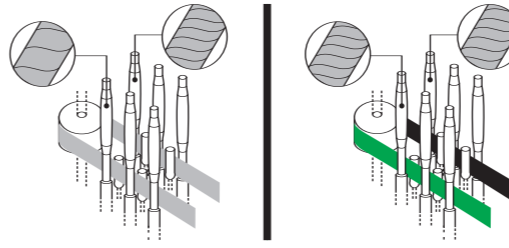
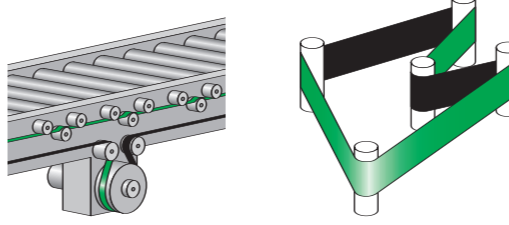
TC Polyester (PET)	TCF-xxE	TCF-xxH
		
<p>1</p> <ul style="list-style-type: none"> Light green Low aging and abrasion resistant NBR rubber Rough or fine structure depending on belt type <p>2</p> <ul style="list-style-type: none"> Intermediate thermoplastic foil (Hamid or TPU) <p>3</p> <ul style="list-style-type: none"> Highly flexible polyester traction fabric <p>4</p> <ul style="list-style-type: none"> Intermediate thermoplastic foil (Hamid or TPU) <p>5</p> <ul style="list-style-type: none"> Black, antistatic Low aging NBR rubber Rough structure 	<p>1</p> <ul style="list-style-type: none"> Black, antistatic Low aging NBR rubber Rough structure <p>2</p> <ul style="list-style-type: none"> Intermediate thermoplastic foil (Hamid) <p>3</p> <ul style="list-style-type: none"> Highly flexible polyester traction fabric <p>4</p> <ul style="list-style-type: none"> White Hamid foil Fine structure 	<p>1</p> <ul style="list-style-type: none"> Dark green Thermoplastic polyurethane foil Fine structure <p>2</p> <ul style="list-style-type: none"> Highly flexible polyester traction fabric <p>3</p> <ul style="list-style-type: none"> Dark green Thermoplastic polyurethane foil Fine structure
<p>Application / drive configurations</p> 	<p>Application / drive configurations</p> 	<p>Application / drive configurations</p> 

Features and benefits

The unique TC and TCF range

Habasit has developed the unique TC and TCF product range based on its experience, ongoing research, close contacts with the textile, printing & paper and materials handling industry as well as long-term partnerships with leading machine manufacturers worldwide. The result is a product range with an outstanding price-to-value ratio.

PET power transmission belts (TC and TCF) are the perfect solution for compact driving configurations, serpentine drives and very high-speeds.

Features	Benefits
 <ul style="list-style-type: none"> Very flexible belt Uniform longitudinal flexibility thanks to adhesive-free joining system 	<ul style="list-style-type: none"> → Excellent resistance to flex-fatigue → Belt can cope with small pulley diameters and compact design → Longest service life → Outstanding reliability
 <ul style="list-style-type: none"> Low sensitivity to humidity 	<ul style="list-style-type: none"> → High dimensional stability → No re-tensioning → No downtimes
 <ul style="list-style-type: none"> Stable modulus of elasticity 	<ul style="list-style-type: none"> → High dimensional stability → No re-tensioning → No downtimes
 <ul style="list-style-type: none"> Covers tailor-made for the application Best-in-class abrasion resistance Constant coefficient of friction 	<ul style="list-style-type: none"> → Most economic, application-oriented solution and optimized price/value ratio → Uniform driving conditions → Reliable conveying properties → Long belt life
 <ul style="list-style-type: none"> Constant and uniform yarn twist 	<ul style="list-style-type: none"> → Best yarn quality → Highest productivity
 <ul style="list-style-type: none"> Constant and uniform driving conditions 	<ul style="list-style-type: none"> → Highest throughput → Reliable sorting procedure

Application table / belt selection guide and technical key data (selection only)

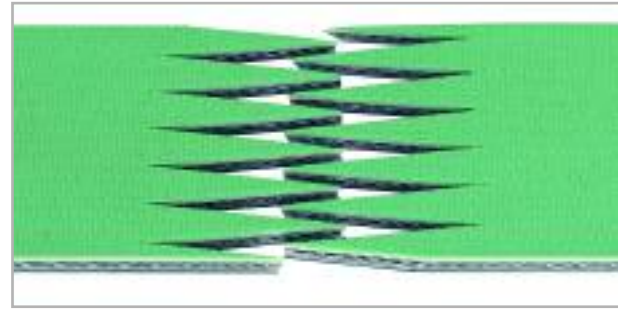
		TC- and TCF Polyester power transmission belts (driving belts)											
Industry processes / belt applications		TC-10EF	TC-20EF	TC-20/25EF	TC-35ER	TC-35/30ER	TC-35/35ER	TC-55ER	TCF-20E	TCF-35E	TCF-55E	TCF-20H	TCF-50H
General driving applications													
Driving belt		•	•	•	•	•	•	•	•	•	•	•	•
Textile industry applications													
Tangential drive		•	•	•	•	•	•	•					
Rotor drive				•	•								
Combing roll drive				•	•								
Main drive		•	•	•	•	•	•	•	•	•	•		
Fan drive		•	•	•	•		•	•	•	•	•		
Dust cleaner belt			•		•								
Printing and paper													
Finishing systems / bookbinding		•	•	•					•			•	
Tube winder						•	•						
Tissue and diaper production		•	•						•			•	
Paper and cardboard converting, various kinds of applications		•	•	•	•	•	•		•			•	
Letter sorting													
Driving belts		•	•									•	
Materials handling													
Live roller conveyor		•	•		•			•	•	•	•	•	•
Product construction / design													
Friction cover (Material)		NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR	TPU	Hamid
Friction cover (Surface structure)		Fine structure	Rough structure	Rough structure	Rough structure	Rough structure	Rough structure	Rough structure	Rough structure	Rough structure	Rough structure	Fine structure	Fine structure
Friction cover (Color)		Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	Dark green	White
Traction layer (Material)		PET	PET	PET	PET	PET	PET	PET	PET	PET	PET	PET	PET
Reverse cover (Material)		NBR	NBR	NBR	NBR	NBR	NBR	NBR	Hamid foil	Hamid foil	Hamid foil	TPU	Hamid
Reverse cover (Surface structure)		Fine structure	Fine structure	Fine structure	Rough structure	Rough structure	Rough structure	Rough structure	Fine structure	Fine structure	Fine structure	Fine structure	Fine structure
Reverse cover (Color)		Light green	Light green	Light green	Light green	Light green	Light green	Light green	White	White	White	Dark green	White
Product characteristics													
Drive determination		DSPT	DSPT	DSPT	DSPT	DSPT	DSPT	DSPT	OSPT	OSPT	OSPT	DSPT	DSPT
Permanently antistatic		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Slider bed suitable		No	No	No	No	No	No	-	-	-	-	-	-
Carrying roller suitable		Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
Technical key data													
Thickness		[mm] 1.8	2	2.5	2.5	3	3.5	3	2.2	2.8	2.7	1.5	2
		[in.] 0.07	0.08	0.1	0.1	0.12	0.14	0.12	0.09	0.11	0.11	0.06	0.08
Pulley diameter minimum with counterflexion		[mm] 25	25	50	50	50	70	70	50	50	70	25	60
		[in.] 1	1	2	2	2	2.8	2.8	2	2	2.8	1	2.4
Tensile force for 1% elongation (k1% after running-in) per unit of width (Habasit standard 320.013)		[N/mm] 5.5	10	12	17	17	17	26	12	17	26	10	23
		[lbs./in.] 31	57	69	97	97	97	148	69	97	148	57	131
Nominal peripheral force per unit of width		[N/mm] 10	20	25	35	35	35	55	25	35	55	20	50
		[lbs./in.] 57	114	143	200	200	200	314	143	200	314	114	286
Operating temperature, admissible (continuous)		[°C] -20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70	-20 / 70
		[°F] -4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158	-4 / 158
Seamless manufacturing width		[mm] 1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
		[in.] 43	43	43	43	43	43	43	43	43	43	43	43
Joining system													
Thermofix													
Flexproof		•	•	•	•	•	•	•	•	•	•	•	•
Stepflex													
Quickmelt													
Mechanical													
		TC-10EF	TC-20EF	TC-20/25EF	TC-35ER	TC-35/30ER	TC-35/35ER	TC-55ER	TCF-20E	TCF-35E	TCF-55E	TCF-20H	TCF-50H

Remarks

- This application / belt matrix does not apply to be complete and shall serve as indication of potential solutions. For detailed material and belt selection please contact your local Habasit partner.
- All data are approximate values under standard climatic conditions: 23°C / 73°F, 50% relative humidity (DIN 50005 / ISO 554), and are based on the Habasit Master Joining Method.

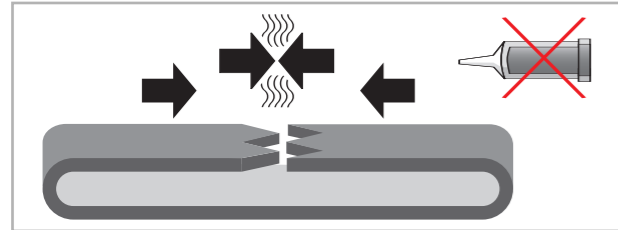
Legend

DSPT	=	Double-sided power transmission	•	=	applicable
Hamid	=	Habasit thermoplastic compound	◐	=	conditionally applicable
NBR	=	Acrylonitrile-Butadiene-Rubber	-	=	not applicable
OSPT	=	One-sided power transmission			
PET	=	Polyester			
TPU	=	Thermoplastic Polyurethane			



Fabrication / joining method

All TC- and TCF- belt types can be joined with the adhesive-free Flexproof method.



The Flexproof joining method stands for:

- Simple handling steps
- Fast execution / joining

The Flexproof joining benefits are:

- Easy handling
- Adhesive-free joint = high belt flexibility
- Minimum equipment needed
- Short machine downtimes



Tools, fabrication tools and auxiliaries

Offering superior fabrication capabilities is a key element in Habasit's service concept. Fabrication can take place either in the facilities of the belt supplier or on-site at the end user. The joining itself can either be made by the customer or by Habasit's on-site-service.

These two approaches need different philosophies. Habasit has solutions for both cases: A well adapted range of joining tools / systems and an extensive service network.



Installing services

Tools for on-site fabrication

Because we understand your processes, we can support you with cost-effective high quality tools that keep your equipment up and running. In case of emergency, our tools will help to minimize downtime and support efficiently the joining process. Habasit offers zig-zag cutting devices to prepare polyester power transmission belts. A selection of hot pressing devices to fit your applications and to guarantee optimum quality complement the tool package.

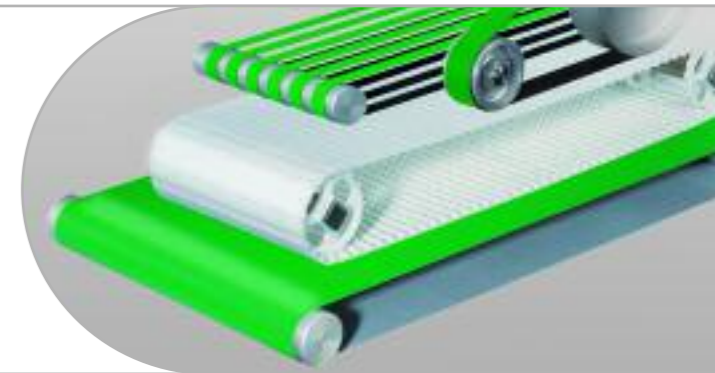


On-site installation service

In cases where having the tools ready on-site is not economical, you can be sure to have a Habasit affiliate or service partner nearby who can offer and bring in the necessary equipment for the required fabrication and installing service.

The Habasit Solution

**At Habasit, we listen. We innovate.
And we deliver integrated belting solutions – right first time.**



Customer first

Habasit understands that our success depends on the success of our customers. That's why we offer solutions, not just products; partnership, not just sales. Our innovative belting solutions are tailored exactly to specific needs. We guarantee best value for money in every application. Since its foundation in 1946, Habasit has proven this understanding of customer needs for more than 50 years. That's why we are the No. 1 in belting. Worldwide.



Product range

Habasit offers the largest selection of fabric and plastic modular belts in the industry. Our answer to any request is nothing less than a specific, tailor-made solution.

- Fabric conveyor & processing belts
- Plastic modular belts
- Power transmission belts
- Machine tapes
- Seamless belts
- Round belts
- Timing belts
- Auxiliaries (e.g. profiles, tools)



Innovation / R&D

Habasit is strongly committed to the continuous development of innovative, value-added solutions. More than 3% of our staff is dedicated exclusively to R&D; the annual investment in this area exceeds 8% of the turnover.



**Global network
Facts & figures**

Founded	1946
Turnover 2003	CHF 418 million
Sales to market	4.2 million m²
Employees	more than 2200
Production plants	12
Affiliated companies	26
Representatives	in over 50 countries
Service centers	over 250 globally

Services & guarantees

Our extensive organization is prepared to support you anywhere in the world. Engineering and emergency assistance, quotes and order status are just a phone call away. Wherever you are. Whenever you need us.



Quality

Highest quality standards are found not only in products, but also in our employees' daily work process. Based on a worldwide TQM approach, Habasit started very early to implement a quality system and was certified already in 1987 according to ISO 9001 / EN 29001. In 1996 Habasit was certified according to ISO 9001:1994. Since then we undergo periodically quality audits performed by an independent certification body. In the year 2002 we achieved certification according to the revised standard ISO 9001:2000.