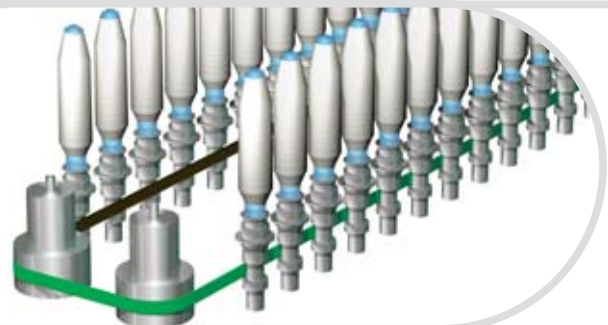
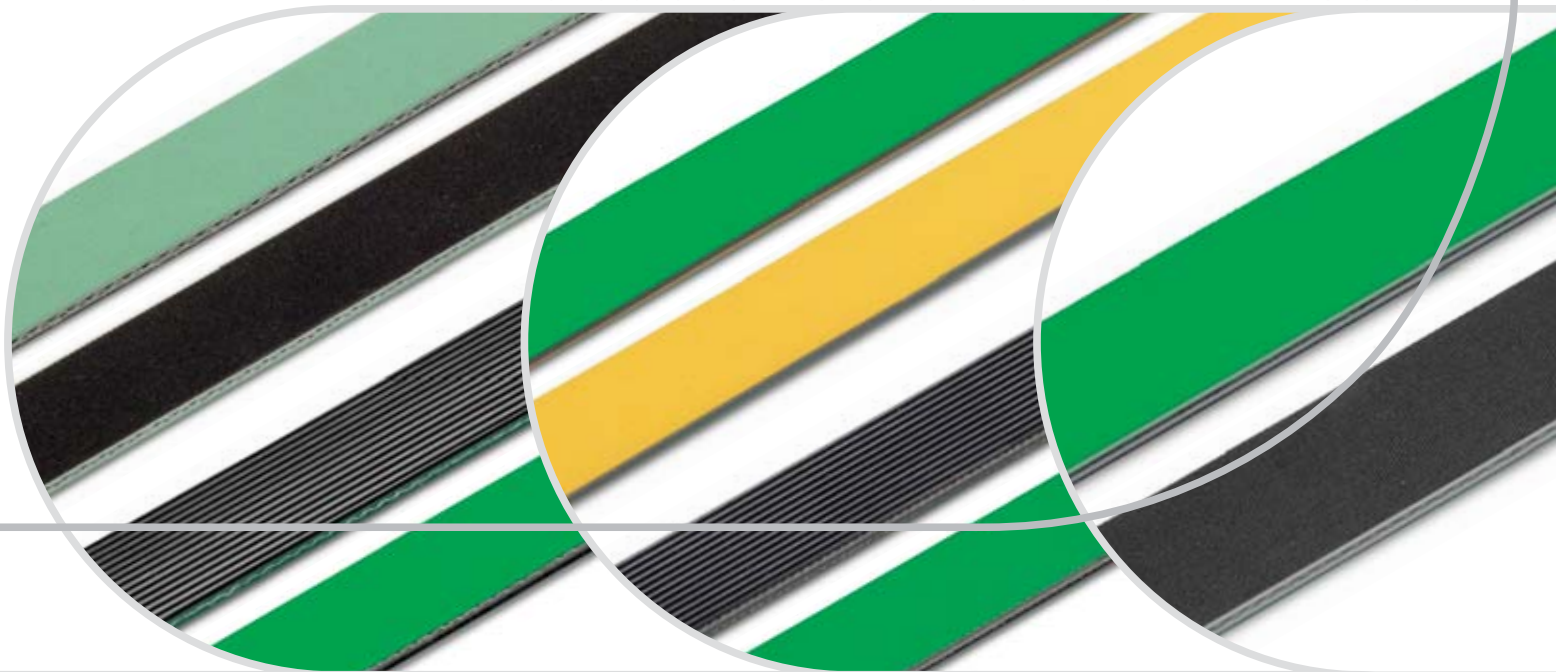


# HabaDRIVE® Power Transmission Belts

Habasit – Solutions in motion



Introducing HabaDRIVE® power transmission belts	3
Industries served	4
Three belt concepts – make the right choice	5
HabaDRIVE® benefits at a glance	6
Product key data overview	7
• Belt selection and calculation	8
• Additional information	
• Engineering Guidelines for HabaDRIVE®	
Fabrication and tools	9
Services	10
The Habasit solution	11
Contacts	12

### **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.



## HabaDRIVE® power transmission belts

Habasisit gets things moving with an extensive variety of high quality belt solutions.

HabaDRIVE® power transmission belts are ideal for reliable and economical power transmission.

### Key benefits

- Low energy consumption
- Long belt service life
- Maintenance free
- No unexpected machine downtime
- Smooth and quiet running
- Unlimited pulley service life

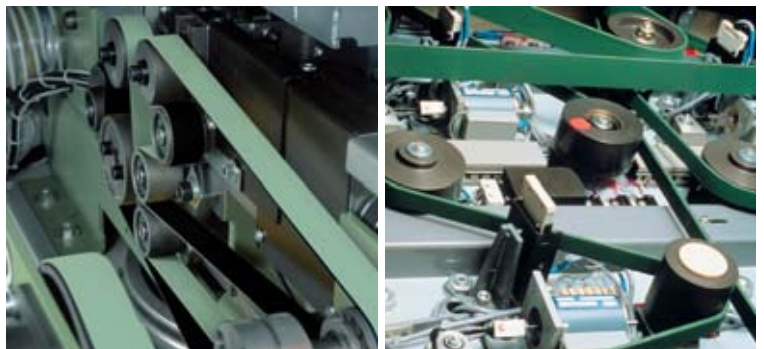
### Your solutions partner

Habasisit is totally committed to understanding your design parameters and application needs. After reviewing your requirements, our specialists will suggest the best belt solution for each application.

### Global expertise

With over 60 years of experience, the widest and most innovative product range, and an extensive global network, Habasisit is the clear No. 1 in belting worldwide.

We put every effort into meeting your needs for high quality belting solutions tailored to your specific requirements.





HabaDRIVE® power transmission belts are tailor-made to suit specific industry needs and a wide variety of machine designs. This overview shows just some of the industries and applications Habasit is currently serving.

## Textile industry

- Cards
- Draw frames
- Roving frames
- Ring spinning frames
- OE machines
- Twisting machines
- Texturing machines
- Winders
- Overhead cleaners

## Paper and postal industry

- Calenders
- Letter sorters
- Paper mills
- Pulpers
- Slitters
- Web feeders
- Finishing machines
- Converting lines

## Materials handling

- Live roller drives

## Various industries

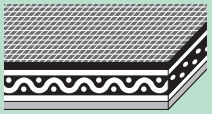

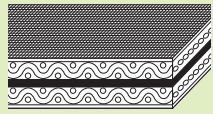
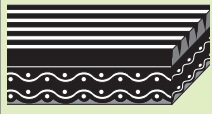

- Air conditioning
- Blowers
- Centrifuges
- Compressors
- Extruders
- Fans
- Feeding devices
- Frame saws
- Mills
- Presses
- Pumps
- Stone crushers



# Three belt concepts – make the right choice

Habasit has developed the HabaDRIVE® range of power transmission belts to allow you to choose the most suitable belt for your specific application.

Below is an overview of the three traction layer materials used by the different belt concepts:

	<b>Polyester</b> power transmission belts		<b>Polyamide</b> power transmission belts		<b>Aramide</b> power transmission belts
	<b>The versatile belt</b>		<b>The hard-working belt</b>		<b>The sophisticated belt</b>
	Outstanding price-to-value ratio		Well known for its reliability and long service life		Best choice for long belts.
	First choice of machine manufacturers and end users worldwide		Robust and highly resilient, copes with intermittent overload and high temperatures (up to 100°C)		Short take-up and highest accuracy for numbers of revolutions (rpm)
	<b>TC-</b>	<b>TCF-xxEL</b>	<b>S-</b>	<b>A-</b>	<b>TF-</b>
	<ul style="list-style-type: none"> <li>• Low energy consumption</li> <li>• Highly flexible</li> <li>• Simple to join</li> <li>• Reliable performance</li> </ul>	<ul style="list-style-type: none"> <li>• Low energy consumption</li> <li>• Grooves enable high grip</li> <li>• Highly flexible</li> <li>• Simple to join</li> </ul>	<ul style="list-style-type: none"> <li>• Resilient</li> <li>• Shock resistant</li> </ul>	<ul style="list-style-type: none"> <li>• Resilient</li> <li>• Shock resistant</li> <li>• Grooves enable high grip</li> </ul>	<ul style="list-style-type: none"> <li>• Low energy consumption</li> <li>• Highly flexible</li> <li>• Simple to join</li> <li>• High E-modulus</li> </ul>
<b>Application as / for</b>					
Tangential drive	●	–	●	–	●
Multiple pulley drive	●	●	●	●	●
Live roller drive	●	–	●	–	●
Double-sided power transmission	●	–	●	–	●
<b>Design and materials</b>	e.g.: TC-55ER 	e.g.: TCF-20EL 	e.g.: S-250H 	e.g.: A-2 	e.g.: TF-50 
Friction cover (Material)	NBR-Rubber	NBR-Rubber or Hamid for TCF-xxH	NBR-Rubber	NBR-Rubber	NBR-Rubber
Traction layer (Material)	Polyester		Polyamide		Aramide
Reverse cover (Material)	NBR-Rubber	Hamid	NBR-Rubber	NBR-Rubber (protection cover)	NBR-Rubber
Operating temperature admissible (continuous)	-20°C / 70°C		-20°C / 100°C		-20°C / 65°C
Fabrication / joining system	Flexproof (adhesive-free)		Thermofix		Flexproof (adhesive-free)

	<b>Polyester</b> power transmission belts	<b>Polyamide</b> power transmission belts <sup>1)</sup>	<b>Aramid</b> power transmission belts	
	<b>TC-TCF-xxEL</b>	<b>S-A-</b>	<b>TF-</b>	
<b>Benefits</b>				<b>Reasons</b>
<b>Low energy consumption</b>	● ● ●	● ●	● ● ●	– High belt flexibility
<b>Resilient and shock resistant</b>	● ●	● ● ●	●	– Properties of traction layer
<b>Suitable for compact machine design and small pulley diameters</b>	● ● ●	●	● ● ●	– High belt flexibility
<b>Recommended for very short take-up and accuracy of rpm</b>	● ●	●	● ● ●	– High modulus of elasticity
<b>Temperature resistance</b>	● ●	● ● ●	● ●	– Belt concept
<b>Adhesive-free joining method</b>	● ● ●	○	● ● ●	– Belt concept
<b>Long bearing lifetime (bearing protection)</b>	● ● ●	● ●	● ● ●	– Low belt vibration due to homogeneous joining system (Flexproof)

**Key**

- ● ● = excellent
- ● = good
- = fair
- = not applicable

**Legend**

<sup>1)</sup> dimensionally sensitive to changing ambient humidity

	Belt group	Belt code	Double-sided power transmission, tangential drives	One-sided power transmission	Thickness [mm]	Pulley diameter minimum with counter flexion [mm]	Tensile force for 1% elongation per unit of width [N/mm] ( $k_1$ % after running in)	Nominal peripheral force per unit of width [N/mm]	
<b>Polyester</b> power transmission belts	<b>TC-</b>	TC-10EF	●	●	1.8	25	5	10	
		TC-20EF	●	●	2.0	25	10	21	
		TC-20/25EF	●	●	2.5	50	11	23	
		TC-35ER	●	●	2.5	50	18	38	
		TC-35/30ER	●	●	3.0	50	18	38	
		TC-35/35ER	●	●	3.5	70	18	38	
		TC-55ER	●	●	3.0	70	25	53	
	<b>TCF-</b>	TCF-20EL	○	●	2.6	80	10	21	
		TCF-35EL	○	●	3.0	100	18	38	
		TCF-55EL	○	●	3.5	150	25	53	
		TCF-20H	●	●	1.5	25	10	20	
		TCF-50H	●	●	2.0	60	24	48	
	<b>Polyamide</b> power transmission belts	<b>S-</b>	S-10/15	●	●	1.5	40	4.4	12
S-18/20			●	●	2.0	63	8	22	
S-18/30			●	●	3.0	63	8	22	
S-33/40			●	●	4.0	125	13	37	
S-33/50			●	●	5.0	125	13	37	
S-140H			●	●	1.7	40	4.8	13	
S-141H			●	●	2.3	40	4.8	13	
S-250H			●	●	2.3	100	11	29	
S-250HR			●	●	2.6	100	11	29	
S-251H			●	●	3.0	100	11	29	
S-321H			●	●	3.2	132	13	35	
S-390H			●	●	3.2	160	14	38	
S-391H			●	●	4.0	160	14	38	
<b>A-</b>		A-2	○	●	2.7	56	7.5	22	
		A-3	○	●	3.4	125	12	36	
		A-4	○	●	5.0	280	21	63	
		A-5	○	●	6.8	450	30	92	
<b>Aramide</b> power transmission belts		<b>TF-</b>	TF-10	●	●	1.7	25	10	10
			TF-15	●	●	2.0	32	15	15
	TF-15H		●	●	1.5	32	15	15	
	TF-22		●	●	2.4	63	22	22	
	TF-33		●	●	3.0	90	33	33	
	TF-50		●	●	3.9	140	50	50	
	TF-75TE		○	●	4.4	200	70	70	

### Belt selection and calculation

See the next page.

### Additional information

For detailed and up-to-date Product Data Sheets, the Habasit website [www.habasit.com](http://www.habasit.com)

### Key

- = Yes
- = No

### Please note

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.

### Belt selection and calculation

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



### The principles behind our computer-based selection and calculation process

#### Single stage drive / open drive (two pulley drive)

Selection / input mask

Further input mask

Belt selector mask

Result screen

Result printout

Option: Printout of Product Data Sheets

#### Tangential belt drive

Selection / input mask

Drive configuration input / selection mask

### Additional information: [www.habasit.com](http://www.habasit.com)

Navigation

General overview

Product group selection

Product data overview

Product code	Thickness [mm]	Pulley diameter (minimum) [mm]	Tensile force for 1% elongation (F1) after correction [N]	Minimum pulley diam. [mm]	Weight [g/m]
01.00	1.7	25	10	16	16
01.01	2.0	32	15	18	18
01.02	2.5	40	20	22	22
01.03	3.0	50	30	28	28

Product Data Sheet



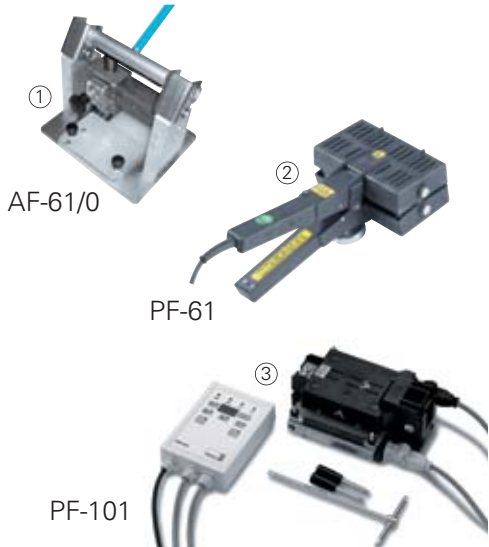
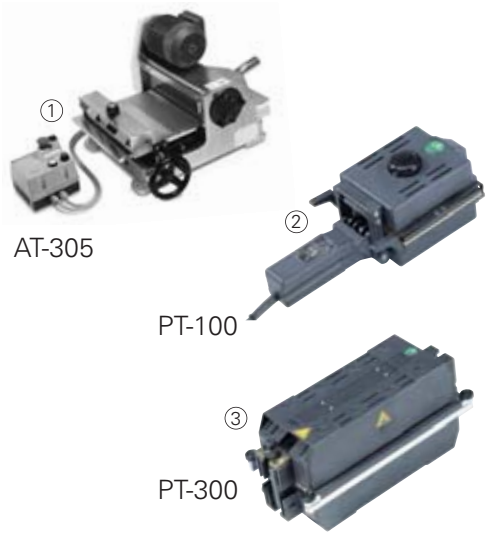
### Engineering Guidelines for HabaDRIVE®

- For: Machine designers, project leaders, engineers, technicians, fitters, maintenance staff.
- Benefits: Optimized engineering design, belt selection, and long and trouble-free belt service life.
- Main contents: Technical know-how, Application examples, Assistance with selection and calculation of the optimal belt type, Guidelines for the design of flat belt drives, Joining methods and tools, Belt installation, maintenance and storage, Trouble shooting.



## Two joining methods

Both joining methods, the adhesive-free **Flexproof** method for Polyester and Aramide belts and the **Thermofix** (skived and with adhesive) method for Polyamide belts, are safe and absolutely reliable. Both are suitable for on-site installation. We provide a selection of cost-effective, high-quality preparing and hot-pressing devices to support the joining process.

Method	<b>Flexproof</b>	<b>Thermofix</b>
Suitable for	<b>Polyester and Aramide (TC-, TCF-)</b> power transmission belts	<b>Polyamide (S-, A-)</b> power transmission belts
Principle		
<b>Key features</b>	<ul style="list-style-type: none"> <li>• Adhesive-free method</li> <li>• Easy handling, fast process</li> <li>• Homogeneous joining area</li> <li>• Short machine downtimes</li> </ul>	<ul style="list-style-type: none"> <li>• Adhesive-based method</li> <li>• High temperature resistance</li> </ul>
<b>Fabrication tools</b>	<p>Preparing devices ①</p> <p>AF-61/0</p> <p>Hot-pressing devices (hand tools) ②</p> <p>PF-61</p> <p>Hot-pressing devices (large size tools) ③</p> <p>PF-101</p> 	<p>Preparing devices ①</p> <p>AT-305</p> <p>Hot-pressing devices (hand tools) ②</p> <p>PT-100</p> <p>Hot-pressing devices (large size tools) ③</p> <p>PT-300</p> 

## Joining instructions

For detailed and updated Joining Data Sheets (instructions) and Fabrication Tool Data Sheets visit the Habasit website at [www.habasit.com](http://www.habasit.com) (Fabrication – Joining Data Sheets – Select Product Range – Select Product Group – Select Product).

## Fabrication, tools and services

The provision of superior fabrication capabilities is a key element of Habasit's service concept. Fabrication can take place either at the belt supplier's facility, on-site at the machine manufacturer, or at the end user. Joining can be made either by the customer or by Habasit's on-site service. Habasit has solutions for both cases, supported by our specially adapted range of joining tools and systems, and our extensive service network.

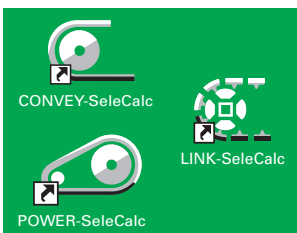
**Comprehensive services are central to Habasit's belting solution approach.**

**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. Each affiliate has its own belting experts. The Habasit team proudly provides the highest levels of support and top quality products enjoyed by the global market for over 60 years.



**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](mailto: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 33 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 lifecycles. 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, e.g. 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.

**At Habasit, we listen to our customers, innovate continuously and deliver reliable solutions to meet your every need.**

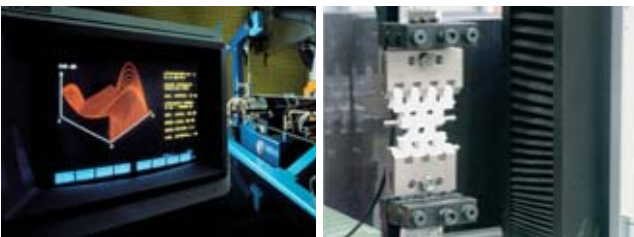
### Customers come first

At Habasit we understand that our success depends on your success. This is why we offer solutions, not just products; partnership, not just sales. Since our foundation in 1946, Habasit has brought this understanding of customer needs to life every day and for every application. That's why we're the No. 1 in belting today. Worldwide.



### Committed to innovation

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



### Certified for quality

We deliver the highest quality standards not only in our products and solutions, but also in our employees' daily work processes. Habasit AG is certified according to ISO 9001:2000.



### Worldwide leading product range

Habasit offers the largest selection of belting, conveying, processing and complementary products in the industry. Our response to any request is nothing less than a specific, tailor-made solution.

A selection of our product ranges:



**HabaFLOW®**  
Fabric based conveyor and processing belts

**HabasitLINK® & KVP®**  
Plastic modular belts

**HabaDRIVE®**  
Power transmission belts



**HabaSYNC®**  
Timing belts

**HabaCHAIN®**  
Chains (slat and conveyor chains)

**HabiPLAST®**  
Profiles  
Guides  
Wear strips



Machine tapes

Seamless belts

Round belts



Fabrication tools (joining tools)

Gear reducers  
Gearmotors  
Motion control

Electric motors

### Worldwide support

Our extensive organization is ready 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.

**For additional information please visit:**  
**[www.habasit.com](http://www.habasit.com)**

**Austria**

Habasit GmbH, Wien  
Phone: +43 1 690 66  
www.habasit.at

**Belgium**

Habasit Belgium N.V., Zaventem  
Phone: +32 2 725 04 30  
www.habasit.be

**Canada**

Habasit Canada Ltd., Oakville  
Phone: +1 905 827 4131  
www.habasit.ca

**China**

Habasit East Asia Ltd., Hong Kong  
Phone: +852 2145 01 50  
www.habasit.com.hk

Habasit (Shanghai) Co., Ltd.  
Shanghai

Phone: +8621 5488 1228  
Phone: +8621 5488 1218  
www.habasit.com.hk

**Czech Republic**

Habasit Bohemia spol. s.r.o., Brno  
Phone: +4205 41 421 651  
www.habasit.cz

**France**

Habasit France S.A.S., Mulhouse  
Phone: +33 389 33 89 03  
www.habasit.fr

**Germany**

Habasit Rossi GmbH,  
Eppertshausen  
Phone: +49 6071 969 0  
www.habasitrossi.de

**Hungary**

Habasit Hungária Kft., Esztergom  
Phone: +36 33 510 610  
www.habasit.hu

**India**

Habasit-Iakoka Pvt. Ltd., Coimbatore  
Phone: +91 422 262 78 79  
www.habasitiakoka.com

**Italy**

Habasit Italiana SpA  
Customer Care:  
Phone: 199 199 333  
For int. calls: +39 0438 911444  
www.habasit.it

**Japan**

Habasit Nippon Co. Ltd., Yokohama  
Phone: +81 45 476 03 71  
www.habasit.co.jp

**Latvia**

Habasit Baltic SIA, Daugavpils  
Phone: +371 54 074 88  
www.habasit.lv

**Netherlands**

Habasit Netherlands BV, Nijkerk  
Phone: +31 33 24 72 030  
www.habasit.nl

**New Zealand**

Habasit Australasia Ltd., Hornby  
Phone: +64 3348 5600  
www.habasit.co.nz

**Norway**

Habasit Norge A/S, Oslo  
Phone: +47 81 55 84 58  
www.habasit.no

**Poland**

Habasit Polska Sp. zo.o.,  
Dąbrowa Górnicza,  
Phone: +48 32 639 02 40  
www.habasit.pl

**Romania**

Habasit Import/Export Romania SRL,  
Bucuresti, Phone: +40 21 323 95 65  
www.habasit.ro

**Russia**

OOO Habasit Ltd., St. Petersburg  
Phone: +7 812 365 64 62  
www.habasit.ru

**Singapore**

Habasit Far East Pte. Ltd., Singapore  
Phone: +65 6862 55 66  
www.habasit.com.sg

**Spain**

Habasit Hispanica S.A.,  
Barberà del Vallès  
Phone: +34 93 719 19 12  
www.habasit.es

**Sweden**

Habasit AB, Hindas  
Phone: +46 301 226 00  
www.habasit.se

**Switzerland**

Habasit Schweiz, Reinach  
Phone: +41 61 715 15 75  
www.habasit.ch

**Taiwan**

Habasit Rossi (Taiwan) Ltd.  
Taipei Hsien  
Phone: +886 2 2267 0538  
www.habasit.com.tw

**Turkey**

Habasit Kayis San. Ve Tic. Ltd. Sti.  
Yenibosna - Bahcelievler - Istanbul  
Phone: +90-212-654 94 04  
www.habasit.com.tr

**Ukraine**

Habasit Ukraina, Vinnica  
Phone: +38 0432 58 47 35  
www.habasit.ua

**United Kingdom and Ireland**

Habasit Rossi (UK) Ltd., Silsden  
Phone: +44 870 835 9555  
www.habasitrossi.co.uk

**USA**

Habasit America  
Suwanee, Georgia  
Phone: +1 800-458-6431  
www.habasitamerica.com

Habasit America (Habasit ABT)  
Seamless Belts  
Middletown, Connecticut  
Phone: +1 860 632 2211  
www.seamlessbelts.com

**ROSSI GEARMOTORS**

a partner of Habasit, is one of  
Europe's largest industry groups  
for the production and sale of gear  
reducers, gearmotors, inverters,  
standard and brakemotors.

**Rossi Motoriduttori**

Via Emilia Ovest 915/A  
41100 Modena – Italy  
Phone: +39 059 33 02 88  
www.rossi-group.com  
info@rossi-group.com

**Headquarters**

Habasit AG  
Römerstrasse 1  
CH-4153 Reinach, Switzerland  
Phone +41 61 715 15 15  
Fax +41 61 715 15 55  
E-mail info@habasit.com  
www.habasit.com

Registered trademarks  
Copyright Habasit AG  
Subject to alterations  
Printed in Switzerland  
Publication data:  
4132BRO.PTB-en0209HQR