

## World-famous Habasit W-8 spindle tapes are energy-saving champions

### Saving energy

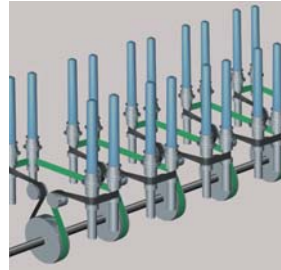
Saving energy is an important issue for the textile industry today, as power requirements are continuously increasing due to high-speed operations. The ring spinning frame is a major consumer of energy, taking 40% to 60% of total spinning mill energy consumption.

Of this, 1/3 of the power is used to drive the spindles. Spinning mill power costs currently account for about 12% to 18% of the total cost of production.

As a result, saving energy with the spindle tape has become even more vital in the spinning industry. Studies conducted by a leading research institute in South India on modern ring spinning frames at higher spindle speeds have shown convincing results.

### Proven in field tests

Field tests at reputed spinning mills have confirmed that the replacement of polyamide spindle tapes with the highly efficient Habasit polyester W-8 spindle tape provides **substantial energy and cost savings**.



#### 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

#### France

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

#### Germany

Habasit GmbH  
Eppertshausen  
Phone: +49 6071 969 0  
www.habasit.de

#### India

Habasit-lakoka Pvt. Ltd., Coimbatore  
Phone: +91 422 262 78 79  
www.habasiakoka.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

#### 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. z o.o.,  
Dąbrowa Górnicza,  
Phone: +48 32 639 02 40  
www.habasit.pl

#### Russia

OOO Habasit Ltd., St. Petersburg  
Phone: +7 812 325 40 82  
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 GmbH, Reinach  
Phone: +41 61 577 51 00  
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 - Bahçelievler - 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.habassitrossi.co.uk

#### USA

Habasit America  
Conveyor belts, power  
transmission belts, gearmotors  
Suwanee, Georgia  
Phone: +1 800-458-6431  
www.habasitamerica.com

Habasit America  
Seamless belts, timing belts  
Middletown, Connecticut  
Phone: +1 860 632 2211  
www.seamlessbelts.com  
www.habasync.com

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

Rossi S.p.A.  
Via Emilia Ovest 915/A  
41123 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:  
4300FLY.PTB-en0911HOR

**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.

## Energy and Cost Savings with Habasit Power Transmission Belts and Tapes

With energy costs increasing continuously, Habasit has the right solutions for energy and cost savings across the entire range of textile machinery.

Our belts and tapes offer:



- High efficiency
- High machine performance
- Low energy consumption
- Low costs

**4% - 8% energy and cost savings**

### Unique characteristics of the W-8 polyester spindle tape

Features	Benefits
• High tape flexibility	→ Low bending resistance
• Constant high friction (black side)	→ Reliable power transmission
• No fiber and fluff accumulation	→ No slip → Constant spindle speed → Consistent yarn quality
• Dimensional stability, no elongation	→ No slip → Constant spindle speed → Consistent yarn quality



## Energy savings with Habasit TC **tangential belts** compared with competitors' polyamide belts

### Your savings

Compare the energy cost-saving potential of Habasit polyester TC and TF tangential belts with competitors' polyamide tangential belts:

Average energy-saving potential in percentage of power to be transmitted	<b>4% – 6%</b>
Average energy cost-saving potential per spindle / year	<b>~ USD 1</b>
Average energy cost-saving potential per year in a spinning mill with around 200,000 spindles	<b>~ USD 200,000</b>

### Energy consumption comparisons – showing savings

#### Examples from India

Energy consumption comparison between competitor polyamide tangential belts and Habasit polyester TC tangential belts, made on Leewha TFO two-for-one twisters at the Rajasthan Spinning & Weaving Mills Ltd. in India:

	Example 1		Example 2	
	Competitor polyamide belt	Habasit TC-35ER belt	Competitor polyamide belt	Habasit TC-35/30ER belt
Spindle speed	9,100 rpm		10,100 rpm	
Consumed energy	24.32 kWh	22.82 kWh	23.3 kWh	22.3 kWh
<b>Energy savings with Habasit TC belts</b>		<b>6.2%</b>		<b>4.3%</b>

#### Examples from China

Energy consumption comparison between competitor polyamide tangential belts and Habasit polyester TC tangential belts, made on Zhejiang Weifeng WF-168 covering machines (840 spindles) in China:

	Example 1		Example 2	
	Yiwu Hangfei Covering Yarn Co. Ltd.		Shantou Covering Yarn Factory	
Energy savings per machine and day	24 kWh		21 kWh	
Average working days per year	300		360	
Energy costs per kWh	CNY 0.7	USD 0.11	CNY 0.7	USD 0.11
Energy cost-savings per machine and year	CNY 5,040	USD 792	CNY 5,292	USD 832
Number of machines installed	275		250	
Number of spindles per machine	840		840	
<b>Total energy savings per year</b>	<b>CNY 1,386,000</b>	<b>USD 217,800</b>	<b>CNY 1,323,000</b>	<b>USD 207,900</b>
<b>Energy savings per year and spindle</b>	<b>CNY 6.00</b>	<b>USD 0.94</b>	<b>CNY 6.3</b>	<b>USD 0.99</b>

## Outstanding benefits of the TC and TF **tangential belts**

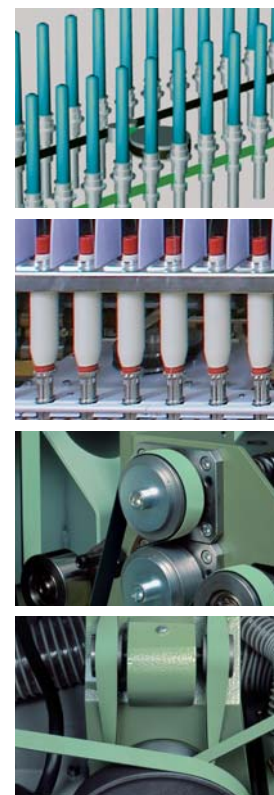
### Developed for excellence

Habasit has developed its unique TC and TF belt ranges based on experience, ongoing research, close contacts with the textile industry, and long-term partnerships with leading machine manufacturers.

**TC tangential belts:** The high-efficiency tangential belt with a **polyester** traction layer, which results in high-accuracy spindle speeds.

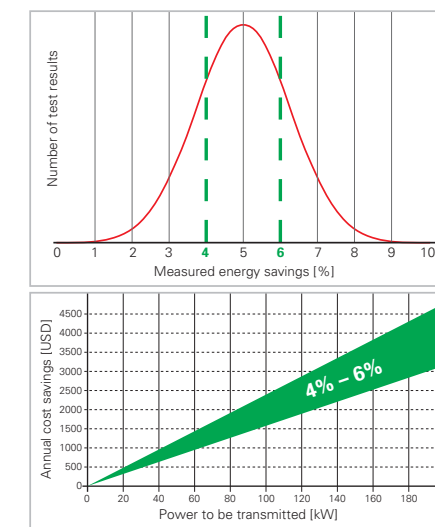
**TF tangential belts:** The high-efficiency tangential belt with an **aramide** traction layer, resulting in the highest accuracy spindle speeds and shortest take-up.

Features	TC	TF	Benefits
• High efficiency	●	●	→ Energy and cost savings → Energy consumption reduced by 4% – 6% → Economical → Reduced operating costs
• Adhesive-free joining method	●	●	→ Simple and fast joining → Easy handling (no adhesives) → Minimum equipment required → Short machine downtimes → Reduced operating costs
• Reliable and homogeneous joining quality	●	●	→ High spindle speeds → No vibration → Consistent yarn quality
• TC range: high elastic modulus	●	●	→ High accuracy of speed → Consistent yarn quality
• TF range: top-grade elastic modulus	●	●	→ Highest accuracy of speed even with very long belts
• Optimized design	●	●	→ Low noise emissions



For technical details or further information, please contact your local Habasit representative: [www.habasit.com](http://www.habasit.com)

## Energy savings with Habasit TC and TF **flat belt** drives compared with V-belt drives



### Join the energy-saving campaign

#### For peripheral equipment and plant infrastructure (e.g. fans, compressors, vacuum pumps, blowers, etc.)

Habasit also provides optimized driving belt solutions. Conversion campaigns at over 2,000 sites have demonstrated that switching from V-belts to Habasit's flat belts reduces energy consumption by **4% to 6%**.

### Check your approximate energy cost-saving potential

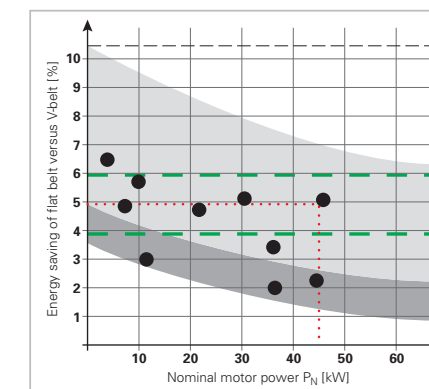
Assumption:  
12 h/day  
330 days/year  
0.10 USD/kWh

**4% - 6%  
energy  
and cost  
savings**



### Energy savings on fan drives

The energy-saving properties of the flat belt drive compared to the V-belt drive have been proved during practical tests.



● The illustration indicates the saved energy as a percentage, depending on the nominal power of the installed motor.

■ Partial load range  
■ Rated load (full load) range

#### Example (red dotted line):

Energy saving of a fan drive equipped with flat belts on a 45 kW motor:  
– at rated load (full load) about 2%  
– at partial load about 5%

As electric motors usually work at partial load, the energy-saving potential of a flat belt drive is considerable.

Average: **4% to 6% energy savings.**