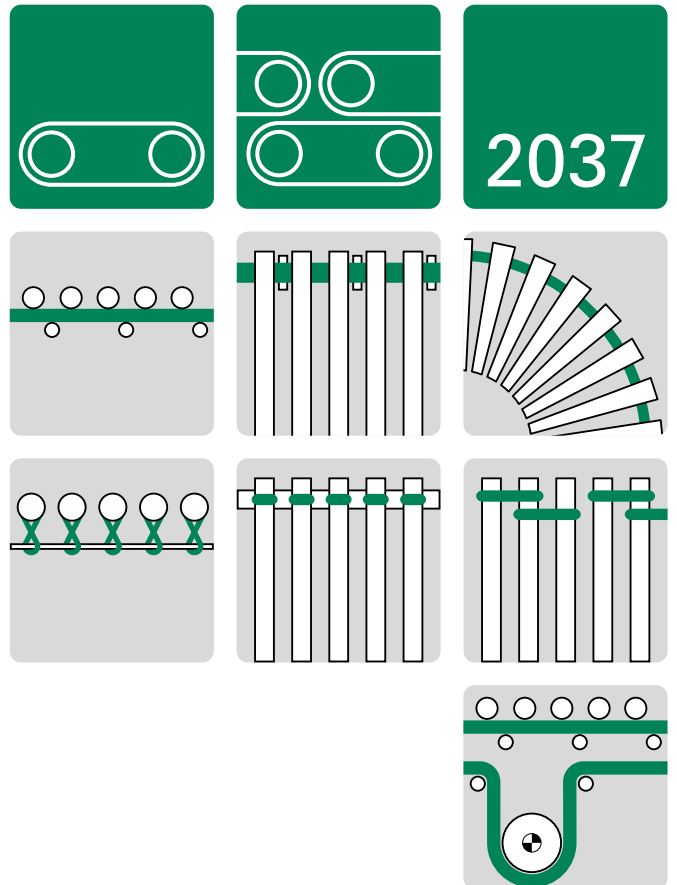


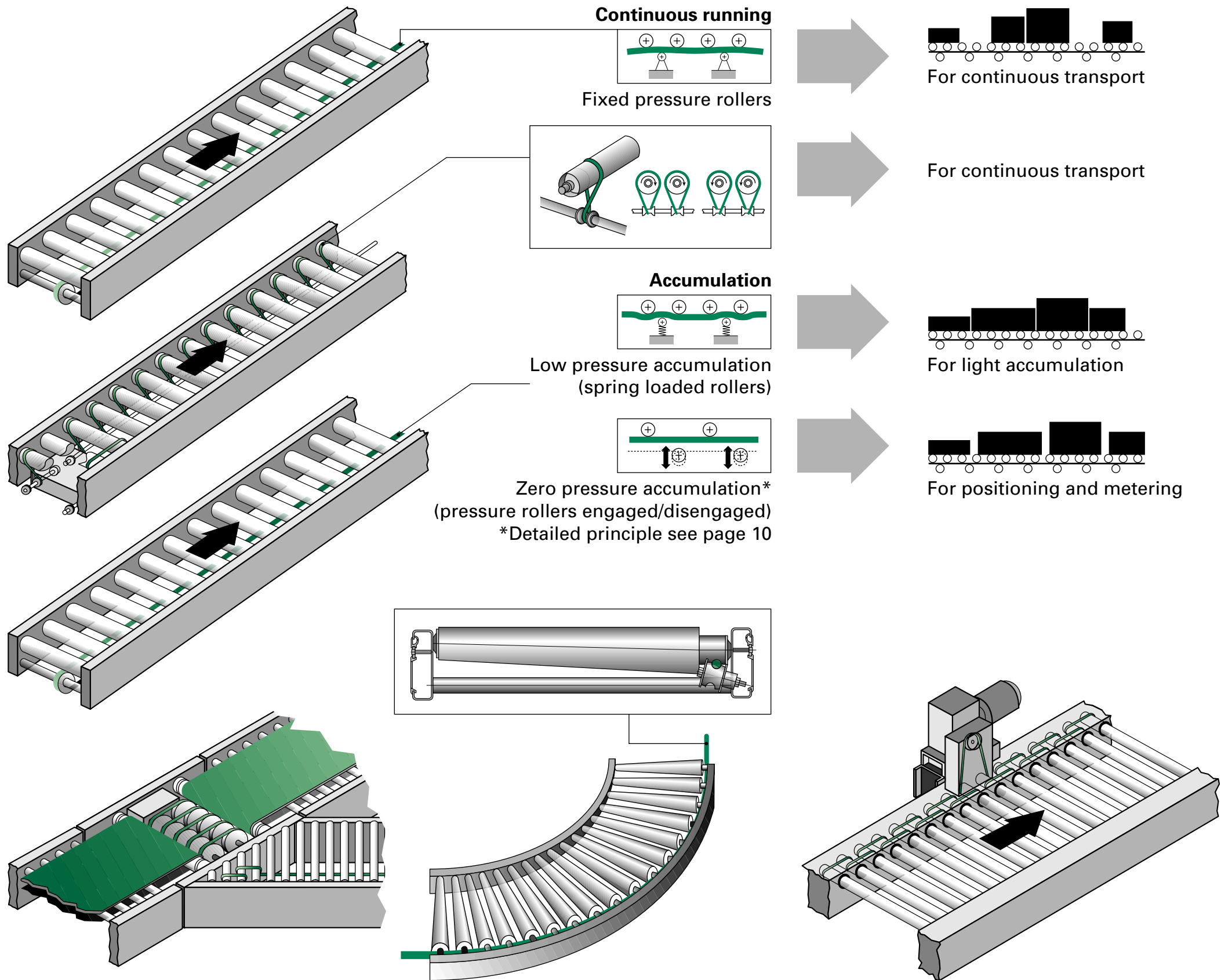
Edition: December 2001
Replaces edition: –



Application
brochure

Habasit drive belts for live roller conveyors (LRC)





Some questions

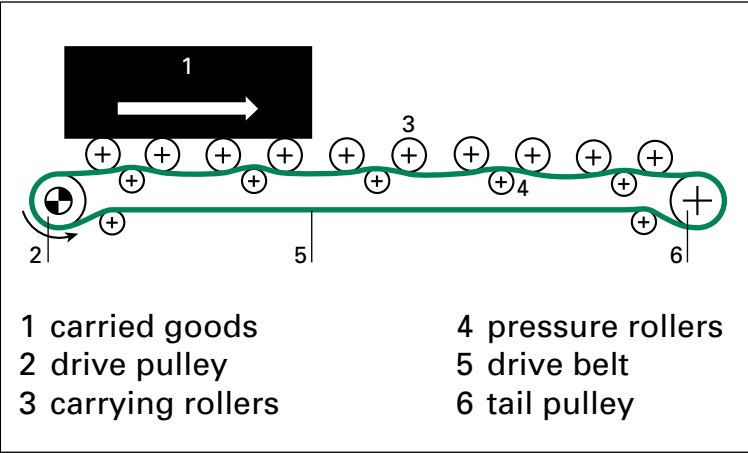
Are any of following live roller problems a challenge?

- Noise level?
- Long downtimes/ interruptions?
- Reduced productivity?
- Mis-sorts?
- Belt tracking?
- High maintenance (lost chainpads, excessive crease, etc.)
- Use in cold stores
- Others

**One YES
is enough for you
to be talking
to Habasit**

Live roller conveyor (LRC) systems/principles

4



Continuous running		Belt design	Requirements	Some Habasit belt types
Fixed pressure rollers 			- positive power input from drive pulley - positive power transfer to carrying rollers	CM-types TC-types TF-types MAM-types
	Central shaft drive 		positive power input and transfer	Polycord roundbelts
Accumulation				
Low pressure accumulation 			- selected power transfer to carrying rollers - positive power input from drive pulley	MAM-5P FAB-12E FAB-8E
Zero pressure accumulation 			positive power input and transfer	CM-types TC-types TF-types

A fine selection of belts for live roller conveyors

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Technical data					Specially suited for							
Belt type	Tensile force for k1% (dynamic) [N/mm]	Belt thickness [mm]	Minimum pulley diameter of drive pulley and of tail pulley [mm]	Traction layer/element	For continuous running	For low pressure accumulation	For zero pressure accumulation	For use in cold stores	Low noise	Shock absorbing in start and stop operation	High dimensional stability	Short take-up
TF-15	15.0	2.0	32	Aramid	●	○	●	◐	●	○	●	●
TF-22	22.0	2.4	63	Aramid	●	○	●	◐	●	○	●	●
TF-33	33.0	3.0	90	Aramid	●	○	●	◐	●	○	●	●
TC-20EF	9.5	2.0	25	Polyester	●	○	●	◐	●	●	●	●
TC-35ER	17.0	2.5	50	Polyester	●	○	●	◐	●	●	●	●
TC-55ER	26.0	3.0	70	Polyester	●	○	●	◐	●	●	●	●
CM-14/30F	7.0	3.0	30	Polyester	●	○	●	○	●	●	●	●
CM-18/30F	15.0	3.0	40	Polyester	●	○	●	○	●	●	●	●
FAB-12E	20.0	2.5	60	Polyester	◐	●	◐	●	○	●	●	●
FAB-8E	12.0	1.6	20/30	Polyester	◐	●	◐	●	○	●	●	●
MAM-5E	3.0	1.4	25	Polyester	◐	○	◐	○	●	●	●	◐
MAM-5P	3.0	1.4	20	Polyamide	◐	●	◐	○	●	●	●	◐
Polycord 4...15	○	4...15	40...150	Polyurethane	●	○	○	◐	●	●	●	○

Other belt types available e.g.: SAB-, NAB-, HAT-, HAR-types.

Explanation: ● applicable ◐ conditionally applicable ○ not applicable

6

Features and benefits of the Habasit live roller drive belts

Excellent dimensional stability



→ Optimum process reliability

→ Positive flow response

→ No retensioning

⇒ troublefree production

⇒ no downtimes

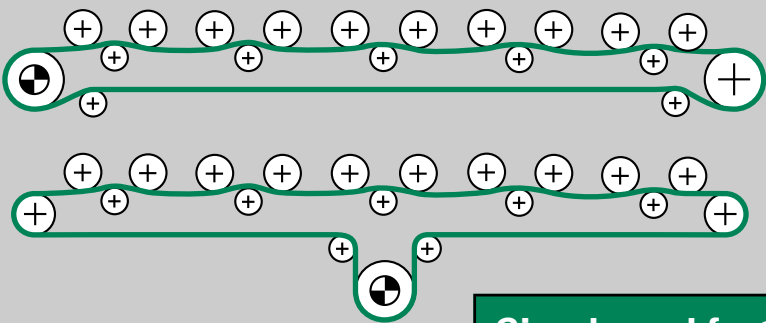
High strength and superior longitudinal flexibility



→ Small pulley diameters

→ Energy efficient

⇒ economical operation



Durable and high quality friction covers/coatings



→ Superior power input (negligible slip)

→ Positive flow response

→ Long service life

⇒ high output/throughput

Simple and fast joining system (Flexproof)



→ High strength over joining area

⇒ superior reliability

→ Uniform joining (perfectly aligned belt ends)

⇒ low noise operation

→ Highly flexible over joining area (no adhesives – no stiffening)

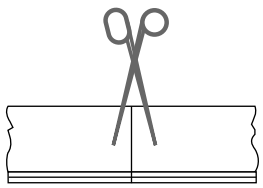
⇒ optimum service life

→ On site installation

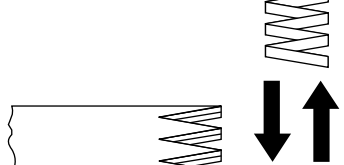
⇒ shorter downtimes

7

The belt joining: The Habasit Flexproof joining system



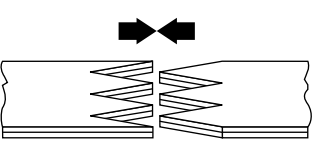
Cutting



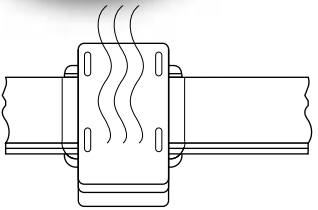
Die-cutting



AF-102



Joining



Hot-pressing



PF-61 heating press



PF-101 heating press



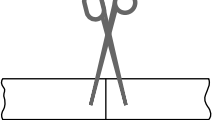
CD-61 cooling tongs

No special skills required for joining

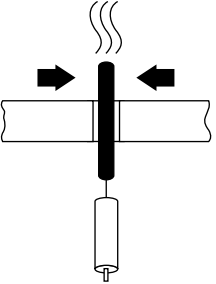
Joining in less than 15 minutes without any adhesives

8

The joining of Habasit Polycord round belts



Cutting



Melting



S-16 cutting device

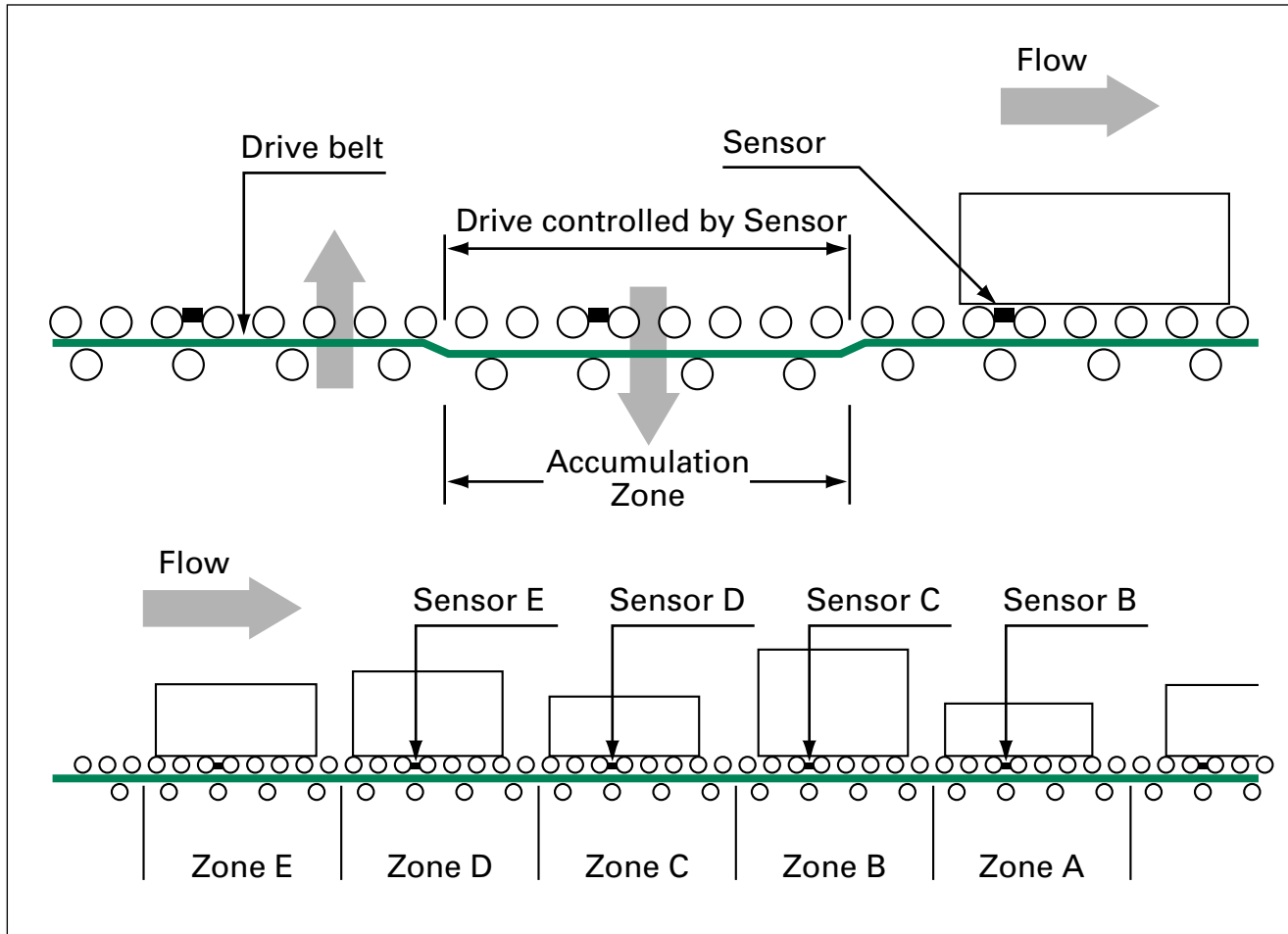


PQ-18 welding device

9

Note: Other Habasit joining tools are available on request.

The zero pressure accumulation system/principle



- Zero pressure accumulation occurs when the driving force is completely removed from the conveyed product.
- The above is depicting a LRC with sensors spaced along the conveyor. When a product comes to standstill on a sensor the belt in the zone upstream drops away from the carrying rollers and thereby removes the driving force, while the belt continues to run.
- Actuating mechanisms can be mechanical, electric or by pneumatic or fluid control.
- To re-activate a zone the product is driven off the sensor, activating the next zone. This in turn drives the product off its sensor. The operation mode is called singulation.

Belt design worksheet for live roller conveyor belts

11



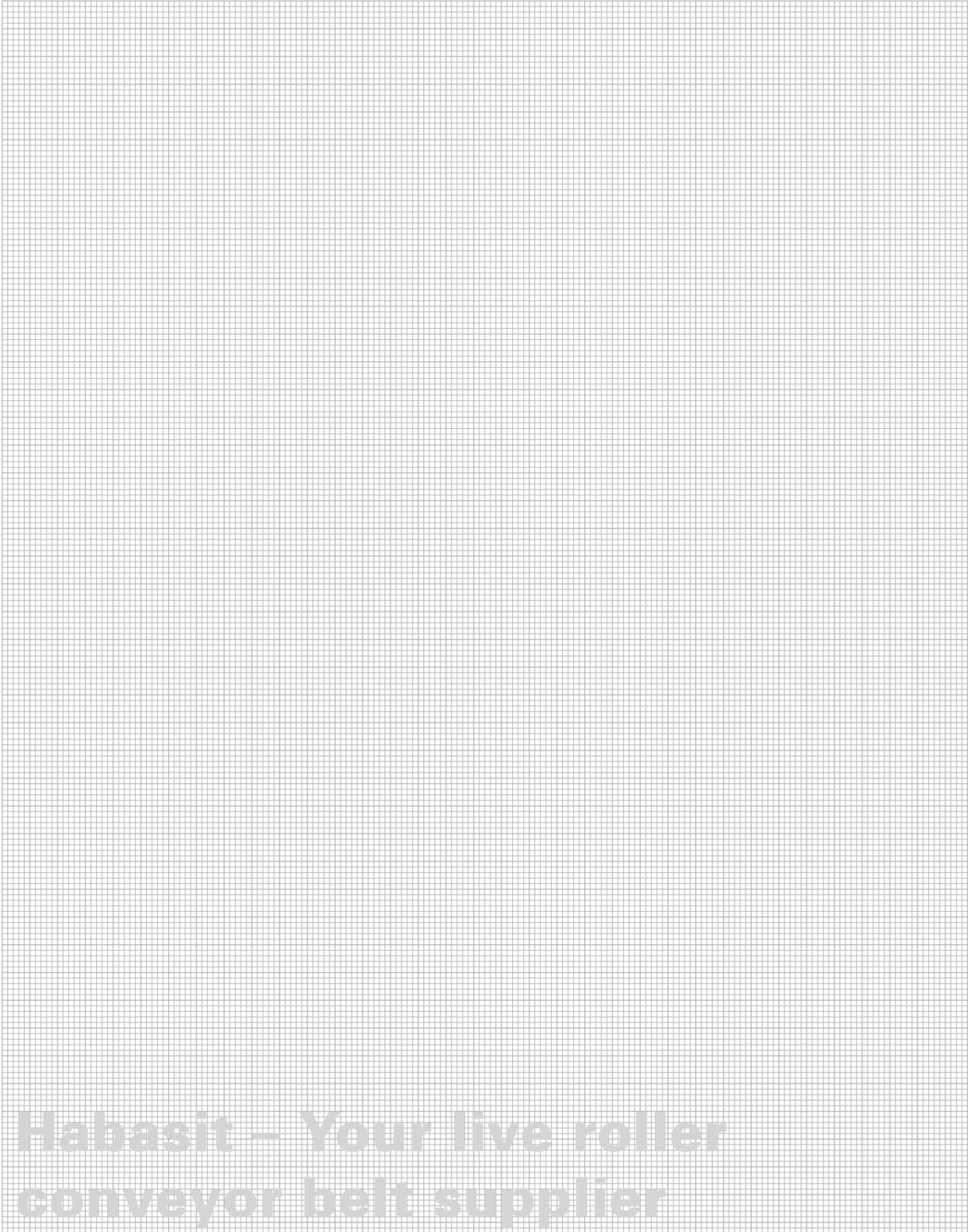
Computer aided belt calculation available.
We will determine the most suitable belt for you
in accordance with the following information.

Customer information	Originator/name:
	Customer:
	Address:
	Contact person:
	Title:
	Phone number:
	Fax number:
	E-mail:
Equipment data Use reverse side for sketches (i.e., drive configuration) and additional comments	1. Total conveying length mm
	2. Conveying velocity m/min
	3. Number of pressure rollers per carrying rollers (i.e., 1 for 2, 1 for 1)
	4. Weight of one carrying roller kg
	5. Number of carrying rollers
	6. Carrying roller diameter mm
	7. Head drive ☐
	8. Tail drive ☐
	9. Center drive ☐
	10. Diameter of drive pulley mm
	11. Arc of belt contact on drive pulley °
	12. Drive pulley with lagging ☐ YES ☐ NO
	13. Smallest tail pulley (idler/deflection/return pulley) in drive train with arc of contact > 20° mm
Application data	14. Total load of carried goods kg
	15. Individual loads of carried goods kg
	16. Material conveyed with ☐ soft bottom (i.e., corrugated card board)
	☐ medium soft bottom
	☐ hard bottom (i.e., hard plastic, wood, etc.)
	17. Operating environment, temperature range°C to°C
	18. Other influences, if applicable
Belt data	19. Required belt thickness from mm to mm
	20. Required belt width from mm to mm

**For support of new equipment design
please contact Habasit**

Make a copy or tear out page to fill in.

Belt design worksheet for live roller conveyor belts, sketches, comments



**Habasit – Your live roller
conveyor belt supplier**

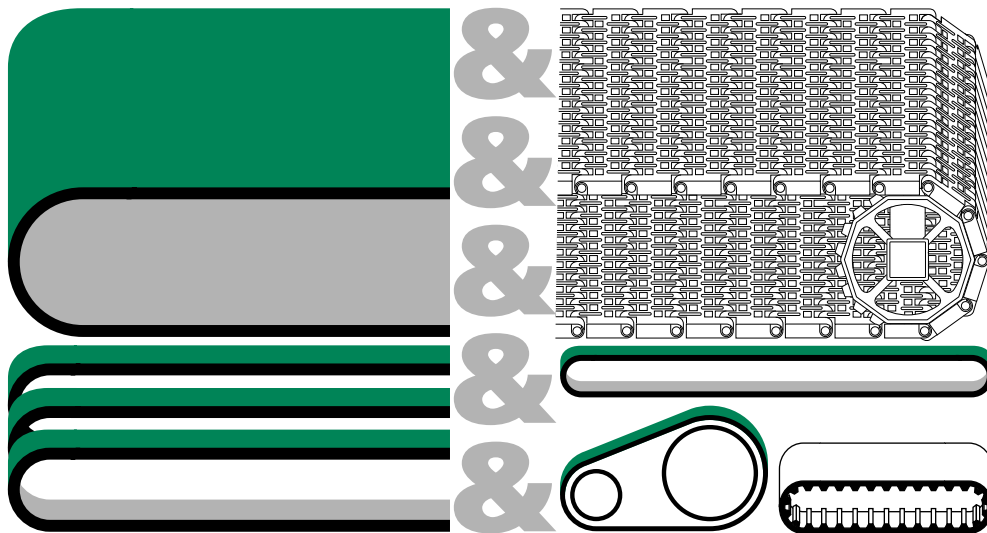
or some reasons
to choose Habasit
as your belting partner

1 Experience

Habasit was founded in 1946 and has accumulated more than 50 years of belting experience backed by our own state-of-the-art engineered processing machinery. Production at Habasit is maintained by well trained and committed teams. Our activities are supported by in-house Research & Development teams and aim at excellence in application and customer-oriented solutions. We have extensive experience in most industries including: food – materials handling – printing & paper – textile – wood – aluminium – glass – metal working – canning – bottling – automotive – electronics – business machines.

2 One partner – one source

Habasit – One partner for all your belting needs such as – traditional conveyor and processing belts – modular belts – machine tapes – seamless belts – power transmission belts – timing belts – round belts – etc.



3 Worldwide service

Habasit's engineering consulting and service network extends worldwide with local distribution and service associates in more than 70 countries.

www.habasit.com



4 Quality

Habasit has been certified according to the ISO 9001/EN 29001 quality standards since 1987.



5 References

Example: Live roller belt users.

Siemens Dematic – Van Riet – TGW – Moving – Knapp – Interroll – Bushmann – Sandvik

Please contact your local
Habasit representation for
further information:

Antriebs-, Transportelemente
Eléments de transmission, de transport
Power transmission, conveyor belts
Elementos de transmisión, de transporte
Elementi di trasmissione, di trasporto
Elementos de transmissão, de transporte
Aandrijf-, transportelementen
Transmissions-, transportelement
Voimansiirto-, kuljetuselementit
Kraftoverførings-, transportelementer
動力の伝達及びコンベヤーの原理

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