siegling
belting

WOOD BASED PANELS MANUFACTURE

Siegling – total belting solutions

forbo
MOVEMENT SYSTEMS

You can find information on further Forbo Siegling products relevant to the wood processing industry in the following brochures:

No.	Title
215	Siegling Transilon – Standard product range
224	Siegling Transilon Conveyor and processing belts
317	Siegling Transilon Technical information 1 Storage, finishing, fitting
318	Siegling Transilon Technical information 2 Special features and properties

CONVEYING AND PROCESSING WOOD EFFICIENTLY

Forbo Siegling products used in wood-panel manufacturing are the result of specific research and close collaboration with OEMs and users for over 50 years. Which is why our sophisticated belting products can help you exploit the potential of your production machinery to the full and minimize scheduled and unscheduled downtime.

Splicing equipment and straightforward splicing methods make on-site splicing and handling child's play. The belts have long service lives and are easy to track – saving time and costs.

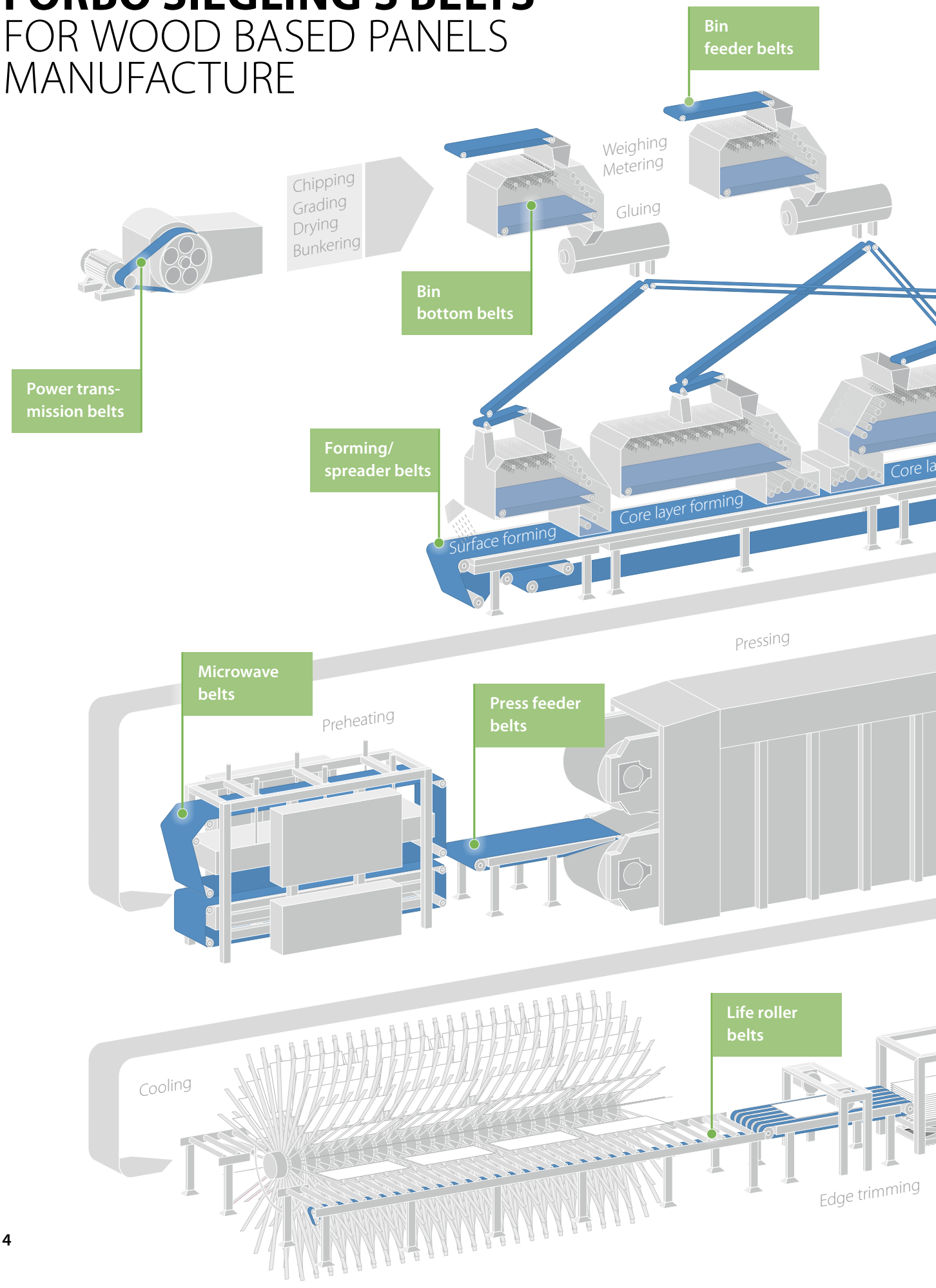
More than 300 service points worldwide ensure spare parts and services.

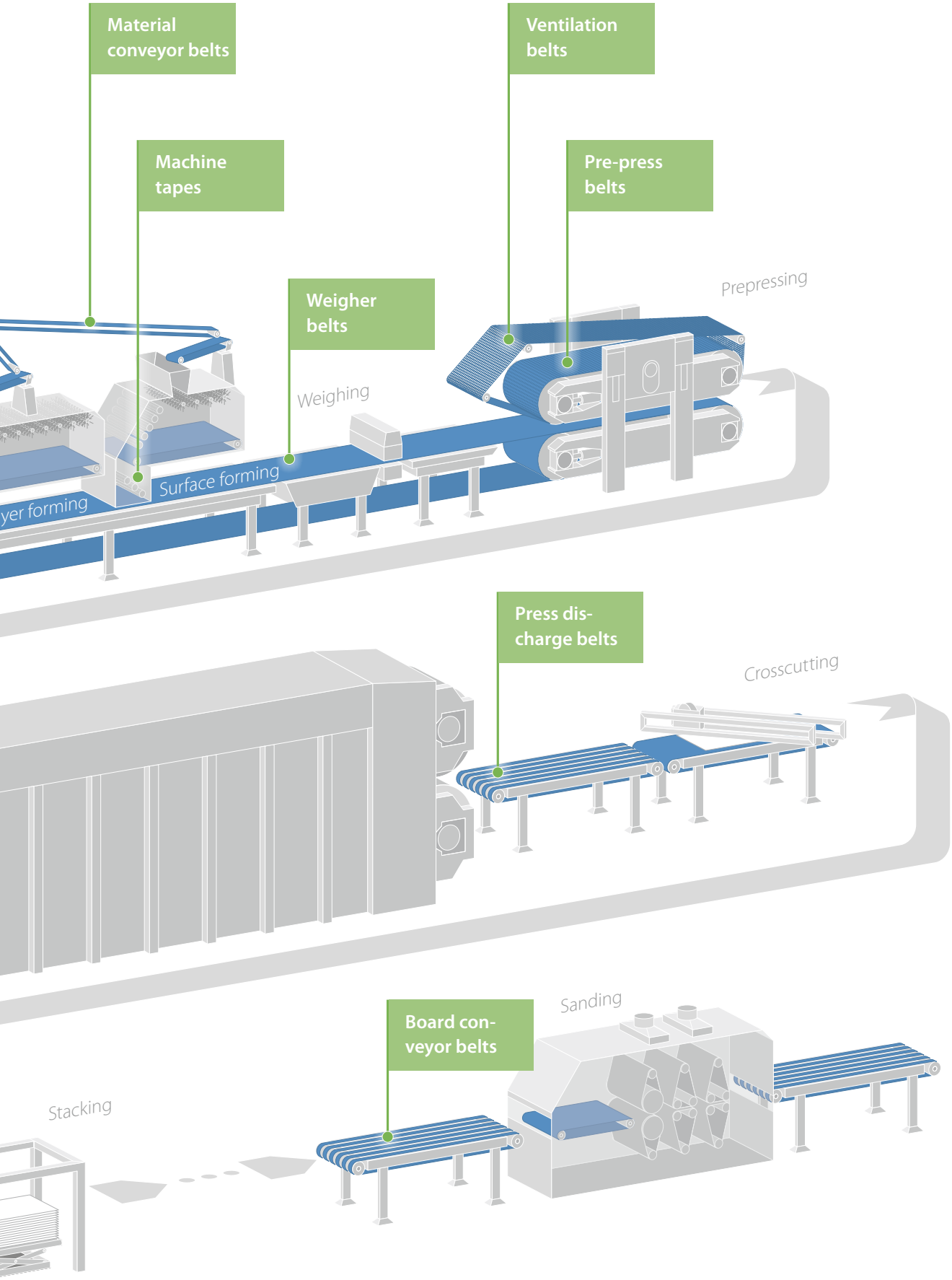
siegling transilon
conveyor and processing belts

siegling transvent
ventilation belts

siegling extremultus
flat belts

FORBO SIEGLING'S BELTS
FOR WOOD BASED PANELS MANUFACTURE




Material conveyor belts
Machine tapes
Weigher belts
Ventilation belts
Pre-press belts
Prepressing
Weighing
Surface forming
yer forming
Press dis-charge belts
Crosscutting
Board con-veyor belts
Sanding
Stacking

CONVEYOR AND PROCESSING BELTS **FOR BOARD PRODUCTION**

Power transmission belts for wood preparation

The tension members in the various materials (even in truly endless types) are embedded in a thermoplastic intermediate layer. Highly elastic elastomer, urethane, chrome leather, polyamide, polyester or blended fabrics are used as coatings. Compared with other power transmission products, Siegling Extremultus power transmission belts stand part for their better efficiency (≥ 98 %), accurate and even tracking plus easy handling.

- Consistent speeds
- Long service lives
- Short take-up ranges, little creep
- Good damping characteristics
- Superior strength up to 1850 kW
- Bevel- and taper-cone drives

Conveyor, metering and bin floor belts

The wide range of Siegling Transilon belts make any type of cleaning, sieving, metering and gluing jobs possible.

Depending on type, the belts can be customized for special tasks (also as a combination) with:

- Urethane, PVC and silicone coatings
- Good release characteristics
- Patterned top faces for inclined conveying
- Profiles on the top face and underside to seal edges in silos or to act as guides
- Flexible and highly accurate Z-splices
- Especially low fluctuations in splice thickness and weight for check-weigher belts
- Mechanical fasteners

Former, accelerator and transfer belts

The tension member made of HighTech-fabric provides a linear, steep load/extension curve. The top face has a microscopically thin, matte coating. All of the belt is very thin and manufactured with low weight tolerances (< ±1 %).

- Minimal load on the chip mat lengthways
- No caking of the chip mat
- Precise manufacture of thin sheets
- Very flexible lengthways
- No elongation during constant operation
- Very good directional stability properties
- Very short lead times, rapidly reaches dynamic operational condition
- Does not tend to deform after standing still for a long time on the drums
- Highly laterally stiff
- Flexible Z-splice
- Highly resistant to hydrolysis
- Best release properties, high release

Pre-press belts

Forbo Siegling pre-press belts have a highly modular tension member, made of aramide fabric with a tensile force of approx. 140 N/mm at operational elongation. So they are suitable for heavy pre-presses with a nip pressure of up to 3000 N/cm and belt pull of up to 1800 N/cm.

- Minimal expansion of the mat between the pressure rollers
- Minimal load on the chip mat lengthways
- Very durable surface
- Low creep
- Very short take-up ranges.

Differences in the thickness of the mat and the resulting different tensile forces over the width of the belt or the lateral forces occurring as a result of the belt tracking are compensated for by

- Higher level of lateral stiffness and
- Higher level of resistance to diagonal warping.

Ventilation belts

The Forbo Siegling ventilation belts for pre-presses consist of a special blended fabric that is durable and strong. They have a high proportion of warp threads, are highly air permeable and have a very smooth surface.

The extremely strong Z-splice, developed by Forbo Siegling leaves absolutely no marks:

- No electrostatic build-up and lower fire risk, uninterrupted production
- No adhesion of chips/fibers
- Excellent ventilation of the chip mat / fiber mat
- Very good surface quality of the boards
- Reliable splice
- Different splicing techniques

Conveying and processing

For the subsequent conveying and processing of the boards Siegling Transilon conveyor and processing belts and Siegling Extremultus live roller power transmission belts with different properties are used. From robust all-rounders right up to absolute specialists.

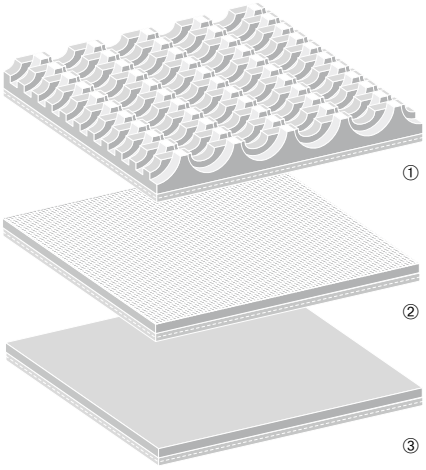
The belts must have low elongation, be durable and need little maintenance for simple conveying tasks and when cutting to size.

In finishing (veneering, varnishing, coating) the demands rapidly increase: the belts used must be able to position accurately, be resistant to heat and solvents and easy to clean.

SIEGLING TRANSILON
CONVEYOR AND PROCESSING BELTS

	Article number	Total thickness approx. [mm]	Weight approx. [kg/m²]	Pull at 1 % elongation (k_1 relaxed) approx. [N/mm width]*	Max. belt width [mm]	d_{min} counter-bend / d_{min} bend / r_{min} knife approx. [mm]**	Permissible operating temperature [°C]	Surface hardness [Shore A]	Surface	Properties/ applications	
Siegling Transilon											
E 3/2 U0/U0 transparent FDA	900009	1.20	1.10	4.50	4600	14/8/r3	-30/+100	–	Fabric texture	Laterally stiff	
E 4/2 A0/A2 MT-HACCP white FDA	906660	1.30	1.10	5.00	3000	40/14/r5	-10/+60	92	Matte	Laterally stiff to a limited extent	
E 4/2 S0/S3 FSTR white FDA	900136	1.50	1.60	4.50	3100	40/–/–	-40/+180	30	Fine texture	Laterally stiff	
E 8/2 U0/V5 green	900025	2.10	2.50	7.50	4600	30/–/–	-10/+70	75	Smooth	Laterally stiff	
E 8/2 U0/V5H MT black	900026	2.20	2.50	7.50	4600	40/–/–	-10/+70	85	Matte	Laterally stiff	
E 8/2 U0/V20 AR green	900037	4.90	4.00	6.00	1500	40/–/–	-10/+70	45	Anti-skid	Laterally stiff, incline conveying	
E 8/2 0/V5H S/MT black	996141	2.10	2.50	8.00	4500	40/–/–	-10/+70	85	Matte	Laterally stiff	
E 8/2 U0/U2 MT-NA white FDA	900277	1.40	1.50	6.50	3100	24[2)]/8/r5	-30/+100	85	Matte	Laterally stiff	
E 8/2 X0/A2 MT-HACCP white FDA	906776	1.70	1.50	9.50	3000	50/14/r5	-10/+60	90	Matte	Laterally flexible	
E 12/2 U0/V7 green	900045	2.80	3.40	10.50	4650	60/–/–	-10/+70	75	Smooth	Particularly laterally stiff	
E 12/2 U0/G20 AR black	906447	5.50	4.00	7.00	1450	90/–/–	-30/+100	65	Anti-skid	Laterally stiff, incline conveying	
E 12/2 U0/G20 AR green	906217	5.50	4.00	8.00	1450	90/–/–	-30/+100	65	Anti-skid	Laterally stiff, incline conveying	
E 12/2 U0/U2 MT blue FDA	906782	1.70	1.80	12.50	4200	40[2)]/10/r5	-30/+100	85	Matte	Laterally stiff, resistant to hydrolysis	
E 12/2 U0/V20 green	900262	3.35	4.10	10.50	3000	60/–/–	-10/+70	75	Smooth	Particularly laterally stiff	
E 18/H U0/U2 MT white FDA	906420	1.80	1.80	17.50	4750	24[2)]/–/–	-30/+100	85	Matte	Laterally stiff	
E 18/3 U0/V20 green	900088	4.80	5.70	16.00	3000	125/–/–	-10/+70	75	Smooth	Laterally stiff	
E 18/3 U0/V/U2H MT green	900174	2.80	3.20	16.00	3000	160/–/–	-10/+70	90	Matte	Laterally stiff	
E 44/3 U0/V20 green	999995	5.80	7.00	27.00	3000	160/–/–	-10/+70	75	Smooth	Laterally stiff	
AE 140/3 U0/U4H MT black	906441	3.70	4.20	75.00	4400	250/225/–	-30/+100	92	Matte	Particularly laterally stiff	
NOVO 25 HC black	900195	2.70	1.50	7.00	2000	40/–/–	-10/+120	–	Polyester felt	Laterally stiff	
NOVO 40 HC black	900221	4.00	2.20	7.50	2000	90/40/–	-10/+120	–	Polyester felt	Laterally stiff	
NOVO 40 NA green	900222	4.00	2.20	7.50	2000	90/–/–	-10/+120	–	Polyester felt	Laterally stiff	
NOVO 60 HC black	900286	5.50	3.00	8.00	2000	125/60/–	-10/+120	–	Polyester felt	Laterally stiff to a limited extent	

The properties	The advantages
low elongation	short take-up ranges, space-saving
longitudinally flexible	small drum diameters possible
dimensions do not alter	maintenance-free, no re-tensioning
low noise during operation	improved working conditions
durable	economical operation
lightweight with low overall thickness	easy to handle/to put into operation



Melt splice	Mechanical splice	Material conveyor belt	Bin feeder/bin bottom belt	Check-weigher belt	Forming/spreader belt	Pre-press belt	Acceleration belt	Microwave belt	Press feeder belt	Press discharge belt	Board conveyor belt
Z; ZS	KS; HS; CS						●		●		●
Z; ZS	KS; HS; CS							●			
Z; ZS	KS; HS; CS			●					●		●
Z; ZS; S	KS; HS; CS	●	●	●							●
Z; ZS; S	KS; HS; CS	●	●								●
Z; ZS; S	KS; HS; CS	●	●								●
Z; ZS; S	KS; HS; CS	●					●				●
Z; ZS; S	KS; HS	●	●	●	●		●		●	●	●
Z; ZS	CS			●				●	●		
Z; ZS; S	KS; HS; CS	●	●		●		●		●		●
Z; ZS; S	KS; HS; CS									●	
Z; ZS; S	KS; HS; CS									●	
Z; ZS; S		●	●	●	●		●		●		●
Z; ZS; S	KS; HS; CS	●	●								●
Z	KS; CS	●	●	●	●		●		●		●
Z; ZS; S	KS; HS; CS	●	●								●
Z; S	HS; CS	●	●								●
S	HS; CS	●	●								
Z	HS;CS					●					
Z; K	KS;HS;CS	●								●	●
Z; K	KS;HS;CS	●								●	●
Z; K	KS;HS;CS	●								●	
Z; K	KS;HS;CS	●								●	●

Please note: the values stated are nominal and can fluctuate in a belt whose width is a result of production processes. Our products are constantly adapted to market requirements. Consequently, changes in technical parameters can occasionally occur.
Therefore, please see the current product data sheets for specific information on designs and calculations.

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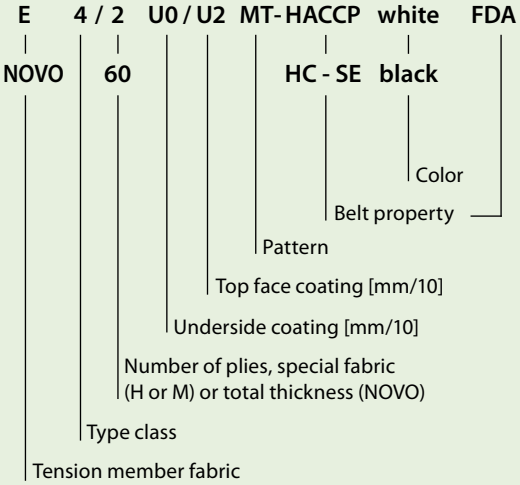


* Established in line with ISO 21181:2005

** • Minimum drum diameter d_{min} with counter-bending (top face touches drum)
• Minimum drum diameter d_{min} with bending (driving face touches drum)
• Minimum radius r_{min} of a fixed knife edge (rX) or minimum diameter d_{min} of a rolling knife edge (dX) (driving face touches knife edge)

Missing values on request. The smallest permissible drum diameters were established at room temperature with z-splices and counter bending and do not apply to conveyor belts with mechanical fasteners. Lower temperatures, profiles and side walls can require larger drum diameters. On this point, see our brochure "Technical information 2" (ref. no. 318)

[2] Lower values for special applications possible. Please enquire

Tension member fabric
AE = Aramide/polyester blended fabric
E = Polyester
NOVO = Polyester felt

Design
1, 2, 3 = Number of fabric plies
H = HighTech-fabric

Coatings
A = Polyolefin
G = Rubber/elastomer
G…H = Rubber/elastomer hard
S = Silicone
U = Polyurethane
U…H = Polyurethane hard
V = Polyvinyl chloride
V…H = Polyvinyl chloride hard
0 = Fabric uncoated
U0, E0, A0, S0, Y0, UH = Polyurethane impregnation

Patterns
AR = Rough-top ①
FSTR = Fine texture ②
MT = Matte ③

Belt properties
FDA = Food safe in compliance with EC/FDA (see data sheet)
HACCP = Supports the HACCP concept
HC = Highly-conductive

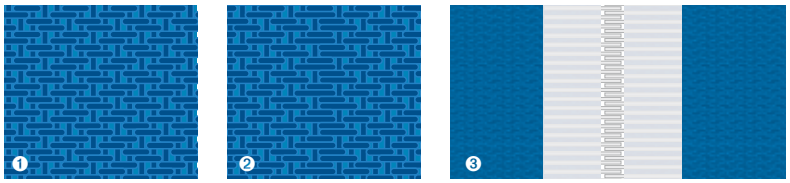
Splicing techniques
Z = Z-splice
ZS = Stepped Z-splice
S = Overlap splice
CS = Clamp fasteners
HS = Wire hook fasteners
KS = Plastic fasteners

SIEGLING TRANSVENT VENTILATION BELTS

	Article number	Total thickness approx. [mm]	Weight approx. [kg/m²]	Pull at 1 % elongation (k_1 relaxed) approx. [N/mm width]*	Max. belt width [mm]	d_{min} approx. [mm]**	Permissible operating temperature [°C]	ATEX category (Zone)	Air permeability $m^3/m^2 \times h$ at Pa 200	Air permeability [cfm] at Pa
Siegling Transvent										
Transvent W01 blue	900403	1.90	1.40	7	4500	200	-30/+100	3G3D (2/22)	8940	375 Pa 124.5
Transvent W02 blue	900442	1.95	1.55	7	4500	200	-30/+100	3G3D (2/22)	9900	425 Pa 200
Transvent W03 blue	900441	1.85	1.55	18	4500	160	-30/+100	3G3D (2/22)	7920	425 Pa 124.5

Splicing techniques

① Woven splices (supplied endless)
② Woven pin splice
③ Pin splice
④ Z-splice
⑤ Hook splice



SIEGLING EXTREMULTUS FLAT BELTS

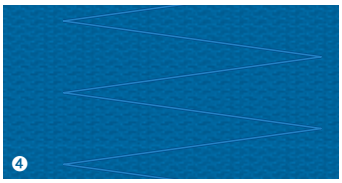
	Article number	Total thickness approx. [mm]	Weight approx. [kg/m²]	Standard width supplied [mm]	d_{min} approx. [mm]*	Permissible operating temperature [°C]	Pull at 1 % elongation (k_1 relaxed) approx. [N/mm width]**	Nominal working elongation [% of belt length]	Shaft load at 1 % elongation [N/mm belt width]
Siegling Extremultus									
GG 14P-50 green	850326	6.00	6.65	500	60	-20/+70	20	0.3 – 2.0	23
GG 15P-22 NSTR/FSTR gray/black	855605	2.50	2.70	500	40	-20/+70	25	0.3 – 1.0	55
GG 20P-25 NSTR/FSTR gray/black	855606	2.50	2.75	500	30	-20/+70	30	0.3 – 2.0	30
GG 20E-20 green	822052	2.00	2.15	500	24	-20/+70	20	0.3 – 2.0	23
GG 20E-30 green	855538	3.00	3.40	500	40	-20/+70	20	0.3 – 2.0	23
GG 30E-32 green	822051	3.20	3.40	500	40	-20/+70	22	0.3 – 2.0	23
GG 30E-32 FSTR/FSTR black	822118	3.30	3.55	500	40	-20/+70	26	0.3 – 2.0	30
TG 30E-30 black/green	822058	3.00	3.20	500	40	-20/+70	30	0.3 – 2.0	20
GT 40E black	810032	2.40	2.50	480	160	-20/+60	40	0.5 – 1.5	80
GT 54P black	850050	4.50	4.90	510	300	-20/+80	54	1.5 – 3.0	54
GT 80P black	850051	6.00	6.40	510	400	-20/+80	80	1.5 – 3.0	80

	Surface top face/underside	Melt splice	Mechanical splice	Ventilation belt
	Fabric texture	Z	HS; endless, woven pin splice	●
	Fabric texture	Z	HS; endless, pin splice	●
	Fabric texture	Z	HS; endless; pin splice; woven pin splice	●

Please note: the values stated are nominal and can fluctuate in a belt whose width is a result of production processes. Our products are constantly adapted to market requirements. Consequently, changes in technical parameters can occasionally occur.
Therefore, please see the current product data sheets for specific information on designs and calculations.

* Established in line with ISO 21181:2005

** The smallest permissible drum diameters were established at room temperature with z-splices and counter bending and do not apply to conveyor belts with mechanical fasteners. Lower temperatures, profiles and side walls can require larger drum diameters.



Z = Z-splice
HS = Wire hook fasteners

	Surface topface	Surface underside	Splice	Carrier belts	Live roller belts	Power transmission belts	Machine tapes
	Normal texture	Normal texture	K	●			
	Normal texture	Fine texture	K			●	
	Normal texture	Fine texture	K			●	
	Normal texture	Normal texture	Z		●	●	●
	Normal texture	Normal texture	Z	●	●		●
	Normal texture	Normal texture	Z	●	●	●	
	Fine texture	Fine texture	Z	●	●	●	
	Normal texture	Fabric texture	Z	●	●		●
	Fabric texture	Normal texture	Endless			●	●
	Fabric texture	Normal texture	K			●	●
	Fabric texture	Normal texture	K			●	●

* The smallest permissible pulley diameters were established in standard ambient conditions (23 °C, 50 % rel. humidity). Lower temperatures require larger drum diameters.

** The nominal effective pull states the possible power transmission in N/mm belt width (standard ambient conditions 23 °C/50 % rel. humidity) that the belt type can produce at nominal elongation.

E = Polyester
P = Polyamide

GG = Elastomer G/Elastomer G (Underside/Top face)
TG = Fabric/Elastomer G (Underside/Top face)
GT = Elastomer G/Fabric (Underside/Top face)

K = Wedge splice
Z = Z-splice

Siegling – total belting solutions

Committed staff, quality oriented organization and production processes ensure the constantly high standards of our products and services.

Forbo Movement Systems complies with total quality management principles. Our quality management system has ISO 9001 certification at all production and fabrication sites. What's more, many sites have ISO 14001 environmental management certification.

Forbo Siegling service – anytime, anywhere

The Forbo Siegling Group employs around 2,400 people. Our products are manufactured in ten production facilities across the world. You can find companies and agencies with warehouses and workshops in over 80 countries. Forbo Siegling service points are located in more than 300 places worldwide.

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Forbo
MOVEMENT SYSTEMS

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