


Wood

siegling belting





Conveying and processing wood efficiently

From solid wood processing to board manufacture: the role conveyor belts play in efficiently processing wood is crucial at many stages.

Consequently the demands placed on the belts used are high and just as varied as the individual steps in production. Forbo Siegling fulfils them reliably.

The Siegling Transilon range for the wood processing industry is the result of close co-operation with constructors of machinery and wood processing companies.

With long-standing experience as a leading manufacturer of conveying and processing belts worldwide, Forbo Siegling knows exactly what the wood industry requires.

Simple splicing methods allow belts to be made endless on site and ensure durable splices. Easy adjustment and long service lives save time and money.

The properties

The advantages

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

| No. | Title |
|-----|--|
| 224 | Siegling Transilon Conveyor and processing belts |
| 225 | Siegling Extremultus Power transmission belts |
| 239 | Siegling Conducto Ventilation belts |
| 317 | Siegling Transilon Technical information 1 Storage, finishing, fitting |
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virtually stretchless



small take-up ranges

longitudinally flexible



small drum dimensions possible

dimensionally stable



maintenance-free, no re-tensioning

low operational noise



pleasant working conditions

durable



economical operation

light-weight,
with low total thickness



simple handling/operation

In solid wood processing ...

All Siegling Transilon conveyor and processing belts and Siegling Extremultus high efficiency flat belts used in the processing of solid wood are equipped to cope with the rough nature of the material. They are extremely resistant to wear and tear and to fluctuations in humidity and ambient conditions.

So even when sudden loads occur, wood processing machines run perfectly at full speed and smooth conveying keeps manufacturing processes on the move.



Manufacture of wood core plywood boards.



Board sorting.



Siegling Extremultus high efficiency flat belts are the first choice for gang saws, flakers and chippers where operational safety, accurate and evening tracking and efficiency are concerned.

forbo

MOVEMENT SYSTEMS

... and particle board manufacture

The continual production of wood based boards (PB, MDF, OSB) means there can be no weak link in the chain.

So from the chip silo to the press, the conveyor and processing belts used have been enhanced to cope with each individual stage in production

Specific research and development pays for the customer: In board manufacture Forbo Siegling products improve the productivity of leading manufacturers' machinery.



Former, accelerator and transfer belt

The tension member made of high-tech fabric provides a linear, steep load/extension curve. The top face has a microscopically thin, matt coating. All of the belt is very thin and manufactured with low weight tolerances ($\pm 1\%$).

- 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.

Ventilation belt

The Siegling Conducto ventilation belt for pre-presses is based on a blended fabric, developed by GKD (Gebr. Kufferath GmbH & Co. KG, Düren) and sold exclusively by Forbo Siegling worldwide. The fabric with polyester fibres and bronze wires (PhBh) in warp (in weft too in Siegling Conducto 2206 types) is highly conductive, has a high level of air permeability and a very smooth surface. The Z-splice developed by Forbo Siegling is very tough and does not mark at all.

- No electrostatic build-up, fire risk reduced, smooth production
- No adhesion of chips
- Excellent ventilation of the chip mat
- Very good surface quality of the boards
- Reliable splice.



Pre-press belt

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 3,000 N/cm and belt pull of up to 1,800 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.

Conveying and finishing

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.



Forbo

MOVEMENT SYSTEMS

Product range Wood

| | | Technical Data | Article number | Total thickness approx. [mm] | Weight approx. [kg/m ²] | Pull at 1 % elongation (k ₁ relaxed) approx. [N/mm width] * | F _w -value approx. [N/mm width] ** | d _{min} approx. [mm] *** | Operational temperature permissible [°C] | Production width [mm] | |
|---|-----------------|----------------|----------------|------------------------------|-------------------------------------|--|---|-----------------------------------|--|-----------------------|------|
| Siegling Transilon conveyor and processing belts | | | | | | | | | | | |
| AE 140/3 U0/U4H MT | black | | 906441 | 4.0 | 4.2 | 140 ¹⁾ | | 300 (250) | -30/+100 | 3600 | |
| E 3/1 U0/U0 | transparent | | 906430 | 1.2 | 1.0 | 3 | | 3/8 | -10/+100 | 3000 | |
| E 8/2 U0/U2 | green | | 900320 | 1.4 | 1.5 | 8 | | 15 | -10/+100 | 3600 | |
| E 8/2 U0/U2 MT-NA | white | | 900277 | 1.4 | 1.45 | 8 | | 25 | -30/+90 | 3300 | |
| E 8/2 U0/V2H MT | green | | 900208 | 1.5 | 1.6 | 8 | | 40 | -10/+70 | 3000 | |
| E 8/2 U0/V5 | green | | 900025 | 2.2 | 2.5 | 8 | | 40 | -10/+70 | 3000 | |
| E 10/H 0/P2 | transparent | | 906459 | 1.9 | 1.9 | 10 | | 40 | -10/+100 | 1800 | |
| E 12/2 U0/V7 | green | | 900045 | 2.9 | 3.4 | 12 | | 60 | -10/+70 | 3000 | |
| E 15/MV1/V10H | green | | 900324 | 5.0 | 5.4 | 15 | | 125 | -10/+70 | 2500 | |
| E 18/3 U0/G 50 R | grey | | 900298 | 8.0 | 9.0 | 18 | | 160 | -10/+70 | 2200 | |
| E 18/3 U0/V5H MT-SE | black | | 906395 | 3.0 | 3.7 | 18 | | 125 | -10/+70 | 3000 | |
| E 18/H U0/U2 MT | white | | 906420 | 1.9 | 1.85 | 18 | | 20 (11) | -50/+100 | 4200 | |
| E 4/2 U1/U2 H | black ATEX | | 906385 | 1.4 | 1.55 | 4 | | 40/80 | -10/+100 | 3000 | |
| E 12/2 U0/U3 STR | black ATEX | | 906610 | 2.1 | 2.3 | 12 | | 200 | -30/+100 | 3000 | |
| E 18/H U0/U2 MT-LF | white ATEX | | 906611 | 1.75 | 1.85 | 18 | | 16 | -30/+100 | 3300 | |
| Novo 40 HC | | | 900221 | 4.0 | 2.2 | 12 | | 70 | -10/+120 | 2000 | |
| Novo 60 HC | | | 900286 | 5.5 | 3.1 | 12 | | 120 | -10/+120 | 2000 | |
| Conducto 5090 | | | 900336 | 1.85 | 1.55 | 24 | | 200 | -30/+100 | 4500 | |
| Conducto 2203 | | | 900373 | 1.55 | 1.20 | 11 | | 200 | -30/+100 | 4500 | |
| Conducto 2206 | | | 900386 | 1.95 | 1.95 | 14 | | 200 | -30/+100 | 4500 | |
| Siegling Extremultus flat belts | | | | | | | | | | | |
| GG 30E-32 | green | | 822051 | 3.2 | 3.4 | | | 30 | 40 | -10/+70 | 500 |
| GG 20E-20 | green | | 822052 | 2.0 | 2.0 | | | 20 | 30 | -10/+70 | 500 |
| GT 40E | black | | 810032 | 2.8 | 2.8 | | | 80 | 160 | -10/+70 | 500 |
| GT 54P | black | | 850050 | 4.4 | 4.9 | | | 54 | 380 | -20/+80 | 1000 |
| GT 80P | black | | 850051 | 6.0 | 6.4 | | | 80 | 530 | -20/+80 | 1000 |
| TG 30E-30 | black/green | | 822058 | 3.0 | 3.2 | | | 30 | 60 | -10/+70 | 500 |
| UU15A-17 | FSTR/FSTR green | | 822106 | 2.0 | 2.0 | | | 60 | 30 | -20/+70 | 500 |
| UU30E-32 | FSTR/FSTR green | | 822105 | 3.2 | 3.55 | | | 30 | 30 | -20/+70 | 500 |

Splicing methods

Key criteria in choosing the method are, in addition to the strength of the splice, its flexibility, the quality of the splice's finish and the effort required to make it. Three types of splice are widespread in the wood processing industry:

Z-splice ①

Fulfills the highest of demands where uniformity of thickness is concerned. Very flexible splice for single and double ply types.

The extremely tough Z-splice, developed for making the Siegling Conducto Ventilation belt endless, leaves no marks.

Overlap splice ②

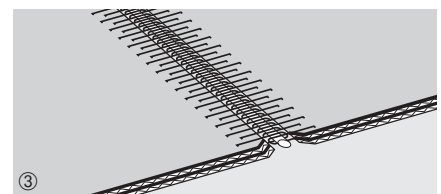
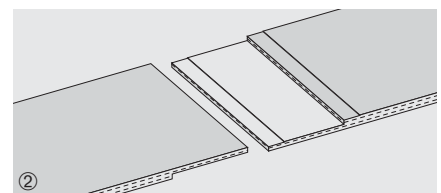
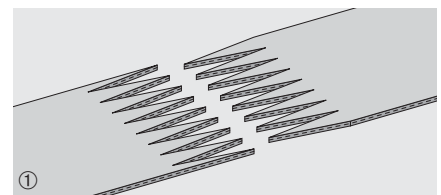
Particularly for two and three-ply belt types, subjected to a high level of mechanical stress.

Mechanical fasteners ③

So that the belt can be installed and taken off quickly without disassembling parts of the machinery.

Forbo Siegling offers a comprehensive range of compact fitting devices for all splice methods.

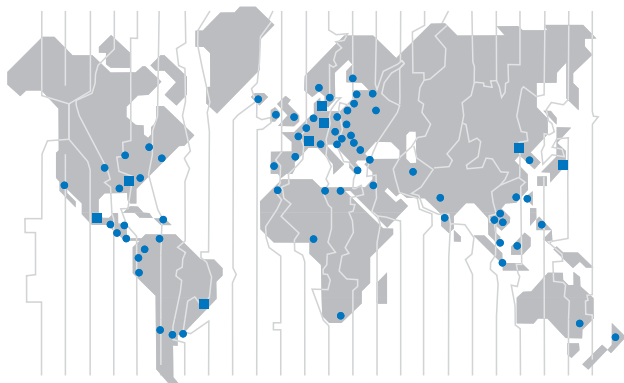
An overview of tools and equipment, tool sheets and instructions is available on request.



Siegling – total belting solutions

Committed staff, quality-orientated organisation and production processes ensure the constantly high standards of our products and services. The Forbo Siegling Quality Management System is certified in accordance with DIN EN ISO 9001:2000.

In addition to product quality, environmental protection is an important corporate goal. Early on we also introduced an environmental management system, certified in accordance with ISO 14001.



Forbo Siegling Service – anytime, anywhere

In the company group, Forbo Siegling employs more than 1900 people worldwide. Our production facilities are located in eight countries; you can find companies and agencies with stock and workshops in more than 50 countries. Forbo Siegling service centres provide qualified assistance at more than 300 locations throughout the world.