

## Timberoll Belts

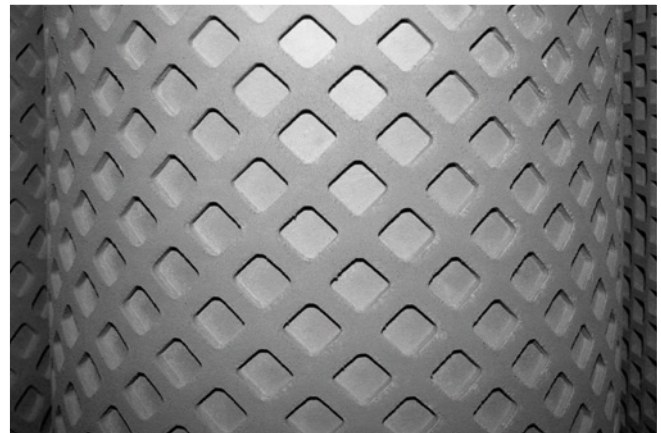
### SLEEVE BELT (WITHOUT JOINT) FOR WOODWORKING MACHINERY

The conveyor belt of machines used for sanding calibrating and dressing of heartwood, hardboard panels, plywood, veneer, laminated plastic (synthetic resin bonded laminate) etc. must have proper characteristics to contribute to the achievement of perfectly machined surfaces.

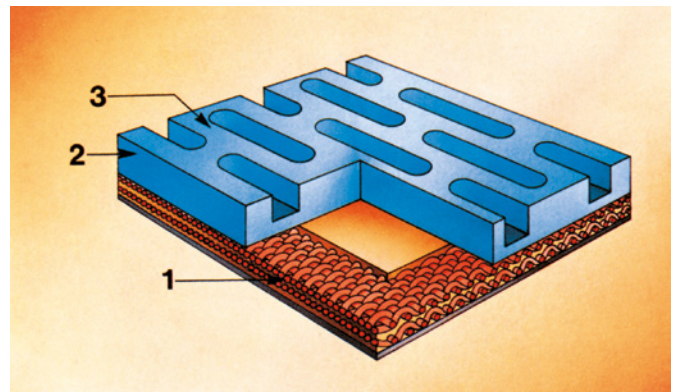
TIMBEROLL belts have obtained and are still obtaining warm approval by their users since they warrant excellent results. Their peculiarity lies in the fact that they are of vanguard design and manufactured to obtain a sleeve belt of the required dimension, without need for overlapping of the two belt ends (no splice), as otherwise used for similar types.

As a result of this manufacturing process, the quality of the adopted materials and their configuration, TIMBEROLL make it possible to obtain better performances, such as:

- 1 Absolute uniform thickness and strength** in all parts of the belt, since the carcass has to be approached over a 360° arch;
- 2 Exceptional belt running linearity** even when the length/width ratio of the machine table is  $\leq 1$  m;
- 3 Improved flexibility** so that pulleys with a smaller diameter can be used;
- 4 Maximum flatness and stability** under working stresses;
- 5 Excellent smoothness** on the sliding surface of the machine table due to very low sliding friction coefficients;
- 6 Efficient grip action** of the materials conveyed on the belt, since the high rubber covers and adopted profiles provide for high sliding friction coefficients.



Main components: TIMBEROLL belts are characterized by the following construction particulars:



Picture 1: structure of the belt

#### 1 - Structure

This term defines the composition of the tension member or carcass and of the inner sliding ply (Tab. 1);

#### 2 - Rubber cover

This term indicates the rubber compound used for the carrying surface (Tab. 2a & 2b);

#### 3 - Top profile

This is the impressed pattern which results in alternating land and voids on the rubber cover (Tab. 3).

The various types of available structures, covers and profiles for general and special applications will be described in the following pages, along with their leading particulars.

The right choice of the various combinations will provide you with the best TIMBEROLL suiting your processing requirements for any kind of material and for obtaining the desired results on the finished product. However, don't hesitate to contact our technicians who are at your complete disposal to offer their advice.

Code	Tensile plies	Nominal <sup>1</sup> belt thickness mm	Sliding ply		Working load daN/cm	Working load daN/cm		Recommended <sup>2</sup> applications and characteristics
			Pes	Cotton		1%	1,50%	
ELG	1	7.5 (+1/-0.5)	1	-	12	4-6	7-9	For machines with table length ≤ 1 m and with 1 tooling head. Traction power ≤ 1KW
EPQ	2	9 (+1/-0.5)	1	-	20	6-8	12-14	For machines with table length ≤ 2.5 - 3 m and with 2 or 3 tooling heads. More than 1 mm for each step of calibration. Traction power ≤ 2 kW
EPQP	3	10 (+1/-0.5)	1	-	30	7-9	14-16	The same as EPQ. For machines with table length > 3 m and with 3 or more tooling heads. Traction power ≤ 4.5 kW. Also suggested for machines with vacuum devices.
EPQC	2	9 (+1/-0.5)	-	1	20	6-8	13-15	The same as EPQ
EPQPC	3	10 (+1/-0.5)	-	1	28	7-9	14-16	The same as EPQP
EMQC	2	12 (0/-1)	-	1	20	6-8	13-15	Replaces EPQ for maximum flatness of the belt and very thin material (< 1mm). SP100 profile.
EMQPC	3	13 (0/-1)	-	1	28	7-9	14-16	Replaces EPQP for maximum flatness of the belt and very thin material (< 1mm). SP100 profile.
SME400	1+cord	8 (+1/-0.5)	-	-	40	25	-	For edge and shaping profile sanding machine. With V guide and width ≤ 200 mm. Producing upon request.

Tab 1

STANDARD RUBBER COVERS			
Denomination	Colour	Hardness °ShA ( ±5 )	Recommended <sup>2</sup> applications and characteristics
CB	GREY	40, 50, 60, 70	General purposes. Excellent impact strength and tear resistance, good machinability during surfacing, when using the sanding belt belonging to the machine outfit. Excellent grip to prevent slipping of the materials being machined. High compression strain.
CS	BLACK	57	The same as for CB with particular tendency to limit antistatic charges; keep down the accumulation of dust particles on the belt surface

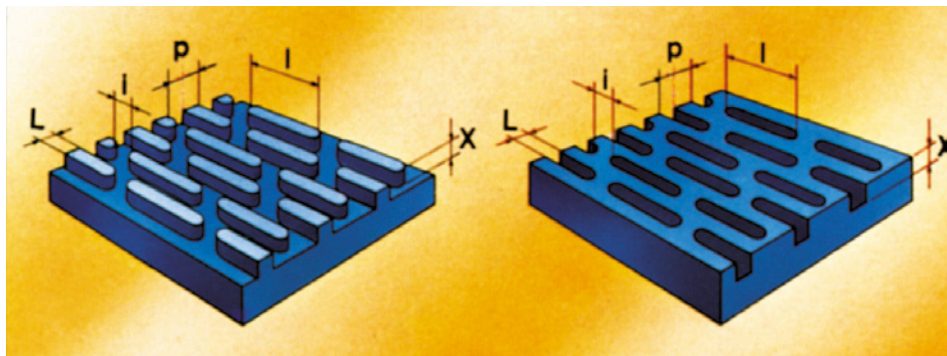
Tab 2a

SPECIAL RUBBER COVERS			
Denomination	Colour	Hardness °ShA ( ±5 )	Recommended <sup>2</sup> applications and characteristics
HB	WHITE	65	HYPALON rubber: oil, chemical, wear and high heat resistance
PA	GRAY	40, 50, 60	Super grip and tear resistance
NC/NCB	BLACK/WHITE	65	NITRILE rubber: very good oil and abrasion resistance

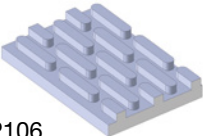
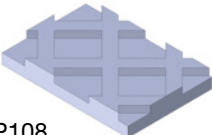
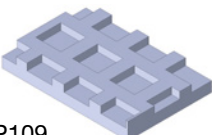
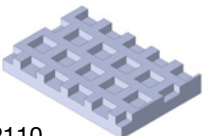
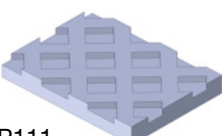
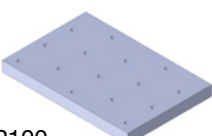
Tab 2b

1. Nominal Thickness with profile SP 106-107-108-109-110. When coupled with profile SP 111, nominal thickness will be 1 mm thinner - f.i. EPQ-SP111 nominal thickness 8 (+ 1 / -0.5)

2. Only typical data for selection purpose, not to be used for part or tool design.



I = length  
 L = width  
 X = height (after grinding)  
 i = gap  
 p = pitch

STANDARD TOP PROFILE							
Denomination	Dimensions					% Land/void	Characteristics & applications <sup>2</sup>
	I	L	X	i	p		
 SP106	25	5	4	5	10	40/60 3360 ribs/m <sup>2</sup>	Suitable for wide belt sanding calibrating machines. Excellent grip on materials and low strain strength of the raised profile
 SP108	20	20	4	8	40	49/51 1275 cells/m <sup>2</sup>	Instead of SP106 but with better calibration accuracy due to its higher resistance to deformation; good grip on materials, valid for machines provided with vacuum systems.
 SP109	15	15	4	7	22	49/51 2220 cells/m <sup>2</sup>	As an alternative for SP108 but with a higher land percentage: better strain strength and calibrating accuracy.
 SP110	10	10	4	5	15	49/51 5100 cells/m <sup>2</sup>	As an alternative for SP107 with a better grip on materials.
 SP111	12	12	3	7	24	60/40 2770 cells/m <sup>2</sup>	As an alternative for SP108 and SP109. Higher calibrating precision and a good grip. Suitable for vacuum systems.
 SP100	-	-	-	-	-	-	Ground surface, particularly valid for working on material of even less than 0,5 mm thickness. (coupled with EMQC / EMQPC).

Tab 3

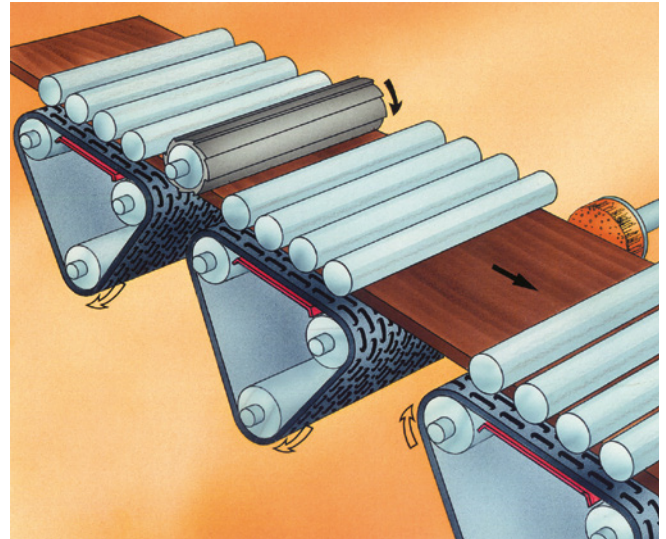
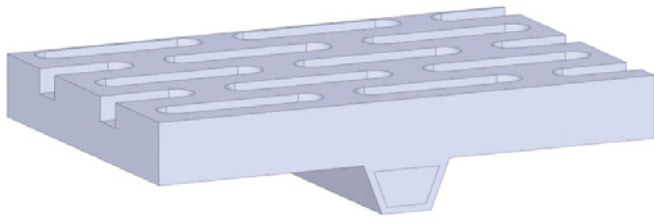
Special Top Profile as honey comb configuration (SP 130), negative circular profile (SP112), negative lozenges profile (SP107) are available. Vacuum holes execution can be added according to customer drawing.

RECOMMENDED <sup>3</sup> MINIMUM DIAMETER OF THE DRIVING PULLEYS	
Structure	Diameters (mm)
ELG , SME400	90
EPQ , EPQC	120
EPQP, EPQPC, EMQC, EMQPC	150

Tab 4

2. Only typical data for selection purpose, not to be used for part or tool design.

## V GUIDE TIMBEROLL, TRULY ENDLESS BELTS FOR EDGE-SANDING AND SHAPED SANDING MACHINERY



We recommend the following component types:

**Structure:** EPQP or EPQ for belts with a long or short distance between centers and SME 400 is used for pulleys with a small diameter;

**Top profile:** SP 104 or SP 130 are appropriate for edging machines and SP 107 or SP 110 for polishing of shaped or moulded profiles;

**Lower profile:** the shearing stresses is counteracted by the guide rib and increasing the stress, the guide section becomes larger accordingly. We produce the most common dimensions with the v-guide integrated with the structure (tab. 5)

**RECOMMENDED<sup>2</sup> MINIMUM PULLEY DIAMETER FOR BELT WITH V-GUIDE**

Lower profile		Trapezoid section (mm)		Diameters (mm)	
Code	Section <sup>3</sup>	Base	Height	Unnotched guide	Notched guide
SP502	A	13	8	120	95
SP503	B	17	11	200	120

Tab 5

**TOLERANCES**

Inner circumference	Up to 5000 mm	±0,5 %
	Over 5000 mm	±0,75 %
Width		± 5 mm
Thickness		+1/-0,5 mm
Thickness uniformity		0,3 mm max
Misalignment of the central guide rib		± 1,0 mm

Tab 6

2. Only typical data for selection purpose, not to be used for part or tool design.

3. Other Section like "Z" (10 x 6 mm) or "C" (22 x 14 mm) available upon request.



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