

Belt technology for cutting machines

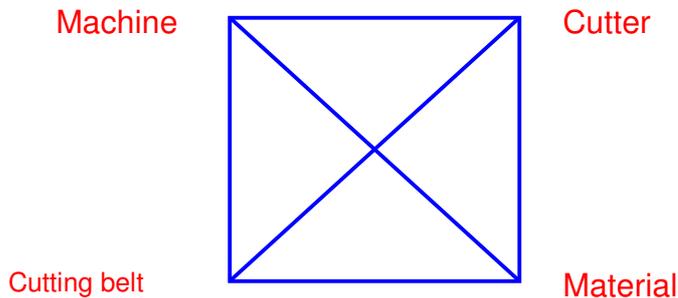
1 Cutting systems

Description:

Cutting machines are used to reshape a very wide range of different materials (laminations, pasteboard, leather, textiles, nonwovens, plastics etc.) by separation. Here, a distinction is made: Separating with a press (hydraulic) or cutting (cutters). The main structural components of most systems comprise an upper section (stamp) with a tool holder and the lower part (thrust bearing), which normally consists of a high-strength welded construction which runs over a suitable belt. The use of cutting belt allows a continuous cycle and high throughput of pieces.

Influential factors:

Interplay between different factors must be considered, since they may mutually interact with each other.



Based on the materials to be stamped, the existing system and the cutting dies (punch templates), suitable stamping belts are selected to ensure top-quality pressing. Key factors to consider in the production process here include the costs for maintenance and servicing of the system and the wear of the blades and the cutting belt. Also important is to select the optimal material for stamping.

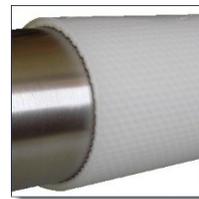
All factors influence the lifetime of the belt, the number of stamping operations possible is a factor of the product quality of the cutting belt.

At our factory, we manufacture cutting belt up to a width of 3000mm. Based on the geometries of the system and the field conditions for the installation of the belt, technicians are available for on-site assembly to complete the task. After the heating procedure, the system is ready for production.

2 Cutting belt

Upper surfaces:

The upper surfaces are designed to be smooth and depending on the selection, must have differing thickness (up to around 9mm) and hardness. The hardness is between 75° to 100° Shore A.



Fabric layer (=Tension member):

The fabric layer (=Tension member) consists of a stable polyester tissue package (PE). This tissue firstly absorbs the required tractive forces and secondly offsets the stamping forces and dissipates them into the machine frame.

Types of joint / splice:

Welded with heating press	(finger joint, optimal durability and evenness)
Welded with heat gun	(finger joint with welding seam preparation, simple)
Mechanical connection	(metal connector, very quickly replaceable, but only usable to a limited extent)

Following the welding process, the belt is immediately ready for use.

Repairs:

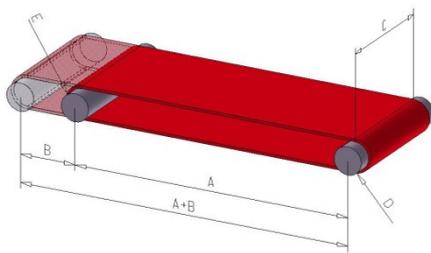
Depending on the extent of damage involved, a repair by our own service personnel may be possible. Smaller repairs can be simply performed using by hot air gun, e.g. by suitably trained in-house employees. Upon conclusion of the work, the stamping belt is once again immediately ready for operation. We are more than happy to provide theoretical and practical training for your staff to ensure optimal availability.

We are also happy to engage in a personal discussion over any further details.
Please contact our technical sales department to arrange a suitable appointment.

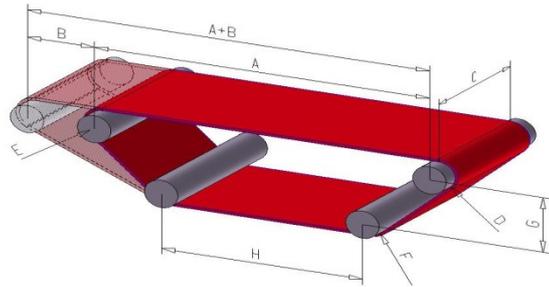
3 Record sheets for cutting belt

Example A: System with tensible reversing drum

Example B: System with tensible reversing drum and snup pulley



Example A



Example B

Designation	Description	Dimensions in mm
A	Axles-Centre-Distance (non-tensioned)	
B	Tension path	
A+B	Centre distance tensioned	
C	Belt width	
D	Diameter of drive roller	
E	Diameter of take-up pulley	
F	Diameter of snub pulley	
G	Vertical drum distance	
H	Centre distance snub roller	
LE	Length continuously measured	
Belt type	Specify selected belt type	

Hint:

Mark out two points on the belt and measure the interval. Subsequently, allow the conveyor to run until the second marking has come right to the far-front position. Now mark a second point and measure the second section. Repeat this procedure until the first marking comes back up to the top. The cumulative total for the sections corresponds to the final length of the conveyor belt.

Company: _____

 Contact person: _____
 Address: _____

 Location: _____

Enquiry
 Order
Mark with a cross

Date: _____
 Tel: _____
 Fax: _____
 Customer No.: _____
 Desired deadline: _____

Complete and fax or email !
Do not forget return address.

Send to:
0049 6842 922 4020
info@transtec-gmbh.de