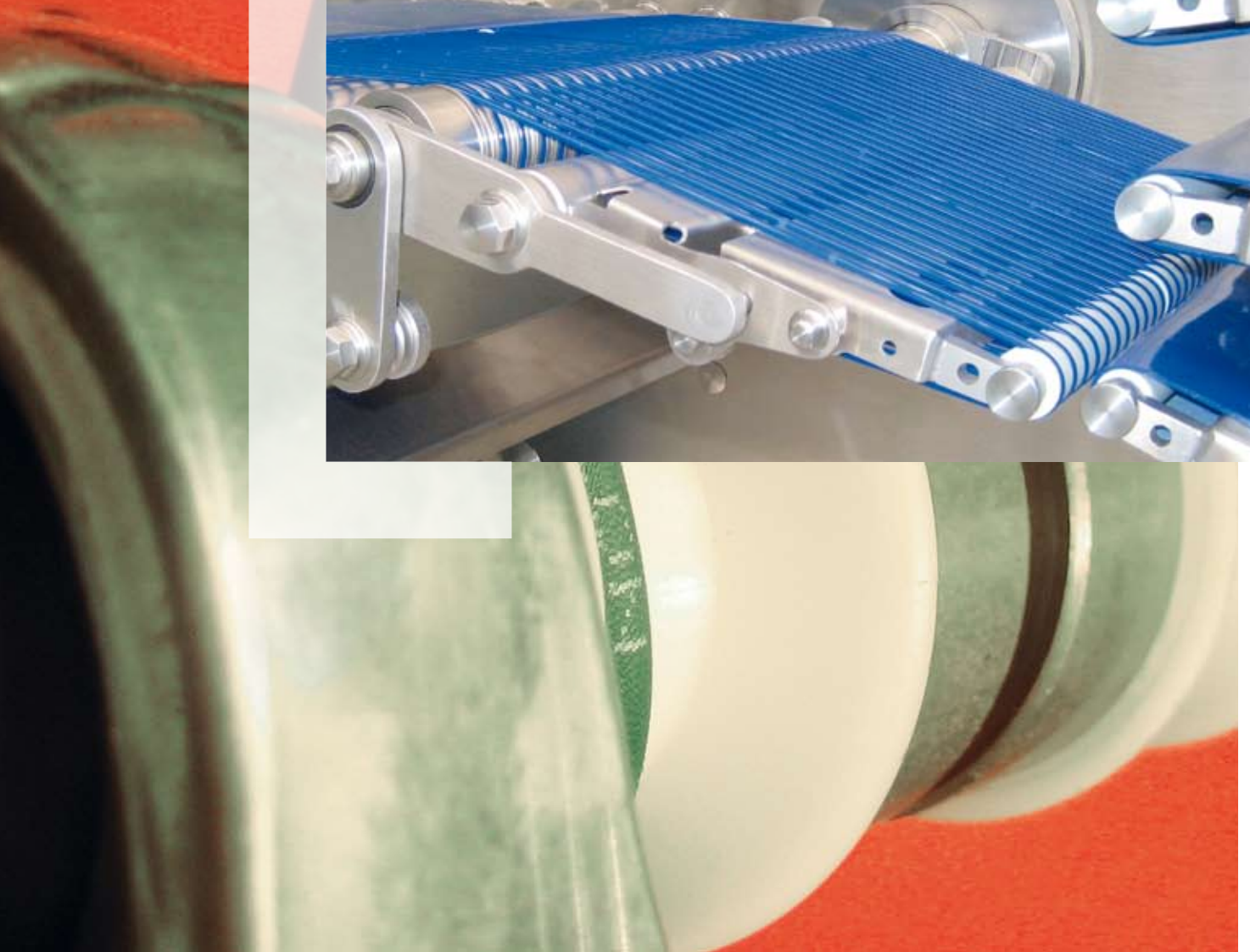


# Product range



**siegling transilon**  
round belts



# Siegling Transilon round belts

With their round shape and highly elastic properties, Siegling Transilon round belts bend well towards small drum diameters and almost any kind of curvature in their path.

They are used for conveying in the textiles, wood, ceramics, packaging and chemicals industries. They are also used as power transmission belts in precision mechanics, in constructing machinery and equipment and as live roller drives.

## Resistances

Chemical resistances:  
see Transilon resistance details on the internet  
([www.forbo-siegling.com](http://www.forbo-siegling.com) → products) or on request.

## Supplied as:

- Roll material
- Cut to length
- Endless

## Product range

Material	Colour	Surface	Hardness [°Shore A]	Recommended elongation at fitting [%]	Operating temperature permitted [°C]	FDA/Extraction analysis	Antistatic	Diameters in stock [mm]
U	green	rough	87	6-8	-20/+60	Extraction analysis	-	3/4/5/6/7/8/9/10/12/15
U	blue	rough	88	6-8	-20/+60	Extraction analysis	-	3/4/5
E	cream	smooth	92	3-4	-20/+60	FDA	-	3/4/5/6/8/10/12/15
U	blue	smooth	85	6-8	-20/+60	FDA	-	3/4/5/6/8
U	colourless, clear	smooth	85	6-8	-20/+60	FDA	-	4,76 (3/16")
U	red	smooth	75	6-8	-20/+60	-	-	3/4/5/6/8/10/12
U	black	smooth	90	6-8	-20/+60	-	yes	3/4/5/6/8
co-extruded	Surface and core are made of different materials							on request

**U** Polyurethane elastomer

**E** Polyester elastomer

Other materials, colours and properties can be provided on request.



MOVEMENT SYSTEMS

# Technical data

for round belts made of polyurethane elastomer, Shore A hardness 87

## Figures depending on diameters

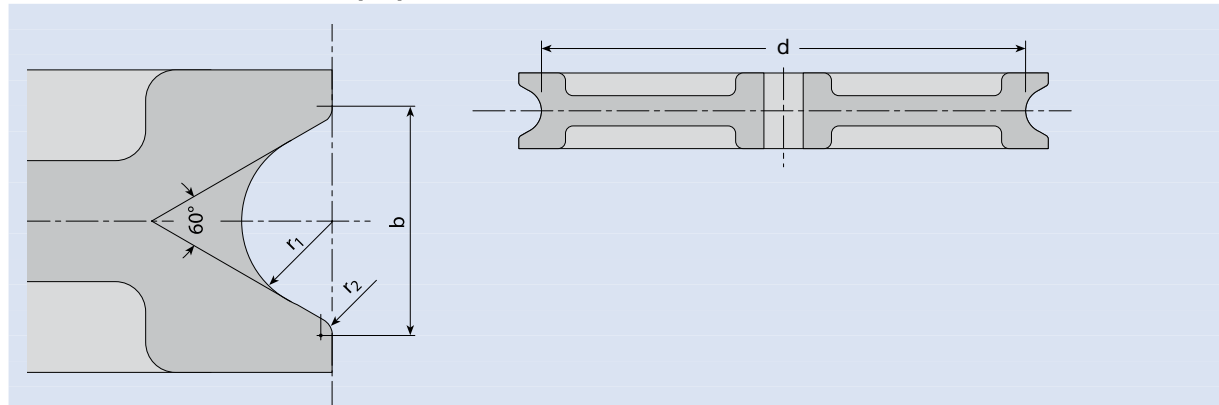
Round belt diameter	[mm]	3	4	5	6	7	8	9	10	12	15
Diameter tolerance	± [mm]	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
Weight	approx. [g/m]	8	15	23	34	46	60	76	95	135	210
Shaft load factor $C_W$ at 20–30° C and 180° arc of contact	approx. [N/%]	3.7	6.5	10	14.7	20	26	33	41	59	92

The tensile strength is approx. 40 N/mm<sup>2</sup>

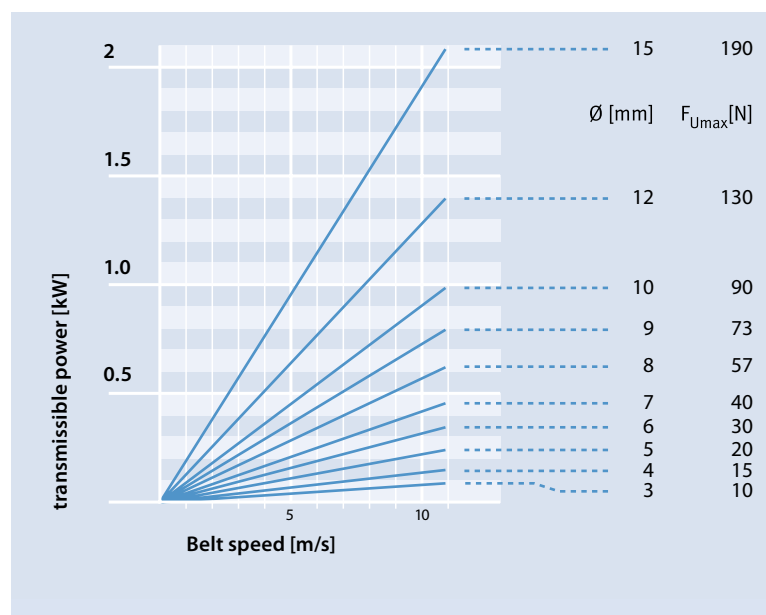
Shaft load [N]:  $F_W = C_W \cdot \epsilon$        $\epsilon$  = elongation [%]

## Recommended pulley dimensions

Round belt diameter	[mm]	3	4	5	6	7	8	9	10	12	15
Pulleys $\varnothing d_{\min}$	[mm]	30	40	50	60	70	80	90	100	120	150
$r_1$	[mm]	1.7	2.2	2.8	3.3	3.8	4.3	4.8	5.4	6.5	8.0
$r_2$	[mm]	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
b	[mm]	5.0	6.2	7.6	9.4	10.5	11.7	13.4	14.8	17.3	20.8



## Power transmission



Power transmission at 180° arc of contact and 8% elongation at fitting.

The values shown on the chart are achieved when the recommended groove design is used and the pulley diameter is not smaller than the minimum allowed.



MOVEMENT SYSTEMS

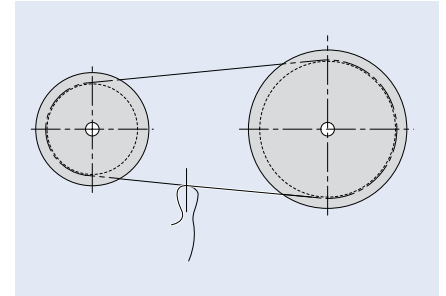
# Splicing techniques

## Measuring and cutting to length

The required belt length is determined by placing a string or something similar around the two pulleys in the groove and then measuring the string.

In the case of a non-adjustable centre distance, the pre-tension of 6–8% must be subtracted from the measured length (see product range table).

For an adjustable centre distance, make reference marks on the belts and then tension according to the elongation required.



## Endless splicing

Any dimensions can be quickly spliced endless using very simple tools.

Our handy round belt press pliers (RPZ) can be obtained separately or in the practical combi set with all accessories necessary for reliable and time-saving endless splicing (for use with diameters from 3 – 15 mm).

**The RPZ can be supplied in two versions:**

- with screw clamp: in this case the ends of the round belt are clamped with knurled screws
- with rapid tensioning lever: in this case the ends of the round belt are clamped by moving the tensioning lever. After welding, the belt is released by flipping open the rapid tensioning clamps. The diameter required of round belt is pre-adjusted (converting to another diameter takes approx. 60 secs.).



**Pressure clamps for round belts with rapid tensioning lever (left) and screw clamp (right)**

The more affordably-priced standard combi set includes a soldering iron with no temperature control.

The TC combi set includes a soldering iron with adjustable temperature control. The powerful soldering iron heats up in just approx. 90 seconds and maintains the temperature that is adjustable on the rotating head.

Further details about endless splicing for Siegling Transilon round belts can be found in the instructions, ref. no. 339, that you can also download from our website.

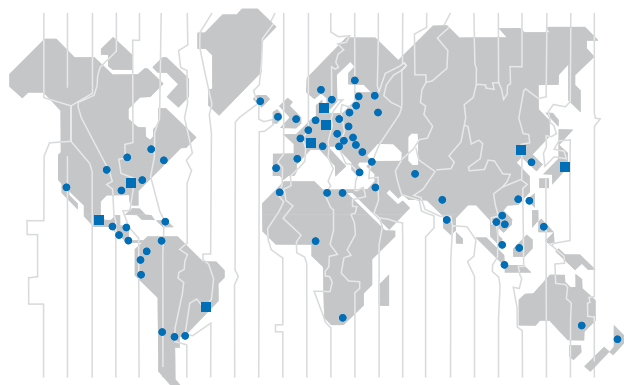


**Combi set TC – here includes pressure clamp for round belts with rapid tensioning lever**

## 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.