



## **siegling transilon** round belts

# PRODUCT RANGE





# 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/+0.2	0/+0.2	±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

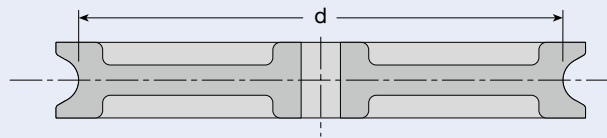
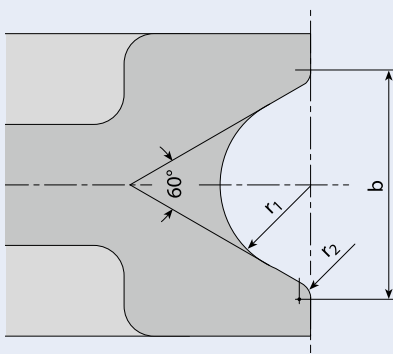
The tensile strength is approx. 40 N/mm<sup>2</sup>

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

$\epsilon$  = elongation [%]

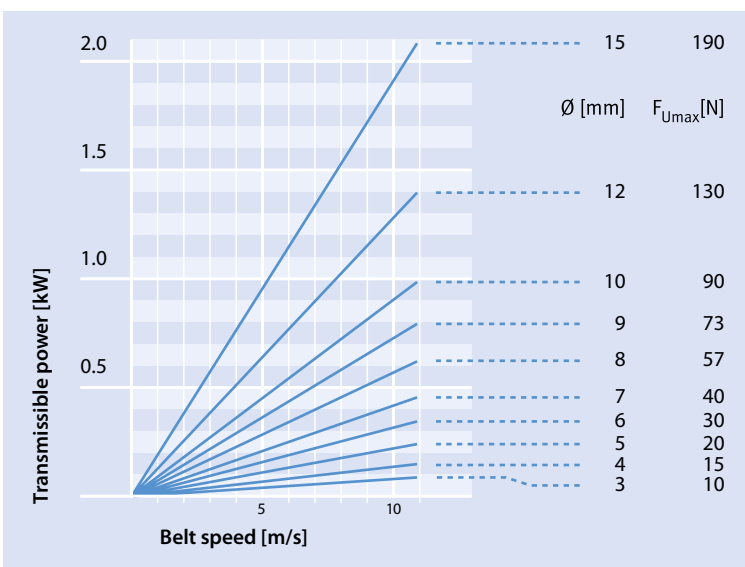
## Recommended pulley dimensions

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



\* The  $d_{min}$  minimum pulley diameters permitted were established at 22°C. Lower temperatures can require larger pulley diameters.

## 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.

# SPLICING TECHNIQUES

## 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).



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



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

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.).

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 control knob.

You can find more details about splicing Siegling Transilon round belts in the instructions at [www.bienefeld-gmbh.de/en](http://www.bienefeld-gmbh.de/en) > **Products > Round belts > Truly endless splicing**

## Measuring and cutting to length

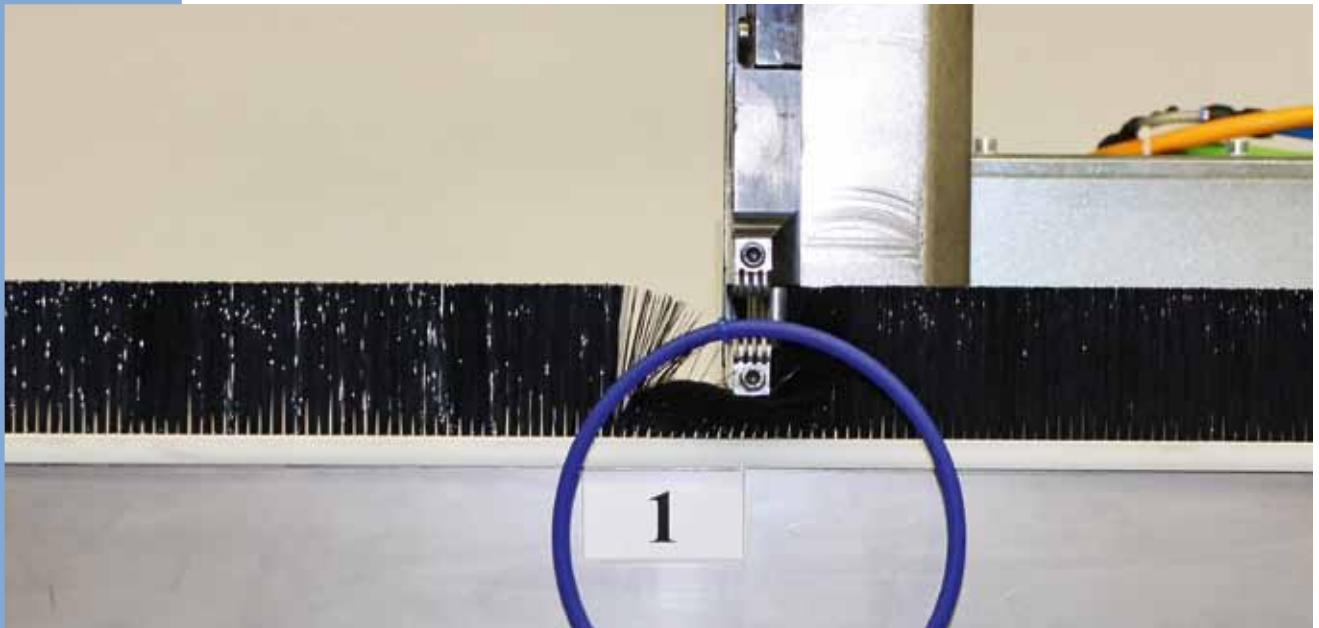
The length of the round belts you need to order is calculated from the length of the pitch line (middle of the round belt) minus the elongation allowed for.

To describe the exact process, we use examples in the instructions on [www.bienefeld-gmbh.de/en](http://www.bienefeld-gmbh.de/en) > **Products > Round belts > Measuring and cutting to length > Determining ordering length of round belts**

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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.



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MOVEMENT SYSTEMS