

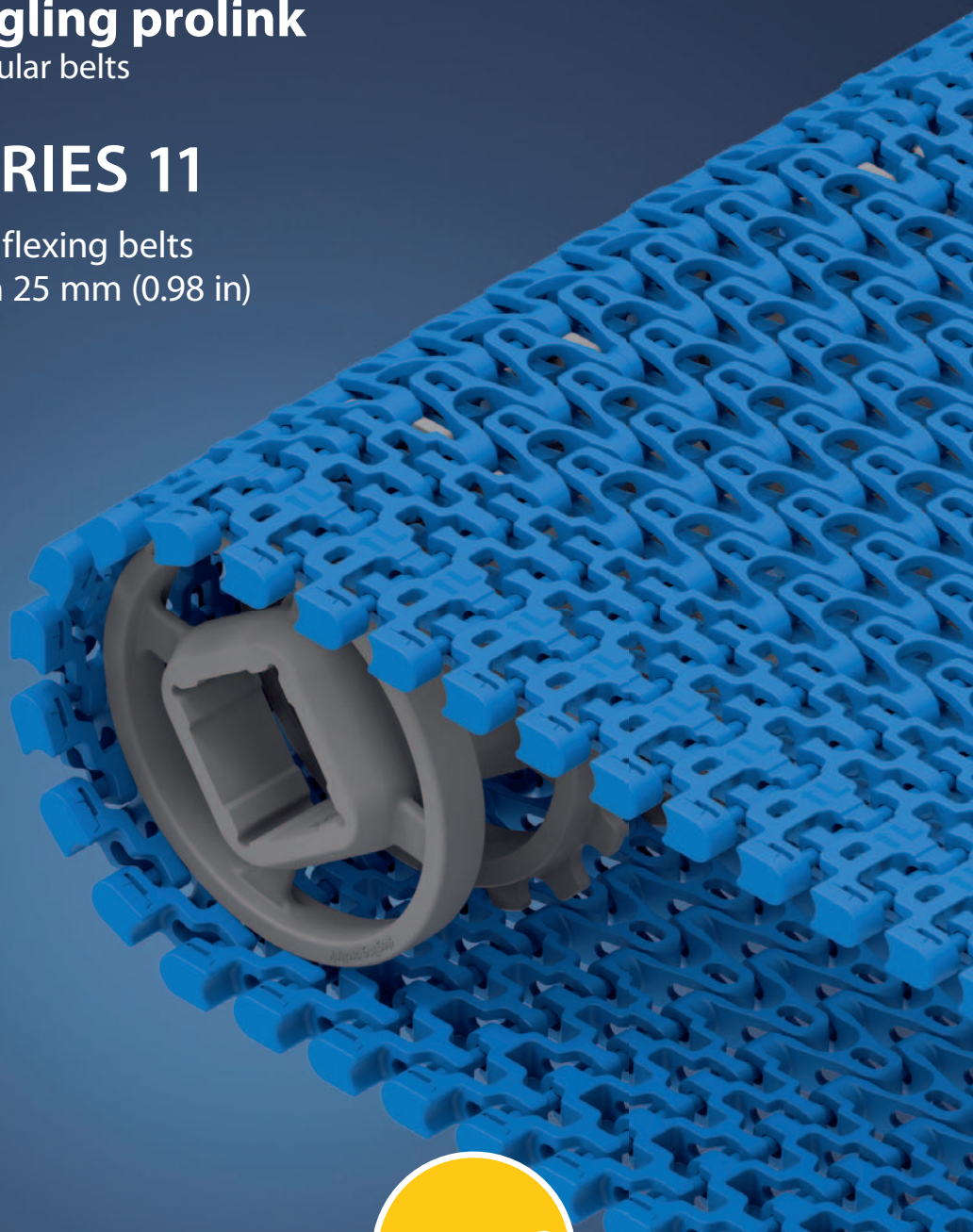
EXCERPT FROM PROLINK ENGINEERING MANUAL

01/20 (Ref-No. 888)

siegling prolink
modular belts

SERIES 11

Side flexing belts
Pitch 25 mm (0.98 in)



PATENTED

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Ref. no. 888-2_1.2_S11

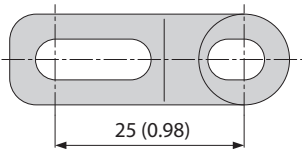
SERIES 11 | OVERVIEW

siegling prolink
modular belts

Side flexing belts | Pitch 25 mm (0.98 in)

Belts for light-duty food and non-food applications

Side view scale 1:1



Design characteristics

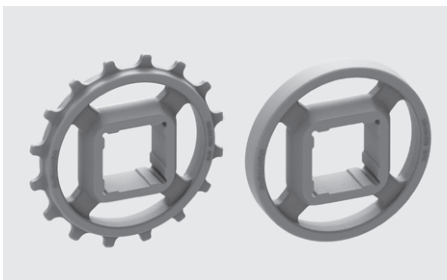
- 45 % open area provides excellent cooling and draining capabilities
- All plastic lightweight belts (plastic pins)
- Tight radius belt with minimum curve radius of 1.4 x belt width
- Outermost hinge is fixed to the pin to prevent deflection and elimination of potential belt edge catch points
- Suitable for both straight and radius conveying
- Ideal transmission of force due to sprockets offset inwards. Idlers support the belt on the outside

Basic data

Pitch	25 mm (0.98 in)
Belt width min.	175 mm (6.9 in)
Belt width max.	1000 mm (39.37 in)
Width increments	25 mm (0.98 in)
Hinge pins	5 mm (0.2 in) made of PBT. Alternative pin material on request

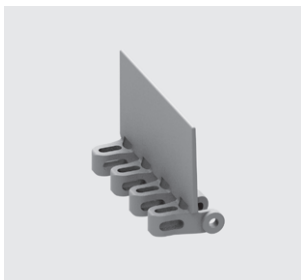
Sprockets/Idlers

in different sizes with round or square sprocket bore

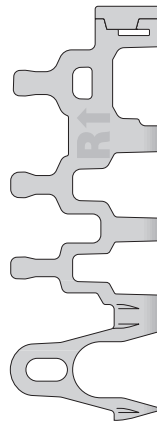


Profiles

in different heights and designs for inclines

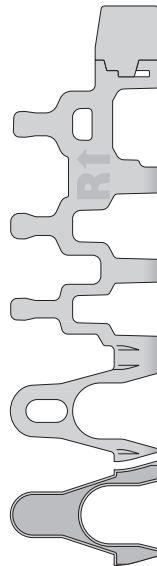


Available surface pattern and opening area



S11-45 GRT

Open (45 %), lattice-shaped surface with replaceable caps



S11-45 GRT HD

Open (45 %), lattice-shaped surface with replaceable Hold Down caps

S11-33 FRT2

Open (33 % for full FRT2 surface area), surface with friction top, flat

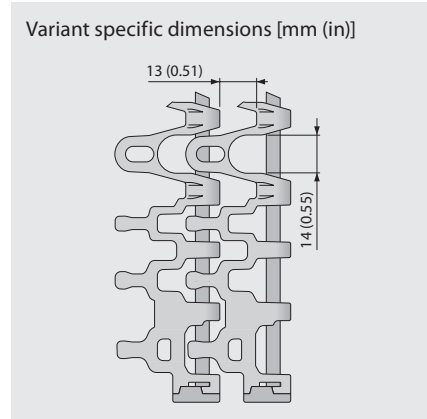
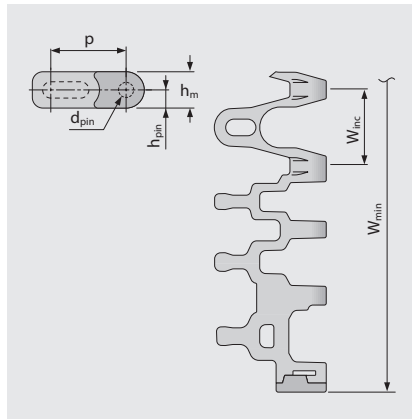
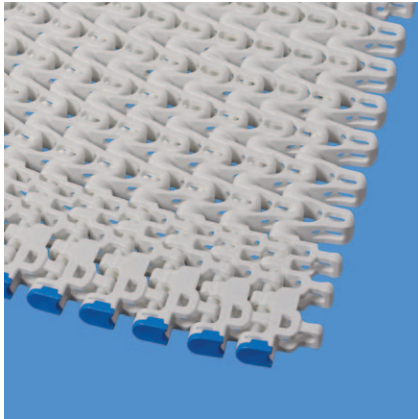
SERIES 11 | BELT TYPES

siegling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in)

S11-45 GRT | 45 % Opening | Grid top

Open area (45 %) for excellent air circulation and drainage | 42% contact area (Largest opening: 14 x 13 mm/0.55 x 0.51 in) | Lattice-shaped surface with robust, replaceable caps on the belt edges



Belt dimensions

	p	d _{pin}	h _m	h _{pin}	h _s	W _{min}	W _{inc}	W _{tol}	Minimum flex radii ¹⁾				
	Pitch	Pin Ø	Thickness [mm]	Pin position [mm]	Height [mm]	Width min. [mm]	Width Increment [mm]	Width tolerance [%]	r1	r2	r3	r4	r5
mm	25.0	5.0	12.0	6.0	0.0	175.0	25.0	±0.3	1.4 x W _B	25.0	50.0	75.0	25.0
inch	0.98	0.2	0.47	0.24	0.0	6.89	0.98	±0.3	1.4 x W _B	0.98	1.97	2.95	0.98

W_B = Belt width

Available standard materials⁴⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA ²⁾	EU ³⁾
PP	WT	PBT	UC	9	617	600	135	4.7	0.96	0.2	5/100	41/212	●	●
PP	BL	PBT	BL	9	617	600	135	4.7	0.96	0.2	5/100	41/212	●	●
POM-CR	WT	PBT	UC	15	1028	1000	225	6.7	1.37	0.0	-45/90	-49/194	●	●
POM-CR	BL	PBT	BL	15	1028	1000	225	6.7	1.37	0.0	-45/90	-49/194	●	●
PA*	BL	PBT	BL	15	1028	1000	225	5.7	1.17	0.6	-40/120	-40/248	●	●

* Values valid for dry applications (RH <50 %). Belts in PA material will absorb water in wet environments, causing them to expand and reduce the nominal belt pull capacity.

■ BL (Blue), ■ UC (Uncolored), ■ WT (White)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

¹⁾ Flex radii: r1 = side flex, r2 = front flex on roller, r3 = back flex on load bearing roller, r4 = back flex on Hold Down shoe, r5 = back flex on roller

²⁾ Complies with FDA 21 CFR

³⁾ Complies with (EU) 10/2011 and (EC) 1935/2004 regulations regarding the raw materials used and the migration thresholds

⁴⁾ More materials and colors on request



MOVEMENT SYSTEMS

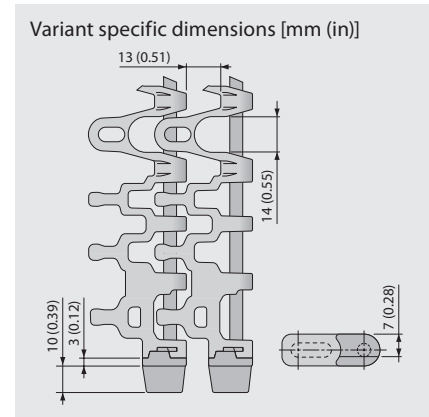
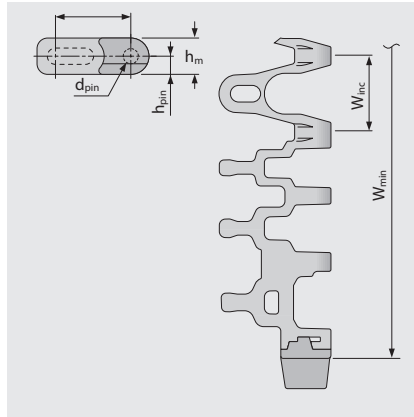
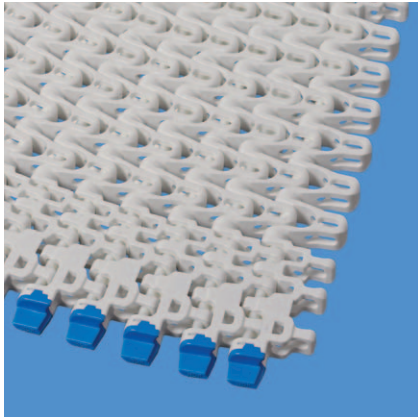
SERIES 11 | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in)

S11-45 GRT HD | 45 % Opening | Grid top · Hold Down

Open area (45 %) for excellent air circulation and drainage | 42 % contact area (Largest opening: 14 x 13 mm/0.55 x 0.51 in) | Lattice-shaped surface with replaceable Hold Down caps



Belt dimensions

	p	d _{pin}	h _m	h _{pin}	h _s	W _{min}	W _{inc}	W _{tol}	Minimum flex radii ¹⁾				
	Pitch	Pin Ø	Thickness [mm]	Pin position [mm]	Height [mm]	Width min. [mm]	Width Increment [mm]	Width tolerance [%]	r1	r2	r3	r4	r5
mm	25.0	5.0	12.0	6.0	0.0	175.0	25.0	±0.3	1.4 x W _B	25.0	50.0	75.0	25.0
inch	0.98	0.2	0.47	0.24	0.0	6.89	0.98	±0.3	1.4 x W _B	0.98	1.97	2.95	0.98

W_B = Belt width

Available standard materials⁴⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA ²⁾	EU ³⁾
PP	WT	PBT	UC	9	617	600	135	4.7	0.96	0.2	5/100	41/212	●	●
PP	BL	PBT	BL	9	617	600	135	4.7	0.96	0.2	5/100	41/212	●	●
POM-CR	WT	PBT	UC	15	1028	1000	225	6.7	1.37	0.0	-45/90	-49/194	●	●
POM-CR	BL	PBT	BL	15	1028	1000	225	6.7	1.37	0.0	-45/90	-49/194	●	●
PA*	BL	PBT	BL	15	1028	1000	225	5.7	1.17	0.6	-40/120	-40/248	●	●

* Values valid for dry applications (RH <50 %). Belts in PA material will absorb water in wet environments, causing them to expand and reduce the nominal belt pull capacity.

■ BL (Blue), ■ UC (Uncolored), ■ WT (White)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

¹⁾ Flex radii: r1 = side flex, r2 = front flex on roller, r3 = back flex on load bearing roller, r4 = back flex on Hold Down shoe, r5 = back flex on roller

²⁾ Complies with FDA 21 CFR

³⁾ Complies with (EU) 10/2011 and (EC) 1935/2004 regulations regarding the raw materials used and the migration thresholds

⁴⁾ More materials and colors on request



MOVEMENT SYSTEMS

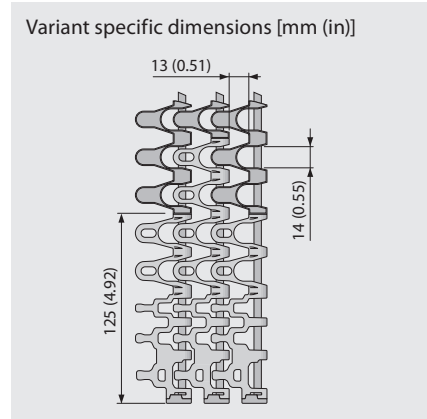
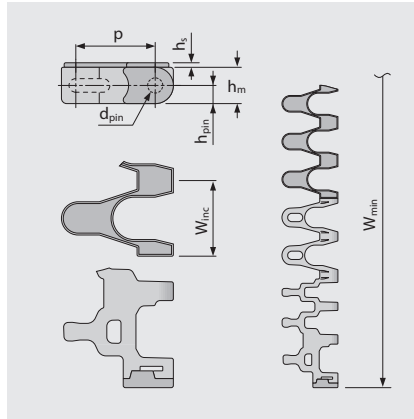
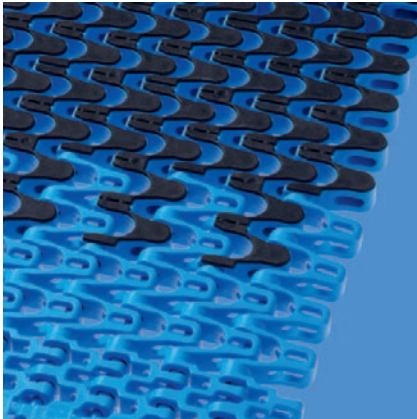
SERIES 11 | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in)

S11-33 FRT2 | 33 % Opening | Friction top (Design 2)

Open area (33 %) for full FRT2 surface area | 47 % contact area (Largest opening: 14 x 13 mm/0.55 x 0.51 in) | Lattice-shaped surface with flat integrated friction pads (FRT2) for better grip. Minimum indent FRT2: 125 mm (5 in)/175 mm (7 in)



Belt dimensions

	p	d _{pin}	h _m	h _{pin}	h _s	W _{min}	W _{inc}	W _{tol}	Minimum flex radii ¹⁾				
	Pitch	Pin Ø	Thickness [mm]	Pin position [mm]	Height [mm]	Width min. [mm]	Width Increment [mm]	Width tolerance [%]	r1	r2	r3	r4	r5
mm	25.0	5.0	12.0	6.0	1.5	500.0	25.0	±0.3	1.4 x W _B	25.0	50.0	75.0	25.0
inch	0.98	0.2	0.47	0.24	0.06	19.69	0.98	±0.3	1.4 x W _B	0.98	1.97	2.95	0.98

W_B = Belt width

Available standard materials⁴⁾

Belt		Pin		Rubber		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation [%]	Temperature		Certificates	
Material	Color	Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m ²]	[lb/ft ²]		[°C]	[°F]	FDA ²⁾	EU ³⁾
PP	WT	PBT	UC	R7	BG	9	617	600	135	6.1	1.25	0.2	5/100	41/212	●	●
PP	BL	PBT	BL	R7	BG	9	617	600	135	6.1	1.25	0.2	5/100	41/212	●	●
PP	BL	PBT	BL	R7	BG	9	617	600	135	6.1	1.25	0.2	5/100	41/212	●	●

■ BL (Blue), ■ UC (Uncolored), ■ WT (White)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

¹⁾ Flex radii: r1 = side flex, r2 = front flex on roller, r3 = back flex on load bearing roller, r4 = back flex on Hold Down shoe, r5 = back flex on roller

²⁾ Complies with FDA 21 CFR

³⁾ Complies with (EU) 10/2011 and (EC) 1935/2004 regulations regarding the raw materials used and the migration thresholds

⁴⁾ More materials and colors on request



MOVEMENT SYSTEMS

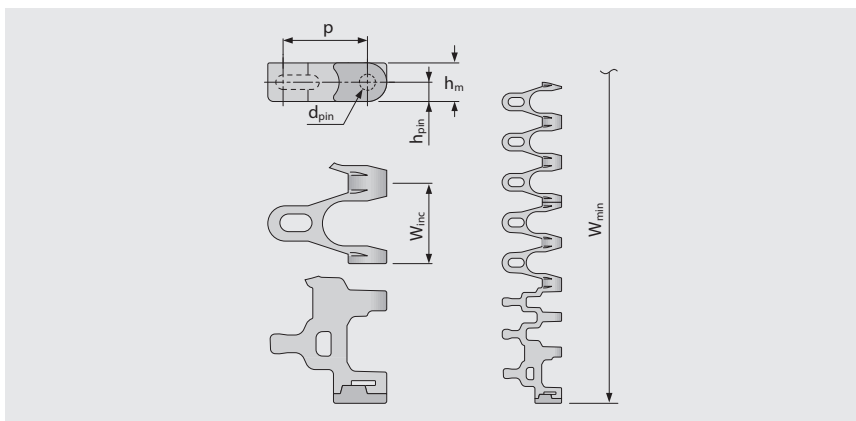
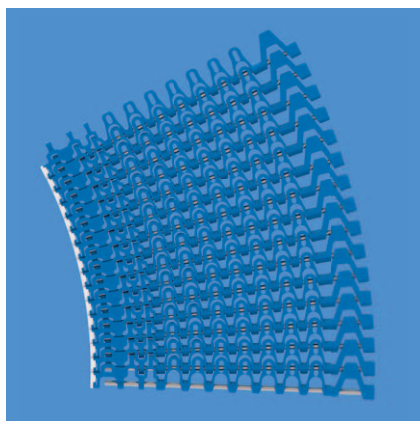
COMBO | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in)

S11/S5 ST-45 GRT CCW | 45 % Opening | Grid top | Counter clockwise or left hand curve

Combination of high belt pull capacity and small radii in one directional curve layouts | Excellent air circulation and drainage | 42 % contact area (Largest opening: 14 x 13 mm/0.55 x 0.51 in) | Lattice shaped surface | SS pins for high stiffness



Belt dimensions

	p	d _{pin}	h _m	h _{pin}	h _s	W _{min}	W _{inc}	W _{tol}	Minimum flex radii ¹⁾				
	Pitch	Pin Ø	Thickness [mm]	Pin position [mm]	Height [mm]	Width min. [mm]	Width Increment [mm]	Width tolerance [%]	r1	r2	r3	r4	r5
mm	25.0	5.0	12.0	6.0	0.0	175.0	25.0	±0.3	1.45 x W _B	25.0	50.0	75.0	25.0
inch	0.98	0.2	0.47	0.24	0.0	6.89	0.98	±0.3	1.45 x W _B	0.98	1.97	2.95	0.98

W_B = Belt width

Available standard materials⁴⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m ²]	[lb/ft ²]	[%]	[°C]	[°F]	FDA ²⁾	EU ³⁾
PP	WT	SS		18	1233	1200	270	10.2	2.09	0.2	5/100	41/212	●	●
PP	BL	SS		18	1233	1200	270	10.2	2.09	0.2	5/100	41/212	●	●
POM-CR	WT	SS		25	1713	2100	472	13.2	2.70	0.0	-45/90	-49/194	●	●
POM-CR	BL	SS		25	1713	2100	472	13.2	2.70	0.0	-45/90	-49/194	●	●
PA*	BL	SS		20	1370	1680	378	13.0	2.66	0.6	-40/120	-40/248	●	●

* Values valid for dry applications (RH <50 %). Belts in PA material will absorb water in wet environments, causing them to expand and reduce the nominal belt pull capacity.

■ BL (Blue), □ WT (White)

All measurements and tolerances apply at 21 °C; for temperature deviations please see ProLink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

¹⁾ Flex radii: r1 = side flex, r2 = front flex on roller, r3 = back flex on load bearing roller, r4 = back flex on Hold Down shoe, r5 = back flex on roller

²⁾ Complies with FDA 21 CFR

³⁾ Complies with (EU) 10/2011 and (EC) 1935/2004 regulations regarding the raw materials used and the migration thresholds

⁴⁾ More materials and colors on request



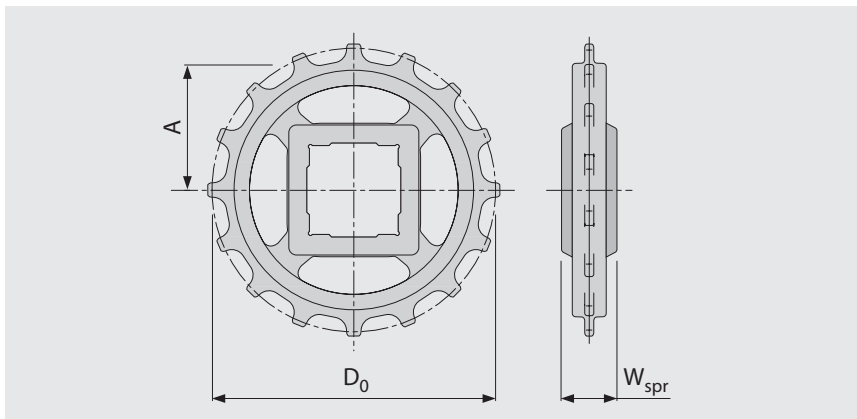
MOVEMENT SYSTEMS

SERIES 11 | SPROCKETS

siegling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in)

S11 SPR | Sprockets



Main dimensions

Sprocket size (Number of teeth)		Z6	Z9	Z11	Z12	Z16	Z18	Z20
W _{spr}	mm	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	inch	0.94	0.94	0.94	0.94	0.94	0.94	0.94
D ₀	mm	49.6	72.6	88.0	95.8	127.2	142.8	158.5
	inch	1.95	2.86	3.46	3.77	5.01	5.62	6.24
A _{max}	mm	18.8	30.3	38.0	41.9	57.6	65.4	73.3
	inch	0.74	1.19	1.50	1.65	2.27	2.57	2.89
A _{min}	mm	16.3	28.5	36.5	40.5	56.5	64.4	72.4
	inch	0.64	1.12	1.44	1.59	2.22	2.54	2.85

Shaft bores (● = Round, ■ = Square)

25	mm		●/■	●	●/■	●	●	●
30	mm		●/■	●	●	●	●	●
40	mm			■	●/■	●/■	●/■	●/■
0.75	inch	●						
1	inch		●/■	●	●/■	●	●	●
1.25	inch		●/■	●	●	●	●	●
1.5	inch			■	●/■	●/■	●/■	●/■

Material: PA, Color: LG

■ LG (Light gray)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

For detailed sprocket and shaft dimensions see appendix 6.3.



MOVEMENT SYSTEMS

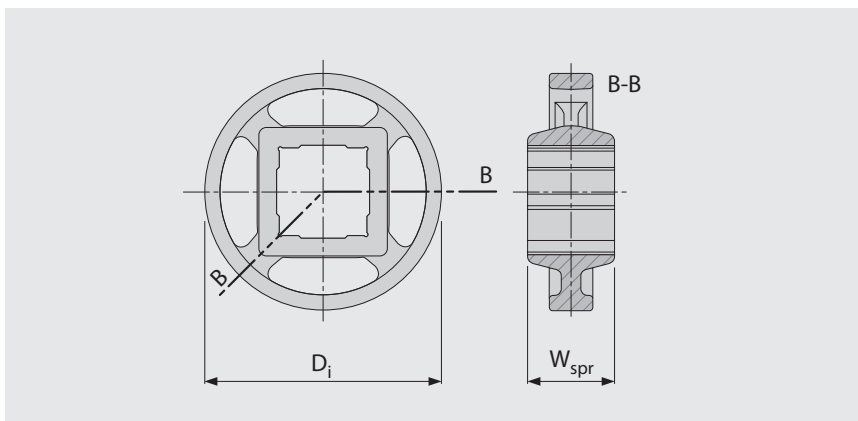
SERIES 11 | IDLER

Side flexing belt | Pitch 25 mm (0.98 in)

siebling prolink
modular belts

S11 IDL | Idler

For side support and return roller without tooth engagement



Main dimensions

Sprocket size (Number of teeth)		Z6	Z9	Z11	Z12	Z16	Z18	Z20
W _{spr}	mm	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	inch	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Di	mm	31.7	56.1	72.2	80.3	112.3	128.2	144.1
	inch	1.25	2.21	2.84	3.16	4.42	5.05	5.67

Shaft bores (● = Round, ■ = Square)

25	mm		●/■	●	●/■	●	●	●
30	mm		●/■	●	●	●	●	●
40	mm			■	●/■	●/■	●/■	●/■
0.75	inch	●						
1	inch		●/■	●	●/■	●	●	●
1.25	inch		●/■	●	●	●	●	●
1.5	inch			■	●/■	●/■	●/■	●/■

Material: PA, Color: LG

■ LG (Light gray)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".
All imperial dimensions (inches) are rounded off.

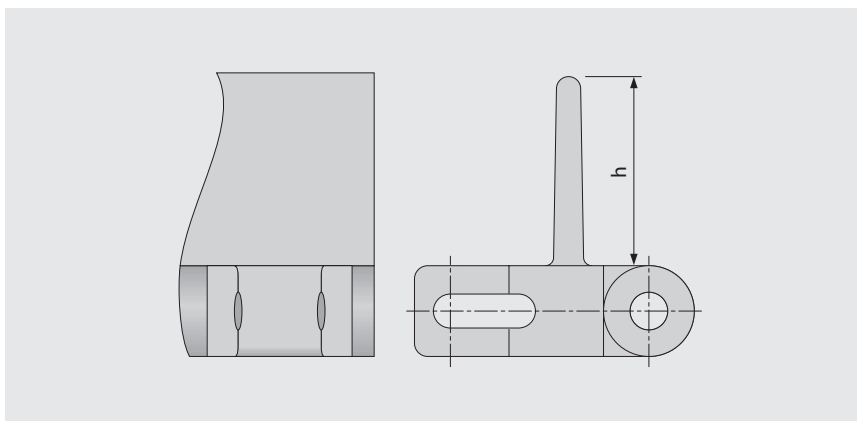
SERIES 11 | PROFILES

Side flexing belt | Pitch 25 mm (0.98 in)

siegling prolink
modular belts

S11-45 GRT PMC

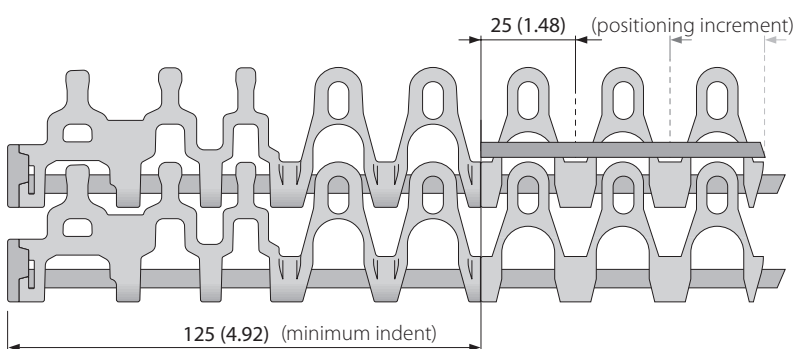
Open version (45 %) base module for drainage



Basic data

Material	Color	Height (h)	
		25 mm 1 inch	50 mm 2 inch
PE	WT	●	●
POM	BL	●	●
POM	DB	●	●
POM	UC	●	●
POM	WT	●	●
PP	DB	●	●
PP	WT	●	●

Molded width: 100 mm (3.9 in)



■ BL (Blue), ■ DB (Dark blue), ■ UC (Uncolored), ■ WT (White)

All measurements and tolerances apply at 21 °C; for temperature deviations please see Prolink manual chapter 4.4 "Temperature influence".

All imperial dimensions (inches) are rounded off.

Note: Use of accessory in a belt may impact on the minimum design radii. Please see chapter 6.3 for further information.



MOVEMENT SYSTEMS

LEGEND

① Series		④ Type		⑥ Material		⑦ Color*	
S1 ... S15		A90 Angle 90° to conveying direction		PA Polyamide		AT Anthracite	
② Open area/Sprocket size		BPU Bucket profile		PA-HT Polyamide high temperature		BG Beige	
Percentage open area		CCW Counter clockwise		PBT Polybutylentere-phthalate		BK Black	
Format: xx		CLP Clip		PE Polyethylene		BL Blue	
E.g. 20 = 20 %		CM Center module		PE-MD PE metal detectable		DB Dark blue	
For sprockets: number of teeth		CW Clockwise		POM Polyoxymethylene (Polyacetal)		GN Green	
Format: "Z"xx		FPL Finger plate		POM-CR POM cut resistant		LB Light blue	
E.g. Z12 = 12 teeth		IDL Idler		POM-HC POM highly conductive		LG Light gray	
③ Surface pattern		PIN Coupling rod		POM-MD POM metal detectable		OR Orange	
BSL Base module for slider		PMC Profile module center		POM-PE POM side modules + PE center modules		RE Red	
CTP Cone top		PMU Profile module universal		POM-PP POM side modules + PP center modules		TQ Turquoise	
CUT Curved top		PMU lxx Profile module universal with indent xx = indent in mm		PP Polypropylene		TR Transparent	
FLT Flat top (smooth)		RI High Grip insert		PXX-HC Self-extinguishing highly conductive material		UC Uncolored	
FRT-OG Friction top without High Grip insert		RTR Retaining ring		R1 TPE 80 Shore A, PP		WT White	
FRT(X) Friction top (Design X)		SG Module with sideguard		R2 EPDM 80 Shore A, vulcanized		YL Yellow	
GRT Grid top		SLI Slider		R3 TPE 70 Shore A, POM		⑧ Height/Diameter/ Bore size and style	
LRB Lateral rib		SML Side module, left		R4 TPE 86 Shore A, PP		Height in mm (in)	
MOD Modified module shape		SMR Side module, right		R5 TPE 52 Shore A, PP		Format: Hxxx	
NCL No cling		SMU Side module, universal/both sides		R6 TPE 63 Shore A, POM		Pin diameter in mm (in)	
NPY Negative pyramid		SPR Sprocket		R7 TPE 50 Shore A, PP		Format: Dxxx	
NSK Non skid		TPL Turning panel, left		R8 TPE 55 Shore A, PE		Bore size: SQ (= square) or RD (= round)	
NTP Nub top (round studs)		TPR Turning panel, right		SER Self-extinguishing TPE		either in mm or inches	
RAT Radius top		UM Universal module		SS Stainless steel		Format: SQxxMM or RDxxIN	
RRB Raised rib		⑤ Style		TPC1 Thermoplastic Copolyester		⑨ Length/Width	
RSA Reduced surface area		BT Bearing tab		-HA Supports the HACCP concept		Pins Length in mm (in)	
RTP Roller top		DR Double row sprocket		-HW High Wear resistant material		Format: Lxxx	
SRS Slip-resistant surface		F1, F2, F3 ... Collapse factor modules				Module width in mm (in)	
		G Guided				Format: Wxxx	
		GT Guiding tabs					
		HD Hold Down					
		RG Reversed guided					
		SG Side guard					
		SP Split sprocket					
		ST Strong					

* For each series' standard colors please refer to the table of materials for each belt (chapter 1.2). A number of other colors are available on request. Colors can vary from the original due to the print, production processes or material used.



MOVEMENT SYSTEMS