

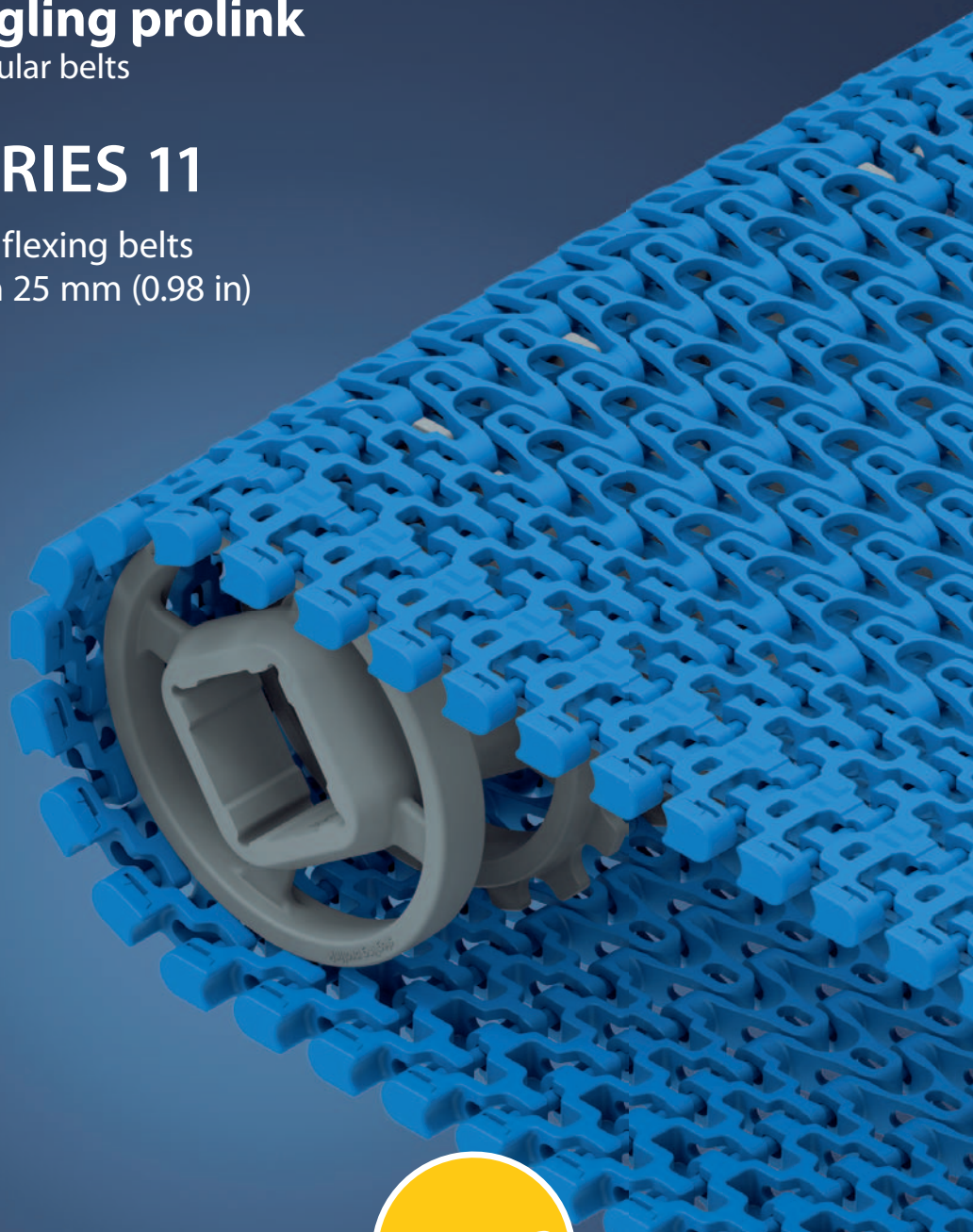
EXCERPT FROM PROLINK ENGINEERING MANUAL

11/22 (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

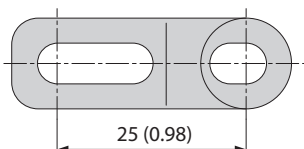
SERIES 11 | OVERVIEW

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



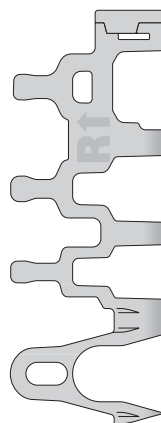
Design characteristics

- 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

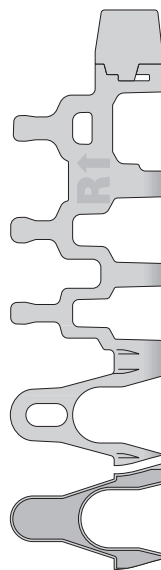
Pitch	25 mm (0.98 in)
Belt width min.	175 mm (6.9 in)
Belt width max.	1000 mm (39.37 in)
Width increments	25 mm (0.98 in)
Hinge pins	5 mm (0.2 in) made of plastic (PBT) Combo: 5 mm (0.2 in) stainless steel

Available surface pattern and opening area



S11-45 GRT

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



S11-45 GRT HD

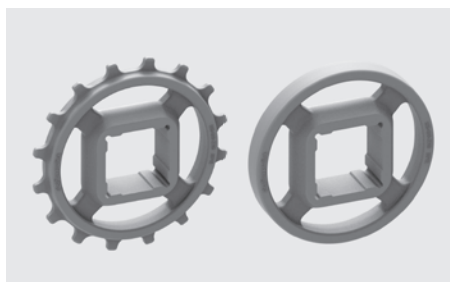
Open (45 %), lattice-shaped surface with replaceable Hold Down caps

S11-33 FRT2

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

Sprockets/Idlers

in different sizes with round or square sprocket bore



Profiles

in different heights and designs for inclines



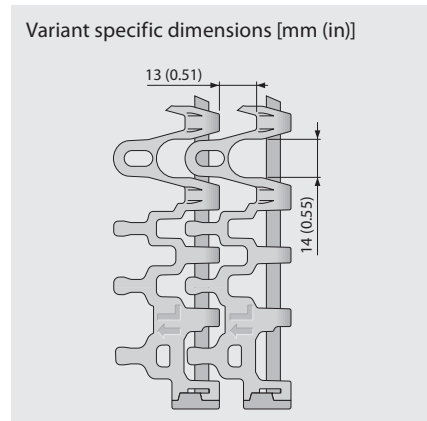
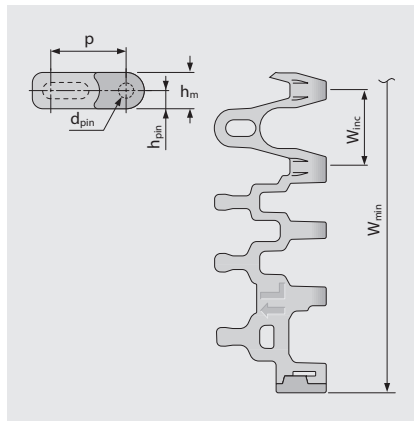
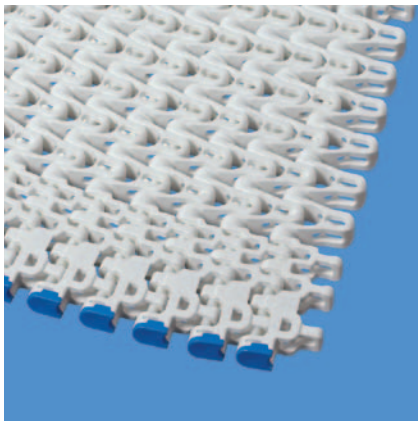
SERIES 11 | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in) | $C_c = 1.4$

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 | Collapse factor (C_c) = 1.4



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 C _c x W _B	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, further information regarding r1 see page III-20

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

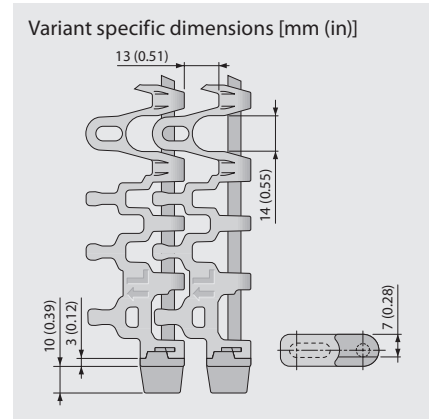
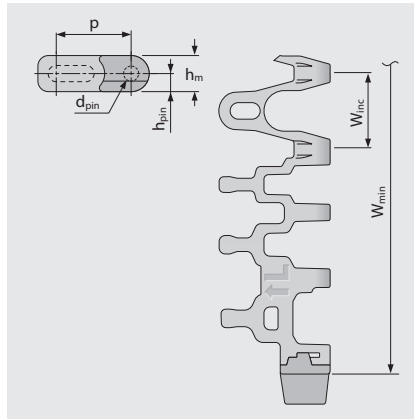
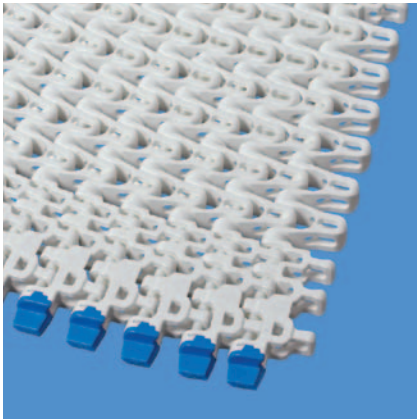
SERIES 11 | BELT TYPES

siegling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in) | $C_c = 1.4$

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 | Collapse factor (C_c) = 1.4



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 C _c x W _B	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, further information regarding r1 see page III-20

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

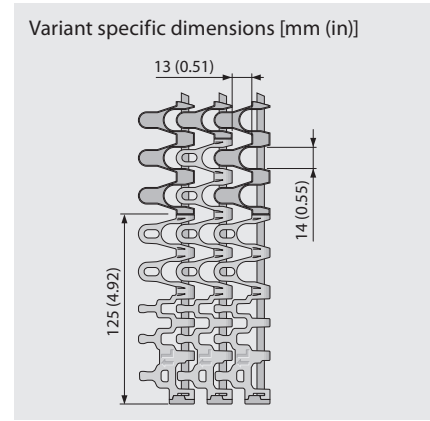
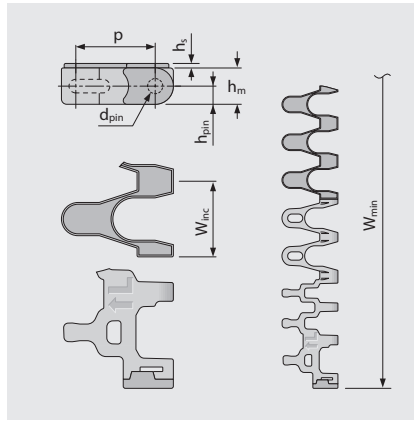
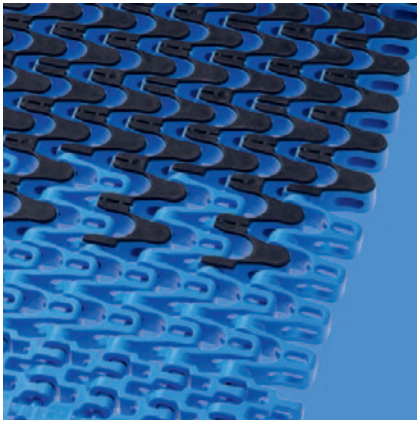
SERIES 11 | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in) | $C_c = 1.4$

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) | Collapse factor (C_c) = 1.4



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 C _c x W _B	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, further information regarding r1 see page III-20

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

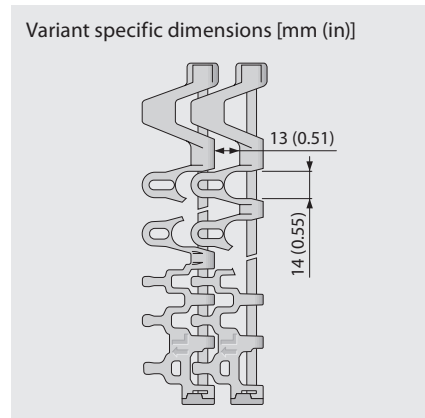
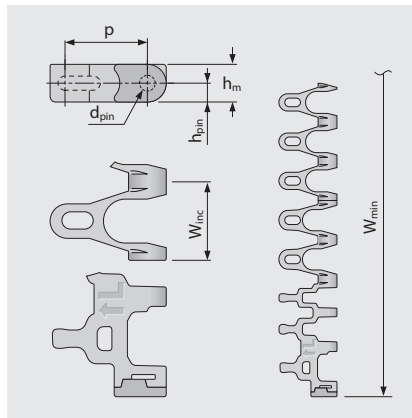
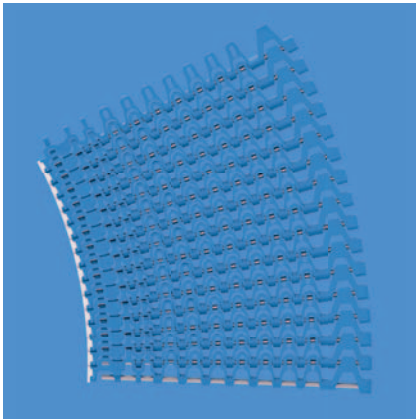
S11 COMBO | BELT TYPES

siebling prolink
modular belts

Side flexing belt | Pitch 25 mm (0.98 in) | $C_c = 1.45$

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 | Collapse factor (C_c) = 1.45



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 C _c x W _B	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, further information regarding r1 see page III-20

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	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

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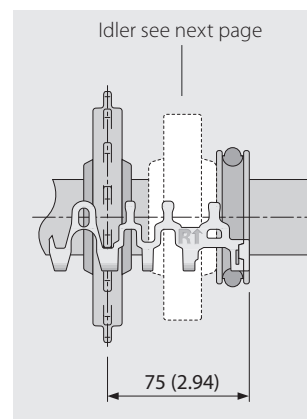
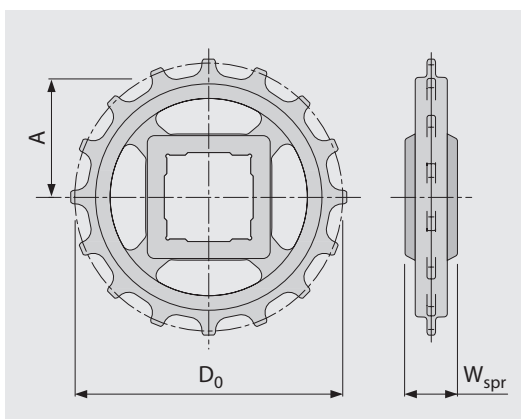
MOVEMENT SYSTEMS

SERIES 11 | SPROCKETS

Side flexing belt | Pitch 25 mm (0.98 in)

siegling prolink
modular belts

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

Number of sprockets (sprocket spacing distance) see chapter 3.2

Sprocket installation see chapter 5.2

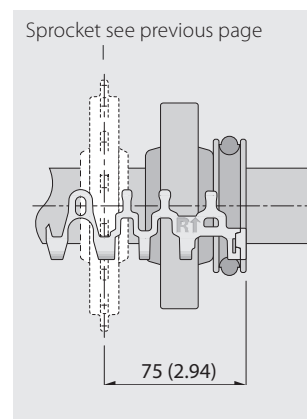
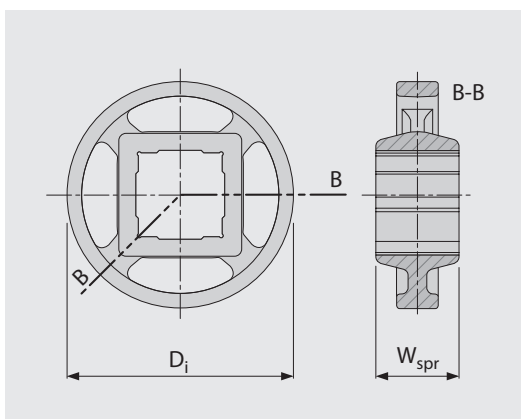
SERIES 11 | IDLER

Side flexing belt | Pitch 25 mm (0.98 in)

sieging 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.

For detailed shaft dimensions see appendix 6.3

Idler installation see chapter 5.2 (Sprocket installation)

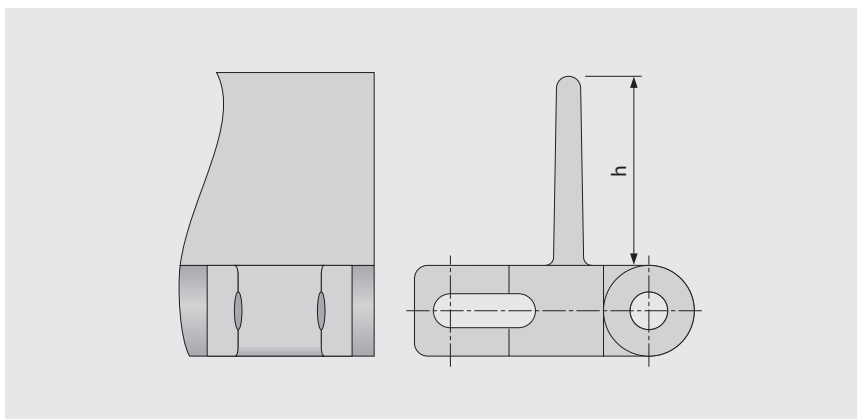
SERIES 11 | PROFILES

Side flexing belt | Pitch 25 mm (0.98 in)

siebling prolink
modular belts

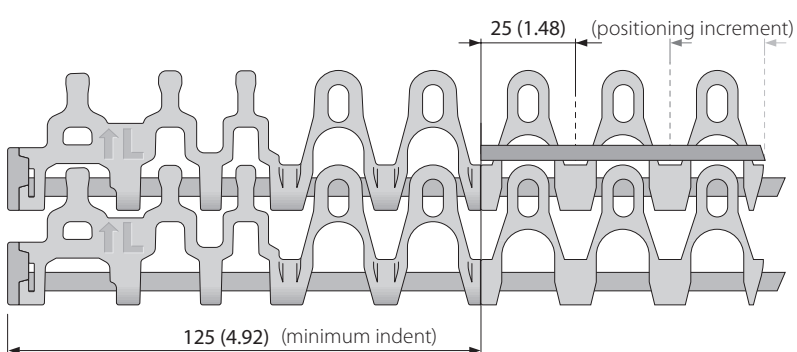
S11-45 GRT PMC

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
S1 ... S18

② Open area/Sprocket size
Percentage open area Format: xx E.g. 20 = 20 %
For sprockets: number of teeth Format: "Z"xx E.g. Z12 = 12 teeth

③ Surface pattern
BSL Base module for slider
CTP Cone top
CUT Curved top
FLT Flat top (smooth)
FRT-OG Friction top without High Grip insert
FRT(X) Friction top (Design X)
GRT Grid top
HDK High Deck
LRB Lateral rib
MOD Modified module shape
NCL No cling
NPY Negative pyramid
NSK Non skid
NSK2 Non skid, nonwoven variant
NTP Nub top (round studs)
PRR Pin Retained Rollers
RAT Radius top
RRB Raised rib
RSA Reduced surface area
RTP Roller top
SRS Slip-resistant surface

④ Type
BPU Bucket profile
CAP Pin lock & belt edge sealing
CCW Counter clockwise
CLP Clip
CM Center module
CW Clockwise
FPL Finger plate
HDT Hold Down Tab
IDL Idler
PIN Coupling rod
PMC Profile module center
PMU Profile module universal
PSP ProSnap
RI High Grip insert
RTR Retaining ring
SG Module with sideguard
SLI Slider
SML Side module, left
SMR Side module, right
SMU Side module, universal/both sides
SPR Sprocket
TPL Turning panel, left
TPR Turning panel, right
UM Universal module
WSC Wheel Stopper Center
WSS Wheel Stopper Side

⑤ Style
1.7 1.7 collapse factor
2.2 2.2 collapse factor
2.2 G 2.2 collapse factor, guided
A90 Angle 90° to conveying direction
BT Bearing tab
DR Double row sprocket
F1, F2, F3 ... Collapse factor modules
G Guided
GT Guiding tabs
HD Hold Down
Ixx xx = indent in mm
RG Reversed guided
SG Side guard
SP Split sprocket
ST Strong

⑥ Material
PA Polyamide
PA-HT Polyamide high temperature
PBT Polybutylentere-phthalate
PE Polyethylene
PE-MD PE metal detectable
PLX Wear & impact improved polymer
POM Polyoxymethylene (Polyacetal)
POM-CR POM cut resistant
POM-HC POM highly conductive
POM-MD POM metal detectable
POM-PE POM side modules + PE center modules
POM-PP POM side modules + PP center modules
PP Polypropylene
PXX-HC Self-extinguishing highly conductive material
R1 TPE 80 Shore A, PP
R2 EPDM 80 Shore A, vulcanized
R3 TPE 70 Shore A, POM
R4 TPE 86 Shore A, PP
R5 TPE 52 Shore A, PP
R6 TPE 63 Shore A, POM
R7 TPE 50 Shore A, PP
R8 TPE 55 Shore A, PE
SER Self-extinguishing TPE
SS Stainless steel
TPC1 Thermoplastic Copolyester
-HA Supports the HACCP concept
-HW High Wear resistant material

⑦ Color*
AT Anthracite
BG Beige
BK Black
BL Blue
DB Dark blue
GN Green
LB Light blue
LG Light gray
OR Orange
RE Red
TQ Turquoise
UC Uncolored
WT White
YL Yellow

⑧ Height/Diameter/ Bore size and style
Height in mm (in) Format: Hxxx
Pin diameter in mm (in) Format: Dxxx
Bore size: SQ (= square) or RD (= round) either in mm or inches Format: SQxxMM or RDxxIN

⑨ Length/Width
Pins Length in mm (in) Format: Lxxx
Module width in mm (in) Format: Wxxx

* 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.