

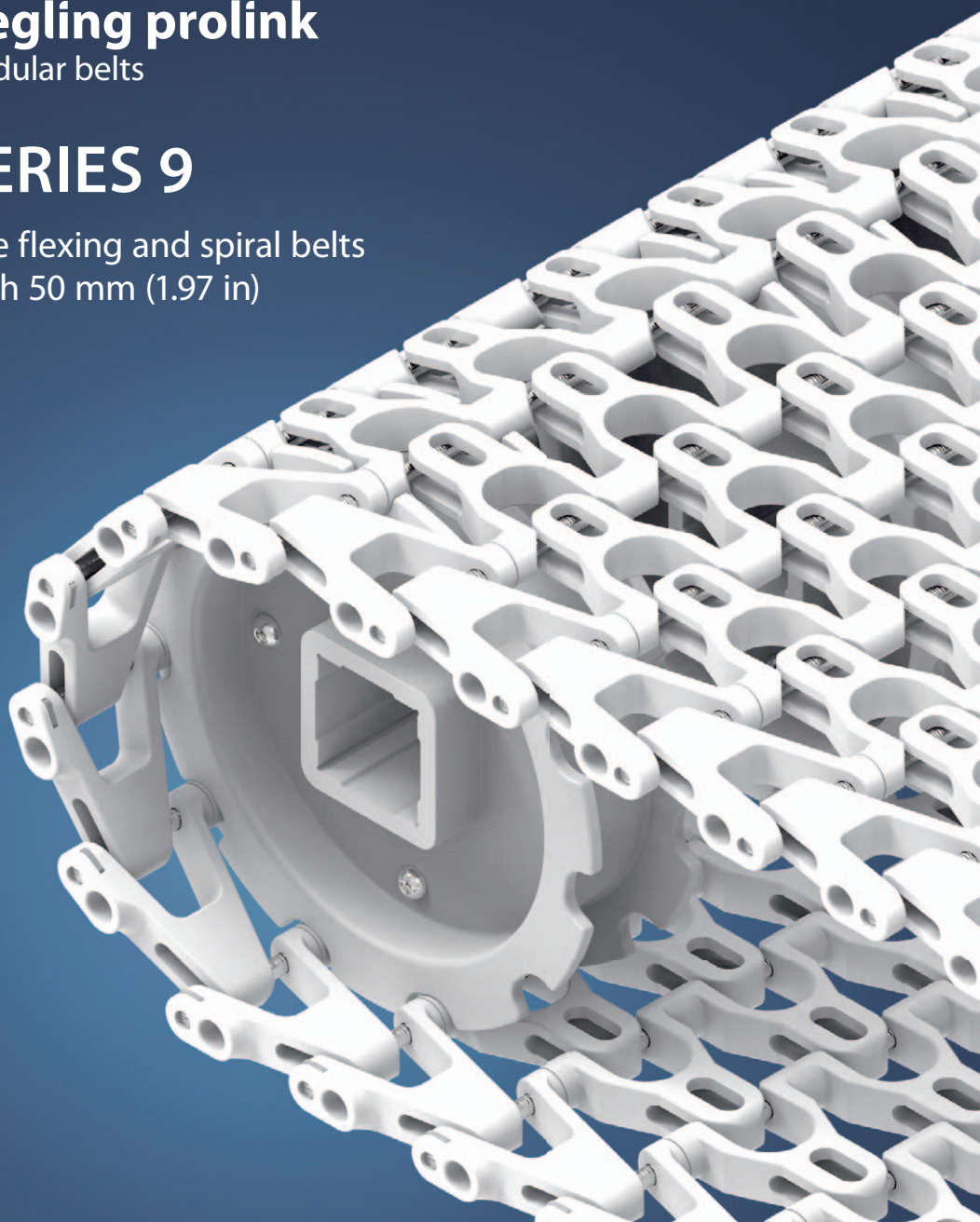
EXCERPT FROM PROLINK ENGINEERING MANUAL

01/20 (Ref-No. 888)

siegling prolink
modular belts

SERIES 9

Side flexing and spiral belts
Pitch 50 mm (1.97 in)



Forbo Siegling GmbH

Lilienthalstraße 6/8, D-30179 Hannover

Phone +49 511 6704 0

www.forbo-siegling.com, siegling@forbo.com

Ref. no. 888-2_1.2_S9

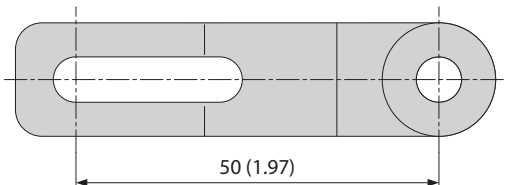
SERIES 9 | OVERVIEW

siegling prolink
modular belts

Side flexing and spiral belts | Pitch 50 mm (1.97 in)

Belts for medium to heavy-duty food and non-food applications

Side view scale 1:1



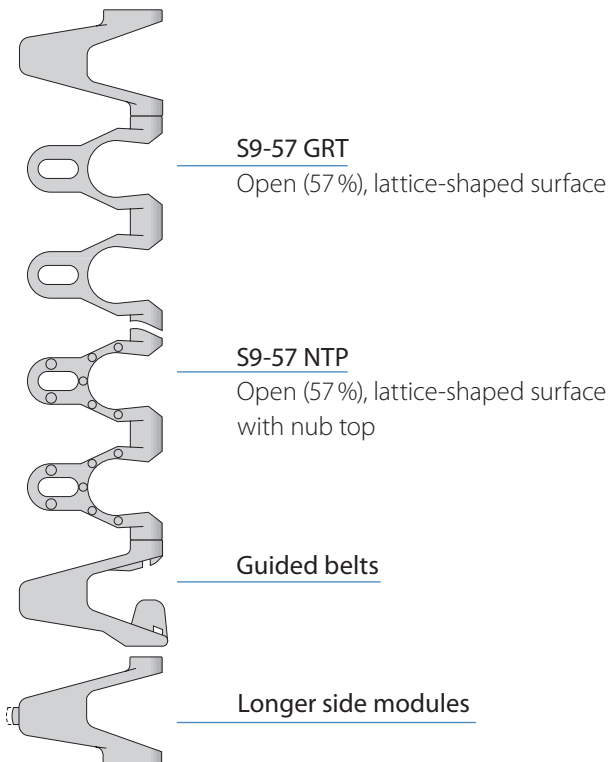
Design characteristics

- Suitable for both straight and radius conveying
- 57 % open area for excellent air circulation and drainage
- Stainless steel hinge pins for high load capacity, lateral stiffness, less belt supports and minimum belt lifting in curves
- No potential belt edge catch points due to safe fixing of hinge pin

Basic data

Pitch	50 mm (1.97 in)
Belt width min.	100 mm (3.9 in)
Width increments	50 mm (1.97 in)
Hinge pins	Stainless steel

Available surface pattern and opening area



Attention:

Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

Sprockets

in different sizes with round or square sprocket bore



Profiles

in different heights and designs for inclines



Side guards

in different heights for retention of bulk products



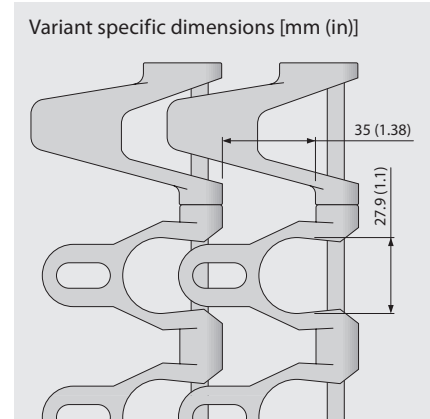
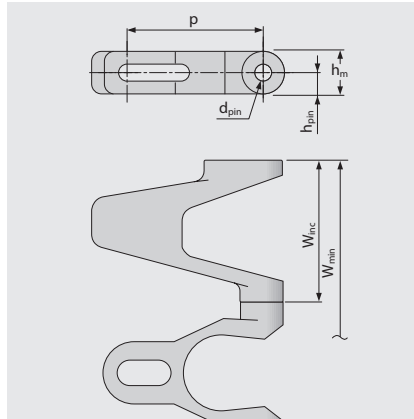
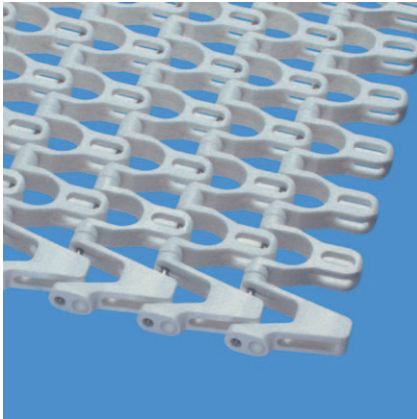
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 GRT | 57 % Opening | Grid top

Open area (57 %) for excellent air circulation and drainage | Contact area 31 % (Largest opening: 27.9 x 35 mm/1.1 x 1.38 in) | Lattice-shaped surface



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	50.0	6.0	15.0	7.5	0.0	100.0	50.0	±0.3	1.8 x W _B	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.59	0.3	0.0	3.94	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

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⁾
PE	WT	SS		12	822	NR	NR	9.5	1.95	0.0	-70/65	-94/149	●	●
PP	WT	SS		22	1507	1600	360	9.3	1.9	0.0	5/100	41/212	●	●
PP	LG	SS		22	1507	1600	360	9.3	1.9	0.0	5/100	41/212	●	●
POM-CR	UC	SS		30	2056	2800	629	11.5	2.36	0.0	-45/90	-49/194	●	●
POM-CR	LG	SS		30	2056	2800	629	11.5	2.36	0.0	-45/90	-49/194	●	●
POM-CR	DB	SS		30	2056	2800	629	11.5	2.36	0.0	-45/90	-49/194	●	●
PA*	BL	SS		24	1645	2240	504	11.3	2.31	0.0	-40/120	-40/248	●	●

NR = not recommended

* 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.

Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

■ DB (Dark blue), ■ LG (Light gray), □ WT (White), □ UC (Uncolored)

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

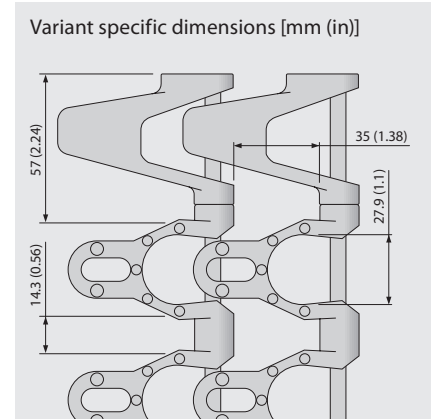
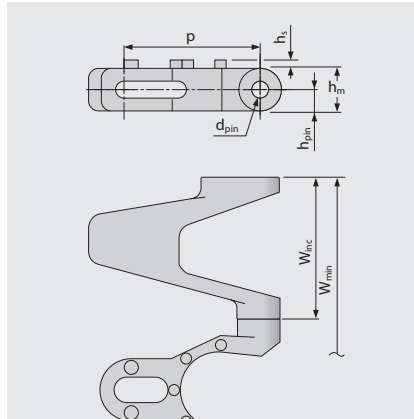
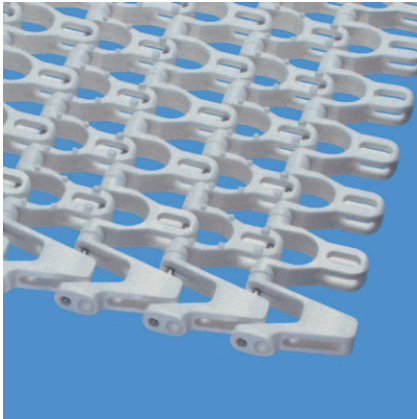
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 NTP | 57 % Opening | Nub top (round studs)

Open area (57 %) for excellent air circulation and drainage | Lattice-shaped surface with 3.0 mm (0.12 in) high round studs
4 % contact area | Nub top surface for increased grip and reduced contact area for good release



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	50.0	6.0	15.0	7.5	3.0	150.0	50.0	±0.3	1.8 x W _B	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.59	0.3	0.12	5.91	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

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	LG	SS		22	1507	1600	360	9.4	1.93	0.0	5/100	41/212	●	●

Mold to order belts														
PE		SS		12	822	NR	NR	9.7	1.99	0.0	-70/65	-94/149	–	–
POM-CR		SS		30	2056	2800	629	11.7	2.4	0.0	-45/90	-49/194	–	–

NR = not recommended

Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

■ 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.

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

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⁴⁾ More materials and colors on request



MOVEMENT SYSTEMS

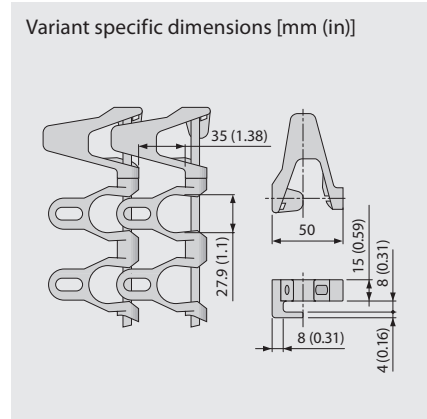
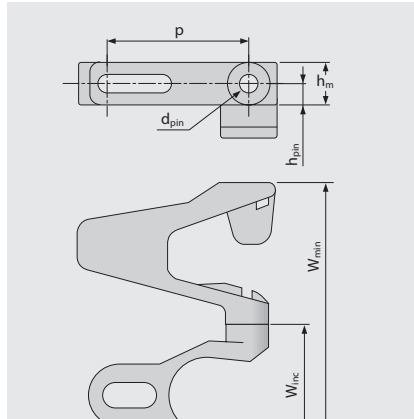
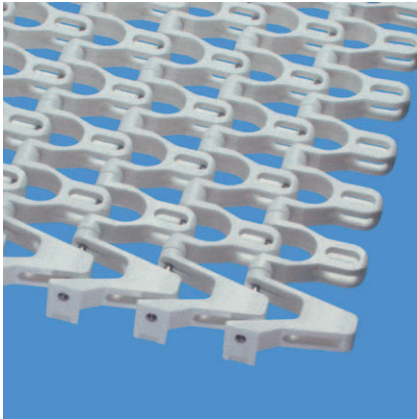
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 GRT G | 57 % Opening | Grid top · guided

Open area (57 %) for excellent air circulation and drainage | Contact area 31 % (Largest opening: 27.9 x 35 mm/1.1 x 1.38 in) | Lattice-shaped surface | Guided version (G) allows utilisation of the entire belt width



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	50.0	6.0	15.0	7.5	0.0	100.0	50.0	±0.3	1.8 x W _B	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.59	0.3	0.0	3.94	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

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⁾
POM-CR	UC	SS		30	2056	2800	629	11.5	2.36	0.0	-45/90	-49/194	●	●

Mold to order belts														
PE		SS		12	822	NR	NR	9.5	1.95	0.0	-70/65	-94/149	-	-

NR = not recommended

Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

■ LG (Light gray), ■ UC (Uncolored)

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

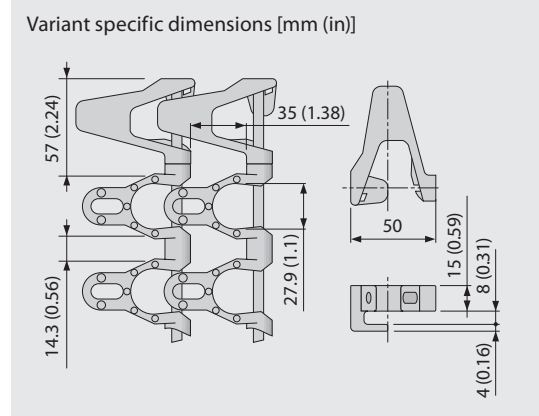
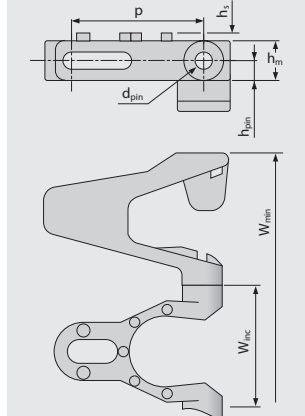
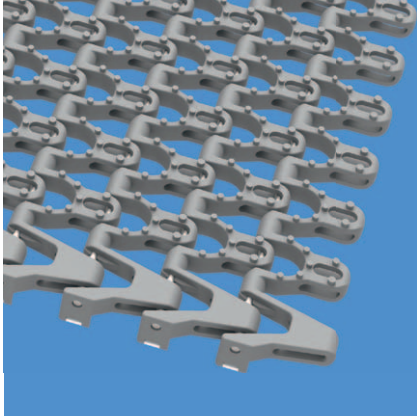
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 NTP G | 57 % Opening | Nub top (round studs) · guided

Open area (57 %) for excellent air circulation and drainage | With round studs for increased grip (4 % contact area) | Guided version (G) allows utilisation of the entire belt width



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	50.0	6.0	15.0	7.5	3.0	150.0	50.0	±0.3	1.8 x W _B	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.59	0.3	0.12	5.91	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

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	LG	SS		22	1507	1600	360	9.4	1.93	0.0	5/100	41/212	●	●

Mold to order belts

PE		SS		12	822	NR	NR	9.7	1.99	0.0	-70/65	-94/149	-	-
POM-CR		SS		30	2056	2800	629	11.7	2.40	0.0	-45/90	-49/194	-	-

NR = not recommended

Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

■ 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.

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

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MOVEMENT SYSTEMS

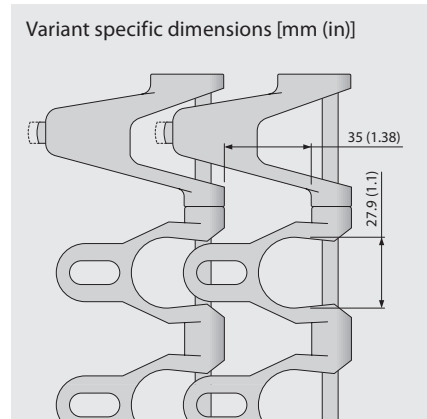
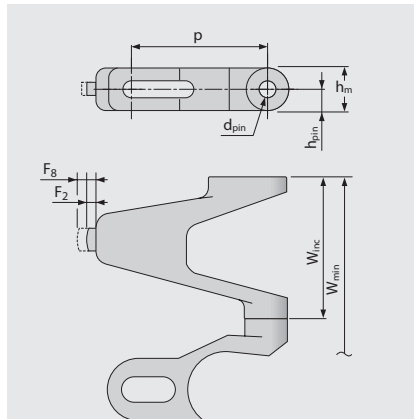
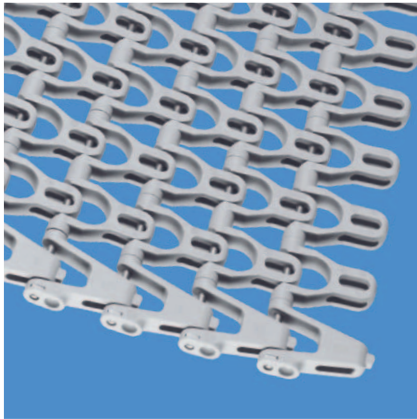
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 GRT F2, F3, F4, F5, F6, F7, F8 | 57 % Opening

Open area (57 %) for excellent air circulation and drainage | Special edge modules with noses (F2–F8) of varying size ensure smooth belt operation when the system turn radius is greater than the minimum belt turn radius



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	50.0	6.0	15.0	7.5	0.0	100.0	50.0	±0.3	C _c x W _B	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.59	0.3	0.0	3.94	1.97	±0.3	C _c x W _B	1.97	3.94	5.91	1.97

C_c see table below

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⁾
POM-CR	UC	SS		30	2056	2800	629	11.5	2.36	0.0	-45/90	-49/194	●	●

Mold to order belts														
PE		SS		12	822	NR	NR	9.5	1.95	0.0	-70/65	-94/149	–	–
PP		SS		22	1507	1600	360	9.3	1.9	0.0	5/100	41/212	–	–

Module variants

Module	F2	F3	F4	F5	F6	F7	F8
C _c	2.12	2.40	2.65	3.0	3.68	4.58	5.50

For further information see chapter 3.3 (paragraph spiral conveyors)

Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

□ UC (Uncolored)

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

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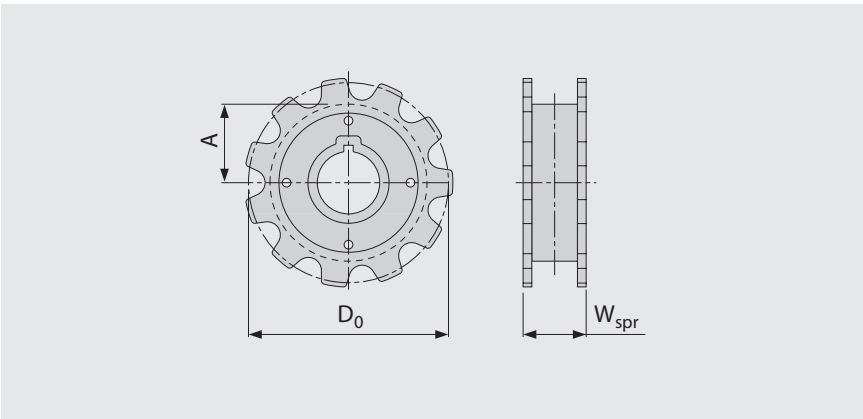
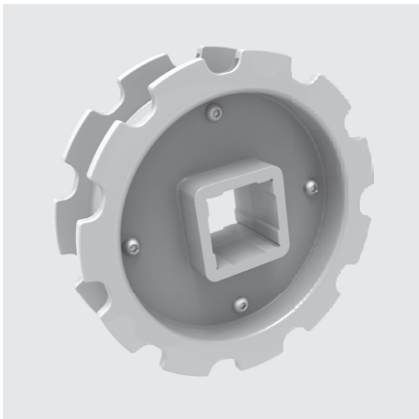
MOVEMENT SYSTEMS

SERIES 9 | SPROCKETS

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9 SPR | Sprockets



Main dimensions

Sprocket size (Number of teeth)		Z11
W _{spr}	mm	49.0
	inch	1.93
D ₀	mm	178.8
	inch	7.04
A _{max}	mm	81.9
	inch	3.22
A _{min}	mm	77.4
	inch	3.05

Shaft bores (● = Round, ■ = Square)

40	mm	●/■
1.5	inch	■

Material: POM, Color: UC

□ UC (Uncolored)

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.

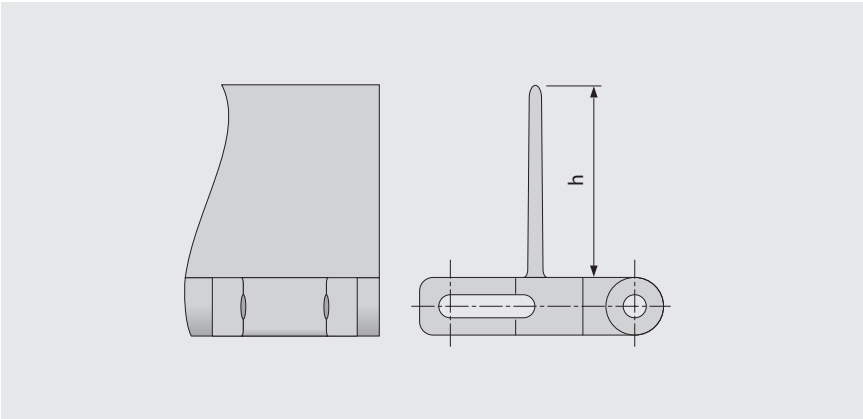
SERIES 9 | PROFILES

siegling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9-57 GRT PMC

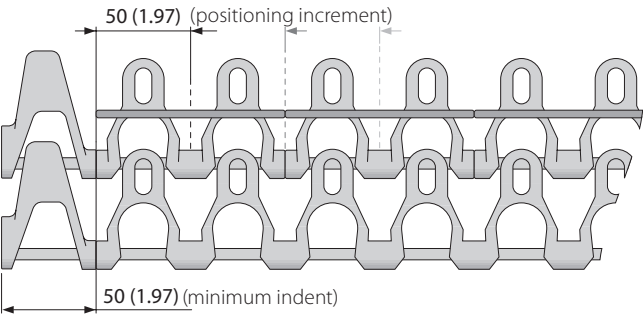
Open version (57%) base module for drainage



Basic data

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

Molded width: 100 mm (3.9 in)



Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.

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.

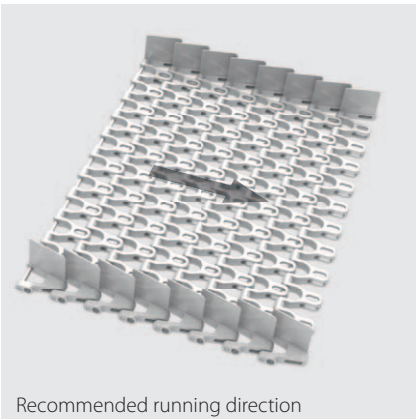
SERIES 9 | SIDE GUARDS

siebling prolink
modular belts

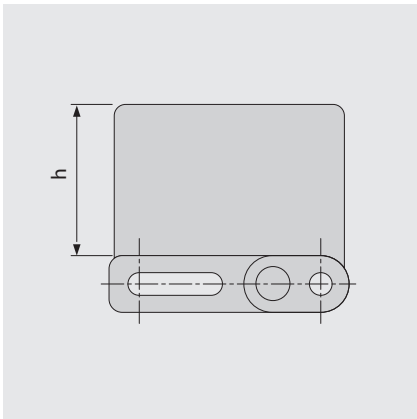
Side flexing and spiral belt | Pitch 50 mm (1.97 in)

S9 SG | Side guards

For retention of bulk products

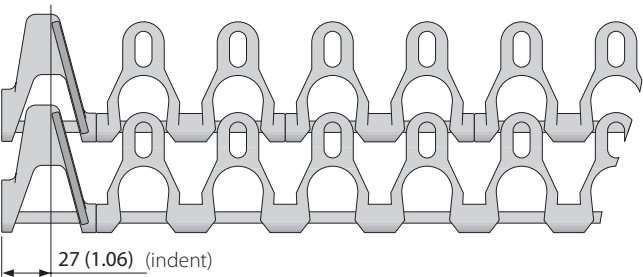


Recommended running direction



Basic data

Material	Color	Height (h)	
		25 mm 1 inch	50 mm 2 inch
POM-CR	UC	●	●



Attention! Due to the very large surface openings, personnel must be instructed not to place their fingers in or on this belt.














□ UC (Uncolored)

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.

LEGEND

① Series		
S1 ... S15		
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	
LRB	Lateral rib	
MOD	Modified module shape	
NCL	No cling	
NPY	Negative pyramid	
NSK	Non skid	
NTP	Nub top (round studs)	
RAT	Radius top	
RRB	Raised rib	
RSA	Reduced surface area	
RTP	Roller top	
SRS	Slip-resistant surface	
④ Type		
A90	Angle 90° to conveying direction	
BPU	Bucket profile	
CCW	Counter clockwise	
CLP	Clip	
CM	Center module	
CW	Clockwise	
FPL	Finger plate	
IDL	Idler	
PIN	Coupling rod	
PMC	Profile module center	
PMU	Profile module universal	
PMU lxx	Profile module universal with indent xx = indent in mm	
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	
⑤ Style		
BT	Bearing tab	
DR	Double row sprocket	
F1, F2, F3 ...	Collapse factor modules	
G	Guided	
GT	Guiding tabs	
HD	Hold Down	
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	
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	Themoplastic 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	
TR	Transparent	
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.



MOVEMENT SYSTEMS