

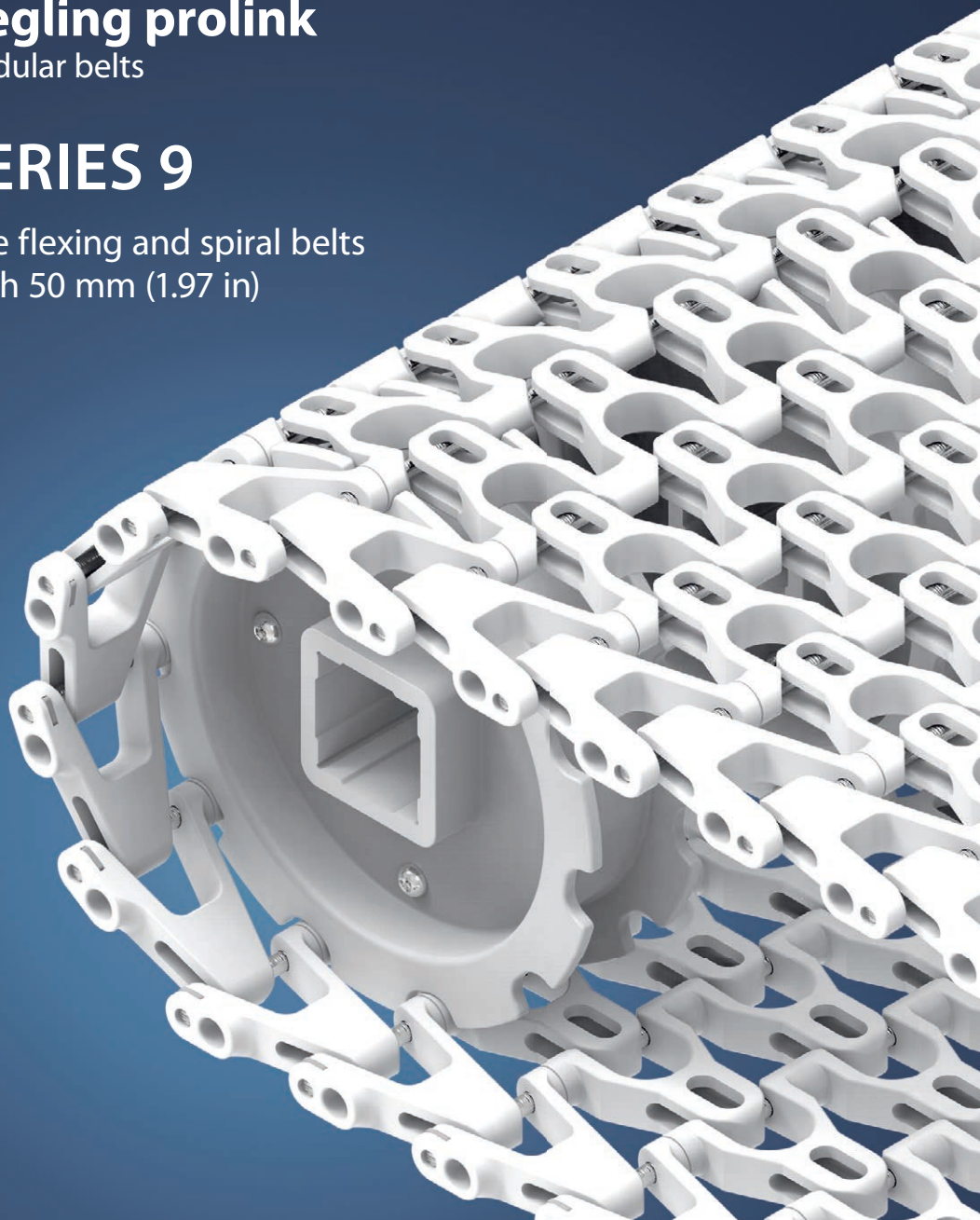
EXCERPT FROM PROLINK ENGINEERING MANUAL

01/24 (Ref-No. 888)

siegling prolink
modular belts

SERIES 9

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



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Ref. no. 888-2_1.2_S9

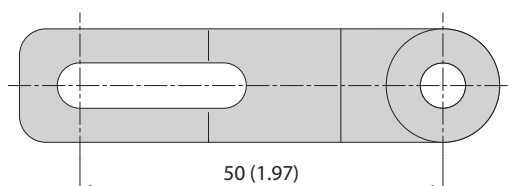
SERIES 9 | OVERVIEW

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



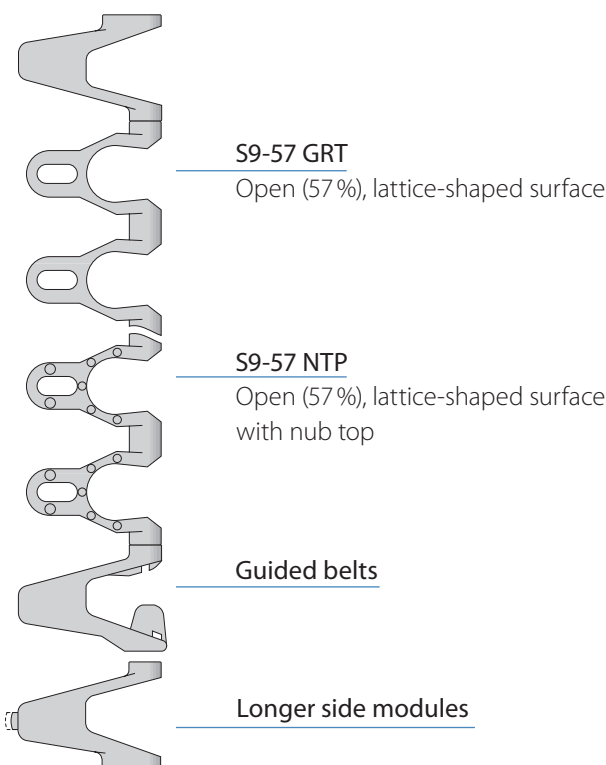
Design characteristics

- 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	6 mm (0.24 in) made of 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.

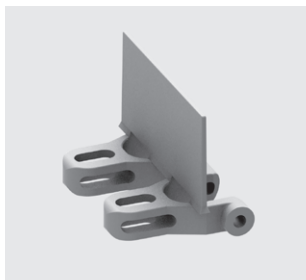
Sprockets

in different sizes with round or square bore



Profiles

in different heights and designs for inclines



Side guards

in different heights for retention of bulk products



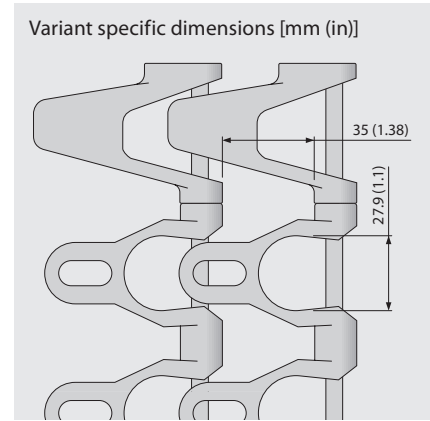
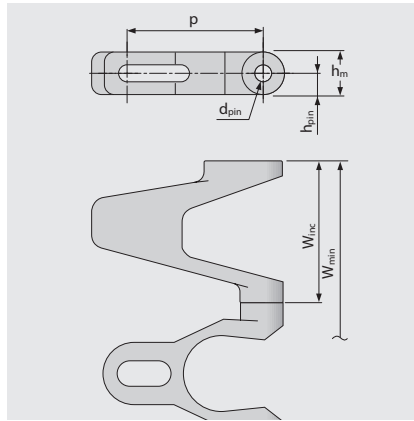
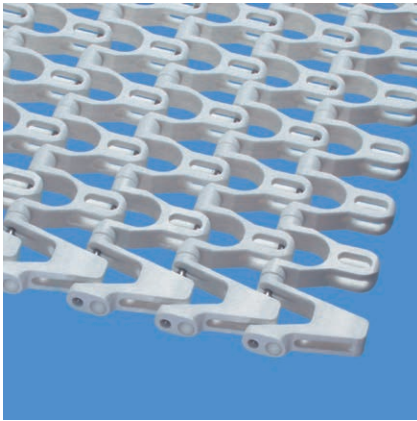
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in) | $C_c = 1.8$

S9-57 GRT | 57 % Opening | Grid top

Open area (57 %) for excellent air circulation and drainage | 31 % contact area | Lattice-shaped surface |
Collapse factor (C_c) = 1.8



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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C _c x W _B	r2	r3	r4	r5
mm	50.0	6.0	15.0	7.5	0.0	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	0.0	5.91	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

W_B = Belt width, further information regarding r1 see page III-20

Available standard materials ³⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates ²⁾	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
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 | Complies with (EU) 10/2011 and (EC) 1935/2004 regulations regarding the raw materials used and the migration thresholds | Complies with Japanese MHLW Notification 370

● = available | – = not available | empty cells = not tested

³⁾ More materials and colors on request



MOVEMENT SYSTEMS

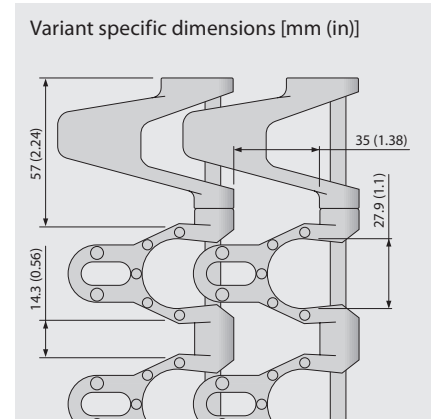
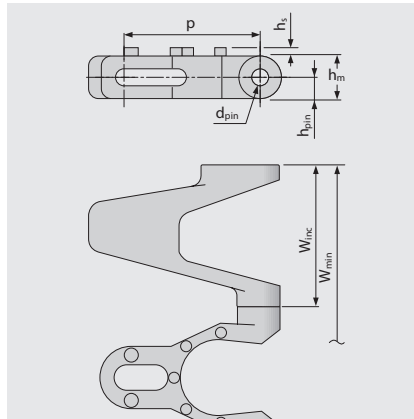
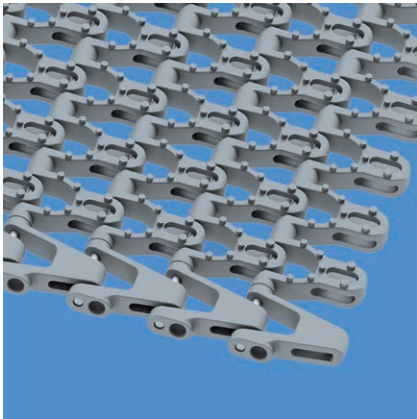
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in) | $C_c = 1.8$

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 | Collapse factor (C_c) = 1.8



Belt dimensions

	p	d _{pin}	h _m	h _{pin}	h ₅	W _{min}	W _{inc}	W _{tol}	Minimum flex radii ¹⁾				
	Pitch	Pin Ø	Thickness	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C _c x W _B	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, further information regarding r1 see page III-20

Available standard materials³⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates ²⁾	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
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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³⁾ More materials and colors on request



MOVEMENT SYSTEMS

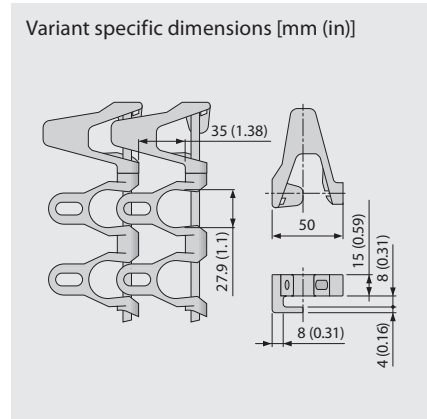
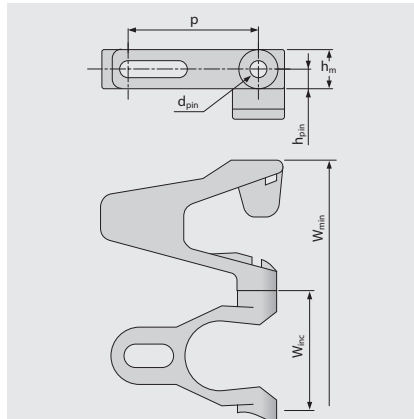
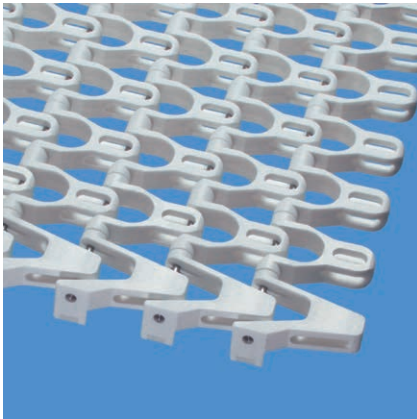
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in) | $C_c = 1.8$

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

Open area (57 %) for excellent air circulation and drainage | 31 % contact area | Lattice-shaped surface | Guided version (G) allows utilization of the entire belt width | Collapse factor (C_c) = 1.8



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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C _c x W _B	r2	r3	r4	r5
mm	50.0	6.0	15.0	7.5	0.0	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	0.0	5.91	1.97	±0.3	1.8 x W _B	1.97	3.94	5.91	1.97

W_B = Belt width, further information regarding r1 see page III-20

Available standard materials³⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates ²⁾	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m ²]	[lb/ft ²]	[%]	[°C]	[°F]	FDA	EU
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

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³⁾ More materials and colors on request



MOVEMENT SYSTEMS

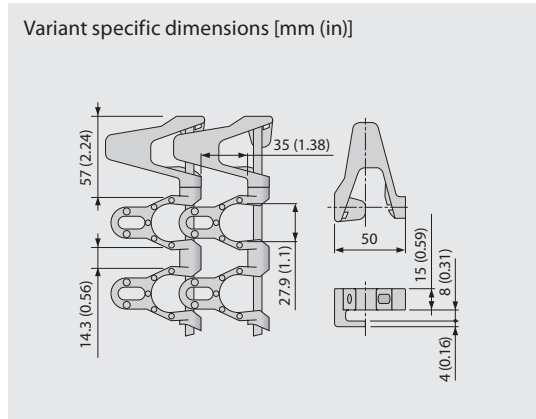
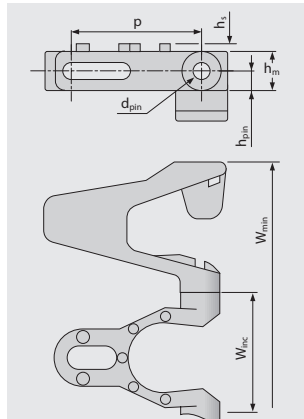
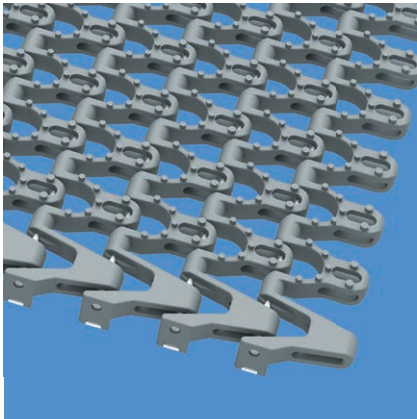
SERIES 9 | BELT TYPES

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in) | $C_c = 1.8$

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 utilization of the entire belt width | Collapse factor (C_c) = 1.8



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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C _c x W _B	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, further information regarding r1 see page III-20

Available standard materials³⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates ²⁾	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
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

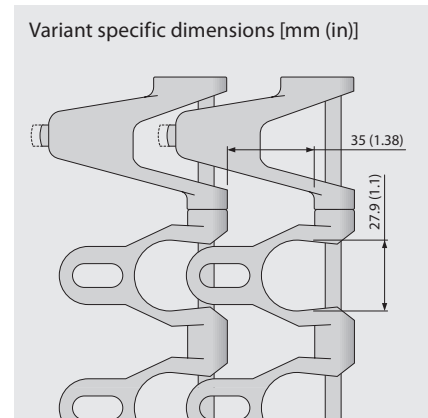
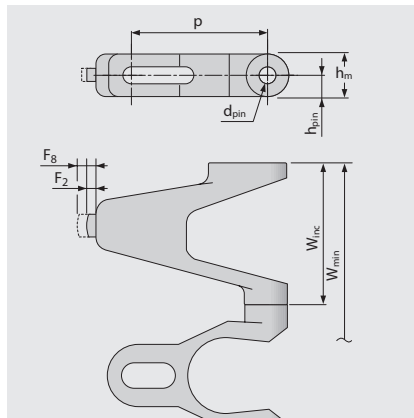
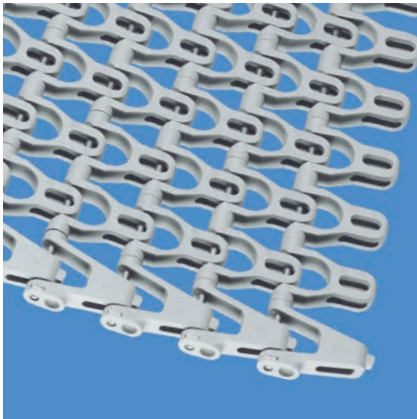
SERIES 9 | BELT TYPES

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 | Collapse factor (C_c) = 2.12 – 5.50



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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C _c x W _B	r2	r3	r4	r5
mm	50.0	6.0	15.0	7.5	0.0	150.0	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	5.91	1.97	±0.3	C _c x W _B	1.97	3.94	5.91	1.97

W_B = Belt width. C_c see table below

Available standard materials³⁾

Belt		Pin		Nominal belt pull, straight		Nominal belt pull, curve		Weight		Width deviation	Temperature		Certificates ²⁾	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[N]	[lb]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
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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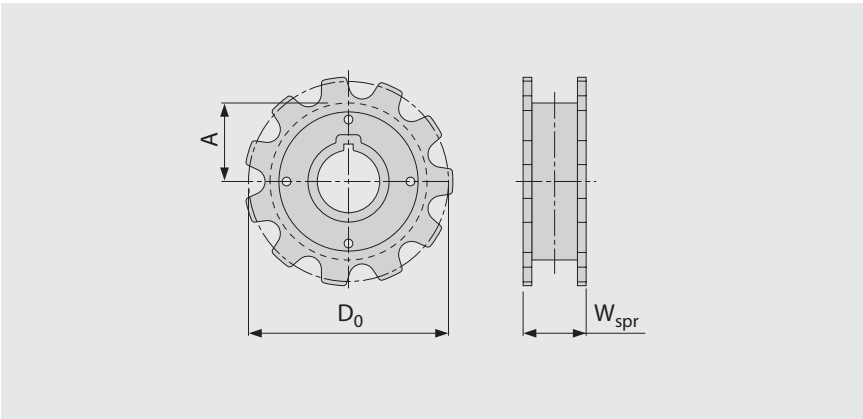
MOVEMENT SYSTEMS

SERIES 9 | SPROCKETS

siegling 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
Number of sprockets (sprocket spacing distance) see chapter 3.2

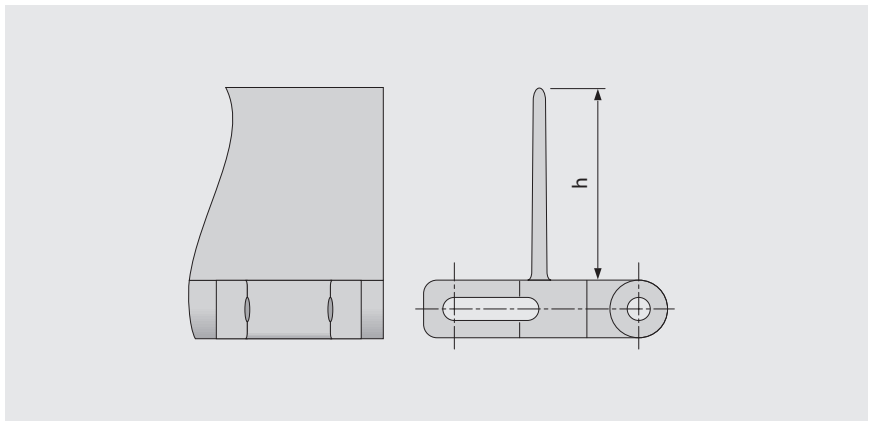
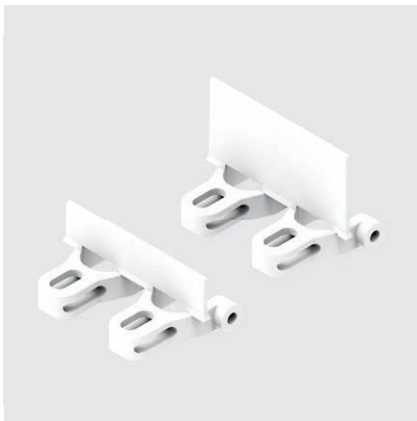
SERIES 9 | PROFILES

siegling prolink
modular belts

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

S9-57 GRT PMC

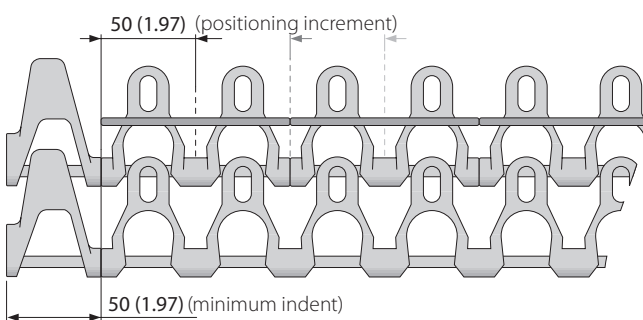
Open version (57 %) base module for drainage



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.



MOVEMENT SYSTEMS

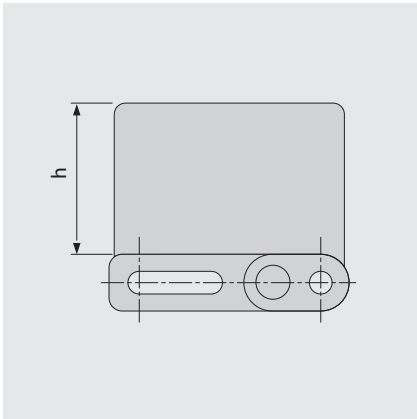
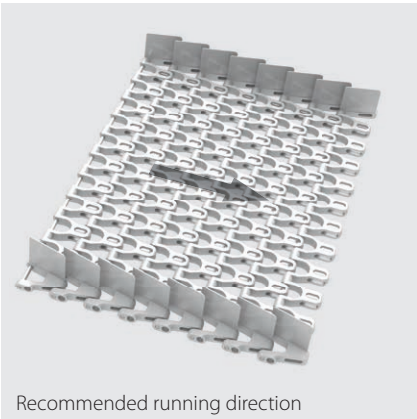
SERIES 9 | SIDE GUARDS

siebling prolink
modular belts

Side flexing and spiral belt | Pitch 50 mm (1.97 in) | $C_c = 1.8$

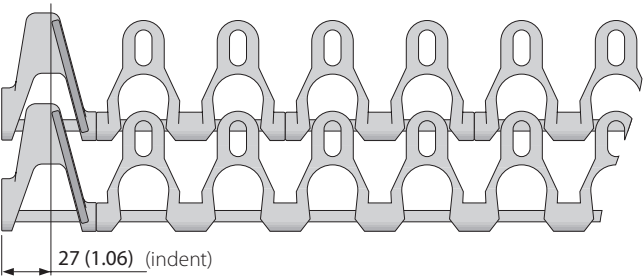
S9 SG | Side guards

For retention of bulk products | Collapse factor (C_c) = 1.8



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 ... 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-I PE impact resistant
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
PP-MD PP metal detectable
PP-SW PP steam and hot water resistant
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.