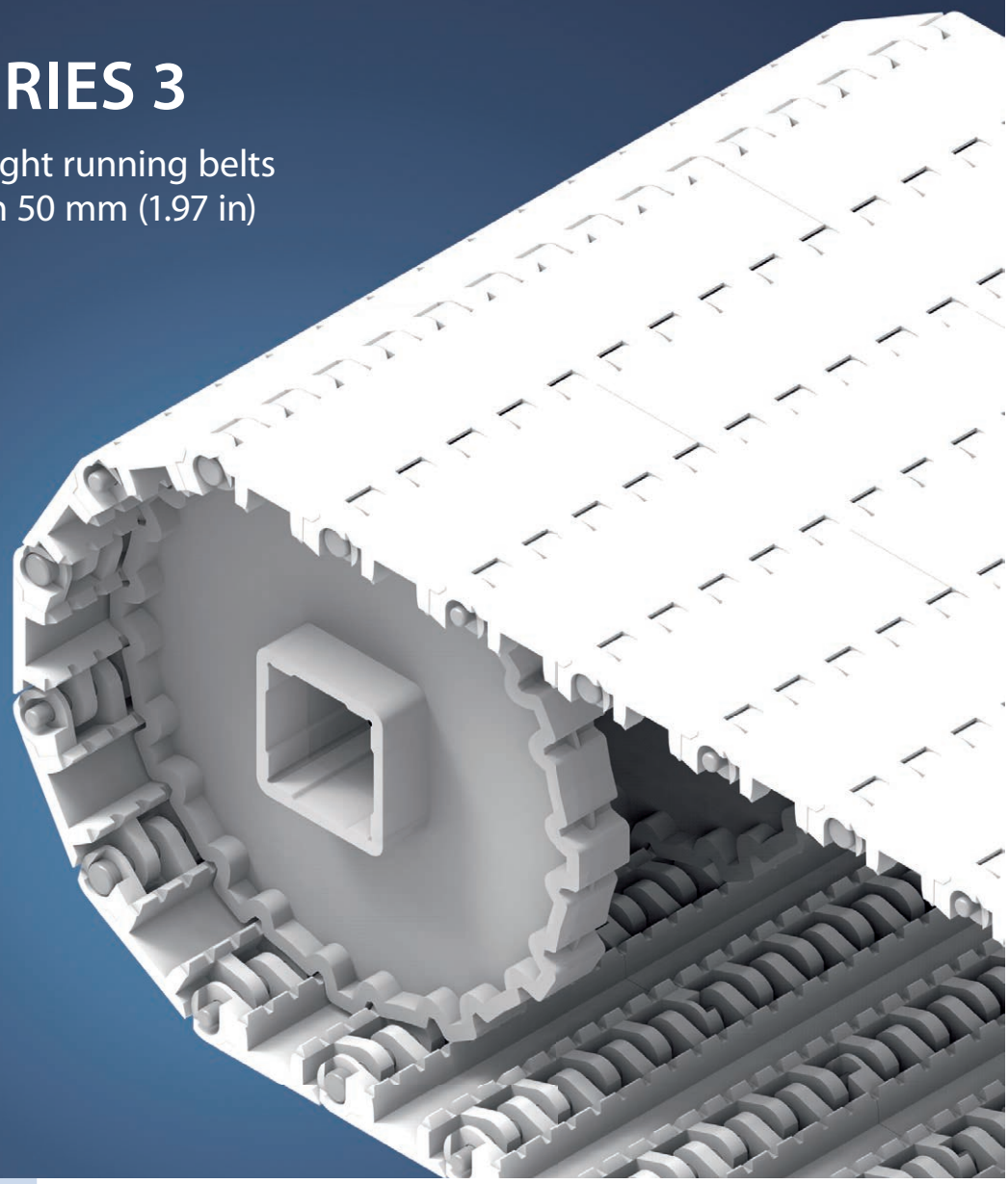
EXCERPT FROM PROLINK ENGINEERING MANUAL

01/24 (Ref-No. 888)

siegling prolink
modular belts

SERIES 3

Straight running belts
Pitch 50 mm (1.97 in)



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Ref. no. 888-2_1.2_S3

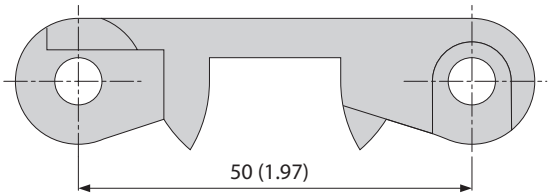
SERIES 3 | **OVERVIEW**

Straight running belts | Pitch 50 mm (1.97 in)

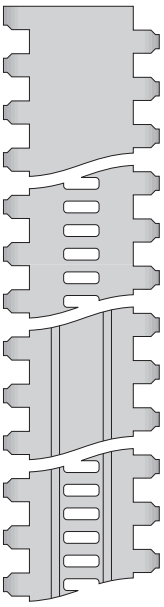
siegling prolink
modular belts

Belts for medium-duty food applications

Side view scale 1:1



Available surface pattern and opening area



S3-0 FLT
Closed, smooth surface

S3-16 FLT
Open (16 %), smooth surface

S3-0 LRB
Closed surface with lateral ribs

S3-16 LRB
Open (16 %) surface with lateral ribs

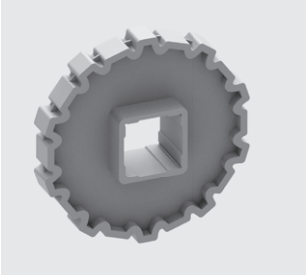
Design characteristics

- Hinges that open wide, combined with smooth, flat channels on the underside provides an easy-to-clean belt design
- Open egde design for unhindered drainage

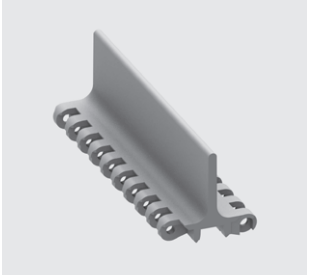
Basic data

Pitch	50 mm (1.97 in)
Belt width min.	40 mm (1.6 in)
Width increments	20 mm (0.8 in)
Hinge pins	6 mm (0.24 in) made of plastic (PBT, PP, PE). One-piece up to a belt width of 1200 mm (47 in).

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

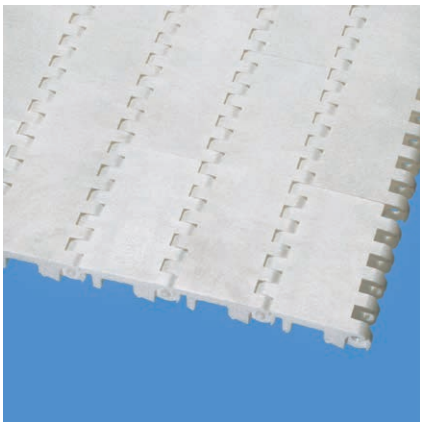
SERIES 3 | **BELT TYPES**

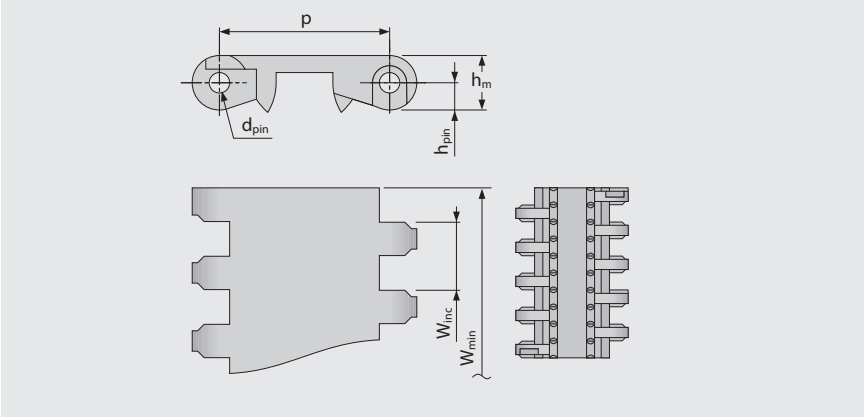
siegling prolink
modular belts

Straight running belt | Pitch 50 mm (1.97 in)

S3-0 FLT | 0 % Opening | Flat top

Closed, smooth surface | Flat top 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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C_c x W_B	r2	r3	r4	r5
mm	50.0	6.0	16.0	8.0	0.0	40.0	20.0	±0.2	–	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.63	0.31	0.0	1.57	0.79	±0.2	–	1.97	3.94	5.91	1.97

Available standard materials [3]

Belt		Pin		Nominal belt pull, straight		Weight		Width deviation	Temperature		Certificates[2]	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
PE	WT	PE	UC	6	411	7.5	1.54	-0.2	-70/65	-94/149	●	●
PP	WT	PP	WT	12	822	7.1	1.45	0.5	5/100	41/212	●	●
PP	BL	PP	WT	12	822	7.1	1.45	0.5	5/100	41/212	●	●
Mold to order belts												
POM	WT	PBT	UC	16	1096	10.1	2.07	-0.3	-45/90	-49/194	●	●

Mold to width available in: 40 mm (1.57 in), 100 mm (3.94 in), 200 mm (7.87 in)

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 | 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

Forbo
MOVEMENT SYSTEMS

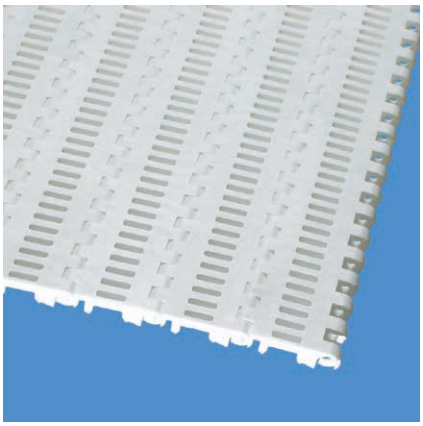
SERIES 3 | **BELT TYPES**

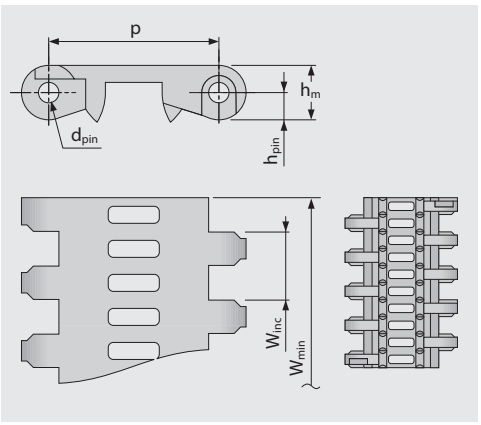
siegling prolink
modular belts

Straight running belt | Pitch 50 mm (1.97 in)

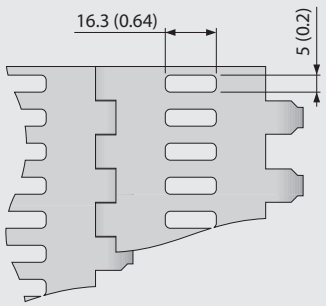
S3-16 FLT | 16 % Opening | Flat top

Open version (16 %) for excellent air circulation and drainage | 77 % contact area (Largest opening: 5 x 16.3 mm/0.2 x 0.64 in) | Smooth surface





Variant specific dimensions [mm (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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C_c x W_B	r2	r3	r4	r5
mm	50.0	6.0	16.0	8.0	0.0	40.0	20.0	±0.2	–	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.63	0.31	0.0	1.57	0.79	±0.2	–	1.97	3.94	5.91	1.97

Available standard materials [3]

Belt		Pin		Nominal belt pull, straight		Weight		Width deviation	Temperature		Certificates[2]	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
PE	WT	PE	UC	6	411	7.3	1.5	-0.2	-70/65	-94/149	●	●
PP	WT	PP	WT	12	822	6.5	1.33	0.05	5/100	41/212	●	●
Mold to order belts												
POM	WT	PBT	UC	16	1096	9.5	1.95	-0.3	-45/90	-49/194	●	●

Mold to width available in: 40 mm (1.57 in), 100 mm (3.94 in), 200 mm (7.87 in)

☐ 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

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[3] More materials and colors on request

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MOVEMENT SYSTEMS

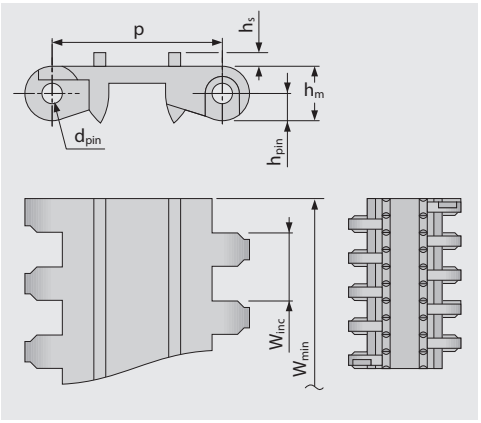
SERIES 3 | **BELT TYPES**

siegling prolink
modular belts

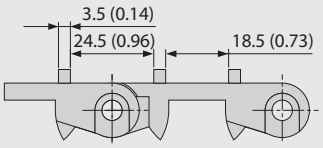
Straight running belt | Pitch 50 mm (1.97 in)

S3-0 LRB | 0 % Opening | Lateral rib

Closed surface | Lateral ribs for better grip in small inclines and gentle conveying of delicate products | 14 % contact area



Variant specific dimensions [mm (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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C_c x W_B	r2	r3	r4	r5
mm	50.0	6.0	16.0	8.0	4.0	40.0	20.0	±0.2	–	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.63	0.31	0.16	1.57	0.79	±0.2	–	1.97	3.94	5.91	1.97

Mold to order belts [3]

Belt		Pin		Nominal belt pull, straight		Weight		Width deviation	Temperature		Certificates[2]	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
POM	WT	PBT	UC	16	1096	10.3	2.11	-0.3	-45/90	-49/194	●	●
PE	WT	PE	UC	6	411	7.6	1.56	-0.2	-70/65	-94/149	●	●

Mold to width available in: 200 mm (7.87 in)

☐ 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 | 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
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[3] More materials and colors on request

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MOVEMENT SYSTEMS

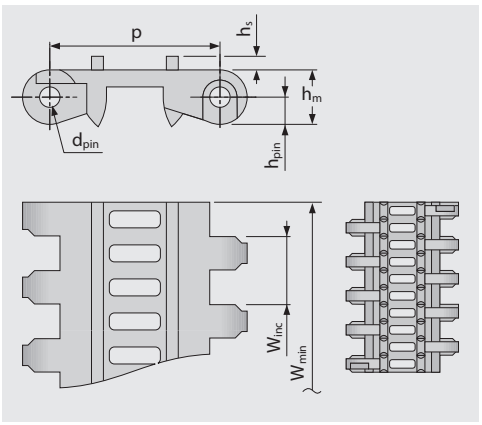
SERIES 3 | **BELT TYPES**

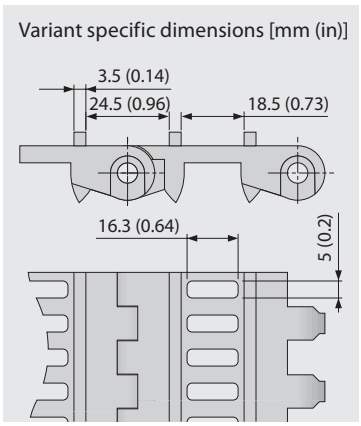
siegling prolink
modular belts

Straight running belt | Pitch 50 mm (1.97 in)

S3-16 LRB | 16 % Opening | Lateral rib

Open lateral rib version (16 %) for excellent air circulation and drainage | Lateral ribbing for better grip in inclined conveying | 14 % contact area (Largest opening: 5 x 16.3 mm/0.2 x 0.64 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	Pin position	Height	Width min.	Width Increment	Width tolerance [%]	r1 C_c x W_B	r2	r3	r4	r5
mm	50.0	6.0	16.0	8.0	4.0	40.0	20.0	±0.2	–	50.0	100.0	150.0	50.0
inch	1.97	0.24	0.63	0.31	0.16	1.57	0.79	±0.2	–	1.97	3.94	5.91	1.97

Mold to order belts [3]

Belt		Pin		Nominal belt pull, straight		Weight		Width deviation	Temperature		Certificates[2]	
Material	Color	Material	Color	[N/mm]	[lb/ft]	[kg/m²]	[lb/ft²]	[%]	[°C]	[°F]	FDA	EU
PP	WT	PP	WT	12	822	6.6	1.35	0.05	5/100	41/212	●	●
PE	WT	PE	UC	6	411	7.4	1.52	-0.2	-70/65	-94/149	●	●
PA*	LG	SS		16	1096	12.4	2.54	0.70	-40/120	-40/248	●	●

Mold to width available in: 200 mm (7.87 in)

* 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.

LG (Light gray), 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

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[3] More materials and colors on request

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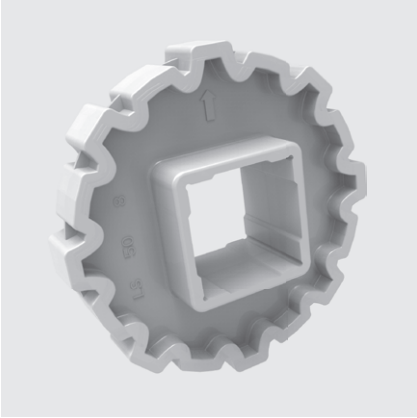
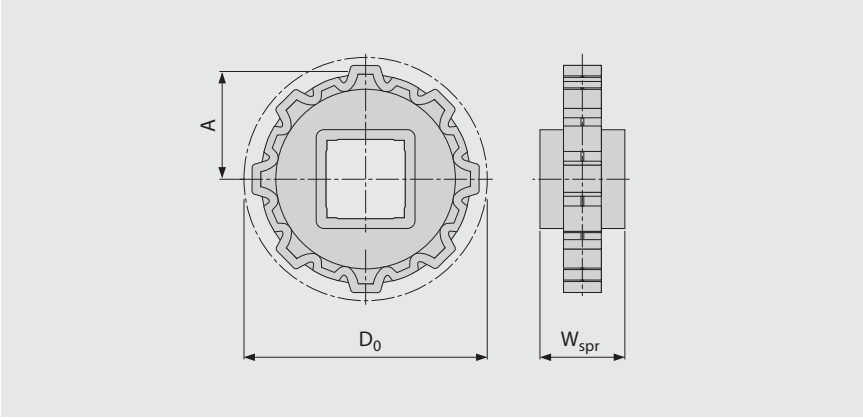
MOVEMENT SYSTEMS

S3 SPR | Sprockets





Main dimensions

Sprocket size (Number of teeth)		Z6	Z8	Z10	Z12	Z16
W_{spr}	mm	40.0	40.0	40.0	40.0	40.0
	inch	1.57	1.57	1.57	1.57	1.57
D_0	mm	100.0	130.8	161.8	193.2	256.3
	inch	3.94	5.15	6.37	7.61	10.09
A_{max}	mm	42.0	57.4	72.9	88.6	120.1
	inch	1.65	2.26	2.87	3.49	4.73
A_{min}	mm	36.4	53.0	69.3	85.6	117.8
	inch	1.43	2.09	2.73	3.37	4.64

Shaft bores (● = Round, ■ = Square)

25	mm			●		
30	mm	●	●	●		
40	mm	■	■	■	■	■
60	mm		■	■	■	■
80	mm				■	■
1	inch	●	●	●		
1.5	inch	■	■	■	■	
2.5	inch				■	■

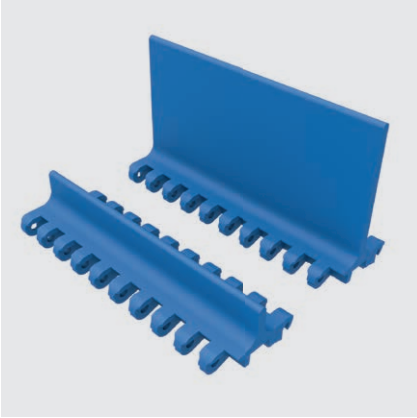
Material: POM, Color: UC

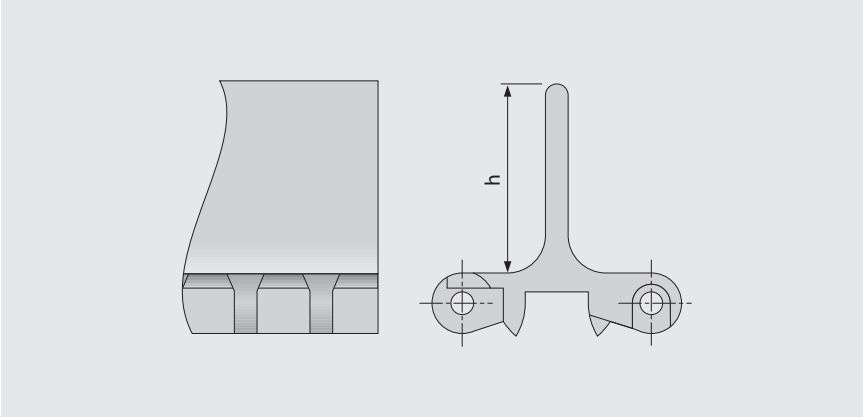
UC (Uncolored)

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

S3-0 FLT PMU

Flat top surface for dry products

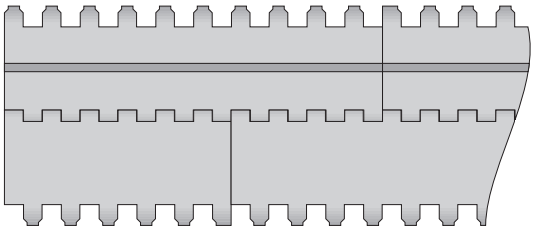




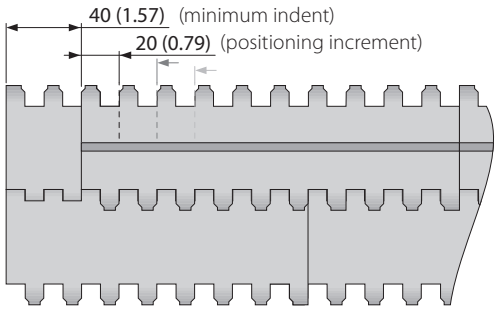
Basic data

Material	Color	Height (h)			
		25 mm 1 inch	50 mm 2 inch	75 mm 3 inch	100 mm 4 inch
PE	WT	●	●	●	●
PP	BL	●	●	●	●
PP	WT	●	●	●	●

Molded width: 200 mm (7.9 in)



Standard configuration S3-0 FLT PMU



Indent configuration S3-0 FLT PMU

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

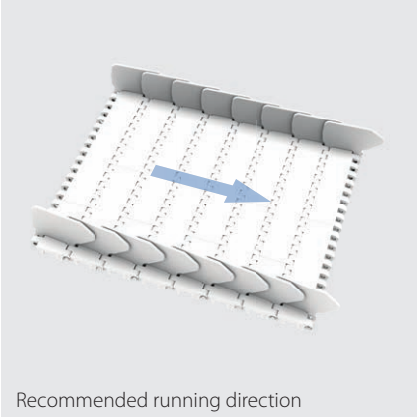
SERIES 3 | **SIDE GUARDS**

siegling prolink
modular belts

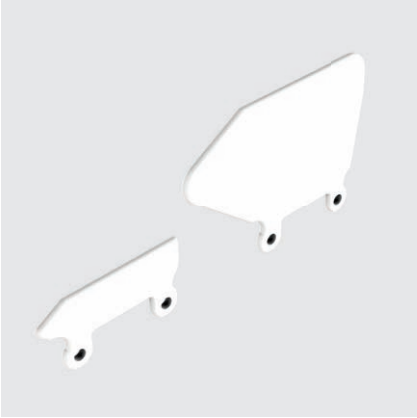
Straight running belt | Pitch 50 mm (1.97 in)

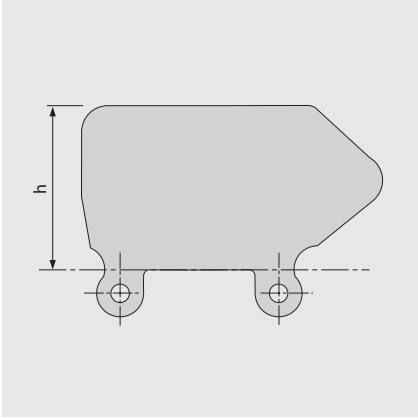
S3 SG | Side guards

For retention of bulk products



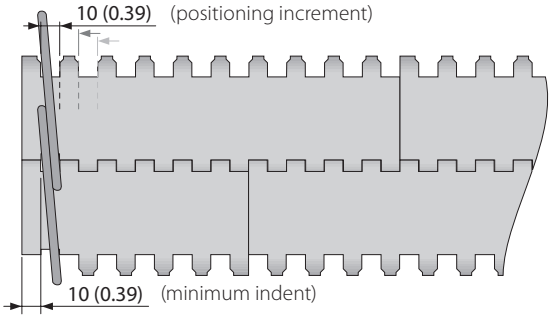
Recommended running direction





Basic data

Material	Color	Height (h)			
		25 mm 1 inch	50 mm 2 inch	75 mm 3 inch	100 mm 4 inch
PE	LB	●	●	●	●
PE	WT	●	●	●	●
PE-MD	BL		●	●	●
PP	LB	●	●	●	●
PP	WT	●	●	●	●



BL (Blue), LB (Light 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.
Note: Use of accessory in a belt may impact on the minimum design radii. Please see chapter 6.3 for further information.

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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-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	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
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.