

uni-chains
Belt Catalogue

Belt Specifications

uni Flex SNB, the 25.4 mm (1.00 inch) pitch side flexing modular belt.
uni Flex SNB can flex in all directions allowing it to be used in countless different applications. The many accessories such as product supports, rubber supports and side guards as well as numerous belt tracking and control systems give uni Flex SNB an outstanding versatility.



The “closed” version for hygienic transport.



uni Flex SNB-W with reinforcement links and rubber supports.



Conveying shrink-wrapped products.

uni Flex SNB

Pitch: 25.4 mm (1.00 inch)

Side flexing

Backflex radius: 50 mm (2.0 inch)

Locking types for uni Flex SNB:
Lockingplate
Wearpart lock
Pinlock

Surface opening:
Please see page 67

Patents
U.S.: 5.379.883, 6.073.756, 6.216.854

Further patents pending

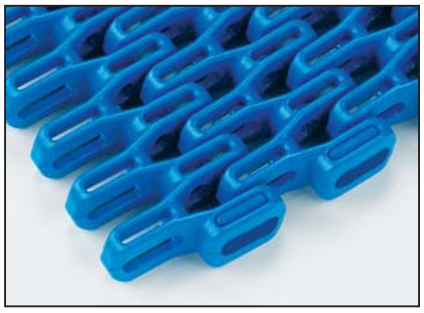
Applications

Breweries
Food processing
Various manufacturing plants

Please contact us to get our special uni Flex SNB documentation.
See contact nos. on the back.

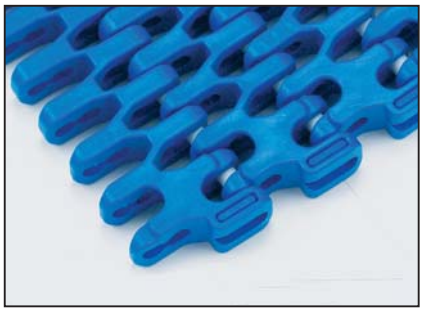


Belt Specifications



uni Flex SNB-L: Standard radius.
Min. inside radius 2.3 x belt width,
55% open area for max. airflow/
cooling.

Standard materials:
POM-D POM-D
PP PP



uni Flex SNB-CR: Tight radius.
Min. inside radius from 1.5 x belt
width.
47% open hygienic solid grid surface.

Standard materials:
POM-D POM-D
PP PP



uni Flex SNB-W: Standard radius
fitted with reinforcement links and
steel pins.
Integral moulded edge wearpart.

Standard materials:
POM-D POM-D
PP PP PA6.6 PA6.6



uni Flex SNB-WT: Standard radius
fitted with reinforcement links and
steel pins.
Integral moulded edge wearpart.
Integral underside tab (S-Tab.)

Standard materials:
POM-D POM-D
PP PP PA6.6 PA6.6



uni Flex SNB-WO: Standard radius
fitted with reinforcement links and
steel pins.
Integral outer edge tab system.
Transports products wider than
the belt.

Standard materials:
POM-D POM-D
PP PP PA6.6 PA6.6

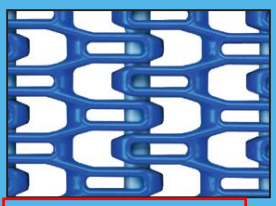
uni Flex SNB Programme

Refer to this diagram for the material combinations, surface openings and turning radii of the five different uni Flex SNB types.

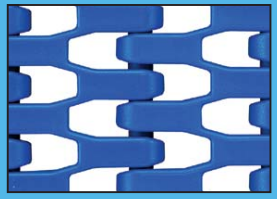
Belt type	Material	Hinge design	Flex ratio
uni Flex SNB-L	all plastic	open hinge	2.3
uni Flex SNB-CR	all plastic	closed hinge	1.5*
uni Flex SNB-W	plastic/steel	open hinge	2.3
uni Flex SNB-WT	plastic/steel	open hinge	2.3
uni Flex SNB-WO	plastic/steel	open hinge	2.3

Inner curve radius = Flex ratio x belt width.

* For widths W ≤ 229 mm (9.0 inch), when W > 229 mm (9.0 inch) flex radius is 1.6 x W-18 mm (0.7 inch).



uni Flex SNB
Open hinge
(55% open area)



uni Flex SNB
Closed hinge
(47% open area)

Belt Specifications

uni Flex SNB standard programme:
See materials and colours on page 67

Standard pin materials: PA6.6, PP, AISI 304 SS or AISI 316 SS (acid resistant)

Standard Belt Widths for uni Flex SNB-L (W_L)

mm	inch	mm	inch
76	3.0	608	23.9
152	5.9	684	26.9
228	9.0	760	29.9
304	12.0	836	32.9
379	14.9	912	35.9
456	18.0	988	38.9
532	20.9	1065	41.9

Non standard cut widths are possible in multiples of 12.7 mm (0.50 inch).

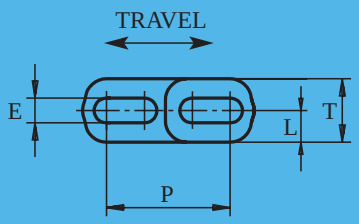
To find the belt widths for other uni Flex SNB tracking systems and belt types use formulas below.

uni Flex SNB-CR:
$W = W_L$

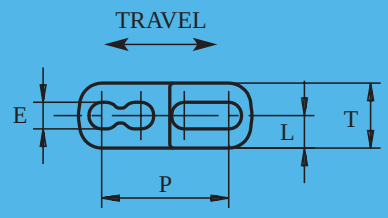
uni Flex SNB-L or CR with wearpart:
$W = W_L + 2 \times 3$ mm (0.1 inch)

uni Flex SNB-L or CR with O-Tab:
$W = W_L + 2 \times 3$ mm (0.1 inch)

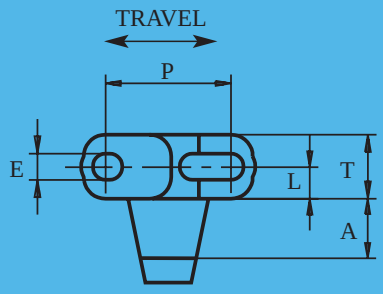
uni Flex SNB-W, WO or WT:
$W = W_L + 2 \times 3$ mm (0.1 inch)



uni Flex SNB-L, W, WO



uni Flex CR



uni Flex SNB-WT

	mm	inch
A	12.0	0.48
E	5.1	0.20
L	6.5	0.26
P	25.4	1.00
T	13.0	0.51

Belt Specifications

Max. Permissible Load in Curve

	Belt material	POM-D/PA6.6		PP		PE	
	Pin material	N	lbf	N	lbf	N	lbf
uni Flex SNB-L/CR	PP, PE or SS	600	135	600	135	400	90
uni Flex SNB-L/CR	PA6.6	1000	225	600	135	400	90

Max. Permissible Load in Curve

	Belt material	POM-D/PA6.6		PP		PE	
	Pin material	N	lbf	N	lbf	N	lbf
uni Flex SNB-W/WO/WT	PP or PE	600	135	600	135	400	90
uni Flex SNB-W/WO/WT	PA6.6	1000	225	600	135	400	90
uni Flex SNB-W/WO/WT	SS + rl*	3300	742	3300	742	3300	742

* rl = Reinforcement links

Max. Permissible Load on Straight Sections

Belt material	POM-D or PA6.6		PP		PE	
	N/m	lbf/ft	N/m	lbf/ft	N/m	lbf/ft
uni Flex SNB-L/CR/W/WO/WT	30000	2055	15000	1028	9000	617

The values in the tables are for belts at +20°C (+68°F).
For relations between speed and load refer to uni Flex SNB technical manual or contact uni-chains.

Belt Weights for uni Flex SNB-L

Belt material	POM-D		PP		PE		PA6.6	
Pin material	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2
PP	6.7	1.37	4.6	0.94	4.8	0.98	5.6	1.15
PA6	6.9	1.41	4.8	0.98	5.0	1.02	5.8	1.19
SS	12.1	2.48	10.0	2.05	10.2	2.09	11.0	2.25

Belt Weights for uni Flex SNB-CR

Belt material	POM-D		PP		PE		PA6.6	
Pin material	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2
PP	7.5	1.54	5.2	1.07	5.3	1.09	6.2	1.27
PA6	7.7	1.58	5.4	1.11	5.5	1.13	6.4	1.31
SS	12.9	2.64	10.2	2.09	10.7	2.19	11.6	2.38

Belt Weights for uni Flex SNB-W

Belt material	POM-D		PP		PE		PA6.6	
Pin material	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2
PP	7.1	1.45	4.9	1.00	5.0	1.02	5.8	1.19
PA6	7.3	1.50	5.1	1.04	5.2	1.07	6.0	1.23
SS	12.5	2.56	10.3	2.11	10.4	2.13	11.2	2.29

Belt Weights for uni Flex SNB-WO

Belt material	POM-D		PP		PE		PA6.6	
Pin material	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2
PP	7.3	1.52	5.1	1.04	5.2	1.07	6.1	1.25
PA6	7.5	1.54	5.3	1.09	5.4	1.11	6.2	1.27
SS	12.7	2.60	10.5	2.15	10.6	2.17	11.4	2.34

Belt Weights for uni Flex SNB-WT

Belt material	POM-D		PP		PE		PA6.6	
Pin material	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2	kg/m^2	lb/ft^2
PP	7.4	1.52	5.1	1.04	5.2	1.07	6.1	1.25
PA6	7.6	1.56	5.3	1.09	5.4	1.11	6.3	1.29
SS	12.8	2.62	10.5	2.15	10.6	2.17	11.5	2.36



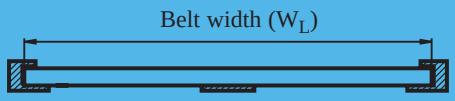


Belt Specifications



uni Flex SNB-L (Standard)

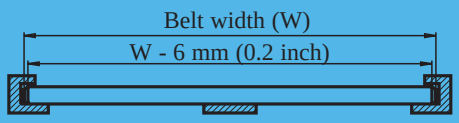
Basic belt types can be combined with the belt tracking and control systems below to enhance performance.





Wearpart

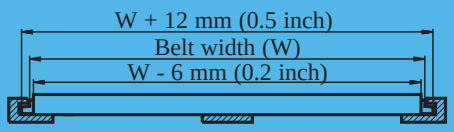
Wearpart system made of heat and wear resistant nylon to reduce the friction between belt edge and wearstrip. Only this part needs to be replaced when it has been worn out, not the whole belt.





O-Tab

Outer edge tab system made of heat and wear resistant nylon to reduce the friction between belt edge and wear-strip. Using a slotted wearstrip the O-tab will track the belt and allow the transported products to be wider than the belt.





I-Tab

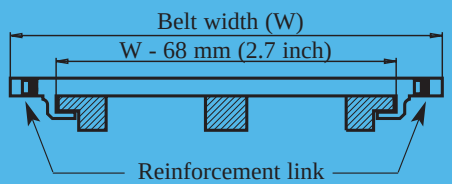
Intermediate tabs are placed on the bottom side of the belt to hold the belt down on incline conveyors.
The intermediate tabs will fit anywhere across the belt bottom and at pitch multiples of 12.7 mm (0.50 inch).





S-Tab

Side tab for holding the belt down, normally used for wide belts. With S-Tabs the radial forces in the curve are transferred to the outside radius (uni Flex SNB-WT).



In below diagram you will find the options for tracking the different types of uni Flex SNB.

Belt type	Belt tracking and control combinations			
	Wear-part	O-Tab	S-Tab	I-Tab
uni Flex SNB-L	+	+	-	+
uni Flex SNB-CR	+	+	-	-
uni Flex SNB-W	✔	-	-	+
uni Flex SNB-WT	-	-	✔	+
uni Flex SNB-WO	-	✔	-	+

✔ Standard + Optional - Not possible

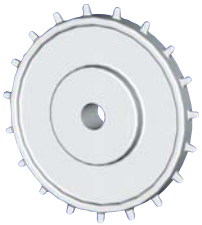
Standard Sprockets

No. of teeth	pitch diameter mm	pitch diameter inch	overall diameter mm	overall diameter inch	hub diameter mm	hub diameter inch	bore mm	bore inch	reference no. one-part	reference no. two-part double row
9	74.3	2.93	73.8	2.91	56.8	2.24	ø 19.1	ø 0.75	2133FSNB09N	-
							sq 25.4	sq 1.00	2133FSNB09N10SQ	-
							sq 30.0	sq 1.18	2133FSNB09N30SQ	-
10	82.2	3.24	82.2	3.24	65.2	2.57	ø 19.1	ø 0.75	2133FSNB10N	-
							sq 25.4	sq 1.00	2133FSNB10N10SQ	-
							sq 30.0	sq 1.18	2133FSNB10N30SQ	-
12	98.2	3.87	98.8	3.89	70.0	2.76	ø 19.1	ø 0.75	2133FSNB12N	-
							sq 25.4	sq 1.00	2133FSNB12N10SQ	-
							sq 38.1	sq 1.50	2133FSNB12N15SQ	-
							sq 40.0	sq 1.57	2133FSNB12N40SQ	-
15	122.2	4.81	123.5	4.86	70.0	2.76	ø 19.1	ø 0.75	2133FSNB15N	-
							sq 25.4	sq 1.00	2133FSNB15N10SQ	-
							sq 38.1	sq 1.50	2133FSNB15N15SQ	-
							sq 40.0	sq 1.57	2133FSNB15N40SQ	-
					96.0	3.78	sq 60.0	sq 2.36	2133FSNB15N60SQBB	-
							sq 63.5	sq 2.50	2133FSNB15N25SQBB	-
18	146.3	5.76	146.1	5.75	70.0	2.76	ø 19.1	ø 0.75	2133FSNB18N	-
							sq 25.4	sq 1.00	2133FSNB18N10SQ	-
							sq 38.1	sq 1.50	2133FSNB18N15SQ	-
							sq 40.0	sq 1.57	2133FSNB18N40SQ	-
					96.0	3.78	sq 60.0	sq 2.36	2133FSNB18N60SQBB	-
							sq 63.5	sq 2.50	2133FSNB18N25SQBB	-
					40.0	1.57	ø 19.1	ø 0.75	-	2133FSNB18NT
					50.0	1.97	ø25.0	ø 0.98	-	2133FSNB18NT25
					60.0	2.36	ø 30.0	ø 1.18	-	2133FSNB18NT30
					-	-	sq 38.1	sq 1.50	-	2133FSNB18NT15SQ
							sq 40.0	sq 1.57	-	2133FSNB18NT40SQ
							sq 60.0	sq 2.36	-	2133FSNB18NT60SQ
19	154.3	6.07	156.2	6.15	70.0	2.76	ø 19.1	ø 0.75	2133FSNB19N	-
							sq 25.4	sq 1.00	2133FSNB19N10SQ	-
							sq 38.1	sq 1.50	2133FSNB19N15SQ	-
							sq 40.0	sq 1.57	2133FSNB19N40SQ	-
					96.0	3.78	sq 60.0	sq 2.36	2133FSNB19N60SQBB	-
							sq 63.5	sq 2.50	2133FSNB19N25SQBB	-
					40.0	1.57	ø 19.1	ø 0.75	-	2133FSNB19NT
					50.0	1.97	ø 25.0	ø 0.98	-	2133FSNB19NT25
					60.0	2.36	ø 30.0	ø 1.18	-	2133FSNB19NT30
					-	-	sq 38.1	sq 1.50	-	2133FSNB19NT15SQ
							sq 40.0	sq 1.57	-	2133FSNB19NT40SQ
							sq 60.0	sq 2.36	-	2133FSNB19NT60SQ

sq = Square bore.

Standard material: Polyamide.
Other sprocket sizes are available upon request.
Please contact uni-chains for further information.

One-part sprockets
Width of sprockets: 25.0 mm (0.98 inch).
Tooth width: 6.4 mm (0.25 inch).



One-part sprockets

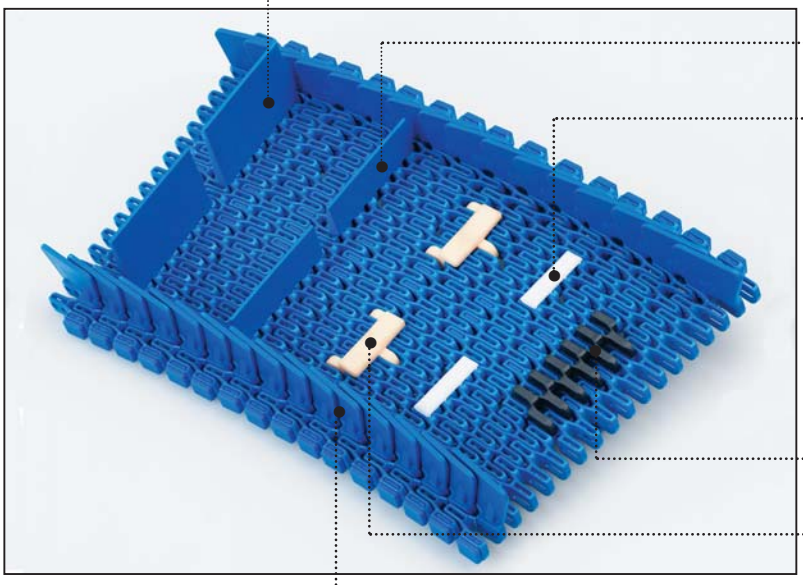
Two-part sprockets
Width of two-part sprockets: 50.8 mm (2.00 inch).
For heavy wear applications one-part sprockets or the toothed rim for two-part sprockets can be supplied in stainless steel.



Two-part double row sprockets

Belt Specifications

uni Flex SNB Accessories



Rubber Supports
Rubber supports are 4 mm (0.2 inch) high with a width of 43 mm (1.7 inch) and a length of 14 mm (0.6 inch).

Side Guards 30 mm (1.2 inch) high
Used to prevent the products from falling off the belt.

Product Supports 25 mm (1.0 inch) and 51 mm (2.0 inch) high
These product supports have a width of 76 mm (3.0 inch). They can be placed in a line over the total width of the belt.

Product Support low
A 4 mm (0.2 inch) high POM support with a width of 42 mm (1.7 inch) and a length of 10.5 mm (0.41 inch).

Note: *Side guards and product supports cannot be mounted in the CR type, but can be incorporated on standard radius systems using uni Flex SNB-L links.*

Rubber Tops
Used to prevent products sliding on inclined conveyor sections. High friction rubber pads 3 mm (0.1 inch) tall are moulded directly onto the top surface of standard 76 mm (3.0 inch) and 152 mm (6.0 inch) wide polypropylene links.

Belt type	Belt top accessories			
	Rubber top	Rubber supports	Side guards	Product supports
uni Flex SNB-L	+	+	+	+
uni Flex SNB-CR	+ *	+	-	-
uni Flex SNB-W	+ *	+	+	+
uni Flex SNB-WT	+ *	+	+	+
uni Flex SNB-WO	+ *	+	+	+

\+ Optional - Not possible

* Minimum indent from the side of the belt 38 mm (1.5 inch). For build patterns please contact uni-chains.