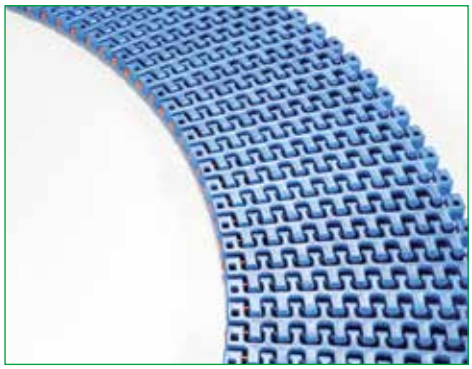
NREC254R

PITCH 25,4 mm / 1”

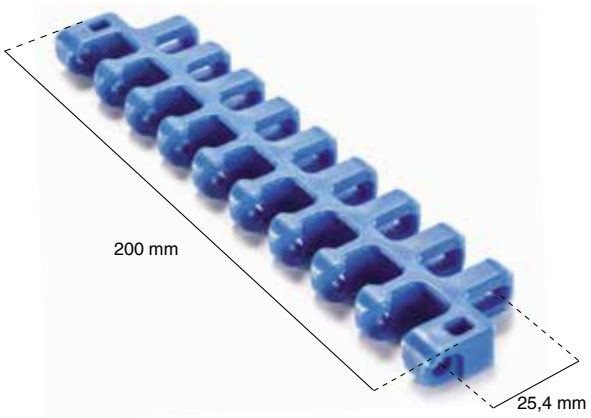
Belt type: smooth surface open
Pin diameter: Ø 4,9 mm
Open area: 38%
Hole openings: 7,5x12
Minimum width: 83 mm
Thickness: 10,8 mm
Accessories: flight - TAB
Food Certification: FDA - EU
Collapse factor: 2,1 - 2,4



Standard executions

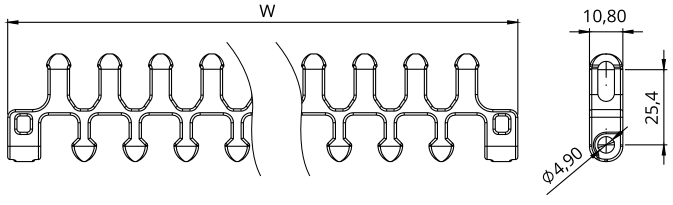
Belt material	Belt color	Pin
PP	Blue - white	POM
POM	Blue - white	POM

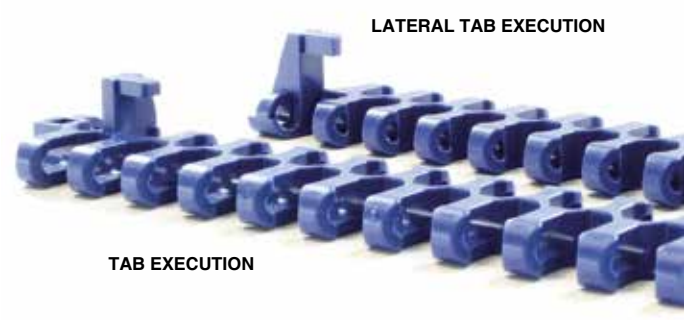
Other materials and colors are available upon request.



Belt material	Pin material	Belt performance [N/m]		Temperature range [°C]	Weight [kg/m²]	Certification
		Straight strand	Curved strand			
PP	PP	9000	1200	+5 ÷ +90	5,1	FDA - EU
POM	POM	16250	1600	-43 ÷ +70	6,9	FDA - EU
POM	PA	17600	1700	-40 ÷ +80	6,6	FDA - EU
POM	PP	14300	1400	+5 ÷ +70	6,6	FDA - EU

PP = Polypropylene - PE = Polyethylene - POM = Acetal Resin - PA = Polyamide





Part number **NREC 254 R -PO -W**

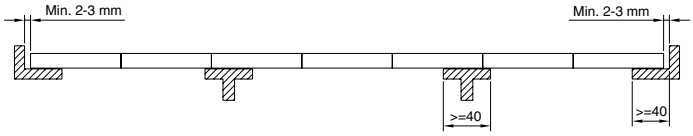
- Type: Smooth surface open
- Pitch
- Belt material: PO = POM - Acetalic Acid / PP = Polypropylene; PE = Polyethylene / PA = Polyamide
- Belt color: W = white / B = blue

Hold Down and TAB for NREC254R

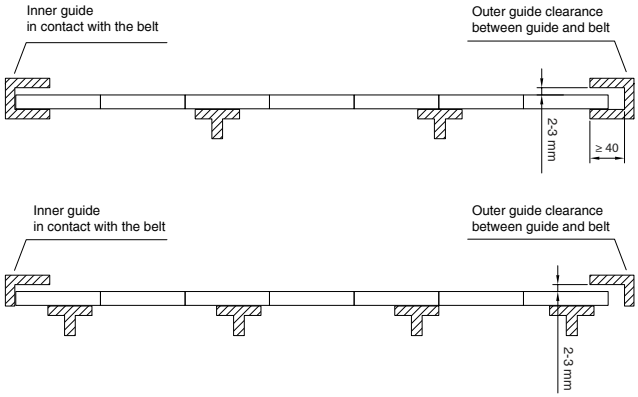
Layout of guides in different belt types:

STANDARD TYPE

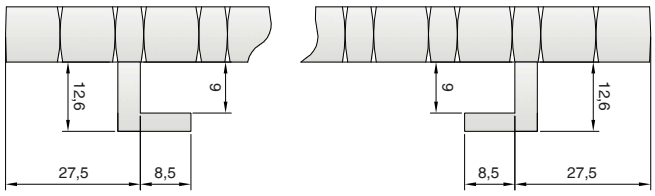
Example of guiding system on straight strand



Example of guiding system on curved strand

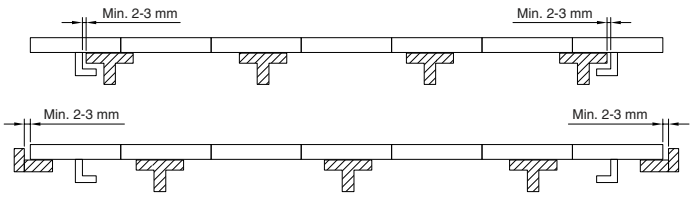


TAB RETENTION SYSTEM

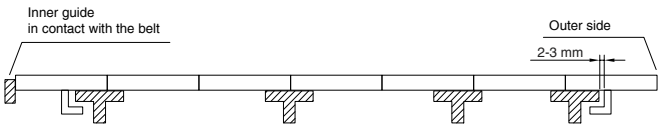


The TAB system is available on one or both sides of the belt depending on whether the belt curves in one or both directions. The system is designed primarily to avoid belt lifting in the curves and minimize belt width with respect to the size of the objects carried that may be wider than the belt itself. You can use the hook as contact surface and let them slide on the guides. It is important to evaluate the strength capacity of the TAB system combined with belt tension, speed, and belt radius.

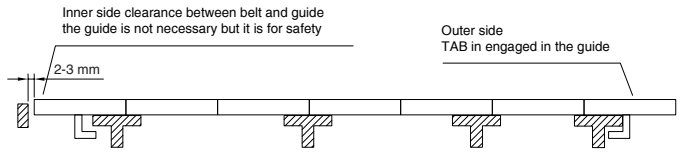
Example of guiding system on straight strand



Example of guiding system on curved strand

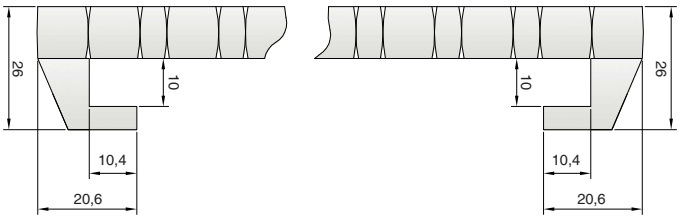


Configuration suitable for significant forces on the belt and sustained speeds:



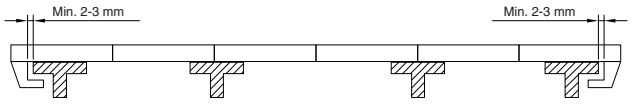
Configuration suitable for limited forces on the belt and speed up to 20m / min.
In this configuration you can also make larger curves without collapsing the belt.

LATERAL TAB RETENTION SYSTEM

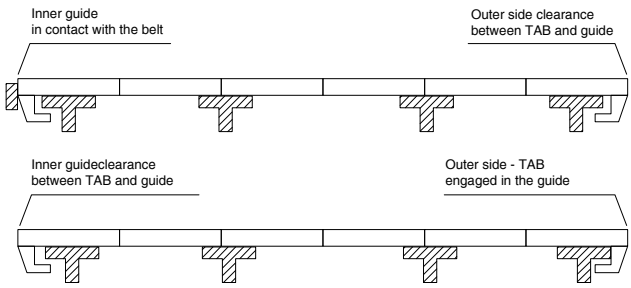


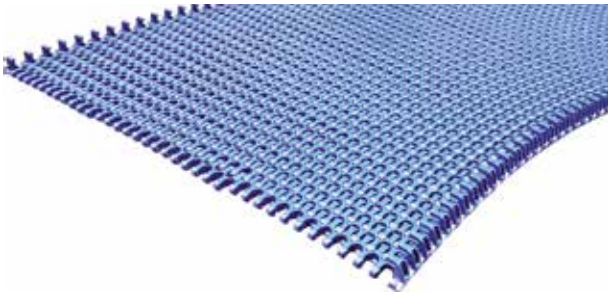
The Lateral TAB system is applicable on one or both sides of the belt depending on whether the belt curves in one or both directions.
The system is designed primarily to avoid belt lifting in the curves and at the same time allow the transported objects to be larger than the belt itself.
The hook is designed to be used in contact with the sliding guides

Example of guiding system on straight strand



Example of guiding system on curved strand





CURVED MODULAR BELTS

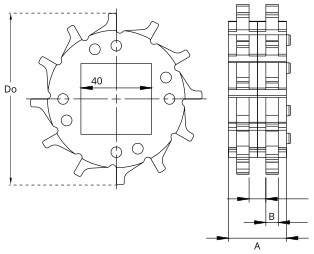
SPROCKES for the series NREC254R

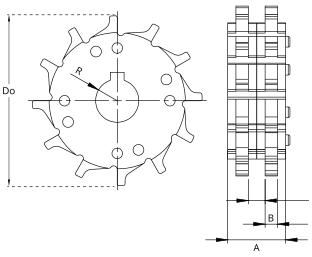
Teeth nr.	Dp [mm]	Do [mm]	A [mm]	B [mm]	Available standard holes	
					Square [mm]	Ø round + set-screw UNI
8	68,4	67,7	30	6	25x25	25 - 30
10	82,8	83,0	30,0	6	40x40	25 - 30
12	98,9	98,0	30,0	6	40x40	25 - 30
15	123,1	123,0	30,0	6	40x40	25 - 30
18	147,4	147,5	30,0	6	40x40	25 - 30

Standard material: nylon PA6 fiberglass.
It is possible to supply sprocket with any number of teeth or any material by CNC machining

Part number NSEC254TR -Q 40 -Z10

- Type
- Hole type: R = round / Q = square
- Hole size (mm)
- Number of teeth



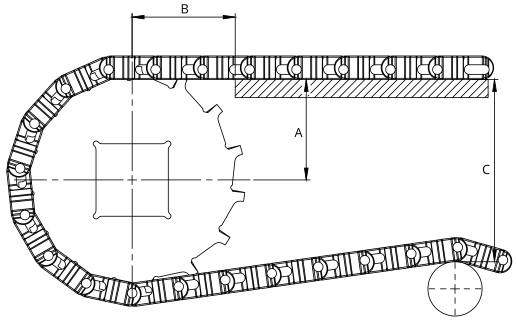


Belt width W [mm]			167	200	250	300	350	400	450	500	550	600	700	800	900	1000
Number of sprockes	Drive shaft	Belt tension ≤ 50% of the capacity	2	2	3	3	3	4	4	4	5	6	6	7	8	8
		Belt tension = 100% of the capacity	2	2	2	4	5	5	5	5	7	8	9	11	13	14
	Driven shaft		2	2	2	2	3	3	3	4	4	4	4	5	5	5
Sliding guides			2	2	2	3	3	4	4	4	4	5	6	7	7	8

Belt witdth increment: 16,7 mm

Mounting

When mounting the sprockets, make sure that you have mounted all sprockets oriented in the same phase.
Only axially lock the central sprocket and leave the other sprockets free to move axially



A - ± 0,031" (1 mm)
B - ± 0,125" (3 mm)
C - ± (Max.)
E - ± (Min.)

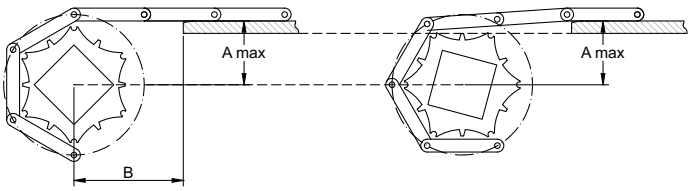
Model	Z [mm]	A_{max} [mm]	A_{min} [mm]	B1 [mm]	B2 [mm]	C_{max} [mm]
NMEC254R	8	28,7	26,1	38	28	54
	10	34,8	33,5	38	28	73
	12	41,7	40,2	42	28	89
	15	52,1	50,3	48	28	114
	18	67,8	65,4	57	28	140

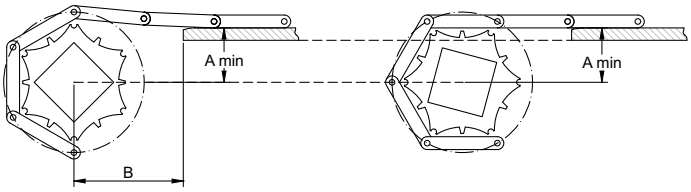
SPROCKES for the series NREC254R

A_{max} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a lower one. The height variation depends on the number of teeth and the pitch of the sprocket.

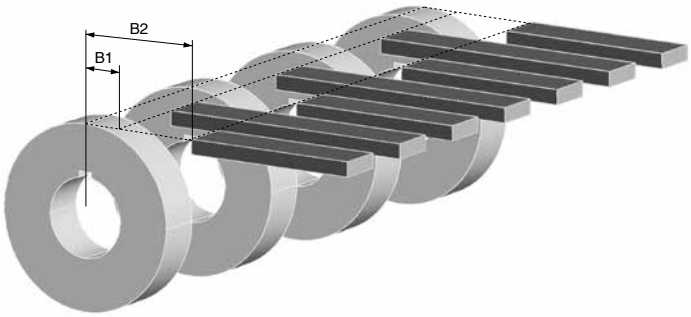
A_{min} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a higher one. The height variation depends on the number of teeth and the pitch of the sprocket.

The choice of A dimensions depends on the items you have to carry.
it is always suggested to make a chamfer at the end of the sliding guides.

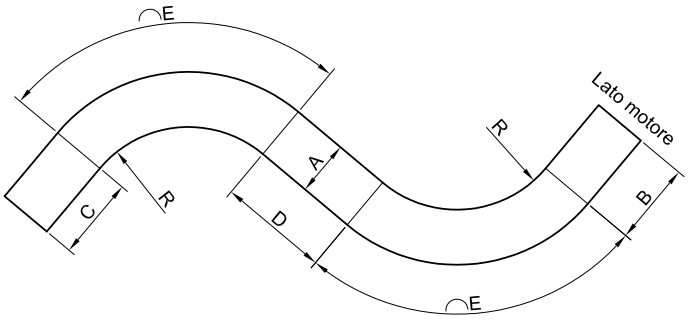




In order to avoid any subsidence of the belt in the area between the guiding strip and the sprockets, it It is possible to locate the guides between the sprockets. Two minimum B1 and B2 dimensions are defined.

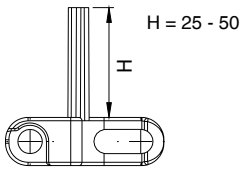


A = belt width
B = straight strand before the drive shaft.
Min. 2 x belt width
C = straight strand before return shaft. Min. 1,5 x belt width
D = straight strand between two curves. Min. 2 x belt width
E = curved belt length = (R + A) x angle in radians
R = internal radius. R minimum = belt width x collapsing factor.
Collapsing factor variable from 2,1 to 2,4 depending on belt width.



Example:
A = 200 mm
R = 200 · 2,1 = 420 mm
$E = (420 + 200) \cdot \frac{\pi}{2} = 973$ mm

Guides available for belt type NMEC254R.

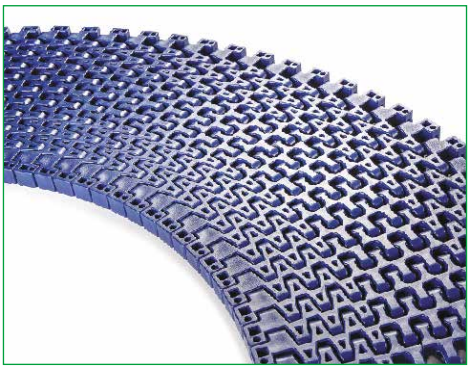


Caution: Consider that in the curves the guides get closer to each other. If possible, always specify the distance of the guides from the belt edge.

Belt width [mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
Collapsing factor fc	**2,1**	**2,15**	**2,19**	**2,23**	**2,26**	**2,28**	**2,30**	**2,32**	**2,34**	**2,35**	**2,36**	**2,37**	**2,38**	**2,39**	**2,40**
Minimum internal radius [mm]	**420**	**538**	**657**	**781**	**904**	**1026**	**1150**	**1276**	**1404**	**1528**	**1652**	**1778**	**1904**	**2032**	**2160**

NREC254TR

PITCH 25,4 mm / 1”

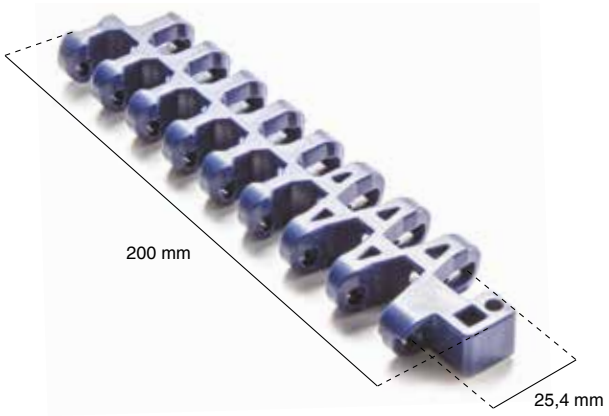


Belt type: smooth surface open
Pin diameter: Ø 4,9 mm
Open area: 38%
Hole openings: 6,5x12
Minimum width: 167 mm
Thickness: 13 mm
Accessories: -
Food Certification: FDA - EU
Collapse factor: 1,4 - 1,6

Standard executions

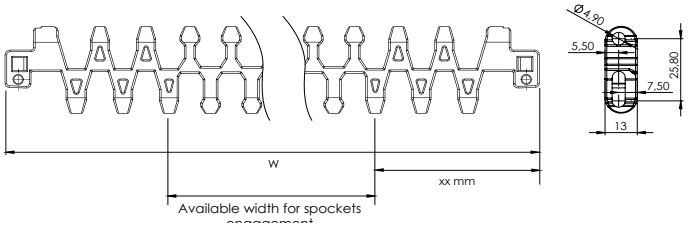
Belt material	Belt color	Pin
PP	Blue - white	POM
POM	Blue - white	POM

Other materials and colors are available upon request.



Belt material	Pin material	Belt performance [N/m]		Temperature range [°C]	Weight [kg/m²]	Certification
		Straight strand	Curved strand			
PP	PP	9400	1250	+5 ÷ +90	5,6	FDA - EU
POM	POM	17050	1680	-43 ÷ +70	714	FDA - EU
POM	PA	18400	1800	-40 ÷ +80	7,1	FDA - EU
POM	PP	15000	1500	+5 ÷ +70	7,1	FDA - EU

PP = Polypropylene - PE = Polyethylene - POM = Acetal Resin - PA = Polyamide



Part number **NREC 254 TR -PO -W**

- Type: Smooth surface open
- Pitch
- Belt material: PO = POM - Acetalic Acid / PP = Polypropylene / PE = Polyethylene / PA = Polyamide
- Belt color: W = white / B = blue

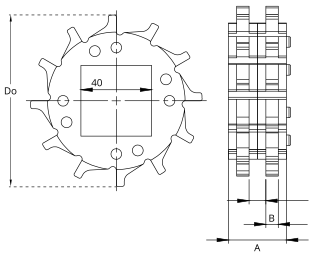
SPROCKES for the series NREC254TR

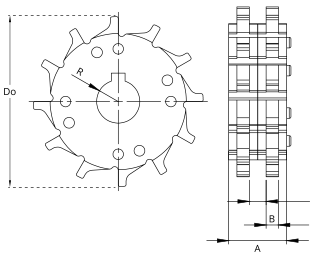
Teeth nr.	Dp [mm]	Do [mm]	A [mm]	B [mm]	Available standard holes	
					Square [mm]	Ø round + set-screw UNI
8	68,4	67,7	30	6	25x25	25 - 30
10	82,8	83,0	30,0	6	40x40	25 - 30
12	98,9	98,0	30,0	6	40x40	25 - 30
15	123,1	123,0	30,0	6	40x40	25 - 30
18	147,4	147,5	30,0	6	40x40	25 - 30

Standard material: nylon PA6 fiberglass.
It is possible to supply sprocket with any number of teeth or any material by CNC machining
Dp = Pitch diameter
Do = External tooth diameter

Part number NSEC254TR -Q 40 -Z12

- Type
- Hole type: R = round / Q = square
- Hole size (mm)
- Number of teeth





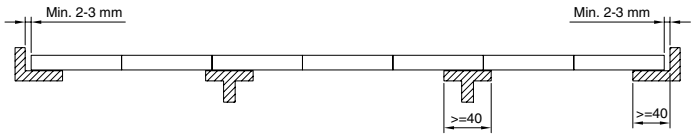
Belt width W [mm]			167	200	250	300	350	400	450	500	550	600	700	800	900	1000
Number of sprockes	Drive shaft	Belt tension ≤ 50% of the capacity	2	2	2	3	3	4	4	4	5	6	6	7	8	8
		Belt tension = 100% of the capacity	2	2	3	4	5	5	5	5	7	8	9	11	13	14
	Driven shaft		2	2	2	2	3	3	3	4	4	4	4	5	5	5
Sliding guides			2	2	2	3	3	4	4	4	4	5	6	7	7	8

Incrementi di larghezza non standard: 16,7 mm

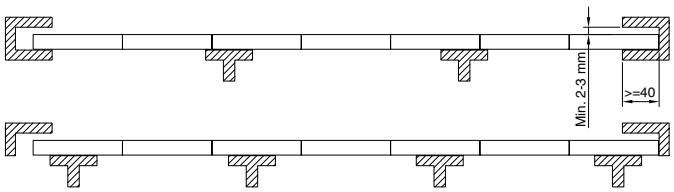
Mounting

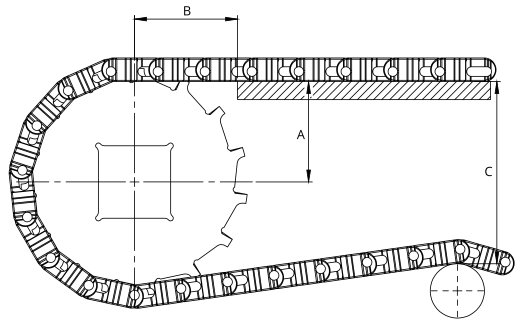
When mounting the sprockets, make sure that you have mounted all sprockets oriented in the same phase.
Only axially lock the central sprocket and leave the other sprockets free to move axially

Example of guiding system on straight path



Example of guiding system on curved path





A - ± 0,031" (1 mm)
B - ± 0,125" (3 mm)
C - ± (Max.)
E - ± (Min.)

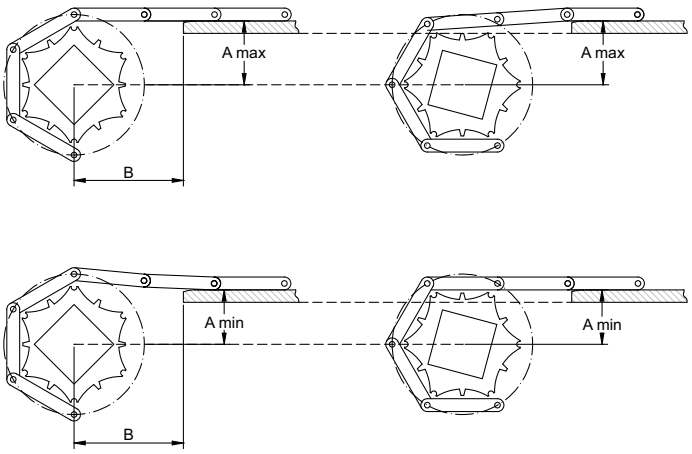
Model	Z [mm]	A_{max} [mm]	A_{min} [mm]	B1 [mm]	B2 [mm]	C_{max} [mm]
NMEC254TR	8	28,7	26,1	38	28	54
	10	37,7	36,3	40	28	75
	12	45,2	43,6	44	28	91
	15	56,5	54,5	50	28	116
	18	67,8	65,4	57	28	140

SPROCKES for the series NREC254TR

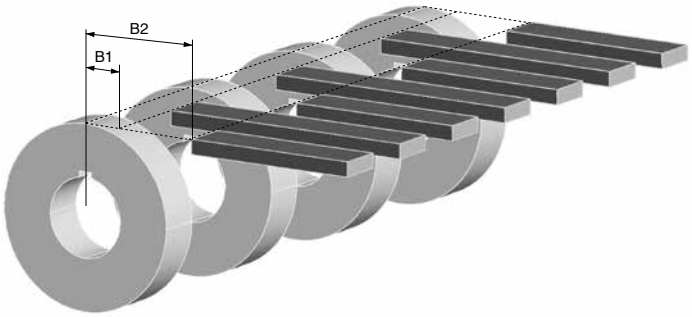
A_{max} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a lower one. The height variation depends on the number of teeth and the pitch of the sprocket.

A_{min} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a higher one. The height variation depends on the number of teeth and the pitch of the sprocket.

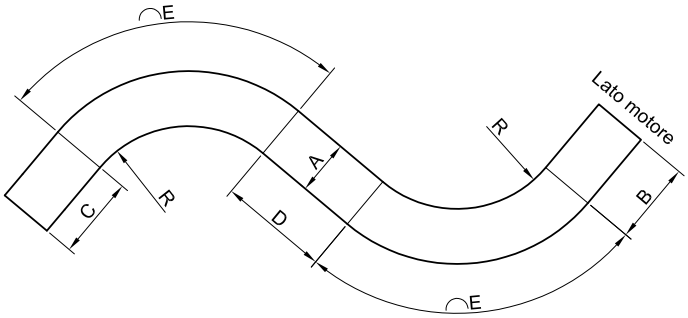
The choice of A dimensions depends on the items you have to carry.
it is always suggested to make a chamfer at the end of the sliding guides.



In order to avoid any subsidence of the belt in the area between the guiding strip and the sprockets, it It is possible to locate the guides between the sprockets. Two minimum B1 and B2 dimensions are defined.



A = belt width
B = straight strand before the drive shaft.
Min. 2 x belt width
C = straight strand before return shaft. Min. 1,5 x belt width
D = straight strand between two curves. Min. 1 x belt width
E = curved belt length = (R + A) x angle in radians
R = internal radius. R minimum = belt width x collapsing factor.
collapsing factor variable from 1,4 to 1,6 depending on belt width.



Example:
A = 200 mm
R = 200 · 1,4 = 280 mm
$E = (280 + 200) \cdot \frac{\pi}{2} = 753$ mm

Belt width [mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
Collapsing factor fc	1,40	1,44	1,47	1,50	1,52	1,54	1,55	1,56	1,57	1,58	1,59	1,60	1,61	1,62	1,63
Minimum internal radius [mm]	280	360	441	525	608	693	775	858	942	1027	1113	1200	1288	1377	1467

NREC315R

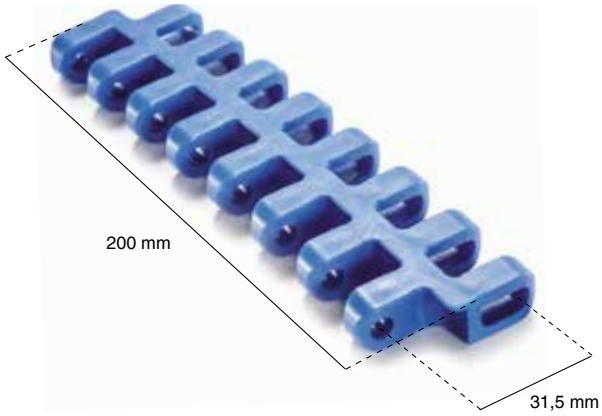
PITCH 31,5 mm / 1-1/4”

Belt type: smooth surface open
Pin diameter: Ø 5,7 mm
Open area: 38%
Hole openings: 6,5x12
Minimum width: 200 mm
Thickness: 12,9 mm
Accessories: -
Food Certification: FDA - EU
Collapse factor: 2,1 - 2,4

Standard executions

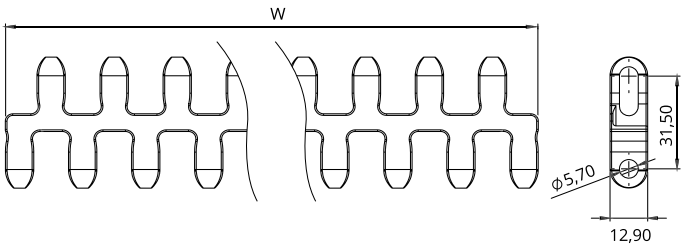
Belt material	Belt color	Pin
PP	Blue - white	POM
POM	Blue - white	POM

Other materials and colors are available upon request.



Belt material	Pin material	Belt performance [N/m]		Temperature range [°C]	Weight [kg/m²]	Certification
		Straight strand	Curved strand			
PP	PP	12000	1450	+5 ÷ +90	6,1	FDA - EU
POM	POM	17400	2300	-43÷ +70	10,20	FDA - EU
POM	PA	18800	2500	-40 ÷ +80	9,90	FDA - EU
POM	PP	15300	2000	+5 ÷ +70	9,90	FDA - EU

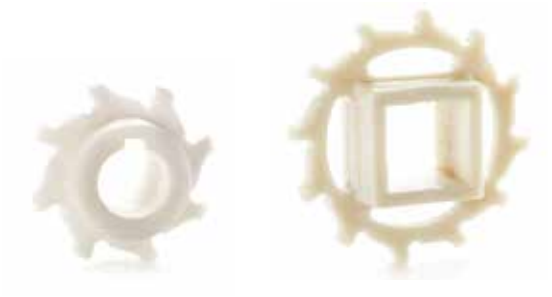
PP = Polypropylene - PE = Polyethylene - POM = Acetal Resin - PA = Polyamide



Part number **NREC 315 R -PO -W**

- Type: Smooth surface open
- Pitch
- Belt material: PO = POM - Acetalic Acid / PP = Polypropylene / PE = Polyethylene / PA = Polyamide
- Belt color: W = white / B = blue

SPROCKES for the series NREC315R



Teeth nr.	Dp [mm]	Do [mm]	A [mm]	B [mm]	Available standard holes	
					Square [mm]	Ø round + set-screw UNI
8	80,4	81,5	50,0	10	-	25 - 30
12	121,4	122,5	50,0	10	40x40	25 - 30
16	162,9	164,0	50,0	10	40x40	25 - 30

Standard material: nylon PA6 fiberglass.
It is possible to supply sprocket with any number of teeth or any material by CNC machining
Dp = Pitch diameter
Do = External tooth diameter

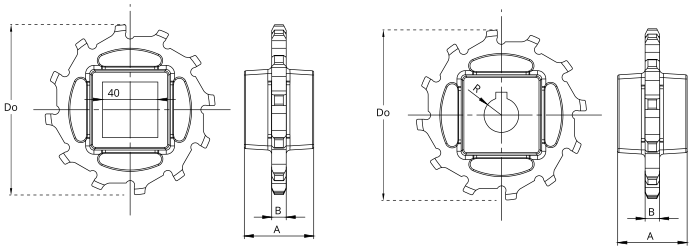
Part number NSEC315R -Q 40 -Z16

Type

Hole type: R = round / Q = square

Hole size (mm)

Number of teeth



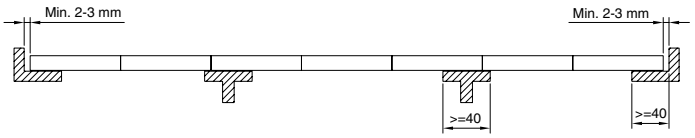
Belt width W [mm]			170,5	213,5	256,5	299,5	342,5	385,5	428,5	471,5	514,5	557,5	600,5	643,5	900	1000
Number of sprockes	Drive shaft	Belt tension ≤ 50% of the capacity	2	2	2	2	3	4	4	5	5	5	5	6	8	8
		Belt tension = 100% of the capacity	2	2	3	3	4	5	5	6	6	7	7	8	13	14
	Driven shaft		2	2	2	2	2	3	3	3	3	3	3	3	5	5
Sliding guides			2	2	3	3	3	4	4	4	4	5	5	5	7	8

Belt width increment: 21,5 mm

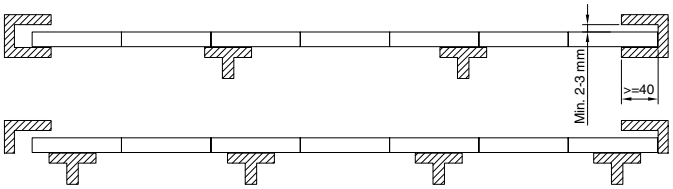
Mounting

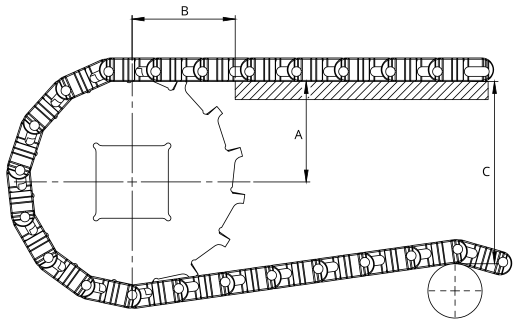
When mounting the sprockets, make sure that you have mounted all sprockets oriented in the same phase.
Only axially lock the central sprocket and leave the other sprockets free to move axially

Example of guiding system on straight path



Example of guiding system on curved path





A - ± 0,031" (1 mm)
B - ± 0,125" (3 mm)
C - ± (Max.)
E - ± (Min.)

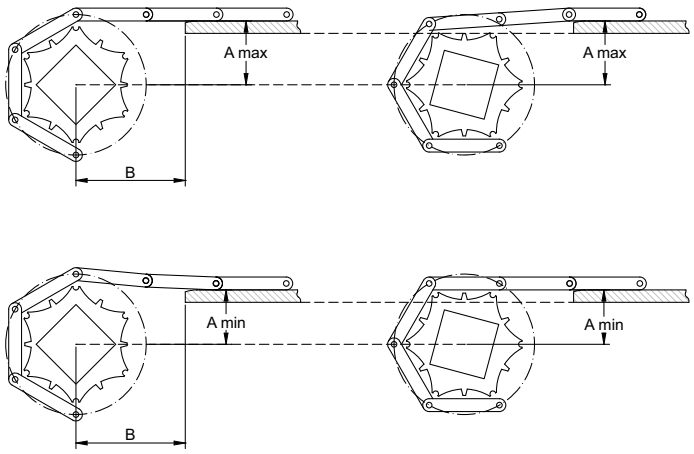
Model	Z [mm]	A_{max} [mm]	A_{min} [mm]	B1 [mm]	B2 [mm]	C_{max} [mm]
NMEC315R	8	34,5	32,5	40	36	78,5
	12	54,3	52,8	46	36	119,5
	16	74,3	73,3	54	36	161

SPROCKES for the series NREC315R

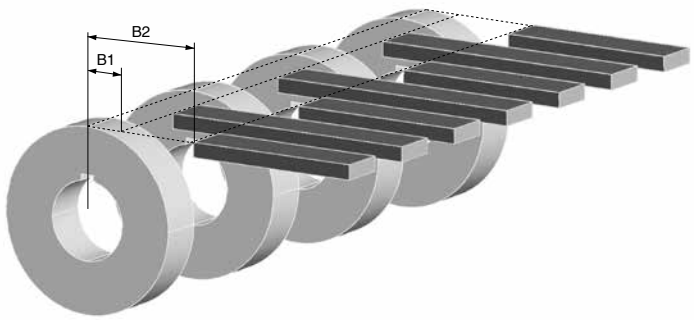
A_{max} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a lower one. The height variation depends on the number of teeth and the pitch of the sprocket.

A_{min} = sliding surface position so that the height of the belt engaging the sprocket oscillates between the sliding surface height and a higher one. The height variation depends on the number of teeth and the pitch of the sprocket.

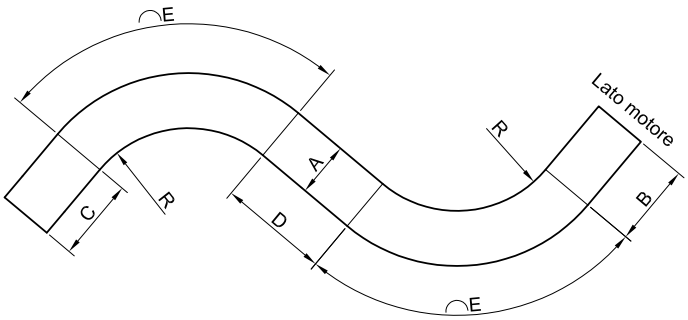
The choice of A dimensions depends on the items you have to carry.
it is always suggested to make a chamfer at the end of the sliding guides.



In order to avoid any subsidence of the belt in the area between the guiding strip and the sprockets, it It is possible to locate the guides between the sprockets. Two minimum B1 and B2 dimensions are defined.



A = belt width
B = straight strand before the drive shaft.
Min. 2 x belt width
C = straight strand before return shaft. Min. 2 x belt width
D = straight strand between two curves. Min. 1,5 x belt width
E = curved belt length = (R + A) x angle in radians
R = internal radius. R minimum = belt width x collapsing factor
collapsing factor variable from 2,1 to 2,4 depending on belt width.



Example:
A = 300 mm
R = 300 · 2,2 = 660 mm
$E = (660+300) \cdot \frac{\pi}{2} = 1507$ mm

Belt width [mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
Collapsing factor fc	**2,1**	**2,15**	**2,2**	**2,23**	**2,26**	**2,28**	**2,30**	**2,32**	**2,34**	**2,35**	**2,36**	**2,37**	**2,38**	**2,39**	**2,40**
Minimum internal radius [mm]	**420**	**538**	**660**	**781**	**904**	**1026**	**1150**	**1276**	**1404**	**1528**	**1652**	**1778**	**1904**	**2032**	**2160**