



EC254T R

Tight Radius

Modular Radius Belt Series

- **Meat Applications**

Spiral Freezer

- **Poultry Applications**

Spiral Freezer

- **Seafood Applications**

Freezing Lines, Spiral

- **Bakery Applications**

Spiral, Proofing, Cooling, Freezing Lines, Pan Handling

- **Fruits and Vegetables Applications**

Container Conveyence

- **Automotive Applications**

Car Part Manufacturing, Battery Filling

- **Packaging Applications**

Tray Packers, Box Transport Horizontal

- **Postal Applications**

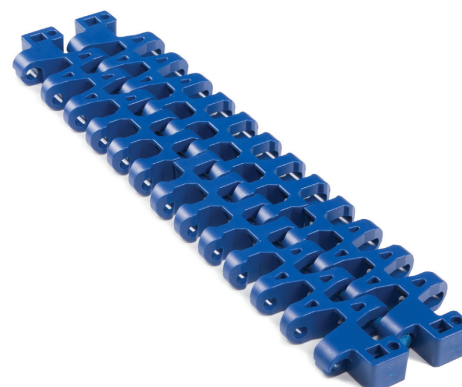
Parcel Handling



MODUTECH®
Movement Technologies

EC254T R (Tight Radius)

Pitch:	26 mm / 1 inch
Belt Surface:	Open, Smooth Surface
Minimum Width:	167 mm / 6.57 inch
Open Area (%):	38%. (Biggest opening 6.5 x 12 mm)
Flight:	No
Sidewall:	Yes
Pin:	Ø5 mm / 0.197 inch - Self Lock
Approved:	FDA and EU
Curve:	Yes
Color:	Blue / White / Gray
Cleanability:	Excellent
Application:	Straight and side flexing
Collapse Factor:	1.4 - 1.6 (Please check page 203 to see Collapse Factors-Width Table)
Belt Thickness:	13 mm / 0.512 inch

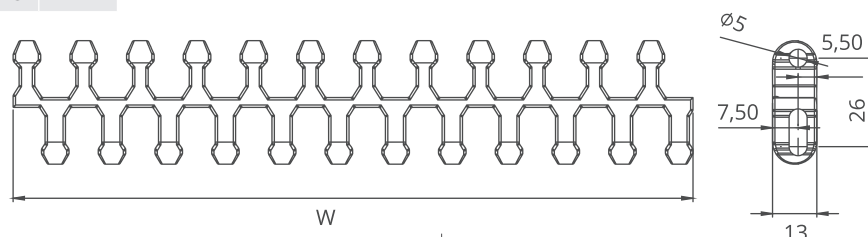


EC254T R Technical Information

Belt Material		POM	POM	PP	PP
Pin Material		PA	POM	PA	POM
Belt Strength (Straight)	N/m lb/ft	20000 - 1370	20000 - 1370	14000 - 959	14000 - 959
Belt Strength (Curve)	N/m lb/ft	1100 - 247	1100 - 247	600 - 135	600 - 135
Temperature	°C °F	-40 / +93 -40 / +200	-40 / +93 -40 / +200	+5 / +105 +40 / +220	+5 / +93 +40 / +200
Belt Weight	kg/m² lb/sqft²	8.4 / 1.72	8.4 / 1.72	5.8 / 1.19	5.8 / 1.19

Diameter of idling rollers (min.)		Diameter of support rollers (min.)		Diameter for gravity take up center drive rollers (min.)		Backbending radius for elevators without side guards or hold down devices (min.)		Backbending radius for elevators with side guards or hold down devices (min.)	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
50	2	50	2	100	4	150	6	-	-

Belt Width mm	250,0	300,0	350,0	400,0	450,0	500,0	550,0	600,0	650,0	700,0	750,0	800,0	850,0	900,0	950,0	1000,0	1050,0
Belt Width inch	9.84	11.81	13.78	15.75	17.72	19.69	21.65	23.62	25.59	27.56	29.53	31.50	33.46	35.43	37.40	39.37	41.34
Belt Width mm	1100,0	1150,0	1200,0														
Belt Width inch	43.31	45.28	47.24														



Product Features and Functional Benefits

- Belt designed for tight radius applications.
- Available for light and medium load capacity.
- 180 degree high speed side flexing applications.
- High temperature and wear resistance.
- Unique locking system.
- Belt provides optimal open area for drainage airflow.

Important Notes

- **Standard belt increments 50 mm.**
- **Non-standard belt increments 16,6 mm.**
- Please contact with customer service for precise belt measurements.
- Special raw materials and additional colors available.
- Belt widths bigger than **1200 mm (48")** are not recommended. For further information, please contact Modutech Representatives.
- Physical belt widths are generally **0.1% to 0.3%** smaller.
- For PP material up to **750 mm (30") -3 mm to 0mm** and **-0.4% to 0%** for wider belts.
- For POM material up to **750 mm (30") -4 mm to -1mm** and **-0.5%** to **-0.2%** for wider belts.

EC254T R Series

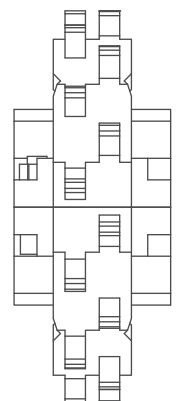
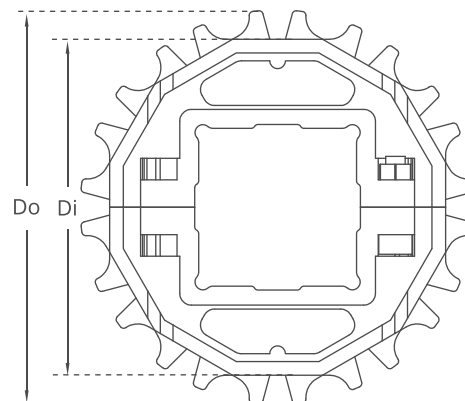
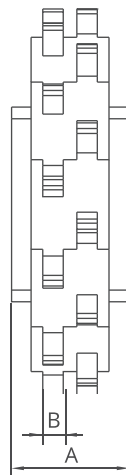
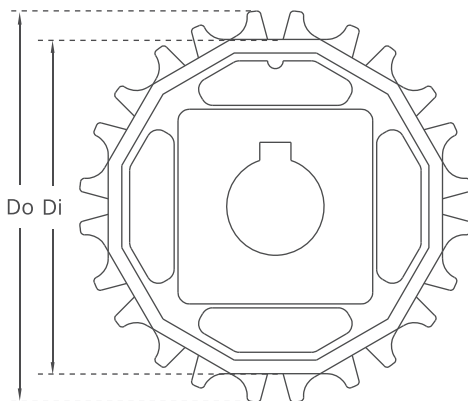
Sprockets and Technical Specifications



Z15



Z8



Split molded sprockets are available for the products with "Red" font color.

EC254T R Series / Standard Sprockets Dimensions

NO. TEETH	Di mm/inch	Do mm/inch	B mm/inch	A mm/inch	Square Bore (Q) mm/inch		Round Bore (R) mm/inch		PRODUCT CODE	
									Square Type (Q)	Round Type (R)
Z8*	52,0 / 2.05	67,0 / 2.64	5,3 / 0.21	30,0 / 1.18	25	1	25	1	MD-TR254SQZ8*POM	MD-TR254SRZ8*POM
Z10*	69,0 / 2.72	84,0 / 3.31	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30	1-1.25	MD-TR254SQZ10*POM	MD-TR254SRZ10*POM
Z12*	85,8 / 3.38	100,8 / 3.97	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30-35	1-1.25	MD-TR254SQZ12*POM	MD-TR254SRZ12*POM
Z15*	110,8 / 4.36	125,8 / 4.95	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30	1-1.25	MD-TR254SQZ15*POM	MD-TR254SRZ15*POM
Z16	119,1 / 4.69	134,1 / 5.28	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30	1-1.25	MD-TR254SQZ16*POM	MD-TR254SRZ16*POM
Z18*	135,6 / 5.34	150,6 / 5.93	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30-35	1-1.25	MD-TR254SQZ18*POM	MD-TR254SRZ18*POM
Z20	152,0 / 5.98	167,1 / 6.58	5,3 / 0.21	30,0 / 1.18	40	1.5	25-30	1-1.25	MD-TR254SQZ20*POM	MD-TR254SRZ20*POM

*Other sprockets and hub sizes are manufactured up to request. *PA (Polyamide) and PP (Polypropylene) sprockets raw material is available on request.

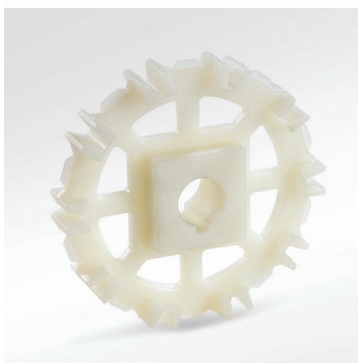
*Machined Split Sprockets are available for each size.



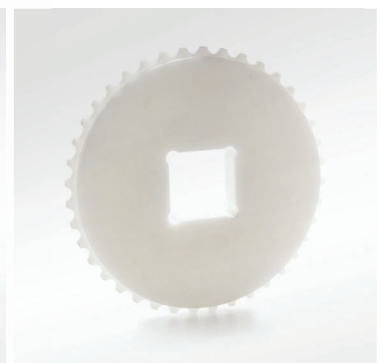
Clamp



Machined Split Sprocket



Moulded Sprocket

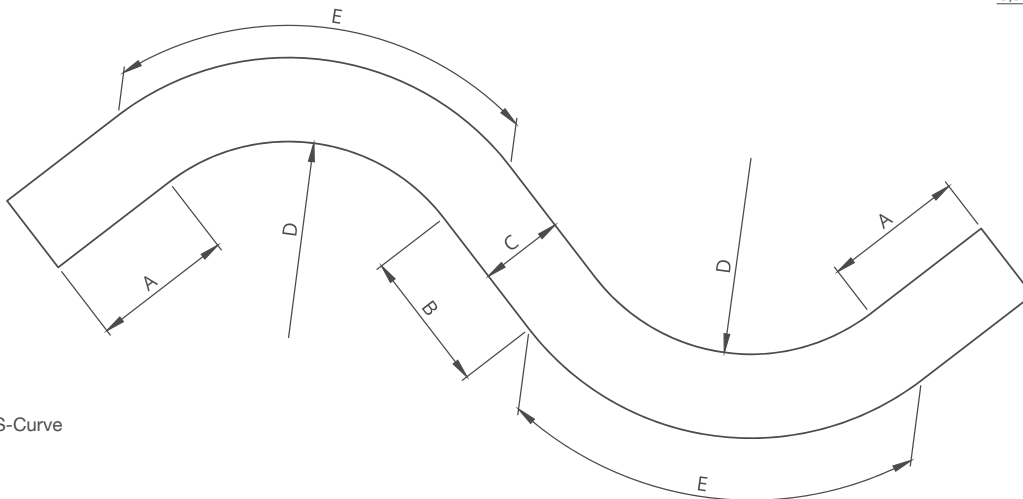
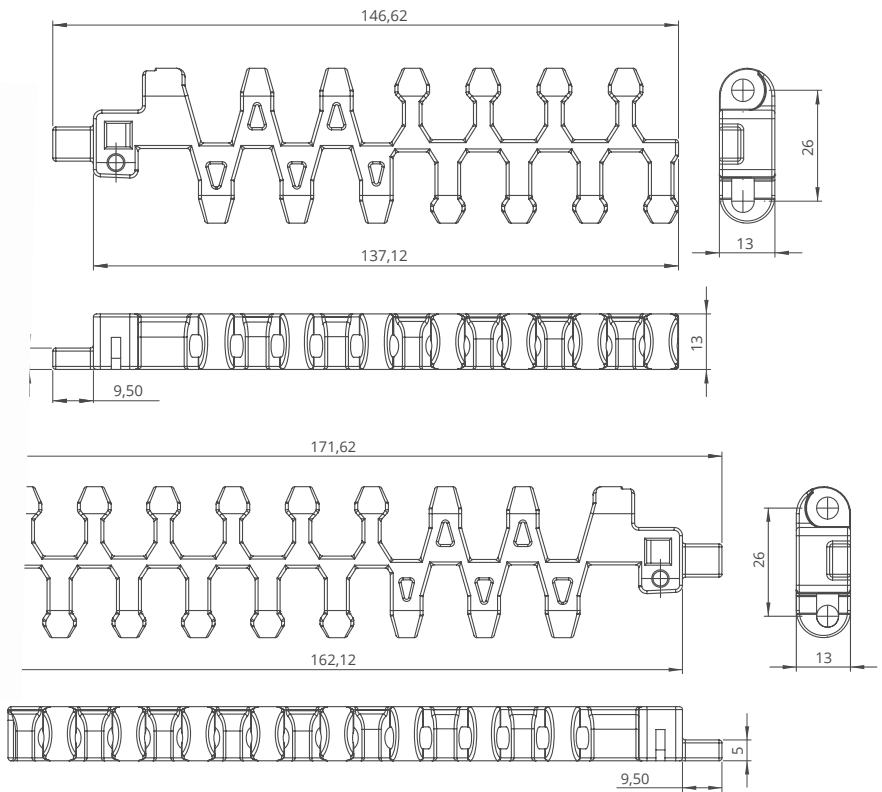


Machined Sprocket

EC254T R Series

Accessories and Technical Specifications

EC254T R Series / TAB - Technical Specification



Radius Belt Example 90° S-Curve

EC254T R Series / Radius Belt Calculation

- A:** Straight run pull and $n = \min. 1,5 \times \text{belt width recommended}$
- B:** Straight run between 2 curves = $\min. 2 \times \text{belt width}$
- C:** Belt width
- D:** Minimum inner radius
- E:** Curve length

$$\text{Collapse Factor} = \frac{\text{Min. inner radius}}{\text{Belt width}}$$

$$\text{Minimum inner radius} = \text{Collapse Factor} \times \text{Belt width}$$

CALCULATION EXAMPLE

Belt width: 500 mm Radius Belt

Collapse Factor: 1.55

D: $500 \text{ mm} \times 1.55 = 775 \text{ mm}$

A: 500 mm

B: $2 \times 500 \text{ mm} = 1000 \text{ mm (min.)}$

E: $\frac{2 \times (C+D) \times 3.14}{4} = 2016 \text{ mm}$

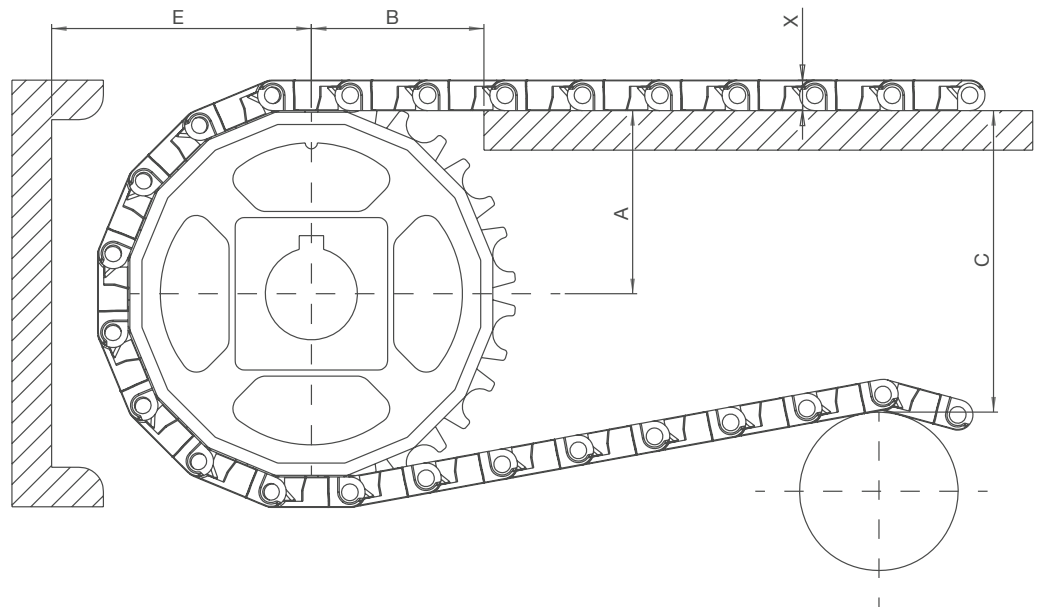
Total length = $(2 \times A) + B + (2 \times E)$

EC254T R Series

Engineering Information

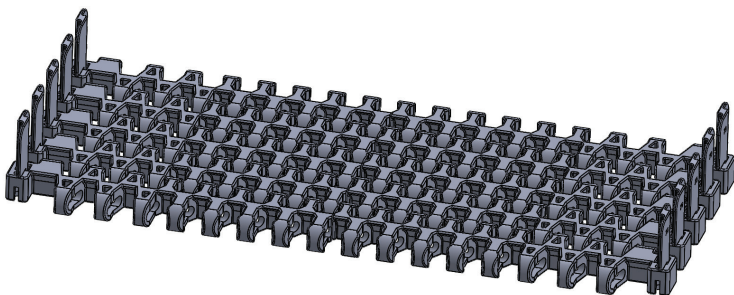
A - $\pm 0,031"$ (1mm)
B - $\pm 0,125"$ (3mm)

C - $\pm$ (Max.)
E - $\pm$ (Min.)



EC254T R Series / Conveyor Frame Dimensions

Sprockets Description			A		B		C		E		X	
Pitch Diameter		No.Teeth	Range (Bottom to Top)		inch	mm	inch	mm	inch	mm	inch	mm
inch	mm		inch	mm								
EC254T R												
2.38	60,5	8	1.15	29,2	1.55	39,4	1.95	49,5	1.94	49,2	0.51	13,0
3.07	78,0	10	1.46	37,1	1.77	45,0	2.60	66,1	2.25	57,1	0.51	13,0
3.74	95,0	12	1.76	44,8	1.97	50,1	3.24	82,3	2.55	64,8	0.51	13,0
4.70	119,5	15	2.22	56,4	2.23	56,7	4.18	106,1	3.01	76,4	0.51	13,0
5.02	127,5	16	2.37	60,2	2.38	60,5	4.46	113,2	3.21	81,5	0.51	13,0
5.71	145,0	18	2.73	69,3	2.45	62,3	5.19	131,8	3.51	89,3	0.51	13,0
6.46	164,0	20	3.03	77,0	2.64	67,0	5.82	148,0	3.86	98,0	0.51	13,0

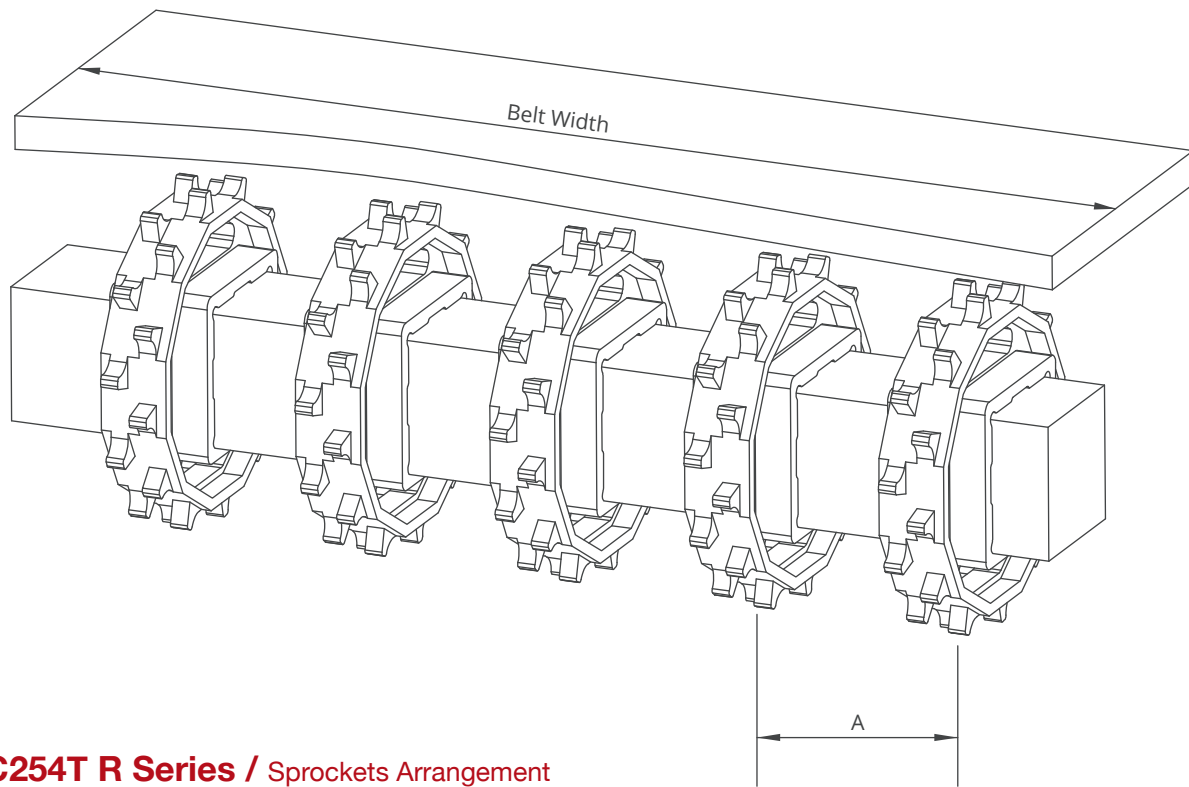


EC254T R Series / Sidewall Technical Specifications

Possible Sidewall Indents	-	
	mm	inch
Standard, no module cutting	-	-

EC254T R Series

Engineering Information



EC254T R Series / Sprockets Arrangement

Standard Belt Width		Number of sprockets per shaft		A (mm/inch)	
mm	inch	Drive Shaft	Return Shaft	Min.	Max.
200,0	7.9	2	2	50/2	120/4.7
250,0	9.8	3	2	50/2	120/4.7
300,0	11.8	3	2	50/2	120/4.7
350,0	13.8	3	3	50/2	120/4.7
400,0	15.7	4	3	50/2	120/4.7
450,0	17.7	4	3	50/2	120/4.7
500,0	19.7	5	4	50/2	120/4.7
550,0	21.7	5	4	50/2	120/4.7
600,0	23.6	6	5	50/2	120/4.7
700,0	27.6	7	5	50/2	120/4.7
800,0	31.5	8	6	50/2	120/4.7
900,0	35.4	9	7	50/2	120/4.7
1000,0	39.4	10	7	50/2	120/4.7
1100,0	43.3	10	8	50/2	120/4.7
1200,0	47.2	10	8	50/2	120/4.7

Note: Number of sprockets depends on the belt load.

EC254T R Series / Collapse Factors per width for EC254T R Series

Nom. Belt Width (mm)	250,0	300,0	350,0	400,0	450,0	500,0	550,0	600,0	650,0	700,0	750,0	800,0	850,0	900,0	950,0	1000,0	1050,0	1100,0	1150,0	1200,0
Nom. Belt Width (inch)	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0	36.0	38.0	40.0	42.0	44.0	46.0	48.0
Collapse Factor	1,43	1,47	1,50	1,52	1,54	1,55	1,56	1,57	1,58	1,58	1,59	1,61	1,62	1,63	1,64	1,65	1,66	1,66	1,70	1,71
Min. Inner Radius (mm)	357,5	441,0	525,0	608,0	693,0	775,0	858,0	942,0	1027,0	1106,0	1192,5	1288,0	1377,0	1467,0	1558,0	1650,0	1743,0	1826,0	1955,0	2052,0
Min. Inner Radius (inch)	14.3	17.6	21.0	24.3	27.7	31.0	34.3	37.7	41.1	44.2	47.7	51.5	55.1	58.7	62.3	66.0	69.7	73.0	78.2	82.1

Standard range of belt width and collapse factor (Min. Inner radius = Collapse factor x Standard belt width)