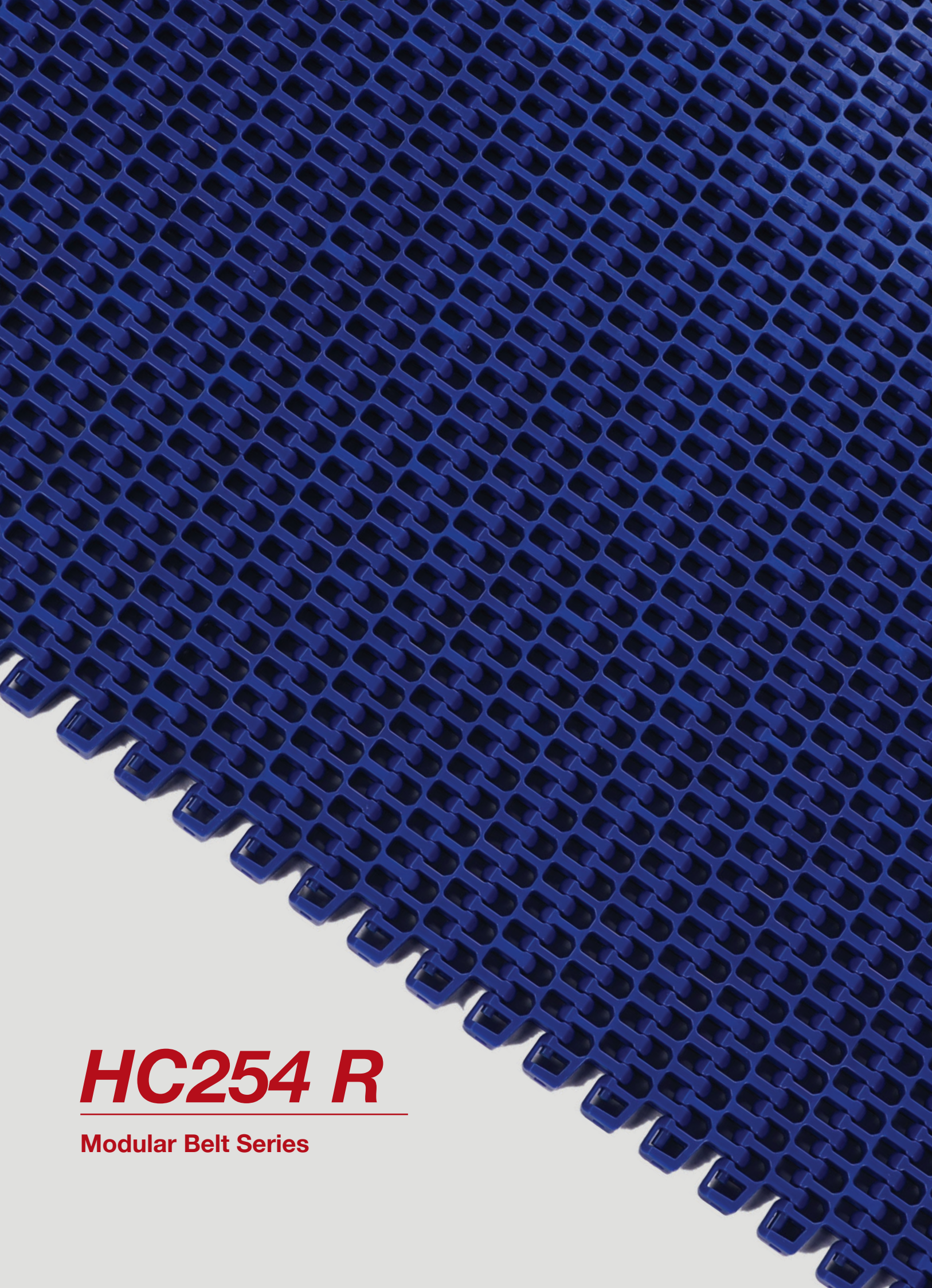




HC254 R

Modular Belt Series



MODUTECH®
Movement Technologies

HC254 R

Pitch:	25,4 mm / 1 inch
Belt Surface:	Open, Smooth Surface
Minimum Width:	203,2 mm / 8 inch
Open Area (%):	42%. (Biggest opening 8,30 x 4,70 mm)
Product Contact Area (%):	25%
Flight:	No
Sidewall:	No
Pin:	Ø4,6 mm / 0.181 inch
Approved:	FDA and EU
Curve:	Yes
Color:	Blue / White
Cleanability:	Excellent
Application:	Straight and side flexing
Collapse Factor:	2.22 (Please check HC254R Collapse Factors-Width Table)
Belt Thickness:	12,7 mm / 0.5 inch

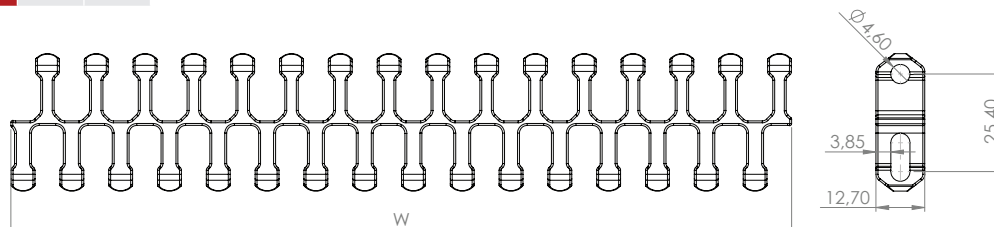


HC254 R Technical Information

Belt Material		POM	POM	PP	PP
Pin Material		PA	POM	PA	POM
Belt Strength	N/m lb/ft	25000 - 1713	25000 - 1713	18000 - 1233	18000 - 1233
Belt Strength (Curve)	N lb	1700 - 382	1700 - 382	1225 - 275	1225 - 275
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	8,3 / 1.70	8,3 / 1.70	5,6 / 1.15	5.7 / 1.18

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)	203,2	254,0	304,8	355,6	406,4	457,2	508,0	558,8	609,6	660,4	711,2	762,0	812,8	863,6	914,4	965,2	1016,0	1066,8	1117,6
Belt Width (inch)	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00	34.00	36.00	38.00	40.00	42.00	44.00
Belt Width (mm)	1168,4	1219,2																	
Belt Width (inch)	46.00	48.00																	



Product Features and Functional Benefits

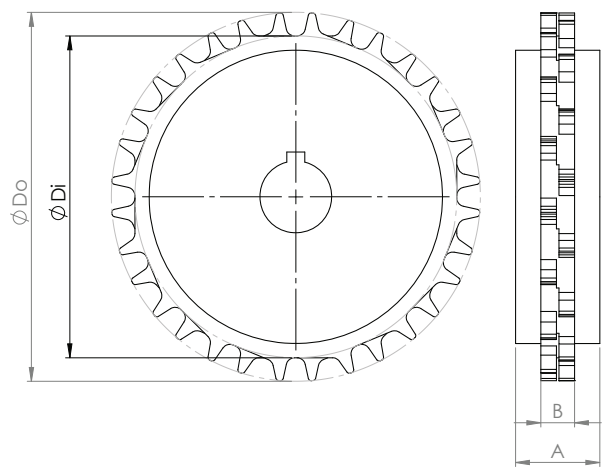
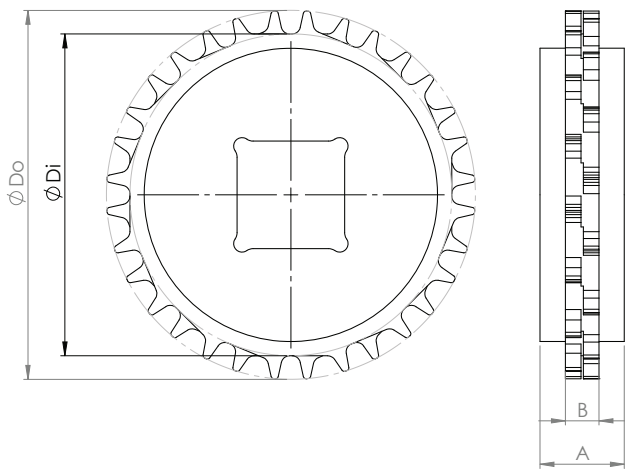
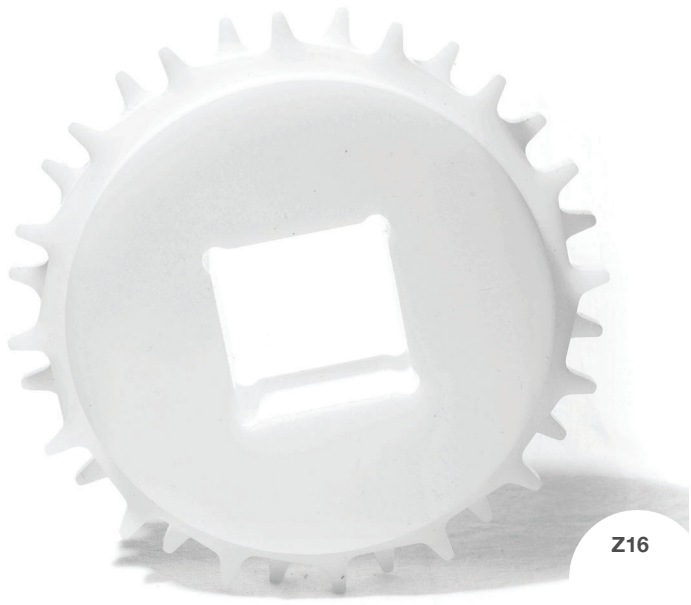
- Designed for straight and radius conveyors.
- Offers optimal open area for drainage and airflow.
- Suitable for cooling-proofing-freezing operations.
- Food approved materials.

Important Notes

- Standard belt increments 12,7 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 & POM material up to 750 mm (30") -3 mm to 0 mm and -0.4% to 0% for wider belts.

HC254 R Series

Sprockets and Technical Specifications



HC254 R Series / Machined Sprocket Dimensions

NO.TEETH	Di	Do	A	B	Square Bore (Q)		Round Bore (R)		PRODUCT CODE	
	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch		mm/inch		Square Type (Q)	Round Type (R)
Z12	81,7 / 3,21	98,5 / 3,87	30 / 1,18	12 / 0,47	25 to 40	1 to 1,5	25 to 40	1 to 1,5	HC254RSQZ12-POM	HC254RSRKZ12-POM
Z16	114,6 / 4,51	131,4 / 5,17	30 / 1,18	12 / 0,47	25 to 40	1 to 1,5	25 to 40	1 to 1,5	HC254RSQZ16-POM	HC254RSRKZ16-POM
Z20	147,3 / 5,79	164,1 / 6,46	30 / 1,18	12 / 0,47	25 to 60	1,5 to 2,5	25 to 40	1 to 1,5	HC254RSQZ20-POM	HC254RSRKZ20-POM

*All required sprockets are produced by CNC.

*Other sprockets and hub sizes are manufactured up to request.

*PA (Polyamide) raw material and others are available on request.

***Machined Split Sprockets are available.**

HC254 R Series

Accessories and Technical Specifications

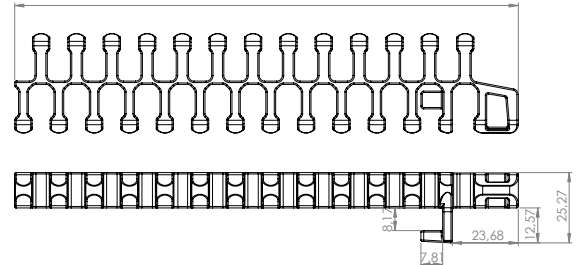
HC254 R Series / TAB - Technical Specifications

TAB-M

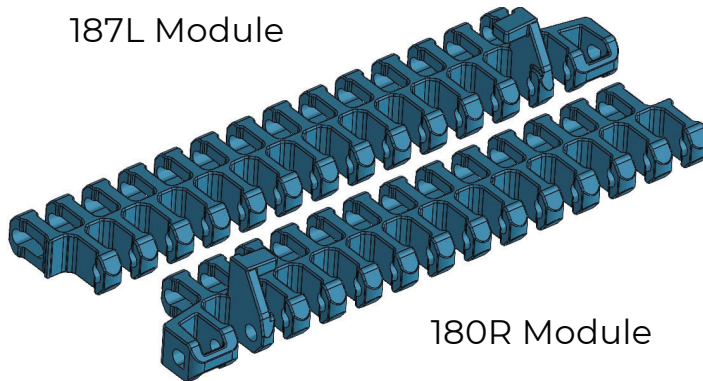


Upside Down View

Technical Drawings



187L Module



180R Module

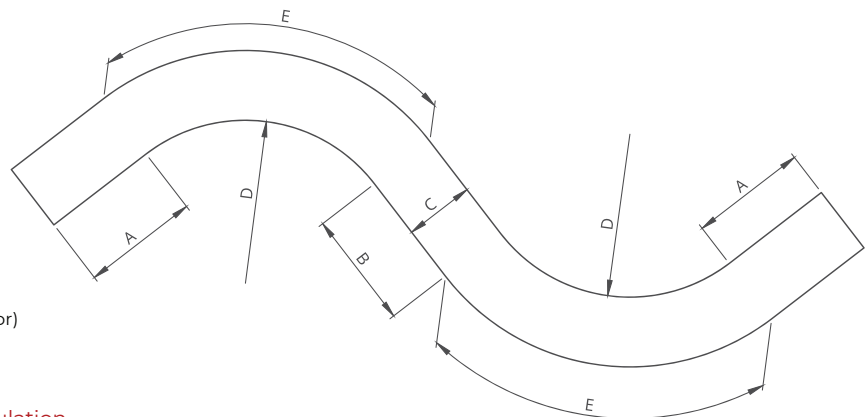
Important Notes:

*Please consider the distance between shaft and bottom edge of TAB during the conveyor design.

*TAB-M edge modules are available only with the standard edge design. Load-distributing edge designs are not available for this yet.

Radius Belt Example 90° S-Curve

Note: There is no minimum straight section (B) required between turns that are in the same direction. (U-turn conveyor)



HC254 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

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

Minimum inner radius = Collapse Factor x Belt width

CALCULATION EXAMPLE

C: 508 mm (Belt width)

Collapse Factor: 2.24

D: $508 \text{ mm} \times 2.24 = 1137,92 \text{ mm}$

A: 508 (min.)

B: $2 \times 508 \text{ mm} = 1016 \text{ mm (min.)}$

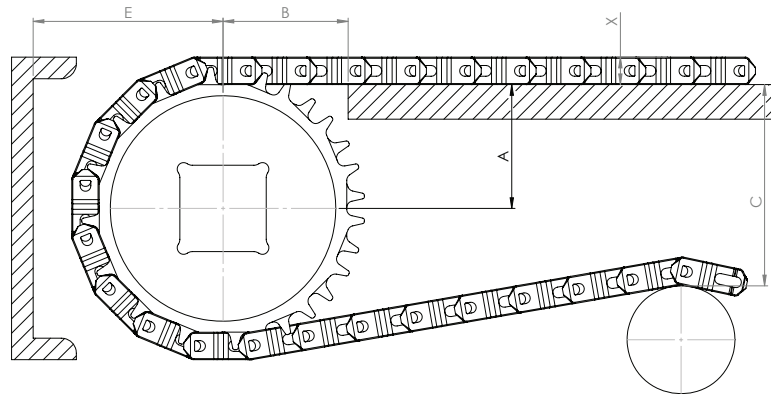
E: $\frac{2 \times (C+D) \times 3.14}{4} = 2584,1 \text{ mm}$

Total conveyor length = $(2 \times A) + B + (2 \times E) = 7200,2 \text{ mm}$

HC254 R Series

Engineering Information

A: $\pm 0,031"$ (1mm)
B: $\pm 0,125"$ (1mm)
C: $\pm$ (Max.)
B: $\pm$ (Min.)



HC254 R Series / Conveyor Frame Dimensions

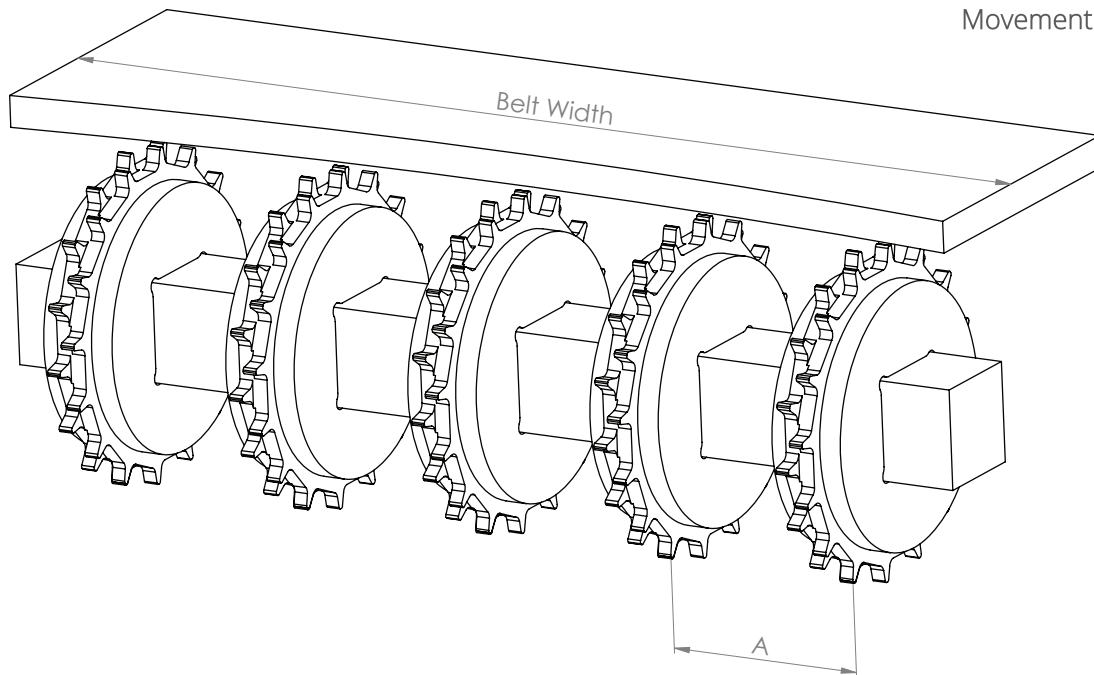
Sprockets Description			A		B		C		E		X	
Pitch Diameter		No.Teeth	Range (Bottom to Top)		inch	mm	inch	mm	inch	mm	inch	mm
inch	mm		inch	mm								
HC254 R, HC254 R-LS												
3,75	95,3	12	1,65	42	1,85	47	3,86	98	2,24	57	0,50	12,7
5,12	130,1	16	2,28	58	2,13	54	5,12	130	2,87	73	0,50	12,7
6,33	160,7	20	2,95	75	2,32	59	6,38	162	3,50	89	0,50	12,7
HC254 R-HID												
3,75	95,3	12	1,65	42	1,85	47	4,25	108	2,64	67	1,13	28,6
5,12	130,1	16	2,28	58	2,13	54	5,51	140	3,27	83	1,13	28,6
6,33	160,7	20	2,95	75	2,32	59	6,77	172	3,90	99	1,13	28,6
HC254 R-TAB-M												
3,75	95,3	12	1,65	42	1,85	47	3,86	98	2,24	57	0,50	12,7
5,12	130,1	16	2,28	58	2,13	54	5,12	130	2,87	73	0,50	12,7
6,33	160,7	20	2,95	75	2,32	59	6,38	162	3,50	89	0,50	12,7
HC254 R-GT												
3,75	95,3	12	1,65	42	1,85	47	4,06	103	2,44	62	0,70	17,78
5,12	130,1	16	2,28	58	2,13	54	5,31	135	3,07	78	0,70	17,78
6,33	160,7	20	2,95	75	2,32	59	6,57	167	3,70	94	0,70	17,78

HC254 R Series

Engineering Information



MODUTECH[®]
Movement Technologies



HC254 R Series / Sprocket & Wearstrip Arrangements

Standard Belt Width		Number of sprockets per shaft	Number of wearstrips		A (mm/inch)	
mm	inch		Carryway	Returnway	Min.	Max.
203,2	8	2	2	2	50 / 2	127 / 5
254,0	10	2	3	2	50 / 2	127 / 5
304,8	12	3	3	2	50 / 2	127 / 5
355,6	14	3	3	3	50 / 2	127 / 5
406,4	16	5	3	3	50 / 2	127 / 5
457,2	18	5	3	3	50 / 2	127 / 5
508,0	20	5	3	3	50 / 2	127 / 5
558,8	22	5	4	3	50 / 2	127 / 5
609,6	24	5	4	3	50 / 2	127 / 5
660,4	26	7	4	3	50 / 2	127 / 5
711,2	28	7	5	4	50 / 2	127 / 5
762,0	30	7	5	4	50 / 2	127 / 5
812,8	32	7	5	4	50 / 2	127 / 5
863,6	34	7	5	4	50 / 2	127 / 5
914,4	36	7	5	4	50 / 2	127 / 5
965,2	38	9	6	4	50 / 2	127 / 5
1016,0	40	9	6	5	50 / 2	127 / 5
1066,8	42	9	6	5	50 / 2	127 / 5
1117,6	44	9	7	5	50 / 2	127 / 5
1168,4	46	11	7	5	50 / 2	127 / 5
1219,2	48	11	7	5	50 / 2	127 / 5

Note:

*The number of sprockets and wearstrips may vary depending on the load.

*For wider belt widths, central distance of sprockets should be minimum 152,4mm (6").

*For wider belts, central distance of carryway wearstrips 228,6mm (9"), returnway wearstrips 304,8mm (12").

HC254 R Series / Collapse Factors per belt width

Nom. Belt Width (mm)	203,2	254,0	304,8	355,6	406,4	457,2	508,0	558,8	609,6	660,4	711,2	762,0	812,8	863,6	914,4	965,2	1016,0	1066,8	1117,6	1168,4	1219,2
Nom. Belt Width (inch)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Collapse Factor	2,18	2,18	2,18	2,20	2,20	2,22	2,24	2,24	2,26	2,26	2,30	2,30	2,32	2,32	2,34	2,34	2,36	2,36	2,38	2,38	2,40
Min. Inner Radius (mm)	443,0	553,7	664,5	782,3	894,1	1015,0	1137,9	1251,7	1377,7	1492,5	1635,8	1752,6	1885,7	2003,6	2139,7	2258,6	2397,8	2517,6	2659,9	2780,8	2926,1
Min. Inner Radius (inch)	17,44	21,80	26,16	30,80	35,20	39,96	44,80	49,28	54,24	58,76	64,40	69,00	74,24	78,88	84,24	88,92	94,40	99,12	104,72	109,48	115,20

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