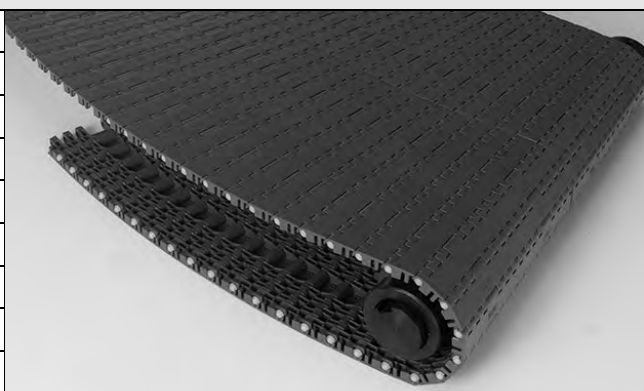
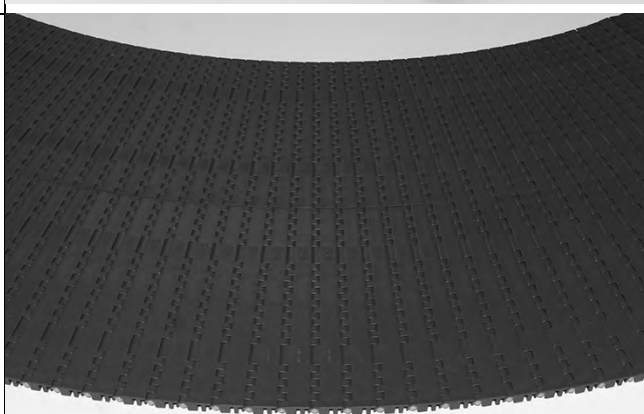


ZERO TANGENT™ Radius Flat Top

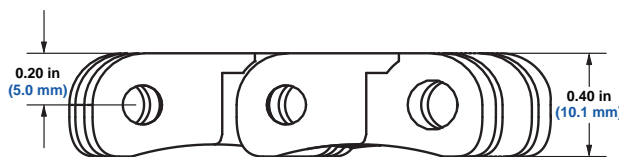
	in	mm
Row to Row Angle	1.33 degrees	
Maximum Width	55.12	1400
Minimum Width	7.87	200
Width Increments	7.87	200
Open Area	0%	
Hinge Style	Closed	
Drive Method	Center/Hinge-Driven	


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for radius applications with a minimum inside turn radius of 23.62 in (600 mm).
- Belt shape requires zero straight sections before and after turn.
- Pitch distance changes depending upon location of module from center of turn.
- Complete design guideline packages supplied to minimize engineering design investment.
- Row to row angle is nominally 1.33 degrees around center of turn.
- Uses headed rodlets with nylon rods.


Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)


Belt Data

Belt Material	Standard Rod Material Ø 0.180 in (4.6 mm)	BS Belt Strength		Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m	°F	°C	lb/ft²	kg/m²
Acetal	Nylon	907	1350	-50 to 200	-46 to 93	1.89	9.25

Sprocket and Support Quantity Reference

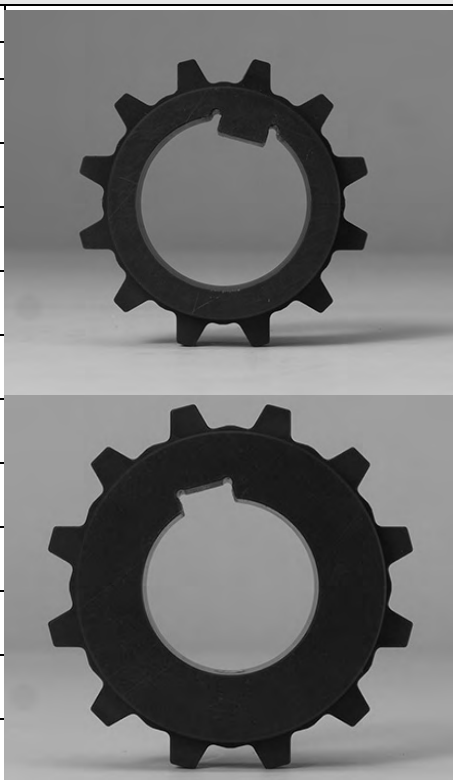
Belt Width Range ^a		Minimum Number of Sprockets Per Shaft ^b	Wearstrips	
			Carryway	Returnway
7.87	200	2	2	2
15.75	400	4	3	2
23.62	600	6	4	2
31.50	800	8	5	3
39.37	1000	10	6	3

For other widths, use even number of sprockets at Maximum sprocket spacing: 3.94 in (100 mm)
Maximum carryway spacing: 7.87 in (200 mm) • Maximum returnway spacing: 15.75 in (400 mm)

- a. If the actual width is critical, consult Customer Service.
b. All sprockets should be locked down.

Nylon Sprocket^{ab}

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
12 (3.41%)	2.3	58	2.4	61	1.0	25	1-7/16	-	40	-
12 (3.41%)	2.6	66	2.7	69	1.0	25	1-7/16	-	40	-
12 (3.41%)	3.0	76	3.1	79	1.0	25	1-7/16	-	40	-
12 (3.41%)	3.3	84	3.4	86	1.0	25	1-7/16	-	40	-
12 (3.41%)	3.7	94	3.8	97	1.0	25	1-7/16	-	40	-
12 (3.41%)	4.0	102	4.1	104	1.0	25	1-7/16	-	40	-
12 (3.41%)	4.4	112	4.5	114	1.0	25	1-7/16	-	40	-
12 (3.41%)	4.7	119	4.8	122	1.0	25	1-7/16	-	40	-
12 (3.41%)	5.1	130	5.2	132	1.0	25	1-7/16	-	40	-
12 (3.41%)	5.4	137	5.5	140	1.0	25	1-7/16	-	40	-
12 (3.41%)	5.8	147	5.8	147	1.0	25	1-7/16		40	
12 (3.41%)	6.2	157	6.2	157	1.0	25	1-7/16		40	
12 (3.41%)	6.5	165	6.5	165	1.0	25	1-7/16		40	
12 (3.41%)	6.9	175	6.9	175	1.0	25	1-7/16		40	



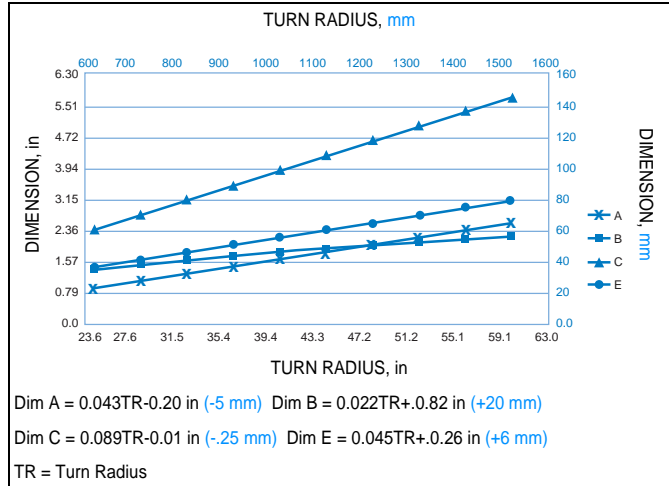
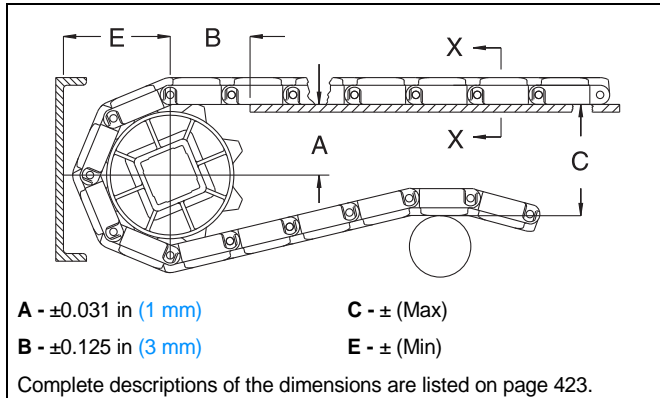
- a. Contact Customer Service for lead times.
b. Sprockets are made of non-FDA nylon.

Conveyor Frame Dimensions

Regardless of type or configuration, all conveyors using Intralox belts have some basic dimensional requirements. Specifically, dimensions “A”, “B”, “C”, and “E” listed below should be implemented in any design.

For general applications and applications where end transfer of tip-sensitive product is not critical, use the “A” dimension at the bottom of the range.

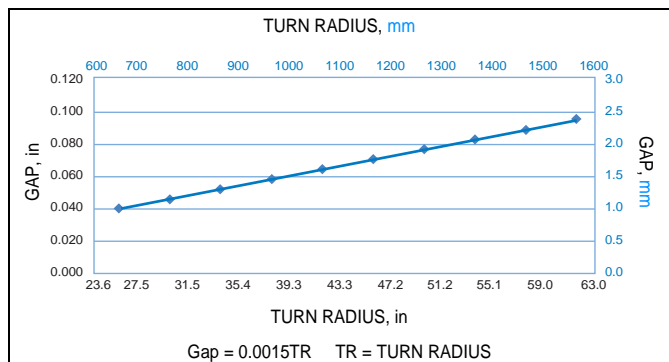
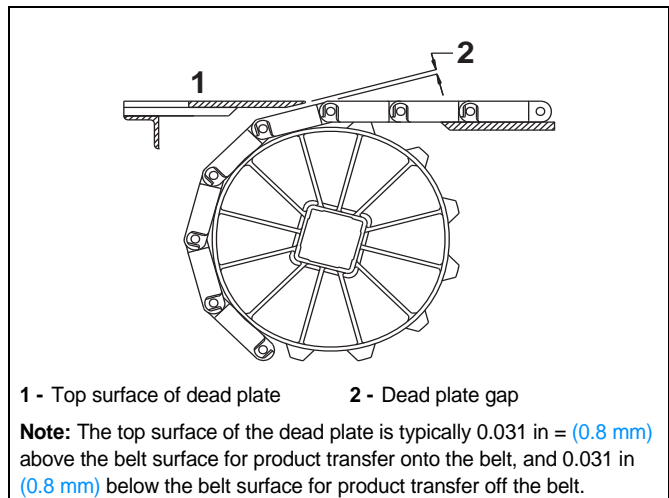
Conveyor frame dimensions are established using the top of the roller as the top of the belt and the bottom of the module as the bottom of the belt. “B” dimension is based on a 0.5 in (12.7 mm) thick carryway.




Dead Plate Gap


Where there is a transfer point from a belt without finger transfer plates to a dead plate, there should be a gap between the surfaces to allow for the chordal action of the belt. As the belt engages its sprockets, chordal action causes the modules to move past a *fixed* point (the tip of the dead plate) with *varying* clearances. The table below shows the minimum amount of gap which occurs at the “low point” of the modules if the tip of the dead plate just comes in contact with the “high point” as the modules pass.

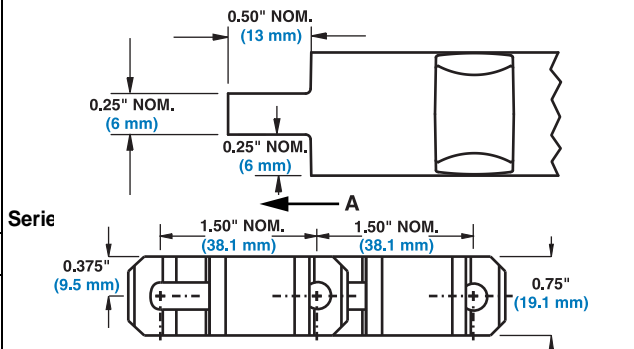
In some installations, it may be desirable to keep the tip of the dead plate in contact with the belt rather than allow a gap to occur. This can be done by hinging the mounting bracket for the dead plate. This allows the dead plate to move as the modules pass, but results in a small oscillating motion which may present tipping problems for sensitive containers or products.



Radius Flush Grid		
	in	mm
Pitch	1.50	38.1
Minimum Width	5	127
Width Increments	1.00	25.4
Opening Size (approximate)	0.50 × 0.75	12.7 × 19.7
Open Area	50%	
Product Contact Area	37%	
Hinge Style	Open	
Drive Method	Hinge-driven	
Product Notes		
<ul style="list-style-type: none">• Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.• Flush edge or tab edge available.• Uses headless rods.• Designed for radius applications with a minimum turn radius of 2.2 times belt width (measured from inside edge).• Lightweight, relatively strong belt with smooth surface grid.• Belt openings pass straight through belt, making it easy to clean.• Non-sliding drive system for reduced belt and sprocket wear, and for low back-side tension.• Tab edge belt width is measured exclusive of tabs. (Tabs extend approx. 0.5 in (13 mm) × 0.25 in (6 mm) thick on each side of belt, inside wearstrip.)• Maximum belt width in turns is 36 in (914 mm)		
<p>WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.</p>		
Additional Information		
<ul style="list-style-type: none">• See “Belt Selection Process” (page 5)• See “Standard Belt Materials” (page 9)• See “Special Application Belt Materials” (page 9)• See “Friction Factors” (page 13)		







A - Preferred direction for flat turning applications

Belt Data								
Belt Material	Standard Rod Material Ø 0.24 in (6.1 mm)	BS	Straight Belt Strength	Curved Belt Strength	Temperature Range (continuous)		W	Belt Weight
					°F	°C		
Polypropylene	Acetal	1600	2380	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.86	9.10
Polyethylene ^a	Acetal	1000	1490		-50 to 150	-46 to 66	1.96	9.56
Acetal	Nylon	2500	3720		-50 to 200	-46 to 93	2.82	13.80
Polypropylene	Polypropylene ^b	1400	2100		34 to 220	1 to 104	1.78	8.69

a. Polyethylene cannot exceed 150 °F (66 °C)

b. Polypropylene rods can be installed in polypropylene belts when extra chemical resistance is required. Please note lower belt strength.

Radius Flush Grid High Deck

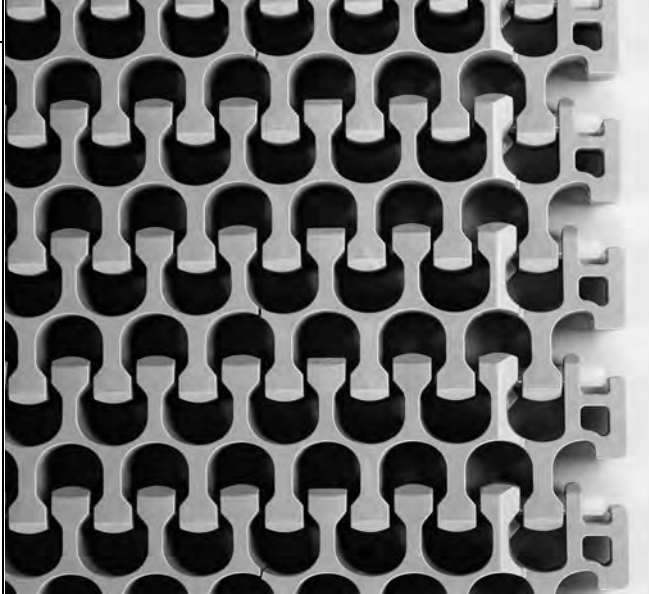
	in	mm
Pitch	1.50	38.1
Minimum Width	6	152
Width Increments	1.00	25.4
Opening Size (approximate)	0.50 × 0.75	12.7 × 19.7
Open Area	50%	
Product Contact Area	37%	
Hinge Style	Open	
Drive Method	Hinge-driven	



Product Notes

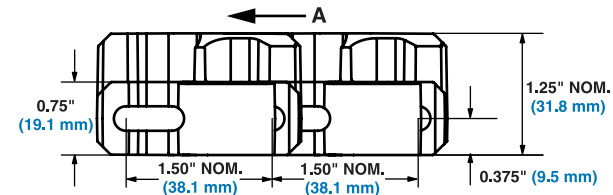
- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Flush Grid High Deck is 0.5 in (12.7 mm) higher than the standard Series 2200 belt.
- Uses headless rods.
- Makes turns with an inside radius of 2.2 times the belt width.
- Flush Grid High Deck has more beam strength than the standard Series 2200 belt, which can reduce retrofit costs in spirals.
- Works with standard Series 2200 wearstrips.
- Standard indent for Flush Grid High Deck is 1.25 in (31.8 mm)

WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.



Additional Information

- See “Belt Selection Process” (page 5)
- See “Standard Belt Materials” (page 9)
- See “Special Application Belt Materials” (page 9)
- See “Friction Factors” (page 13)



A -Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.24 in (6.1 mm)	BS	Straight Belt Strength ^a	Curved Belt Strength	Temperature Range (continuous)		W	Belt Weight
					°F	°C		
Acetal	Nylon	2500	3720	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	3.66	17.87

a. When using polyurethane sprockets, the Belt Strength for belts rated over 750 lb/ft (1120 kg/m) will be de-rated to 750 lb/ft (1120 kg/m) and all other belts will maintain their published rating. The temperature range for polyurethane sprockets is 0 °F (-18 °C) to 120 °F (49 °C). Contact Customer Service for availability of polyurethane sprockets.

Radius Friction Top

	in	mm
Pitch	1.50	38.1
Minimum Width	5	127
Width Increments	1.00	25.4
Opening Size (approximate)	0.50 x 0.75	12.7 x 19.7
Open Area	50%	
Hinge Style	Open	
Drive Method	Hinge-driven	

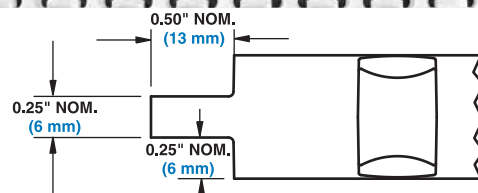
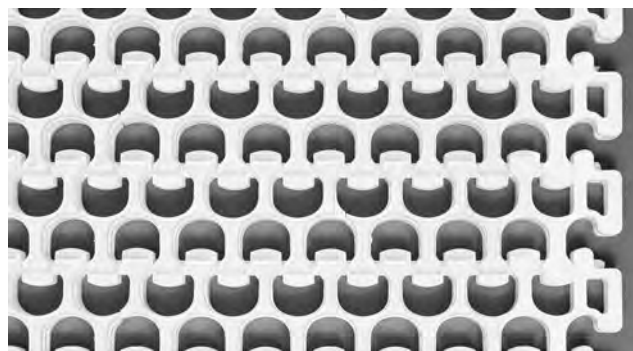
Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Flush edge or tab edge available.
- Uses headless rods.
- Designed for radius applications with a minimum turn radius of 2.2 times belt width (measured from inside edge).
- Indent is molded at 1.75 in (44.5 mm)
- Friction top available in grey PP with grey rubber, white PP with white rubber, and natural PE with white rubber.
- Belt openings pass straight through belt, making it easy to clean.
- Non-sliding drive system for reduced belt and sprocket wear, and for low back-side tension.
- Tab edge belt width is measured exclusive of tabs. (Tabs extend approx. 0.5 in (13 mm) x 0.25 in (6 mm) thick on each side of belt, inside wearstrip.)
- Maximum belt width in turns is 36 in (914 mm)
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take these items into consideration when designing conveyor systems utilizing these belts.

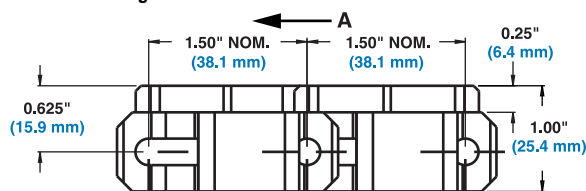
WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



Series 2200 Tab Edge Dimensions



A - Preferred direction for flat turning applications

Belt Data

Base Belt Material	Base/Friction Color	Standard Rod Material Ø 0.24 in (6.1 mm)	BS Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight		Friction Top Hardness	Agency Acceptability	
			lb/ft	kg/m		°F	°C	lb/ft²	kg/m²		FDA (USA)	EU MC ^b
Polypropylene	Grey/Grey	Acetal	1600	2380	Contact Intralox Customer Service for curved belt strength calculations.	34 to 150	1 to 66	2.20	10.74	64 Shore A		
Polypropylene	White/White	Acetal	1600	2380		34 to 150	1 to 66	2.20	10.74	55 Shore A	a	c
Polyethylene	Natural/White	Acetal	1000	1490		-50 to 120	-46 to 49	2.30	11.23	55 Shore A	a	c
Polypropylene	Grey/Grey	Polypropylene	1400	2100		34 to 150	1 to 66	2.12	10.35	64 Shore A		
Polypropylene	White/White	Polypropylene	1400	2100		34 to 150	1 to 66	2.12	10.35	55 Shore A	a	c

• - Fully compliant

a - FDA Compliant with Restriction: Do not use in direct contact with fatty foods.

b - European Migration Certificate providing approval for food contact according to EU Regulation 10/2011.

c - EU compliant with Restriction: Do not use in direct contact with fatty foods.

Radius with Edge Bearing

	in	mm
Pitch	1.50	38.1
Minimum Width (Bearings one side)	7	178
Minimum Width (Bearings both sides)	9	229
Width Increments	1.00	25.4
Opening Size (approximate)	0.50 x 0.75	12.7 x 19.7
Open Area	50%	
Product Contact Area	37%	
Hinge Style	Open	
Drive Method	Hinge-driven	

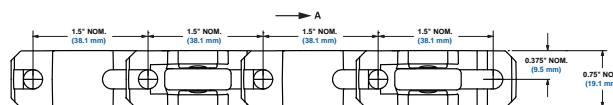
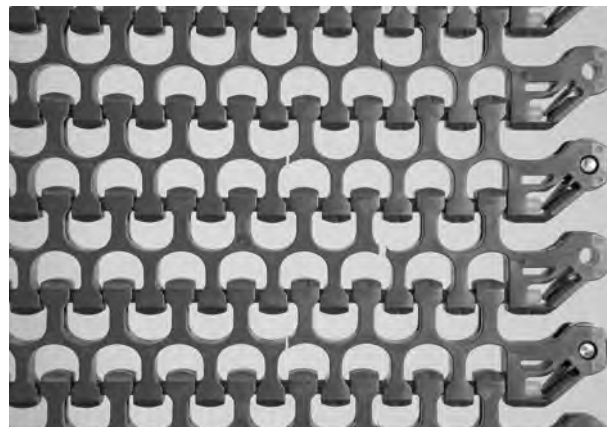
Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Edge Bearings are only available for turning belts.
- Bearings must be placed on the inside edge of the turn.
- Bearings are available on one side for belts that turn in only one direction or on both sides for belts that turn in both directions.
- Both flush edge and tab edge are available for belts that have bearings on only one side and must be placed on the outside edge of the turn.
- Bearings must be configured in every other row of the belt.
- Bearings are chrome steel, recommended for dry applications only.
- The plastic portion of the bearing edge is indented 0.125 in (3.2 mm). Belt width is measured to the end of the bearing.
- Bearings are retained in the belt using a stainless pin.
- Rod retention allows for easier insertion and removal of rods.
- Uses headless rods.
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width (measured from the inside edge of the wearstrip channel).
- Maximum belt width is 36 in (914 mm).
- Maximum belt speed is 350 fpm (107 meters per minute).
- Belts with bearings on one side work with standard edge, hold down wearstrips with a 0.50 in (12.7 mm) deep channel.
- Belts with bearings on both sides require the wearstrip on the outside of the turns to have at least a 0.75 in (19.1 mm) deep channel.
- The Intralox Engineering Program should be used to determine if the Edge Bearing is suitable for your application.

WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



A - Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.24 in (6.1 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft²	kg/m²
Acetal	Nylon	2000	2976	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	2.82	13.80

Flush Grid High Deck with Edge Bearing

	in	mm
Pitch	1.50	38.1
Minimum Width (Bearings one side)	7.0	177.8
Minimum Width (Bearings both sides)	9.0	228.6
Width Increments	1.0	25.4
Opening Size (approximate)	0.50 x 0.75	12.7 x 19.7
Open Area	50%	
Product Contact Area	37%	
Hinge Style	Open	
Drive Method	Hinge-driven	

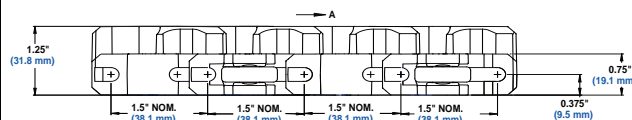

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Edge Bearings are only available for turning belts.
- Bearings must be placed on the inside edge of the turn.
- Bearings are available on one side for belts that turn in only one direction or on both sides for belts that turn in both directions.
- Flush Grid High Deck is 0.5 in (12.7 mm) higher than the standard Series 2200 belt.
- Standard Indent for Flush Grid High Deck with Edge Bearing is 1.75 in (44.5 mm).
- Bearings must be configured in every other row of the belt.
- Bearings are chrome steel, recommended for dry applications only.
- The plastic portion of the bearing edge is indented .125 in (3.2 mm). Belt width is measured to the end of the bearing.
- Bearings are retained in the belt using a stainless pin.
- Rod retention allows for easier insertion and removal of rods.
- Uses headless rods.
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width (measured from the inside edge of the wearstrip channel).
- Maximum belt width is 36 in (914 mm).
- Maximum belt speed is 350 fpm (107 meters per minute).
- Belts with bearings on one side work with standard edge, hold down wearstrips with a 0.50 in (12.7 mm) deep channel.
- Belts with bearings on both sides require the wearstrip on the outside of the turns to have at least a 0.75 in (19.1 mm) deep channel.
- The Intralox Engineering Program should be used to determine if the Edge Bearing is suitable for your application.

WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



A - Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.24 in (6.1 mm)	BS		Curved Belt Strength	Temperature Range (continuous)		W		Belt Weight
		lb/ft	kg/m		°F	°C	lb/ft²	kg/m²	
Acetal	Nylon	2000	2976	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	3.66	17.87	

Radius Flush Grid (2.6) with Insert Rollers

	in	mm
Pitch	1.50	38.1
Minimum Width	7	178
Width Increments	1.00	25.4
Opening Size (approximate)	0.50 x 0.75	12.7 x 19.7
Open Area	50%	
Hinge Style	Open	
Drive Method	Hinge-driven	



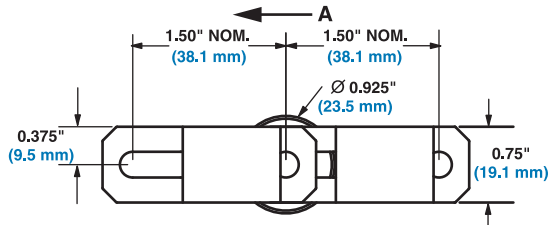
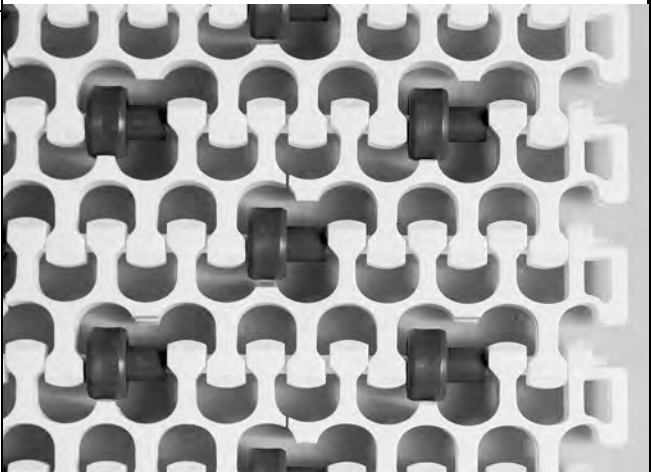
Product Notes

- Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.
- For applications where low back pressure accumulation is required.
- Flush edge or tabbed edge available.
- Uses headless rods.
- Acetal rollers
- Standard roller spacings across belt width: staggered - 4 in (102 mm) or inline - 2 in (51 mm), 3 in (76 mm), or 4 in (102 mm).
- Standard roller spacings along belt length: staggered - 1.5 in (38.1 mm) or inline - 3 in (76.2 mm).
- Minimum 2.5 in (63.5 mm) roller indent.
- Contact Customer Service for non-standard roller placement options.
- Sprockets must NOT be placed inline with rollers.
- For low back pressure applications, place wearstrip between rollers. For driven applications, place wearstrip directly under rollers.
- Back-up load is 5% to 10% of product weight.
- Tab edge belt width is measured exclusive of tabs. (Tabs extend approx. 0.5 in (13 mm) x 0.25 in (6 mm) thick on each side of belt, inside wearstrip.)
- Due to roller placement, the turn radius increases to 2.6. Belts 16 in (406 mm) wide and less have a turn ratio of 2.2.
- Contact Sales Engineering before using a belt width greater than 24 in (610 mm).

WARNING: Do not place fingers in or on this belt. Fingers can get trapped in belt openings, resulting in personal injury. This belt has pinch points due to the belt spreading and collapsing as it flexes to follow the conveyor path. Pinch points can trap fingers, hair, or clothing, causing personal injury. Do not wear loose clothing, loose gloves, or hand/finger jewelry when working near this belt. Call Customer Service for tags, flyers, and stickers containing this warning.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



A - Preferred direction for flat turning applications

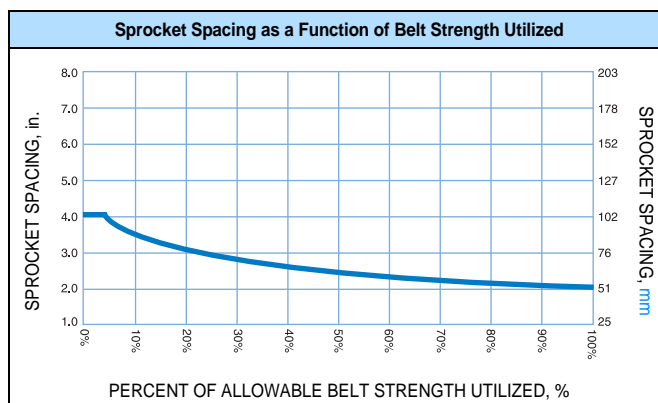
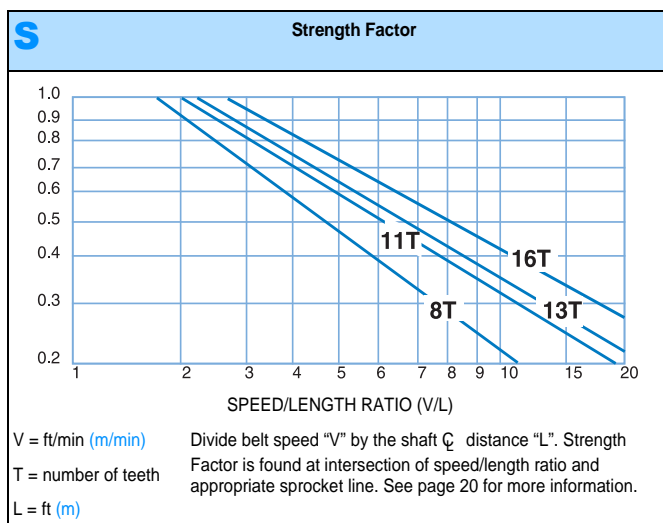
Belt Data

Belt Material	Standard Rod Material Ø 0.24 in (6.1 mm)	<div>BS</div> Straight Belt Strength						Roller Indents		Curved Belt Strength	Temperature Range(continuous)		<div>W</div> Belt Weight					
		Roller Width Spacing																
		2 in	51 mm	3 in	7.6 mm	4 in	102 mm											
		lb/ft	kg/m	lb/ft	kg/m	lb/ft	kg/m	in	mm									
Polypropylene	Acetal	400	600	710	1060	900	1340	2.5	64	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.86	9.08				
								3.5 to 4.5	89 to 114									
Acetal	Nylon	630	940	1110	1650	1410	2100	2.5	64						-50 to 200	-46 to 93	2.82	13.8
								3.5 to 4.5	89 to 114									
Polypropylene	Polypropylene ^a	350	520	620	920	790	1180	2.5	64	34 to 220	1 to 104	1.78	8.69					
								3.5 to 4.5	89 to 114									

a. Polypropylene rods can be installed in polypropylene belts when extra chemical resistance is required. Please note lower belt strength.

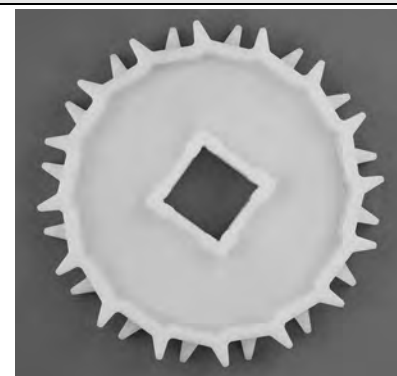
Sprocket and Support Quantity Reference				
Belt Width Range ^a		Minimum Number of Sprockets Per Shaft ^b	Wearstrips ^c	
in.	mm		Carryway	Returnway
5	127	2	2	2
6	152	2	2	2
7	178	2	2	2
8	203	2	2	2
10	254	3	3	2
12	305	3	3	2
14	356	5	3	3
15	381	5	3	3
16	406	5	3	3
18	457	5	3	3
20	508	5	4	3
24	610	7	4	3
30	762	9	5	4
32	813	9	5	4
36	914	9	5	4
42	1067	11	6	5
48	1219	13	7	5
54	1372	15	7	6
60	1524	15	8	6
72	1829	19	9	7
84	2134	21	11	8
96	2438	25	12	9
120	3048	31	15	11
144	3658	37	17	13
For Other Widths, Use Odd Number of Sprockets at Maximum 4 in. (102 mm) \varnothing Spacing			Maximum 9 in. (229 mm) \varnothing Spacing	Maximum 12 in. (305 mm) \varnothing Spacing

- a. If your belt width exceeds a number listed in the table, please refer to the sprocket and support material minimums for the next larger width range listed. Belts are available in 1.00 in. (25.4 mm) increments beginning with minimum width of 5 in. (127 mm). If the actual width is critical, consult Customer Service. Intralox does not recommend turning belts wider than 36 in. (914 mm). For turning applications that require wider belts, contact Intralox Sales Engineering.
- b. These are the minimum number of sprockets. Additional sprockets may be required for heavily loaded applications (sprockets should be placed every inch for heavily loaded applications). See Retainer Rings/Center Sprocket Offset chart on page 410 for lock down location.
- c. The number of wearstrips given does not include the hold down wearstrip.



Molded Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
8 (7.61%)	3.9	99	4.0	102	1.0	25		1.5		40
13 (2.91%)	6.3	160	6.4	163	1.0	25		2.5		60
16 (1.92%)	7.7	196	7.8	198	1.0	25		1.5		40
								2.5		60



a. Contact Customer Service for lead times.

EZ Clean Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
11 (4.05%)	5.3	135	5.4	137	1.0	25		1.5		40
13 (2.91%)	6.3	160	6.4	163	1.0	25		1.5		40



a. Contact Customer Service for lead times. When using Polyurethane sprockets, the Belt Strength for belts rated over 750 lb/ft (1120 kg/m) will be de-rated to 750 lb/ft (1120 kg/m) and all other belts will maintain their published rating. The temperature range for Polyurethane sprockets is 0° F (-18 °C) to 120°F (49 °C). Contact Customer Service for availability of Polyurethane sprockets.

Acetal Split Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
13 (2.91%)	6.3	160	6.4	163	1.5	38	1.5, 1-7/16 ^b	1.5		



a. Contact Customer Service for lead times.
b. Tight fit round bore.

Streamline Flights

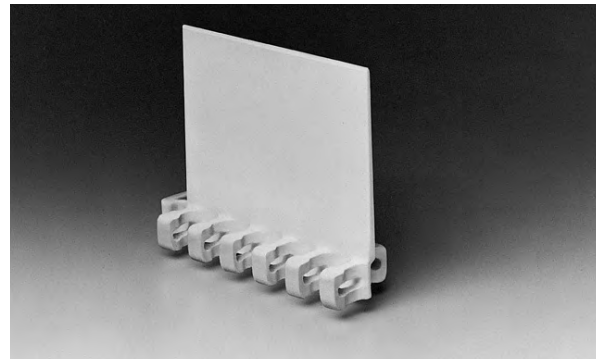
Available Flight Height		Available Materials
in	mm	
4	102	

Note: Flights can be cut down to custom heights with a minimum height of 0.25 in (13 mm).

Note: Each flight rises out of the center of its supporting module, molded as an integral part. No fasteners are required.

Note: Flights can be provided in linear increments of 1.5 in (38 mm).

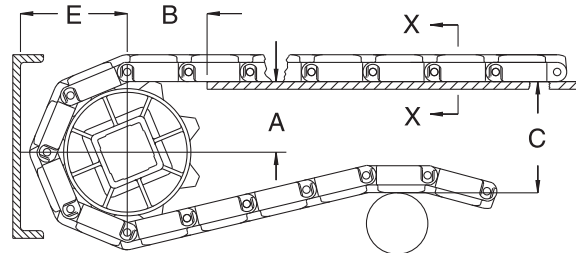
Note: The standard indent is 5/8 in (15.9 mm).



Conveyor Frame Dimensions

Regardless of type or configuration, all conveyors using Intralox belts have some basic dimensional requirements. Specifically, dimensions “A”, “B”, “C” and “E” listed below should be implemented in any design.

For general applications and applications where end transfer of tip-sensitive product is not critical, use the “A” dimension at the bottom of the range.



A - ±0.031" (1 mm)

C - ± (Max)

B - ±0.125" (3 mm)

E - ± (Min)

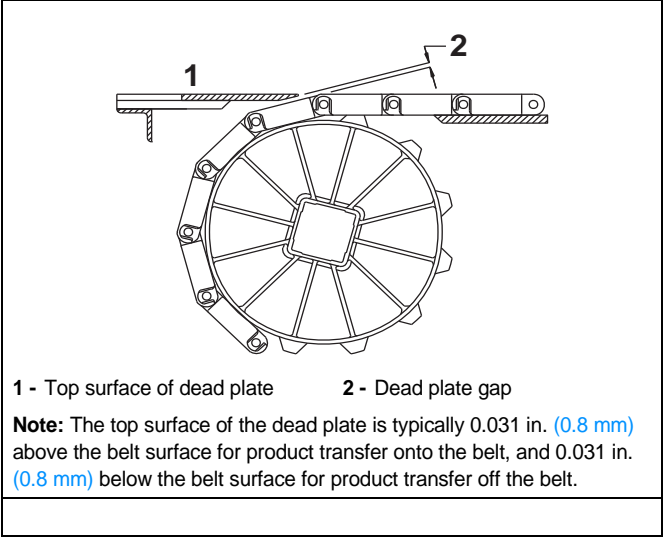
Complete descriptions of the dimensions are listed on page 423.

Sprocket Description			A		B		C		E	
Pitch Diameter		No. Teeth	Range (Bottom to Top)		in.	mm	in.	mm	in.	mm
in.	mm		in.	mm						
SERIES 2200 RADIUS FLUSH GRID, RADIUS WITH EDGE BEARING										
3.9	99	8	1.44	37	1.93	49	3.92	100	2.40	61
5.3	135	11	2.18	55	2.27	58	5.32	135	3.10	79
6.3	160	13	2.67	68	2.52	64	6.27	159	3.57	91
7.7	196	16	3.40	86	2.78	71	7.69	195	4.28	109
SERIES 2200 RADIUS FRICTION TOP										
3.9	99	8	1.44-1.58	36-40	1.93	49	4.17	106	2.65	67
5.3	135	11	2.18-2.29	55-58	2.27	58	5.57	142	3.35	85
6.3	160	13	2.67-2.76	68-70	2.52	64	6.52	166	3.82	97
7.7	196	16	3.40-3.47	86-88	2.78	71	7.94	202	4.53	115
SERIES 2200 RADIUS FLUSH GRID WITH INSERT ROLLERS										
3.9	99	8	1.44-1.58	36-40	1.93	49	4.00	102	2.48	63
5.3	135	11	2.18-2.29	55-58	2.27	58	5.42	138	3.19	81
6.3	160	13	2.67-2.76	68-70	2.52	64	6.36	162	3.66	93
7.7	196	16	3.40-3.47	86-88	2.78	71	7.78	198	4.37	111
SERIES 2200 RADIUS FLUSH GRID HIGH DECK, RADIUS FLUSH GRID HIGH DECK WITH EDGE BEARING										
3.9	99	8	1.44-1.58	36-40	1.93	49	4.42	112	2.90	74
5.3	135	11	2.18-2.29	55-58	2.27	58	5.82	148	3.60	91
6.3	160	13	2.67-2.76	68-70	2.52	64	6.77	172	4.07	103
7.7	196	16	3.40-3.47	86-88	2.78	71	8.19	208	4.78	121

Dead Plate Gap

Where there is a transfer point from a belt without finger transfer plates to a dead plate, there should be a gap between the surfaces to allow for the chordal action of the belt. As the belt engages its sprockets, chordal action causes the modules to move past a *fixed* point (the tip of the dead plate) with *varying* clearances. The table below shows the minimum amount of gap which occurs at the “low point” of the modules if the tip of the dead plate just comes in contact with the “high point” as the modules pass.

In some installations it may be desirable to keep the tip of the dead plate in contact with the belt, rather than allow a gap to occur. This can be done by hinging the mounting bracket for the dead plate. This allows the dead plate to move as the modules pass, but results in a small oscillating motion which may present tippage problems for sensitive containers or products.



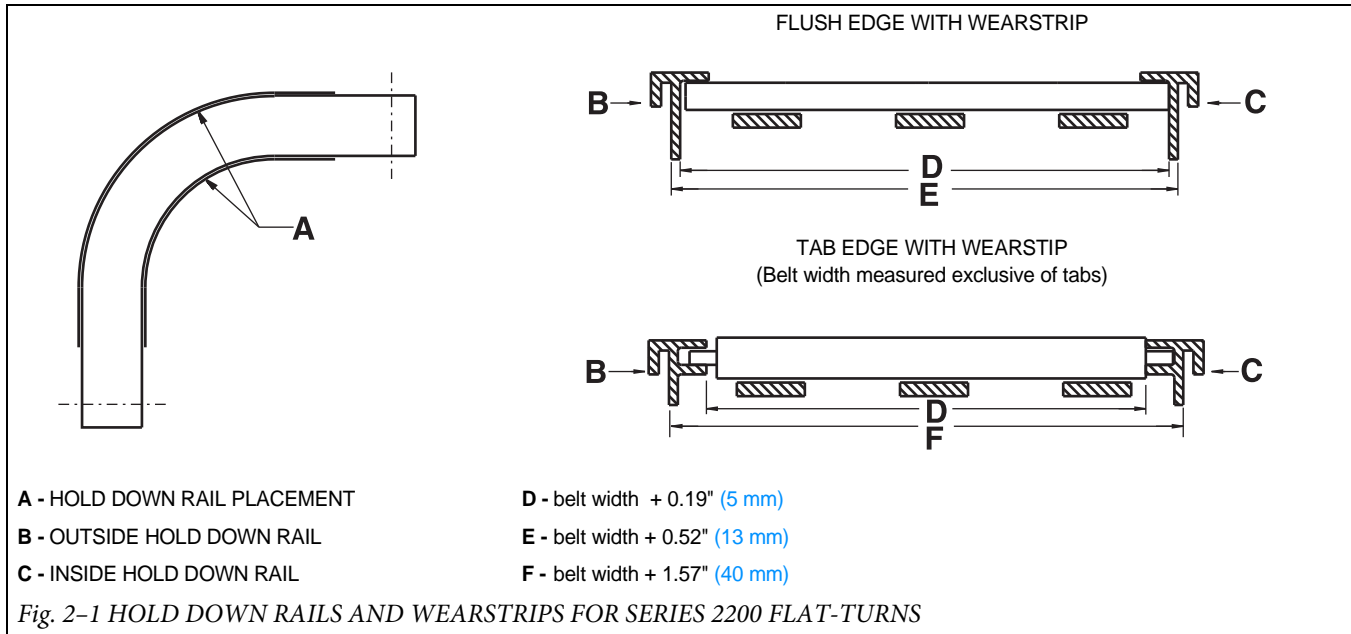
Sprocket Description			Gap	
Pitch Diameter		No. Teeth	in.	mm
in.	mm			
3.9	99	8	0.150	3.8
5.3	135	11	0.108	2.8
6.3	160	13	0.091	2.3
7.7	196	16	0.074	1.9

HOLD DOWN RAILS AND WEARSTRIPS

Intralox recommends using continuous hold down rails through an entire turn, starting at a distance of 1X the belt width before the turn and ending 1X the belt width after the turn. This applies to both carryway and returnway. The use of

hold down rails along both side of the belt over the full carryway is recommended but not mandatory.

Series 2200 is available with and without an edge tab. A wearstrip style is available for each edge style. The tab edge design allows the belt to be held down without the wearstrip interfering with the carryway surface. See “Custom wearstrips” (page 416).



BELT SELECTION INSTRUCTIONS

ENGINEERING PROGRAM ANALYSIS FOR SERIES 2200

Intralox Customer Service Technical Support Group can calculate the estimated belt pull for radius applications using **Series 2200**. The following information is required (refer to “Radius belt data sheet” (page 469)):

- Any environmental conditions which may affect the friction coefficient (for dirty or abrasive conditions, use higher friction coefficients than normal)
- Belt width
- Length of each straight run
- Turning angle of each turn

- Turn direction of each turn
- Inside turning radius of each turn
- Carryway/hold down rail material
- Product loading lb/ft² (kg/m²)
- Product back-up conditions
- Belt speed
- Elevation changes on each section
- Operating temperatures.

For assistance with radius belt and low-tension capstan drive spiral selections, contact Intralox Customer Service Technical Support Group. The Engineering Program should be run to ensure that the belt is strong enough for the radius application in question.

SERIES 2200 DESIGN GUIDE SUMMARY

For more information, see the **Installation, Maintenance and Troubleshooting manual** available from Intralox.

- A** - The minimum and recommended turning radius for **Series 2200** is 2.2 times the belt width, measured from the inside edge.
- B** - The minimum straight run required between turns of opposing direction is 2.0 times the belt width. Shorter straight sections will lead to high wear on the edge guide rail and high pull stresses in the belt.
- C** - There is no minimum straight run required between turns that are in the same direction.
- D** - The minimum final straight run (leading to drive shaft) should be a minimum of 5 ft. (1.5 m). If 5 ft. (1.5 m) is not feasible, a shorter distance (down to 1.5 x belt width) would require a weighted take up in order to avoid sprocket wear and tracking problems. See "Special Take-Up Arrangements" (page 431).
- E** - The minimum length of the first straight run (immediately after the idle shaft) is 1.5 times the belt width. When shorter lengths are required (down to 1.0 times the width), an idle roller may be used in place of sprockets.
- F** - IDLE SHAFT
- G** - 1ST TURN
- H** - BELT WIDTH
- I** - BELT TRAVEL
- J** - 2ND TURN
- K** - DRIVE MOTOR
- L** - DRIVE SHAFT

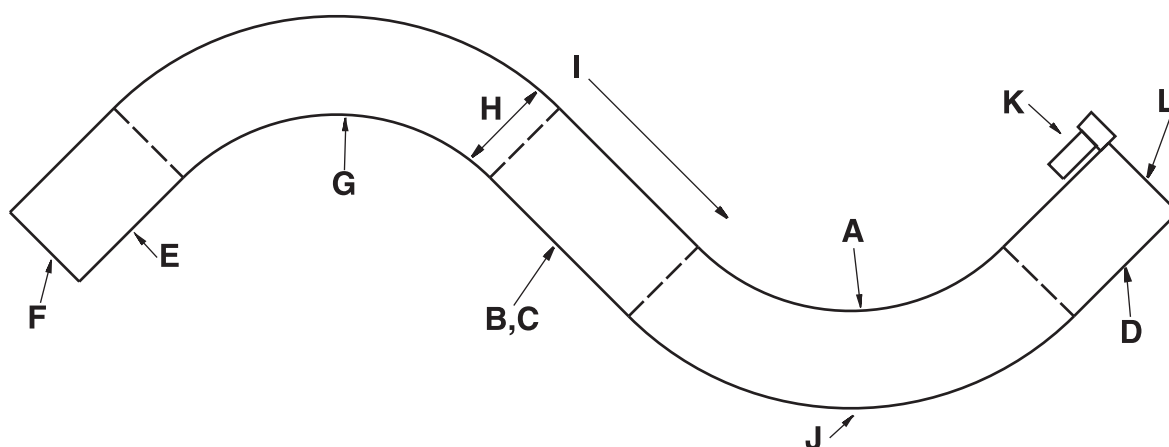


Fig. 2-2 TYPICAL 2-TURN RADIUS LAYOUT

Flush Grid Nose-Roller Tight Turning

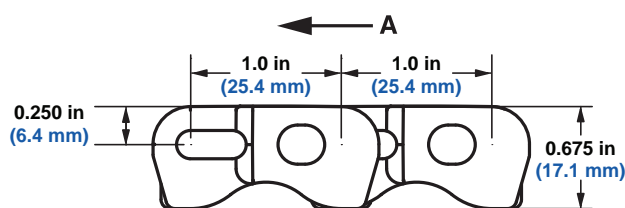
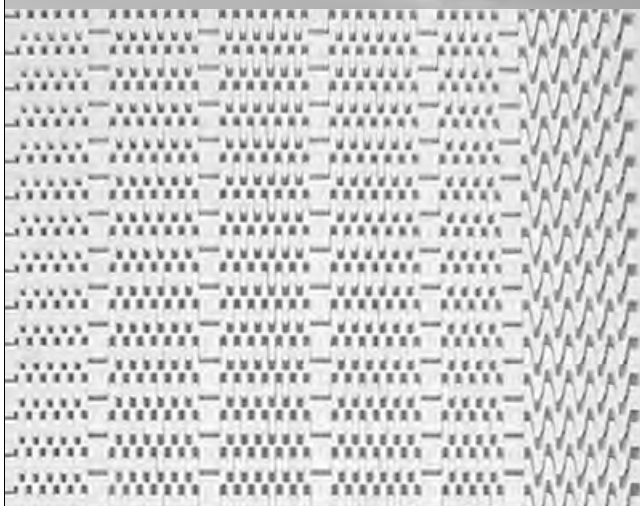
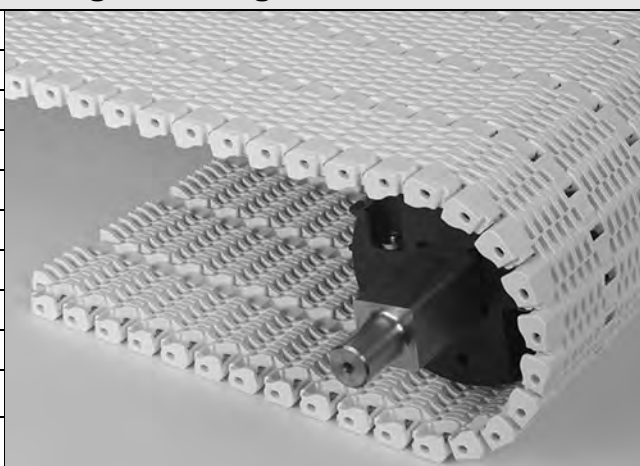
	in	mm
Pitch	1.0	25.4
Minimum Width	12.0	305
Maximum Width	30.0	762
Width Increments	3.0	76.2
Max Opening Size (Sphere)	0.245	6.2
Open Area (Fully Extended)	28%	
Hinge Style	Closed	
Drive Method	Center/Hinge	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for sideflexing applications with a minimum turn radius of 1.7 times belt width (measured from inside edge).
- Turn radius for belts 12.0 in-27.0 in (305 mm-685.8 mm) is 1.7 times belt width.
- Turn radius for belts 30.0 in (762 mm) is 1.75 times belt width.
- Minimizes floor space requirements.
- Available with tight turning modules built on one side. Belting can turn either clockwise or counterclockwise. Turning direction must be specified at order.
- Not available for "S" turn applications.
- Can execute 180-degree turns.
- Smooth upper surface provides free product movement.
- Underside design allows the belt to run smoothly around a 0.75 in (19.1 mm) nosebar.
- Sprockets have large lug teeth that enhance sprocket life.
- Minimum back tension required.
- Smaller opening size enhances belt safety.
- Uses headless rods.
- Sprocket placement is every 3.00 in (76.2 mm) from outer edge, except drive pocket nearest inner edge. Drive pocket nearest inner edge is 3.75 in (95.3 mm) from inner edge.

Additional Information

- See "Belt Selection Process" (page 5).
- See "Standard Belt Materials" (page 9).
- See "Special Application Belt Materials" (page 9).



A -Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.180 in (4.6 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft²	kg/m²
Acetal	Nylon	900	1339	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	2.40	11.72

Flush Grid Nose-Roller Tight Turning with Edge Bearing

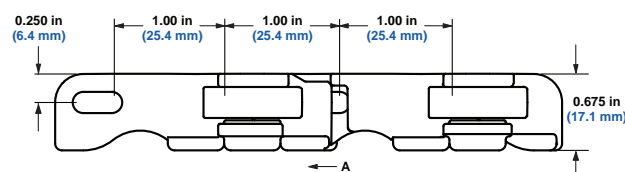
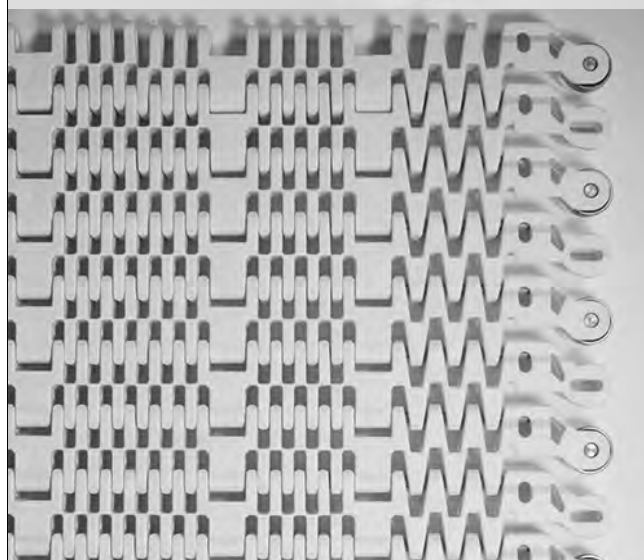
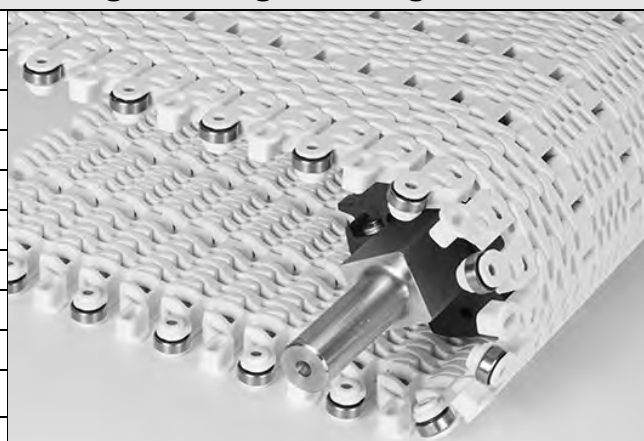
	in	mm
Pitch	1.00	25.4
Minimum Width	12.0	305
Maximum Width	30.0	762
Width Increments	3.0	76.2
Max Opening Size (Sphere)	0.245	6.2
Open Area	28%	
Hinge Style	Closed	
Drive Method	Center/Hinge	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for sideflexing applications with a minimum turn radius of 1.7 times belt width (measured from inside edge).
- Turn radius for belts 12.0 in-27.0 in (305 mm-685.8 mm) is 1.7 times belt width.
- Turn radius for belts 30.0 in (762 mm) is 1.75 times belt width.
- Not available for "S" turn applications.
- Edge bearings are available on one side of the belt. Belts can turn clockwise or counterclockwise. Turn direction must be specified when ordering.
- Bearings must be placed on the inside edge of the turn.
- Bearings must be configured in every other row of the belt.
- Bearings are stainless steel.
- Stainless steel pins retain bearings in the belt.
- Underside design allows the belt to run smoothly around a 0.75-in (19.1-mm) nosebar.
- See *Series 2300 Flush Grid Nose-Roller Tight Turning Design Guidelines* for details about nosebar placement.
- Use the Intralox Engineering Program to determine if the edge bearing is suitable for your application.
- Uses headless rods.
- Smaller opening size enhances belt safety.

Additional Information

- See "Belt Selection Process" (page 5).
- See "Standard Belt Materials" (page 9).
- See "Special Application Belt Materials" (page 9).



A - Preferred direction for flat turning applications

Belt Data

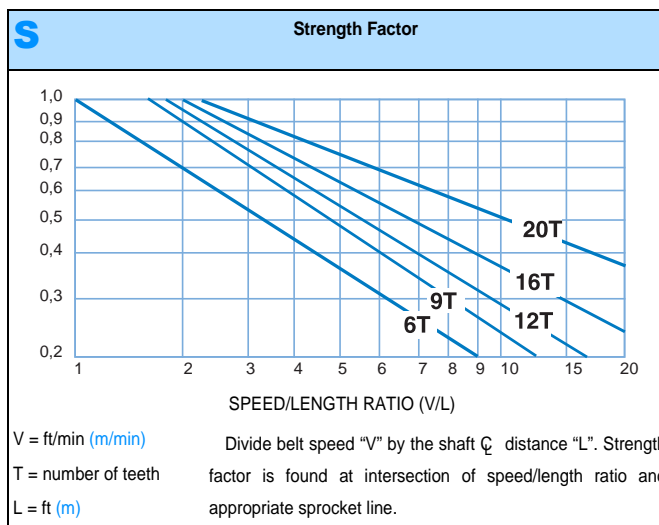
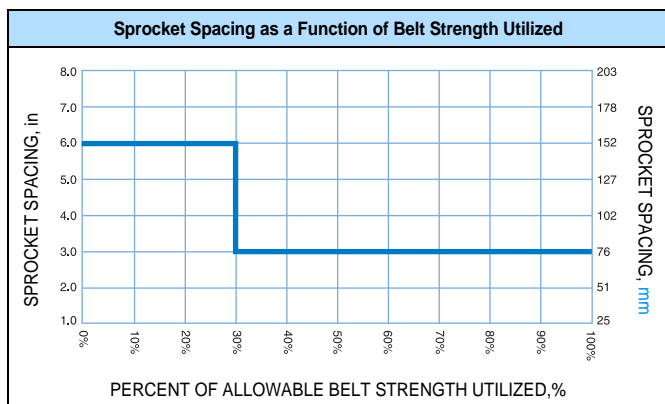
Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)	BS	Curved Belt Strength	Temperature Range (continuous)		W		
		Straight Belt Strength		°F	°C	Belt Weight		
		lb/ft	kg/m			lb/ft²	kg/m²	
Acetal	Nylon	900	1339	Contact Intralox Customer Service for curved belt strength calculations.	0 to 200	-17.8 to 93	2.40	11.72

Sprocket and Support Quantity Reference				
Belt Width Range		Minimum Number of Sprockets Per Shaft ^a	Wearstrips ^b	
in	mm		Carryway ^c	Returnway
12	305	2	3	2
15	381	3	3	3
18	457	3	3	3
21	533	4	4	3
24	610	4	4	3
27	686	5	5	4
30	762	5	5	4

- a. These are the minimum number of sprockets. Additional sprockets may be required for heavily loaded applications.
b. The number of wearstrips listed does not include hold down wearstrips.
c. Place wearstrips between drive sprockets. Refer to Carryway Wearstrip Location from Edge of Belt table for dimension values.

Carryway Wearstrip Location from Edge of Belt				
Wearstrip ^a	Distance from Edge		Belt Width	
	in	mm	in	mm
1	1.5	38	12-30	305-762
2	4.5	114	12-30	305-762
3	7.5	191	12-30	305-762
4	10.5	267	12-30	305-762
5	13.5	343	15-30	381-762
6	16.5	419	18-30	457-762
7	19.5	495	21-30	533-762
8	22.5	572	24-30	610-762
9	25.5	648	27-30	686-762
10	28.5	724	30	762

- a. 1.0 in (25.4 mm) minimum wearstrip width



Nylon Split Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
16 (1.92%)	5.1	130	5.2	132	1.9	38	1.25	1.5	40	40
18 (1.52%)	5.8	147	5.9	150	1.9	38	1.25 1-7/16	1.5	40	40
20 (1.52%)	6.4	163	6.5	165	1.9	38	1.25 1-7/16	1.5	40	40



a. Contact Customer Service for lead times.

Nylon Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
12 (3.41%)	3.9	99	3.9	99	1.0	25	1.25	1.5	25 30 40	40
16 (1.92%)	5.1	130	5.2	132	1.0	25	1.25	1.5	40	40
18 (1.52%)	5.8	147	5.9	150	1.0	25	1.25	1.5	40	40
20 (1.52%)	6.4	163	6.5	165	1.0	25	1.25	1.5	40	40



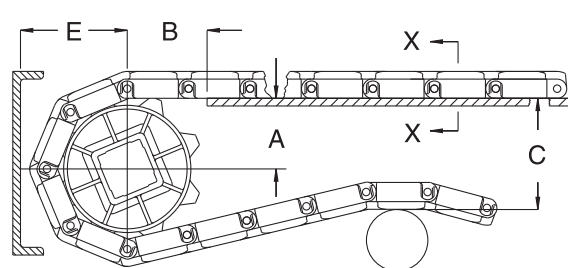
a. Contact Customer Service for lead times.

Conveyor Frame Dimensions

Regardless of type or configuration, all conveyors using Intralox belts have some basic dimensional requirements. Specifically, dimensions "A", "B", "C", and "E" listed below should be implemented in any design.

For general applications and applications where end transfer of tip-sensitive product is not critical, use the "A" dimension at the bottom of the range.

Conveyor frame dimensions are established using the top of the roller as the top of the belt and the bottom of the module as the bottom of the belt. "B" dimension is based on a 0.5 in (12.7 mm) thick carryway.



A - ±0.031 in (1 mm)

C - ± (Max)

B - ±0.125 in (3 mm)

E - ± (Min)

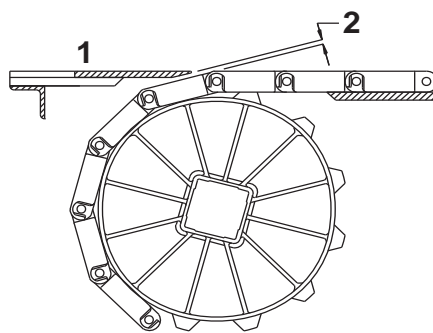
Complete descriptions of the dimensions are listed on page 385 of the 2015 Engineering Manual.

Sprocket Description			A		B		C		E	
Pitch Diameter		No. Teeth	Range (Bottom to Top)		in	mm	in	mm	in	mm
in	mm		in	mm						
3.9	99	12	1.44-1.51	37-38	1.92	49	3.69	94	2.24	57
5.1	130	16	2.09-2.14	53-54	2.27	58	4.95	126	2.88	73
5.8	147	18	2.41-2.45	61-62	2.46	62	5.58	142	3.19	81
6.4	163	20	2.73-2.77	69-70	2.57	65	6.22	158	3.51	89

Dead Plate Gap

Where there is a transfer point from a belt without finger transfer plates to a dead plate, there should be a gap between the surfaces to allow for the chordal action of the belt. As the belt engages its sprockets, chordal action causes the modules to move past a *fixed* point (the tip of the dead plate) with *varying* clearances. The table below shows the minimum amount of gap which occurs at the “low point” of the modules if the tip of the dead plate just comes in contact with the “high point” as the modules pass.

In some installations, it may be desirable to keep the tip of the dead plate in contact with the belt rather than allow a gap to occur. This can be done by hinging the mounting bracket for the dead plate. This allows the dead plate to move as the modules pass, but results in a small oscillating motion which may present tippage problems for sensitive containers or products.



1 - Top surface of dead plate

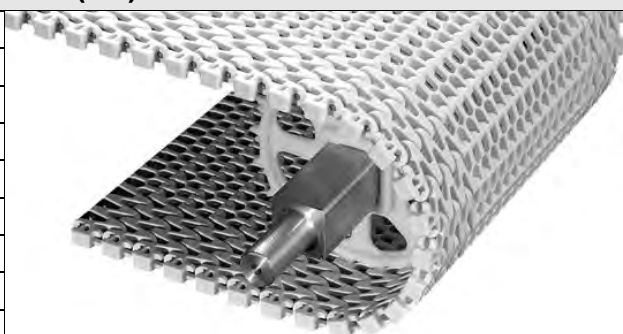
2 - Dead plate gap

Note: The top surface of the dead plate is typically 0.031 in (0.8 mm) above the belt surface for product transfer onto the belt, and 0.031 in (0.8 mm) below the belt surface for product transfer off the belt.

Sprocket Description			Gap	
Pitch Diameter		No. Teeth	in	mm
in	mm			
3.9	99	12	0.065	1.7
5.1	130	16	0.050	1.3
6.4	163	20	0.039	1.0

Radius Flush Grid (1.7)

	in	mm
Pitch	1.00	25.4
Minimum Width	7	178
Width Increments	0.50	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	

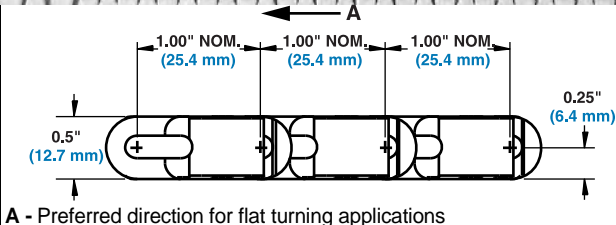
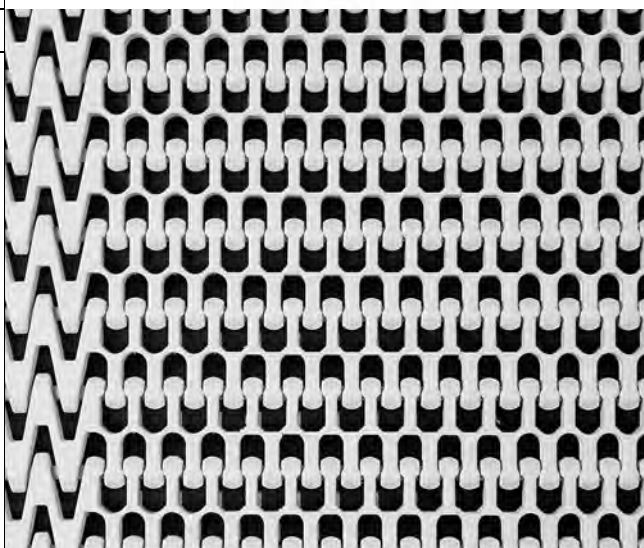


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for radius applications with a minimum turn radius of 1.7 times the belt width (measured from inside edge). Maximizes plant floor space.
- Uses headless rods.
- The Intralox Engineering Program will help predict the strength requirements of most radius applications, ensuring that the belt is strong enough for the application.
- Belt openings pass straight through belt, making it easy to clean.
- Sprocket drive system is designed to minimize wear and requires very low return side tension.
- Available with tight turning modules built into one side or both sides of the belt. Radius belt wearstrips are available.
- Looking in the direction of flat turning travel, the minimum sprocket indent from the right side belt edge with tight turning modules is 2.625 in (66.7 mm). Minimum sprocket indent from the left side belt edge with tight turning modules is 2.875 in (73 mm).
- Belts can be ordered with 1.7 modules on the inside and 2.2 modules on the outside for improved strength.
- Contact sales engineering before using a belt width greater than 18 in (457 mm) in spiral and flat turning applications.
- The minimum nosebar diameter is 1.375 in (34.9 mm).

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Friction Factors" (page 13)



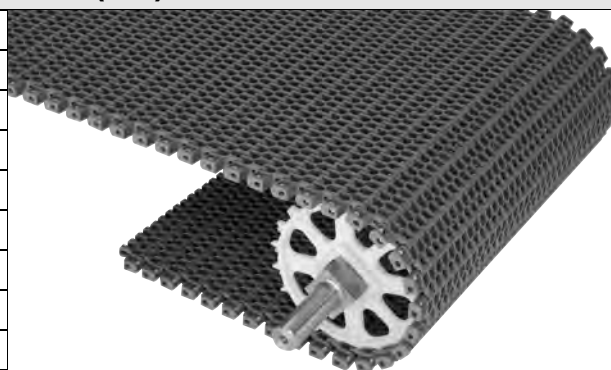
Belt Data

Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft²	kg/m²
Polypropylene	Acetal	600	892.8	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.20	5.86
Acetal	Nylon	600	892.8		-50 to 200	-46 to 93	1.73	8.44
Polypropylene	Polypropylene ^a	600	892.8		34 to 220	1 to 104	1.12	5.47

a. Polypropylene rods can be installed in polypropylene belts when extra chemical resistance is required. Please note lower belt strength.

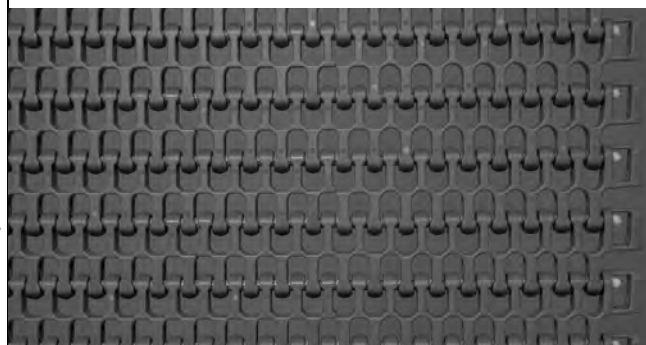
Radius Flush Grid (2.2)

	in	mm
Pitch	1.00	25.4
Minimum Width	4	102
Width Increments	0.50	12.7
Opening Size (approximate)	0.35 × 0.30	8.9 × 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



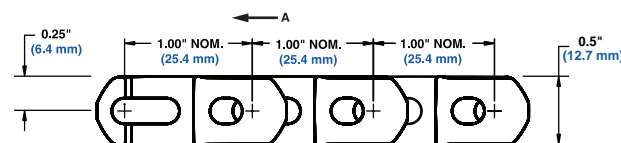
Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width (measured from inside edge).
- Uses headless rods.
- Available with hold down guide, see page 332 for details.
- The minimum nosebar diameter is 1.5 in (38.1 mm) with hold down guides and 1.375 in (34.9 mm) without hold down guides.
- The Intralox Engineering Program will help predict the strength requirements for radius applications, ensuring that the belt is strong enough for the application.
- Belt openings pass straight through belt, making it easy to clean.
- Sprocket drive system is designed to minimize wear and requires very low return side tension.
- Radius belt wearstrips are available.
- Contact Sales Engineering before using a belt width greater than 36 in (914 mm) in a flat turning or spiral applications.



Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



A -Preferred direction for flat turning applications

Belt Data

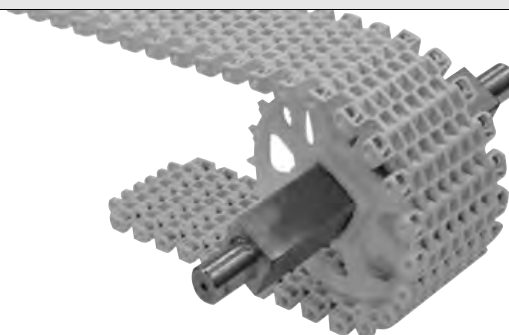
Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Polypropylene	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.10	5.40
Acetal	Nylon	1700	2528		-50 to 200	-46 to 93	1.59	7.76
Detectable Acetal	HR Nylon	1300	1935		-50 to 200	-46 to 93	1.70	8.30
Polypropylene	Polypropylene ^a	1000	1487		34 to 220	1 to 104	1.04	5.11
X-Ray Detectable Acetal ^b	X-Ray Detectable Acetal	1700	2528		-50 to 200	-46 to 93	1.85	9.03

a. Polypropylene rods can be installed in polypropylene belts when extra chemical resistance is required. Please note lower belt strength.

b. Designed specifically to be detected by x-ray machines.

Mold to Width Radius Flush Grid 2.2

	in	mm
Pitch	1.00	25.4
Molded Width	4	101.6
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Hinge Style	Open	
Drive Method	Hinge-driven	

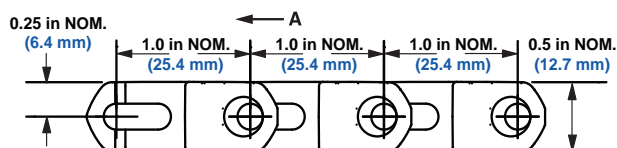


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Available with hold down guides, see page 332.
- The minimum nosebar diameter is 1.5 in (38.1 mm) with hold down guides and 1.375 in (34.9 mm) without hold down guides.
- The Intralox Engineering Program will help predict the strength requirements of most radius applications, ensuring that the belt is strong enough for the application.
- Belt openings pass straight through belt, making it easy to clean.
- Sprocket drive system is designed to minimize wear and requires very low return side tension.
- Radius belt wearstrips are available.
- Hold down guides cannot be used with 2 in and 2.9 in pitch diameter sprockets or 3.9 in pitch diameter square bore sprockets.
- Uses headed rods.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



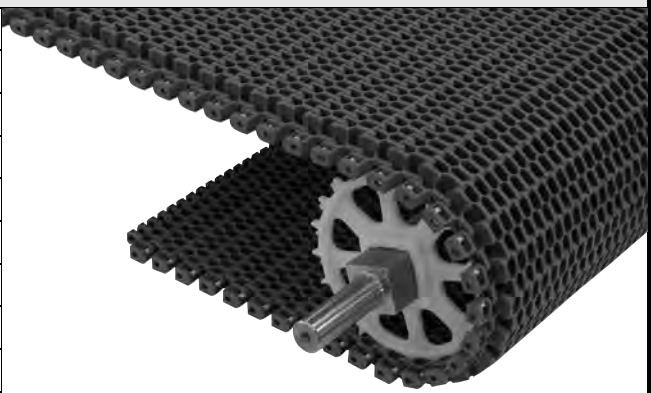
A -Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS	Straight Belt Strength	Curved Belt Strength	Temperature Range (continuous)		W	Belt Weight
					°F	°C		
Acetal	Nylon	560	254	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	0.56	0.83
Polypropylene	Acetal	400	181		34 to 200	1 to 93	0.39	0.57

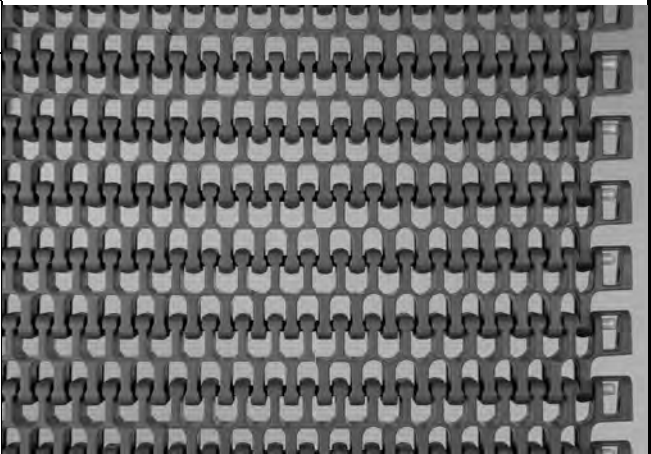
Radius Flush Grid High Deck

	in	mm
Pitch	1.00	25.4
Minimum Width	4	102
Width Increments	0.50	12.7
Opening Size (approximate)	0.35 × 0.30	8.9 × 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



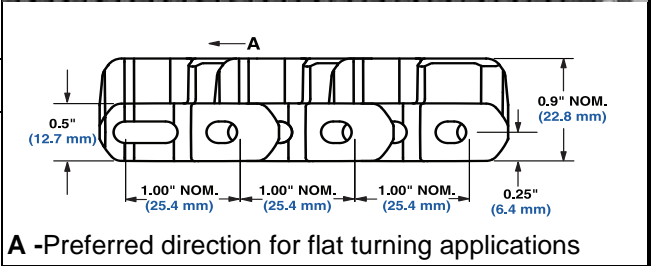
Product Notes

- Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.
- Flush Grid High Deck is 0.4 in (10 mm) higher than the standard Series 2400 belt.
- Uses headless rods.
- Makes turns with an inside radius of 2.2 times the belt width.
- Flush Grid High Deck has more beam strength than the standard Series 2400 belt, which can reduce retrofit costs in spirals.
- Works with standard Series 2400 wearstrips.
- Standard indent for Flush Grid High Deck is 0.875 in (22.2 mm).



Additional Information

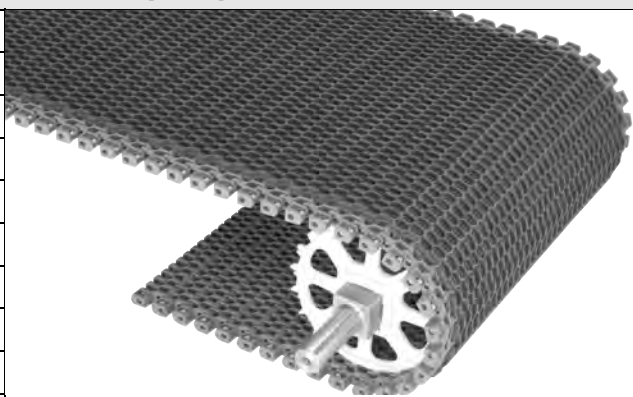
- See “Belt Selection Process” (page 5)
- See “Standard Belt Materials” (page 9)
- See “Special Application Belt Materials” (page 9)
- See “Friction Factors” (page 13)



Belt Data								
Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft²	kg/m²
Polypropylene	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.90	9.28
HR Nylon	Nylon	1700	2530		-50 to 240	-46 to 116	2.30	11.23
Acetal	Acetal	1700	2530		-50 to 200	-46 to 93	2.83	13.82

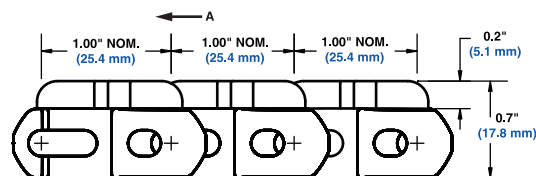
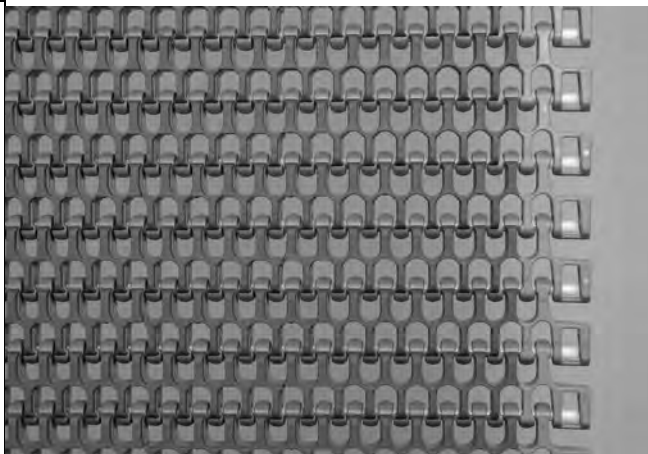
Radius Friction Top (2.2)

	in	mm
Pitch	1.00	25.4
Minimum Width	4	102
Width Increments	0.50	12.7
Opening Size (approximate)	0.35 × 0.30	8.9 × 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Available with hold down guide, see page 332 for details.
- Friction top available in grey PP with grey rubber and white PP with white rubber.
- The minimum nosebar diameter is 1.5 in (38.1 mm) with hold down guides and 1.375 in (34.9 mm) without hold down guides.
- Uses headless rods.
- Radius belt wearstrips are available.
- Contact Sales Engineering before using a belt width greater than 36 in (914 mm) in a flat turning or spiral applications.
- Indent for friction surface is molded at 1.125" (28.6mm).
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take these items into consideration when designing conveyor systems utilizing these belts.



A -Preferred direction for flat turning applications

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)

Belt Data

Base Belt Material	Base/Friction Color	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight		Friction Top Hardness	Agency Acceptability	
			lb/ft	kg/m		°F	°C	lb/ft²	kg/m²		FDA (USA)	EU MC ^b
Polypropylene	Grey/Grey	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 150	1 to 66	1.35	6.59	64 Shore A		
Polypropylene	White/White	Acetal	1200	1785		34 to 150	1 to 66	1.35	6.59	55 Shore A	a	c
Polypropylene	Grey/Grey	Polypropylene	1000	1487		34 to 150	1 to 66	1.29	6.30	64 Shore A		
Polypropylene	White/White	Polypropylene	1000	1487		34 to 150	1 to 66	1.29	6.30	55 Shore A	a	c
Polypropylene	High Performance FT Blue/Blue	Acetal	1200	1785		34 to 212	1 to 100	1.35	6.59	59 Shore A	a	c

- - Fully compliant

a - FDA Compliant with Restriction: Do not use in direct contact with fatty foods.

b - European Migration Certificate providing approval for food contact according to EU Regulation 10/2011.

c - EU compliant with Restriction: Do not use in direct contact with fatty foods.

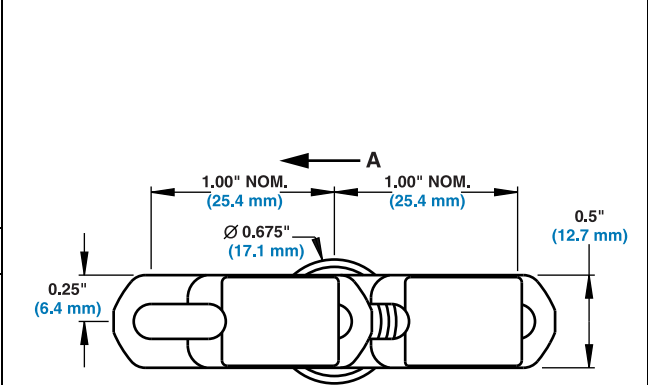
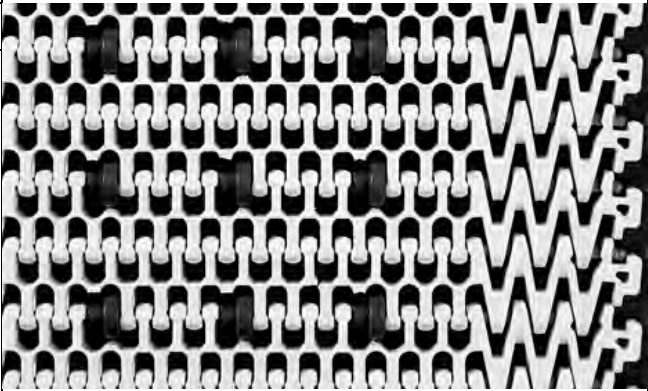
Radius Flush Grid (2.4) with Insert Rollers

	in	mm
Pitch	1.00	25.4
Minimum Width	9	229
Width Increments	1.00	25.4
Opening Size (approximate)	0.35 × 0.30	8.9 × 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



Product Notes

- Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.
- For radius applications requiring low back pressure accumulation with minimum radius of 2.4 times belt width (measured from inside edge).
- Acetal rollers
- Uses headless rods.
- Standard roller width spacings: 2 in (51 mm), 3 in (76 mm) or 4 in (102 mm).
- Standard roller row spacings: 2 in (51 mm) or 4 in (102 mm).
- Roller Indents: 3.5 in (89 mm) or 4 in (102 mm) based on roller width spacing selected.
- Sprockets must NOT be placed in line with rollers.
- For low back pressure applications, place wearstrip between rollers. For driven applications, place wearstrip directly under rollers.
- Contact Sales Engineering before using a belt width greater than 24 in (610 mm) in a flat turning or spiral applications.
- Belts 12 in (305 mm) wide and less have a turn ratio of 1.7.



A -Preferred direction for flat turning applications

Additional Information

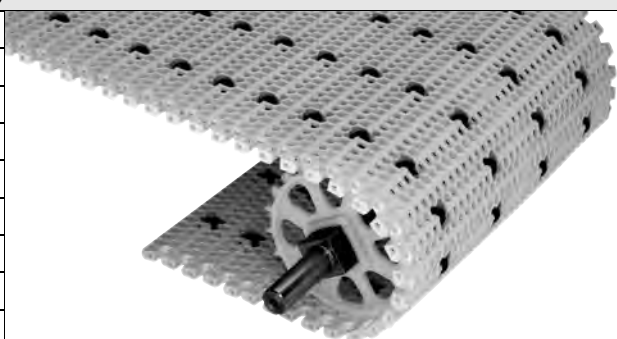
- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)

Belt Data

Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Straight Belt Strength		Roller Indents		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m	in	mm		°F	°C	lb/ft²	kg/m²
Polypropylene	Acetal	500	744	3.5 or 4.0	89 or 102	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.20	5.86
Acetal	Nylon	500	744	3.5 or 4.0	89 or 102		-50 to 200	-46 to 93	1.73	8.44
Polypropylene	Polypropylene	500	744	3.5 or 4.0	89 or 102		34 to 220	1 to 104	1.12	5.47

Radius Flush Grid (2.8) with Insert Rollers

	in	mm
Pitch	1.00	25.4
Minimum Width	6	152
Width Increments	1.00	25.4
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	

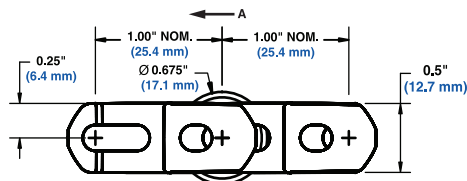
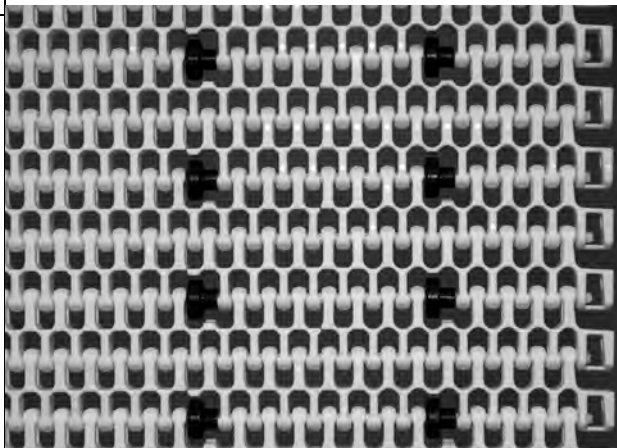


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- This belt uses the Series 2400 2.2 turn radius flush grid as its base.
- Uses headless rods.
- Due to roller placement, the turn radius increases to 2.8.
- For radius applications requiring low back pressure accumulation with minimum radius of 2.8 times belt width (measured from inside edge).
- Standard roller width spacings: 2 in (51 mm), 3 in (76 mm) or 4 in (102 mm).
- Standard roller row spacings: 2 in (51 mm) or 4 in (102 mm).
- Roller indents: 2 in (51 mm), 2.5 in (63 mm), 3 in (76 mm) or 3.5 in (89 mm) based on roller width spacing selected.
- Minimum width with hold down guides is 8 in (203 mm).
- Minimum roller indent with hold down guides is 3 in (76 mm).
- Sprockets must NOT be placed in line with rollers.
- For low back pressure applications, place wearstrip between rollers. For driven applications, place wearstrip directly under rollers.
- Contact Sales Engineering before using a belt width greater than 24 in (610 mm) in a flat turning or spiral applications.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



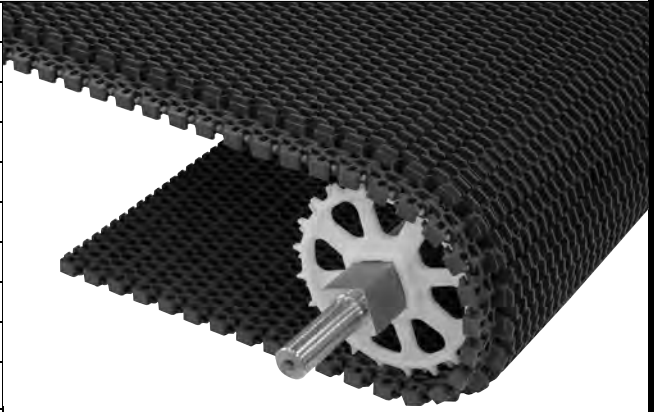
A - Preferred direction for flat turning applications

Belt Data

Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	<div>BS</div> <div>Straight Belt Strength</div> <div>Roller Width Spacing</div>						Roller Indents		Curved Belt Strength	Temperature Range (continuous)		<div>W</div> <div>Belt Weight</div>									
		2 in	51 mm	3 in	76 mm	4 in	102 mm						lb/ft	kg/m	lb/ft	kg/m	in	mm	°F	°C	lb/ft²	kg/m²
		lb/ft	kg/m	lb/ft	kg/m	lb/ft	kg/m						in	mm	°F	°C	lb/ft²	kg/m²				
Polypropylene	Acetal	700	1040	800	1190	900	1340	2	51	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.21	1.21								
								2.5 to 3.5	64 to 89													
Acetal	Nylon	1000	1490	1200	1780	1300	1940	2	51						-50 to 200	-46 to 93	1.61	7.68				
								2.5 to 3.5	64 to 89													
Polypropylene	Polypropylene	600	890	700	1040	800	1190	2	51										34 to 220	1 to 104	1.04	5.11
								2.5 to 3.5	64 to 89													

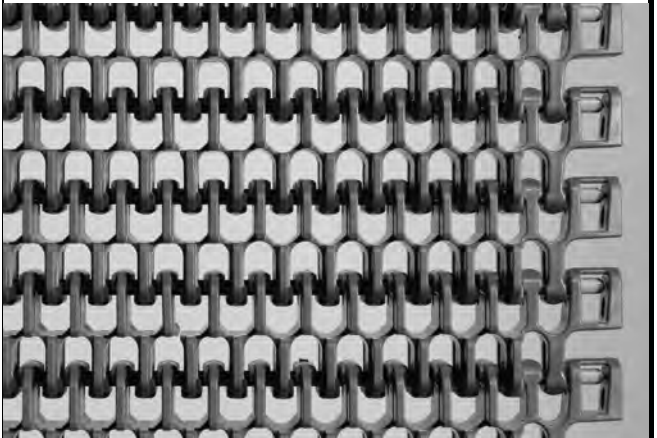
Radius Raised Rib

	in	mm
Pitch	1.00	25.4
Minimum Width	4	102
Width Increments	0.50	12.7
Opening Size (approximate)	0.35 × 0.30	8.9 × 7.6
Open Area	42%	
Product Contact Area	18%	
Hinge Style	Open	
Drive Method	Hinge-driven	



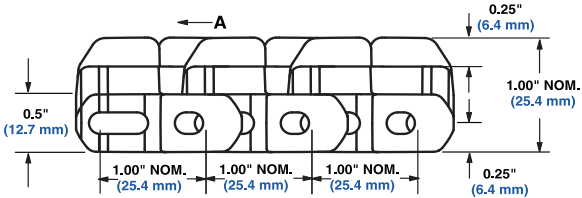
Product Notes

- Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.
- Raised Rib belt deck is 0.5 in (12.7 mm) higher than the standard Series 2400 belt.
- Uses headless rods.
- Makes turns with an inside turn radius of 2.2 times the belt width.
- Facilitates smooth transfers of small packages with the addition of transfer plates.
- Raised Rib style permits ample airflow through the belt for cooling in food processing applications.
- Raised Rib deck has more beam strength than the standard Series 2400 belt, which can reduce retrofit costs in spirals.
- Works with standard Series 2400 wearstrips.
- Standard indent for Raised Rib belt deck is 1.12 in (28.6 mm).



Additional Information

- See “Belt Selection Process” (page 5)
- See “Standard Belt Materials” (page 9)
- See “Special Application Belt Materials” (page 9)
- See “Friction Factors” (page 13)



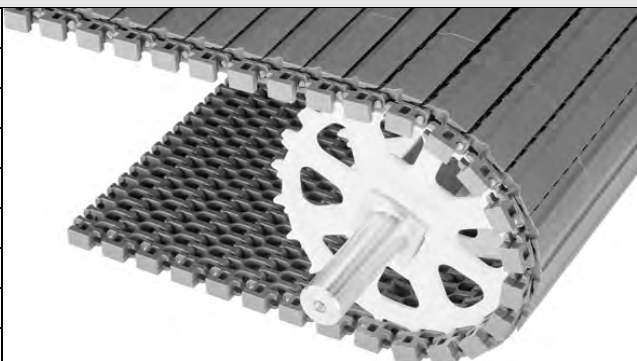
A -Preferred direction for flat turning applications

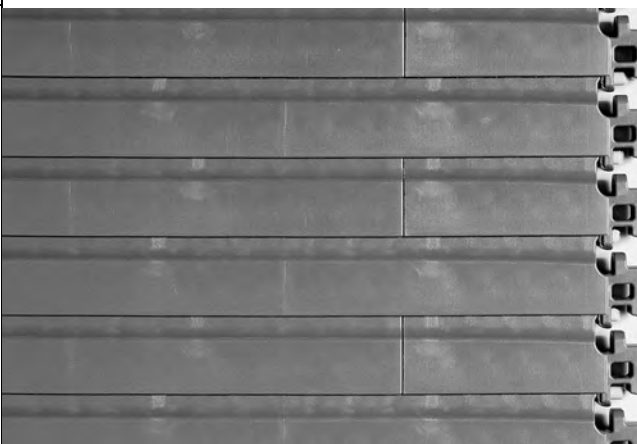
Belt Data

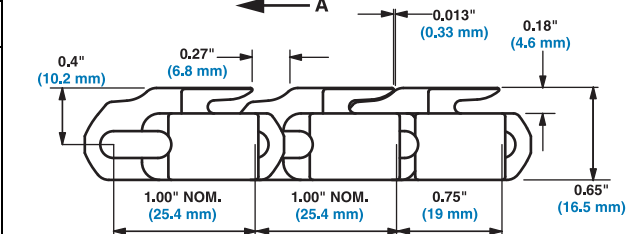
Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Polypropylene	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.98	9.68
Acetal	Nylon	1700	2528		-50 to 200	-46 to 93	3.00	14.67
Polypropylene	Polypropylene ^a	1000	1487		34 to 220	1 to 104	1.92	9.39
HR Nylon	Nylon	1700	2530		-50 to 240	-46 to 116	2.5	12.25

a. Polypropylene rods can be installed in polypropylene belts when extra chemical resistance is required. Please note lower belt strength.

Radius Flat Top		
	in	mm
Pitch	1.00	25.4
Minimum Width	6	152
Width Increments	0.50	12.7
Open Area	0%	
Product Contact Area	66%	
Hinge Style	Open	
Drive Method	Hinge-driven	
Product Notes		
<ul style="list-style-type: none">• Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.• The minimum nosebar diameter is 1.375 in (34.9 mm).• Sprocket drive system is designed to minimize wear and requires very low returnside tension.• Radius belt wearstrips are available.• Uses headless rods.• Contact Sales Engineering before using a belt width greater than 36 in (914 mm).• Patented belt design provides more support for sensitive products in a flat turning application.• Flat, closed surface successfully conveys small products that would fall through belts with open area.• Makes turns with an inside turn radius of 2.2 times the belt width.		
Additional Information		
<ul style="list-style-type: none">• See “Belt Selection Process” (page 5)• See “Standard Belt Materials” (page 9)• See “Special Application Belt Materials” (page 9)• See “Friction Factors” (page 13)		





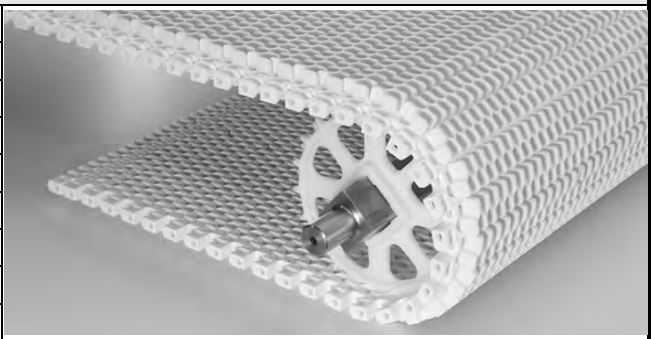


A -Preferred direction for flat turning applications

Belt Data								
Belt Material	Standard Rod Material Ø 0.18 in (4.57 mm)	<div>BS</div> <div>Straight Belt Strength</div>		Curved Belt Strength	<div>Temperature Range (continuous)</div>		<div>W</div> <div>Belt Weight</div>	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Acetal	Nylon	1700	2528	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	2.24	11.00

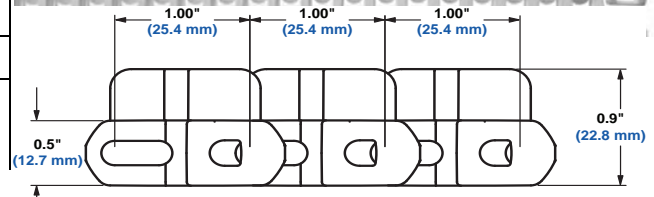
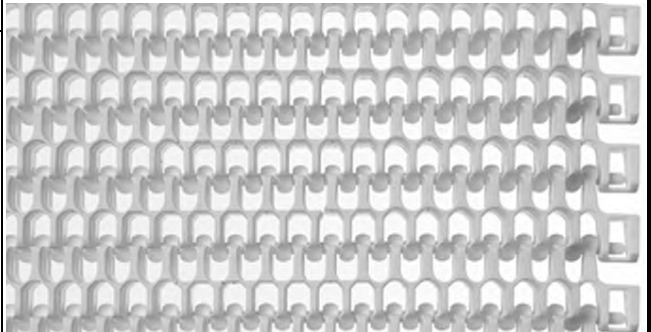
0.4" High Radius Friction Top

	in	mm
Pitch	1.00	25.4
Minimum Width	4	102
Width Increments	0.5	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Uses headless rods.
- Makes turns with an inside turn radius of 2.2 times the belt width.
- The minimum nosebar diameter is 1.375 in (34.9 mm).
- Indent for friction surface is molded at 0.95 in (24.1 mm).
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take these items into considerations when designing conveyor systems utilizing these belts.



Additional Information

- See "Belt Selection Process" (page 5).
- See "Standard Belt Materials" (page 9).
- See "Special Application Belt Materials" (page 9).

Belt Data

Base Belt Material	Base/Friction Color	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight		Friction Top Hardness	Agency Acceptability	
			lb/ft	kg/m		°F	°C	lb/ft²	kg/m²		FDA (USA)	EU MC ^b
Polypropylene	White/White	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 150	1 to 66	1.77	8.65	55 Shore A	a	c
Polypropylene	White/White	Polypropylene	1000	1488		34 to 150	1 to 66	1.69	8.25	55 Shore A	a	c
Polypropylene	High Performance FT Blue/Blue	Polypropylene	1200	1785		34 to 212	1 to 100	1.77	8.65	59 Shore A	a	c

- - Fully compliant

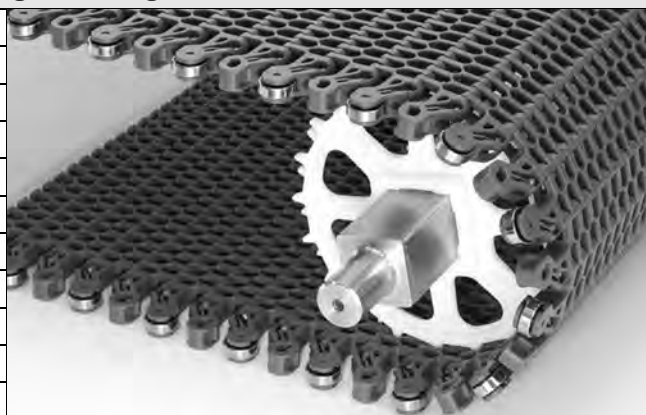
a - FDA Compliant with Restriction: Do not use in direct contact with fatty foods.

b - European Migration Certificate providing approval for food contact according to EU Regulation 10/2011.

c - EU compliant with Restriction: Do not use in direct contact with fatty foods.

Radius with Edge Bearing

	in	mm
Pitch	1.00	25.4
Minimum Width (Bearings One Side)	7.5	191
Minimum Width (Bearings Both Sides)	10.5	267
Maximum Width	36	914
Width Increments	0.5	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	

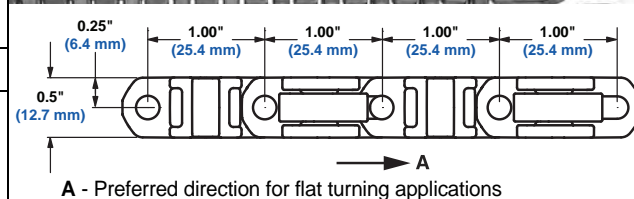
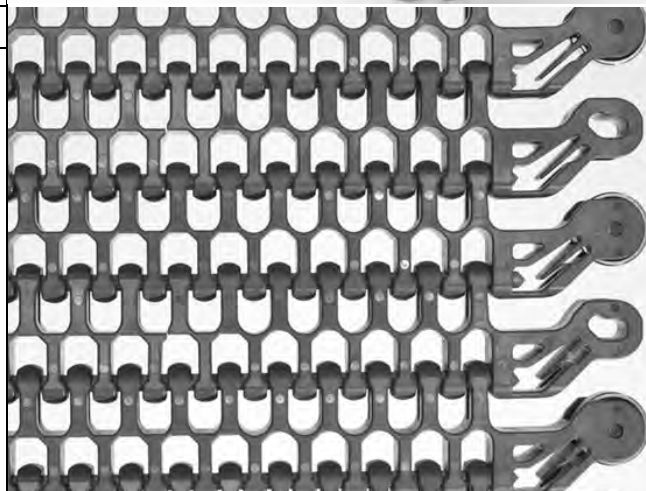


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Edge bearings are only available for turning belts.
- Bearings must be placed on the inside edge of the turn.
- Bearings are available on one side (for belts that turn in only one direction) or on both sides (for belts that turn in both directions).
- Both flush edge and hold down guide edge are available for belts that have bearings on only one side and must be placed on the outside edge of the turn.
- Bearings must be configured in every other row of the belt.
- Bearings are stainless steel.
- Bearings are retained in the belt using a plastic pin.
- Rod retention allows for easier insertion and removal of rods.
- Uses headless rods.
- Designed for radius applications with a turn radius of 2.2 times the belt width.
- The Intralox Engineering Program should be used to determine if the Edge Bearing is suitable for your application.

Additional Information

- See "Belt Selection Process" (page 5).
- See "Standard Belt Materials" (page 9).
- See "Special Application Belt Materials" (page 9).

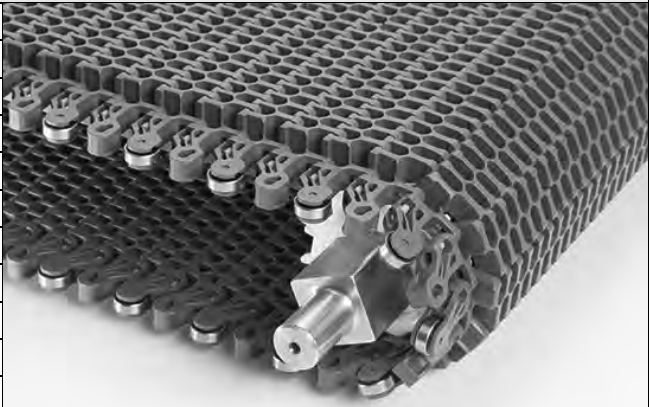


Belt Data

Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight	
					°F	°C		
Acetal	Nylon	1700	2530	Contact Intralox Customer Service for curved belt strength calculations.	0 to 200	-18 to 93	1.59	7.76

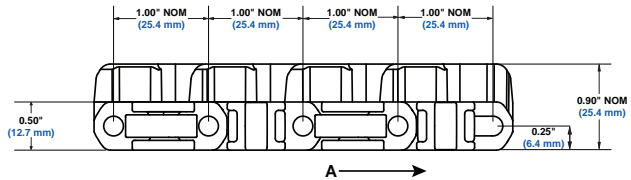
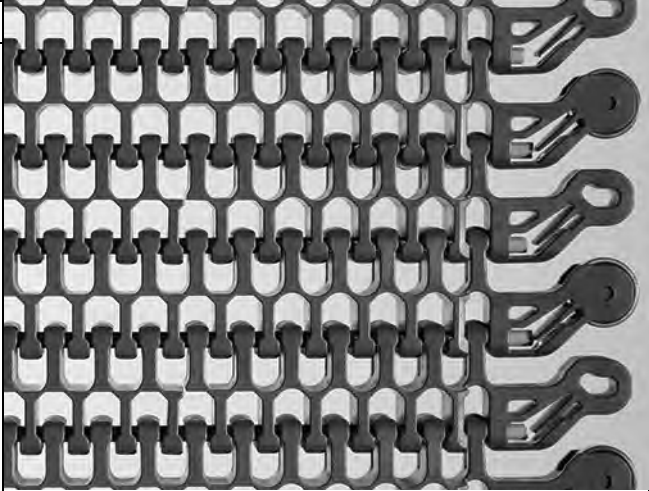
Flush Grid High Deck with Edge Bearing

	in	mm
Pitch	1.00	25.4
Minimum Width (Bearings One Side)	7.5	191
Minimum Width (Bearings Both Sides)	10.5	267
Maximum Width	36	914
Width Increments	0.5	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	



Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Flush Grid High Deck with Edge Bearing is 0.4 in (10 mm) higher than standard S2400 belt.
- Standard indent is 1.88 in (47.75 mm).
- Edge bearings are only available for turning belts.
- Bearings must be placed on the inside edge of the turn.
- Bearings are available on one side (for belts that turn in only one direction) or on both sides (for belts that turn in both directions).
- Bearings must be configured in every other row of the belt.
- Bearings are stainless steel and are recommended for dry applications only.
- Plastic pins retain bearings in the belt.
- Rod retention allows for easier insertion and removal of rods.
- Uses headless rods.
- Designed for radius applications with a turn radius of 2.2 times the belt width.
- Flush Grid High Deck with Edge Bearing has more beam strength than the standard S2400 belt, which can reduce retrofit costs in radius applications.
- Use the Intralox Engineering Program to determine if the Edge Bearing is suitable for your application.



A - Preferred direction for flat turning applications

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Friction Factors" (page 13)

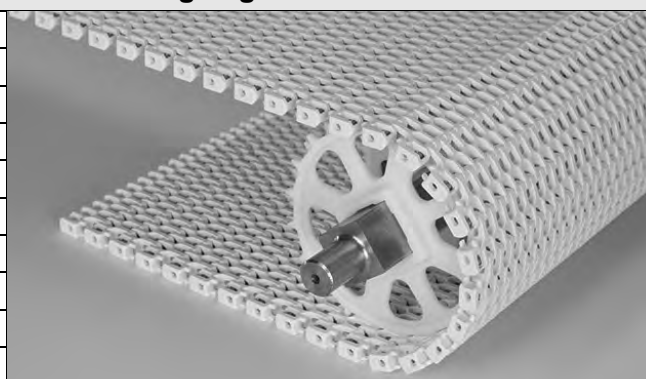
Belt Data

Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous) ^a		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Acetal	Nylon	1700	2530	Contact Intralox Customer Service for curved belt strength calculations.	0 to 200	-18 to 93	2.83	13.82

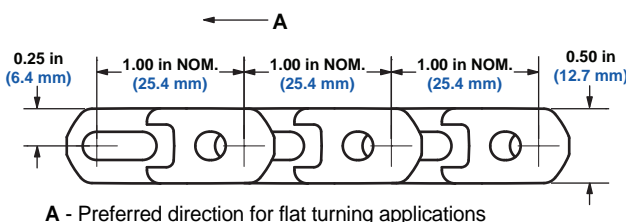
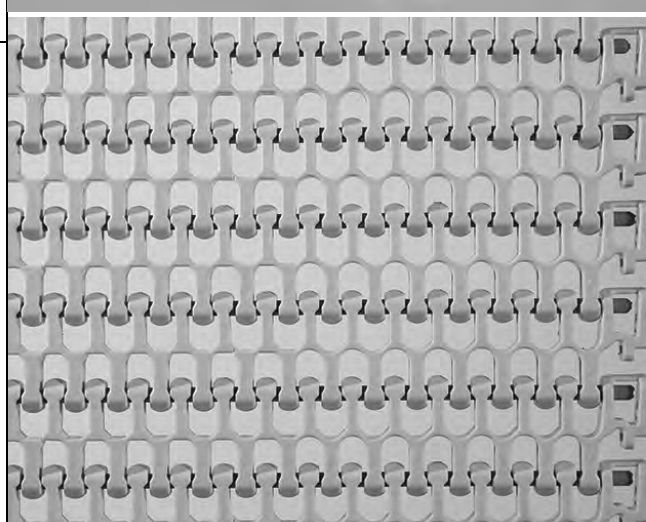
a. Sideflexing applications should not exceed 180°F (82°C).

Radius Flush Grid with Load-Sharing Edge

	in	mm
Pitch	1.00	25.4
Minimum Width	10.5	266.7
Maximum Width	36	914
Width Increments	0.5	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	


Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Uses headless rods.
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width.
- Available with hold down guides.
- The minimum nosebar diameter is 1.5 in (38 mm) with hold down guides and 1.375 in (34.9 mm) without hold down guides.
- The Intralox Engineering Program will help predict the strength requirement of ost radius and low-tension capstan drive spiral applications, ensuring that belt is strong enough for the application.
- Belt openings pass straight through belt, making it easy to clean.
- Sprocket drive system is designed to minimize wear and requires ver low return side tension.
- Radius belt wearstrips are available.
- Load-Sharing™ belt edge improves how the load is shared and minimizesfatigue failure in various areas of the belt.
- Flush edge design features an extension to reduce the opening size.
- Designed for radius applications with a turn radius of 2.2 times the belt width.
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take the items into consideration when designing conveyor systems utilizing these belts.


Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Friction Factors" (page 13)

Belt Data

Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous) ^a		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Polypropylene	Acetal	1200	1790	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.10	5.37
Acetal	Nylon	1700	2530		-50 to 200	-46 to 93	1.59	7.76
Polypropylene	Polypropylene	1000	1490		34 to 200	1 to 104	1.04	5.10

a. Sideflexing applications should not exceed 180°F (82°C).

Flush Grid High Deck with Load-Sharing Edge

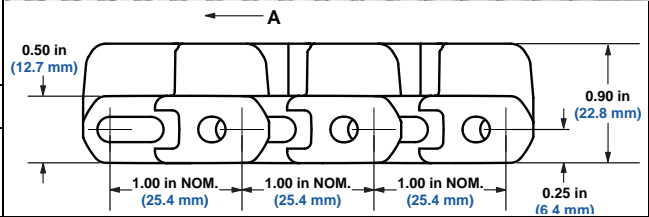
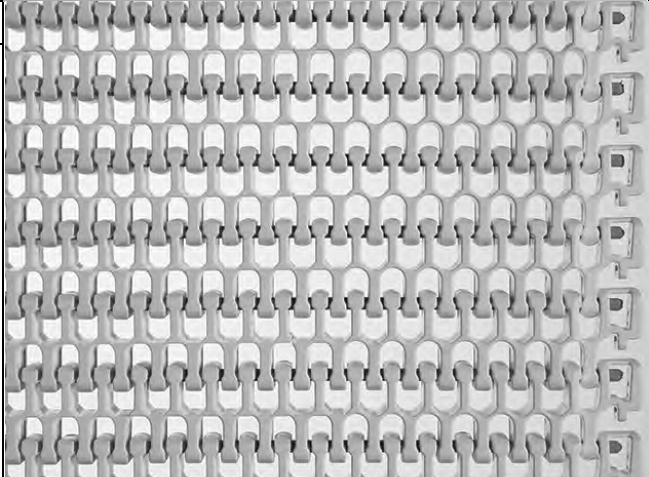
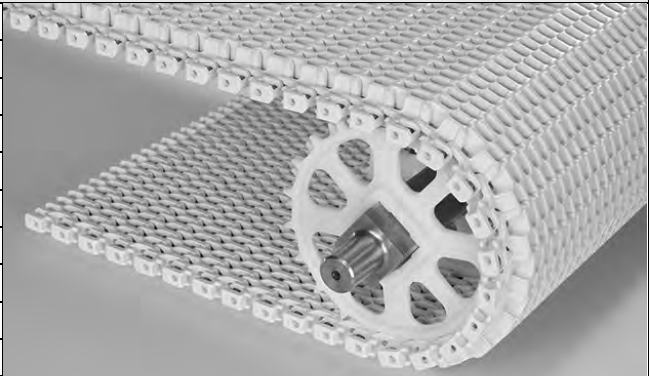
	in	mm
Pitch	1.00	25.4
Minimum Width	10.5	266.7
Maximum Width	36	914
Width Increments	0.5	12.7
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	

Product Notes

- Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.
- Uses headless rods.
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width.
- Flush Grid High Deck with Load Sharing Edge is 0.4 in (10 mm) higher than the standard S2400 belt.
- The Intralox Engineering Program will help predict the strength requirement of most radius and low-tension capstan drive spiral applications, ensuring that belt is strong enough for the application.
- Belt openings pass straight through belt, making it easy to clean.
- Sprocket-driven system is designed to minimize wear and requires very low return side tension.
- Works with standard Series 2400 wearstrip.
- Load-Sharing™ belt edge improves how the load is shared and minimizes fatigue failure in various areas of the belt.
- Flush edge design features an extension to reduce the opening size.
- Standard indent for Flush Grid High Deck with Load Sharing Edge is 0.875 in (22.2 mm).

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Friction Factors" (page 13)



Belt Data

Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)	BS Straight Belt Strength		Curved Belt Strength	Temperature Range (continuous) ^a		W Belt Weight	
		lb/ft	kg/m		°F	°C	lb/ft ²	kg/m ²
Polypropylene	Acetal	1200	1785	Contact Intralox Customer Service for curved belt strength calculations.	34 to 200	1 to 93	1.90	9.28
Acetal	Nylon	1700	2530		-50 to 200	-46 to 93	2.83	13.82
Polypropylene	Polypropylene	1000	1487		34 to 200	1 to 104	1.84	8.99

a. Sideflexing applications should not exceed 180°F (82°C).

Radius Flush Grid Friction Top 2.2 with Load-Sharing Edge

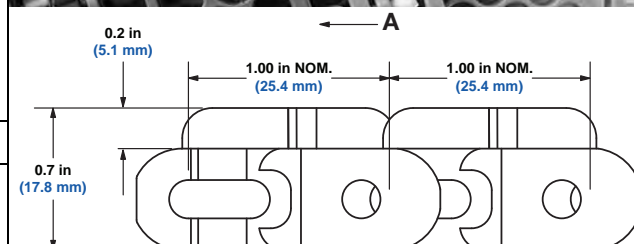
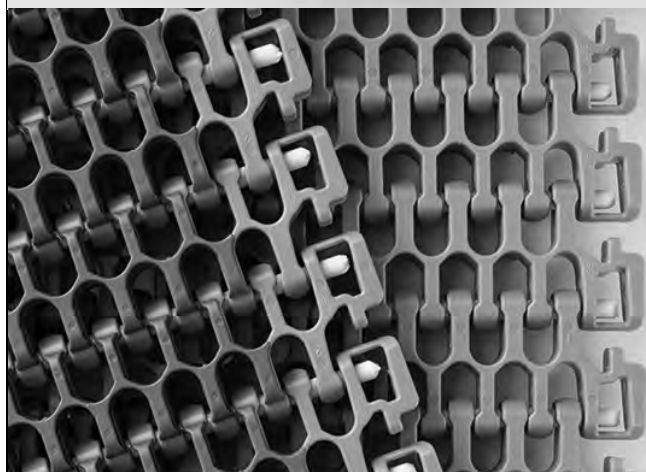
	in	mm
Pitch	1.00	25.4
Minimum Width	10.5	266.7
Maximum Width	36.0	914.0
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Product Contact Area	23%	
Hinge Style	Open	
Drive Method	Hinge-driven	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- This belt uses headless rods.
- Flush edge design features an extension to reduce the opening size.
- Load-Sharing™ belt edge improves how the load is shared and minimizes fatigue failure in various areas of the belt.
- Friction top available in grey PP with grey rubber and white PP with white rubber.
- Belt openings pass straight through belt, making it easy to clean.
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take the items into consideration when designing conveyor systems utilizing these belts.
- The Intralox Engineering Program will help predict the strength requirement of most radius applications, ensuring that belt is strong enough for the application.
- Sprocket drive system is designed to minimize wear and requires very low return side tension.
- Available with hold down guides.
- Radius belt wearstrips are available.
- Indent for friction surface is molded at 1.125 in (28.6 mm).
- Designed for radius applications with a minimum turn radius of 2.2 times the belt width.
- The minimum nosebar diameter is 1.5 in (38 mm) with hold down guides and 1.375 in (34.9 mm) without hold down guides.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Friction Factors" (page 13)


Belt Data

Base Belt Material	Base/Friction Color	Standard Rod Material Ø 0.18 in (4.57 mm)	BS Belt Strength		Curved Belt Strength	Temperature Range (continuous)		W Belt Weight		Friction Top Hardness	Agency Acceptability	
			lb/ft	kg/m		°F	°C	lb/ft²	kg/m²		FDA (USA)	EU MC ^b
Polypropylene	Grey/Grey	Acetal	1200	1790	Contact Intralox Customer Service for curved belt strengths.	34 to 150	1 to 66	1.35	6.59	64 Shore A		
Polypropylene	White/White	Acetal	1200	1790		34 to 150	1 to 66	1.35	6.59	55 Shore A	a	c
Polypropylene	Grey/Grey	Polypropylene	1000	1490		34 to 150	1 to 66	1.29	6.30	64 Shore A		
Polypropylene	White/White	Polypropylene	1000	1490		34 to 150	1 to 66	1.29	6.30	55 Shore A	a	c

a - FDA Compliant with Restriction: Do not use in direct contact with fatty foods.

b - European Migration Certificate providing approval for food contact according to EU Regulation 10/2011.

c - EU compliant with Restriction: Do not use in direct contact with fatty foods.

Mold to Width Radius Flush Grid Friction Top 2.2 with Load-Sharing Edge

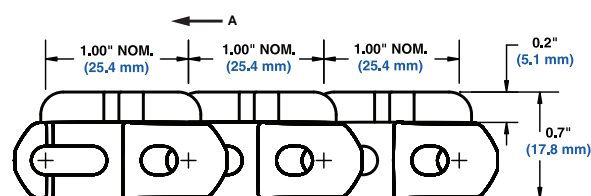
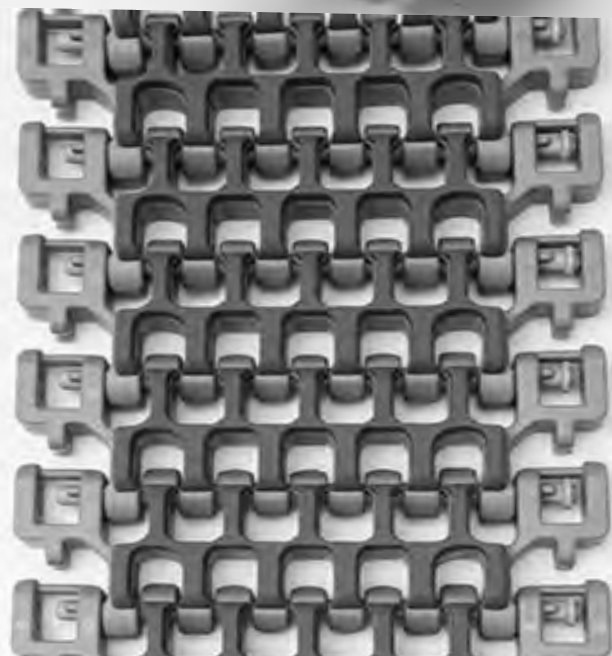
	in	mm
Pitch	1.00	25.4
Minimum Width	4.0	101.6
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Hinge Style	Open	
Drive Method	Hinge-driven	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Available in 4-in (101.6-mm), 6-in (152.4-mm), 8-in (203.2-mm), and 10-in (254-mm) widths.
- Available with hold down guides. See page 332 of the 2018 Engineering Manual for details.
- Friction Top available in grey PP with grey rubber and white PP with white rubber.
- Indent for friction surface on 4-in (101.6-mm) and 6-in (152.4-mm) widths is molded at 0.70 in (17.78 mm).
- Indent for friction surface on 8-in (203.2-mm) and 10-in (254-mm) widths is molded at 0.95 in (24.1 mm).
- Maximum number of sprockets for 4-in (101.6-mm) belts without hold down guides is two. Maximum number of sprockets for 4-in (101.6-mm) belts with hold down guides is one.
- Maximum number of sprockets for 6-in (152.4-mm) belts without hold down guides is four. Maximum number of sprockets for 6-in (152.4-mm) belts with hold down guides is three.
- Maximum number of sprockets for 8-in (203.2-mm) belts with and without hold down guides is five.
- Maximum number of sprockets for 10-in (254-mm) belts with and without hold down guides is seven.
- The smallest pitch diameter sprocket that can be used with hold down guides is 5.1 in (130 mm).
- Designed for sideflexing applications with a standard turn ratio of 2.2 times the belt width.
- The minimum nosebar diameter for belts without hold down guides is 1.375 in (34.9 mm). The minimum nosebar diameter for belts with hold down guides is 1.50 in (38.1 mm).
- Load-Sharing™ belt edge improves how the load is shared and minimizes fatigue failure in various areas of the belt.
- Radius belt wearstrips are available.
- Uses headed rods.
- Flush edge design features an extension to reduce the opening size.
- The Intralox Engineering Program helps predict the strength requirement of most radius applications, ensuring that the belt is strong enough for the application.
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Consider these factors when designing conveyor systems utilizing these belts.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)



A - Preferred direction for flat turning applications

Belt Data

Base Belt Material	Standard Rod Material Ø0.18 in (4.6 mm)		BS Straight Belt Strength lb (kg)				Curved Belt Strength	Temperature Range (continuous)		W Belt Weight lb/ft (kg/m)			
			4.0 (101.6)	6.0 (152.4)	8.0 (203.2)	10.0 (254)		F°	C°	4.0 (101.6)	6.0 (152.4)	8.0 (203.2)	10.0 (254)
Polypropylene	Nylon	without hold down guides	400 (181)	600 (272)	800 (363)	1000 (454)	Contact Intralox Customer Service for curved belt strength calculations.	34 to 150	1 to 66	0.39 (0.58)	0.60 (0.89)	0.82 (1.22)	1.01 (1.50)
		with hold down guides	242 (110)	600 (272)	800 (363)	1000 (454)		34 to 150	1 to 66	0.43 (0.64)	0.65 (0.978)	0.86 (1.28)	1.06 (1.58)

Mold to Width Radius Flush Grid 2.2 with Load-Sharing Edge

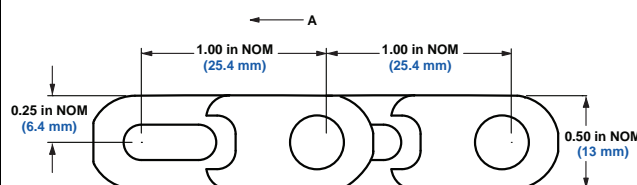
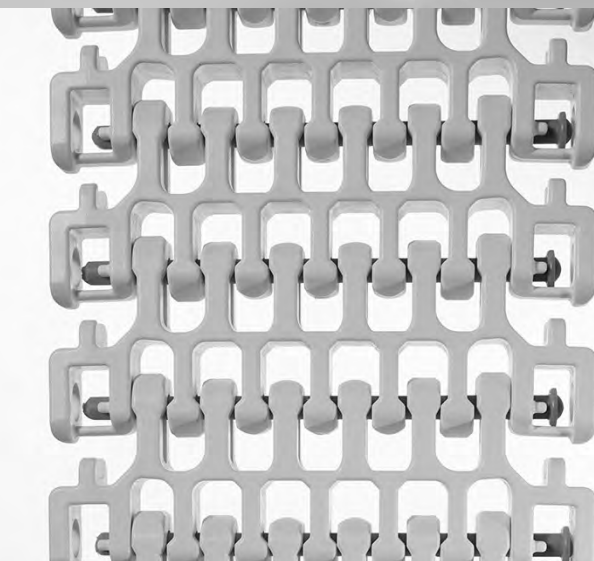
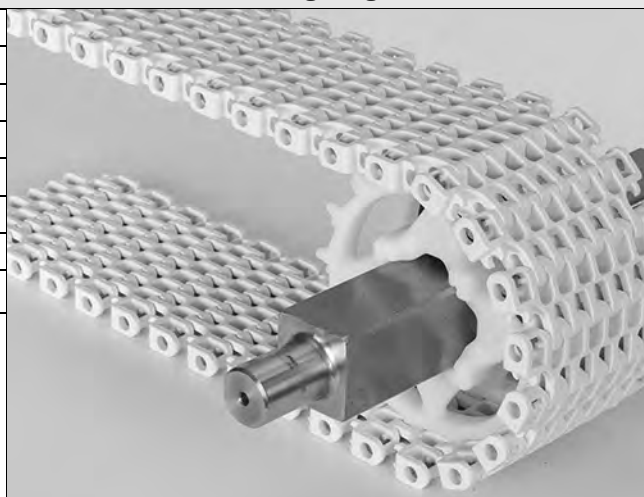
	in	mm
Pitch	1.00	25.4
Minimum Width	4.0	101.6
Opening Size (approximate)	0.35 x 0.30	8.9 x 7.6
Open Area	42%	
Hinge Style	Open	
Drive Method	Hinge-driven	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Available in 4-in (101.6-mm), 6-in (152.4-mm), 8-in (203.2-mm), and 10-in (254-mm) widths.
- Available with hold down guides. See page 331 of the 2017 Engineering Manual for details.
- Maximum number of sprockets for 4-in (101.6-mm) belts without hold down guides is two. Maximum number of sprockets for 4-in (101.6-mm) belts with hold down guides is one.
- Maximum number of sprockets for 6-in (152.4-mm) belts without hold down guides is four. Maximum number of sprockets for 6-in (152.4-mm) belts with hold down guides is three.
- Maximum number of sprockets for 8-in (203.2-mm) belts with and without hold down guides is five.
- Maximum number of sprockets for 10-in (254-mm) belts with and without hold down guides is seven.
- Designed for sideflexing applications with a standard turn ratio of 2.2 times the belt width.
- The minimum nosebar diameter for belts without hold down guides is 1.375 in (34.9 mm). The minimum nosebar diameter for belts with hold down guides is 1.50 in (38.1 mm).
- Load-Sharing™ belt edge improves how the load is shared and minimizes fatigue failure in various areas of the belt.
- Radius belt wearstrips are available.
- Uses headed rods.
- Flush edge design features an extension to reduce the opening size.
- The Intralox Engineering Program will help predict the strength requirement of most radius applications, ensuring that the belt is strong enough for the application.
- Temperature, environmental conditions, and product characteristics affect the effective maximum degree of incline. Take the items into consideration when designing conveyor systems utilizing these belts.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)



A - Preferred direction for flat turning applications

SECTION 2

2400

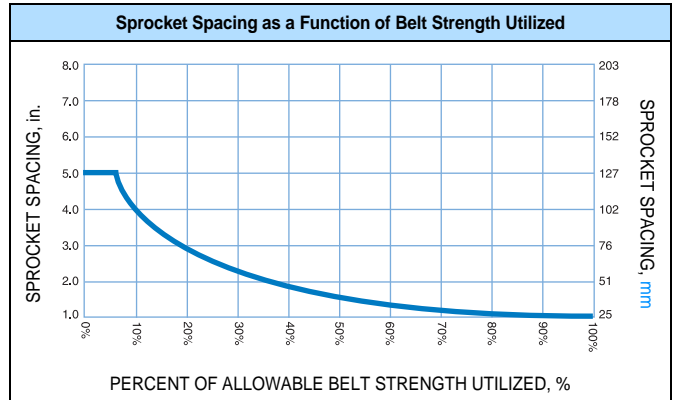
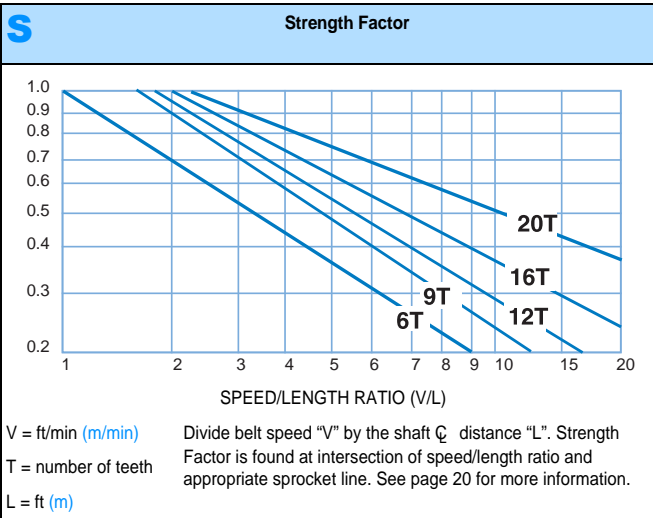
Belt Data

Base Belt Material	Standard Rod Material Ø 0.18 in (4.6 mm)		BS Straight Belt Strength lb (kg)				Curved Belt Strength	Temperature Range (continuous)		W Belt Weight lb/ft (kg/m)			
			4 in (101.6)	6 in (152.4)	8 in (203.2)	10 in (254)		°F	°C	4 in (101.6)	6 in (152.4)	8 in (203.2)	10 in (254)
Acetal	Nylon	without hold down guides	484 (220)	850 (386)	1133 (514)	1417 (643)	Contact Intralox Customer Service for curved belt strength calculations.	-50 to 200	-46 to 93	0.57 (0.85)	0.89 (1.32)	1.19 (1.77)	1.50 (2.23)
		with hold down guides	242 (110)	726 (329)	1133 (514)	1417 (643)		-50 to 200	-46 to 93	0.64 (0.95)	0.96 (1.42)	1.26 (1.88)	1.56 (2.32)
Polypropylene	Nylon	without hold down guides	400 (181)	600 (272)	800 (363)	1000 (454)		34 to 220	1 to 104	0.39 (0.58)	0.60 (0.89)	0.82 (1.22)	1.01 (1.50)
		with hold down guides	242 (110)	600 (272)	800 (363)	1000 (454)		34 to 220	1 to 104	0.43 (0.64)	0.65 (0.978)	0.86 (1.28)	1.06 (1.58)

Sprocket and Support Quantity Reference

Belt Width Range ^a		Minimum Number of Sprockets Per Shaft ^b	Wearstrips ^c	
in.	mm		Carryway	Returnway
4	102	1	2	2
5	127	2	2	2
6	152	2	2	2
7	178	2	2	2
8	203	2	2	2
10	254	2	3	2
12	305	3	3	2
14	356	3	3	3
15	381	5	3	3
16	406	5	3	3
18	457	5	3	3
20	508	5	4	3
24	610	5	4	3
30	762	7	5	4
32	813	7	5	4
36	914	7	5	4
42	1067	9	6	5
48	1219	11	7	5
For Other Widths, Use Odd Number of Sprockets at Maximum 6 in. (152 mm) \varnothing Spacing			Maximum 9 in. (229 mm) \varnothing Spacing	Maximum 12 in. (305 mm) \varnothing Spacing

- If your belt width exceeds a number listed in the table, please refer to the sprocket and support material minimums for the next larger width range listed. Belts are available in 0.50 in. (12.7 mm) increments beginning with minimum width of 4 in. (102 mm). **If the actual width is critical, consult Customer Service.**
- These are the minimum number of sprockets. Additional sprockets may be required for heavily loaded applications. See Retainer Rings/Center Sprocket Offset chart on page 410 for lock down location.
- The number of wearstrips given does not include the hold down wearstrip.



Molded Sprocket^a										
No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
6^{cd} (13.40%)	2.0	51	2.0	51	.54	14	3/4		20	
9^{cd} (6.03%)	2.9	74	2.9	74	1.0	25	1	1	25	25
12 (3.41%)	3.9	99	4.0	102	1.0	25	1 to 1-1/2	1.5 ^d	25 to 40	40^d
16 (1.92%)	5.1	130	5.2	132	1.0	25	1 to 1-1/2	1.5	25 to 40	40
20 (1.23%)	6.4	163	6.4	163	1.0	25	1 to 1-1/2	1.5	25 to 40	40



- a. Contact Customer Service for lead times. When using Polyurethane sprockets, the Belt Strength for belts rated over 750 lb/ft (1120 kg/m) will be de-rated to 750 lb/ft (1120 kg/m) and all other belts will maintain their published rating. The temperature range for Polyurethane sprockets is 0 °F (-18 °C) to 120 °F (49 °C). Contact Customer Service for availability of Polyurethane sprockets.
- b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.
- c. The 2.0 in (51 mm) Pitch Diameter 6 tooth sprocket and the 2.9 in (74 mm) Pitch Diameter 9 tooth sprocket have a recommended belt pull of 60 lb/sprocket (27 kg/sprocket).
- d. Do not use this sprocket with Hold Down Guides.

Split Ultra Abrasion Resistant Polyurethane Sprocket^a										
No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in	Square in	Round mm	Square mm
16 (1.92%)	5.1	130	5.2	132	1.0	25		1.5 ^b		40^b
20 (1.23%)	6.4	163	6.4	163	1.0	25		1.5		40



- a. Contact Customer Service for lead times. When using Polyurethane sprockets, the Belt Strength for belts rated over 750 lb/ft (1120 kg/m) will be de-rated to 750 lb/ft (1120 kg/m) and all other belts will maintain their published rating. The temperature range for Polyurethane sprockets is 0 °F (-18 °C) to 120 °F (49 °C). Contact Customer Service for availability of Polyurethane sprockets.
- b. FDA approved sprockets are available.

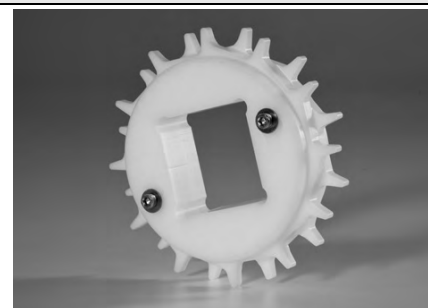
Nylon (FDA) Sprocket^a										
No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
12 (3.41%)	3.9	99	4	102	1.0	25	1, 1-1/4	1.5 ^c		
16 (1.92%)	5.1	130	5.2	132	1.0	25	1-1/4			40
20 (1.23%)	6.4	163	6.4	163	1.0	25		1.5		



- a. **Contact Customer Service for lead times.**
- b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.
- c. Do not use this sprocket with Hold Down Guides.

Acetal Split Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
12 (3.41%)	3.9	99	3.9	99	1.0	25	1-1/4	1.5 ^c		



- a. **Contact Customer Service for lead times.**
b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.
c. Do not use this sprocket with Hold Down Guides.

Glass Filled Nylon Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
16 (1.92%)	5.1	130	5.2	132	1.0	25		1.5		40



- a. **Contact Customer Service for lead times.**
b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.

Glass Filled Nylon Split Sprocket^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
16 (1.92%)	5.1	130	5.2	132	1.5	38	1-1/4		30 40	



- a. **Contact Customer Service for lead times.**
b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.

HR Nylon EZ Clean™ Sprockets^a

No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
16 (1.92%)	5.1	130	5.2	132	1.0	25				40



a. **Contact Customer Service for lead times.**

b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.

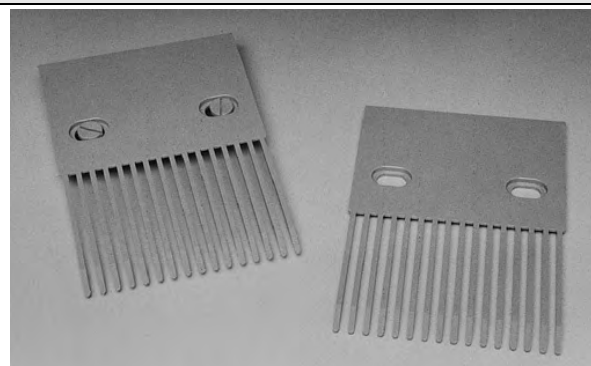
Finger Transfer Plates

Available Widths		Number of Fingers	Available Materials
in	mm		
4	102	16	Acetal

Note: Designed to be used with Series 2400 Raised Rib belts to eliminate product transfer and tipping problems.

Note: The fingers extend between the belt's ribs allowing a smooth continuation of the product flow as the belt engages its sprockets.

Note: Finger transfer plates are installed easily on the conveyor frame with conventional fasteners.

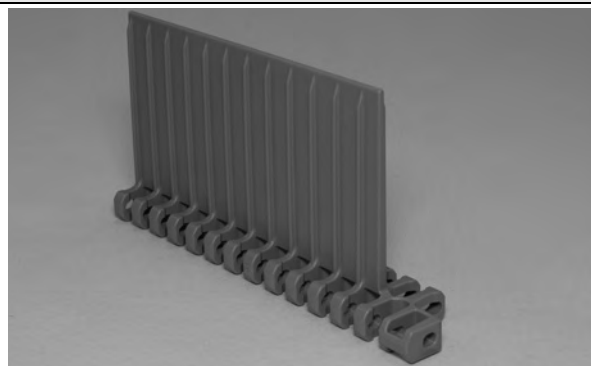


No-Cling Flights

Available Flight Height		Available Materials
in	mm	
3.0	76	Polypropylene, Polyethylene, Acetal

Note: Minimum indent is 1.125 in (29 mm).

Note: Series 2400 flights do not have bottom hold down guides, but can be used with the bottom hold down belt style, with a minimum flight spacing of 4 in (102 mm).



Universal Sideguards

Available Sideguard Height		Available Materials
in	mm	
1.0	25	Polypropylene, Acetal
3.0	76	

Note: Similar in design and function to other standard, overlapping Intralox sideguards. It is an integral part of the belt, fastened by hinge rods. It adds versatility to the Series 2400 belt when used in multiple rows for separating product.

Note: It is easily cleanable and is suitable for food applications (FDA accepted).

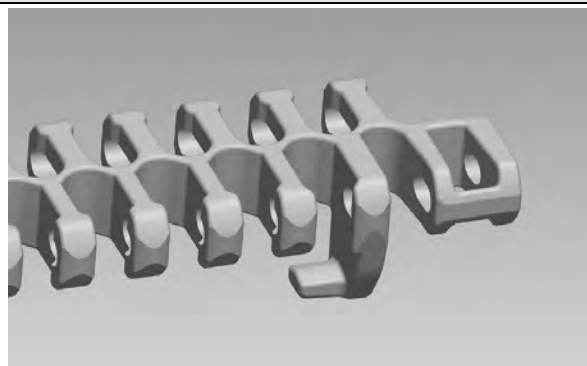
Note: A minimum 1.5 in (38 mm) indent is required for the 2.2 turn ratio and a 3.0 in (76 mm) indent for the 1.7 turn ratio with this style sideguard.

Note: Standard sideguard orientation is angled inward toward the product (product friendly). If needed, sideguards can be angled outward toward the conveyor.

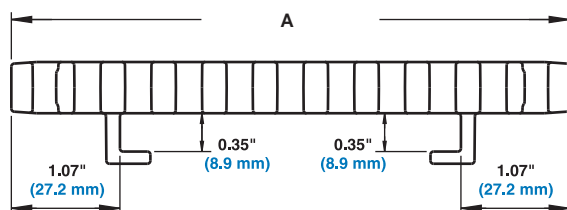


Hold Down Guides (2.2 Only)

- Materials available: polypropylene, acetal, HR nylon
- Hold down guides are on the bottom of the belt for use when the belt edges need to be clear. Also available on friction top modules.
- Hold down guides provide the ability to run two belts next to each other without a large gap in between.
- The belt edge is smooth for reduced friction, and is relatively thick to provide wear resistance and protection for the rod retention.
- The minimum nosebar diameter is 1.5 in (38.1 mm)
- Hold down guides cannot be used with 2 in and 2.9 in pitch diameter sprockets or 3.9 in pitch diameter square bore sprockets.
- Other sprocket PDs with large bores may not produce enough clearance between the hold down guide and shaft. Subtracting bore size from the PD easily identifies these sprockets. If the number is less than 2.0 in (51 mm), this sprocket cannot be used with hold down guides.

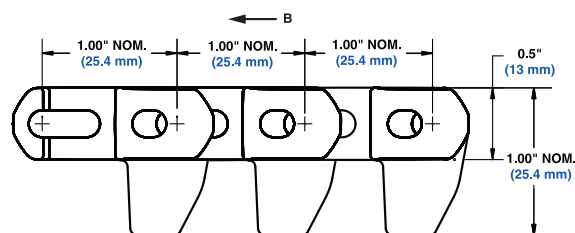


Front view



A - Belt width

Side view



B - Preferred direction for flat turning applications

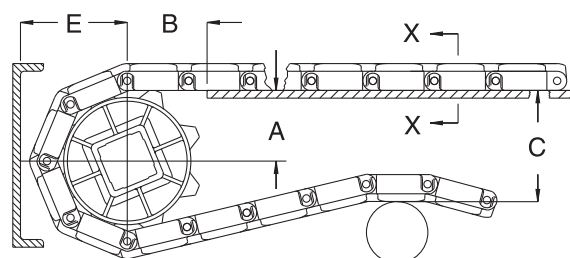
Note: Hold down guides are not recommended for low-tension capstan drive spiral applications.

Fig. 2-3 SERIES 2400 HOLD DOWN GUIDES FOR FLAT TURNS

Conveyor Frame Dimensions

Regardless of type or configuration, all conveyors using Intralox belts have some basic dimensional requirements. Specifically, dimensions "A", "B", "C" and "E" listed below should be implemented in any design.

For general applications and applications where end transfer of tip-sensitive product is not critical, use the "A" dimension at the bottom of the range.



A - $\pm 0.031"$ (1 mm)

C - \pm (Max)

B - $\pm 0.125"$ (3 mm)

E - \pm (Min)

Complete descriptions of the dimensions are listed on page 423.

Sprocket Description			A		B		C		E	
Pitch Diameter		No. Teeth	Range (Bottom to Top)		in.	mm	in.	mm	in.	mm
in.	mm		in.	mm						
SERIES 2400 RADIUS FLUSH GRID - STRAIGHT EDGE, HOLD DOWN GUIDES										
2.0 ^a	51 ^a	6	0.62-0.75	16-19	1.22	31	2.00	51	1.31	33
2.9 ^a	74 ^a	9	1.12-1.21	28-31	1.51	38	2.92	74	1.77	45
3.9	99	12	1.62-1.68	41-43	1.86	47	3.86	98	2.24	57
5.1	130	16	2.26-2.31	57-59	2.11	54	5.13	130	2.88	73
6.4	163	20	2.91-2.95	74-75	2.31	59	6.39	162	3.51	89
SERIES 2400 RADIUS FLUSH GRID HIGH DECK, 0.4" HIGH RADIUS FRICTION TOP										
2.0 ^a	51 ^a	6	0.62-0.75	16-19	1.22	31	2.40	61	1.71	43
2.9 ^a	74 ^a	9	1.12-1.21	28-31	1.51	38	3.32	84	2.17	55
3.9	99	12	1.62-1.68	41-43	1.86	47	4.26	108	2.64	67
5.1	130	16	2.26-2.31	57-59	2.11	54	5.53	140	3.28	83
6.4	163	20	2.91-2.95	74-75	2.31	59	6.79	172	3.91	99
SERIES 2400 RADIUS FRICTION TOP - WITH OR WITHOUT HOLD DOWN GUIDES										
2.0 ^a	51 ^a	6	0.62-0.75	16-19	1.22	31	2.20	56	1.51	38
2.9 ^a	74 ^a	9	1.12-1.21	28-31	1.51	38	3.12	79	1.97	50
3.9	99	12	1.62-1.68	41-43	1.86	47	4.06	103	2.44	62
5.1	130	16	2.26-2.31	57-59	2.11	54	5.33	135	3.08	78
6.4	163	20	2.91-2.95	74-75	2.31	59	6.59	167	3.71	94
SERIES 2400 RADIUS WITH INSERT ROLLERS (ALL STYLES) - FREE FLOATING ROLLERS										
2.0 ^a	51 ^a	6	0.62-0.75	16-19	1.22	31	2.09	53	1.40	36
2.9 ^a	74 ^a	9	1.12-1.21	28-31	1.53	39	3.01	76	1.86	47
3.9	99	12	1.62-1.68	41-43	1.78	45	3.95	100	2.33	59
5.1	130	16	2.26-2.31	57-59	2.06	52	5.21	132	2.96	75
6.4	163	20	2.91-2.95	74-75	2.31	59	6.48	165	3.60	91
SERIES 2400 RADIUS WITH INSERT ROLLERS (ALL STYLES) - DRIVEN ROLLERS										
2.0 ^a	51 ^a	6	0.53-0.66	13-17	1.24	31	2.09	53	1.40	36
2.9 ^a	74 ^a	9	1.04-1.12	26-31	1.57	40	3.01	76	1.86	47

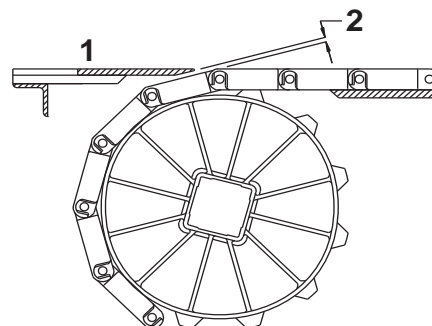
Sprocket Description			A		B		C		E	
Pitch Diameter		No. Teeth	Range (Bottom to Top)		in.	mm	in.	mm	in.	mm
in.	mm		in.	mm						
3.9	99	12	1.53-1.59	39-40	1.92	49	3.95	100	2.33	59
5.1	130	16	2.18-2.23	55-57	2.19	56	5.21	132	2.96	75
6.4	163	20	2.82-2.86	72-73	2.41	61	6.48	165	3.60	91
SERIES 2400 RADIUS RAISED RIB										
2.0	51	6	0.62-0.75	16-19	1.22	31	2.50	64	1.81	46
2.9	74	9	1.12-1.21	28-31	1.51	38	3.42	87	2.27	58
3.9	99	12	1.62-1.68	41-43	1.86	47	4.36	111	2.74	70
5.1	130	16	2.26-2.31	57-59	2.11	54	5.63	143	3.38	86
6.4	163	20	2.91-2.95	74-75	2.31	59	6.89	175	4.01	102
SERIES 2400 RADIUS FLAT TOP										
2.0	51	6	0.62-0.75	16-19	1.22	31	2.15	55	1.46	37
2.9	74	9	1.12-1.21	28-31	1.51	38	3.07	78	1.92	49
3.9	99	12	1.62-1.68	41-43	1.86	47	4.01	102	2.39	61
5.1	130	16	2.26-2.31	57-59	2.11	54	5.28	134	3.03	77
6.4	163	20	2.91-2.95	74-75	2.31	59	6.54	166	3.66	93

a. Cannot be used with Hold Down Guides.

Dead Plate Gap

Where there is a transfer point from a belt without finger transfer plates to a dead plate, there should be a gap between the surfaces to allow for the chordal action of the belt. As the belt engages its sprockets, chordal action causes the modules to move past a *fixed* point (the tip of the dead plate) with *varying* clearances. The table below shows the minimum amount of gap which occurs at the “low point” of the modules if the tip of the dead plate just comes in contact with the “high point” as the modules pass.

In some installations it may be desirable to keep the tip of the dead plate in contact with the belt, rather than allow a gap to occur. This can be done by hinging the mounting bracket for the dead plate. This allows the dead plate to move as the modules pass, but results in a small oscillating motion which may present tippage problems for sensitive containers or products.



1 - Top surface of dead plate 2 - Dead plate gap

Note: The top surface of the dead plate is typically 0.031 in. (0.8 mm) above the belt surface for product transfer onto the belt, and 0.031 in. (0.8 mm) below the belt surface for product transfer off the belt.

Sprocket Description			Gap	
Pitch Diameter		No. Teeth	in.	mm
in.	mm			
2.0	51	6	0.134	3.4
2.9	74	9	0.088	2.2
3.9	99	12	0.065	1.7
5.1	130	16	0.050	1.3
6.4	163	20	0.039	1.0

HOLD DOWN RAILS AND WEARSTRIPS

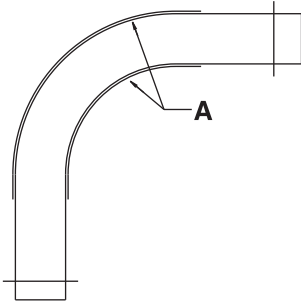
Intralox recommends using continuous hold down rails through an entire turn, starting at a distance of 1X the belt width before the turn and ending 1X the belt width after the turn. This applies to both carryway and returnway. The use of

hold down rails along both side of the belt over the full carryway is recommended but not mandatory.

The hold down guide design allows the belt to be held down without the wearstrip interfering with the carryway surface (for design guidelines regarding Series 2400 with hold down guides, contact Technical Support Group). See “*Custom wearstrips*” (page 416).

STANDARD BELTS

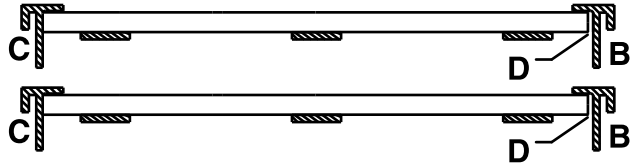
FLUSH EDGE WITH WEARSTRIP



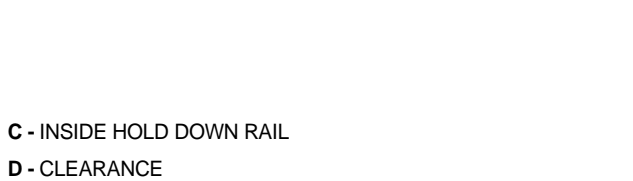
- A** - HOLD DOWN RAIL PLACEMENT
- B** - OUTSIDE HOLD DOWN RAIL

CROSS SECTION VIEW THROUGH CURVE

CARRYWAY DESIGN



RETURNWAY DESIGN

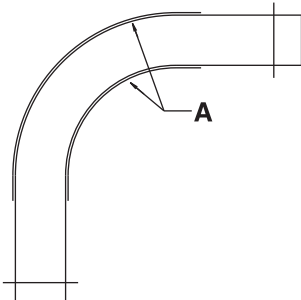


- C** - INSIDE HOLD DOWN RAIL
- D** - CLEARANCE

Fig. 2-4 HOLD DOWN RAILS AND WEARSTRIPS FOR SERIES 2400 FLAT-TURNS - STANDARD BELTS

HIGH DECK AND RAISED RIB BELTS

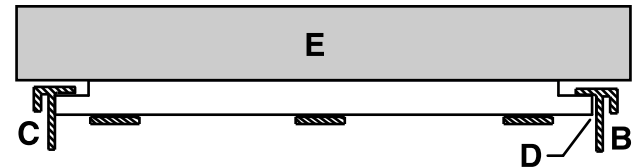
FLUSH EDGE WITH WEARSTRIP



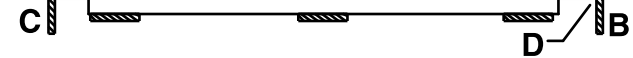
- A** - HOLD DOWN RAIL PLACEMENT
- B** - OUTSIDE HOLD DOWN RAIL
- C** - INSIDE HOLD DOWN RAIL

CROSS SECTION VIEW THROUGH CURVE

CARRYWAY DESIGN



RETURNWAY DESIGN



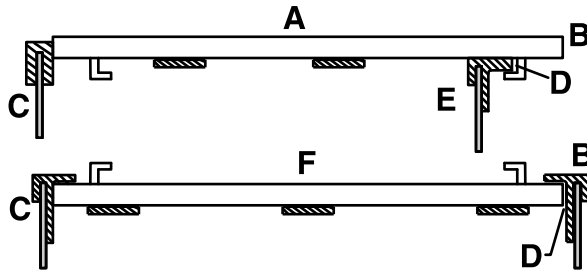
- D** - CLEARANCE
- E** - PRODUCT

Fig. 2-5 HOLD DOWN RAILS AND WEARSTRIPS FOR SERIES 2400 FLAT-TURNS - HIGH DECK AND RAISED RIB BELTS

BELTS WITH HOLD DOWN GUIDES

Special wearstrip guidelines for lightly loaded belts with Hold Down Guides.

CROSS SECTION VIEW THROUGH CURVE - WITH INNER BUMP RAIL



A - CARRYWAY DESIGN

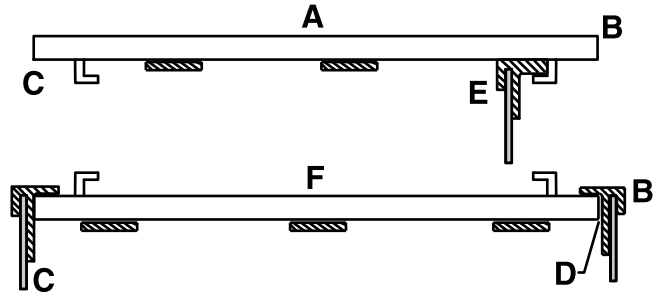
B - OUTSIDE EDGE

C - INSIDE EDGE

WARNING -Hold down Guides should never be used to guide the belt through the turn in heavily loaded or high-speed applications. Rapid wear to the Hold Down Guides and/or wearstrip will occur in applications with high loads or speeds. Hold Down Guides should never be used to hold the belt down through a negative transition. Contact Intralox Customer Service for a belt pull analysis.

CROSS SECTION VIEW THROUGH CURVE - NO BUMP RAIL

Requirements: Maximum belt pull <20% allowable; belt speed <50 FPM



D - CLEARANCE

E - HOLD DOWN GUIDE WEARSTRIP

F - RETURNWAY DESIGN

Fig. 2-6 HOLD DOWN RAILS AND WEARSTRIPS FOR SERIES 2400 FLAT-TURNS - BELTS WITH HOLD DOWN GUIDES

BELT SELECTION INSTRUCTIONS

ENGINEERING PROGRAM ANALYSIS FOR SERIES 2400

Intralox Customer Service Technical Support Group can calculate the estimated belt pull for radius applications using **Series 2400**. The following information is required (refer to "Radius belt data sheet" (page 469)):

- Any environmental conditions which may affect the friction coefficient (for dirty or abrasive conditions, use higher friction coefficients than normal)
- Belt width
- Length of each straight run
- Turning angle of each turn

- Turn direction of each turn
- Inside turning radius of each turn
- Carryway/hold down rail material
- Product loading lb/ft² (kg/m²)
- Product back-up conditions
- Belt speed
- Elevation changes on each section
- Operating temperatures.

For assistance with radius belt and low-tension capstan drive spiral selections, contact Intralox Customer Service Technical Support Group. The Engineering Program should be run to ensure that the belt is strong enough for the radius application in question.

SERIES 2400 DESIGN GUIDE SUMMARY

For more information, see the **Installation, Maintenance and Troubleshooting manual** available from Intralox.

A - The minimum turning radius for **Series 2400** is 2.2 times the belt width, measured from the inside edge for the standard edge or 1.7 times the belt width for the tight turning style.

B - The minimum straight run required between turns of opposing direction is 2.0 times the belt width. Shorter straight sections will lead to high wear on the edge guide rail and high pull stresses in the belt.

C - There is no minimum straight run required between turns that are in the same direction.

D - The minimum final straight run (leading to the drive shaft) should be a minimum of 5 ft. (1.5 m). If 5 ft. (1.5 m) is not feasible, then a shorter distance (down to 1.5 times the belt width) would require a weighted take up in order to avoid sprocket wear and tracking problems. See "Special Take-Up Arrangements" (page 431).

E - The minimum length of the first straight run (immediately after the idle shaft) is 1.5 times the belt width. When shorter lengths are required (down to 1.0 times the width), an idle roller may be used in place of sprockets.

F - IDLE SHAFT

G - 1ST TURN

H - BELT WIDTH

I - BELT TRAVEL

J - 2ND TURN

K - DRIVE MOTOR

L - DRIVE SHAFT

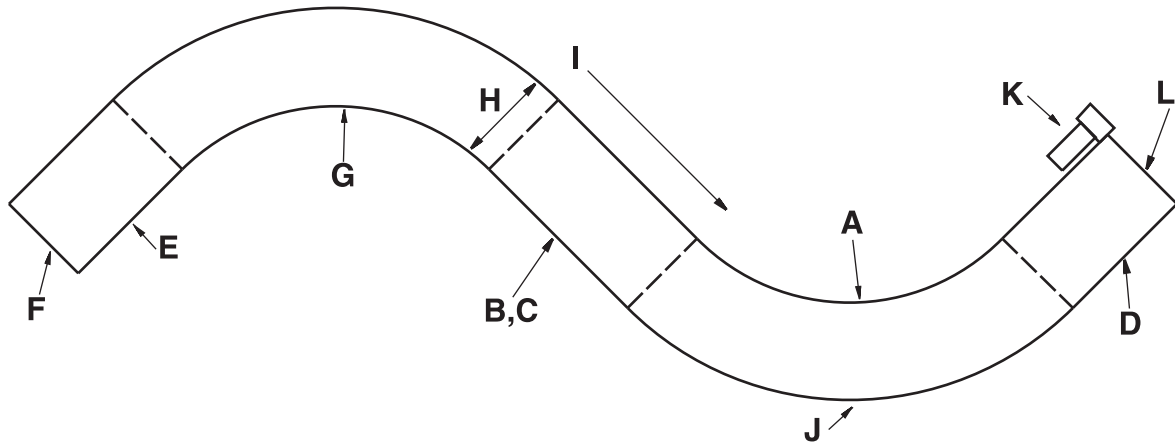


Fig. 2-7 TYPICAL 2-TURN RADIUS LAYOUT

Knuckle Chain

	in	mm
Pitch	2.00	50.8
Molded Width	2.25	57
Open Area	-	
Hinge Style	Closed	
Drive Method	Center-driven	

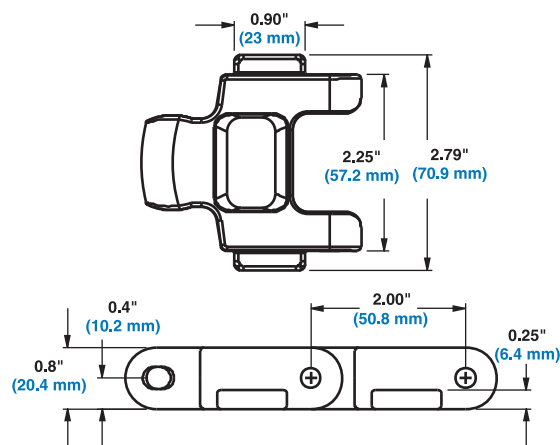
Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Thick, durable plastic surface around stainless steel pins for long life and less breakage.
- Available in both straight and turning versions.
- Turning version designed for applications with a minimum centerline turn radius of 16 in (406 mm).
- Both versions are available with extended pins.
- Available in 10 ft. (3.1 m) boxed lengths.
- Capable of running on the same tracks as other common chains.

WARNING: Only the Series 3000T (turning version) Knuckle Chain can be used for turning applications. The Series 3000S (straight version) Knuckle Chain cannot be used for turning applications. Hold down wearstrips are mandatory on the inside and outside edges of all turns, on both the carrying and return sides of the belt. Unless they interfere with the operation of the carrying equipment, the hold down wearstrips should be used throughout the conveyor to protect both the belt and personnel next to the conveyor.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



Series 3000T shown

Belt Data

Chain Material	Standard Rod Material Ø 0.25 in (6.4 mm)	BS Chain Strength		Temperature Range (continuous)		W Chain Weight	
		lb	kg	°F	°C	lb/ft	kg/m
Acetal (Straight)	303 SS	700	317	-50 to 200	-46 to 93	0.88	1.21
Acetal (Turning)	303 SS	560	254	-50 to 200	-46 to 93	0.90	1.25

Mesh Top

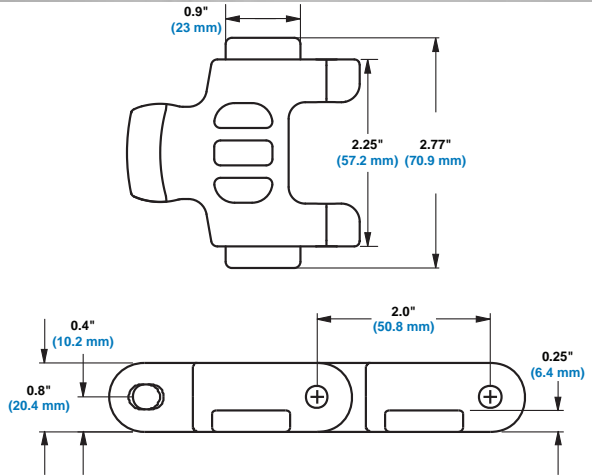
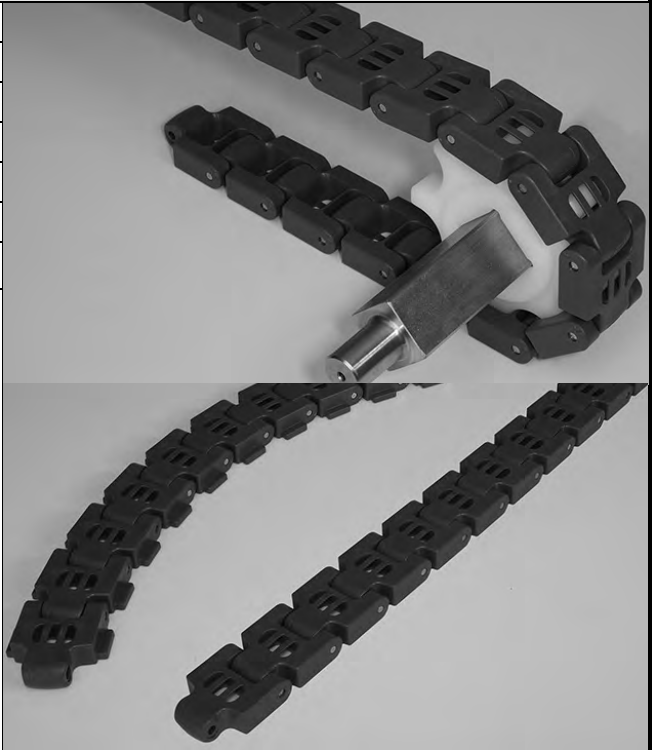
	in	mm
Pitch	2.00	50.8
Minimum Width	2.3	57.2
Opening Sizes (approx.)	-	-
Hinge Style	Closed	
Drive Method	Center-Driven	

Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Thick, durable plastic surface around stainless steel pins for long life and less breakage.
- Mesh top design eliminates open area for improved worker safety.
- Improved design for cleaning.
- Available in both straight and turning versions.
- Both versions are available with extended pins.
- Available in 10 ft (3.1 m) boxed lengths.
- Mesh top design is capable of running on the same tracks as other common chains.
- Turning version designed for applications with a minimum centerline turn radius of 16 in (406 mm).
- **WARNING:** Only the Series 3000T (turning version) Mesh Top Chain can be used for turning applications. The Series 3000S (straight version) Mesh Top Chain cannot be used for turning applications. Hold down wearstrips are mandatory on the inside and outside edges of all turns, on both the carrying and return side of the belt. Unless they interfere with the operation of the carrying equipment, the hold down wearstrips should be used throughout the conveyor to protect the belt and personnel next to the conveyor.

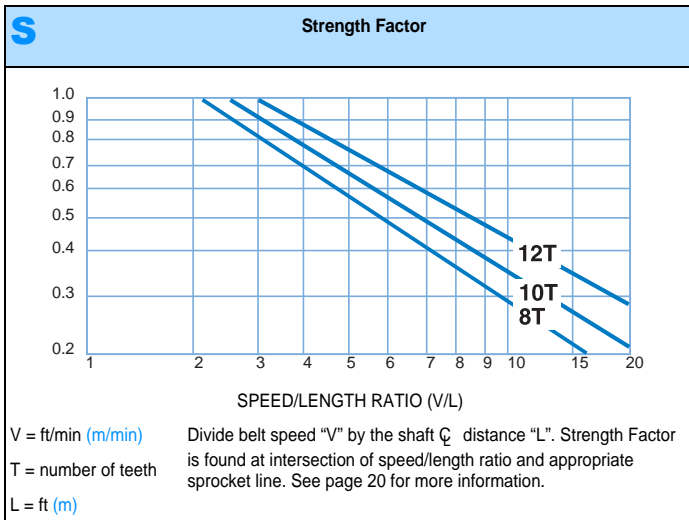
Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)



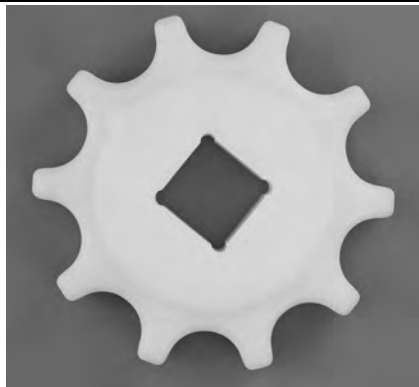
Belt Data

Chain Material	Standard Rod Material Ø 0.25 in (6.4 mm)	BS Chain Strength		Temperature Range (continuous)		W Chain Weight	
		lb	kg	°F	°C	lb./ft. ²	kg/m ²
Acetal (Straight)	303 SS	700	318	-50 to 200	-46 to 93	0.89	1.32
Acetal (Turning)	303 SS	560	254	-50 to 200	-46 to 93	0.91	1.36



Chain Pull Limit with UHMW Polyethylene Sprockets, Based on Bore Size - lb (kg)												
No. of Teeth	Nom. Pitch Diameter		1.5 in square		40 mm square		1 in round		1.25 in round		1.5 in round	
	in	mm	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
8	5.2	132	640	290	640	290	74	34	90	41	162	74
10	6.5	165	520	236	520	236	78	35	95	43	172	78
12	7.7	196	432	196	432	196	65	29	79	36	143	65
Bold entries indicate standard sizes												

UHMW Polyethylene Sprocket ^a										
No. of Teeth (Chordal Action)	Nom. Pitch Dia. in	Nom. Pitch Dia. mm	Nom. Outer Dia. in	Nom. Outer Dia. mm	Nom. Hub Width in	Nom. Hub Width mm	Available Bore Sizes			
							U.S. Sizes		Metric Sizes	
							Round in ^b	Square in	Round mm ^b	Square mm
8 (7.61%) <i>Square Bore</i>	5.2	132	5.3	135	1.5	38	1-1/4	1.5		40
8 (7.61%) <i>Round Bore</i>	5.2	132	5.3	135	1.2	30	1-1/4	1.5		40
10 (4.89%)	6.5	165	6.7	170	1.5	38	1-1/4	1.5		40
12 (3.41%)	7.7	196	8.0	203	1.5	38	1-1/4	1.5		40

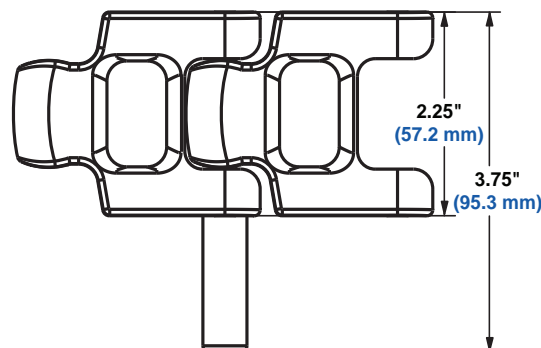


a. **Contact Customer Service for lead times.**

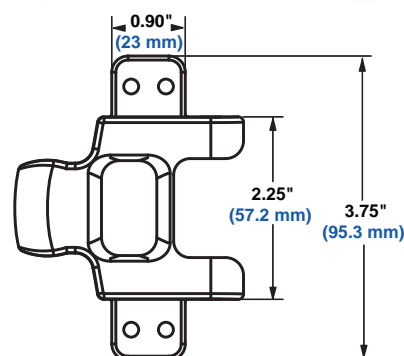
b. Imperial key sizes on round bore sprockets conform to ANSI standard B17.1-1967 (R1989) and metric key sizes conform to DIN standard 6885.

Extended Pins and Tabs

EXTENDED PINS — Modules with 303 stainless steel extended pins can be spliced into both the basic turning and straight running chains. These pins are commonly used in side by side chain strands where rollers are used for low back pressure applications. The minimum extended pin spacing is 2.0 in (50.8 mm). The extended pin modules can be spliced into the standard chain every 2.0 in (50.8 mm).



Extended pins for straight or turning versions



Extended tabs for straight or turning versions

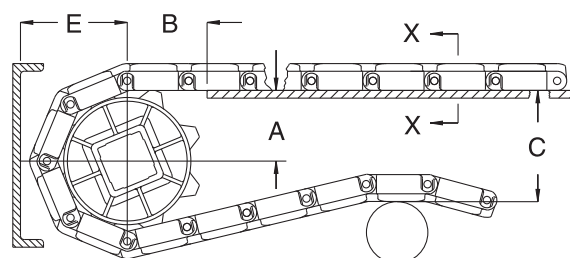
EXTENDED TABS — Modules with extended tabs can be spliced into both the basic turning and straight running chains. These extended tabs can be used to attach flights, cleats, etc. The extended tab modules are based on the turning chain design, so the rating for the turning chain should be used even if the extended tab modules are spliced into straight running chain. The minimum tab spacing is 2.0 in (50.8 mm). The tabs can be spliced into the standard chain every 2.0 in (50.8 mm).

Intralox offers only extended tabs and extended pins. Attachments for either of these accessories are not available through Intralox. Contact Customer Service for lead times.

Conveyor Frame Dimensions

Regardless of type or configuration, all conveyors using Intralox belts have some basic dimensional requirements. Specifically, dimensions "A", "B", "C" and "E" listed below should be implemented in any design.

For general applications and applications where end transfer of tip-sensitive product is not critical, use the "A" dimension at the bottom of the range.



A - $\pm 0.031"$ (1 mm)

C - \pm (Max)

B - $\pm 0.125"$ (3 mm)

E - \pm (Min)

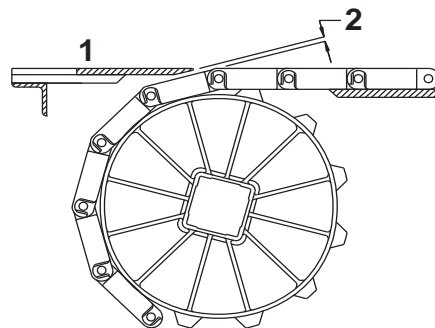
Complete descriptions of the dimensions are listed on page 423.

Sprocket Description			A		B		C		E	
Pitch Diameter		No. Teeth	Range (Bottom to Top)		in.	mm	in.	mm	in.	mm
in.	mm		in.	mm						
SERIES 3000 KNUCKLE CHAIN, MESH TOP										
5.2	132	8	2.01-2.21	51-56	2.29	58	5.23	1.33	3.14	80
6.5	165	10	2.68-2.84	68-72	2.63	67	6.47	164	3.76	96
7.7	196	12	3.33-3.46	85-88	2.94	75	7.73	196	4.39	112

Dead Plate Gap

Where there is a transfer point from a belt without finger transfer plates to a dead plate, there should be a gap between the surfaces to allow for the chordal action of the belt. As the belt engages its sprockets, chordal action causes the modules to move past a *fixed* point (the tip of the dead plate) with *varying* clearances. The table below shows the minimum amount of gap which occurs at the "low point" of the modules if the tip of the dead plate just comes in contact with the "high point" as the modules pass.

In some installations it may be desirable to keep the tip of the dead plate in contact with the belt, rather than allow a gap to occur. This can be done by hinging the mounting bracket for the dead plate. This allows the dead plate to move as the modules pass, but results in a small oscillating motion which may present tippage problems for sensitive containers or products.



1 - Top surface of dead plate

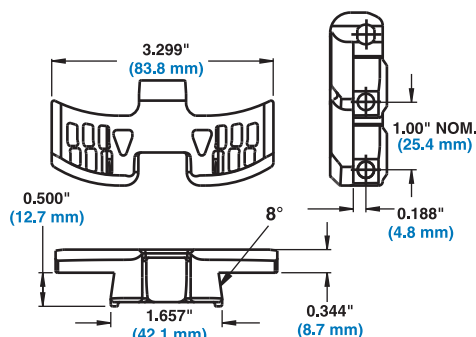
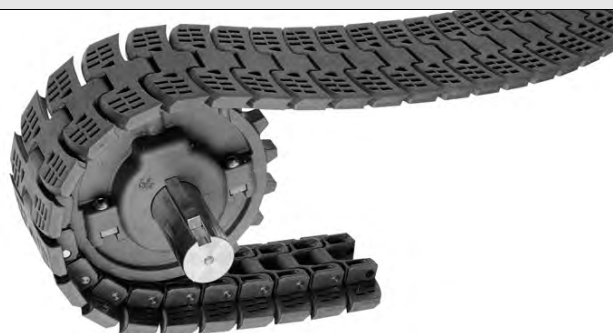
2 - Dead plate gap

Note: The top surface of the dead plate is typically 0.031 in. (0.8 mm) above the belt surface for product transfer onto the belt, and 0.031 in. (0.8 mm) below the belt surface for product transfer off the belt.

Sprocket Description			Gap	
Pitch Diameter		No. Teeth	in.	mm
in.	mm			
5.2	132	8	0.200	5.1
6.5	165	10	0.158	4.0
7.7	196	12	0.132	3.4

S4009 Flush Grid

	in	mm
Pitch	1.00	25.4
Molded Width	3.3	84
Open Area	13%	
Hinge Style	Closed	
Drive Method	Hinge-driven	



Product Notes

- **Contact Intralox for precise belt measurements and stock status before designing equipment or ordering a belt.**
- Designed for applications with a minimum centerline turn radius of 18 in (457 mm).
- Same deck thickness as the straight running belt counterpart Series 900 FG [0.344 in (8.7 mm)].
- Series 4000 belts use S1400 sprockets.
- All Series 1400/4000 sprockets use the split design so shafts do not have to be removed for retrofits and changeovers.
- Available in 10 ft. (3.1 m) boxed lengths.
- Corner Tracks, with bevel design, are mandatory on the inside edges of all turns.
- Intralox's Engineering Program for S4000 belts can calculate the estimated belt pull for your system. Contact Intralox Customer Service for more information.

Additional Information

- See "Belt Selection Process" (page 5)
- See "Standard Belt Materials" (page 9)
- See "Special Application Belt Materials" (page 9)
- See "Friction Factors" (page 13)

Belt Data

Belt Material	Belt Width		Standard Rod Material Ø 0.25 in (6.4 mm)	BS	Belt Strength	Temperature Range (continuous)		W	Belt Weight
	in	mm				°F	°C		
Acetal	3.3	84	303 SS	500	227	-50 to 200	-46 to 93	0.97	1.44
HHR Nylon	3.3	84	303 SS	500	227	-50 to 310	-46 to 154	0.97	1.44