

WIRE MESH BELTING

SPIRAL · TURN-CURVE · STRAIGHT-RUNNING

METAL SPIRAL

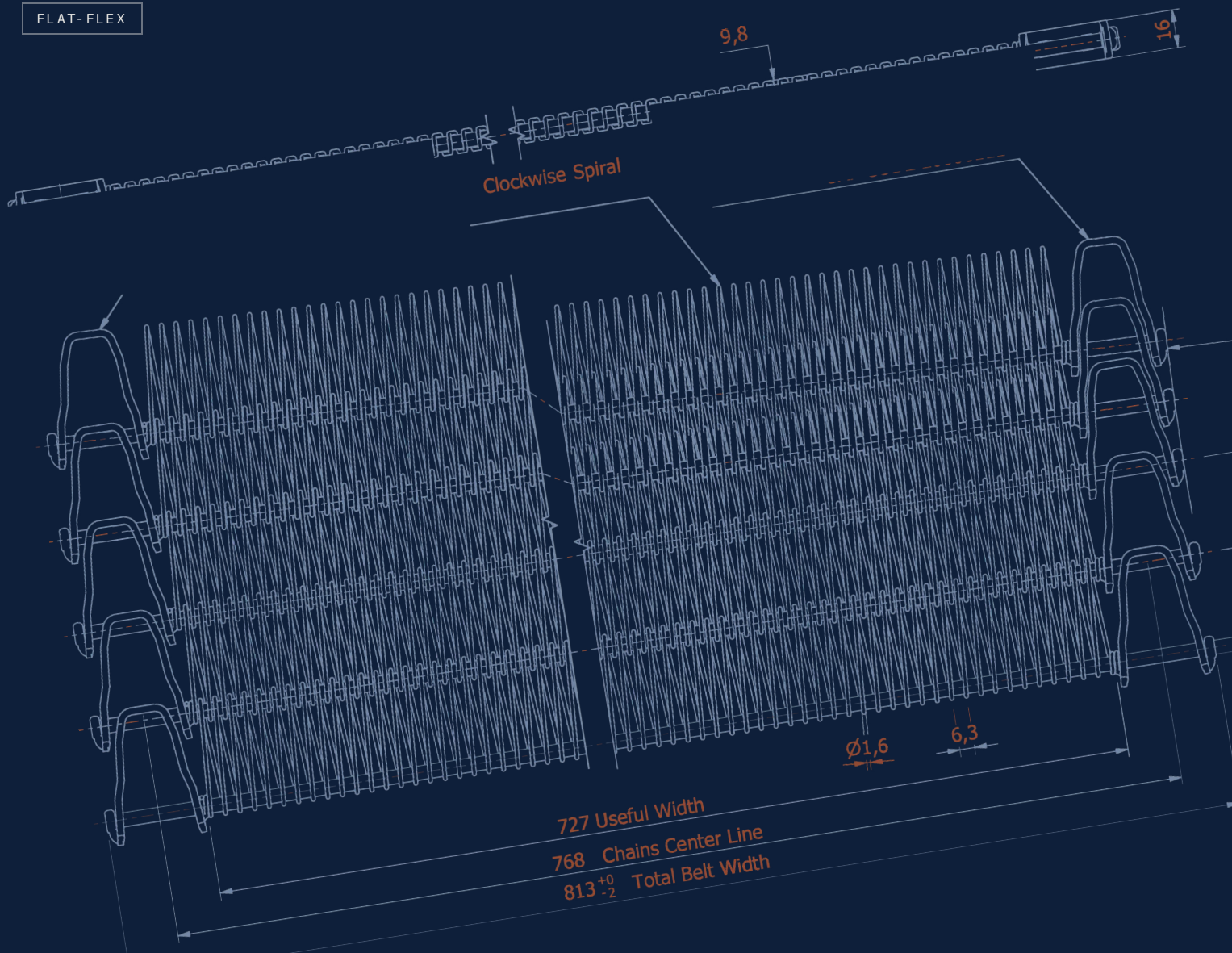
TURN-CURVE

POSITIVE DRIVE

FRICTION DRIVE

BALANCED WEAVE

FLAT-FLEX



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TABLE OF CONTENTS

METAL SPIRAL & TURN-CURVE

Selection Guide — Spiral & Turn-Curve	03
Omni-Pro 075 — 3/4" Pitch	04
Omni-Pro 100 — 1" Pitch	05
Omni-Pro 120 — 1.2" Pitch	06
Omni-Pro 150 — 1-1/2" Pitch	07
Small Radius Omni-Pro — 3/4" Pitch	08
Space Saver Omni-Grid — 1" Pitch	09
Advantage 120 — 1.2" Pitch	10
Advantage 200 — 2" Pitch	11
Omni-Flex E1 & E2 — 1" Pitch	12
Omni-Flex E3 — 1" Pitch	13
Small Radius Omni-Flex G1 & G3 — 1" Pitch	14
ExactaStack — Self-Stacking	15
TwenteFlex — Spiral Belt	16
TwenteSideFlex — Spiral Belt	17
Flex Link — Turn-Curve	18

STRAIGHT-RUNNING — POSITIVE

Straight-Running — Positively Driven	20
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Balanced Weave — Positive Drive	21
Rod Link — Positive Drive	23
Flat-Flex — Positive Drive	24
Chain-Edge — Positive Drive	26
Eye-Link — Positive Drive	27
Compact-Grid — Positive Drive	28
Flat-Wire — Positive Drive	29

STRAIGHT-RUNNING — FRICTION

Straight-Running — Friction Driven	31
Compound Balanced Weave — Friction Drive	32
Double Balanced Weave — Friction Drive	33
Cord Weave — Friction Drive	34
WG Woven Wire — Friction Drive	35
Baking Bands — Friction Drive	36

TECHNICAL INFORMATION

Technical Information	38
Selecting a Belt	39
Drive & Tension	40
Installation & Care	41

SELECTION GUIDE

Spiral & Turn-Curve Belts

Select a spiral or turn-curve belt by material, turn ratio, pitch and tension, then by the applications and features it carries. Each model has its own full specification, options and sprocket data on the pages that follow.

SELECTION GUIDE – SPIRAL & TURN-CURVE BELTS

Specification	O mni-Pro 075	O mni-Pro 100	O mni-Pro 120	O mni-Pro 150	Small Radius O mni-Pro	Space Saver O mni-Grid	Exacta Stack
Material (link / rod / mesh)	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Turn ratio	2.2-2.5	1.6-2.5	1.7-2.5	1.6-2.5	1.0-2.0	1.7-2.2	1.7
Width – curve, in	12-40	12-40	12-54	12-54	12-48	12-36	420-1060 mm
Width – straight, in	12-48	12-48	12-60	12-60	n/a	n/a	n/a
Pitch, in (mm)	0.75 (19.1)	1.08 (27.4)	1.20 (30.5)	1.50 (38.1)	1.08 & 0.75	1.08 (27.4)	30-60 mm
Max tension – curve, lb (kg)	150 (68)	200 (91)	400 (182)	400 (182)	150 (68)	150 (68)	n/a
Max tension – straight, lb (kg)	250 (114)	400 (182)	800 (364)	800 (364)	300 (136)	300 (136)	n/a
SPIRAL APPLICATIONS							
Freezer							
Proofer							
Chiller							
Cooker							
ADVANTAGES							
Sanitary design							
Superior air flow							
High load capacity							
Superior beam strength							
Small footprint							
SPECIAL FEATURES							
Wear-resistant links							
Integral guard edge							
Flippable design							
Self-stacking							

Maximum tensions are rated at 100,000 cycles. ♦ = available / recommended for that belt.

OMNI-PRO 075

3/4-Inch Pitch • Metal Spiral Belt

Omni-Pro 075 is the 3/4-inch-pitch spiral belt — the smallest pitch in the range, for the tightest small-radius turns and finest product support. Zero-tension 360° buttonless welds run smoother and last longer, rated to 100,000 cycles.

TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		2.2 to 2.5
Pitch	in (mm)	0.75 (19.1)
Available widths: Curve/Spiral	in (mm)	12.00-40.00 (304.8-1016.0)
Available widths: Straight run	in (mm)	12.00-48.00 (304.8-1219.2)
Link height	in (mm)	0.44 (11.1)
Link & optional mesh overlay material		Heavy-duty, extended-leg, stainless steel
Rod diameter/material	in (mm)	0.192 (4.9) stainless steel
Conveying surface	in (mm)	2.13 (54.1) less than nominal width
Weight		See belt weight calculation
Allowable tension: Curve/Spiral	lb (kg)	150 (68) at 100,000 cycles
Allowable tension: Straight run	lb (kg)	250 (114) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive		Sprocket driven on links

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2× stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

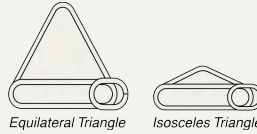
Designation B/U X-Y-Z
 B = balanced weave • U = unilateral weave
 X = loops / ft width • Y = spirals / ft length
 Z = overlay wire gauge
 e.g. B30-16-16, U42-16-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

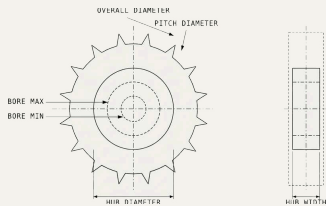
Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	2.2 Turn
none	74.4	69.7
18-16-16	65.1	58.6
18-16-17	66.3	60.1
24-16-16	62.0	55.0
24-16-17	63.6	56.9
30-16-16	58.7	51.1
30-16-17	60.9	53.7
36-16-16	55.8	47.6
36-16-17	58.2	50.5
42-16-16	52.7	43.9
42-16-17	55.5	47.3
48-16-16	49.6	40.3
48-16-17	52.8	44.1
54-16-16	46.5	36.6
54-16-17	50.1	40.9

SPROCKETS



UHMWPE SPROCKETS

Nom. size	Teeth	Pitch ø	Hub ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#3	12	2.90 (73.7)	2.25 (57.2)	1.00 (25.4)	1.44 (36.6)

Sprockets are available in stainless steel, plain steel and UHMWPE. UHMWPE components have a 150°F (66°C) maximum operating temperature. Maximum bore for UHMWPE assumes 1/2 in (12.7 mm) of material above the keyway; listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

Supports. Required at a maximum of 18" on the load side and 24" on the return side; rollers may be used instead. For light loads, support rails may be spaced further apart.

OMNI-PRO 100

1-Inch Pitch • Metal Spiral Belt

Omni-Pro 100 is the 1-inch-pitch evolutionary steel spiral belt: zero-tension 360° buttonless welds and a patented coining feature run smoother and last longer, rated to 100,000 cycles versus 50,000 for conventional belts.

TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.6 to 2.5
Pitch	in (mm)	1.08 (27.4)
Available widths: Curve/Spiral	in (mm)	12.00-40.00 (304.8-1016.0)
Available widths: Straight run	in (mm)	12.00-48.00 (304.8-1219.2)
Link height	in (mm)	0.50 (12.7)
Link & optional mesh overlay material		Heavy-duty, extended-leg, stainless steel
Rod diameter/material	in (mm)	0.192 (4.9) stainless steel
Conveying surface	in (mm)	2.75 (69.9) less than nominal width
Weight		See belt weight calculation
Allowable tension: Curve/Spiral	lb (kg)	200 (91) at 100,000 cycles
Allowable tension: Straight run	lb (kg)	400 (182) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive		Sprocket driven on links

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2× stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

Designation B/U X-Y-Z

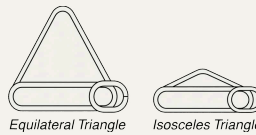
B = balanced weave • U = unilateral weave
 X = loops / ft width • Y = spirals / ft length
 Z = overlay wire gauge
 e.g. B30-12-16, U42-12-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	1.6 Turn	1.7 Turn	2.2 Turn
none	82.2	78.0	78.2	78.9
18-12-16	72.9	66.4	66.7	67.9
18-12-17	74.1	68.3	68.6	69.7
24-12-16	69.8	62.6	62.9	64.2
24-12-17	71.4	64.6	64.9	65.9
30-12-16	66.7	58.8	59.1	60.5
30-12-17	68.7	61.2	61.6	62.9
36-12-16	63.6	54.9	55.3	56.9
36-12-17	66.0	57.9	58.6	59.7
42-12-16	60.5	51.1	51.5	53.2
42-12-17	63.3	54.6	55.0	56.5
48-12-16	57.4	47.3	47.7	49.5
48-12-17	60.6	51.2	54.5	53.3
54-12-16	54.3	43.4	43.9	45.8
54-12-17	57.9	47.9	48.3	50.1

SPROCKETS

UHMWPE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#4	13	4.53 (115.1)	3.90 (99.1)	1.00 (25.4)	2.19 (55.6)
#6	18	6.24 (158.5)	5.65 (143.5)	1.00 (25.4)	3.75 (95.3)
#8	23	7.96 (202.2)	7.39 (187.7)	1.00 (25.4)	4.00 (101.6)

Sprockets are available in stainless steel, plain steel and UHMWPE. UHMWPE components have a 150°F (66°C) maximum operating temperature. Maximum bore for UHMWPE assumes 1/2 in (12.7 mm) of material above the keyway; listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

Supports. Required at a maximum of 18" on the load side and 24" on the return side; rollers may be used instead. For light loads, support rails may be spaced further apart.

OMNI-PRO 120

1.2-Inch Pitch • Metal Spiral Belt

Omni-Pro 120 is the 1.2-inch-pitch heavy-duty spiral belt: higher allowable tension and wider belts for demanding freezer and proofer spirals, on the same zero-tension 360° buttonless-weld construction.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.7 to 2.5
Pitch	in (mm)	1.20 (30.5)
Available widths: Curve/Spiral	in (mm)	12.00–54.00 (304.8–1371.6)
Available widths: Straight run	in (mm)	12.00–60.00 (304.8–1524.0)
Link height	in (mm)	0.59 (15.0)
Link & optional mesh overlay material		Heavy-duty, extended-leg, stainless steel
Rod diameter/material	in (mm)	0.236 (5.9) stainless steel
Conveying surface	in (mm)	3.13 (79.5) less than nominal width
Weight		See belt weight calculation
Allowable tension: Curve/Spiral	lb (kg)	400 (182) at 100,000 cycles
Allowable tension: Straight run	lb (kg)	800 (364) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive		Sprocket driven on links

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2× stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

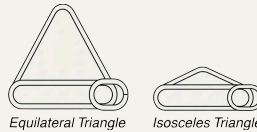
Designation B/U X-Y-Z
 B = balanced weave • U = unilateral weave
 X = loops / ft width • Y = spirals / ft length
 Z = overlay wire gauge
 e. g. B30-10-16, U42-10-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	1.7 Turn	2.2 Turn
none	80.3	75.8	76.7
18-10-16	71.0	64.4	65.6
18-10-17	72.2	65.9	67.1
24-10-16	67.9	60.6	62.0
24-10-17	69.5	62.6	63.9
30-10-16	64.8	56.8	58.3
30-10-17	66.8	59.3	60.7
36-10-16	61.7	53.0	54.6
36-10-17	64.1	55.9	57.6
42-10-16	58.6	49.2	50.9
42-10-17	61.4	52.6	54.3
48-10-16	55.5	45.4	47.3
48-10-17	58.7	49.3	51.1
54-10-16	52.4	41.6	43.6
54-10-17	56.0	46.0	47.9

SPROCKETS

STEEL DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#6	16	6.11 (155.2)	5.47 (138.9)	0.75 (19.1)	3.00 (76.2)
#8	21	8.05 (204.5)	7.38 (187.5)	0.75 (19.1)	4.00 (101.6)

#8 (21-tooth) sprockets are recommended with 7.69 in (195 mm) diameter filler rolls; #6 (16-tooth) sprockets are available with 5.75 in (146 mm) filler rolls for retrofitted systems only. Listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

Supports. Required at a maximum of 18" on the load side and 24" on the return side; rollers may be used instead. For light loads, support rails may be spaced further apart.

OMNI-PRO 150

1-1/2-Inch Pitch • Metal Spiral Belt

Omni-Pro 150 is the 1-1/2-inch-pitch spiral belt — the largest standard pitch, for the greatest open area and airflow at high load, on the same heavy-duty zero-tension construction.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.6 to 2.5
Pitch	in (mm)	1.50 (38.1)
Available widths: Curve/Spiral	in (mm)	12.00-54.00 (304.8-1371.6)
Available widths: Straight run	in (mm)	12.00-60.00 (304.8-1524.0)
Link height	in (mm)	0.59 (15.0)
Link & optional mesh overlay material		Heavy-duty, extended-leg, stainless steel
Rod diameter/material	in (mm)	0.236 (6.0) stainless steel
Conveying surface	in (mm)	3.13 (79.5) less than nominal width
Weight		See belt weight calculation
Allowable tension: Curve/Spiral	lb (kg)	400 (182) at 100,000 cycles
Allowable tension: Straight run	lb (kg)	800 (364) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive		Sprocket driven on links

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2× stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

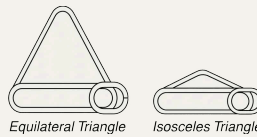
Designation B/U X-Y-Z
 B = balanced weave • U = unilateral weave
 X = loops / ft width • Y = spirals / ft length
 Z = overlay wire gauge
 e.g. B30-8-16, U42-8-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	1.6 Turn	2.2 Turn
none	84.2	81.4	81.3
18-10-16	75.0	69.0	70.4
18-8-17	76.2	70.5	71.8
24-8-16	71.9	65.2	66.7
24-8-17	73.5	67.2	68.6
30-8-16	68.8	61.4	63.0
30-8-17	70.8	63.8	65.4
36-8-16	65.7	57.5	59.3
36-8-17	68.1	60.5	62.2
42-8-16	62.6	53.7	55.1
42-8-17	65.4	57.2	59.0
48-8-16	59.5	49.9	52.0
48-8-17	62.7	53.8	55.8
54-8-16	56.4	46.0	48.3
54-8-17	60.0	50.5	52.6

SPROCKETS

UHMWPE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#8	17	8.16 (207.3)	7.43 (188.7)	0.75 (19.1)	3.00 (76.2)

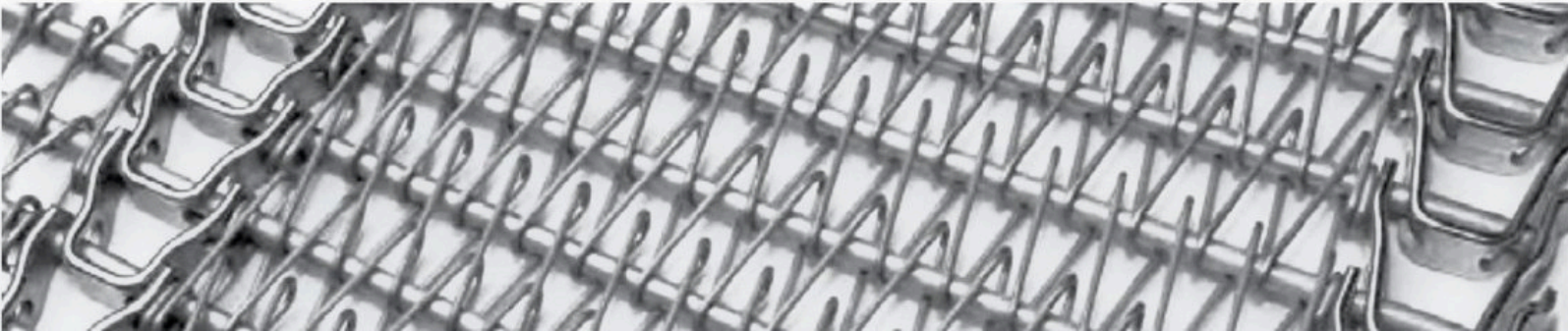
Sprockets are available in stainless steel, plain steel and UHMWPE. UHMWPE components have a 150°F (66°C) maximum operating temperature. Maximum bore for UHMWPE assumes 1/2 in (12.7 mm) of material above the keyway; listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

Supports. Required at a maximum of 18" on the load side and 24" on the return side; rollers may be used instead. For light loads, support rails may be spaced further apart.

SMALL RADIUS OMNI-PRO

3/4-Inch Pitch • Metal Spiral Belt

The Small Radius Omni-Pro is a lotension spiral turn-curve belt built on a 3/4" pitch with a three-part link design that collapses on the inside edge to negotiate tight turns. Its heavy-duty non-collapsing center links and stainless steel construction give it strength and durability across a wide range of curved conveying applications.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.0 to 2.0
Pitch	in (mm)	0.75 (19.1)
Available widths	in (mm)	12.00-48.00 (304.8-1219.2)
Link type/material – inside edge		Standard collapsing stainless steel
Link type/material – center		Heavy duty non-collapsing links stainless steel
Link type/material – outside edge		Heavy duty collapsing stainless steel
Link height	in (mm)	0.438 (11.1)
Rod diameter/material	in (mm)	0.192 (4.9) stainless steel
Conveying surface	in (mm)	Inside: distance to center link minus 1.621 (41.2); Outside: overall width minus the distance to the center link, minus 1.873 (47.6)
Weight		See belt weight calculation
Allowable tension – curve/spiral	lb (kg)	150 (68) at 100,000 cycles
Allowable tension – straight run	lb (kg)	300 (136) at 100,000 cycles
Turn direction		Uni-directional (left or right-must specify direction)
Mode of turning		Inside edge collapses in turn
Method of drive		Sprocket driven on inside and center links only
Optional mesh overlay material		Stainless steel

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2x stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

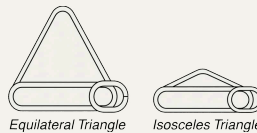
Designation B/U X-Y-Z
 B = balanced weave · U = unilateral weave
 X = loops / ft width · Y = spirals / ft length
 Z = overlay wire gauge
 e.g. B30-16-16, U42-16-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	1.1 Turn
none	74.4	75.9
18-12/16-16	60.1	63.3
18-12/16-17	61.9	64.2
24-12/16-16	55.6	58.3
24-12/16-17	58.0	60.6
30-12/16-16	51.1	54.1
30-12/16-17	54.1	56.9
36-12/16-16	46.6	49.8
36-12/16-17	50.2	53.2
42-12/16-16	42.1	45.6
42-12/16-17	46.3	49.5
48-12/16-16	37.6	41.3
48-12/16-17	42.3	45.8
54-12/16-16	33.0	37.0
54-12/16-17	38.3	42.0

SPROCKETS

UHMWPE DRIVE SPROCKETS

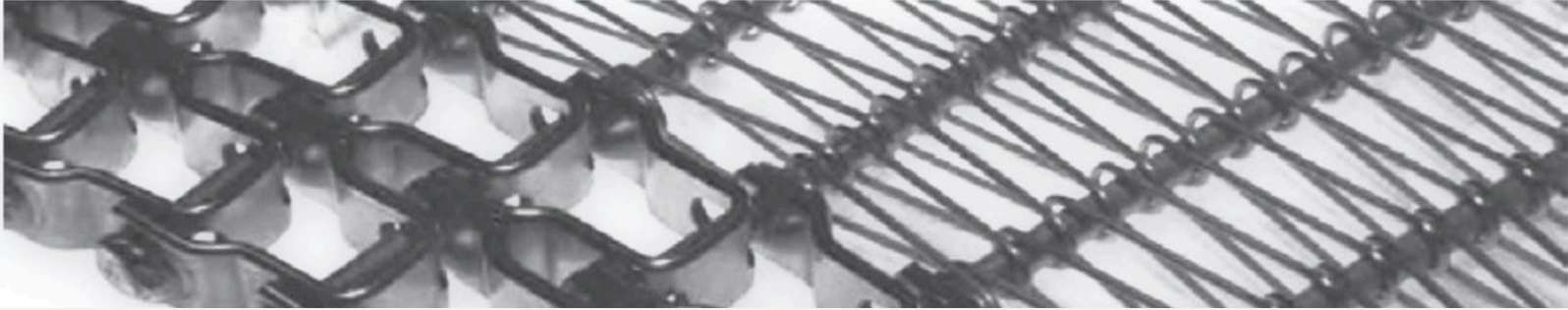
Nom. size	Teeth	Pitch ϕ	Hub ϕ	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#3	12	2.90 (73.7)	2.36 (59.9)	1.00 (25.4)	1.44 (36.6)

Stock sprocket; additional sizes available on request. Sprockets are stocked in steel, stainless steel and UHMWPE (150°F / 66°C maximum for UHMWPE). Listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

SPACE SAVER OMNI-GRID

1-Inch Pitch • Metal Spiral Belt

The Space Saver Omni-Grid is a 1" pitch lotension spiral belt whose outside edge expands through the turn, allowing tight-radius curves in a compact footprint. Built entirely from stainless steel and driven by a special dual-tooth sprocket on the inside links, it suits space-constrained turn-curve conveying layouts.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.7 to 2.2
Pitch	in (mm)	1.08 (27.4)
Available widths	in (mm)	12-36 (304.8-914.4)
Link height	in (mm)	0.50 (12.7)
Link material		Stainless steel
Optional mesh overlay material		Stainless steel
Rod diameter/material	in (mm)	0.192 (4.9) stainless steel
Conveying surface	in (mm)	3.59 (91.2) less than nominal width
Weight		See belt weight calculation
Allowable tension – curve/spiral	lb (kg)	150 (68) at 100,000 cycles
Allowable tension – straight run	lb (kg)	300 (136) at 100,000 cycles
Turn direction		Uni-directional (left or right-must specify direction)
Mode of turning		Outside edge expands in turn
Method of drive		Sprocket driven on inside set of links only; special dual tooth sprocket required

AVAILABLE OPTIONS

Omni-Tough® Mesh Overlay



A stainless-steel spring-wire spiral overlay in 16 or 17 gauge — about 2-1/2x stronger and more damage-resistant than conventional wire overlays. It gives a flatter carrying surface and resists product sticking in freezer duty.

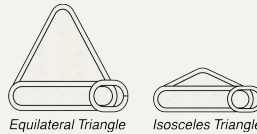
Designation B/U X-Y-Z
 B = balanced weave • U = unilateral weave
 X = loops / ft width • Y = spirals / ft length
 Z = overlay wire gauge
 e. g. B30-12-16, U42-12-17

Variable Loop Count Overlay (Patented)

Loop spacing varies across the belt width so the loops draw progressively closer from the inside to the outside of the belt — keeping product support even through a turn.

Special Spirals (Patented)

Available on Omni-Tough® overlay: one or more spirals on the carrying surface are raised as lane dividers or flights, up to belt-pitch height, with configurable height, spacing, location, shape and lane count.



OPEN SURFACE AREA %

Mesh	Straight	1.7 Turn
none	82.2	85.1
18-12-16	69.2	74.1
18-12-17	70.8	75.5
24-12-16	65.0	70.6
24-12-17	67.2	72.5
30-12-16	60.8	67.1
30-12-17	63.6	69.4
36-12-16	56.6	63.6
36-12-17	59.9	66.4
42-12-16	52.4	60.6
42-12-17	56.2	63.3
48-12-16	48.1	56.5
48-12-17	52.5	60.6
54-12-16	43.9	52.9
54-12-17	48.8	57.1

SPROCKETS

UHMWPE DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#6	19	6.56 (166.6)	6.03 (153.2)	0.88 (22.4)	4.00 (101.6)

A special dual-tooth sprocket drives the inside set of links. Listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

ADVANTAGE 120

1.2-Inch Pitch • Plastic Spiral Belt

The Ashworth Advantage 120 is a low-tension plastic spiral and turn-curve belt built from blue acetal (POM) links on stainless steel rods, engineered for tight radius turns and straight runs alike. Its 1.2-inch pitch, sprocket-driven design and NSF-certified hygienic construction suit meat, poultry and general food processing where sanitation and reliable curve tracking matter.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn Ratio		1.6–2.8
Pitch	in. (mm)	1.20 (30.5)
Available Widths: Curve/Spiral	in. (mm)	8–40 (203–1016) in 1 (25.4) increments
Available Widths: Straight Run	in. (mm)	8–60 (203–1524) in 1 (25.4) increments
Conveying Surface	in. (mm)	Full belt width (subtract 1.0 (25.4) from side with guard edges)
Rod Diameter/Material	in. (mm)	0.192 (4.9) stainless steel
Link Height	in. (mm)	0.56 (14.2)
Weight		See belt weight chart
Maximum Temperature	°F (°C)	180 (82)
Minimum Temperature	°F (°C)	-50 (-45)
Open Area		67% expanded / 61% average in turn
Average Air Pressure Drop	inH2O (Pa)	0.061 (15.2) in a turn at 550 FPM
Maximum Belt Pull: Curve/Spiral	lb. (kg)	500 (226)
Maximum Belt Pull: Straight Run	lb. (kg)	1000 (453)
Maximum Allowable Tension: Curve/Spiral	lb. (kg)	200 (91) at 100,000 cycles
Maximum Allowable Tension: Straight Run	lb. (kg)	400 (182) at 100,000 cycles
Link & Module Material		Blue acetal (POM)
Turn Direction		Bi-directional (left & right)
Mode of Turning		Inside edge collapses in turn
Method of Drive		Sprocket driven on links
Patent Number		7,073,662 (And other foreign, domestic, and pending patents)

AVAILABLE OPTIONS

Integrated Guard Edges

Molded into the link and installed on one or both edges, in 1/2" and 1" (12.7 & 25.4 mm) heights.

Lane Dividers

Rod-anchored stainless-steel dividers installed at specified locations in the surface-module section, in 1/2" and 1" heights.

Friction Top (FDA Approved)

Grey friction-top modules placed within the surface-module section for improved product grip.

UHMWPE DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø in (mm)	Hub Ø in (mm)	Bore min in (mm)	Bore max in (mm)
#4	11	4.19 (106.4)	3.46 (87.9)	0.75 (19.1)	1.75 (44.5)
#5	13	4.90 (124.5)	4.23 (107.4)	0.75 (19.1)	2.25 (57.1)
#6	16	6.05 (153.7)	5.38 (136.7)	0.75 (19.1)	3.00 (76.2)
#8	21	7.88 (200.2)	7.27 (184.7)	0.75 (19.1)	4.00 (101.6)

BASE BELT WEIGHT

Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
8 (203)	1.3 (1.9)	20 (508)	3.2 (4.8)
10 (254)	1.7 (2.5)	22 (559)	3.5 (5.2)
12 (305)	2.0 (3.0)	24 (610)	3.7 (5.5)
14 (356)	2.3 (3.4)	26 (660)	4.0 (6.0)
16 (406)	2.6 (3.9)	28 (711)	4.3 (6.4)
18 (457)	2.9 (4.3)	30 (762)	4.7 (7.0)

NSF certified to NSF/3-A/ANSI 14159-3 hygiene requirements for mechanical belt conveyors in meat and poultry processing. Blue acetal links, sprocket driven.

ADVANTAGE 200

2-Inch Pitch • Plastic Spiral Belt

The Ashworth Advantage 200 is a low-tension plastic spiral and turn-curve belt of blue acetal (POM) links on stainless steel rods, with a 2-inch pitch that delivers greater open area for airflow and drainage on curves and straight runs. Sprocket-driven and NSF certified, it is designed for demanding food processing lines that require higher belt-pull capacity along with dependable curve performance.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn Ratio		1.5 to 2.8
Pitch	in. (mm)	2.00 (50.8)
Available Widths: Curve/Spiral	in. (mm)	10-48 (254-1219) in 1.0 (25.4) increments
Available Widths: Straight Run	in. (mm)	10-60 (254-1524) in 1.0 (25.4) increments
Conveying Surface	in. (mm)	Full belt width (subtract 1.25 (31.8) from side with guard edges)
Rod Diameter/Material	in. (mm)	0.236 (6.0) stainless steel
Link Height	in. (mm)	0.56 (14.2)
Weight		See belt weight chart
Maximum Temperature	°F (°C)	180 (82)
Minimum Temperature	°F (°C)	-50 (-45)
Open Area		67% expanded / 61% average in turn
Average Air Pressure Drop	inH ₂ O (Pa)	0.042 (10.5) in a turn at 550 FPM
Maximum Belt Pull: Curve/Spiral	lb. (kg)	750 (340)
Maximum Belt Pull: Straight Run	lb. (kg)	1500 (680)
Maximum Allowable Tension: Curve/Spiral	lb. (kg)	300 (136) at 100,000 cycles
Maximum Allowable Tension: Straight Run	lb. (kg)	600 (273) at 100,000 cycles
Link & Module Material		Blue acetal (POM)
Turn Direction		Bi-directional (left & right)
Mode of Turning		Inside edge collapses in turn
Method of Drive		Sprocket driven on links
Patent Number		7,073,662 (And other foreign, domestic, and pending patents)

AVAILABLE OPTIONS

Integrated Guard Edges

Molded into the link and installed on one or both edges, in 1/2" and 1" (12.7 & 25.4 mm) heights.

Lane Dividers

Rod-anchored stainless-steel dividers installed at specified locations in the surface-module section, in 1/2" and 1" heights.

Friction Top (FDA Approved)

Grey friction-top modules placed within the surface-module section for improved product grip.

UHMWPE DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#6	10	6.47 (164.3)	5.59 (142.0)	0.75 (19.1)	3.25 (82.6)
#8	13	8.36 (212.3)	7.55 (191.8)	0.75 (19.1)	4.00 (101.6)

BASE BELT WEIGHT

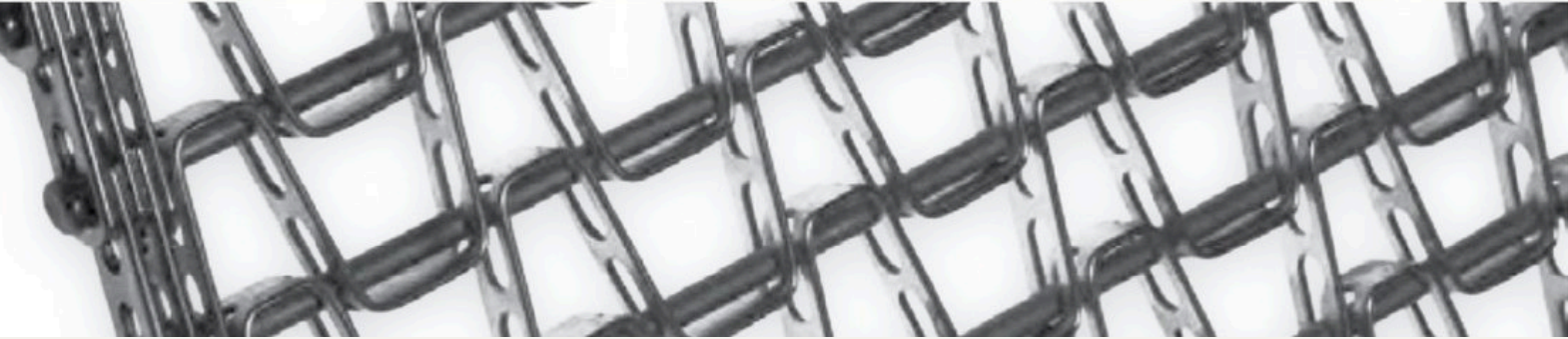
Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
10 (254)	1.5 (2.2)	22 (559)	3.2 (4.8)
12 (305)	1.8 (2.7)	24 (610)	3.4 (5.1)
14 (356)	2.1 (3.1)	26 (660)	3.6 (5.4)
16 (406)	2.3 (3.4)	28 (711)	3.9 (5.8)
18 (457)	2.6 (3.9)	30 (762)	4.2 (6.3)
20 (508)	2.9 (4.3)	32 (813)	4.4 (6.5)

NSF certified to NSF/3-A/ANSI 14159-3 hygiene requirements for mechanical belt conveyors in meat and poultry processing. Blue acetal links, sprocket driven.

OMNI-FLEX E1 & E2

1-Inch Pitch • Rugged Metal Spiral Belt

Omni-Flex E1 and E2 are lotension flat-wire spiral turn-curve belts built on a 1-inch pitch with double heavy-duty bar links on both edges and a stainless steel picket construction. The two versions share the same frame and differ only in mesh opening, with E1 offering a 1" square picket and E2 a tighter half-inch picket for finer product support.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.8 (without bar links)
Pitch	in (mm)	1.084 (27.5)
Available widths	in (mm)	6.00–48.00 (152.4–1219.2)
Picket dimension/material: E1 & E2	in (mm)	0.500 x .062 (12.7 x 1.6) stainless steel flat wire
Nominal picket (mesh) shape: E1	in (mm)	1.00 x 1.00 (25.4 x 25.4)
Nominal picket (mesh) shape: E2	in (mm)	0.50 x 1.00 (12.7 x 25.4)
Rod diameter/material	in (mm)	0.192 (4.9) / stainless steel
Bar links		Double, heavy duty, collapsing 0.090 (2.3) thick, on inside and outside belt edges
Conveying surface: standard links	in (mm)	0.25 (6.4) less than nominal belt width
Thickness	in (mm)	0.50 (12.7)
Weight		See belt weight chart
Allowable tension	lb (kg)	300 (136) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive	in (mm)	Positive drive with matching sprockets spaced a max. of 6 (152.4) apart or friction drive with a minimum 12 (304.8) diameter flat faced drum

AVAILABLE OPTIONS

Guard Edges

Plates assembled onto the belt edges to keep product on the belt; they replace bar links one-for-one. Available heights above the conveying surface: 1/2, 3/4, 1, 1-1/2 and 2" (12.7–50.8 mm).

Lane Dividers

Detachable or non-detachable plates set into the belt surface to locate product, in the same height range. Maximum lanes = belt width ÷ 9" (228.6 mm).

Fatigue-Resistant Pickets (Patented)

Pickets with an outward-facing radius on the trailing face lengthen the belt pitch at selected outer-edge openings, shifting turn load onto the bar links and extending belt life by about 30%.

OPEN SURFACE AREA % – E1 & E2

Mesh	Straight	2.0 Turn
1 × 1 (E1)	70.4	64.5
1/2 × 1 (E2)	64.0	52.0

STEEL DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#4	13	4.53 (115.1)	3.90 (99.1)	1.00 (25.4)	2.63 (66.8)
#6	18	6.24 (158.5)	5.65 (143.5)	1.00 (25.4)	3.50 (88.9)
#8	23	7.96 (202.2)	7.39 (187.7)	1.00 (25.4)	4.50 (114.3)

UHMWPE drive sprockets are also available at the same pitch diameters with lower maximum bores (#4 2.19, #6 3.75, #8 4.00 in). Listed maximum bores give adequate thickness for a standard keyway — specify special sizes.

BASE BELT WEIGHT

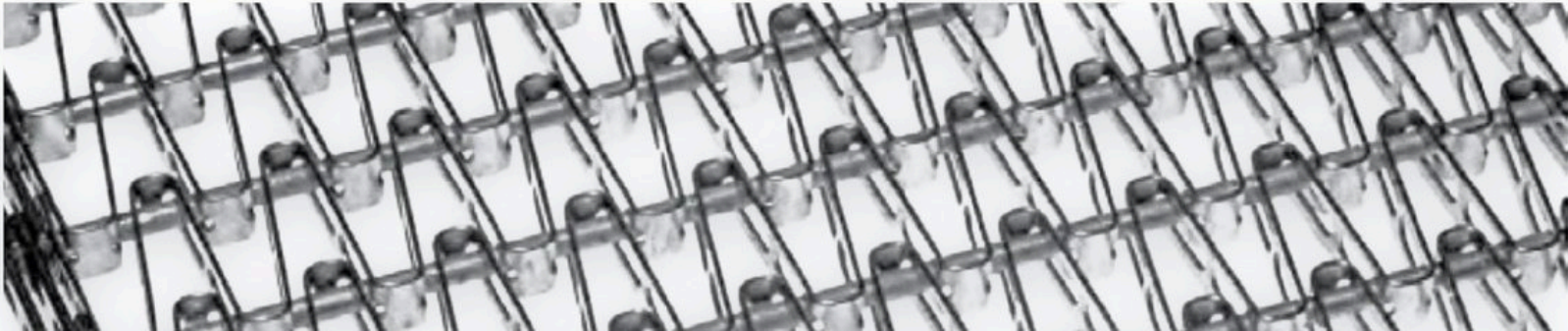
Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
6 (152)	1.94 (2.9)	18 (457)	5.04 (7.5)
8 (203)	2.46 (3.7)	20 (508)	5.56 (8.3)
10 (254)	2.97 (4.4)	22 (559)	6.07 (9.0)
12 (305)	3.49 (5.2)	24 (610)	6.59 (9.8)
14 (356)	4.01 (6.0)	26 (660)	7.11 (10.6)
16 (406)	4.52 (6.7)	28 (711)	7.62 (11.3)

Base belt weights shown are for the E1 version (first weight column). E2 weights run slightly heavier. Weights apply to standard construction with double bar links on both edges; consult Uniking for non-standard configured belts.

OMNI-FLEX E3

1-Inch Pitch • Rugged Metal Spiral Belt

Omni-Flex E3 is a lotension flat-wire spiral turn-curve belt on a 1-inch pitch, using a thinner stainless steel picket and a tighter one-third mesh opening for close product support. It carries double heavy-duty bar links on both edges and negotiates turns of 2.0 belt widths and above.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		2.0 and above (with bar links)
Pitch	in (mm)	1.084 (27.5)
Available widths	in (mm)	6–48 (152.4–1219.2)
Picket dimension/material	in (mm)	0.50 x .05 (12.7 x 1.3) stainless steel flat wire
Nominal picket (mesh) shape	in (mm)	0.33 x 1.00 (8.4 x 25.4)
Rod diameter/material	in (mm)	0.192 (4.9) / stainless steel
Bar links		Double, heavy duty, 0.09 (2.3) thick, on inside and outside belt edges
Conveying surface: standard links	in (mm)	0.25 (6.4) less than nominal belt width
Thickness	in (mm)	0.5 (12.7)
Weight		See belt weight chart
Allowable tension	lb (kg)	300 (136) at 100,000 cycles
Turn direction		Bi-directional (left & right)
Mode of turning		Inside edge collapses in turn
Method of drive	in (mm)	Positive drive with matching sprockets spaced a max. of 6 (152.4) apart or friction drive with a minimum 12 (304.8) diameter flat faced drum

AVAILABLE OPTIONS

Guard Edges

Plates assembled onto the belt edges to keep product on the belt; they replace bar links one-for-one. Available heights above the conveying surface: 1/2, 3/4, 1, 1-1/2 and 2" (12.7–50.8 mm).

Lane Dividers

Detachable or non-detachable plates set into the belt surface to locate product, in the same height range. Maximum lanes = belt width ÷ 9" (228.6 mm).

OPEN SURFACE AREA % – E3

Mesh	Straight	2.0 Turn
1/3 × 1	57.7	49.2

STEEL DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#4	13	4.53 (115.1)	3.90 (99.1)	1.00 (25.4)	2.63 (66.8)
#6	18	6.24 (158.5)	5.65 (143.5)	1.00 (25.4)	3.50 (88.9)
#8	23	7.96 (202.2)	7.39 (187.7)	1.00 (25.4)	4.50 (114.3)

UHMWPE drive sprockets are also available at the same pitch diameters with lower maximum bores. Listed maximum bores give adequate thickness for a standard keyway — specify special sizes.

BASE BELT WEIGHT

Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
6 (152)	2.03 (3.0)	18 (457)	5.35 (8.0)
8 (203)	2.58 (3.8)	20 (508)	5.90 (8.8)
10 (254)	3.14 (4.7)	22 (559)	6.46 (9.6)
12 (305)	3.69 (5.5)	24 (610)	7.01 (10.4)
14 (356)	4.24 (6.3)	26 (660)	7.56 (11.3)
16 (406)	4.80 (7.1)	28 (711)	8.12 (12.1)

Base belt weights are indexed by OA (overall) belt width and apply to standard construction Omni-Flex E3 with double bar links on both edges. Consult Uniking for weights of non-standard configured belts.

SMALL RADIUS OMNI-FLEX G1 & G3

1-Inch Pitch • Rugged Metal Spiral Belt

Small Radius Omni-Flex G1 and G3 are uni-directional flat-wire spiral turn-curve belts that carry their double bar links in the center of the belt so they can negotiate turns as tight as 1.0 belt width. They use a longer 1.50" pitch on the outside pickets versus the 1.084" inside pitch, with G1 running a 1" inside mesh and G3 a tighter half-inch inside mesh.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn ratio		1.0 and greater
Pitch: inside pickets	in (mm)	1.084 (27.5)
Pitch: outside pickets	in (mm)	1.50 (38.1)
Available widths: G1	in (mm)	14.00–54.00 (355.6–1371.6)
Available widths: G3	in (mm)	12–54 (304.8–1371.6)
Picket dimension/material: inside	in (mm)	0.50 x 0.06 (12.7 x 1.5) stainless steel flat wire
Picket dimension/material: outside	in (mm)	0.50 x 0.05 (12.7 x 1.3) stainless steel flat wire
Nominal picket (mesh) shape: G1 inside	in (mm)	1.00 x 1.00 (25.4 x 25.4)
Nominal picket (mesh) shape: G1 outside	in (mm)	1.00 x 1.50 (25.4 x 38.1)
Nominal picket (mesh) shape: G3 inside	in (mm)	0.50 x 1.00 (12.7 x 25.4)
Nominal picket (mesh) shape: G3 outside	in (mm)	0.50 x 1.50 (12.7 x 38.1)
Rod diameter/material	in (mm)	0.192 (4.9) / stainless steel
Bar links		Double, heavy duty, 0.09 (2.3) thick, assembled in the center of the belt
Conveying surface: standard links	in (mm)	0.25 (6.4) less than nominal belt width
Thickness	in (mm)	0.50 (12.7)
Weight		See belt weight chart
Allowable tension	lb (kg)	300 (136) at 100,000 cycles
Turn direction		Uni-directional (left or right—must specify direction)
Mode of turning		Inside edge collapses in turn
Method of drive		Positive drive with matching sprockets, toothless idlers support outside pickets

AVAILABLE OPTIONS

Bar Links — Inside Edge

One double row of bar links at the belt centre is standard to carry tension; an optional double row at the inside edge is available for tighter small-radius turns.

Guard Edges

Plates assembled onto the belt edges to keep product on the belt; they replace bar links one-for-one. Available heights above the conveying surface: 1/2, 3/4, 1, 1-1/2 and 2" (12.7–50.8 mm).

Lane Dividers

Detachable or non-detachable plates set into the belt surface to locate product, in the same height range. Maximum lanes = belt width ÷ 9" (228.6 mm).

Fatigue-Resistant Pickets (Patented)

Pickets with an outward-facing radius on the trailing face lengthen the belt pitch at selected outer-edge openings, shifting turn load onto the bar links and extending belt life by about 30%.

OPEN SURFACE AREA % — G1 & G3

Mesh	Straight	1.0 Turn
1×1–1×1–1/2 (G1)	65.8	66.6
1/2×1–1/2×1–1/2 (G3)	62.6	63.5

Listed maximum bores give adequate thickness for a standard keyway — specify special sizes when required.

BASE BELT WEIGHT

Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
14 (356)	3.61 (5.4)	26 (660)	6.41 (9.5)
16 (406)	4.07 (6.1)	28 (711)	6.87 (10.2)
18 (457)	4.54 (6.8)	30 (762)	7.34 (10.9)
20 (508)	5.01 (7.5)	32 (813)	7.81 (11.6)
22 (559)	5.47 (8.1)	34 (864)	8.27 (12.3)
24 (610)	5.94 (8.8)	36 (914)	8.74 (13.0)

Base belt weights shown are for the G1 version (first weight column); G3 weights run slightly heavier. G1 is not available in the 12 (305) width (N/A), so the table begins at 14 (356). Weights apply to standard construction with double bar links assembled in the center of the belt and no bar links along the edges. Only UHMWPE drive sprockets are published for this belt.

UHMWPE DRIVE SPROCKETS

Nom. size	Teeth	Pitch Ø	Hub Ø	Bore min	Bore max
		in (mm)	in (mm)	in (mm)	in (mm)
#4	13	4.53 (115.1)	3.90 (99.1)	1.00 (25.4)	2.19 (55.6)
#6	18	6.24 (158.5)	5.65 (143.5)	1.00 (25.4)	3.75 (95.3)
#8	23	7.96 (202.2)	7.39 (187.7)	1.00 (25.4)	4.00 (101.6)

EXACTASTACK

Self-Stacking Spiral Replacement Belt

ExactaStack is a drop-in stainless-steel replacement belt engineered to fit existing self-stacking spiral systems without drive modifications. Its specifications are given in metric units, and every belt carries the maximum load rated by the original system manufacturer for an equivalent belt.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Turn Ratio		Approximately 1.7 (designed to fit existing systems)
Pitch	mm	60 is the longitudinal pitch per link; 30 is the intermediate rod spacing
Available Widths	mm	420, 580, 640, 760
Conveying Surface	mm	45 less than belt width
Tier Height	mm	60, 80, 100, 120, 150, 180, 220
Rod Diameter	mm	5.0
Weight		See belt weight chart
Material		Stainless steel links, rods, and mesh
Turn Direction		Clockwise or counterclockwise
Allowable Tension		Belts will carry the maximum load specified by the system manufacturer for an equivalent belt
Mode of Turning		Inside edge collapses in turn

AVAILABLE OPTIONS

Wire Mesh Overlay

Specified X-Y-Z (belt width · pitch · wire diameter). The standard overlay is a right-hand-wind unilateral weave of two mating spirals, the oval pigtails of one nesting within the round pigtails of the next on the connecting rod.

Special & Plastic Overlay

Special mesh configurations can be matched to existing belts. A plastic mesh with ~13 mm (1/2") openings is available to 180°F (82°C); not for caustic-clean lines. Consult Uniking.

OPEN SURFACE AREA % – EXACTASTACK

Mesh	Straight	1.7 Turn
M6-1.6	57.2	47.5
M9-1.6	65.9	58.2
M13-1.6	71.3	64.8
M20-1.6	75.6	70.1

OPEN SURFACE AREA % – EXACTASTACK WD

Mesh	Straight	1.7 Turn
M6-1.6	50.4	39.1
M9-1.6	59.2	49.9
M13-1.6	64.5	56.4
M20-1.6	68.8	61.7

BASE BELT WEIGHT

Width in (mm)	lb/ft (kg/m)	Width in (mm)	lb/ft (kg/m)
420 mm W / 60 mm H (6 mm mesh)	4.64 lb/ft	640 mm W / 60 mm H (6 mm mesh)	6.47 lb/ft
420 mm W / 120 mm H (6 mm mesh)	5.80 lb/ft	640 mm W / 120 mm H (6 mm mesh)	7.63 lb/ft
420 mm W / 220 mm H (6 mm mesh)	7.73 lb/ft	640 mm W / 220 mm H (6 mm mesh)	9.56 lb/ft
580 mm W / 60 mm H (6 mm mesh)	5.97 lb/ft	760 mm W / 60 mm H (6 mm mesh)	7.48 lb/ft
580 mm W / 120 mm H (6 mm mesh)	7.13 lb/ft	760 mm W / 120 mm H (6 mm mesh)	8.64 lb/ft
580 mm W / 220 mm H (6 mm mesh)	9.06 lb/ft	760 mm W / 220 mm H (6 mm mesh)	10.57 lb/ft

A drop-in replacement for self-stacking spirals: no cage bars, no sprockets. ExactaStack widths are 420/580/640/760 mm; ExactaStack WD widths are 760/920/1060 mm. Both use metric mesh pitches of 6, 9, 13 and 20 mm.

TWENTEFLEX

Twentebelt • Spiral Belt

TwenteFlex is a weld-free modular spiral belt whose cross rods are anchored by a 180° mechanical bend rather than a weld, giving a hygienic, easy-clean surface without one-sided cavities. It carries product through spiral towers for cooking, cooling, freezing, proofing and pasteurizing, running either on a low-tension friction drum or with positive inside direct drive.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Belt type		Modular spiral belt, weld-free (180° bent cross rods)
Drive method		Friction drum (low-tension) or positive inside direct drive
Turn capability		Inside turn radius 1.6-3.5× belt width (by model)
Belt pitch		TBU 30 = 30 mm; TBU 40 = 40 mm; TBW 20 / TBW-HD 20 = 20 mm
Lateral (spiral) pitch	mm	12.7
Spiral wire / cross rod	mm	1.4 dia wire; 6 dia cross rod
Belt width range		150-1575 mm (6-62"), by model
Materials		300-series stainless (AISI 304/302 std, AISI 316 option); hybrid with POM or flame-retardant PA6 modules
Belt strength		Up to 180 kg turns / 360 kg straights (400/800 lb, TBU 40)
Temperature (drive/support)		-60 to +60°C; alternative rail materials above 80°C
Food-contact compliance		EC 1935/2004 and EC 2023/2006 GMP

AVAILABLE OPTIONS

Weld-Free Bended-Rod Construction

Cross rods are anchored by a 180° mechanical bend instead of a weld — no sharp welds, no protruding rod ends and no one-sided cavities to trap product. Hygienic, easy to clean and free of the weld breakage common to traditional spiral belts.

Full-Metal & Hybrid Builds

TBU (bended rod) and TBW (welded rod, straight-run) in AISI 304/302 stainless, 316 optional. Hybrid TBU-P adds dark-blue Acetal (POM) surface modules; TBU-P-FR uses light-blue flame-retardant PA6 (UL94 V2).

Drive Options

Runs on a low-tension friction cage (typically 6-10% cage overdrive, 3-5% on stainless surfaces) or with positive inside direct drive that engages toothed cage bars — retrofit-compatible with standard TwenteFlex belts. Sprockets in 12, 16 or 21 teeth.

MODEL RANGE

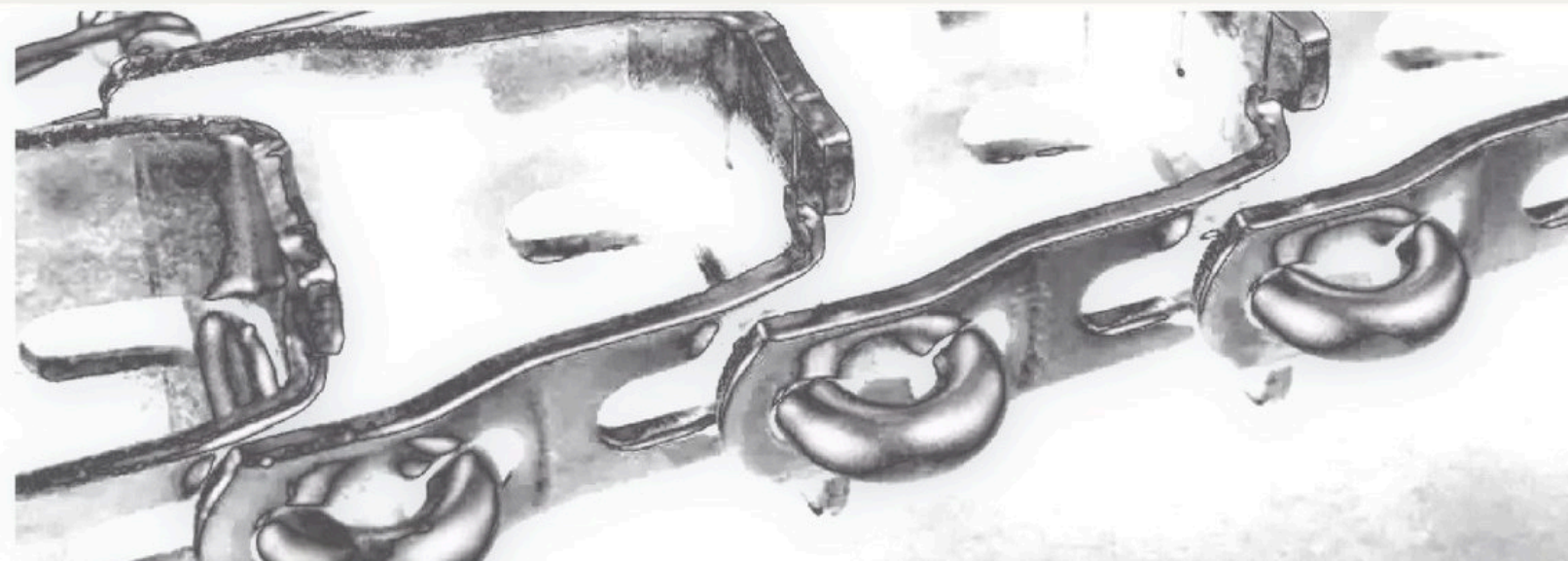
Model	Pitch mm	Cross rod mm	Belt width mm	Min. turn radius	Max tension turn / straight
TBU 30	30	5	400-1526	1.7-3.5 × width	90 / 180 kg
TBU 40	40	6	400-1526	1.6-3.1 × width	180 / 360 kg
TBW 20	20	5	150-1016	2.1-2.4 × width	68 / 136 kg
TBW-HD 20	20	6	150-1575	3.0 × width (straight)	90 / 180 kg
TBU-P / -FR 40	40	6	400-1526	1.6-3.1 × width	180 / 360 kg

Spiral wire 1.2/1.4/1.6 mm (18/17/16 ga); lateral spiral pitch 4.2-16.9 mm. Integral guard edges at 12.5 mm (1/2") or 25 mm (1"). For direct food contact: cooling, proofing, freezing and steam-cooking. Compliant with EC 1935/2004, EC 2023/2006 GMP and EU 10/2011.

TWENTESIDEFLEX

Twentebelt • Spiral Belt

TwenteSideFlex is the outside direct-drive member of the TwenteFlex spiral range, driven by sprockets on vertical shafts that engage the belt's outer edge so no central drum is needed. Its positive engagement eliminates christmas-treeing and reduces product vibration, making it well suited to very wide belts and P-loop spiral layouts in hygienic food processing.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Belt type		Modular spiral belt, weld-free (180° bent cross rods)
Drive method		Outside direct drive (edge sprockets on vertical shafts, no drum)
Turn capability		Inside turn radius 2.2× belt width (R2.2)
Belt pitch	mm	40
Lateral (spiral) pitch	mm	16.9
Spiral wire / cross rod	mm	1.4 dia wire; 6 dia cross rod
Materials		300-series stainless; hybrid with POM or flame-retardant PA6 modules; drive teeth in POM/PA6/stainless, center parts AISI 303
Belt width		Made to order; suits wide belts and P-loop layouts
Key strength		Positive engagement prevents christmas-treeing and cuts product movement vs. friction spirals

AVAILABLE OPTIONS

Outside Direct Drive

Drive sprockets on one or two vertical shafts engage the belt's outer link with a dual-tooth design that prevents torque-related belt movement. No central drum is needed, so the tower centre is free for heat exchangers or other equipment.

Why Edge Drive

Positive engagement removes the friction coefficient that causes "christmas-treeing" and belt flip, cuts product vibration and movement, and stays stable across very wide belts. Mechanical bend joints avoid the weld-embrittlement zones of welded spirals.

Layout Flexibility

Suits spiral and oval (racetrack) layouts and single-belt P-loop systems that run up and down the same spiral. The open, drum-free construction improves cleaning access and cuts downtime through more predictable operation.

EDGE-DRIVE SPROCKETS

Sprocket	Teeth	Outside Ø mm	Bore mm	Width mm
16-tooth	16	225	50	71
18-tooth	18	252	70	71

Designation example TSF 16.9–40–1.4–6 / R2.2 (lateral pitch · belt pitch · wire Ø · rod Ø · inside turn radius). Sprocket teeth in POM, PA6 or stainless; centre parts and set collars AISI 303. Made to order for cooking, cooling, freezing, pasteurizing, proofing and steaming.

FLEX LINK

Collapsible-Link Turn-Curve Belt

Flex Link is a collapsible-link turn-curve belt for spiral towers and flat turns. An oblong slot in each outer link lets the belt collapse through the turn, and it is positively driven by sprockets on the inner and centre links. Built rods-only for maximum airflow or with a spring-temper stainless mesh overlay for delicate product, it is offered in standard (2.2), reduced (1.7) and tight (1.1) turning radii for baking, cooking, cooling, freezing, glazing, icing and proofing.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Collapsible link belt – rods-only or mesh overlay
Belt pitch	in (mm)	3/4 & 1 (19.1 / 25.4); 1.5 (38.1) on Flex Link Extra
Links	in (mm)	7/16-5/8 wide x .080-.125 (std to super-heavy duty)
Rods		6 ga (0.192) high-tensile; 4 ga (0.225) on Extra; button-head welds
Mesh overlay		14-18 ga spring-temper stainless (16/17 ga on Extra)
Belt width range	in (mm)	12-54 (305-1372), custom available
Materials		T304 stainless throughout; T316 or high-carbon steel option
Turning radius		Standard 2.2x • Reduced 1.7x • Tight 1.1x belt width
Method of drive		Positive sprocket drive on inner & centre links

AVAILABLE OPTIONS

Rods-Only vs Mesh Overlay

Rods-only construction gives maximum air circulation, suits larger products and trays and cuts belt weight for lower energy use. A mesh overlay adds product support and smaller openings for delicate product — soft dough, beef patties and fish — in 14-to-18-gauge wire, custom meshes to order.

Collapsible Oblong-Slot Links

An oblong slot in each outer link lets the belt fully collapse through the turn, and opens the link for better cleaning access and reduced bacteria build-up. Heavy-duty non-collapsing links run in the centre load-bearing section (and on the outer edge of tight-radius belts) for strength.

Overlays, Materials & Side Plates

All overlays are spring-temper stainless for fatigue and damage resistance, in normal or spring-temper finish. Belts are T304 stainless throughout, with T316 or high-carbon steel rods and mesh on request; side plates and integral link-plates are available for product retention.

RADIUS & TENSION BY VARIANT

Variant	Pitch	Inside turn radius	Straight run lb (kg)	Turn / spiral lb (kg)
Standard Radius – Std Duty	3/4 or 1"	2.2 x width	200 (91)	100 (45)
Standard Radius – Hvy Duty	1"	2.2 x width	300 (136)	150 (68)
Reduced Radius – Std Duty	1"	1.7 x width	200 (91)	100 (45)
Reduced Radius – Hvy Duty	1"	1.7 x width	300 (136)	150 (68)
Tight Radius – Std Duty	3/4"	1.0-1.5 x width	200 (91)	150 (68)
Tight Radius – Hvy Duty	1"	1.1 x width	500 (227)	250 (113)
Flex Link Extra – Std Duty	1.5"	2.0-2.4 : 1	400 (181)	200 (91)
Flex Link Extra – Hvy Duty	1.5"	1.6-2.0 : 1	600 (272)	300 (136)

Effective carrying surface runs about 2.3-4.0" (58-102 mm) less than overall width, by link and radius. Flex Link Extra is the toughest of the range — in life-cycle testing it outlasted a 300-lb competitor belt about 10-to-1. Applications: baking, cooking, cooling, freezing, glazing, icing and proofing.

FLEX LINK

Standard Sprockets

Standard drive sprockets for 3/4", 1" and 1.5" (Extra) Flex Link belts, stocked in stainless steel, steel and UHMW. Drive sprockets locate on the inner and centre links; tooth-count designations are supplied to suit belt pitch and width.

FLEX LINK SPROCKETS – 3/4" & 1" PITCH

Belt pitch	Pitch Ø in (mm)	Hub Ø in (mm)	Bore in (mm)	Thickness in (mm)
3/4"	2.898 (73.6)	2.430 (61.7)	3/4-1 (19-25.4)	1.0 (25.4)
3/4"	5.938 (150.8)	5.500 (139.7)	1-4 (25.4-101.6)	1.5 (38.1)
1"	3.128 (79.5)	2.625 (66.7)	3/4-1 (19-25.4)	1.0 (25.4)
1"	4.350 (110.5)	3.850 (97.8)	1-3 (25.4-76.2)	2.0 (50.8)
1"	6.117 (155.4)	5.617 (142.7)	1-4 (25.4-101.6)	2.0 (50.8)
1"	7.868 (199.8)	7.368 (187.1)	1-4 (25.4-101.6)	2.0 (50.8)

FLEX LINK EXTRA SPROCKETS

Teeth	Pitch Ø in (mm)	Hub Ø in (mm)	Bore in (mm)	Thickness in (mm)
13T	6.443 (163.7)	5.521 (140.2)	1-4 (25.4-101.6)	2.0 (50.8)
18T	8.880 (225.6)	8.130 (206.5)	1-4 (25.4-101.6)	2.0 (50.8)

Sprockets are stocked in stainless steel, steel and UHMW. On tight-radius and standard-duty tight belts, drive sprockets sit only on the inner and centre links; the outer collapsible links run free through the turn.

STRAIGHT-RUNNING BELTS

STRAIGHT-RUNNING – POSITIVELY DRIVEN

SPROCKET & CHAIN DRIVEN

BALANCED WEAVE

FLAT-FLEX

COMPACT-GRID

EYE-LINK

ROD LINK

LADDER LINK

CHAIN-EDGE

FLAT-WIRE

BALANCED WEAVE

Positive Drive • Cleatrac / MTR-MTS Style

The positively driven balanced-weave belt is carried on a matched minimum-diameter system of sprockets, filler rolls and support bearings for true, slip-free tracking — the belt Ashworth builds as Cleatrac® (CTB) and Cambridge as the MTR (rod-reinforced) and MTS (straight) series. Welded edges are standard, and a very wide mesh range carries heavy loads and small products from freezer to fryer.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Balanced weave, welded edge
Materials		Stainless, carbon & galvanized steel, high-temp alloys
Available widths	in (mm)	1.50–220.00 (38.1–5588.0)
Thickness	in (mm)	0.156–0.35 (4.0–8.9), mesh dependent
Lateral pitch	in (mm)	0.225–0.695 (5.7–17.7), mesh dependent
Weight	lb/ft ² (kg/m ²)	0.67–1.58 (3.3–7.7), mesh dependent
Open area		34–74%
Working strength	lb/ft (kg/m)	Up to 1100 (1640); up to 2.5× fatigue-resistant
Temperature	°F (°C)	–40 to 400 (–40 to 204) std; higher with alloys
Method of drive		Positive — matched sprockets, filler rolls & support bearings

AVAILABLE OPTIONS

Welded Edge & Fatigue-Resistant

Welded edges come standard. The Fatigue-Resistant build (Cleatrac CTBFR / rod-reinforced MTR) carries up to 2.5× the working strength for longer conveyors, freezer tunnels and fryers, reducing belt stretch and failure; it is available in stainless steel.

Matched Sprocket Drive

Positively driven by a matched minimum-diameter system of sprockets, filler rolls and support bearings for slip-free tracking. Sprockets are bored oversize so they slide on the shaft as the belt width changes with temperature; supplied in UHMWPE (to 150°F), Acetal (to 180°F) or T-303 / T-316 stainless steel.

Mesh & Application Range

Dozens of meshes from a coarse 18 to a fine 60 balance open area, strength and support. Suited to freezing, cooling, cooking, drying, frying, proofing, blanching, pasteurizing, grading and transfer — the same belt sold as Cleatrac (Ashworth) and the MTR / MTS series (Cambridge).

BALANCED-WEAVE MESH RANGE

Designation	Thickness in (mm)	Lateral pitch in (mm)	Opening in	Working strength lb/ft (kg/m)
CTB 18-16-1616	0.301 (7.6)	0.67 (17.0)	0.777 × 0.301	100 (149)
CTB 18-16-1414	0.350 (8.9)	0.695 (17.7)	0.855 × 0.350	250 (372)
CTB 30-24-1616	0.263 (6.7)	0.505 (12.8)	0.613 × 0.263	300 (446)
CTB 30-24-1717	0.287 (7.3)	0.485 (12.3)	0.590 × 0.287	200 (298)
CTB 42-36-1616	0.240 (6.1)	0.35 (8.9)	0.460 × 0.240	325 (484)
CTB 42-36-1717	0.235 (6.0)	0.33 (8.4)	0.435 × 0.235	325 (484)
CTB 42-36-1818	0.236 (6.0)	0.325 (8.3)	0.414 × 0.236	240 (357)
CTB 48-48-1717	0.240 (6.1)	0.275 (7.0)	0.375 × 0.240	450 (670)
CTB 60-48-1818	0.205 (5.2)	0.26 (6.6)	0.350 × 0.205	350 (521)
CTB 60-48-1820	0.156 (4.0)	0.27 (6.9)	0.326 × 0.156	120 (179)
CTB 60-60-1818	0.220 (5.6)	0.225 (5.7)	0.310 × 0.220	350 (521)

Designation reads meshes/ft × spirals/ft – wire gauges. Working strengths are for standard construction; the fatigue-resistant build raises them up to 2.5×. See the following page for drive-sprocket and nose-roll data.

BALANCED WEAVE

Sprockets & Drive System

Balanced-weave belts are positively driven by a matched minimum-diameter system of sprockets, filler rolls and support bearings; the same matched-sprocket principle drives the Cambridge MTR / MTS belts. Sprockets are bored oversize so they float on the shaft as the belt width changes with temperature, and are furnished to suit the belt mesh and width.

DRIVE SPROCKETS (REPRESENTATIVE)

Sprocket	Teeth	Pitch Ø in (mm)	Materials
CTS 18-08	8	1.75 (44.4)	UHMWPE, T-303 / T-316 SS, Acetal
CTS 30-12	12	1.81 (46.0)	UHMWPE, T-303 / T-316 SS, Acetal
CTS 42-24	24	2.48 (63.1)	UHMWPE, T-303 / T-316 SS, Acetal
CTS 60-24	24	1.86 (47.4)	UHMWPE, T-303 / T-316 SS, Acetal
CTS 42-40	40	4.18 (106.2)	UHMWPE, T-303 / T-316 SS, Acetal
CTS 60-82	82	6.47 (164.5)	UHMWPE, T-303 / T-316 SS, Acetal

MINIMUM NOSE-ROLL DIAMETER (LOOSE-FIT, 10 FT CONVEYORS)

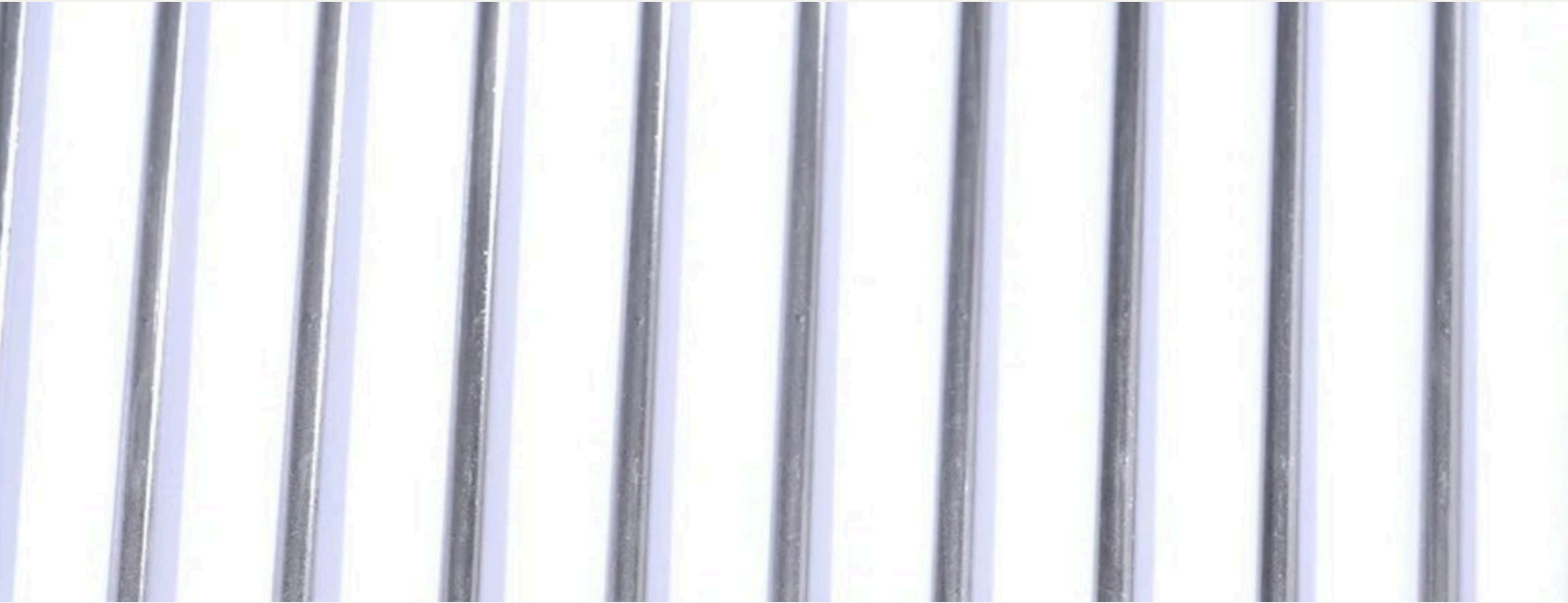
Mesh	Min. nose-roll Ø in (mm)
CTB 18	1.00 (25.4)
CTB 30	0.50 (12.7)
CTB 42	0.375 (9.5)
CTB 48	0.25 (6.4)
CTB 60-48	0.25 (6.4)
CTB 60-60	0.20 (5.1)

The standard minimum nose-roll diameter is 0.63" (15.9 mm) for CTB 30, 42, 48 and 60 meshes; the reduced diameters above apply where the conveyor is 10 ft (3 m) or less and the belt fits loosely. UHMWPE sprockets run to 150°F (66°C) and Acetal to 180°F (82°C); nose rolls are generally not recommended with CTB 18 belts.

ROD LINK

Ladder / Sani-Grid Style • Positively Driven

Rod Link is an open, ladder-style metal belt of straight cross rods carried on smooth looped edges — the same belt Cambridge calls Sani-Grid® and Wire Belt of America and the Wire Mesh Belt Company of Canada call Ladder Link. The flat, uniform surface gives gentle product handling with excellent airflow, drainage and cleaning; positive sprocket drive keeps it tracking true, straight-line or around 90° and 180° turns.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Open ladder – straight cross rods, smooth looped edges
Rod gauges	in (mm)	5 ga 0.207 (5.26) • 7 ga 0.177 (4.50) • 9 ga 0.148 (3.76)
Pitch – 5 / 7 / 9 ga	in (mm)	0.750 (19.05) / 0.625 (15.88) / 0.500 (12.70)
Clear opening – 5 / 7 / 9 ga	in (mm)	0.543 (13.79) / 0.448 (11.38) / 0.352 (8.94)
Available widths	in (mm)	6–48 (152–1220)
Materials		304 stainless standard; high-carbon or galvanized steel
Temperature		To 1000°F (538°C) with steel components
Method of drive		Positive sprocket drive (matched sprockets, furnished in pairs)

AVAILABLE OPTIONS

Open Ladder Construction

The open rod-and-edge design promotes optimal airflow, drainage and cleaning, and its simple construction minimises debris and bacteria build-up. High-tensile rods resist permanent stretch, and the belt assembles and disassembles easily for sanitation.

Positive Sprocket Drive

Matched drive sprockets are furnished in pairs for true tracking — in steel or stainless steel, or in rigid urethane (plastic). Hinge clips can be added along the belt for increased strength on longer or more heavily loaded conveyors.

Turns, Flights & Fillers

Runs straight-line or around right/left-hand 90° and 180° constant-radius turns (inside, outside and idler sprockets; a matched outside sprocket per turn width). U-bar filler rods and offset rod flights are available for inclines and declines.

STRAIGHT-LINE BELT WEIGHT (LB/FT)

Width in	5 Ga	7 Ga	9 Ga
12	2.34	1.98	1.68
15	2.79	2.38	2.03
18	3.25	2.78	2.38
20	3.55	3.07	–
24	4.16	3.59	3.01
30	5.07	4.39	3.71
36	5.98	5.19	–

DRIVE SPROCKETS

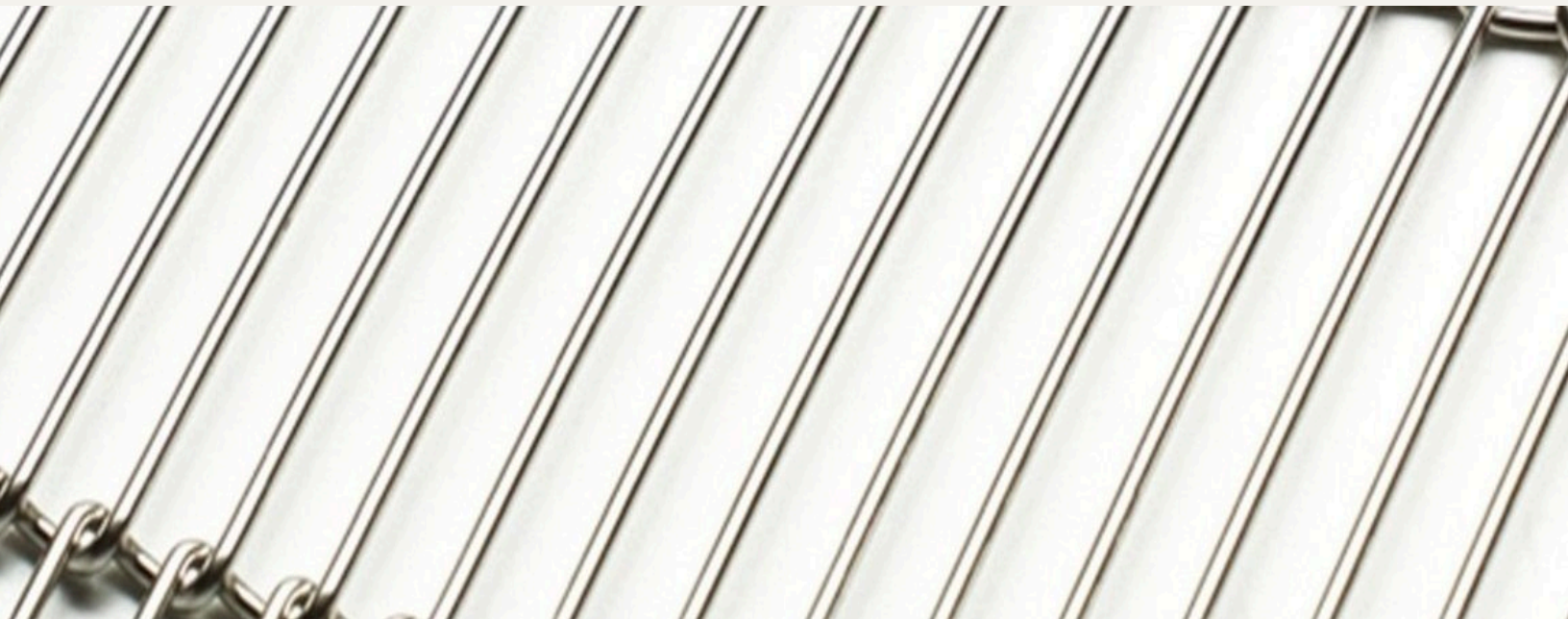
Wire ga	Sprocket	Teeth	Pitch Ø in (mm)	Outside Ø in (mm)
5 Ga	5-12	12	2.899 (73.63)	3.159 (80.24)
7 Ga	7-11	11	2.218 (56.34)	2.500 (63.50)
7 Ga	7-13	13	2.612 (66.34)	2.875 (73.03)
7 Ga	7-15	15	3.006 (76.35)	3.250 (82.55)
9 Ga	9-11	11	1.775 (45.09)	1.938 (49.23)
9 Ga	9-14	14	2.247 (57.07)	2.500 (63.50)
9 Ga	9-16	16	2.546 (64.67)	2.750 (69.85)
9 Ga	9-19	19	3.038 (77.17)	3.250 (82.55)
9 Ga	9-25	25	3.989 (101.32)	4.250 (107.95)

Sprockets are furnished in pairs: metal sprockets take a 3/4" bore with 3/16" keyway or a 1" bore with 1/4" keyway; rigid-urethane sprockets run to 250°F (121°C) dry continuous and 120°F (49°C) wet. Typical uses: cooling, freezing, proofing, baking, washing, inspection and elevating — breads, buns, confections, seafood and poultry.

FLAT-FLEX

Flat-Wire Spiral • Positively Driven

Flat-Flex is a flat-wire flat-spiral belt — among the most open of all mesh belts, up to 85% open area — built from flattened wire spirals joined by straight connector rods and driven positively by sprockets. Made since 1947 in over 60 pitch-and-wire combinations and widths to 4.5 m, its low mass, open surface and close transfer make it the standard for small-product handling, coating, frying, baking, cooling and freezing.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Flat-wire flat spiral joined by connector rods
Pitch range	mm (in)	4.24–20.32 (0.167–0.800)
Wire diameter	mm (in)	0.89–2.34 (0.035–0.092)
Combinations / width		60+ pitch × wire; widths 28 mm–4.5 m
Open area		Up to 85%
Edge / selvage		Single loop (SLE) or double loop (DLE)
Materials		302 SS (1.4310) or music-wire carbon steel; PTFE coating optional
Method of drive		Positive sprocket drive (polyacetal or stainless sprockets)

AVAILABLE OPTIONS

Edge / Selvage Types

Single Loop Edge (SLE) is the standard selvage, each cross rod ending in one formed loop; Double Loop Edge (DLE) adds a second formed loop for extra edge strength under heavier loads.

Positive Sprocket Drive

Non-slip sprocket drive gives accurate tracking and constant speed. Sprockets are stocked in polyacetal or stainless steel; a grooved transfer roller at the belt end gives close, clean product transfer down to a 12 mm roll diameter.

Special Belts

Compound belts carry formed flights (single- or double-“V”, hoop, bar) for inclines, lanes and pockets; aligned, crowned and reverse-crown builds hold shape under heat; Flat-Flex XT raises load capacity; Flex-Turn® curves run 90°/180° at 406 or 812 mm inside radius.

STANDARD BELT DATA – EXTRACT OF THE FLAT-FLEX RANGE

Pitch × wire (mm)	Thick. (mm)	Weight (kg/m²)	Max load (kg/m²)	Max tension (N)	Min. transfer Ø (mm)	Min. bend Ø (mm)	Open %
4.24 × 0.89	2.4	1.3	2.4	13.4	12	43	77
4.30 × 1.27	3.2	2.6	7.3	44.5	12	43	67
5.64 × 0.89	2.4	1.0	1.7	13.4	12	57	82
6.0 × 1.27	3.2	1.9	4.9	44.5	16	60	76
6.35 × 1.27	3.2	2.0	4.9	44.5	16	64	77
6.40 × 1.40	3.6	2.7	7.0	55.0	20	64	76
7.26 × 1.27	3.2	1.6	4.9	44.5	16	73	80
7.26 × 1.57	4.1	2.5	11.0	66.7	19	73	75
9.60 × 2.08	5.2	3.5	48.8	97.8	25	96	75
12.0 × 1.83	4.5	2.3	29.3	80.0	29	120	81
12.7 × 1.83	4.5	2.2	29.3	80.0	29	127	82
12.7 × 2.34	4.8	3.6	48.0	133.4	38	127	78
20.32 × 2.34	4.8	2.6	39.0	133.4	38	203	85

Max. load assumes correct belt support and is subject to limiting belt tension; minimum reverse-bend diameter is recommended for optimum belt life. Typical uses: chocolate enrobing and cooling, seafood, meat and poultry, bakery and frying, pizza ovens, snack coating, pharmaceutical and PCB cleaning / reflow.

FLAT-FLEX

Sprockets & Blanks · Positively Driven

Standard sprockets and blanks for Flat-Flex, selected by belt pitch and wire diameter. The outside diameter of a blank equals the root diameter (B) of its sprocket. All are precision-made in polyacetal or stainless steel, deburred and fitted with socket-head set screws — sprockets with two tapped holes at 90°, blanks with one. Imperial equivalents, alternative materials, reborning and keyway cutting are available on request.

STANDARD SPROCKETS & BLANKS

Pitch (mm)	Wire Ø (mm)	Outside Ø A (mm)	Root Ø B (mm)	Bore Ø C (mm)	Teeth
4. 24 / 4. 30	0. 89-1. 27	50. 80	46. 99	20	34
5. 64	0. 89	50. 80	45. 72	20	25
5. 64	1. 00	76. 20	70. 00	20	39
5. 64	1. 00	76. 20	70. 00	25	39
6. 0	1. 27	50. 70	45. 66	20	24
6. 0	1. 27	74. 83	69. 75	25	36
6. 35	0. 89	50. 80	44. 19	20	22
6. 35	1. 00	76. 20	71. 12	20	35
6. 35	1. 27	76. 20	71. 12	25	35
6. 4	1. 40	50. 27	45. 19	20	22
6. 4	1. 40	74. 85	69. 77	25	34
7. 26	1. 27	31. 75	27. 43	16	12
7. 26	1. 27	50. 80	45. 72	20	20
7. 26	1. 27	50. 80	45. 72	25	20
7. 26	1. 57	57. 15	50. 80	20	22
7. 26	1. 57	76. 20	68. 58	20	29
7. 26	1. 57	76. 20	68. 58	25	29
9. 6	2. 08	74. 88	67. 26	25	22
12. 0	1. 83	49. 25	41. 63	20	11
12. 0	1. 83	72. 00	64. 39	25	17
12. 70	1. 83	50. 80	44. 95	20	11
12. 70	1. 83	50. 80	44. 95	25	11
12. 70	2. 34	76. 20	68. 58	20	17
12. 70	2. 34	76. 20	68. 58	25	17
20. 32	2. 34	76. 20	65. 53	20	10
20. 32	2. 34	76. 20	65. 53	25	10

A grooved transfer roller (nominal 32 mm face) gives close product transfer at the belt end; standard bores are 20 and 25 mm (with a 14.3 mm reference face). Non-standard sprockets, blanks and materials are supplied to order.

POSITIVE DRIVE CHAIN EDGE

Woven Mesh on Driven Edge Chains • Positively Driven

Positive Drive Chain Edge (PDCE) pairs a woven-wire mesh carrying surface with a precision roller or hollow-pin chain along each edge. Sprockets engage the edge chains to drive the belt positively — giving exact straight tracking and high pulling capacity on long, heavily loaded or inclined conveyors where a friction belt would slip. The mesh, cross supports and edge chains are each specified to the application, making it the heavy-duty choice for smoker, cooker, dryer and fryer lines.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Woven-wire mesh carried on roller or hollow-pin edge chains
Mesh type		Balanced, compound-balanced or conventional woven wire
Edge chains		ANSI roller (single / double pitch), hollow-pin, pintle / drag chains
Cross supports		Rods, pipe/rod, turned-down rods, flat bar, channel or angle
Materials		Stainless, carbon & galvanized steel; high-temperature alloys
Available widths		Built to application – no absolute maximum
Maximum temperature	°F (°C)	Chain / material dependent – woven mesh to 2012 (1100)
Method of drive		Positive – matched edge chain & sprockets, straight tracking

AVAILABLE OPTIONS

Chain & Cross-Support Options

Almost any precision roller chain can be built in — RC50, C2060H, C2082H and similar — in single or double pitch with standard or oversized rollers, or drag / pintle chains (malleable iron to 600°F, cast stainless to 1050°F). Cross supports run from plain rods to pipe-and-rod, turned-down rods, or flat bar, channel and angle welded, brazed or bolted to the belt.

Guard Edges, Flights & Wipers

Guard-edge plates (offset, interlocking or flat) mount inside the chain at a specified height and material to keep product on the belt; flights or cleats prevent product slipping on an incline; and wire-mesh wipers hung from the underside clear debris from the return run.

Positive Drive & Tracking

Because the sprockets engage the edge chains rather than the mesh, drive is slip-free with exact, straight tracking and high pull — ideal for long, loaded or inclined conveyors. Belt tension is calculated from belt and product weight, conveyor length, incline and the chain friction factor.

CROSS-SUPPORT ROD DIAMETERS BY CHAIN

Edge chain (ANSI)	Cross-support rod dia. in (mm)
RC35 / RC41	0.135 (3.4)
RC40 / C2040 / C2042	0.152 (3.9)
RC50 / C2050 / C2052	0.196 (5.0)
RC60 / C2060H / C2062H	0.230 (5.8)
RC80 / C2080H / C2082H	0.307 (7.8)

Standard chain pitches are 0.5" (12.7 mm), 0.63" (15.9 mm) and 1.0" (25.4 mm), plus hollow-pin. Typical uses: smoker, cooker, dryer and fryer systems in food processing and baking. Each belt is engineered to the application — specify mesh, chain, cross support and edge details on enquiry.

EYE-LINK

Rod & Eye Modular • Positively Driven

Eye-Link is a modular rod-and-eye metal belt built from looped eye links joined by cross rods, giving a flat, open carrying surface that is easy to clean and repair. It is positively driven by sprockets across the width, handles temperatures to 752°F (400°C) and is engineered to order — individual modules replace in place — for cooking, baking, drying, cooling and washing on straight-running lines.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Looped eye links joined by cross rods
Available materials		304 & 316 stainless, carbon (others on request)
Longitudinal pitch	in (mm)	1.00 / 1.18 / 1.97 / 2.00 / 2.95 (25.4 / 30 / 50 / 50.8 / 75)
Eye-link wire diameter	in (mm)	0.08–0.14 (2.0–3.5)
Cross-rod diameter	in (mm)	0.16–0.32 (4.0–8.0)
Available widths	in (mm)	2.0–244.0 (50.8–6197.6)
Maximum temperature	°F (°C)	Up to 752 (400), material dependent
Weight & tension		Dependent on construction — engineered per belt
Method of drive		Positively driven (8- or 12-tooth sprockets)

AVAILABLE OPTIONS

EU vs US Designs

The belt is built in two patterns by how the eye links sit: in the EU (standard) design the eye-link ends touch, giving a tighter, more closed grid; in the US design the ends are equally spaced apart, giving a more open surface. Either pattern can be supplied to suit product size and airflow.

Eye-Link Plus

Eye-Link Plus adds specially designed internal bar links with slotted holes, cut so the cross wires pass unimpeded across the module — raising strength while keeping the belt easy to clean. Eye-Link Plus is available in 50 mm pitch, in either EU or US patterns.

Flights, Side Plates & Bar Links

Cross flights carry product up inclines and declines; side plates (41 / 51 / 61 mm standard, 10–200 mm to order) keep product on the belt; added bar links carry tension and limit rod deflection. Loose chain or chain edges can be fitted; all bar links have slotted holes for cleaning.

MESH DESIGNATIONS (A • M / C-D)

Pitch a	Belt description	Eye link c mm (in)	Rod d mm (in)
25.4 (1.0)	25.4 × m / 2.0–5	2.0 (0.080)	5 (0.196)
30 (1.18)	30 × m / 2.0–4	2.0 (0.080)	4 (0.158)
50 (1.97)	50 × m / 2.0–5	2.0 (0.080)	5 (0.196)
50 (1.97)	50 × m / 2.5–5	2.5 (0.098)	5 (0.196)
50 (1.97)	50 × m / 2.0–7	2.0 (0.080)	7 (0.276)
50 (1.97)	50 × m / 2.5–7	2.5 (0.098)	7 (0.276)
50 (1.97)	50 × m / 3.0–7	3.0 (0.120)	7 (0.276)
50 (1.97)	50 × m / 3.5–7	3.5 (0.135)	7 (0.276)
50 (1.97)	50 × m / 2.5–8	2.5 (0.098)	8 (0.307)
50.8 (2.0)	50.8 × m / 2.0–8	2.0 (0.080)	8 (0.307)
50.8 (2.0)	50.8 × m / 2.5–8	2.5 (0.098)	8 (0.307)
50.8 (2.0)	50.8 × m / 3.0–8	3.0 (0.120)	8 (0.307)
75 (2.95)	75 × m / 2.5–5	2.5 (0.098)	5 (0.196)
75 (2.95)	75 × m / 2.5–7	2.5 (0.098)	7 (0.276)

Designation axm/c-d: a = longitudinal pitch, m = mesh gap, c = eye-link wire Ø, d = cross-rod Ø (all mm). Minimum mesh gap runs 2.3–3.8 mm by wire size, 26 mm (1.02") maximum recommended. Sprockets in carbon steel, stainless or UHMWPE, 8–30 teeth; support the belt under the bar links on UHMWPE strips (Inoxyda or stainless above 140°F). Recommended belt speed up to 60 ft/min (20 m/min).

DRIVE SPROCKETS

Pitch	Teeth	Pitch diameter
25.4 mm	8	65.33 mm (2.57")
25.4 mm	12	97.09 mm (3.82")
30 mm	8	78.39 mm (3.09")
30 mm	12	115.91 mm (4.56")
50 mm	8	130.66 mm (5.14")
50 mm	12	193.19 mm (7.61")
50.8 mm	8	132.75 mm (5.23")
50.8 mm	12	196.28 mm (7.73")
75 mm	8	195.98 mm (7.72")
75 mm	12	289.78 mm (11.41")

COMPACT GRID

Woven Grid • Positively Driven

Compact Grid is a positively driven woven-grid belt of stainless-steel wire with no welded crossbars — it joins in the field with a simple hand tool and cleans easily. The tight, small-radius grid gives firm support to small products while keeping a high open area for airflow and drainage, and sprocket drive delivers no-slip tracking for baking, frying, cooling, freezing and coating lines.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Woven stainless-steel grid, no welded crossbars
Mesh sizes		10 mm and 15 mm
Pitch – 10 / 15 mm	in (mm)	0.394 (10) / 0.590 (15)
Wire diameter – 10 / 15 mm	in (mm)	0.062 (1.6) / 0.082 (2.08)
Belt thickness – 10 / 15 mm	in (mm)	0.20 (5.2) / 0.26 (6.7)
Open area		70% (10 mm) • 73% (15 mm)
Available widths	in (mm)	10.7–144.96 (271–3682), by mesh
Materials		Stainless steel; USDA accepted
Method of drive		Positive sprocket drive (no-slip tracking)

AVAILABLE OPTIONS

No-Weld Woven Construction

The grid is woven with no welded crossbars, so there are no weld points to crack or harbour bacteria. Belts join and repair in the field with the Compact-Grid™ joining tool — no special equipment — and the open weave rinses clean quickly.

Positive Sprocket Drive

No-slip positive drive holds accurate tracking and constant speed. Drive with slim-profile or three-piece stacking sprockets — 8–40 teeth on 10 mm mesh, 6–28 teeth on 15 mm — in stainless steel or engineered plastic; minimum sprocket diameter 2" (10 mm) or 2.5" (15 mm).

Hygiene & Duty

USDA accepted for food-grade lines, with a low belt mass and up to 73% open area for efficient heat, air and wash-down transfer. A dedicated high-temperature version is available for elevated-heat baking and drying applications.

MESH OPTIONS – 10 MM VS 15 MM

Parameter	10 mm	15 mm
Pitch	0.394" (10 mm)	0.590" (15 mm)
Wire diameter	0.062" (1.6 mm)	0.082" (2.08 mm)
Belt thickness	0.20" (5.2 mm)	0.26" (6.7 mm)
Open area	70%	73%
Largest opening	Ø0.42" (10.6 mm)	Ø0.63" (16 mm)
Weight	1.0 lb/ft² (4.9 kg/m²)	1.18 lb/ft² (5.8 kg/m²)
Max working tension	5 lb/joint (2.27 kg)	7.5 lb/joint (3.41 kg)
Max speed	150 ft/min (45.7 m/min)	170 ft/min (51.8 m/min)
Min transfer Ø	0.63" (16 mm)	1.0" (25 mm)
Width range	11.1–144.96" (282–3682 mm)	10.7–120.5" (271–3061 mm)

DRIVE SPROCKETS

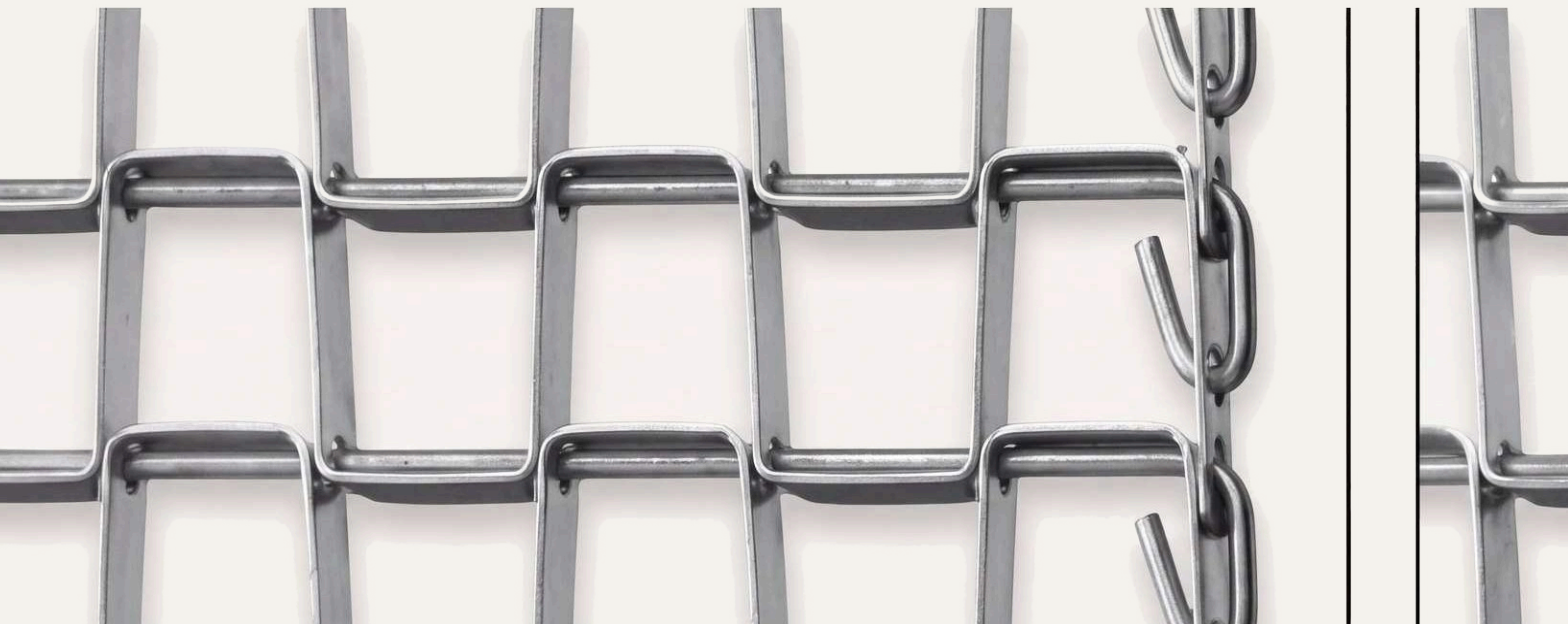
Mesh	Sprocket type	Teeth	Min. sprocket Ø	Material
10 mm	Slim-profile	8–38	2" (51 mm)	Stainless or plastic
10 mm	3-piece stacking	8–40	2" (51 mm)	Stainless or plastic
15 mm	Slim-profile	6–28	2.5" (64 mm)	Stainless or plastic
15 mm	3-piece stacking	6–28	2.5" (64 mm)	Stainless or plastic

USDA accepted; no welded crossbars means fast field joining with the Compact-Grid™ joining pliers and easy sanitation. Custom flights — with through-holes and side vents for drainage — handle inclines and declines and can replace flighted plastic modular belts. Typical uses: heating, cooling, coating, frying, freezing, drying, baking and elevating / de-elevating of small products.

FLAT WIRE

Clinched / Welded Selvage • Positively Driven

Flat-wire belting is formed from flat steel strips joined by connector rods, giving a strong, level carrying surface with an open mesh for drainage and air flow. It is offered with clinched or welded selvage edges and in standard- or heavy-duty builds — the heavy-duty range about 2.5× stronger — and runs on a friction drum or on matched sprockets, making it the workhorse flat-surface belt for baking, cooking, drying, cooling and washing.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Flat steel strips joined by connector rods
Selvage (edge)		Clinched or welded
Standard-duty strip	in	3/8" wide × .046" thick, round edge
Heavy-duty strip	in	1/2" wide × .062" thick, round edge
Connector rods	ga (in)	11 (.120) std • 12 (.105) opt • 6 (.192) heavy duty
Mesh options		1×1, 1/2×1, 1/2×1 Modified, 3/4×1, True 1/2×1/2
Width range	in	3–240 (standard) • 3–192 (heavy duty)
Materials		Galvanized, C1050 high-carbon, T-304 / T-316 (T-201 heavy duty)
Method of drive		Friction drum or sprocket (T / S / H series)

AVAILABLE OPTIONS

Clinched vs Welded Selvage

The clinched selvage gives a strong wrapped edge that resists snagging on conveyor protrusions, wears better on misaligned systems and mechanically stops the belt narrowing under load. The welded selvage is more flexible; belts wider than 24" are supplied with internal welds to hold width under heavy loads.

Standard vs Heavy Duty

Standard-duty belts (3/8" strip, 11/12-ga rods) suit most general conveying; heavy-duty belts (1/2" strip, 6-ga high-tensile rods) carry roughly 2.5× the tension for heavy loads. True 1/2"×1/2" (S5) belts with slotted holes are approved for meat and poultry processing.

Drum & Sprocket Drive

Run by friction drum or by matched sprockets: T-Series (twin machined rows) for True 1/2"×1/2" belts, S-Series for standard duty and H-Series for heavy duty. Sprockets come in cast iron, UHMW plastic (USDA / FDA, to 180°F), nylon, steel and stainless steel.

STANDARD-DUTY BELT SPECIFICATIONS

Design	Mesh	Selvage	Width min-max	Max tension (lb/ft)	Wgt (lb/ft²)
S1	1" × 1"	Clinched	4. 5–240"	480	1. 85
S3	1/2" × 1"	Clinched	4. 125–240"	660	2. 20
S7	1/2" × 1 Modified	Clinched	4. 125–240"	660	2. 50
S8	3/4" × 1"	Clinched	4. 5–240"	550	2. 00
S2	1" × 1"	Welded	3–240"	480	1. 85
S4	1/2" × 1"	Welded	3. 25–240"	660	2. 20
S5	True 1/2" × 1/2"	Welded	3–240"	750	3. 25
S6	1/2" × 1 Modified	Welded	3. 25–240"	660	2. 50

HEAVY-DUTY BELT SPECIFICATIONS

Design	Mesh	Selvage	Width min-max	Max tension (lb/ft)	Wgt (lb/ft²)
H1	1" × 1"	Welded	3–192"	1350	3. 50
H2	1/2" × 1"	Welded	4–192"	1750	3. 90
H3	1/2" × 1 Modified	Welded	6–192"	1750	4. 85
NNH3	1/2" × 1 Modified	Welded	6–192"	2000	5. 00
H4	1" × 1"	Clinched	10–192"	1350	3. 55
H5	1/2" × 1"	Clinched	10–192"	1750	3. 95

Maximum working tension is per foot of belt width for drum-driven applications. S8 is stocked in 20" and 30" widths, galvanized; other widths and materials by special order. See the sprocket page for T / S / H-series drive data.

FLAT WIRE

Sprockets • T / S / H Series

Flat-wire belts are driven by matched sprockets selected by belt series: T-Series for True 1/2"×1/2" belts, S-Series for standard-duty belts and H-Series for heavy-duty belts. T-Series sprockets carry two full rows of precision-machined teeth for uniform engagement and long life. Each size is stocked in the materials shown; full per-bore data (flange, hub, bore and weight) is available on request.

T-SERIES – FOR TRUE 1/2" × 1/2" BELTS

Sprocket	Teeth	Pitch Ø (in)	Materials
12T	12	2.062	Steel, plastic, stainless
22T	22	3.780	Steel, plastic, stainless
38T	38	6.530	Cast iron, plastic, stainless
46T	46	7.910	Cast iron, plastic
62T	62	10.680	Cast iron

S-SERIES – FOR STANDARD-DUTY BELTS

Sprocket	Teeth	Pitch Ø (in)	Materials
13S	13	4.350	Cast iron, plastic, steel, stainless
18S	18	6.160	Cast iron, plastic, steel, stainless
23S	23	7.870	Cast iron, plastic, steel, stainless
31S	31	10.650	Cast iron, plastic, steel
37S	37	12.680	Cast iron

H-SERIES – FOR HEAVY-DUTY BELTS

Sprocket	Teeth	Pitch Ø (in)	Materials
13HD	13	4.350	Cast iron, plastic, steel, stainless
18HD	18	6.190	Cast iron, plastic, steel, stainless
23HD	23	7.910	Cast iron, plastic, steel, stainless
31HD	31	10.680	Cast iron, plastic, steel
37HD	37	12.720	Cast iron, steel

Overall diameter = pitch diameter + 0.375" (T / S series) or + 0.500" (H series). UHMW plastic sprockets are USDA / FDA compliant to 180°F (continuous); high-temp UHMW to 220°F; nylon gives 2–3× the strength. Cast-iron, steel and stainless (T-303 / T-316) sprockets, flanged or flangeless (-FL) and machined-tooth (-MT), are supplied to order.

STRAIGHT-RUNNING BELTS

STRAIGHT-RUNNING — FRICTION DRIVEN

DRUM & ROLLER DRIVEN

BALANCED WEAVE

COMPOUND WEAVE

DOUBLE WEAVE

CORD WEAVE

WG WOVEN

BAKING BANDS

COMPOUND BALANCED WEAVE

Dense Nested Weave • Friction Driven

A compound balanced weave nests extra right- and left-hand spirals into each connection, packing more wire into the same area than a plain balanced weave. The result is a denser, stronger and near-flat carrying surface with small openings that resist product fall-through and improve bottom-heat transfer — favoured for baking, heat treating and the handling of fine, small or unstable products.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Compound balanced weave — multiple nested spirals per connector
Materials		Stainless, carbon & galvanized steels, high-temp alloys
Available widths	in (mm)	To 160 (4064)
Wire diameter	in (mm)	0.028–0.105 (0.7–2.7), by mesh
Weight	lb/ft ² (kg/m ²)	2.4–8.0 (11.7–38.9), by mesh
Open area		Minimal to low — dense carrying surface
Working strength	lb/ft (kg/m)	To 3500 (5200) of belt width, mesh dependent
Maximum temperature	°F (°C)	Carbon to 1000 (538); stainless to 2050 (1121)
Method of drive		Friction driven on flat drums / terminal rolls

AVAILABLE OPTIONS

Nested Compound Construction

Two or more mating spirals sit on each connector so the weave is far tighter than a single balanced weave — a closer, stronger surface that carries fine and unstable product without fall-through and transfers heat evenly to the product base.

Surface Finish

Edges are welded. A flattened-wire (F) conveying surface, or a precision-ground light-weight (PGLW) surface, gives a flatter, lower-marking product face — PGLW on carbon bands to 54" (1370 mm) wide.

Duty & Drive

Friction driven on flat-faced drums or terminal rolls, with carbon steel to 1000°F and stainless to 2050°F. Suited to baking, heat treating, drying and small-parts handling; the CB3 / CB5 baking bands are close cousins of this construction.

REPRESENTATIVE COMPOUND MESHES

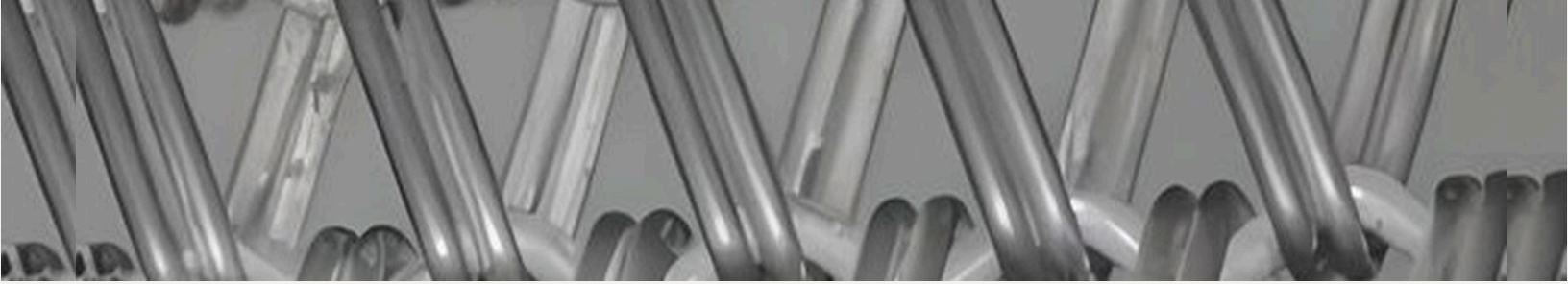
Mesh	Connector	Wire dia. in (mm)	Opening in	Weight lb/ft ²
CB3-22-58-12	Straight	0.105 (2.7)	0.08	7.95
CB3-30-72-14	Crimped	0.080 (2.0)	0.062	6.00
CB3-36-76-14	Crimped	0.080 (2.0)	0.054	3.76
CB3-42-72-1416	Crimped	0.080/0.062	0.052	4.85
CB5-27-84-1416F	Crimped	0.080/0.063	0.050	4.20
CB3-56-120-18	Straight	0.047 (1.2)	0.041	3.90

Mesh designation reads CB(connectors)-spirals/ft-meshes/ft-wire gauges. Working strengths and weights are mesh dependent; specify product size, temperature and required surface flatness.

DOUBLE BALANCED WEAVE

Twin-Spiral Weave • Friction Driven

A double balanced weave pairs two right- and left-hand spirals on each connector rod instead of one, giving a closer, tighter surface and higher strength than a single balanced weave. It runs equally well in either direction and carries heavy loads at elevated temperature — typical service is furnace conveying, heat treating and high-temperature ovens.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Balanced weave with two spirals per connector rod
Materials		Carbon, stainless & high-temp nickel alloys
Available widths		Made to order
Designations		DB-series (e.g. DB-18-11-9-10, DB-30-15-10-12)
Wire / rod diameter	in (mm)	0.080–0.192 (2.0–4.9)
Open area		Moderate — closer surface than a single balanced weave
Working strength		Higher than single balanced weave; gauge / material dependent
Maximum temperature	°F (°C)	~600–2200 (~316–1204), by material
Method of drive		Friction driven on flat drums / terminal rolls

AVAILABLE OPTIONS

Twin-Spiral Construction

Doubling the spirals on each rod tightens the surface and roughly raises strength over a single balanced weave, while keeping the weave fully bi-directional. It is the go-to weave where load and heat are both high.

High-Temperature Materials

Built in carbon steel, 300-series stainless or high-temperature nickel alloys for furnace and heat-treat duty from roughly 600°F up to about 2200°F, chosen by the operating temperature and atmosphere.

Options

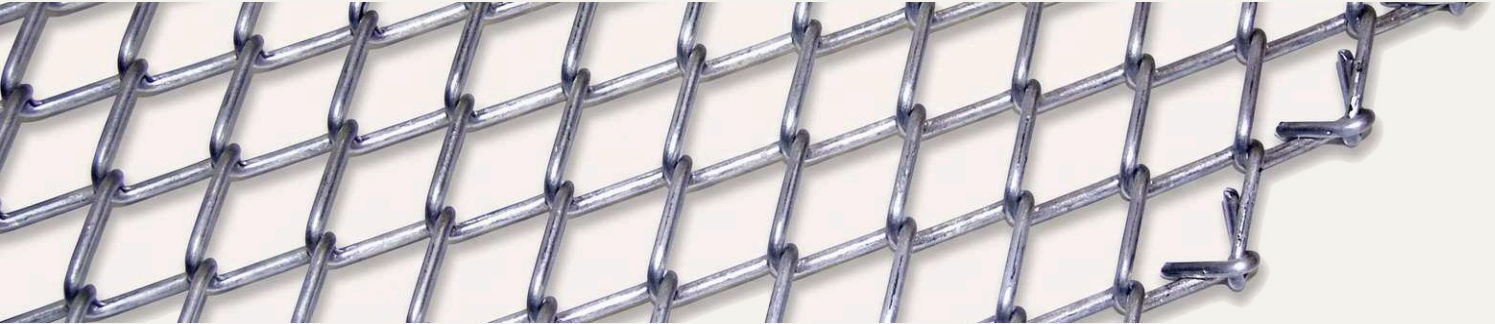
Welded struts and edges are available for added lateral stability; a flattened-wire (double-balanced flat-seat) version gives a smoother carrying surface for small parts and stampings.

Double-balanced designations read DB-(long pitch)-(spirals)-(spiral gauge)-(rod gauge). Strength, weight and open area are set by mesh and material — supplied to order for the conveyor width, temperature and load.

CORD WEAVE

Fine Close Weave • Friction Driven

A cord weave is a fine, tightly packed compound construction that presents a smooth, close carrying surface. Its very small openings keep small, light or delicate products from marking or falling through and promote even heat transfer to the product base — used for baking bands, heat treating, small-fastener conveying and similar close-surface duties.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Fine compound (cord) weave — smooth close surface
Materials		Stainless, carbon & high-temp alloys
Available widths	in (mm)	To 144 (3658)
Wire diameter	in (mm)	0.028–0.047 (0.7–1.2), typical
Weight	lb/ft ² (kg/m ²)	2.4–3.9 (11.7–19.1), typical
Open area		Minimal — smooth, close surface
Working strength	lb/ft (kg/m)	Mesh dependent (fine wire)
Maximum temperature	°F (°C)	Material dependent; to 2050 (1121) stainless
Method of drive		Friction driven on flat drums / terminal rolls

AVAILABLE OPTIONS

Fine Cord Construction

A high spiral and connector count packs the wire tightly for a nearly closed surface with very small openings — ideal support for delicate, light or small products that would fall through or mark on an open mesh.

Surface Finish

Edges are welded. Flattened-wire or precision-ground surfaces further reduce product marking and give the flattest baking face, on carbon bands to 54" (1370 mm) wide.

Duty & Drive

Friction driven on flat drums or terminal rolls. Best for baking bands, heat treating and small fasteners; because the surface is so fine it flexes over small terminal rolls without marking the belt.

REPRESENTATIVE FINE MESHES

Mesh	Wire dia. in (mm)	Opening in	Weight lb/ft ²
CB3- 56- 120- 18	0.047 (1.2)	0.041	3.90
CB3- 58- 140- 19	0.041 (1.0)	0.032	3.45
CB5- 36- 120- 18	0.035 (0.9)	0.017	3.82
CB3- 84- 176- 2022	0.028 (0.7)	0.018	2.40
CB3- 84- 200- 22	0.028 (0.7)	0.018	2.40

The finest cord weaves approach a solid surface. Specify wire size and opening for the product and heat profile; welded edges are standard.

WG WOVEN WIRE

European Balanced Weave • Friction Driven

WG woven wire is a European-designation balanced weave built from alternating right- and left-hand spirals joined by a connector rod, with welded edges. A very broad mesh range trades open area against strength and support, and the belt is friction driven on flat drums or terminal rolls for cooling, drying, washing and general processing to very high temperatures.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Balanced weave – RH/LH spirals on a connector rod, welded edges
Materials		Stainless, carbon & galvanized steels, high-temp alloys
Width range	in (mm)	1.60–216.00 (40.6–5486.4)
Conveying surface		Full belt width
Open area		40–70%, by mesh count and wire size
Weight & tension		Mesh dependent – see mesh table
Maximum temperature	°F (°C)	Up to 2012 (1100), material dependent
Method of drive		Friction driven on flat-faced drums or terminal rolls

AVAILABLE OPTIONS

WG Designation

WG belts follow the European format W G a/b – spiral – rod — e.g.
WG 4.4/5-1.4×0.7-1.2: W = woven wire, G = welded edges, a = longitudinal pitch, b = lateral pitch (mm), then the spiral-wire size (two figures if flattened) and the cross-rod diameter (mm).

Flights & Chain Edge

WG balanced-weave belts can be built with flights, or as positive-drive chain-edge belts using hollow-pin chains in 0.5" (12.7 mm), 0.63" (15.9 mm) or 1" (25.4 mm) pitch for long or inclined runs.

Drum Sizing

To avoid bending the mesh and distorting the pitch, size drive drums to a minimum of 20× the belt's longitudinal pitch and return drums to a minimum of 10× — a common cause of driving problems on woven-wire belts when undersized.

STANDARD BALANCED-WEAVE MESHES

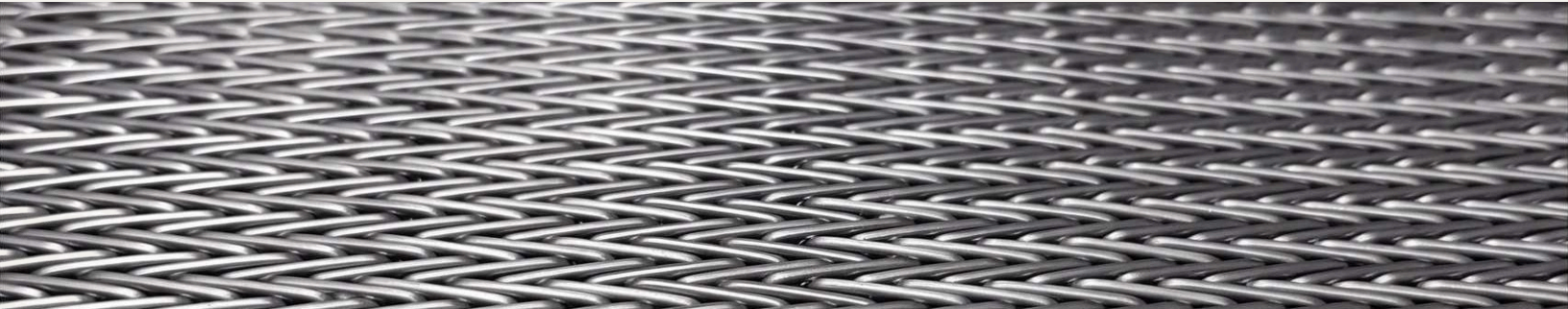
Mesh type	Long. pitch mm (in)	Lat. pitch mm (in)	Thickness mm (in)	Weight kg/m ² (lb/ft ²)	Tension kN/m (lb/ft)
WG 4.4/4.4-1.4×0.7-1.2	5.4 (0.21)	4.4 (0.17)	4.1 (0.16)	10.2 (2.09)	22.0 (1507)
WG 4.4/4.4-1.4-1.4	5.2 (0.20)	4.4 (0.17)	5.9 (0.23)	17.0 (3.48)	35.0 (2398)
WG 4.5/3.1-1-1.2	4.1 (0.16)	3.0 (0.12)	4.6 (0.18)	10.9 (2.23)	25.0 (1713)
WG 5.1/4.2-1.6-1.6	4.9 (0.19)	4.2 (0.17)	6.4 (0.25)	22.5 (4.61)	48.0 (3289)
WG 6.0/6.2-1.2-1.6	6.4 (0.25)	6.2 (0.24)	5.7 (0.22)	8.9 (1.82)	18.0 (1233)
WG 8.5/6.4-1.6-1.6	9.1 (0.36)	6.4 (0.25)	7.3 (0.29)	11.5 (2.36)	31.0 (2124)
WG 10.0/6.5-1.2-2.0	9.9 (0.39)	6.5 (0.26)	6.2 (0.24)	7.4 (1.52)	17.0 (1165)
WG 10.0/6.5-1.4×1-2.0	9.9 (0.39)	6.5 (0.26)	5.7 (0.22)	8.7 (1.78)	22.0 (1507)
WG 10.0/10-2-2.5	12.2 (0.48)	10.0 (0.39)	8.9 (0.35)	14.4 (2.95)	31.0 (2124)
WG 12.0/12-3×2-3.0	14.8 (0.58)	12.0 (0.47)	10.3 (0.41)	22.0 (4.51)	50.0 (3426)
WG 13.5/8.4-2-2.5	14.0 (0.55)	8.4 (0.33)	10.8 (0.43)	13.7 (2.81)	37.0 (2535)
WG 13.5/8.4-3×1.5-3.1	12.9 (0.51)	8.4 (0.33)	8.6 (0.34)	21.5 (4.40)	54.0 (3700)
WG 15.0/15-2.5-2.8	16.7 (0.66)	15.0 (0.59)	10.8 (0.43)	12.9 (2.64)	33.0 (2261)
WG 16.0/6.35-1.2-1.6	15.3 (0.60)	6.4 (0.25)	6.3 (0.25)	5.0 (1.02)	18.0 (1233)
WG 16.8/8.4-2.6-3.1	15.9 (0.63)	8.4 (0.33)	11.8 (0.46)	22.0 (4.51)	63.0 (4317)
WG 19.1/9.5-1.1-1.4	19.2 (0.76)	9.5 (0.37)	6.8 (0.27)	2.7 (0.55)	10.0 (685)
WG 20.0/15-2.5-3.5	18.3 (0.72)	15.0 (0.59)	12.2 (0.48)	12.8 (2.62)	33.0 (2261)

WG belts are composed of right- and left-hand spirals joined by a connector rod, with welded edges. Allowable tension is per unit of belt width; open area runs 40–70% by mesh and wire size.

BAKING BANDS

Compound-Weave Oven Bands • Friction Driven

Baking bands are dense compound-balanced-weave bands — most often woven from annealed high-carbon steel wire — that present a near-solid carrying surface for direct-bake tunnel ovens. The tight weave supports small and soft products, transfers heat evenly and flexes over the terminal rolls, and is friction driven on flat-faced drums or rolls.



TECHNICAL SPECIFICATIONS

Specification	Units	Value
Construction		Compound balanced weave (woven or crimped), welded edges
Materials		Annealed high-carbon steel standard; stainless & alloys to order
Maximum width	in (mm)	144.00 (3657.6)
Conveying surface		Full belt width
Wire options		Round, flattened (F) or precision-ground light-weight (PGLW)
Weight, pitch & opening		Mesh dependent – see mesh tables
Maximum temperature	°F (°C)	Carbon to 1000 (538); stainless to 2050 (1121)
Method of drive		Friction driven on flat-faced drums / terminal rolls

AVAILABLE OPTIONS

Wire & Surface Bands are woven from annealed high-carbon steel round wire in standard gauges; stainless and other alloys are used where required. A flattened-wire (F) surface, or precision-ground light-weight (PGLW) grinding of the finished surface, gives the flattest baking face — PGLW on carbon bands to 54" (1370 mm) wide.	CB3 & CB5 Constructions Compound bands are specified by connector count: CB3 (three connectors per spiral) is the flexible tortilla-oven band that traverses 6" terminal rolls; CB5 (five connectors) is the strongest, flattest general baking band. See the following page for CB5 and CB3 specifications.	Terminal Rolls & Controls Minimum terminal-roll diameter follows from the mesh (for CB5-27-84-1416F, 84÷5 = 16.8, then 180÷16.8 = 10.71"). Ashworth Model 1 or Model 2 control systems keep the band centred and off the oven framework.
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WOVEN BAKING BANDS (CRIMPED)

Mesh	Wire dia. in (mm)	Opening in (mm)	Weight lb/ft² (kg/m²)
B48-38-15	0.072 (1.83)	0.18×0.24 (4.6×6.1)	2.80 (13.7)
B48-48-16	0.062 (1.57)	0.18×0.19 (4.7×4.8)	2.30 (11.2)
B60-36-14 PGLW	0.080 (2.03)	0.12×0.25 (3.0×6.4)	3.54 (17.3)
B60-36-16 PGLW	0.062 (1.57)	0.14×0.27 (3.6×6.9)	2.12 (10.3)
B72-72-18	0.047 (1.19)	0.12×0.12 (2.9×2.9)	2.05 (10.0)
B84-20-1416	0.080/0.066	0.08×0.52 (2.0×13.2)	2.80 (13.7)
B102-24-1418	0.080/0.047	0.07×0.42 (1.8×10.7)	2.20 (10.7)
B66-48-1718F	0.054/0.047	0.13×0.20 (3.3×5.1)	1.69 (8.3)

COMPOUND BALANCE-WEAVE BAKING BANDS

Mesh	Connector	Wire dia. in (mm)	Opening in (mm)	Weight lb/ft²
CB3-22-58-12	Straight	0.105 (2.7)	0.08 (2.0)	7.95
CB3-30-72-14	Crimped	0.080 (2.0)	0.062 (1.6)	6.00
CB3-36-76-14	Crimped	0.080 (2.0)	0.054 (1.4)	3.76
CB3-42-72-1416	Crimped	0.080/0.062	0.052 (1.3)	4.85
CB3-56-120-18	Straight	0.047 (1.2)	0.041 (1.0)	3.90
CB3-58-140-19	Straight	0.041 (1.0)	0.032 (0.8)	3.45
CB3-84-200-22	Crimped	0.028 (0.7)	0.018 (0.5)	2.40
CB5-27-84-1416F	Crimped	0.080/0.063	0.050 (1.3)	4.20
CB5-36-120-18	Crimped	0.035 (0.9)	0.017 (0.4)	3.82

Mesh designation reads B(spirals)-(meshes)-(gauge) for woven bands and CB(connectors)-(spirals)-(meshes)-(gauges) for compound bands; F = flattened wire, PGLW = precision-ground light weight.

BAKING BANDS

CB5 Baking Band® & CB3 Tortilla Band®

The two workhorse compound baking bands. CB5 — five connectors per spiral — is the strongest, flattest general baking band; CB3 — three connectors — is the flexible tortilla-oven band that traverses the small 6" terminal rolls common to tortilla lines. A lighter metric CB5 (MCB5) uses a higher-gauge crimp connector to cut weight about 20%.

CB5 BAKING BAND®

Specification	Value
Material / gauge	14 & 16 ga (0.080 / 0.062) stainless or high-carbon wire
Width range	1.58–144.00" (40.1–3657.6 mm)
Longitudinal pitch	0.14" (3.6 mm)
Mesh type	Compound balance weave, 5 connectors per spiral
Standard designation	CB5-27-84-1416F
Belt strength	3100 lb/ft (4600 kg/m), high-carbon at 70°F
Min. terminal-roll dia.	10.75" (273.1 mm)
Edge / drive	Welded · friction driven on flat terminal rolls
Max. temperature	Carbon to 1000°F (538°C); stainless to 2050°F (1121°C)

CB3 TORTILLA BAND®

Specification	Value
Material / gauge	14 ga (0.080) stainless or high-carbon wire
Width range	1.28–144.00" (32.5–3658 mm)
Longitudinal pitch	0.17" (4.2 mm)
Mesh type	Compound balance weave, 3 connectors per spiral
Belt strength	3500 lb/ft (5200 kg/m), high-carbon at 70°F
Min. terminal-roll dia.	6.0" (152.4 mm)
Edge / drive	Welded · friction driven on flat terminal rolls
Max. temperature	Carbon to 1000°F (538°C); stainless to 2050°F (1121°C)

CB3's flexibility lets it wrap the small 6" rolls used in tortilla ovens; CB5's five connectors give the flattest, strongest general baking surface. Both take flattened-wire (F) or precision-ground (PGLW) surfaces, and Ashworth Model 1 / Model 2 controls.

WIRE MESH BELTING

TECHNICAL INFORMATION

SELECTION • ENGINEERING • INSTALLATION

BELT SELECTION

MATERIALS

DRIVE & TENSION

DRUM SIZING

INSTALLATION

CARE

SELECTING A WIRE-MESH BELT

A Five-Step Framework

The right belt balances how it is driven, the path it must follow, its open area, the load it carries and the temperature and hygiene of the process. Work through these five in order, then confirm the material against the environment.

- 1 - Drive Method**

Friction (drum or roller) belts are the simplest and cheapest but can slip under load; positive drive — sprockets or an edge chain — gives exact tracking and high pull for long, loaded or inclined runs. Match the belt family to the drive you have.
- 2 - Path & Turn**

Straight-running, turn-curve (90°/180°) or spiral tower? Turn and spiral belts collapse on the inside edge; pick the turn ratio (radius ÷ belt width) the layout allows.
- 3 - Mesh & Open Area**

Trade open area — airflow, drainage, wash-down — against product support. Small or soft product needs a fine mesh or overlay; large product tolerates an open weave or rods-only build.
- 4 - Load & Tension**

Size the belt so working tension stays within its rating, then size the drive. A fatigue-resistant or heavy-duty build buys strength for longer or more heavily loaded conveyors.
- 5 - Temperature & Hygiene**

Choose the alloy for the operating temperature and cleaning regime; welded or looped edges and open links ease sanitation and cut bacteria build-up.

BELT MATERIALS & MAXIMUM TEMPERATURE

COMMON BELT & COMPONENT MATERIALS

Material	Typical use	Approx. max. temperature
T304 stainless	General food & wash-down	~1600°F (871°C)
T316 stainless	Corrosive, salt or acid duty	~1600°F (871°C)
High-nickel / T314 alloy	Furnace & heat-treat	Up to ~2050°F (1121°C)
High-carbon / music wire	Baking bands, springs	~1000°F (538°C)
Galvanized / carbon steel	Ambient, dry, low cost	~400°F (204°C)
UHMWPE	Sprockets, cage-bar caps, wear strips	150°F (66°C)
Acetal (POM)	Plastic sprockets	180°F (82°C)

Maximum temperatures are guides; the safe limit falls with load and in oxidising or reducing atmospheres. Confirm the alloy against the process before ordering.

DRIVE, TENSION & DRUM SIZING

Engineering Rules of Thumb

A wire-mesh belt is only as good as its drive. These rules size the drums, sprockets and motor and keep the belt tracking true.

DRUM & NOSE-ROLL SIZING

To avoid bending the mesh and distorting the belt pitch, size the driving drum to at least 20× the belt's longitudinal pitch and the return drum to at least 10×. On flat-wire and balanced-weave belts the minimum nose-roll (transfer) diameter is set by the mesh — from about 0.2" (5 mm) on fine belts to 1" (25 mm) on coarse — with closer transfer possible over a grooved roller.

FRICTION (SPIRAL) DRIVE

In a spiral tower the cage or drum drives the belt by friction on its inside edge, running a typical 6–10% overdrive (3–5% on bare stainless). Belt tension in the tower — the "radius weight" — rises with the friction coefficient, so a steel cage or steel support rails increase tension versus UHMWPE wear strips. Keep cage-bar caps clean, smooth and bevelled so the belt edge cannot catch and lose overdrive.

POSITIVE DRIVE & BELT TENSION

Positive (sprocket or chain-edge) drive eliminates slip. For a chain-edge belt, estimate the working tension from belt and product weight, conveyor length and lift using the model below.

CHAIN-EDGE BELT TENSION — $T = (W \cdot L + W \cdot L + W \cdot H) \cdot C$

Term	Meaning
w	Belt weight per unit area × belt width
W	Product load per unit length of conveyor
L	Conveyor length (sum of carry and return spans)
H	Lift – vertical rise on an incline
C	Friction factor of the belt on its support surface

Add the tensions of every loaded and return span, apply the friction factor for the support surface, and size the drive so peak tension stays within the belt's rating with a safety margin. Lotension and radius-weight calculations refine this for spiral systems — consult Uniking for a system-specific review.

INSTALLATION & CARE

Spiral & Conveyor Belts

Every spiral or conveyor system is unique, but the same preparation, safety and running-in steps apply to any new belt.

PREPARATION

Before fitting a new belt, inspect the UHMWPE wear strips on the support rails: they must be clean, smooth, free of embedded debris and firmly seated, with their leading ends attached to the rails and every rail leading-edge relieved (bent down) so the belt cannot catch as it runs on. Replace worn or contaminated strips.

On a spiral, inspect the UHMWPE cage-bar caps: replace them if heavily grooved or worn, make sure they are firmly attached, clean and free of the grease or oil that would cut driving friction, and check that their edges are rounded or bevelled where they meet the belt. Check motor rotation, and that the correct number of take-up sprockets are fitted and spaced — use a short piece of belt as a template.

SAFETY

Conveyor belting is heavy and awkward, so safety is the first priority. Observe full lockout / tagout, clear all construction and repair debris from the enclosure so the belt cannot drag metal filings into the system, and confirm where everyone is before starting any machine.

CARE & TRACKING

Keep the belt centred with the maker's control system (for example Ashworth Model 1 or Model 2 on baking bands) so it cannot contact the framework. Clean regularly for hygiene and to clear debris that raises friction; check belt tension and tracking; and inspect welds, links and edges for wear. Avoid reverse bends on eye-link and similar belts, and never let heavy product drop onto a fine belt.

These are general guidelines — follow the belt assembly and system drawings for sprocket spacing, take-up and tier pitch, and contact Uniking for spiral belt selection and engineering calculations.