



The Next Generation of Turns

Knife Roll-Turn Power Belt Curves

FLOW-TURN's Knife Roll-Turn belt curves are designed for applications requiring narrow gaps between up- and downstream conveyors to transport even smallest items safely and reliably.

This design offers a number of key benefits:

- **7/8" Diameter End Rolls for Minimum Transfer Gaps**
The belt travels around a series of sealed roller bearings; the transfer point is fixed and not affected by belt tensioning. As a result, Knife Roll-Turns have a particularly narrow and parallel gap.
- **Simple, Efficient and Reliable Design**
Active Chain Drive System with tapered guide rollers underneath the transfer points and "Loose Belt" technology are long-proven conveyor components that minimize belt wear.
- **Rugged Steel Construction**
Knife Roll-Turn are designed for long-term use, with frames constructed in mild or stainless steel.
- **Easy Belt Replacement**
Belting is available with laced splices or in endless design. For power turns with endless belts, the inner curve frame is removable.

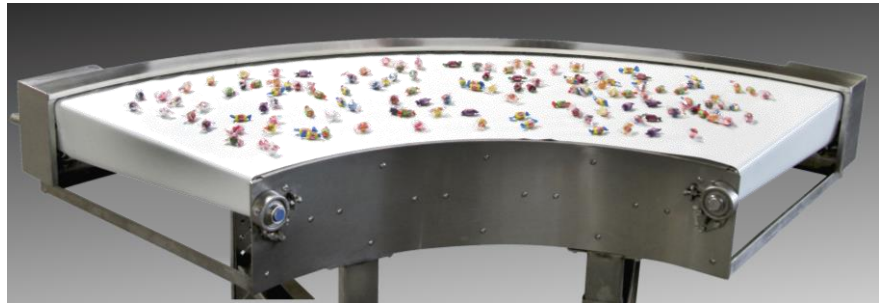
Knife Roll-Turn belt curves are available in various sizes, arcs, and design options. Minimum Inside Radius (IR) is 8", maximum Between Frame (BF) dimension is 39", and maximum conveyor angle is 270 degrees.

Speeds are up to 300 FPM and the design load can go up to 30 lb/ft.

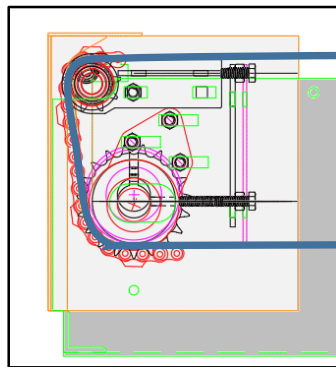
Knife Roll-Turns can be designed for an ambient temperature range of -5F to 130F.

About FLOW-TURN

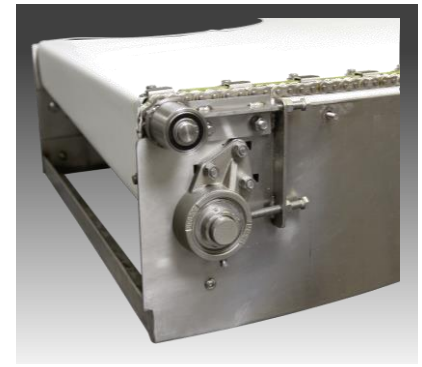
Flow-Turn Inc. is a New Jersey based manufacturer with more than 40 years of experience in the design and build of powered curve conveyors for a large variety of applications, ranging from small production systems to large industrial warehouses.



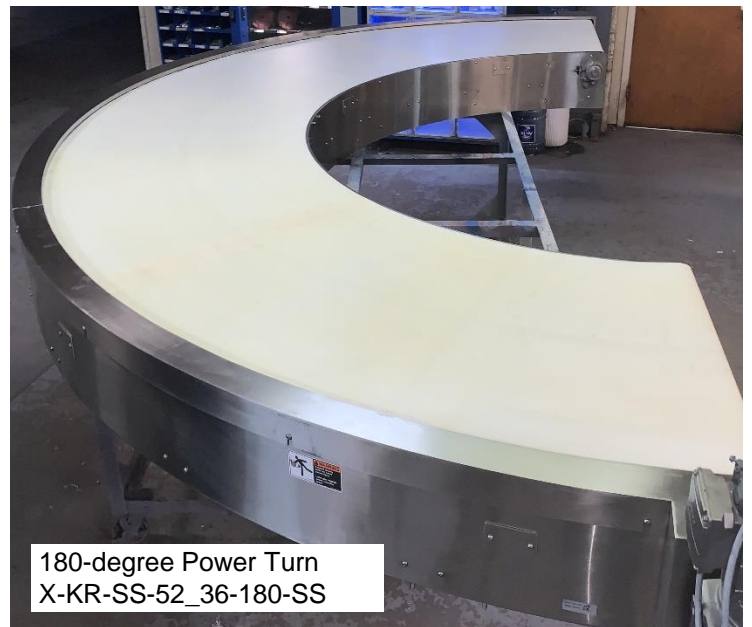
90-degree Knife Roll-Turn with Seamless Belting, Stainless Steel Design



Belt Travel at Transfer Point



Knife Roll Sprocket and Tension Pulley Adjustment



180-degree Power Turn
X-KR-SS-52_36-180-SS

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KR Knife Roll-Turn Rev00



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We manufacture to rigid specifications and provide answers to unusual requirements.*



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Knife Roll-Turn Power Belt Curves

Standard Specifications

FRAME CONSTRUCTION

- 7/8" dia. end rolls
- Load capacity 30 lbs per linear foot (standard)
- Safety guarding per OSHA
- Finger guards and safety covers
- Arcs from 15 degrees to 270 degrees
- Mild steel with dry enamel finish (Color per RAL or paint chip sample) or stainless steel

DRIVE SYSTEM

- Shaft-mounted integrated gearmotors or reducers with flange mounts for C-Face motors
- Number 50 Flex Chain with attachment links
- Hardened steel sprockets

BELT

- White Nitrile belt, other belts upon request

ACCESSORIES

- Floor supports, H-style with welded constraint; +/- 2" adjustment
- Side Guards 12 and 14 Ga Steel

Options

FRAME

- Stainless steel suitable for food applications
- Inside and outside frame with access holes
- Slider bed with drain slots
- Bottom guards in plastic or steel mesh
- Removable inside frame for endless belt application

DRIVE SYSTEM

- Nickel-plated chain and attachments
- Integrated gearmotors with or without VFD's
- Inside radius mount (vertical only)
- Pusher Drive, subject to confirmation by Flow-Turn
- Slave Drive between curves and adjacent conveyor

BELT

- FDA & USDA approved white or blue belting

ACCESSORIES

- Belt wiper to remove surface particles
- Ceiling hangers

Also Available

Square-Turn Curves with 2" diameter end rolls and stainless steel design suitable for food applications



7/8" Diameter End Rollers and Slider Bed

Typical Knife Roll-Turn Applications

- Food Manufacturing & Bakeries
- Food Processing
- Transportation of Small and Fragile Items
- Industrial & Manufacturing

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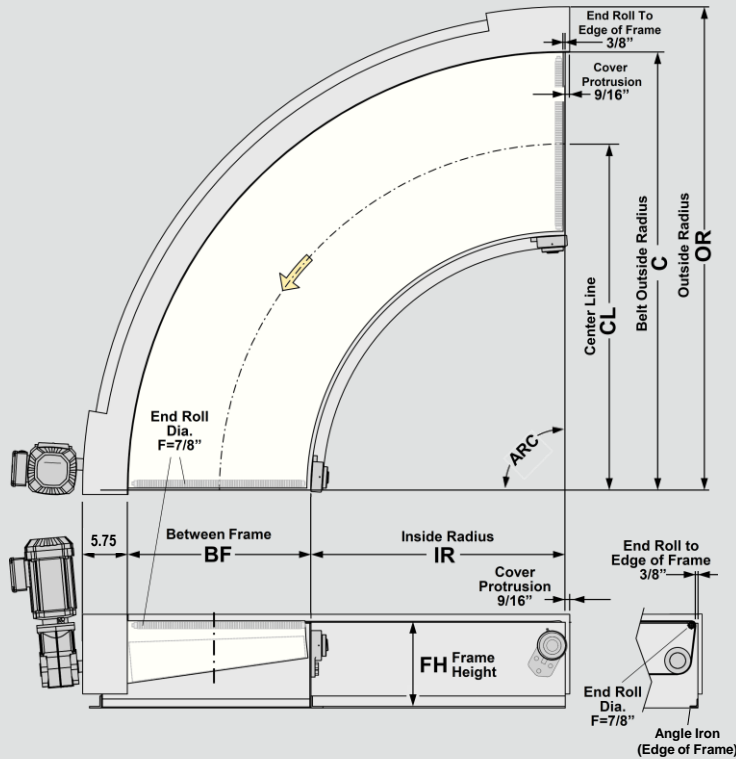
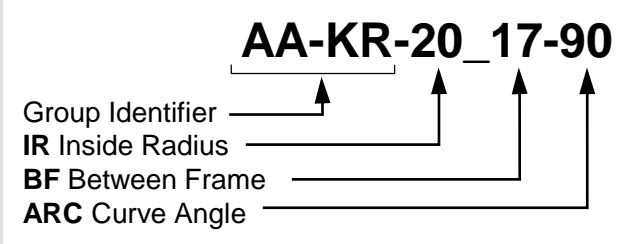


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Knife Roll-Turn Model Code



Common Dimensions and Specifications

Group Identifier	OR Outside Radius	C Belt Outside Radius	FH Inside Frame Height	X Shaft Diameter
AAA-KR	32.75"	27"	10.75"	1"
AA-KR	42.75"	37"	10.75"	1"
A-KR	52.75"	47"	10.75"	1"
B-KR	64.75"	59"	10.75"	1-3/16"
C-KR	92.75"	87"	11.625"	1-7/16"

* Outside Frame is 0.5" shorter than Inside Frame

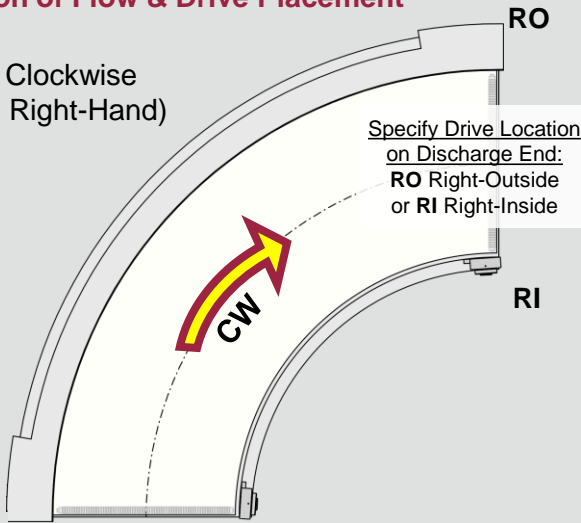
Group Identifier	Model No.	C Belt Outside Radius	IR Inside Radius	BF Between Frame	CL Centerline Radius	F End Roll Diameter		
AAA-KR	22_5	27"	22"	5"	24.5"	0.875"		
	20_7		20"	7"	23.5"	0.875"		
	18_9		18"	9"	22.5"	0.875"		
	16_11		16"	11"	21.5"	0.875"		
	14_13		14"	13"	20.5"	0.875"		
AA-KR	12_15	37"	12"	15"	19.5"	0.875"		
	30_7		30"	7"	33.5"	0.875"		
	28_9		28"	9"	32.5"	0.875"		
	26_11		26"	11"	31.5"	0.875"		
	24_13		24"	13"	30.5"	0.875"		
	22_15		22"	15"	29.5"	0.875"		
	20_17		20"	17"	28.5"	0.875"		
A-KR	40_7	47"	40"	7"	43.5"	0.875"		
	38_9		38"	9"	42.5"	0.875"		
	36_11		36"	11"	41.5"	0.875"		
	34_13		34"	13"	40.5"	0.875"		
	32_15		32"	15"	39.5"	0.875"		
	30_17		30"	17"	38.5"	0.875"		
	28_19		28"	19"	37.5"	0.875"		
	26_21		26"	21"	36.5"	0.875"		
	24_23		24"	23"	35.5"	0.875"		
	22_25		22"	25"	34.5"	0.875"		
	B-KR		46_13	59"	46"	13"	52.5"	0.875"
44_15		44"	15"		51.5"	0.875"		
42_17		42"	17"		50.5"	0.875"		
40_19		40"	19"		49.5"	0.875"		
38_21		38"	21"		48.5"	0.875"		
36_23		36"	23"		47.5"	0.875"		
34_25		34"	25"		46.5"	0.875"		
32_27		32"	27"		45.5"	0.875"		
30_29		30"	29"		44.5"	0.875"		
28_31		28"	31"		43.5"	0.875"		
26_33		26"	33"		42.5"	0.875"		
24_35		24"	35"		41.5"	0.875"		
22_37		22"	37"		40.5"	0.875"		
20_39		20"	39"		39.5"	0.875"		
C-KR		62_25	87"		62"	25"	74.5"	0.875"
		60_27			60"	27"	73.5"	0.875"
		58_29			58"	29"	72.5"	0.875"
	56_31	56"		31"	71.5"	0.875"		
	54_33	54"		33"	70.5"	0.875"		
	52_35	52"		35"	69.5"	0.875"		
	50_37	50"		37"	68.5"	0.875"		
	48_39	48"		39"	67.5"	0.875"		
	46_41	46"		41"	66.5"	0.875"		
	44_43	44"		43"	65.5"	0.875"		
	42_45	42"		45"	64.5"	0.875"		
	40_47	40"		47"	63.5"	0.875"		
	38_49	38"		49"	62.5"	0.875"		
X-KR	Special Curve Sizes Upon Request							

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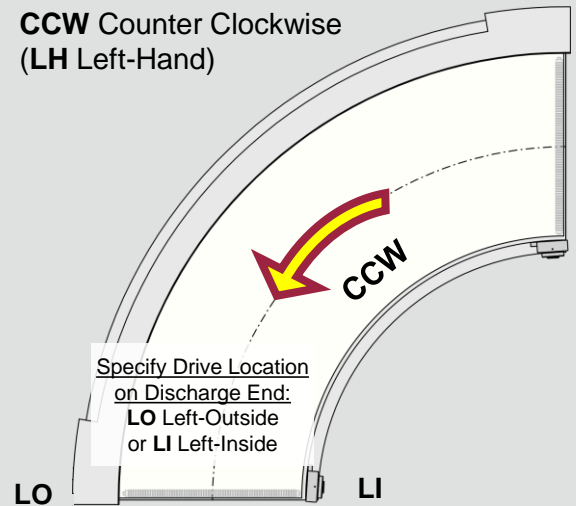
KR Knife Roll-Turn Rev00

Direction of Flow & Drive Placement

CW Clockwise
(**RH** Right-Hand)



CCW Counter Clockwise
(**LH** Left-Hand)



Motor Mounting Options:

- Horizontal, Vertical, Underslung, or Slaved

Knife Roll-Turn Transfer to/from Adjacent Conveyor

Edge of Frame is defined by angle iron at frame bottom, far below belt surface. This is to eliminate interference with adjacent conveyors.



**Angle Iron
(Edge of Frame)**

shown: 90-degree Knife Roll-Turn for a Food Manufacturing Facility, built in Stainless Steel (Model B-KR-30_29-90-SS)

Sizes and options given are only a small example of the power belt curves made by Flow-Turn.

Please inquire if your project requires other sizes or has special requirements.