



The Next Generation of Turns

FLOW-TURN's **Square-Turn** belt curves utilize a row of cylindrical end rollers ("Pucks") that replace the tapered end rolls of traditional powered belt curves.

Key benefits of this design are:

- **Better Product Transfer & Safer Design**

Square-Turn curves have narrow, parallel belt-to-belt transitions to and from adjacent conveyors. In contrast, belt curves with tapered pulleys have an uneven, trapezoidal transfer gap which often requires the use of transfer plates for safety and functional reasons.

- **Reduced Noise**

The cylindrical end roll design has the advantage that the belt lacing approaches the end rolls at a slight angle, reducing the slapping noise when lacing reaches a tapered pulley. In addition, the plastic puck material absorbs sound better than steel pulleys.

- **Lower Frame Height**

The frame height of Square-Turn curves is less than with tapered pulley curves. This is beneficial for ceiling hung curves and curves mounted low on the floor.

- **Easier Integration & Better Drive Arrangement**

The drive shaft is parallel to the shaft of the adjacent conveyor – with tapered rollers, the shafts are at an angle. This avoids interference between drives mounted on the inner curve, and motors are parallel and perpendicular as on a straight belt conveyor.

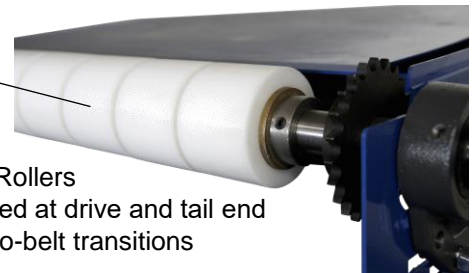
- **Simplified Parts Management**

FLOW-TURN's pucks are the same size, no matter what curve radius or belt width – belt curves with tapered rollers require a different end roller for each variation of radius or width. For large facilities, the savings in spare parts are significant.



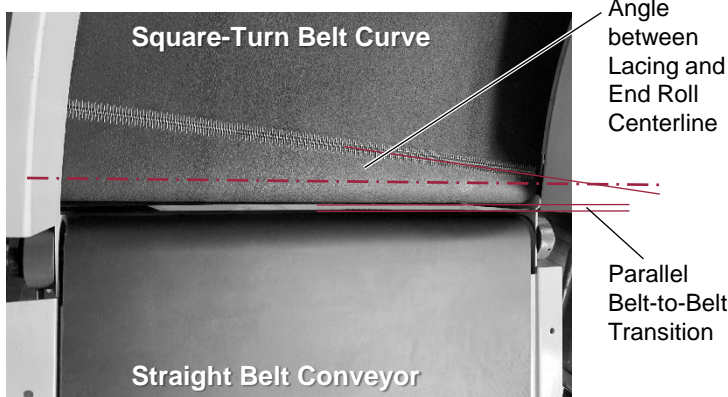
90-deg. Square-Turn with 2.5" Pucks with Underslung Drive, in Stainless Steel Design

Puck



Cylindrical End Rollers ("Pucks") are used at drive and tail end for parallel belt-to-belt transitions

Square-Turn belt curves are available in various sizes, arcs, and design options. Standard puck diameters are 4", 2.5" and 2" depending on curve size. Please refer to the **Square-Turn** Data Sheet.



SQUARE-TURN Applications

- ☐ Package & Parcel
- ☐ Baggage Handling
- ☐ Warehousing & Distribution
- ☐ Food Processing
- ☐ Packaging
- ☐ Industrial & Manufacturing

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



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Standard Specifications

FRAME CONSTRUCTION

- 4", 2.5" or 2" Puck diameter depending on curve size (please refer to Data Sheet)
- Load capacity 40 lbs per linear foot (standard)
- 10 Ga standard frame construction
- Safety Guarding per OSHA
- Finger Guards and Safety Covers
- Arcs from 15 degrees to 270 degrees; also available as spiral with an elevation change
- Enamel paint or powder coating with color per RAL or paint chip request, or stainless steel

DRIVE SYSTEM

- Shaft-mounted gearmotors or reducers with flange mounts for C-Face motors
- Normal mounting at discharge end
- Number 50 Flex Chain with Attachment links
- Hardened Steel Sprockets

BELT

- 2-ply PVC (standard) - oil, heat, grease resistant
- Ruff Top and others upon request

ACCESSORIES

- Floor Supports, H-Style with welded constraint; +/- 2" adjustment; or ceiling hangers
- Side Guards 12 and 14 Ga Steel

Square-Turn Power Belt Curves

Options

FRAME

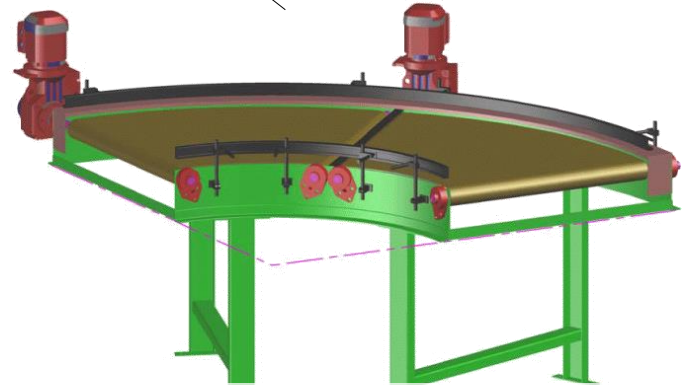
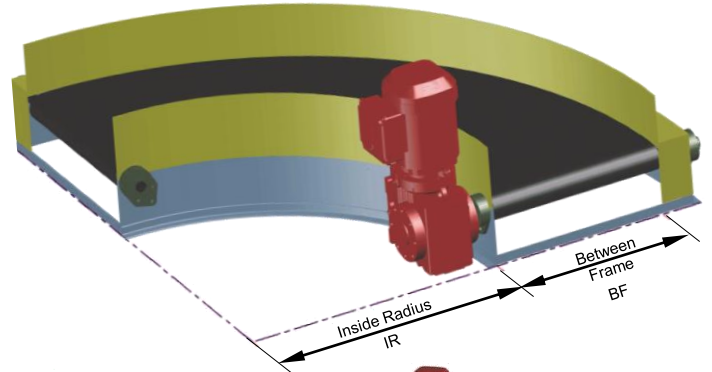
- Stainless steel, suitable for food applications
- Bed Relief Rollers for extra heavy loads
- Under Guards in Plastic or Steel Mesh or full Metal
- Removable Inside Radius Frame for Endless Belt Applications without Laced Splice
- Transfer Rolls for Small Item Applications
- Double Square-Turn with 2 x 45-degree curves (picture below)

DRIVE

- Integrated Gear Motors, with or without VFD's
- Inside radius mount (vertical only)
- Slave Drive between curves and adjacent conveyor

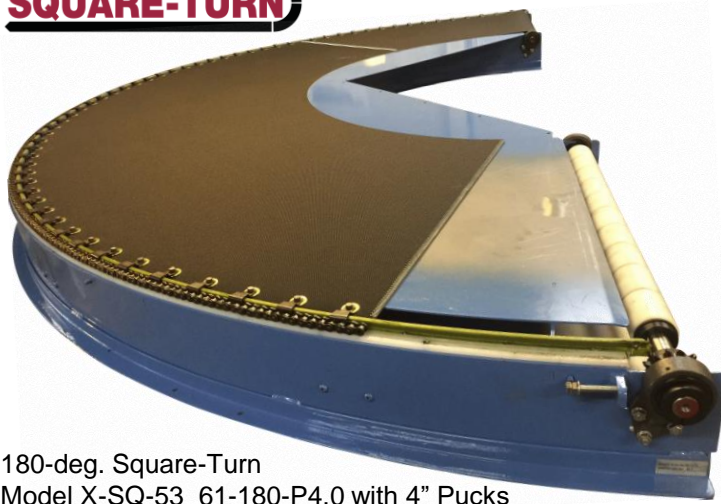
BELT

- FDA & USDA approved belts available



Also available is a **Double Square-Turn** belt curve with 2 x 45-deg. Square-Turn units on one frame for metering, buffering and robotic pick & place applications.

SQUARE-TURN



180-deg. Square-Turn
Model X-SQ-53_61-180-P4.0 with 4" Pucks

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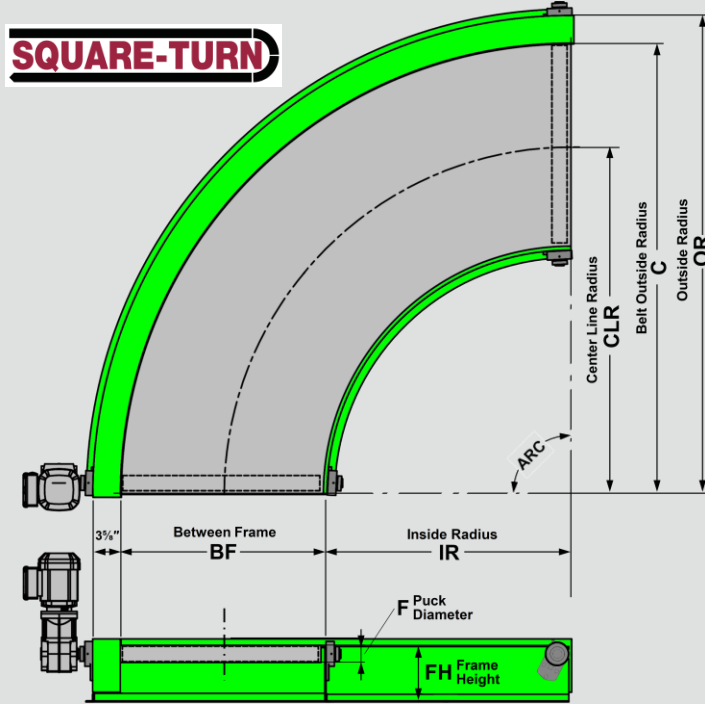
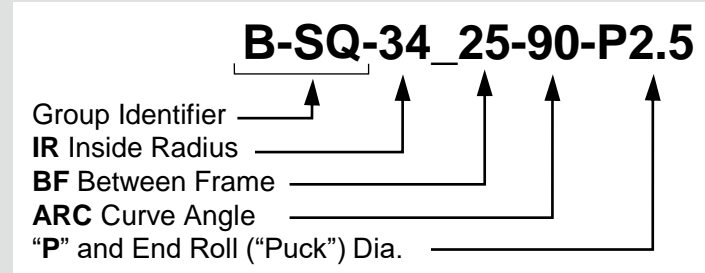
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Square-Turn Model Code



Common Dimensions and Specifications

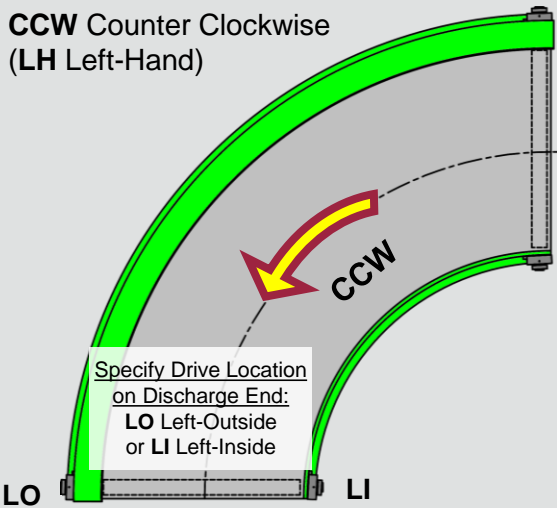
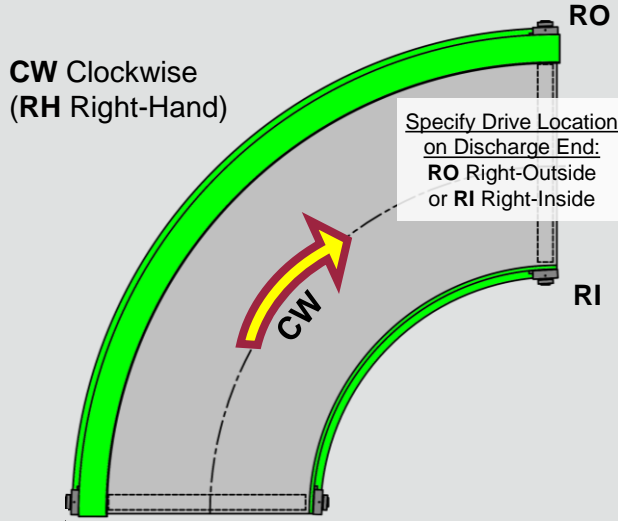
Group Identifier	OR Outside Radius	C Belt Outside Radius	F Puck Diameter	X Shaft Diameter	FH Inside Frame Height *
AAA-SQ	30.625"	27"	2"	1"	5.5"
AA-SQ	40.625"	37"	2.5"	1-3/16"	6"
A-SQ	50.625"	47"	4"	1-7/16" **	7.25" **
B-SQ	62.625"	59"			
C-SQ	90.625"	87"			

* OR Frame is 0.5" shorter than IR Frame
** 2.5" available upon request with X=1-7/16"

For **Square-Turn** Spiral applications, please refer to the corresponding **Spiral-Turn** Data Sheet.

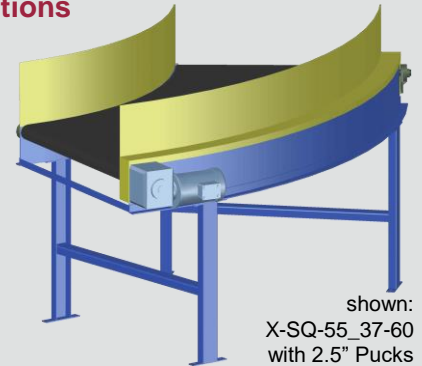
Group Identifier	Model No.	C Belt Outside Radius	IR Inside Radius	BF Between Frame	CLR Centerline Radius	F Puck Diameter
AAA-SQ	22_5	27"	22"	5"	24.5"	2"
	20_7		20"	7"	23.5"	2"
	18_9		18"	9"	22.5"	2"
	16_11		16"	11"	21.5"	2"
	14_13		14"	13"	20.5"	2"
	12_15		12"	15"	19.5"	2"
AA-SQ	30_7	37"	30"	7"	33.5"	2.5" (2")
	28_9		28"	9"	32.5"	2.5" (2")
	26_11		26"	11"	31.5"	2.5" (2")
	24_13		24"	13"	30.5"	2.5" (2")
	22_15		22"	15"	29.5"	2.5" (2")
A-SQ	20_17	47"	20"	17"	28.5"	2.5" (2")
	40_7		40"	7"	43.5"	2.5" (2")
	38_9		38"	9"	42.5"	2.5" (2")
	36_11		36"	11"	41.5"	2.5" (2")
	34_13		34"	13"	40.5"	2.5" (2")
	32_15		32"	15"	39.5"	2.5" (2")
	30_17		30"	17"	38.5"	2.5" (2")
	28_19		28"	19"	37.5"	2.5" (2")
	26_21		26"	21"	36.5"	2.5" (2")
	24_23		24"	23"	35.5"	2.5" (2")
B-SQ	22_25	59"	22"	25"	34.5"	2.5" (2")
	44_15		44"	15"	51.5"	2.5" (2")
	42_17		42"	17"	50.5"	2.5" (2")
	40_19		40"	19"	49.5"	2.5" (2")
	38_21		38"	21"	48.5"	2.5" (2")
	36_23		36"	23"	47.5"	2.5" (2")
	34_25		34"	25"	46.5"	2.5" (2")
	32_27		32"	27"	45.5"	2.5" (2")
	30_29		30"	29"	44.5"	2.5" (2")
	28_31		28"	31"	43.5"	2.5" (2")
	26_33		26"	33"	42.5"	2.5" (2")
	24_35		24"	35"	41.5"	2.5" (2")
	22_37		22"	37"	40.5"	2.5" (2")
	20_39		20"	39"	39.5"	2.5" (2")
C-SQ	62_25	87"	62"	25"	74.5"	4" (2.5")
	60_27		60"	27"	73.5'	4" (2.5")
	58_29		58"	29"	72.5"	4" (2.5")
	56_31		56"	31"	71.5"	4" (2.5")
	54_33		54"	33"	70.5"	4" (2.5")
	52_35		52"	35"	69.5"	4" (2.5")
	50_37		50"	37"	68.5"	4" (2.5")
	48_39		48"	39"	67.5"	4" (2.5")
	46_41		46"	41"	66.5"	4" (2.5")
	44_43		44"	43"	65.5"	4" (2.5")
	42_45		42"	45"	64.5"	4" (2.5")
	40_47		40"	47"	63.5"	4" (2.5")
	38_49		38"	49"	62.5"	4" (2.5")
	X-SQ		Special and in-between curve sizes are available, please inquire			

Direction of Flow & Drive Placement

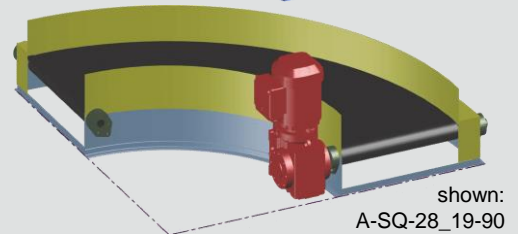


Drive Mounting Options

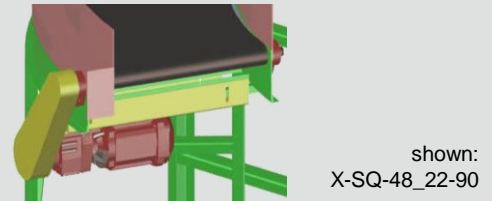
- Horizontal
(not suitable for
inside locations)



- Vertical



- Underslung



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.

