



## 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.

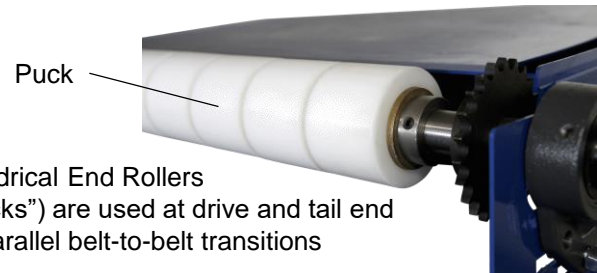
Key benefits of this design are:

- **Better Transfer of Product Between Conveyors**  
Square-Turn curves have true parallel belt-to-belt transition to and from adjacent conveyors. Traditional belt curves have tapered end rollers with a variable trapezoidal gap at the transfer point.
- **Reduced Noise**  
The cylindrical end roll design also 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 high-density plastic puck material absorbs sound better than steel pulleys.
- **Safer Design**  
Square-Turn curves have no uneven gaps with the potential of creating unsafe pinch points that need to be covered with transfer plates.
- **Easier Integration**  
The drive shaft is absolutely 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.

# Square-Turn Power Belt Curves

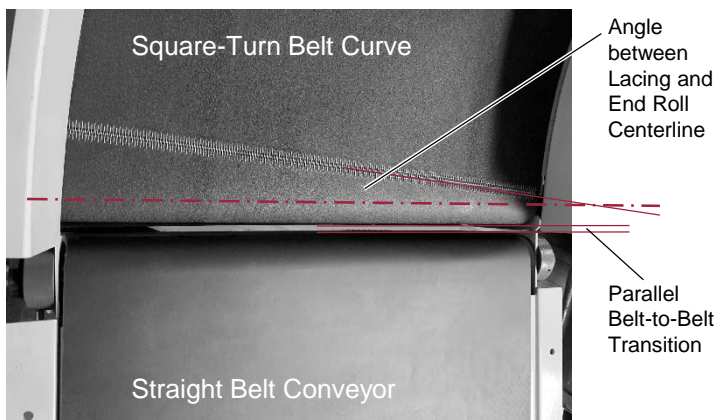


90-deg. Square-Turn with 2.5" Pucks with Underslung Drive, in Stainless Steel Design



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** Datasheet.



## SQUARE-TURN Applications

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

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*Custom design is a FLOW-TURN specialty.  
We manufacture to rigid specifications and provide answers to unusual requirements.*

SQ Square-Turn Rev00



The Next Generation of Turns

# Square-Turn Power Belt Curves

## Standard Specifications

### FRAME CONSTRUCTION

- 4", 2.5" or 2" Puck diameter depending on curve size (please refer to datasheet)
- 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

## Options

### FRAME

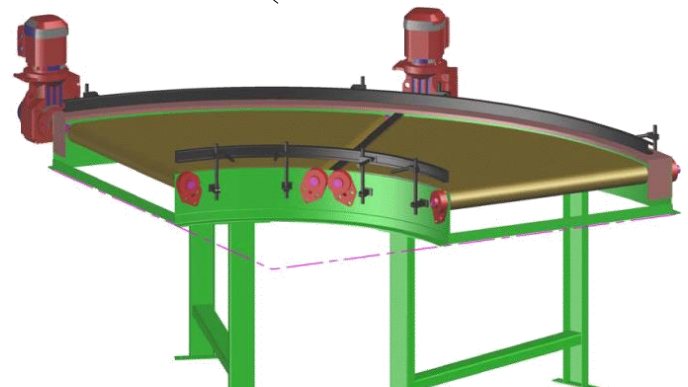
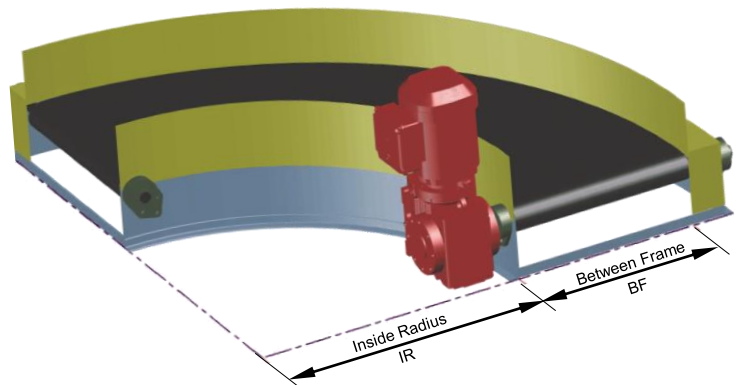
- Stainless steel, suitable for food applications
- Low Friction DuraSurf slider bed covers for heavy loading; Bed Relief Rollers for extra heavy loads
- Under Guards in Plastic or Steel Mesh or full Metal
- Removable Inside Radius Frame for Endless Belt Applications without Laced Splice
- Double Square-Turn 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

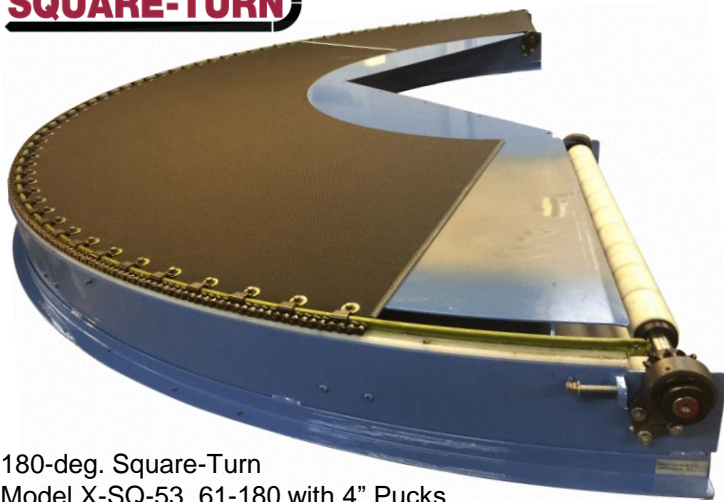
### BELT

- 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 with 4" Pucks

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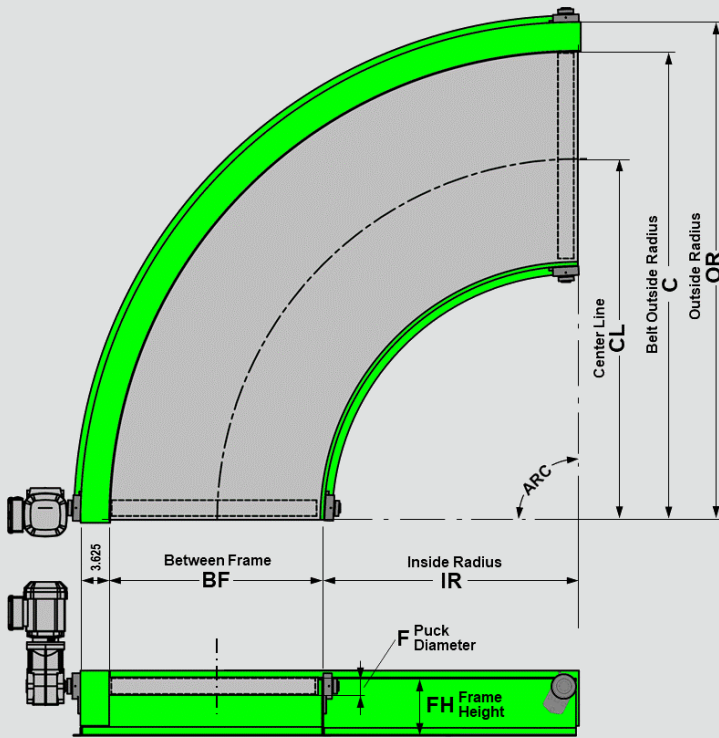
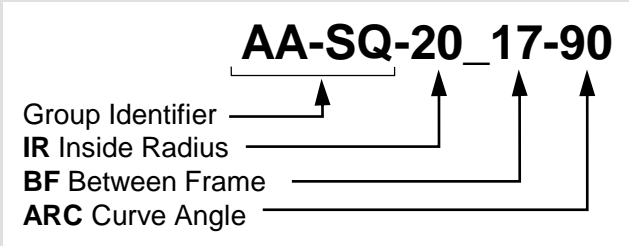
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SQ Square-Turn Rev00

### Square-Turn Model Code



### Common Dimensions and Specifications

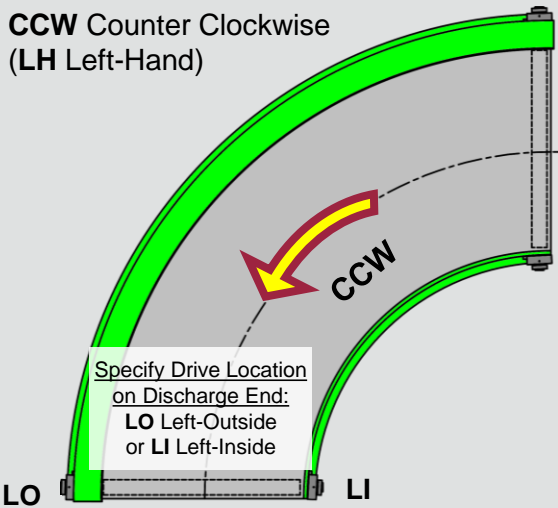
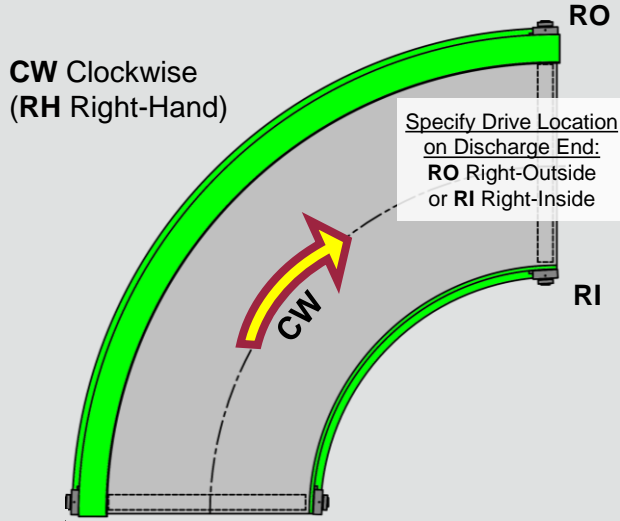
Group Identifier	OR Outside Radius	C Belt Outside Radius	F Puck Diameter	FH Inside Frame Height *	X Shaft Diameter
AAA-SQ	30.625"	27"	2"	5.5"	1"
AA-SQ	40.625"	37"	2.5"	6"	1-3/16"
A-SQ	50.625"	47"	4"	7.25"	1-7/16"
B-SQ	62.625"	59"	* Outside Frame is 0.5" shorter than Inside Frame		
C-SQ	90.625"	87"			

Group Identifier	Model No.	C Belt Outside Radius	IR Inside Radius	BF Between Frame	CL Centerline Radius	F End-Roll 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"
AA-SQ	12_15	37"	12"	15"	19.5"	2"
	30_7		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")
	46_13		46"	13"	52.5"	4" (2.5")
	44_15		44"	15"	51.5"	4" (2.5")
	42_17		42"	17"	50.5"	4" (2.5")
	40_19		40"	19"	49.5"	4" (2.5")
	38_21		38"	21"	48.5"	4" (2.5")
	36_23		36"	23"	47.5"	4" (2.5")
	34_25		34"	25"	46.5"	4" (2.5")
	32_27		32"	27"	45.5"	4" (2.5")
	30_29		30"	29"	44.5"	4" (2.5")
	28_31		28"	31"	43.5"	4" (2.5")
	26_33		26"	33"	42.5"	4" (2.5")
	24_35		24"	35"	41.5"	4" (2.5")
	22_37		22"	37"	40.5"	4" (2.5")
	20_39		20"	39"	39.5"	4" (2.5")
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 Curve Sizes Upon Request					

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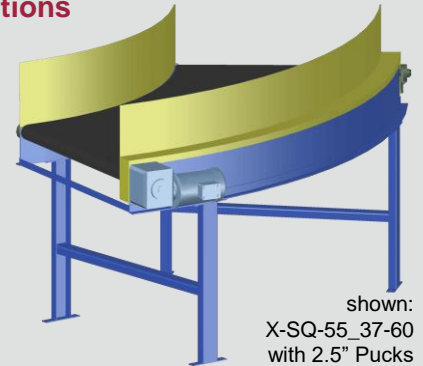


### Direction of Flow & Drive Placement

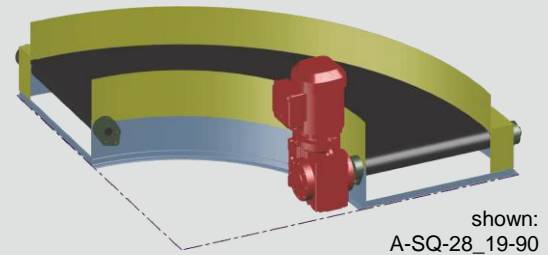


### Drive Mounting Options

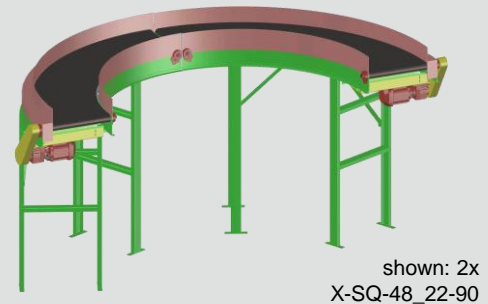
- Horizontal (not suitable for inside locations)



- Vertical



- Underslung



- Slaved

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

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.

