



## The Next Generation of Turns

FLOW-TURN's Flat-Turn belt curves are engineered for applications that benefit from an obstruction-free belt curve surface or that do not allow use of a drive chain requiring lubrication.

Belt traction is achieved by a friction drive with lagged pulleys. The belt position is positively maintained by a dual ball bearing guide system; the ball bearing assemblies run in a fixed rail structure in both upper and lower track. The assemblies consist of two (2) sealed-for-life ball bearings mounted on a joint stud which is securely attached to the belt surface.

All common belt qualities can be applied. Flat-Turn curves can be supplied with laced belts or, as option, with seamless belts.

Key benefits of this design are:

- **Obstruction-Free Belt Surface**  
Flat-Turn curves can accommodate large and oversize items and do not require sideguards. This allows to integrate Flat-Turn curves into assembly workstations as take-away conveyors.
- **Chain-Free Operation**  
No chain is needed to drive or guide the belt. Therefore, no chain lubrication is needed. There is no chain cover protruding above the belt surface.
- **Simple and Safe Design**  
Flat-Turn curves are designed for minimum maintenance – no lubrication, no chain cover extending above the belt, and a smooth and simple friction drive.

### Flat-Turn Applications

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

# Flat-Turn Power Belt Curves

Flat-Turn belt curves are available in various sizes, arcs, and design options. Please refer to the **Flat-Turn** Data Sheet.



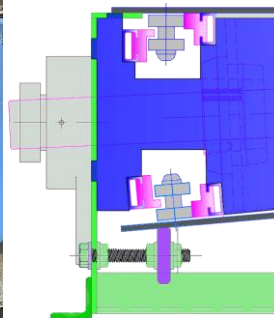
90-degree Flat-Turn Belt Curve with Partial Side Guards



90-deg. Flat-Turn used in wood furniture production



Flat-Turn Belt Tensioning Station



Flat-Turn Dual Ball Bearing Guide System with UHMW Tracks

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

FTT Flat-Turn Rev02

## Standard Specifications

### FRAME CONSTRUCTION

- Load capacity 30 lbs per linear foot (standard)
- 12 Ga standard frame construction
- Safety Guarding per OSHA
- Finger Guards and Safety Covers
- Arcs from 15 degrees to 180 degrees
- 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

- Belt width up to 120 inches
- 2-ply PVC (standard) - oil, heat, grease resistant
- Others upon request

### ACCESSORIES

- Floor Supports, H-Style with welded constraint; +/- 2" adjustment; or ceiling hangers

## Options

### FRAME

- 10 Ga frame construction
- Stainless steel, suitable for food applications
- Low Friction DuraSurf slider bed covers for heavy loading
- Under Guards in Plastic or Steel Mesh or full Metal

### DRIVE

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

### BELT

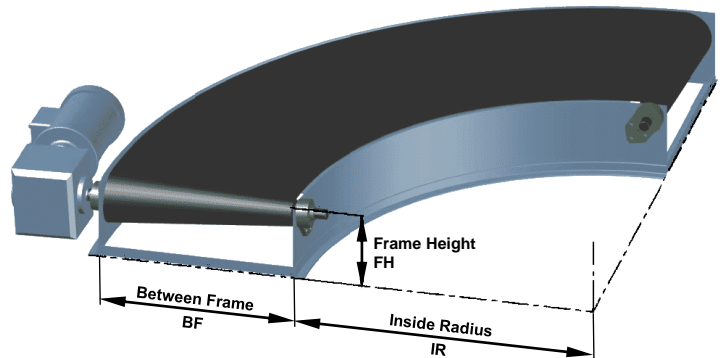
- Fire retardant belts available
- FDA & USDA approved belts available

### ACCESSORIES

- Side Guards 12 and 14 Ga Steel

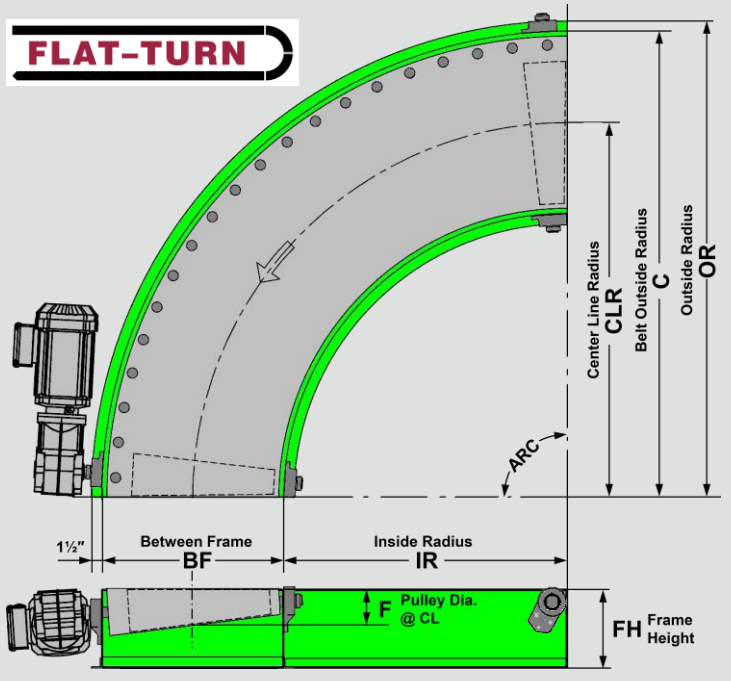
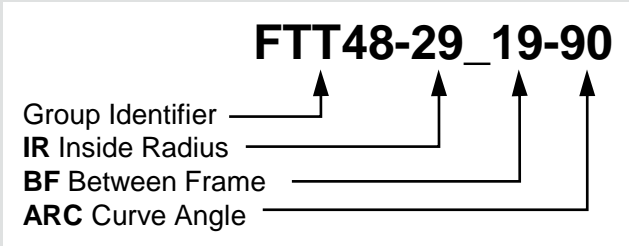


Two (2) S-curves in mirror-image design, each consisting of two (2) 45-degree Flat-Turn curves



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### Flat-Turn Model Code



### Common Dimensions and Specifications

| Group Identifier | OR Outside Radius | C Belt Outside Radius | FH Frame Height | X Shaft Diameter | Maximum Load * (90 deg) | Maximum Speed * (90 deg) |
|------------------|-------------------|-----------------------|-----------------|------------------|-------------------------|--------------------------|
| FTT36            | 36.5"             | 36"                   | 8.5"            | 1"               | 125 lbs                 | 300 FPM                  |
| FTT48            | 48.5"             | 48"                   | 8.5"            | 1"               | 175 lbs                 | 400 FPM                  |
| FTT60            | 60.5"             | 60"                   | 8.5"            | 1-3/16"          | 225 lbs                 | 500 FPM                  |
| FTT84            | 84.5"             | 84"                   | 8.5"            | 1-7/16"          | 250 lbs                 | 600 FPM                  |

\* Maximum Load data are based on 60 FPM; higher loads and speeds may be possible, please inquire

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.

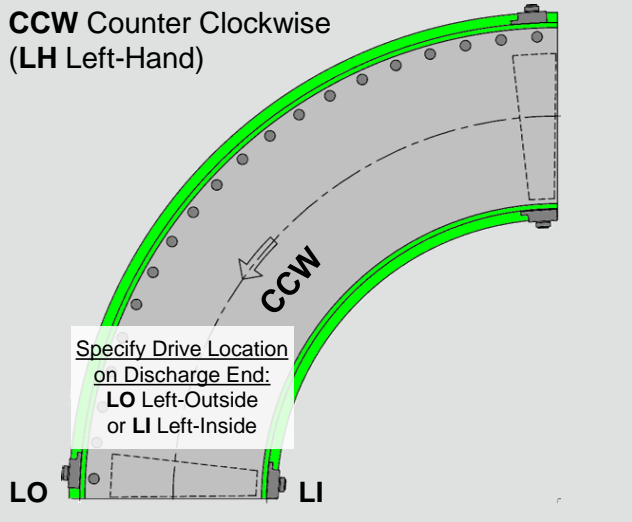
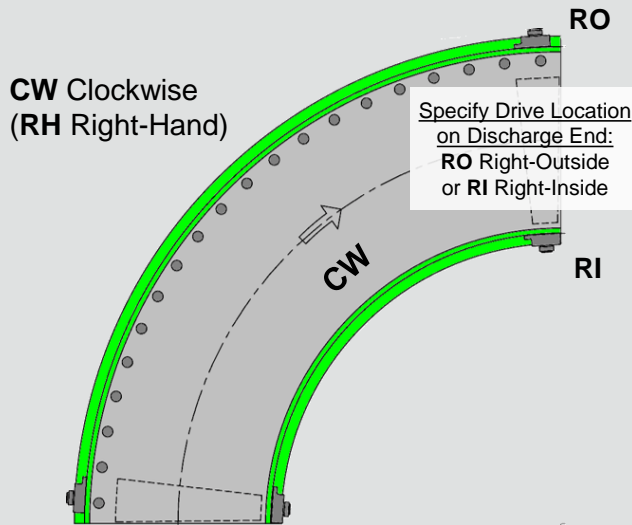
| Group Identifier | Model No.                        | C Belt Outside Radius | IR Inside Radius | BF Between Frame | CLR Centerline Radius | F Pulley Dia. @ CL |
|------------------|----------------------------------|-----------------------|------------------|------------------|-----------------------|--------------------|
| FTT36            | 29_7                             | 36"                   | 29"              | 7"               | 32.5"                 | 4.30"              |
|                  | 27_9                             |                       | 27"              | 9"               | 31.5"                 | 4.18"              |
|                  | 25_11                            |                       | 25"              | 11"              | 30.5"                 | 4.06"              |
|                  | 23_13                            |                       | 23"              | 13"              | 29.5"                 | 3.93"              |
|                  | 21_15                            |                       | 21"              | 15"              | 28.5"                 | 3.81" **           |
|                  | 19_17                            |                       | 19"              | 17"              | 27.5"                 | 3.68" **           |
| FTT48            | 17_19                            | 48"                   | 17"              | 19"              | 26.5"                 | 3.56" **           |
|                  | 41_7                             |                       | 41"              | 7"               | 44.5"                 | 4.12"              |
|                  | 39_9                             |                       | 39"              | 9"               | 43.5"                 | 4.03"              |
|                  | 37_11                            |                       | 37"              | 11"              | 42.5"                 | 3.95"              |
|                  | 35_13                            |                       | 35"              | 13"              | 41.5"                 | 3.86"              |
|                  | 33_15                            |                       | 33"              | 15"              | 40.5"                 | 3.77"              |
|                  | 31_17                            |                       | 31"              | 17"              | 39.5"                 | 3.68"              |
|                  | 29_19                            |                       | 29"              | 19"              | 38.5"                 | 3.30"              |
|                  | 27_21                            |                       | 27"              | 21"              | 37.5"                 | 3.51" **           |
|                  | 25_23                            |                       | 25"              | 23"              | 36.5"                 | 3.42" **           |
| FTT60            | 23_25                            | 60"                   | 23"              | 25"              | 35.5"                 | 3.34" **           |
|                  | 47_13                            |                       | 47"              | 13"              | 53.5"                 | 4.90"              |
|                  | 45_15                            |                       | 45"              | 15"              | 52.5"                 | 4.82"              |
|                  | 43_17                            |                       | 43"              | 17"              | 51.5"                 | 4.73"              |
|                  | 41_19                            |                       | 41"              | 19"              | 50.5"                 | 4.64"              |
|                  | 39_21                            |                       | 39"              | 21"              | 49.5"                 | 4.55"              |
|                  | 37_23                            |                       | 37"              | 23"              | 48.5"                 | 4.47"              |
|                  | 35_25                            |                       | 35"              | 25"              | 47.5"                 | 4.38"              |
|                  | 33_27                            |                       | 33"              | 27"              | 46.5"                 | 4.29"              |
|                  | 31_29                            |                       | 31"              | 29"              | 45.5"                 | 4.21"              |
|                  | 29_31                            |                       | 29"              | 31"              | 44.5"                 | 4.12" **           |
|                  | 27_33                            |                       | 27"              | 33"              | 43.5"                 | 4.03" **           |
|                  | 25_35                            |                       | 25"              | 35"              | 42.5"                 | 3.95" **           |
|                  | 23_37                            |                       | 41"              | 39"              | 41.5"                 | 3.86" **           |
| FTT84            | 65_19                            | 84"                   | 65"              | 19"              | 74.5"                 | 4.70"              |
|                  | 63_21                            |                       | 63"              | 21"              | 73.5"                 | 4.64"              |
|                  | 61_23                            |                       | 61"              | 23"              | 72.5"                 | 4.58"              |
|                  | 59_25                            |                       | 59"              | 25"              | 71.5"                 | 4.52"              |
|                  | 57_27                            |                       | 57"              | 27"              | 70.5"                 | 4.46"              |
|                  | 55_29                            |                       | 55"              | 29"              | 69.5"                 | 4.40"              |
|                  | 53_31                            |                       | 53"              | 31"              | 68.5"                 | 4.34" **           |
|                  | 51_33                            |                       | 51"              | 33"              | 67.5"                 | 4.28" **           |
|                  | 49_35                            |                       | 49"              | 35"              | 66.5"                 | 4.22" **           |
|                  | 47_37                            |                       | 47"              | 37"              | 65.5"                 | 4.16" **           |
|                  | 45_39                            |                       | 45"              | 39"              | 64.5"                 | 4.10" **           |
|                  | 43_41                            |                       | 43"              | 41"              | 63.5"                 | 4.04" **           |
|                  | 41_43                            |                       | 41"              | 43"              | 62.5"                 | 3.98" **           |
|                  | 39_45                            |                       | 39"              | 45"              | 61.5"                 | 3.92" **           |
|                  | 37_47                            |                       | 37"              | 47"              | 60.5"                 | 3.86" **           |
|                  | 35_49                            |                       | 35"              | 49"              | 59.5"                 | 3.80" **           |
| FTT-X            | Special Curve Sizes Upon Request |                       |                  |                  |                       |                    |

\*\* Slight bearing protrusion @ IR. Please consult factory for use with oversize products

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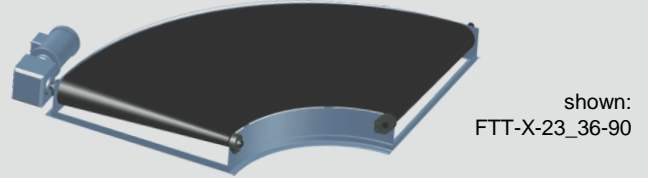


### Direction of Flow & Drive Placement

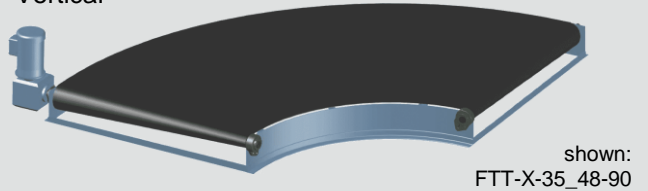


### Drive Mounting Options

- Horizontal (not suitable for inside locations)



- Vertical



- Drum Motor



- Underslung
- Slaved



Airport  
Baggage  
Handling  
(Model  
FTT60-  
23\_37-90)



Small Package  
and Parcel  
Sortation  
Facility  
(Model FTT-X-  
27.125\_17.5-45)

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FTT Flat-Turn Rev02