

FLOW-TURN® Flow-Merge FMSB

The Next Generation of Merges

FLOW-TURN's **Flow-Merge FMSB** conveyors utilize a series of strip belts ("SB") to create a triangular transition arrangement with another conveyor. This allows merge or spur applications at almost any angle and high speeds, complementing FLOW-TURN's power belt curve program.

The belts are precision cut strips, perfectly suitable for package & parcel and many other applications. A bead is attached to the belt bottom which travels in matching grooves on slider bed, end rolls, and drive pulley. This assures proper belt tracking at all times. The slider bed is made from a low-friction, sound absorbing UHMW material.

Belt strips are laced which makes them easily replaceable. End rolls are designed to be exchanged without tools.

Advantages and Benefits of the Flow-Merge FMSB Design

- Simple, Low-Maintenance Design
- Usable for Merge and Diverge (Spur) Applications
- Large "Between Frame" (BF) Width Range, from 16" to 60"; other widths available upon request
- Self-Tracking & Quick-Replaceable Strip Belts with Lacing Splices; standard Strip Widths between 3" and 4"
- Low-Friction, Low-Noise UHMW Slider Bed
- AC and 24V Drives available. AC can be shaft-mounted or underslung; 24V MDR geared motors are underslung
- Speeds of up to 600 FPM
- Available in standards angles 20, 22, 30 and 45-degree, other angles are available upon request



45-degree
Flow-Merge FMSB
with RH Flow and Underslung Drive for a
Package & Parcel Handling Application

Typical Applications

- ☐ Package & Parcel Handling
- ☐ Warehousing & Distribution
- ☐ Industrial Applications
- ☐ Baggage Handling
- ☐ Manufacturing & Production

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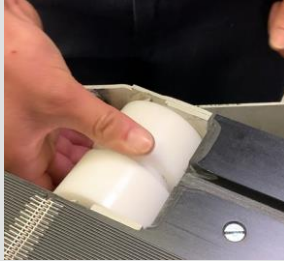
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*Custom design is a FLOW-TURN specialty.
We manufacture to rigid specifications and provide answers to unusual requirements.*

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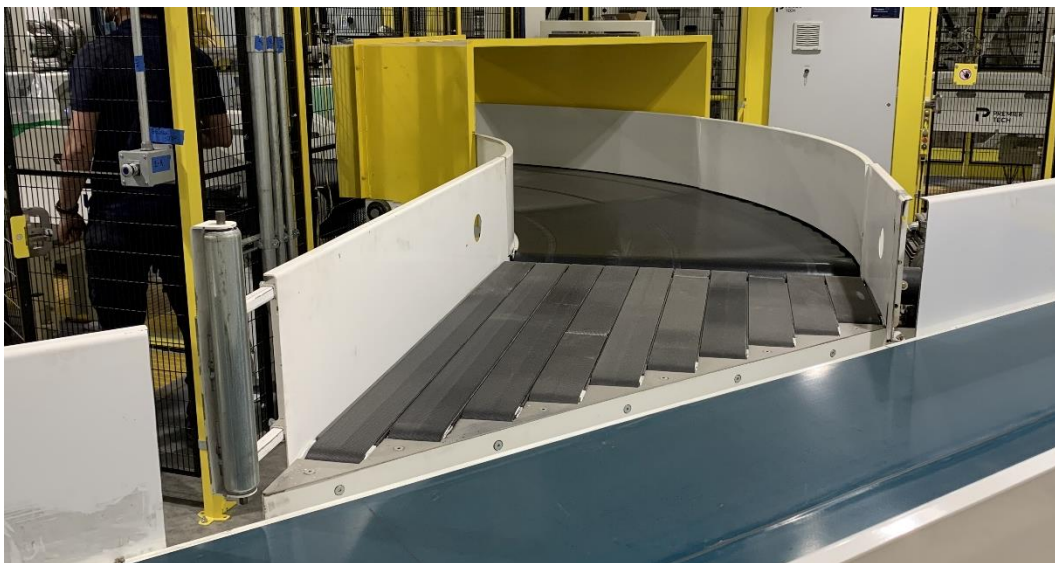
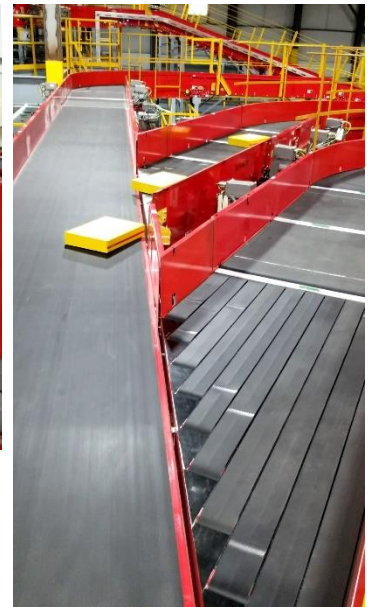
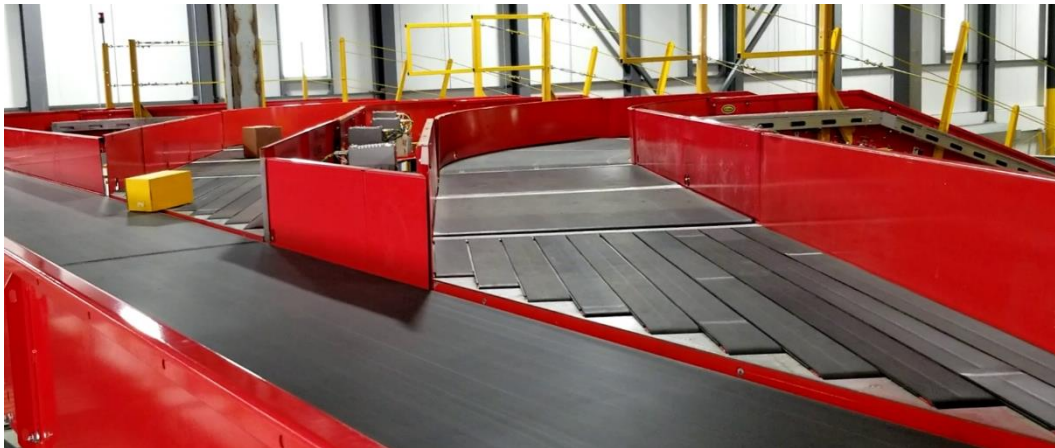
Design Details



Strip Belt
with Bottom
Bead and
End Roll

Quick-Replaceable End Rolls Drop into Position

Merge Application Examples – Package & Parcel Handling (Top) and Insulation Batts (Bottom)



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MTBH – Material To Be Handled

Flow-Merge FMSB strip belt conveyors are designed to transport conveyable unit goods such as bags, boxes, crates, parcels, packages, totes, and trays. They are not suitable for non-conveyable items such as bulk goods, unstable goods (e.g. with round or oval shaped base), loosely wrapped goods, or packaged goods with leaking product, or in environments with excessive dust.

Product Width

As a rule of thumb, the maximum width of the products conveyed should not exceed 80% BF. Recommended minimum product width is 3" but can be smaller depending on speed and application details.

Product Length

For standard merge centerline lengths, the maximum product length should not be larger than 2x maximum product width; if required, the centerline length can be increased.

Product Weight

The live load shall not exceed 25 lb/ft; the total load on a merge shall not exceed 200 lbs.

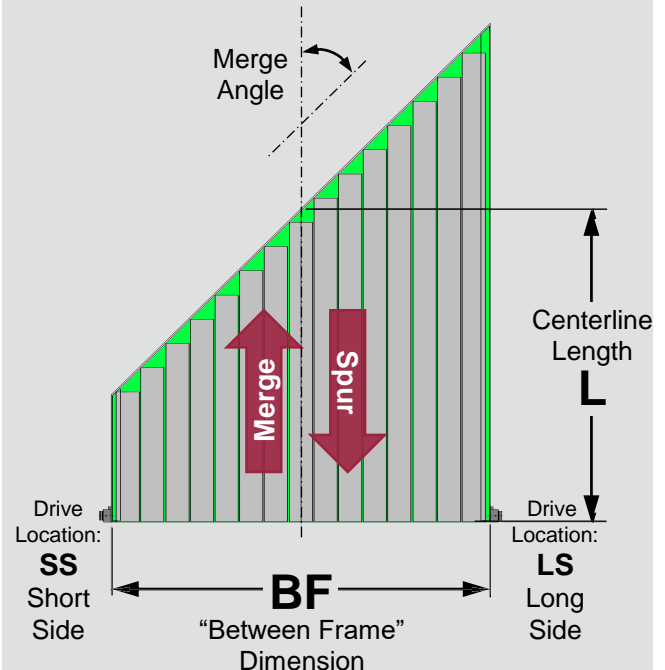
Between Frame BF	Max. Product Dimensions (for standard centerline lengths)	
	Width	Length
16	12.8	25.6
20	16	32
24	19.2	38.4
28	22.4	44.8
30	24	48
32	25.6	51.2
36	28.8	57.6
48	38.4	76.8
60	48	96

Flow-Merge FMSB Sizing – Width and Length

The table below shows standard centerline lengths for selected BF Between Frame dimensions and standard merge angles. The centerline lengths are calculated for short side lengths of 20" and can be adjusted; please inquire with required centerline lengths for your project.

Centerline Length in in.		Merge Angle			
		20°	22°	30°	45°
Between Frame BF	16	42	40	34	28
	20	47.5	45	37.5	30
	24	53	50	41	32
	28	58.5	55	44.5	34
	30	61.5	57.5	46	35
	32	64	60	48	36
	36	69.5	65	51.5	38
	48	86	79.5	62	44
	60	102.5	94.5	72	50

Main Dimensions and Drive Placement

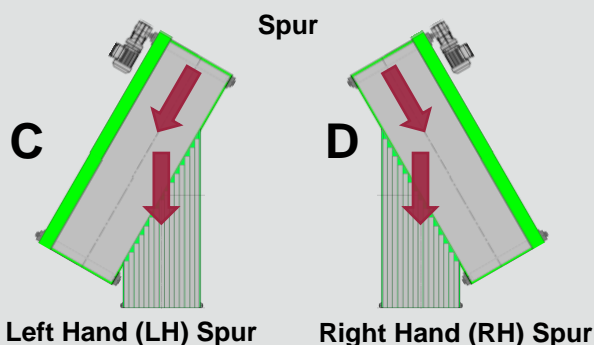
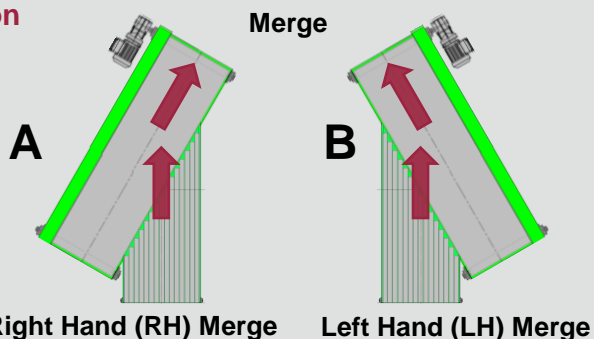


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FLOW-TURN® Flow-Merge FMSB Data Sheet

The Next Generation of Merges

Direction
of Flow



Flow-Turn Model Code

FMSB-60_36-45-A

FMSB Identifier _____

L Centerline Length _____

BF Between Frame _____

Merge Angle _____

A, B, C, or D Direction of Flow _____

Drive Options

Flow-Merge FMSB conveyors are available with AC gear motors and 24V MDR motors.

AC motors can be shaft-mounted horizontally or vertically, or installed underslung. 24V MDR motors are underslung.

Due to limited space on the short side, preferred installation location in many cases is **LS** (Long Side)



Flow-Merge FMSB in a food packaging facility. Merge conveyors are equipped with servo drives and white food-grade strip belts. Model FMSB-60_26-30



30-degree **Flow-Merge FMSB** with Direction of Flow "A" (Right Hand Merge) with dual 24V MDR motors (underslung) and joint controller card



Model FMSB-48.6-33-30

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