

SAVES ENERGY

VIRTUALLY SILENT

MODULAR COMPONENTS

REDUCED DOWNTIME

REDUCED MAINTENANCE

SAVES SPACE



WHY OMNI FLAT MOTOR DRIVEN ROLLER CONVEYOR? (FMDR)

- Saves Energy - "run on demand"
- Virtually Silent - band driven ABEC rollers with no gearbox noise
- Modular Components - only one motor to stock
- Reduced Downtime - long life brushless DC motor
- Reduced Maintenance - fewer mechanical components
- Saves Space - lower roller height and space for accessories
- Modular - pre-wired, full control package available

Flat Motor

- 2 bolts for easy removal
- Brushless DC motor



LOGIC CARD FEATURES

- Jam Protection
- "Sleep" Feature
- Long Zone Technology

THREE MODES OF OPERATION

- Singulation Mode
- ZIP Mode
- Transportation Mode

2 Card Options

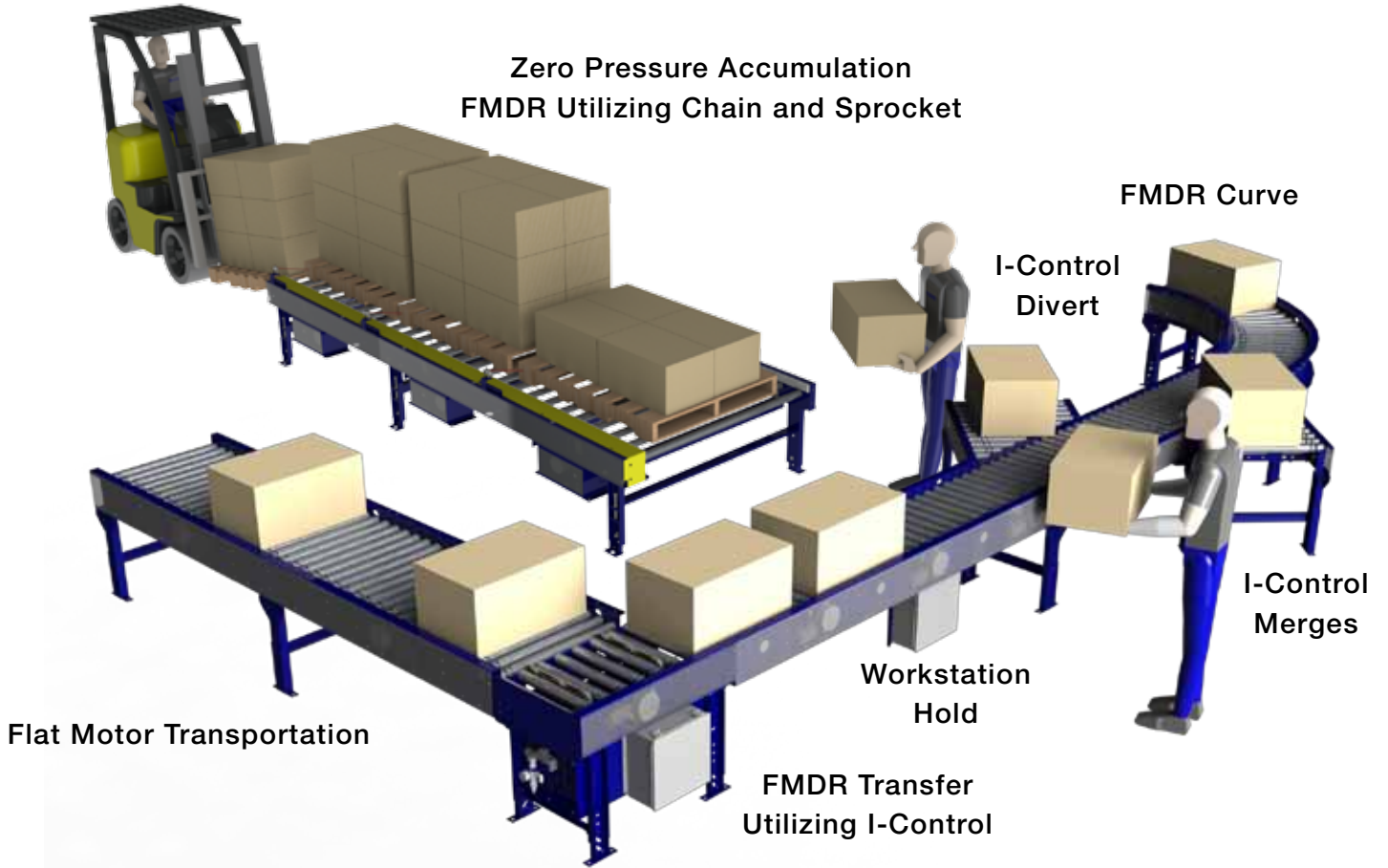


Zero Pressure Accumulation



Basic Card for Manual Control

FMDR APPLICATIONS UTILIZING UNIVERSAL CONTROL



UP TO 20 ZONES PER STANDARD 20 AMP POWER SUPPLY



TRANSPORTATION USING ULTRA BANDS

FEATURES

- Up to 10 feet per motor
- Up to 120 lbs. total live load capacity
- 3" roller centers (other centers available)
- Up to 200 FPM nominal with light loads and short zone lengths
- Timing photo eye for zone run/sleep (optional)



I-CONTROL FOR MERGES, DIVERTS AND TRANSFERS

- Standard program logic for merge, divert and transfers
- Programmable for special intersection requirements
- DeviceNet slave, EtherNet, Profibus slave, RS422/485, RS232 capable
- I/O capability - AC, DC-PNP/NPN, analog, high speed input, thermocouple, relay, up to 32 I/O points
- Low cost programming software for on site modifications
- 14 watts input power at 24VDC
- Four line text panel display for viewing messages and process data
- Timer, counter and process variables can be adjusted using front panel keys
- 5 front panel function keys for process or program interaction
- Handshaking with Universal Control devices via auxiliary I/O on the card
- NEMA 12 enclosure with terminal strip connection points for I/O
- Tool cabling to remote control device signals



MODULE SPECIFICATIONS

USER INTERFACE:

1. Motor Connection
2. Smart Input/Output (I/O)
3. DC Power Input Connector
4. Blown Fuse Indicator LED
5. Replaceable 10A Fuse
6. Potentiometer for Speed Control
7. Diagnostic LEDs
8. Function Control Switches
9. Sensor Connector
10. Downstream Cable Connection Jack
11. Upstream Cable Connection Jack
12. Mounting Plate/Heat-Sink
13. Cover



FLAT MOTOR ZPA MODULE

- Used for zoned accumulation via onboard logic
- Multiple modes of accumulation via DIP switch selection
- One module is required for each flat motor

FLAT MOTOR DRIVER MODULE

- Used for manually controlled zones via PLC or remote logic
- One module is required for each flat motor

CONVEYOR SPECIFICATIONS

SPECIFICATIONS

- 13" - 39" between frame
- 30 - 200 FPM speeds

DRIVE OPTIONS

- High tension bands
- Ultra bands
- Chain

ACCESSORIES

- Floor and ceiling supports
- Side guides
- Lexan side frame cover
- Power supplies
- Power distribution cables
- Alternate photoeyes and mountings

CONFIGURATIONS

- Straights
- Curves
- Spurs
- Transfers

Drive Type	Speed Range	Max. Zone Size	Capacity Range
High Tension Bands	30 - 200 FPM	48"	Up to 75 lbs.
Ultra Bands	30 - 200 FPM	120"	Up to 120 lbs.
Chain	10 - 40 FPM	144"	Up to 800 lbs.

Contact Omni for specific speeds and capacities available for your application.

BASELINE FMDR - STRAIGHT AND CURVE

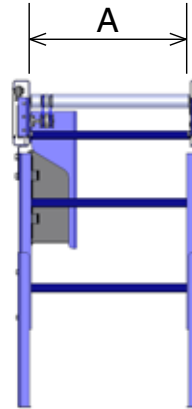
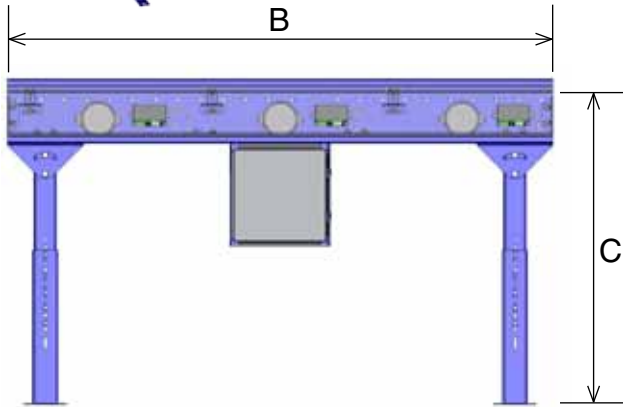
FLAT MOTOR DRIVEN ROLLER CONVEYOR - STRAIGHT



24V Flat Motor Driven Roller Conveyor (FMDR) is an excellent conveyor choice when energy efficiency, ease of installation, low maintenance and minimal spare parts are primary considerations. It is designed to work well for both zero pressure accumulation and transportation.

BASELINE SPECIFICATIONS

- Length 1.5' to 100' maximum, increments based on roller centers for transportation and zones for zero pressure
- Between frame in 1" increments 13" to 39"
- 30 to 120 FPM
- Ceiling supports, floor supports and side guides available
- Powder coat finishes and galvanized material available



Ref.	1.9"
A	13" - 39"
B	1.5' - 100'
C	13.25" - 89.5"

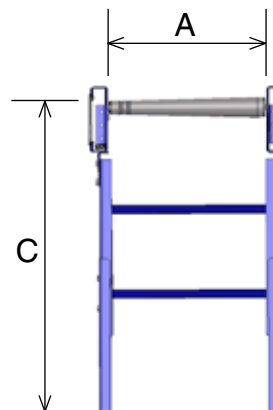
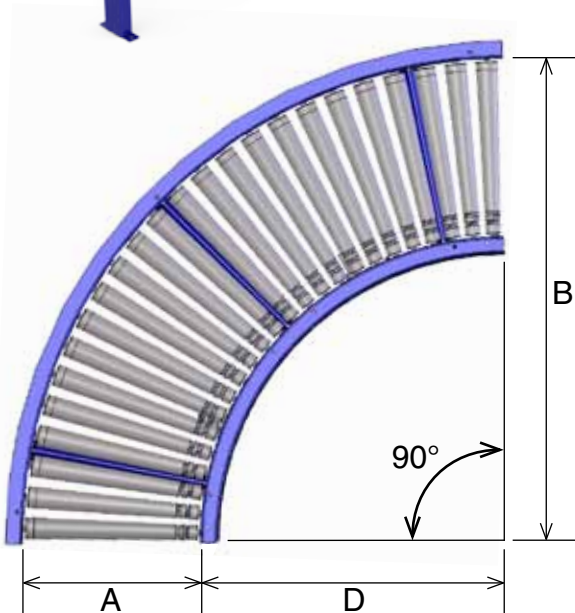
A = Between Frame (BF)
B = Overall Length (OAL)
C = Top of Roller (TOR)

FLAT MOTOR DRIVEN ROLLER CONVEYOR - CURVE



BASELINE SPECIFICATIONS

- 30°, 45°, 60° and 90° turns
- 36" standard inside radius
- Between frame in 1" increments 13" to 39"
- 30 to 120 FPM
- Ceiling supports, floor supports and side guides available
- Powder coat finishes and galvanized material available



Ref.	1.9"
A	13" - 39"
B	49" - 75"
C	13.25" - 89.5"
D	36"

A = Between Frame (BF)
B = Outside Radius (OR)
C = Top of Roller (TOR)
D = Inside Radius (IR)

FMDR STRAIGHT DRIVE SPECIFICATIONS

POWER SUPPLY

- 24 VDC fixed output
- NEMA 12 enclosure
- 20 amp DC power supply
 - 115 VAC, 1 Phase, 60 Hz., 5.7 amp input
 - 230 VAC, 1 Phase, 60 Hz., 2.8 amp input
 - 460 VAC, 3 Phase, 60 Hz., 1.6 amp input
- 5 amp DC power supply
 - 115 VAC, 1 Phase, 60 Hz., 1.4 amp input
 - 230 VAC, 1 Phase, 60 Hz., 0.8 amp input
 - 460 VAC, 3 Phase, 60 Hz., 0.5 amp input

MOTOR

- 24 VDC brushless motor, 75 watt
- 14 in-lbs rated torque

SLAVE ROLLERS

- 1.9" dia. x 16 ga. galvanized rollers
- ABEC-1 precision bearings

ROLLER SPACING

- 2", 3" and 4" roller centers

FMDR CURVE DRIVE SPECIFICATIONS

POWER SUPPLY

- Optional 5 amp DC power supply
 - 115 VAC, 1 Phase, 60 Hz., 1.4 amp input
 - 230 VAC, 1 Phase, 60 Hz., 0.8 amp input
 - 460 VAC, 3 Phase, 60 Hz., 0.5 amp input

MOTOR

- 24 VDC brushless motor, 75 watt
- 14 in-lbs rated torque

SLAVE ROLLERS

- 2.5" dia. to 1-11/16" dia. zinc plated tapered rollers
- ABEC-1 precision bearings

ROLLER SPACING

- 3" roller centers, nominal roller spacing

CURVE ZONE QUANTITY

- 60° and 90° - 2 zones
- 30° and 45° - 1 zone

ZERO PRESSURE AND TRANSPORTATION SPECIFICATIONS

ZERO PRESSURE

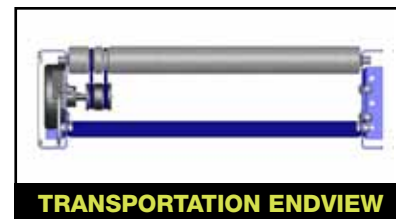
- 18", 24", 30" or 36" long drive zones
- 75 lbs. maximum product load
- 1 flat motor and ZPA module per zone
- Variable speed potentiometer on ZPA module
- Multiple operating modes
 - Zero pressure accumulation
 - High throughput zero pressure accumulation
 - Train mode (slug release)
- Retro-reflective photo eye

TRANSPORTATION SYSTEMS

- 16 rollers/drive zone maximum
- 28 lbs. per foot maximum product load
- 1 flat motor and driver module per zone
- Variable speed potentiometer on driver module
 - Multiple speed options with DIP switches
- Transports product without accumulation



ZERO PRESSURE ENDVIEW



TRANSPORTATION ENDVIEW