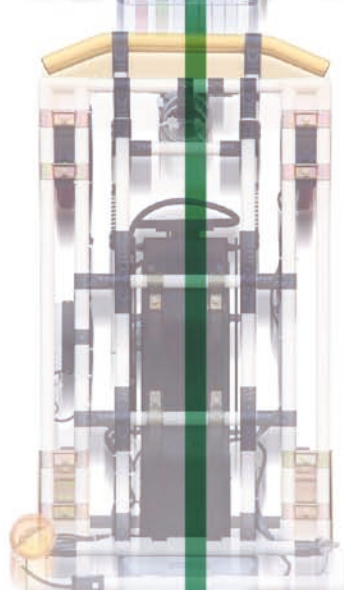
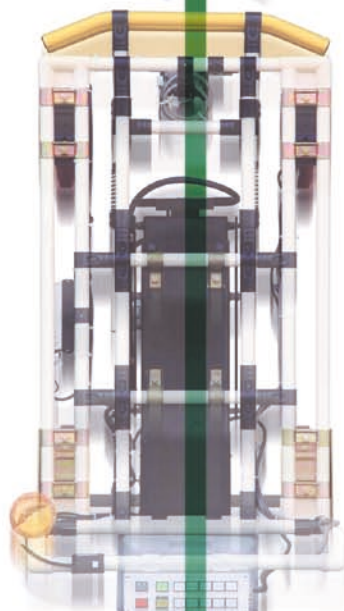
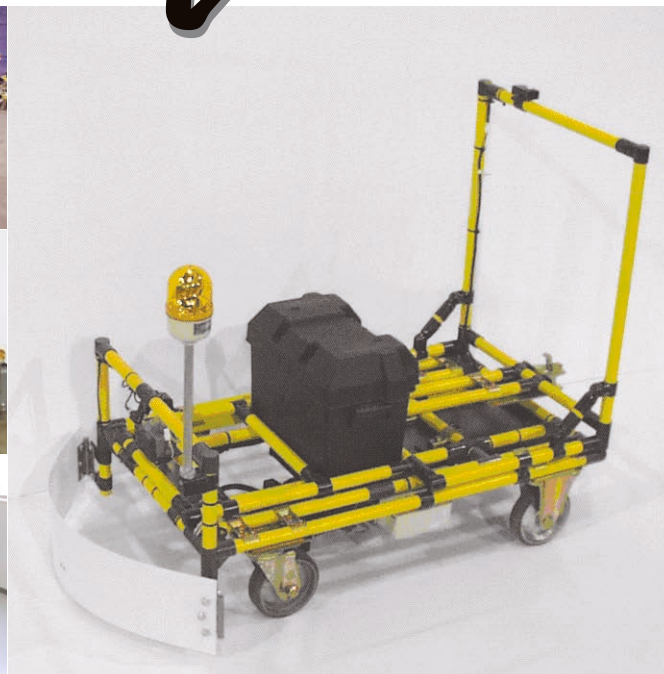
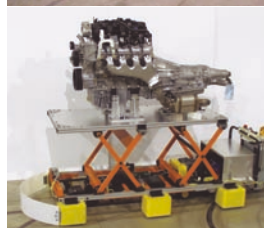


**THE INTELLIGENT
AUTOMATED GUIDED CART**

AGC



 **CREFORM**[®] 
MATERIAL HANDLING SYSTEM



SIMPLE TO BUILD, RELIABLE, COST EFFECTIVE MOVEMENT OF MATERIAL

Creform Automated Guided Carts are the smart choices for material handling operations throughout your facility...from efficient transportation of materials to a highly flexible assembly line.

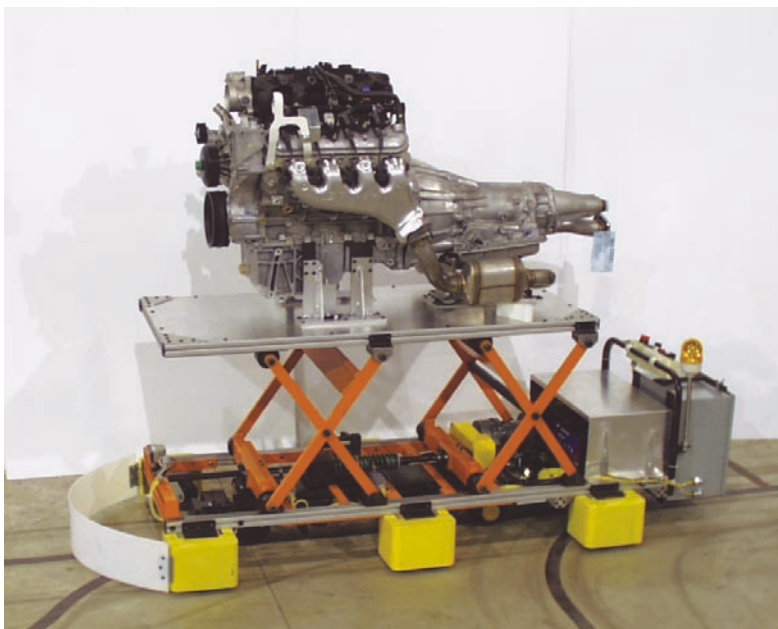
Design and build a Creform AGC to your exact specifications, place the magnetic tape along your required layout and go. It's that simple. If the route needs to change just pull up the tape and lay a new path.

The Advantages of the Creform AGC System

- The investment is a fraction of typical AGV's
- Simple Installation – surface mount or in-ground guidance, no overhead rigging or disruption to operations
- Both the cart and its route can be easily adapted to changing process requirements
- Presents parts ergonomically
- Replaces high cost, high maintenance fork trucks.
- Eliminates the need for wide aisles
- Modular components for easy, cost efficient construction
- 12 volt and 24 volt battery power
- Inventory reduction by elimination of buffers

Bolt-On Drive Units

- Models available with total load limits from 180 kg (396 lb.) to 1300 kg (2860 lb.)
- Speed choices from 0.5 meters per minute (1.6 fpm) to 50 meters per minute (164 fpm) depending on model selection
- Uni-directional and bi-directional models



Scissor lift for ergonomic presentation to the operator

Custom Designed AGC's

- AGC's can be custom designed to suit your material movement needs
- Drive systems are available with up to 3000 kg (3 ton) capacity
- Using the Creform Pipe and Joint System plus the hundreds of available accessories you can build an AGC to perform a vast number of functions. The photos on this page demonstrate just a few of the possible designs and applications of a Creform AGC.



Powered and non-powered roller beds



Automatic catch and release tugger



Custom designed AGC for automatic loading and unloading of trailers or trucks

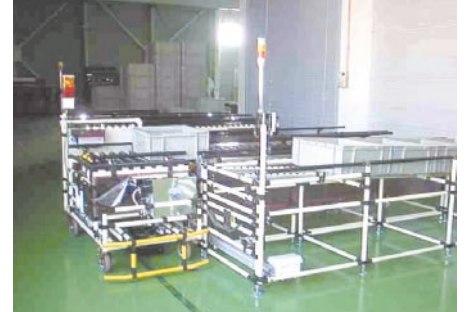
CREFORM AGC'S AT WORK MOVING YOUR MATERIALS



Mobile assembly line



Powered roller material delivery and container return



Powered roller material delivery and container return



AGC tugging cart



Forward/reverse material container delivery



Delivering sub assemblies to production line



I.P. assembly and delivery to production line



Electronic piano keyboard assembly line



Sequenced part delivery to the assembly line



Mail cart



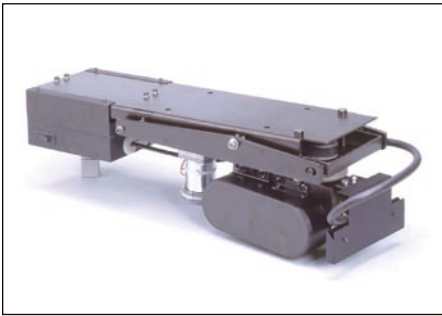
Non-powered roller delivery



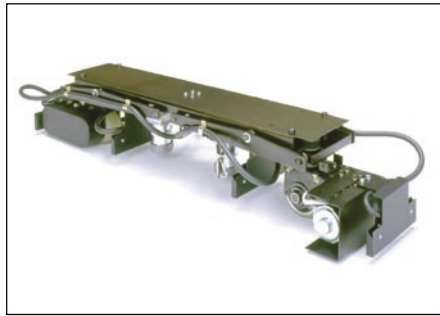
Mobile assembly line with part orientation fixture

EASILY BUILT WITH THE BOLT-ON DRIVE SYSTEM

**The intelligent driving unit...
all in one package with integrated motor
and controls**



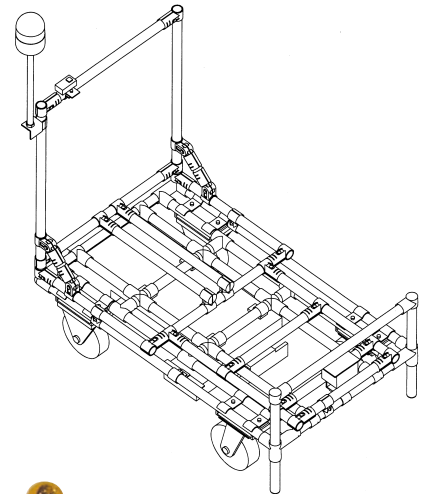
Forward Only



Forward/Reverse

**Use with the
CREFORM® Pipe and
Joint System**

- AGC frames can be customized to your needs and easily modified as those needs change
- Carts are high strength yet lightweight resulting in reduced power requirements and higher load capacities



All in One Package

- Includes drive and steering motors, control circuit board, and guide sensor

Intelligent AGC

- Capability of adding the Creform Course Controller, a PLC, RF or optical communication interface with other controls
- Add the opportunity charger at any stop point for continuous operation

Stable Running

- If bumped off course the unit will search for the guide tape and resume its course
- If the tape is not found the unit will stop

Easy Cost Control

- Choose only the options you require such as a sound system and flashing lights

Can be Manually Pushed

- A simple lever lifts the driving wheel off the ground allowing the AGC to be easily pushed



EXTEND INTELLIGENCE TO YOUR AGC

Operate your AGC on multiple courses

The Course 10 Controller

Benefits

- Easy to modify route
- Can be easily added to existing AGC's
- Reduces AGC system setup time

Function

- Additional command sensor reads the magnetic tape on the floor and controls the AGC per the programmed command
- Up to 10 courses



Control the AGC drive unit's functions by programming your routes on a computer and downloading the software into the Course 10 controller.

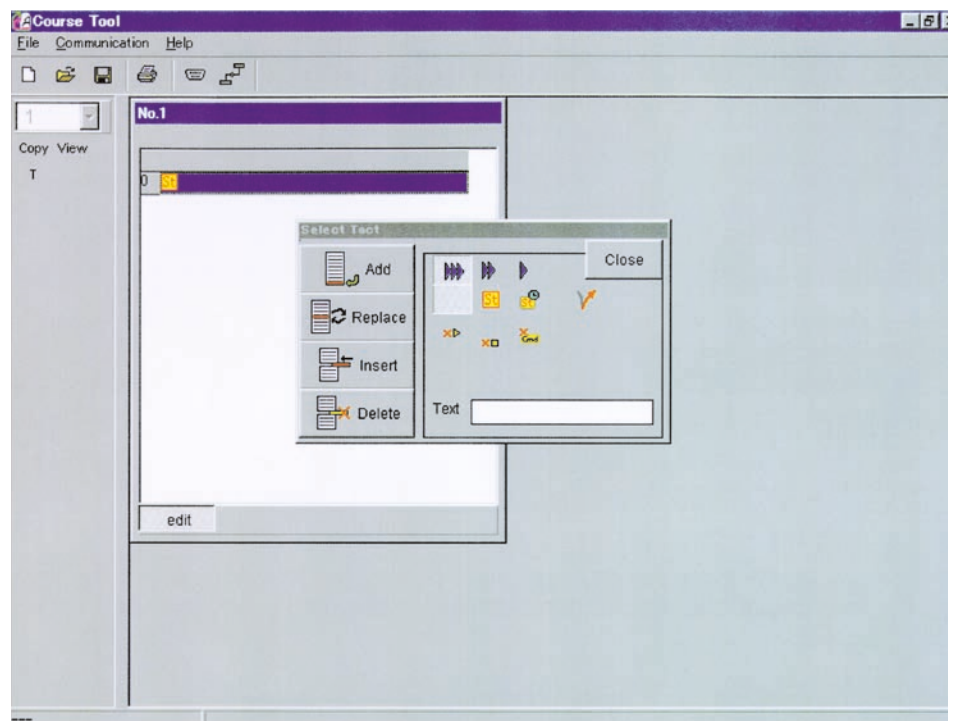
Customized Products

- Controls for 60 courses available
- If additional customized requirements are needed contact your sales representative

Controller Software

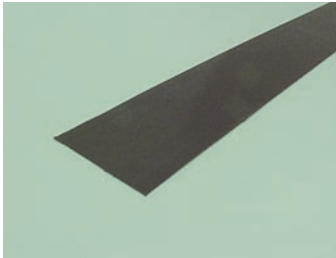
System Requirements

- Microsoft Windows® 98, 2000, NT and XP
- Keyboard
- Mouse
- 3.5 floppy drive or CD
- Serial Port
- 16 MB of RAM
- 10 MB of available hard-disk space
- Serial cable required to communicate with Course 10 Controller
- Special programming knowledge is not required
- Easy to modify commands
- Each command or route can be programmed
- Ability to copy/paste when editing



SETTING THE MAGNETIC TAPE ROUTES

Magnetic and Optical Guide and Command Tape



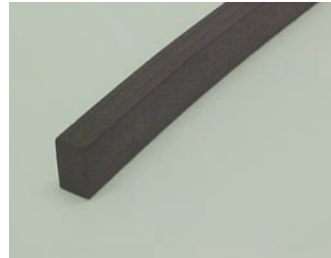
Shown with N pole up

Surface Mounted Magnetic Tape

- 50mm/2in x 1mm/0.04in
- Roll 30m/100ft
- Curved tape available
- Adhesive backed

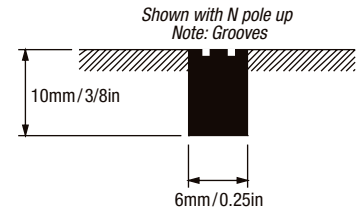
Optical Reflective

- 50mm/2in x 0.05mm/0.002in
- Roll 50m/164ft
- Curved tape available
- Adhesive backed

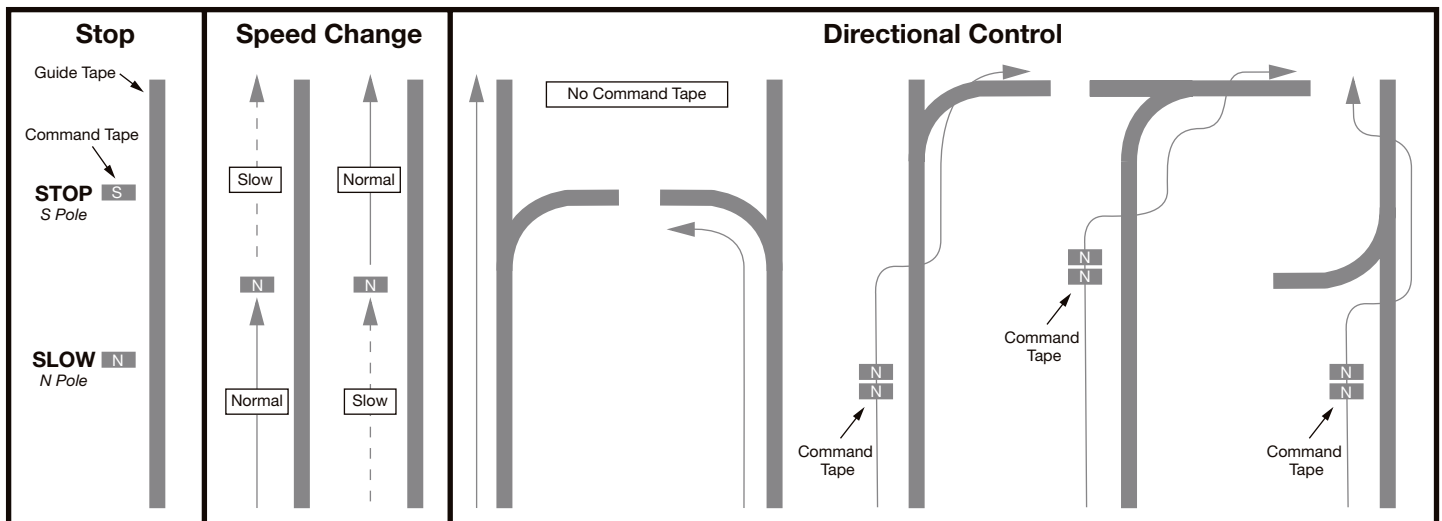


In-ground Magnetic Tape

- For high traffic areas
- Bendable for curves
- Length 1m/39in



Running controls by command tape

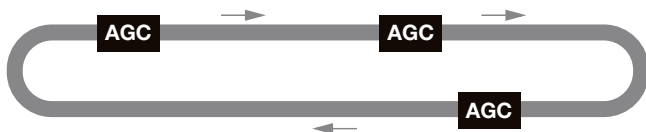


Typical Route Patterns:

Single Loop

Advantages:

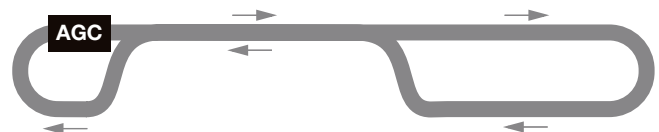
- Multiple AGC's
- High density delivery



Double Loop

Advantages:

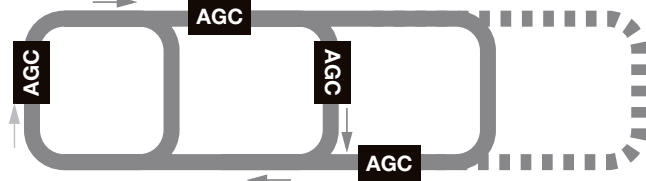
- Fewer AGC's
- Reduced cost for long distances



Multiple Loops

Advantages:

- Multiple stations
- Requires call system or traffic control



Back and Forth

Advantages:

- Single AGC
- Limited space required



ACCESSORIZE YOUR AGC



Battery Chargers



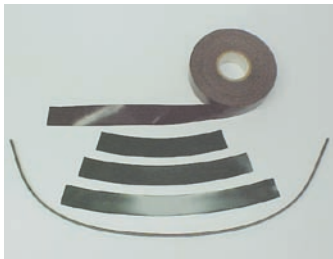
Batteries & Battery Box



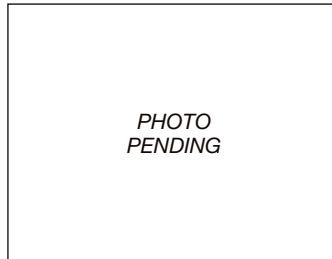
Battery Condition Indicator



Opportunity Charger



Guide Tape



Speed Controller/Status Display



Start/Stop Switch



Emergency Shut Off



Obstacle Sensor



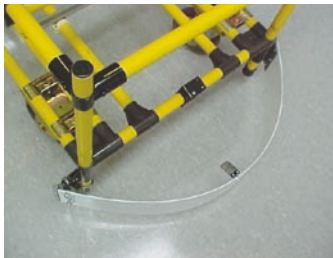
Status/Warning



Sound Unit



Additional Command Sensor



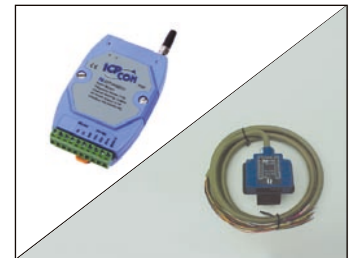
Safety Bumper



Extended Foot Lever



Traffic Control



RF/Optical Communication

Customized AGC's



Tugger Type



Unit Load Carrier



Low Profile Unit Load Carrier



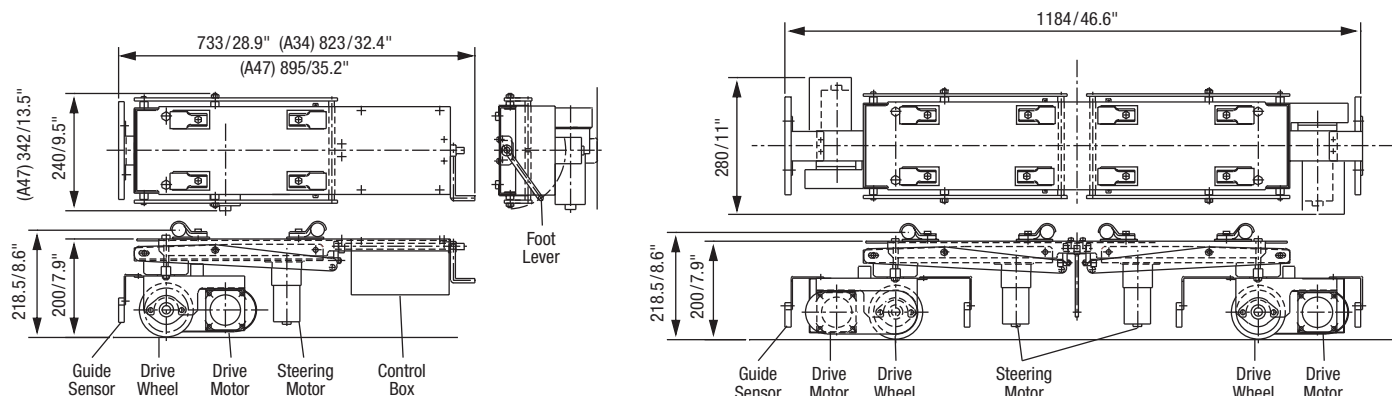
Small Forward/Reverse

Other Customized AGC's:

- Ask your sales contact about customized units and new products.

CREFORM STANDARD BOLT-ON AGV DRIVES

SPECIFICATIONS



Note: First dimensions are in millimeters

Type	SINGLE DIRECTIONAL UNITS					
Specifications	FHS-A20020	FH-A50034	FH-A25068	FH-A15068 ⁴	FH-D25130	FH-D15130 ⁴
Load Limit (kg/lb)	200/440	340/750	680/1500	680/1500	1300/2866	1300/2866
Est. Tow Bar ¹ (kg/lb)	6/13	14/31	28/62	28/62	55/120	55/120
Brake	N/A	Parking & Dynamic Brake				
Guidance System	Magnetic Induction					
Power Supply	12 volt DC	24 volt DC	24 volt DC	24 volt DC	24 volt DC	24 volt DC
Speed High ² (m/min, ft/min)	20/66	50/164	25/82	15/49	25/82	15/49
Speed Normal ² (m/min, ft/min)	N/A	30/99	15/49	10/33	15/49	10/33
Speed Low ² (m/min, ft/min)	4/13	4/13	4/13	0.5/1.6	4/13	0.5/1.6
Minimum Turning Radius	>300mm/12"	>800mm/32"	>800mm/32"	>800mm/32"	>800mm/32"	>800mm/32"
Unit Weight (kg/lbs)	13/29	27/60	27/60	27/60	68/150	68/150
Type	BI-DIRECTIONAL UNITS				CRAB-CAPABLE UNITS	
Specifications	FH-B50066 ³	FH-B35090 ³	FH-B25100	FH-M50066 ³		
Load Limit (kg/lb)	660/1455	900/1984	1000/2204	540/1188		
Est. Tow Bar ¹ (kg/lb)	28/62	38/84	55/121	22/48		
Brake	Parking & Dynamic Brake				Parking & Dynamic Brake	
Guidance System	Magnetic Induction				Magnetic Induction	
Power Supply	24 volt DC	24 volt DC	24 volt DC	24 volt DC		
Speed High ² (m/min, ft/min)	50/164	35/115	25/82	50/164		
Speed Normal ² (m/min, ft/min)	30/99	30/99	15/49	30/99		
Speed Low ² (m/min, ft/min)	4/13	4/13	4/13	4/13		
Minimum Turning Radius	>800mm/32"	>800mm/32"	>800mm/32"	>800mm/32"		
Unit Weight (kg/lbs)	56/123	58/128	68/150	60/150		

Protective Circuits Motor overload protection, Main circuit breaker.

Floor Conditions Maximum slope not to exceed 3% grade (1.7°) and floor imperfections >5mm/0.2in higher or >10mm/0.4in wide.

Usage Conditions Indoors only. Temperature 0 to 40°C (32° to 104°F). Humidity 30% to 80% (Dew should not form at any time).

Note 1: Estimated tow bar is based on actual testing on a level concrete surface. **Note 2:** Speed of travel is approximate. Shown as "meters per minute / feet per minute" Speeds shown are factory settings. Speeds adjustable with digital multimeter. **Note 3:** Comparable units available in a split drive unit configuration. **Note 4:** Speed adjustable down to 0.5m/min.

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Fax 864-877-3863
SCsales@creform.com

CREFORM® MATERIAL HANDLING SYSTEMS
HOW IT'S PUT TOGETHER... SETS US APART.

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