THE INTELLIGENT AUTOMATED GUIDED CART

AGC

CREFORM®
MATERIAL HANDLING SYSTEM
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

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.

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

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

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

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
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

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**

**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

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**Running controls by command tape**

**Stop**
- Guide Tape
- Command Tape
- STOP (S Pole)
- SLOW (N Pole)

**Speed Change**
- Slow
- Normal

**Directional Control**
- No Command Tape
- Command Tape

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**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

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*Shown with N pole up*
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

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<th>Type</th>
<th>SINGLE DIRECTIONAL UNITS</th>
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### 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).

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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.