

CREFORM AGVs SIMPLE YET SOPHISTICATED BI-DIRECTIONAL NSI AGV TUGGER SERIES

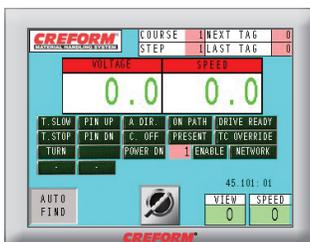


A Creform NSI bi-directional AGV works as an automated tugger, traveling along a magnetic tape guidepath, slipping under a stationary cart from either direction and when necessary rotating in place. The dual drive wheels also give this AGV higher load capacity and the ability to travel laterally. A spring loaded tow pin extending into the cart's frame conveys it to a designated workstation or unload point. One NSI AGV has the ability to mobilize multiple carts or a series of NSIs can manage an entire fleet.

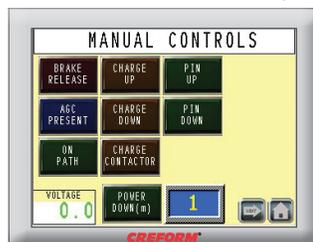
The Creform model offers the most sophisticated control system available in NSI style AGVs and it's manufactured in the U.S.A. The NSI model is programmable and can control 50 courses with up to 128 commands for each. Course programming can be accomplished with PC or an HMI (Human Machine Interface) touchscreen located on the front of the unit. Programs can be downloaded via USB memory, Ethernet cable or RF (requires optional equipment). It's available with an optional onboard RF communication device for traffic management, and just like all Creform units it responds to tape commands on the floor.

- PLC with HMI touchscreen with easy access control box.
- 50 course 128 command control, programming by PC or HMI.
- Onboard RF for traffic management. (Optional)
- Safety — audible warnings and flashing LED lights, obstacle sensors, non-contact laser bumpers and e-stop (emergency stops, temp stops, temp slows, 16 view sets), safety category 3.
- 24 Volt Power — full shift run under capacity load typical. Quick connector for charging. Auto charge optional.
- Powered drive wheel engage/disengage.
- Follows magnetic tape guidepath.
- RFID reader for command initiation. Command tapes initiate AGV functions such as speed changes, turns and extend/retract tow pin.
- Standard 8 bit optical communication device. Often used for remote starting.
- Service & Support: Programming, plus cart/structure designs, kitting or assembly assistance along with route layout installation available from Creform.
- Optional remote control via smart device.
- Opportunity charge to the side of the path.

Sample HMI Screens



Auto Operation



Manual Operation



Course Program

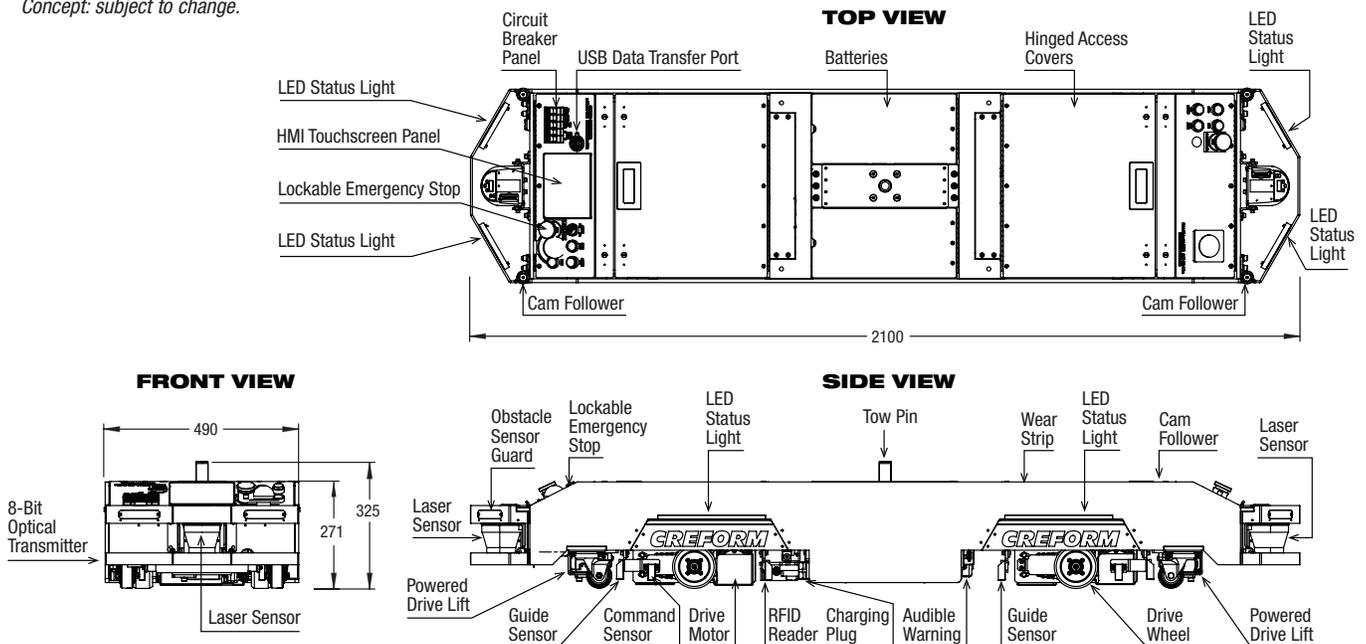


I/O Monitor

CREFORM CA-B-NSI AGV TUGGER SERIES SPECIFICATIONS

Part number	CA-B50100-NSI	CA-B33150-NSI
Speed range	4-50m/min 13-164ft/min	3-33m/min 10-108ft/min
Load capacity	1000kg/2220lb	1500kg/3300lb
Draw bar	45kg/100lb	67kg/148lb
Direction	Bi-directional, 90° & 180° turn capability, lateral movement	
Battery type	24V DC, (2) 12V TPPL or AGM batteries 100AH for typical 10 hrs of run time, optional opportunity charging	
Safety devices	16 channel music box, LED lights, 16 view obstacle sensor, non-contact laser bumper, e-stop, safety PLC, CAT 3 rated	
Braking system	Regenerative braking, electromechanical emergency & parking brake	
Minimum turn radius	800mm/31.5", 300mm only for lateral travel in slow speed	
Control method	Magnetic command tapes, RFID tags, 50 course PLC with HMI, WiFi capable, onboard RF for traffic management (optional)	
Guidepath	50mm wide Creform magnetic tape and/or 6mm wide embedded strip	
Floor condition	Height slope 1% or less, step 2mm or less; trough 10mm or less Surface roughness 10mm or less between min & max	
Usage conditions	Indoor only; 32-140°F, 0-40°C; 30-80% humidity - no dew formation	
Tow pin	30mm shaft OD / approximately 50mm stroke / spring loaded	
Protective circuits	Over current prevention on motor (protected by motor driver) Over current protection on power source (15A breaker)	
Unit weight	290kg/640lb with batteries	

*Capacity depends on floor conditions and caster selection on the cart.
Concept: subject to change.



ISO 9001:
2015 CERTIFICATION

CREFORM® MATERIAL HANDLING SYSTEMS

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