## AUTOMATE A FLEET OF CARTS WITH JUST ONE BST AGV DRIVE UNIT.



#### The Creform BST AGV Tugger — Model No. CA-A50060-NSI

A Creform BST AGV works as an automated tugger, traveling along a magnetic tape guidepath, slipping under a stationary cart, extending a tow pin into the cart's frame and then conveying it to a designated workstation or unload point. After disengaging from the cart, it travels to its next assignment. One BST AGV has the ability to mobilize multiple carts or a series of BSTs can manage an entire fleet.

The Creform NSI model offers the most sophisticated control system available in BST 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 BST units it responds to tape commands on the floor. For safety, the NSI model has all standard Creform safety devices plus a new laser scanner that has emergency stop, temp stop and temp slow settings in 16 view sets.

- Run-Ready with prompt shipment from stock. Made in USA.
- PLC with HMI touchscreen.
- 50 course 128 command control, programming by PC or HMI.
- Onboard RF for traffic management. (Optional)
- Safety audible warning and flashing light, obstacle sensor, noncontact laser bumper and e-stop (emergency stop, temp stop, temp slow, 16 view sets), a safety category 2.
- 24 Volt Power full shift run under capacity load typical. Quick exchange battery tray & quick connector. Auto charge optional.
- Easy access engage/disengage lever.
- 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.

Sample HMI Screens



COURSE 1									
STEP	TAG	TAPE	SPEED	VIEW	PIN	MUSIC	TURN	STOP	TIME
		N.A	0				NONE	NONE	0
2	0	NA	0	0	NC	OFF	NONE	NONE	0
3	0	NA	0	0	NC	OFF	NONE	NONE	0
4	0	NA	0	0	NC	OFF	NONE	NONE	0
5	0	NA	0	0	NC	OFF	NONE	NONE	0
6	0	NA	0	0	NC	0 F F	NONE	NONE	0
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Course Program





Auto Operation Manual Operation

#### CREFORM BST AGV TUGGER — MODEL NO. CA-A50060-NSI

### SPECIFICATIONS

Part number	CA-A50060-NSI			
Guidepath	50mm wide Creform magnetic tape and/or 6mm wide embedded magnetic strip			
Direction/speeds	Forward only; 3-50m/min (10 to 164 ft/min)			
Braking system	Regenerative braking, electromechanical emergency & parking brake			
Minimum turning radius	800mm R (31.5" R) - 180° turn			
Power supply	24V DC (two 12V batteries) - 110 AH for typical 10 hrs of run time, optional opportunity charging			
Control method	Magnetic command tapes, RFID tags, PLC with HMI touchscreen on board control. 50 course, 128 command control, onboard RF for traffic management (optional)			
Floor condition	Surface roughness 10mm or less between min. & max. height slope 1% or less; step 2mm or less; trough 10mm or less			
Usage conditions	Indoor only; 0-40°C, 32-104°F; 30 to 80% humidity - no dew formation			
Safety devices	Audible warning and flashing light, obstacle sensor, non-contact laser bumper and e-stop (emergency stop, temp stop, temp slow, 16 view sets), a safety category 2			
Protective circuits	Over current prevention on motor (protect with motor driver) Over current protection on power source (15A breaker)			
Draw bar/load capacity	26kg (57lb)/600kg (1320lb)* - includes cart plus AGV			
Tow pin	30mm shaft OD/approximately 50mm vertical stroke			
Unit weight/with batteries	138kg (304lb)/212kg (468lb)			

<sup>\*</sup>Capacity depends on floor conditions and caster selection on the cart.



A single BST AGV can manage an entire fleet of sequenced parts carts.

# Warning/Status Light HMI Touchscreen Panel Lockable Emergency Stop Cam Follower 1452 Hinged Access Cover Removable Battery w/ Tray Removable Battery w/ Tray

# 507 8 Bit Optical Transmitter Laser Sensor

Lockable Emergency **Obstacle** Tow Pin Sensor Cam Follower Wear Guard **Audible Warning** Strip Laser Sensor **Drive Motor** Sweeper RFID Reader Removable Battery w/ Tray **Drive Wheel** Command Sensor **Guide Sensor** 

**SIDE VIEW** 

**TOP VIEW** 

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