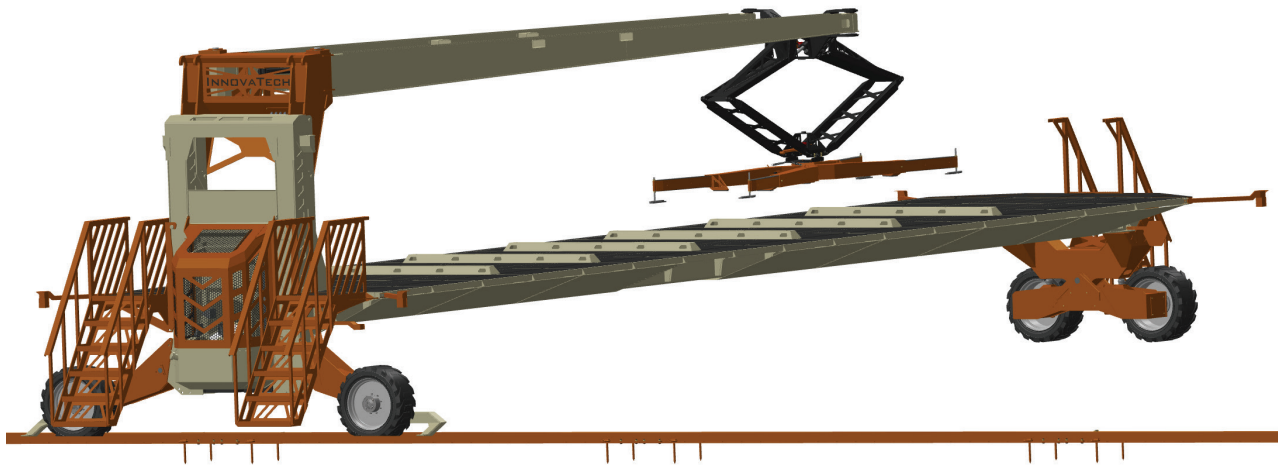


InnovaTech Wall Table Gantry

OPERATION & SAFETY

WTG-100



INNOVATECH
ENGINEERED TO DO MORE.

Innovatech Manufacturing
4360 N WECCO Rd
Cedar City, UT 84721
<https://innova.tech>

WTG-100

WTG100-MNL1-R00

Document Information

Revision Log

Produced by: InnovaTech Manufacturing
Product: Wall Table Gantry Operation and Safety Manual
Manual Product Code: WTG100-MNL1-R00
Version: First Production
Production Date: June 30, 2023

This Manual

This manual is intended as a basic source of information on the safe operation and maintenance of InnovaTech Manufacturing's Wall Table Gantry 100. This manual provides general information as well as specific warnings, instructions, and information that workers using this machine must read, understand, and follow.

This manual is not intended as an all-encompassing "rule-book" on operation safety. Instead, InnovaTech Manufacturing presents this information as a reference and guide only. It is the purchaser's and operator's responsibility to identify specific safety hazards and determine proper procedures to prevent those hazards from inflicting injury.

InnovaTech Manufacturing believes that safety is paramount in the operation of its machines. A copy of this manual should be made available to all persons using this machine. InnovaTech Manufacturing grants you, the purchaser, the right to reproduce this manual for that purpose. Copies of this manual are also available on line at <https://innova.tech>.

All information in this manual is based on the latest product information at the time of publication. However, there may be design improvements from time to time so that photographs, text, and sketches within the body of this manual may not exactly match your machine. InnovaTech Manufacturing's responsibility, financial or otherwise, for any consequences arising out of the use of this manual or its machine is limited by our product warranty. The information contained herein is subject to change, and revisions may be issued to advise of such changes. InnovaTech reserves the right to make product changes at any time without obligation.

This manual contains subject matter to which InnovaTech Manufacturing has proprietary rights. Recipients of this document shall not duplicate, use, or disclose information contained herein, in whole or in part, for any use other than training personnel on safe operation and maintenance of this machine.

If you have any questions or concerns about the content of this service and maintenance guide or, if you would like to request updated information, we want to hear from you.

Please contact us:

<https://innova.tech>

support@innova.tech

INNOVATECH MANUFACTURING
TECHNICAL PUBLICATIONS
4360 N WECCO RD
CEDAR CITY, UT, USA 84721

The InnovaTech Wall Gantry is protected under US Patent Pending

©2023 InnovaTech Manufacturing. All Rights Reserved.

Table of Contents

Document Information	II
Revision Log	II
This Manual	II
1. Safety	2
1.1 General	2
Safety Alerts.....	2
1.2 Safety Considerations.....	2
A. Sensors	2
E-Stop.....	2
B. Beacon Light.....	3
C. Crush/Pinch Points.....	3
D. Run-Over.....	3
E. Hydraulics.....	3
F. Ventilation.....	3
2. Overview	4
2.1 Pre-Arranged Work Areas.....	4
2.2 Nomenclature.....	5
3. Operation.....	6
3.1 General	6
4. Specifications	7
Dimensions.....	7
Weight	7
Capacity.....	7
Systems.....	7
Electrical System.....	7
Hydraulic System.....	7
Engine	7
Gears.....	7
5. Maintenance.....	8
5.1 General	8
5.2 Maintenance	8
Initial Break-In.....	8
Routine Maintenance.....	8
500 hours:	8
1000 hours (or once a year):.....	8
2000 hours (or every two years):.....	8
4000 hours (or every two years).....	8
Appendix: Labels and Decals.....	9

Document Information

1. Safety

2. Overview

3. Operation

4. Specifications

5. Maintenance









Appendix

1. Safety

1.1 General


Before operating this machine, read this manual completely and carefully to understand the safety instructions. Comply with all DANGER, WARNING, and CAUTION notices.

Safety Alerts

Hazard Level	Signal Word	Signal Color	Signal Symbol	Signal Example	Signal Meaning
Extreme	DANGER	RED			DANGER indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.
High	WARNING	ORANGE			WARNING indicates a hazardous situation which, if not avoided, COULD result in death or serious injury.
Medium	CAUTION	YELLOW			CAUTION indicates a hazardous situation which, if not avoided, MAY result in moderate injury.
Low	CAUTION	YELLOW	no symbol		CAUTION (without a symbol) indicates a hazard or practice not related to personal injury.
NA	NOTICE	BLUE	no symbol		NOTICE addresses practices not related to personal injury, but may give information for safe use.

1.2 Safety Considerations

The Gantry has multiple moving parts. Workers in the vicinity of the Wall Gantry should exercise safety precautions and awareness around the wheels, the boom, and the panels being lifted.


 **WARNING** **DAMAGE OR MALFUNCTION!**
The potential for an accident increases when operating a machine that is damaged or malfunctioning. Death or severe injury could result from such accidents. Do not operate the Wall Gantry if it is damaged or malfunctioning.

A. Sensors

The Wall Gantry is manufactured with object detection sensors to reduce the likelihood of collision. If safety devices are defective, tag it “Out of Service.” For the safety of all personnel, do not disable or modify any sensors.

E-Stop

The E-Stop stops all hydraulic function and cuts control power. It does not stop the engine.

 **WARNING** **SAFETY DEVICES!** The potential for accident increases when safety devices do not function properly. Death or serious injury could result from such accidents. Do not alter, disable, or override any safety device.



B. Beacon Light

The Wall Gantry is equipped with Beacon Lights that flash while the machine is running. The beacon lights start pulsing as soon as the machine is turned on, and stop pulsing as soon as the machine is turned off..

C. Crush/Pinch Points

Check for personnel around the Wall Gantry. Keep all body parts clear of the boom and Scissor Lift, the wheels, and moving wall panel sections.

⚠ WARNING PINCH OR CRUSH HAZARD! Do not place any part of the body where it could come in contact with moving parts. Serious injury could result.

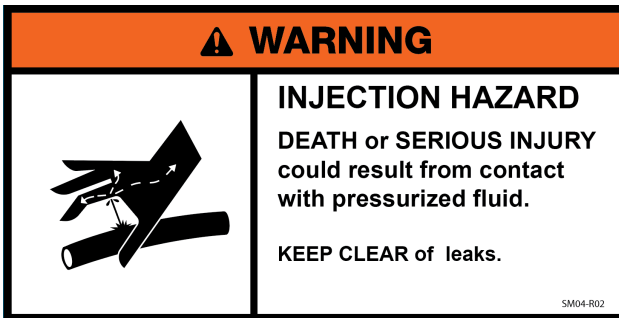
D. Run-Over

The Wall Gantry has sensors on the deck above each wheel to detect obstacles. If an obstacle is detected in front of the wheels, the Gantry will automatically stop.

- Know where the machine is operating.
- Keep bystanders away during operations.
- Consider location of personnel.

E. Hydraulics

The Wall Gantry is hydraulically powered. High pressure hydraulic leaks are an injection hazard. Hydraulic oil can be injected into the skin even through a glove. Check for hydraulic leaks with something extended from the hand. It can be a piece of cardboard or a stick. If hydraulic oil is injected into the skin, seek medical attention immediately.



F. Ventilation

This machine uses a diesel engine which produces exhaust that could be harmful.



2. Overview

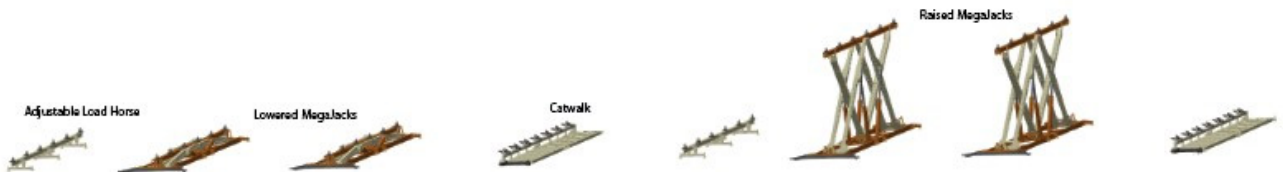
The Wall Gantry is part of the InnovaTech IMP (Insulated Metal Panel) System. In the IMP System, IMP panels are constructed into Wall Sections horizontally at ground level according to a pre-specified wall plan. For the process to flow continuously, two work areas can be set up so that as one wall section is completed, another can immediately begin.

The Wall Gantry is comprised of two significant parts, an engine and a deck, mounted onto four wheels that move sideways. From the engine extends a boom and scissor clamp assembly. Two of the wheels drive

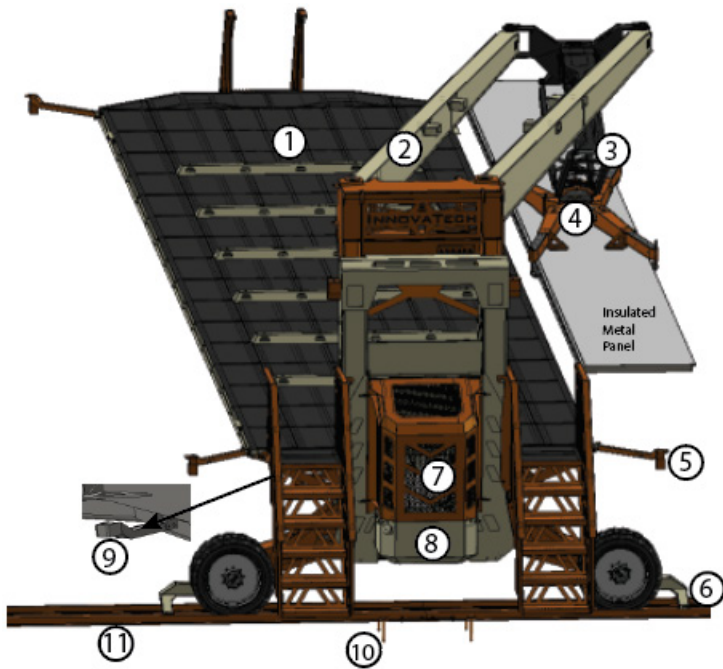
along a track the length of the work area(s). This track provides a continuous target by which laser sensors next to the track wheels read the target and keep the Gantry aligned and driving straight. Every function on the Wall Gantry is controlled by a wireless remote.

The Gantry Deck is for carrying stacks of IMPs across a wall section being constructed. As the Wall Gantry advances over the finished part of a wall section, the boom scissor moves IMPs one by one from the gantry deck and places them into wall section construction.

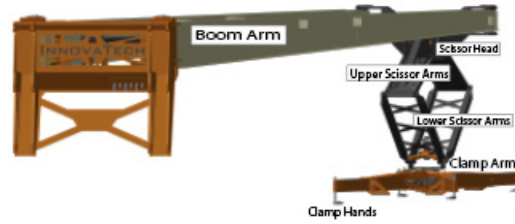
2.1 Pre-Arranged Work Areas



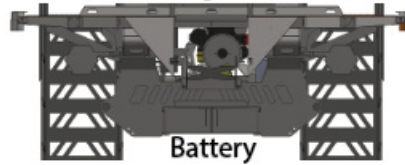
2.2 Nomenclature



Side View of Boom & Scissor Arms



Back of Engine Mount



- | | |
|---|------------------------|
| 1. Gantry Deck | 7. Engine Mount |
| 2. Boom Assembly | 8. Fuel Tank |
| 3. Scissor Assembly | 9. Gantry Watchers (2) |
| 4. IMP Clamp Assembly | 10. Track Anchors (20) |
| 5. Wheel Watchers (4) | 11. Track Guide |
| 6. Track Target Sensors (2)(near wheel) | |



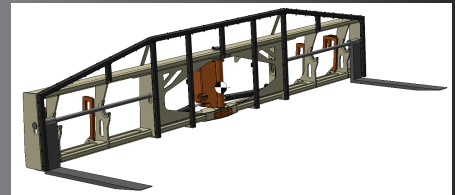
3. Operation

3.1 General

The Wall Gantry is powered by a diesel engine that runs a hydraulic pump. Every function of the Wall Gantry is hydraulically powered and controlled by a wireless remote.

InnovaTech manufactures a telehandler attachment called a Wide Swivel Carriage. The Wide Swivel Carriage can be used to load stacks of IMPs onto the Gantry deck.

Wide Swivel Carriage



The Wall Gantry is built to handle individual IMPs. It has four variable speed hydraulic circuits represented on its remote control. They are:

Drive - controls the wheels

Swing - controls the Boom Assembly

Hoist - controls the Scissor Assembly

Clamp - closes or opens on IMP Panels

Wall Gantry Remote Control



3.2 Operating the Wall Gantry

1. Load IMPs onto the Wall Gantry deck.
2. Remove stretch film from the IMP.
3. Use the buttons on the remote control to lift, hoist, clamp, and set an IMP into the wall section construction.
4. Once an IMP is placed, it is ready to be fastened down.
5. The Gantry can then be driven forward and the process repeated.



4. Specifications

Dimensions

Length 72 ft.
 Width 19 ft.-1.25 in.
 Height 15 ft.-5.5

Weight

Loaded Transport Trailer lbs
 Gantry Only lbs

Capacity

Boom Capacity 1500 lbs
 Max 1800 lbs.
 Gantry Deck Capacity 20,000lbs.

Systems

Electrical System

Power Source Battery
 Control Voltage 12 V

Hydraulic System

Max Pressure 3500 psi
 Normal Pressure 3000 psi
 Hydraulic Tank Capacity 110 Gallons
 System Capacity 20 Gallons
 Hose Burst Strength 10,000 psi
 Ambient Oil Temperature Range 120°F/170°F
 Hydraulic Fluid Recommended AW4b

Engine

Make CAT
 Model C3.4
 Fuel Type Diesel
 Fuel Tank Capacity 60 Gallons
 Fuel Filter CAT-361-9555
 Engine Oil Type 15W40
 Oil Tank Capacity 10 quarts
 Oil Filter CAT-267-2528
 Air Filter CAT-110-6326
 Belt Size CAT-220-8129
 Coolant Green 50/50
 Coolant Capacity 4 Gallons
 Battery Voltage 12 V

Gears

Wheel Hub Oil Type 75W90 Gear Oil
 Wheel Hub Capacity 2 quarts



5. Maintenance

5.1 General

The Wall Gantry has a Cat brand engine that powers its hydraulic system. The engine, hydraulic system, and wheel hubs, which have a reduction gear box, require routine maintenance.



IMPORTANT! If the machine does not operate properly, turn it off immediately! Tag it "Out of Service." Report the problem to the proper maintenance personnel. Do not operate the machine until it is safe for operation.

Replace malfunctioning parts with identical make and manufacture. Some parts are critical to safety function and should not be modified.

5.2 Maintenance

Initial Break-In

- The engine requires a break in oil change at 250 hrs.

Routine Maintenance

500 hours:

- Change engine oil
- Change fuel filter

1000 hours (or once a year):

- Change air filter
- Change hydraulic oil filter
- Change gear oil (drain and refill)

2000 hours (or every two years):

- Change hydraulic fluid (drain and refill)

4000 hours (or every two years)

- Change coolant (drain and refill)
- Change the belt



Appendix: Labels and Decals

The following chart will help to identify the decals and locations to ensure the equipment is properly marked.

Decal and Label Chart				
Decal ID#	Qty	Decal Purpose	Decal Visual	Decal Application
INN-WTG100-MP01-R00	1	Manufacturer's Plate Primary		
INN-WTG100-LM01-R00	2	Logo/Model		
INN-WTG100-LM02-R00	1	Operational Marker InnovaTech Manufacturing		
INN-WTG100-OP01-R00	4	Operational Marker Lift Point		
INN-WTG100-OP02-R00	3	Operational Marker Watch Your Step		
INN-WTG100-OP03-R00	1	Operational Marker Check Engine Oil Daily		
INN-WTG100-OP04-R00	1	Operational Marker Diesel Only		
INN-WTG100-SM01-R00	4	Safety Marker Trip Hazard		
INN-WTG100-OP05-R00	1	Operational Marker Control Labeling		



INNOVATECH

ENGINEERED TO DO MORE.

Innovatech Manufacturing
4360 N WECCO Rd
Cedar City, UT 84721
<https://support.innova.tech>

