



1.0 ROBOTIC PALLETIZING CELL REQUIREMENTS


- 1.1 The cell will palletize boxes per the file: "Robotic Palletizing Case Specs and Rates 3-20-19.xlsx".
- 1.2 The cell will be programmed for 19 different product types (box numbers).
- 1.3 The following is a summary of the specs and rates.

	Case length (in)	Case width (in)	Case height (in)	Pallet height (in)	Product Weights (lb)	Cases/Min	Seconds /Box	Cases / Layer	Seconds /Layer	Layers / Pallet
Min	9.375	6.438	3.375	39.25	2.4	1.5	5.31	6	90.0	3
Max	18.688	12.875	13.75	88	21	11.3	40	28	417.39	11

2.0 ROBOTIC PALLETIZING CELL – PHASE 1

- 2.1 Alliance Automation will provide the following engineering items for the robotic palletizing cell.
 - 2.1.1 Analyze stack layout for each product.
 - 2.1.2 Confirm End of Arm Tool Design.
 - 2.1.3 Confirm available equipment from [REDACTED]
 - 2.1.4 Confirm main layout for cell.
 - 2.1.5 Perform robot simulation to confirm cell timing.
 - 2.1.6 Updated quote with firm pricing for Phase 2
 - 2.1.7 The actually cost for hours used on Phase 1 will be provided to [REDACTED]. Any difference between what was paid and the actual cost will be applied to Phase 2.

3.0 ROBOTIC PALLETIZING CELL – PHASE 2

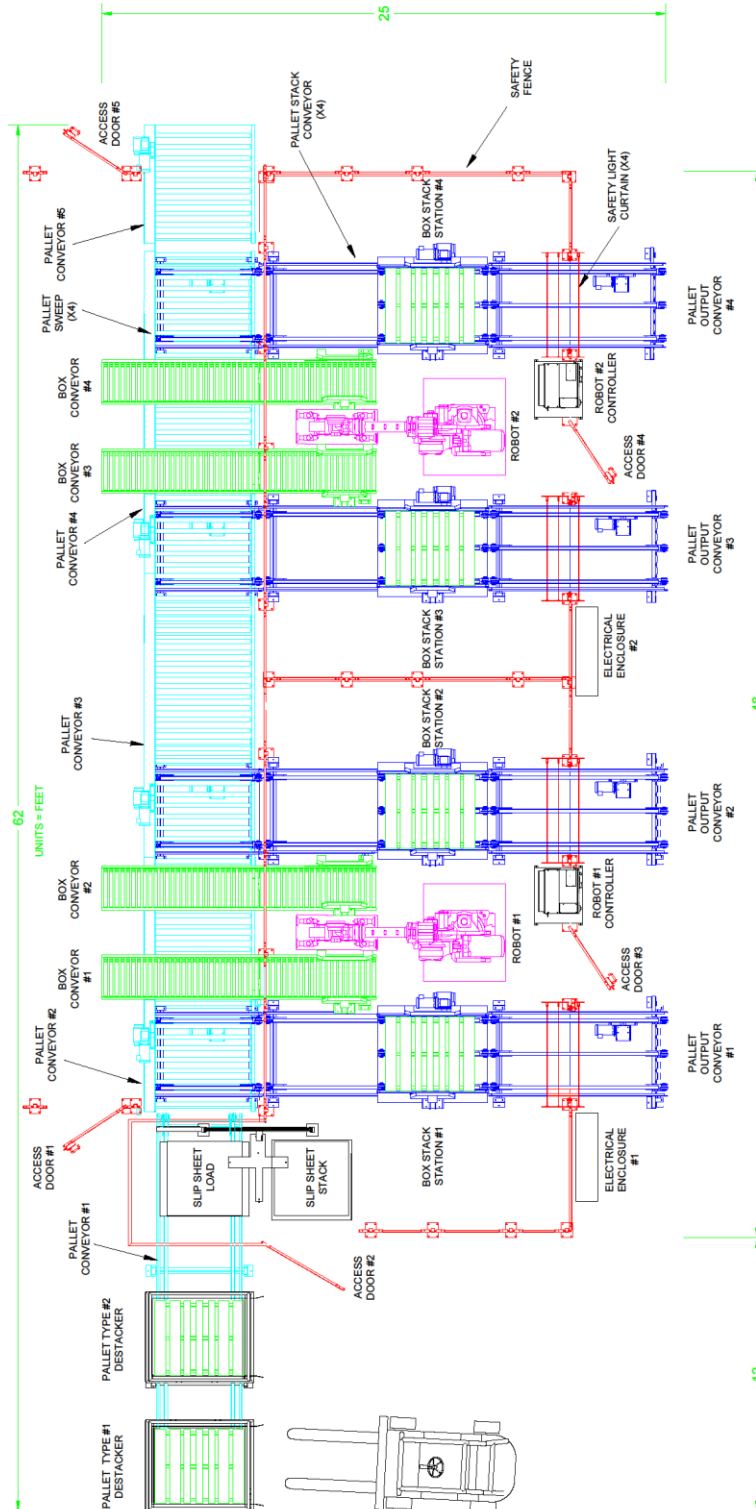
- 3.1.1 Alliance will provide a robotic palletizing cell per the requirements in Section 1.0. Required cell hardware is provided in Section 4.0. A cell concept drawing is provided in Section 5.0.
- 3.1.2 Section 9.0 has an estimated price for the cost of the cell and does not include the price for the following items:
 - 3.1.2.1 (2) Fanuc R2000ic Robot
 - 3.1.2.2 (2) Fanuc Robot Controller
 - 3.1.2.3 (4) Pallet Output Conveyor, Stranded Chain Conveyor, 8 Ft. Long
- 3.1.3 Phase 1 will determine other [REDACTED] components that can be utilized. The costing for these hardware items will be removed from the price. These items will include the programmable logic controller(s), operator interface(s), electrical enclosure(s), air prep hardware, internal electrical enclosure components, and safety fence.
- 3.1.4 The estimated price includes hours for controls/robot programming, assembly, debug at Alliance, installation and run-off [REDACTED]. The firm price quote will include any labor costing adjustments determined after Phase 1 is completed.
- 3.1.5 Exceptions to the proposal
 - 3.1.5.1 Boxes coming to the cell must be properly taped. All flaps and tape must be secure.
 - 3.1.5.2 The box corners must all be square (no parallelograms )
 - 3.1.5.3 Additional cost could be charged during installation if the functionality of the box diverters supplied by [REDACTED] do not perform as required and causes additional debug hours.
 - 3.1.5.4 Warranty will only be provided on Alliance Automation supplied hardware.

4.0 SUPPLIED HARDWARE

- 4.1 (2) Fanuc R2000ic Robot
- 4.2 (2) Fanuc Robot Controller
- 4.3 (2) Robot End of Arm Tool
- 4.4 (2) Pallet De-stack Units, holds 10 pallets
- 4.5 (1) Slip Sheet Station
- 4.6 (1) Empty Pallet Conveyor, Chain Driven Live Roller Section, 5 Ft. Long
- 4.7 (4) Empty Pallet Conveyor, Chain Driven Live Roller Section, 12 Ft. Long
- 4.8 (5) Pneumatic Stop Device
- 4.9 (4) Box Conveyor, Band Driven Roller, 9 Ft. Long
- 4.10 (4) Product Pick Table
- 4.11 (4) Pneumatic Pallet Sweep
- 4.12 (4) Pallet Stack Conveyor, Stranded Chain Conveyor, 10 Ft. Long
- 4.13 (8) Pneumatic Stop Device
- 4.14 (4) Pallet Output Conveyor, Stranded Chain Conveyor, 8 Ft. Long
- 4.15 (4) Muted Safety Light Curtains
- 4.16 (Lot) Free Standing Safety Fence
- 4.17 (5) Safety Interlocked Access Door
- 4.18 (2) Electrical Disconnect Enclosure
- 4.19 (2) Allen-Bradley Programmable Logic Controller
- 4.20 (2) Allen-Bradley 7" Operator Interface
- 4.21 (1) Pneumatic Control Hardware
- 4.22 (17) Photo Electric Part Sensor
- 4.23 (21) Proximity Sensor

5.0 CONCEPT DRAWING

- 5.1 One (1) robot cell will be designed to accommodate a future third box input conveyor and a third pallet output conveyor.



6.0 SHIPPING, INSTALLATION & TRAINING

6.1 Shipping

- 6.1.1 Shipping will be F.O.B. Alliance Automation, Van Wert Ohio. [REDACTED] will be responsible shipping arrangements.
- 6.1.2 Alliance will be responsible for rigging equipment onto truck at Alliance Automation in Van Wert, Ohio.
- 6.1.3 [REDACTED] will be responsible for rigging equipment and placing the equipment on the floor where it is to be installed. Customer is responsible for providing all required rigging equipment needed during installation. In the event the customer cannot provide this equipment Alliance Automation will provide the equipment at an additional cost to the customer.

6.2 Installation

- 6.2.1 [REDACTED] is responsible for all electrical, communication, air and plumbing service drops required for the proposed assembly equipment.
- 6.2.2 [REDACTED] will be responsible for the electrical connection from the facility buss bar to the main panel disconnect lugs.
- 6.2.3 All other internal cell connections and terminations will be made by Alliance during Alliance Set-up and Start-up.
- 6.2.4 [REDACTED] will be responsible for the pneumatic connection from the facility air supply (plant air) to the Alliance cell drip leg connection.
- 6.2.5 All other internal cell pneumatic connections are the responsibility of Alliance during Alliance Set-up and Start-up.
- 6.2.6 Unless otherwise specified in this proposal installation will be performed during non-holiday 1st shift working hours, Monday - Friday. Installation hours requested outside of this time period will be quoted as an additional cost.

6.3 Training

- 6.3.1 There is no training included in this proposal. Alliance Automation provides training as an option. All personnel being trained must understand English. Bilingual training is not available.
- 6.3.2 Unless otherwise specified in this proposal training will be performed during 1st shift working hours, Monday - Friday. Training hours requested outside of this time period will be quoted as an additional cost.
- 6.3.3 Additional training for new operators and maintenance personnel can be scheduled and performed by our technicians, if needed. Additional training will be billed at our normal rates and can be quoted upon request.

7.0 RUN OFF REQUIREMENTS

7.1 Run-Off at Alliance Automation and at [REDACTED]

- 7.1.1 The system must meet the requirements in Section 1.0.
- 7.1.2 The unit must meet safety and functional requirements.
- 7.1.3 Any criteria decided at project kick off meeting.

7.2 Run-Off Notes

- 7.2.1 [REDACTED] is responsible for supplying all necessary parts and labor for all runoffs.
- 7.2.2 The system acceptance shall apply only to work provided under this quotation. In the system acceptance testing phase of this project, any downtime due to breakdowns of ancillary equipment, interfacing equipment, or, in general, any equipment not provided by Alliance Automation, and/or by damaged/defective product shall not be included in determination of acceptance testing.
- 7.2.3 The customer is responsible for reimbursing Alliance for any additional labor and or travel expenses incurred in the event the customer does not supply the pre-determined amount of parts necessary to perform any run-off requirements. This includes run-offs performed at Alliance Automation and at customer facility.

8.0 DELIVERY

Delivery is based upon current workload and machine purchase component availability at the time of order; however normal delivery will be approximately **22-24 weeks** from project kick off meeting.

Project timeline will be developed with the receipt of purchase order and down payment.

9.0 PRICING

ITEM #	DESCRIPTION	QTY	UNIT PRICE	TOTAL
1	Robotic Palletizing Cell – Phase 1	1		
2	Robotic Palletizing Cell – Phase 2 Estimated	1		

9.1 Item #2 pricing includes (4) pick tables for manipulating the boxes prior to pick. The pick tables can be removed if Phase 1 determines they are not required. This would reduce the price by \$59,170.

10.0 PAYMENT TERMS

- 30% Invoiced upon Receipt of Purchase Order, Due Net 0 Days
- 30% Invoiced upon design approval, Due Net 30 Days
- 30% Invoiced after run-off (at Alliance) or shipment of equipment, whichever occurs first. In the event that multiple shipments are required invoice will be sent upon first shipment. Due Net 30 Days
- 10% Invoiced upon completion of installation & final run-off, not longer than 30 days after delivery, Due Net 30 Days
- Payments must be in U.S. Dollars

11.0 ALLIANCE AUTOMATION STANDARD CONDITIONS

- 11.1 Alliance Automation will provide a machine that will be designed to run a machine cycle time as stated within this proposal. The stated cycle time does not include allowance for machine downtime, rejected parts, operator breaks, operator stoppages, operator load/unload time, scheduled machine maintenance and set-up time.
- 11.2 Any work or hardware requested by the customer that is not detailed, explained, or specified in this proposal will be quoted separately. A purchase order must be received for this additional work before Alliance Automation will implement the requested change.
- 11.3 Alliance Automation will quote additional time and material cost for any modifications required in the event that customer part designs change from the original part prints or production parts are different from what was provided at time of proposal.
- 11.4 This proposal represents Alliance Automation's best effort to address the specified requirements and is based on available information to date. Alliance Automation reserves the right to modify or substitute concepts, methods or components as appropriate based on discovery, new information, material availability or engineering principles. Any changes requiring cost adjustments will only be done on a mutually agreed upon basis.
- 11.5 Unless specified by the customer Alliance Automation reserves the right to specify component manufacturers.

12.0 CUSTOMER RESPONSIBILITIES

- 12.1 [REDACTED] is responsible for providing operators able to feed/load the proposed system to allow the machine to run at the required cycle time.
- 12.2 Unless otherwise specified in this quote [REDACTED] must supply 480 volts / 3 Ph / 60 Hz input power and clean dry air. Other voltages shall be obtained by transformers and power supplies within the control enclosure. The control voltage will be 24 VDC. The customer facility must be capable of supplying the necessary utilities to run the equipment.
- 12.3 [REDACTED] is encouraged to provide a VPN connection to the control panel for remote access to the system. The VPN connection can provide remote support efficiently and be more cost effective. The customer may incur additional cost for onsite service in the event that a VPN connection is not provided.
- 12.4 [REDACTED] responsible for all floor preparations (concrete/building modifications where needed) and area preparations. Alliance Automation will provide all modification specifications and will add delivery of such specifications to the project timeline.
- 12.5 [REDACTED] will be responsible for all verification parts, plant layout and machine placement, operator instructions, and all part dunnage.
- 12.6 [REDACTED] is responsible for supplying all production parts needed to perform testing to prove process capability including but not limited to initial process testing, production run testing, equipment sizing & capability testing, and other ECAP requirements.
- 12.7 [REDACTED] is responsible for providing sample parts of each part number on or before the project kick off meeting with Alliance Automation. Project timing and cost could be affected if parts are not available at the kick off meeting.
- 12.8 Additional parts may be needed for feeding, vision, and special applications testing. The overall project timing and cost could be impacted if parts are not received per requested dates.
- 12.9 [REDACTED] is responsible for supplying all calibration or pass/fail type parts.
- 12.10 [REDACTED] is responsible for all parts required for testing and evaluation in the design phase of the equipment.
- 12.11 [REDACTED] will be responsible for the following:
 - 12.11.1 Mechanical Design Review Sign-off
 - 12.11.2 Electrical Design Review Sign-off
 - 12.11.3 Machine Run-off at Alliance Automation Sign-off
 - 12.11.4 Machine Installation, Start-up and Training, Final Machine Sign-off

13.0 WARRANTY, TERMS, and CONDITIONS

WARRANTY: Alliance Automation, LLC (hereafter Seller) warrants for **one year** from date of shipment, the mechanical and electrical equipment of its own manufacture against defects in workmanship or material, its obligation being limited solely to repair or replacement of defective parts. The seller warrants for **one year** from date of shipment the engineering design of the equipment and will replace or repair any component not properly designed or applied in the intended process. The seller shall not be liable for any other damages, direct, indirect or consequential. Equipment not manufactured by the Seller shall carry the warranty of the manufacturer thereof. Deterioration caused by misuse, abuse or improper operating procedures does not constitute a defect. This warranty, which is given expressly and in lieu of all other warranties, expressed or implied, of merchantability and fitness for particular purpose, constitutes the only warranty made by the Seller. It is further agreed that there are no understandings, agreements or representations, express or implied, not specified herein respecting this order and this instrument contains the entire agreement between the parties

DELIVERY: Except as otherwise specified in this quotation, delivery will be FOB, Alliance Automation, Van Wert, OH. Shipping dates are approximate and are based upon receipt of all information and necessary approvals.

TERMS: Except as otherwise specified in this quotation, The terms of payment shall be balance net within 60 days from date of invoice, depending upon standard terms or progressive terms. Amounts past due and older will be charged a finance charge of 1.5% of the outstanding balance per month.

FORCE MAJEURE: Seller will not be responsible or liable for any delays in delivery or manufacture due to any cause or condition beyond its control, including, without limitation, strikes or other labor difficulties, or unavailability, flood, earthquake, inability to secure transportation facilities, shortage of materials or supplies, riot or other civil disturbance, war, acts of God or nature, accident, or any acts of any government. Seller will also not be held responsible or liable for scheduled installation completion dates if at any time during the project process the seller's timeline is put on hold by the seller due to lack of information, sample run-off material delays, machine downtime, untimely review process, change in scope and/or customer support. (Installation completion dates will move the same amount of days as project is on hold or adjusted for scope change.)

ACCEPTANCE: This quotation shall expire 30 days after its date, unless otherwise stated herein.

PRICES: The prices specified herein do not include sales, use, occupation, license, excise or other taxes in respect to manufacture, sale or delivery, all of which shall be paid by the Purchaser, unless a proper exemption certificate is furnished.

TITLE: The equipment shall remain personal property, regardless of how affixed to any realty or structure. Title thereto shall remain with the Seller until the purchase price has been fully paid.

RIGHT TO RESTRICT USE: In order to provide additional security for both Interim and Final Payments, Alliance may install a software registration key in the equipment furnished under this proposal. In the event of payment default by the customer Alliance may, at its discretion, limit use of the equipment using programmatic methods incorporated in such software. These methods include, without limitation, the restriction of the use of controller software contained in the equipment by the withholding of additional software registration keys necessary to continue to operate the equipment. This restriction may make the equipment incapable of operating for its intended purpose. In the event that Alliance exercises the right to restrict use, and upon satisfaction of all customer payment and nonpayment obligations under this proposal, Alliance will at its sole expense provide customer with a software registration key having no expiration date.

CANCELLATION AND TERMINATION: Upon cancellation of all or a portion of an order placed with Alliance Automation, LLC the customer becomes liable for payment of reasonable cancellation charges, which shall take into account, expenses already incurred and commitments made by Alliance Automation, LLC relating to the subject order. In the event that Alliance Automation, LLC experiences any restocking, cancellation, or associated charges from a related vendor contracted to supply material or labor for a specific customer's order, these charges shall become the full responsibility of the customer. No termination by the customer for default shall be effective unless and until Alliance Automation, LLC shall have failed to correct such alleged default within 30 days after receipt of a written notice specifying the default and required corrective measure.