



Proposal For An

AAV Assembly Machine

Proposal # 5408E

Unless otherwise agreed to in writing, all concepts and information contained within this proposal are to remain confidential between Oatey and Alliance Automation, LLC.

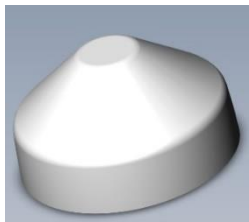
TABLE OF CONTENTS

1.0	SYSTEM DESCRIPTION	3
2.0	MAIN MACHINE DESCRIPTION	4
3.0	MACHINE COMPONENTS	5
4.0	ALLIANCE AUTOMATION STANDARD DOCUMENTATION	8
5.0	PART REQUIREMENTS	8
6.0	ALLIANCE AUTOMATION PROJECT MANAGEMENT	9
7.0	ALLIANCE AUTOMATION STANDARD COMMENTS AND EXCEPTIONS	10
8.0	ALLIANCE AUTOMATION STANDARD CUSTOMER REQUIREMENTS	11
9.0	SHIPPING, INSTALLATION & TRAINING	12
10.0	RUN OFF REQUIREMENTS	13
11.0	DELIVERY	15
12.0	PRICING	15
13.0	PAYMENT TERMS	15
14.0	WARRANTY, TERMS, AND CONDITIONS	16

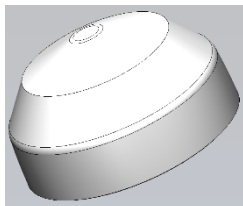
1.0 SYSTEM DESCRIPTION

- 1.1 Alliance Automation will provide [REDACTED] with a turn-key AAV Assembly Machine with comments and exceptions stated in this proposal.
- 1.2 The machine descriptions are provided in Section 2.0. The machine components are provided in Section 3.0 and concept drawings are provided in Section 4.0.
- 1.3 The AAV machine will be installed at the [REDACTED] facility located at [REDACTED]
- 1.4 The AAV assembly system will handle the following part types:
 - 1.4.1 2" Small Body, Part # 0281
 - 1.4.2 1.5" Small Body, Part # 0282
 - 1.4.3 Small Cap, Part # 0279
 - 1.4.4 Small Proflo Cap, Part # 7000642
 - 1.4.5 Small Diaphragm, Part # 7003091
- 1.5 Machine Capacity - Cycle time 720 parts per hour = 5 seconds per part at 100% operating efficiency.

1.6 Part Models



Small Cap [REDACTED]



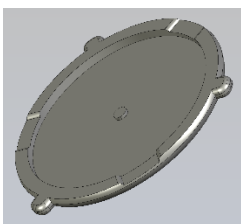
Small Proflo Cap [REDACTED]



2" Body [REDACTED]



1.5" Body [REDACTED]

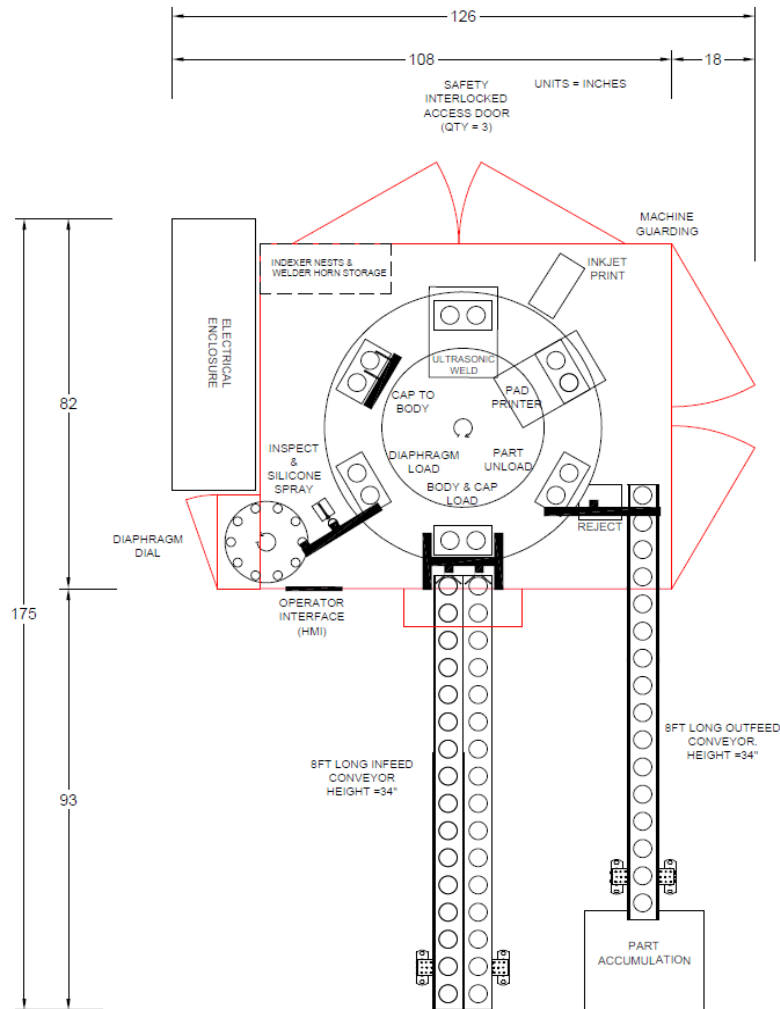


Small Diaphragm [REDACTED]



2.0 MAIN MACHINE DESCRIPTION

- 2.1 Operator manually loads caps and bodies to conveyor belt.
- 2.2 Pick and place cap and body from conveyor belt to dial nest.
- 2.3 Operator loads diaphragms onto diaphragm dial nest.
- 2.4 Walking beam Gripper picks diaphragm (system prevents 2 diaphragms from being picked at once).
- 2.5 Gripper inspects for proper orientation and flips if needed.
- 2.6 Gripper places correctly oriented diaphragm onto silicone spray station.
- 2.7 (After Walking beam indexes) Vacuum holds diaphragm in nest and silicon sprays from below.
- 2.8 Vacuum picks sprayed diaphragm (Walking beam indexes).
- 2.9 Vacuum places diaphragm onto body.
- 2.10 Place cap on body.
- 2.11 Ultrasonic weld cap to body.
- 2.12 Inkjet date code on side of cap.
- 2.13 Pad print on top of cap.
- 2.14 Unload - pick and place part to belt conveyor.



3.0 MACHINE COMPONENTS

3.1 Body & Cap Load

- 3.1.1 (1) 8-foot x 12" wide belt conveyor
- 3.1.2 (2) Queue level sensors
- 3.1.3 (1) Queue level color indicator light
- 3.1.4 (2) Singulation Cylinders
- 3.1.5 (2) V-block part tooling
- 3.1.6 (1) Pneumatic horizontal cylinder
- 3.1.7 (1) Pneumatic vertical cylinder
- 3.1.8 (2) Pneumatic vacuum tools
- 3.1.9 (2) Empty Nest Sensors
- 3.1.10 (2) Part in place sensor
- 3.1.11 (2) Pokayoke Sensors

3.2 Diaphragm Load Station

- 3.2.1 (1) Ten-station indexing dial table
- 3.2.2 (1) Safety interlocked access door
- 3.2.3 (12) Diaphragm nest, target 100 part capacity per nest
- 3.2.4 (1) IAI vertical linear actuator – used for raising parts at pick station. Allows pick location to be at the same height for each pick
- 3.2.5 (1) Two position walking beam with three pick/place locations
 - 3.2.5.1 (1) horizontal linear actuator with sensors
 - 3.2.5.2 (1) Vertical pick and rotate actuator with sensors
 - 3.2.5.3 (1) Vertical pick vacuum cup with sensors
- 3.2.6 (1) Part nest for silicone spray
- 3.2.7 (1) Nordson, EFD ValveMate spray valve controller, Part # 7015429
- 3.2.8 (1) Nordson, EFD, spray nozzle, Part # 7007031
- 3.2.9 (1) Nordson, 5-gallon reservoir, Part # 7020039
- 3.2.10 (1) Low level indicator sensor
- 3.2.11 (1) Diaphragm inspection laser sensor

3.3 Body to Cap Pick and Place

- 3.3.1 (1) Pneumatic horizontal cylinder
- 3.3.2 (1) Pneumatic vertical cylinder
- 3.3.3 (1) Pneumatic gripper finger
- 3.3.4 (2) Part in place sensor

3.4 Ultrasonic Weld Station

- 3.4.1 (1) Dukane 20kHz, 2400 Watt Ultrasonic Weld System
- 3.4.2 (1) Dukane iQ Software
- 3.4.3 (2) 20kHz Titanium Booster
- 3.4.4 (2) Transducer
- 3.4.5 (1) Weld Horn for Small Cap, Part # 0279
- 3.4.6 (1) Weld Horn for Small Proflo Cap, Part # 7000642

3.5 Date Code Print Station

- 3.5.1 (1) Keyence MK-U6000 industrial inkjet printer
- 3.5.2 (1) Keyence MK-P4 console for MK-U
- 3.5.3 (1) Print head stand

3.6 **Cap Print Station Station**

- 3.6.1 (1) Transtech Sealcup Express Printer, 90mm Left Hand, Part # 9909-00-000LH
- 3.6.2 (1) ExpressPad Durathon S390 60-65 wht 4.0" SS Base
- 3.6.3 (2) 100x215 Steel Cliché Etched Use existing artwork
- 3.6.4 (1) Automatic pad cleaner for Sealcup Express, left hand
- 3.6.5 (1) Part present sensor

3.7 **Pick and Place Unload**

- 3.7.1 (2) Pneumatic Cylinders
- 3.7.2 (1) Pneumatic Gripper Cylinder with Gripper Fingers
- 3.7.3 (1) Pneumatic vacuum gripper
- 3.7.4 (1) 8 FT Unload Belt Conveyor
- 3.7.5 (1) 24"x24" accumulation platform at end of conveyor
- 3.7.6 (1) High Level Sensor on Conveyor

3.8 **Main Machine**

- 3.8.1 (1) Welded machine frame
- 3.8.2 (1) Six station indexing turn table
- 3.8.3 (6) Hard Chrome Plated Part nests
- 3.8.4 (1) Controls Package
 - 3.8.4.1 (1) Allen Bradley CompactLogix 5069 PLC
 - 3.8.4.2 (1) Allen Bradley 10" color operator interface
 - 3.8.4.3 (1) Electrical disconnect enclosure, 480VAC, 60Hz, 100A
- 3.8.5 (4) Safety interlocked access door
- 3.8.6 (Lot) Guarding & Roof, extruded aluminum frame with Lexan panels.

4.0 ALLIANCE AUTOMATION STANDARD DOCUMENTATION

4.1 Mechanical Documentation (1 electronic copy)

- 4.1.1 Mechanical CAD drawings
- 4.1.2 Cell Layout
- 4.1.3 Assembly Prints
- 4.1.4 Detail Prints
- 4.1.5 Spare Parts List

4.2 Controls Documentation (1 electronic copy)

- 4.2.1 Electrical CAD drawings (1 electronic copy)
- 4.2.2 Panel layouts
- 4.2.3 I/O
- 4.2.4 AC/DC power distribution
- 4.2.5 PLC program
- 4.2.6 HMI program

5.0 PART REQUIREMENTS

5.1 [REDACTED] is responsible for all parts required for testing and evaluation in the design phase of the equipment and for run off at Alliance Automation.

- 5.1.1 Engineering Samples – 5 parts of each part number – Due with PO
- 5.1.2 Alliance Debug – 5,000 small parts, 5,000 large parts – Due 4 weeks after PO
- 5.1.3 Alliance FAT – 5,000 small parts, 5,000 large parts – Due 6 weeks after PO

6.0 ALLIANCE AUTOMATION PROJECT MANAGEMENT

- 6.1 Each project at Alliance Automation is assigned a Project Manager, Mechanical Engineer and Controls Engineer.
- 6.2 Upon awarding of the project, a meeting will be scheduled to review the design concept, system operation, customer obligations to Alliance Automation, and customer expectation of Alliance Automation.
- 6.3 Additional design review meetings, as determined by the design team, will be scheduled with times convenient to both the customer and Alliance Automation. All design review meetings must occur prior start of manufacturing.
- 6.4 The customer may direct their communications to any of the Alliance team, however the official contact will be the Project Manager.
- 6.5 The project team will meet upon an agreed basis to review the schedule, review milestones, and identify any problems.
- 6.6 Project Resources
 - 6.6.1 The Project Manager is responsible for acting as the main point of communication with the customer, project schedule, resources, and informing the Mechanical and Controls Engineer of any project changes.
 - 6.6.2 The Mechanical Engineer is responsible for the Mechanical design of the equipment, ensures adherence to the customer's specifications, and enforces ANSI, OSHA and Alliance Automation standards. The Mechanical Engineer is also responsible for monitoring the manufacturing of details and fielding questions from the shop as well as directing the assembly technicians during the assembly and debug of the equipment.
 - 6.6.3 The Controls Engineer is responsible for the Controls design of the equipment, ensures adherence to the customer's specifications, and enforces NEC, OSHA and Alliance Automation standards. The Controls Engineer is also responsible for monitoring panel build and fielding questions from the shop as well as directing the electricians during the assembly and debug of the equipment.

7.0 ALLIANCE AUTOMATION STANDARD COMMENTS AND EXCEPTIONS

- 7.1 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.
- 7.2 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.
- 7.3 Alliance Automation will quote additional time and material cost for any modifications required if customer part designs change from the original part prints or production parts are different from what was provided at time of proposal.
- 7.4 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.
- 7.5 Unless specified by the customer Alliance Automation reserves the right to specify component manufacturers.
- 7.6 Alliance Automation reserves the right to reference the award of any contracts in public documents such as sales brochures, marketing literature and press releases. At no time will the value of any orders be released to the public.
- 7.7 Alliance Automation reserves the right to use photographs, drawings, and other images of their products in public documents such as sales brochures, marketing literature and press releases. Photographs that show the customer's products being manufactured will not be used until such product is made available by the customer to the public.

8.0 ALLIANCE AUTOMATION STANDARD CUSTOMER REQUIREMENTS

- 8.1 [REDACTED] is responsible for providing operators able to feed/load the proposed system to allow the machine to run at the required cycle time.
- 8.2 [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.
- 8.3 [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.
- 8.4 [REDACTED] is 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.
- 8.5 [REDACTED] will be responsible for all verification parts, plant layout and machine placement, operator instructions, and all part dunnage.
- 8.6 [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.
- 8.7 [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.
- 8.8 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.
- 8.9 [REDACTED] is responsible for supplying all calibration or pass/fail type parts.
- 8.10 [REDACTED] is responsible for all parts required for testing and evaluation in the design phase of the equipment.
- 8.11 [REDACTED] will be responsible for the following:
 - 8.11.1 Mechanical Design Review Sign-off
 - 8.11.2 Electrical Design Review Sign-off
 - 8.11.3 Machine Run-off at Alliance Automation Sign-off
 - 8.11.4 Machine Installation, Start-up, and Training, Final Machine Sign-off

9.0 SHIPPING, INSTALLATION & TRAINING

9.1 Shipping

- 9.1.1 Shipping will be F.O.B. Alliance Automation, Van Wert Ohio. Customer will be responsible for shipping arrangements.
- 9.1.2 Alliance will be responsible for rigging equipment onto truck at Alliance Automation in Van Wert, Ohio.

9.2 Installation

- 9.2.1 [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.
- 9.2.2 [REDACTED] is responsible for all electrical, communication, air and plumbing service drops required for the proposed assembly equipment.
- 9.2.3 [REDACTED] will be responsible for the electrical connection from the facility buss bar to the main panel disconnect lugs.
- 9.2.4 All other internal cell connections and termination will be made by Alliance during Alliance Set-up and Start-up.
- 9.2.5 [REDACTED] will be responsible for the pneumatic connection from the facility air supply (plant air) to the Alliance cell drip leg connection.
- 9.2.6 All other internal cell pneumatic connections are the responsibility of Alliance during Alliance Set-up and Start-up.
- 9.2.7 Installation will be performed during non-holiday 1st shift working hours, Monday - Friday. Installation hours requested outside of this time will be quoted as an additional cost.

9.3 Training

- 9.3.1 Two days of onsite training is provided.
- 9.3.2 Additional training for operators and maintenance personnel can be scheduled and performed by our technicians, if needed. Training will be billed at our normal rates and can be quoted upon request.
- 9.3.3 All personnel being trained must understand English. Bilingual training is not available.
- 9.3.4 Training will be performed during 1st shift working hours, Monday - Friday. Training hours requested outside of this time will be quoted as an additional cost.

10.0 RUN OFF REQUIREMENTS

10.1 Run-Off at Alliance Automation

10.1.1 5 Hour Pre-FAT Runoff

10.1.2 [REDACTED] Personal Present

10.1.2.1 Manufacturing Engineer and the manger, maintenance technician.

10.1.3 Day 1

10.1.3.1 Machine overview and controls overview to understand the IO modules, Understand solenoid blocks functionality, Preventive Maintenance, wearable parts overview, Critical Spare parts over view, HMI overview, Safety overview and verification

10.1.4 Day 2

10.1.4.1 Machine Run off from 8.00 AM to 4.30 PM.

10.1.4.2 Continuous run for 8 hours and watch out for abnormality to be addressed.

10.1.4.3 Every 5 seconds a part should be exiting the exit conveyor.

10.1.4.4 Hourly Rate – 720 parts per hour with the factor of infeed conveyor and diaphragm load station constantly with parts.

10.1.4.5 For the entire days run off no bad parts should be produced.

10.1.4.6 Bad Parts:

10.1.4.6.1 Parts rejected due to not having diaphragm.

10.1.4.6.2 Parts rejected due to not having silicone applied.

10.1.4.6.3 Parts are sonic welded with caps exposed.

10.1.4.6.4 No Sonic welding marks on top of the cap

10.1.5 Day 3

10.1.5.1 Continue run off with same goal as day 2 by performing multiple change overs between [REDACTED] Style caps and Proflo Style Caps.

10.1.6 Day 4

10.1.6.1 Any open items carrying over from day 3

10.1.6.2 Discuss open items to be addressed before shipment.

10.2 Run-Off at Customer Facility

10.2.1 4 Days of Run off has been budgeted.

10.2.2 Every 5 seconds a fully assembled part (Cap, Body and Diaphragm) part should be exiting the exit conveyor.

10.2.3 Hourly Rate – 720 parts per hour, pending operator consistency in keeping parts loaded & unloaded

10.2.4 For the entire days run off no bad parts should be produced.

10.2.5 Bad Parts:

10.2.5.1 Parts rejected due to not having diaphragm.

10.2.5.2 Parts rejected due to not having silicone applied.

10.2.5.3 Parts are sonic welded with caps exposed.

10.2.5.4 No Sonic welding marks on top of the cap

10.3 Run-Off Notes

10.3.1 [REDACTED] is responsible for supplying all necessary parts and labor for all runoffs.

10.3.2 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.

- 10.3.3 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.

11.0 DELIVERY

- 11.1.1 Delivery is based upon current workload and machine purchase component availability at the time of order; however normal delivery will be approximately **18 weeks** from project kick off meeting.
- 11.1.2 Project timeline will be developed with the receipt of purchase order and down payment.
- 11.1.3 The project timeline will not start until part prints, part models, and part samples have been received.

12.0 PRICING

ITEM #	DESCRIPTION	QTY	UNIT PRICE	TOTAL
1	AAV Assembly Machine	1		
2	Spare Ultrasonic Stack (Booster, Transducer, Horn)	2		
3	Diaphragm Orientation Check	1		
4	Installation	1		
			Total Machine Cost	

13.0 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

14.0 WARRANTY, TERMS, and CONDITIONS

WARRANTY: Alliance Automation, LLC (hereafter Seller) warrants for **two years** 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 **two years** 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.