DYMA Brands

Case Erecting, Sealing, and Printing

User's Manual

Contents

INTRODUCTION

Overview

Arnold Automation installed a fully automated jelly packaging line to supply and retrieve cases from a Winpak case packer. Cases are erected and transferred into the packer in the correct orientation, then full cases are received from the case packer, sealed, and printed.

The system handles two box sizes, P403 and P493. The Winpak packer requires the P403 boxes to be sideways, so these boxes are turned before and after the packer. See below for related system specifications.

System Specifications	
Box #1 Outer Dimensions (P403)	9.813” x 7.563” x 6.188”
Box #2 Outer Dimensions (P493)	15.313” x 10.313” x 5.938”
Rate – P403	3.5 cases per minute
Rate – P493	1.75 cases per minute

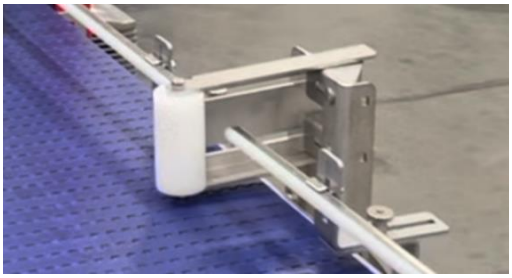
Table 1: System Specifications

Component Overview

Equipment in order of operation:

Combi CE 10 Case Erector

Bump Turn #1



Bump Turn #2

Wexxar Bel252 Case Sealer

Clearmark HR4 Printer

SYSTEM OPERATION

Typical Machine Start-Up

Erector:

- Set the case erector power switch to the “on” position
- Turn switch to the hand icon (see Case Erector HMI)
- Load erector with appropriate cases. All cases should face the same way and be uniformly arranged in the case magazine
- Press blue reset button, wait 5-10 seconds, then press white vacuum pump button
- To ensure proper cases, press the green button once to build the first box and make sure all case erector adjustments are set correctly

Sealer:

- Bring power to the case sealer by pressing its green start button

Printers:

- Turn on the printers and if necessary, wipe them down with the printer swabs
- Enter appropriate information for print messages

Small control box:

- Press “control power on” button

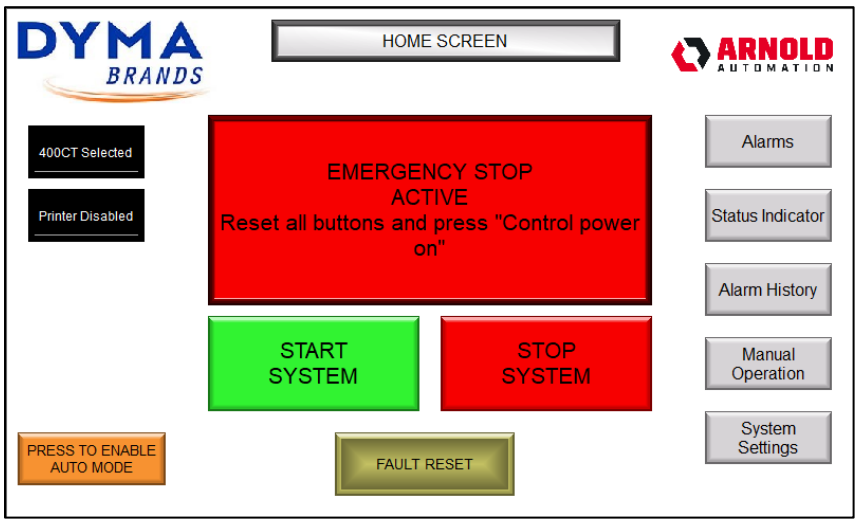
HMI:

- Set the power switch to the “on” position
- Press “control power on” button
- Finally, press “Start System” on the large control box HMI

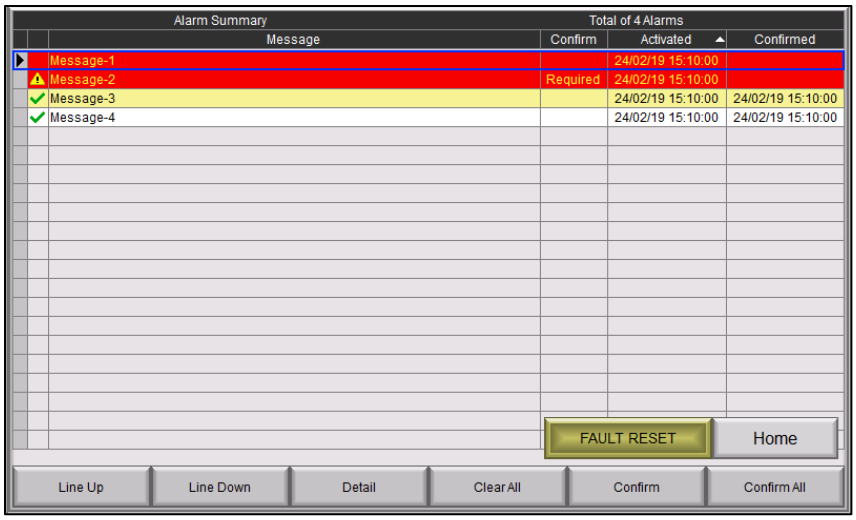
Typical System Operation

- Cases are built in the erector then conveyed to the Winpak packer.
    - Small boxes are turned by the conveyor mounted bump turn before entering the packer.
- If the sensor at the end of this conveyor is blocked, the case erector will hold the box it is building until the sensor is clear again. There is a delay on this signal so that after the sensor is clear, the erector waits a few seconds before starting a new box. This delay is adjustable in the HMI System Settings.
- After the packer, the filled cases are conveyed into the sealer.
- Small boxes are turned back by the conveyor mounted bump turn before entering the sealer.
- After the sealer, a customer-created message is printed onto the case.
- From the printer, boxes enter the customer’s x-ray machine and are rejected as necessary.
- Messages are then printed again on an adjacent side, then accumulate at the end of the line, ready to be palletized.
- If boxes are blocking the final conveyor’s sensor, then each upstream conveyor will stop once a case triggers the corresponding conveyor’s sensor.

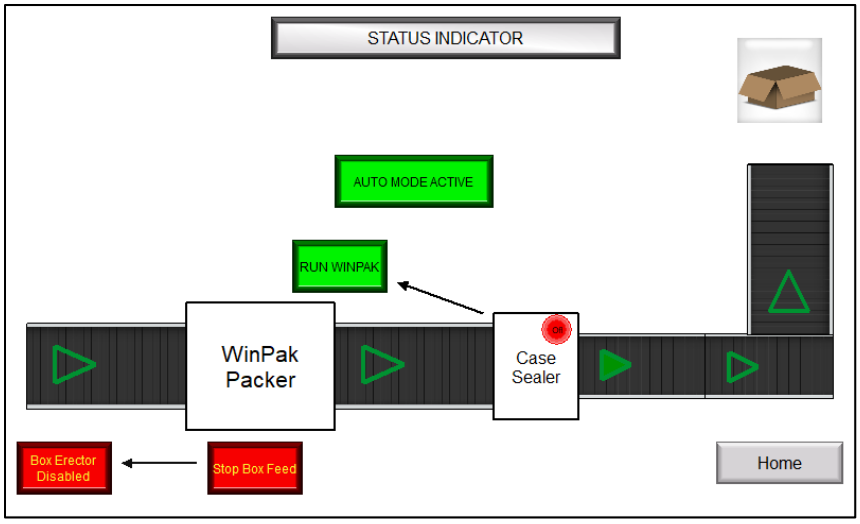
HMI Screens



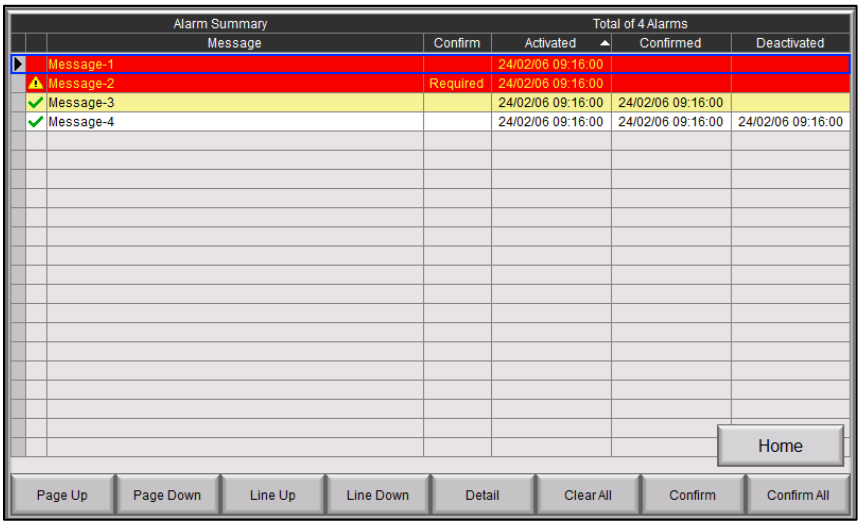
Home screen - From this screen you can start and stop the system, see if there are any active alarms, and navigate to the other screens.



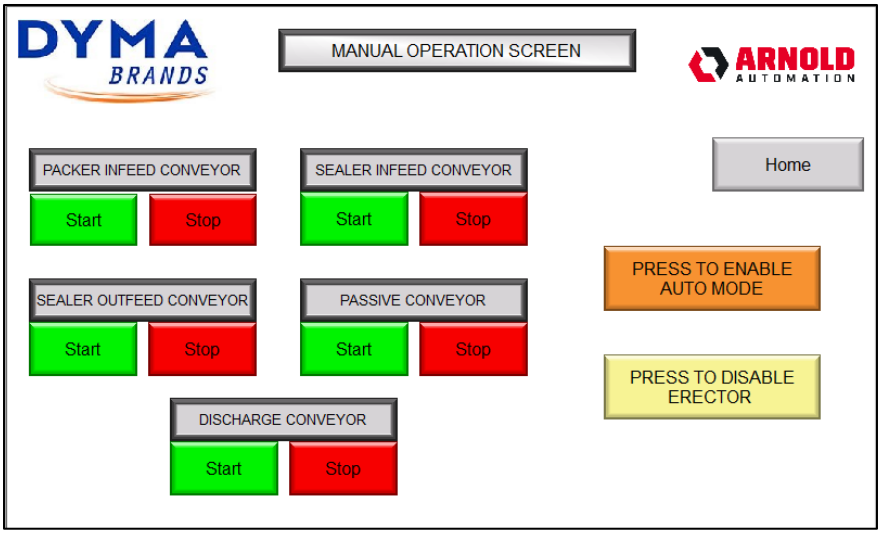
Alarm screen - This screen shows active alarms and when they became active.



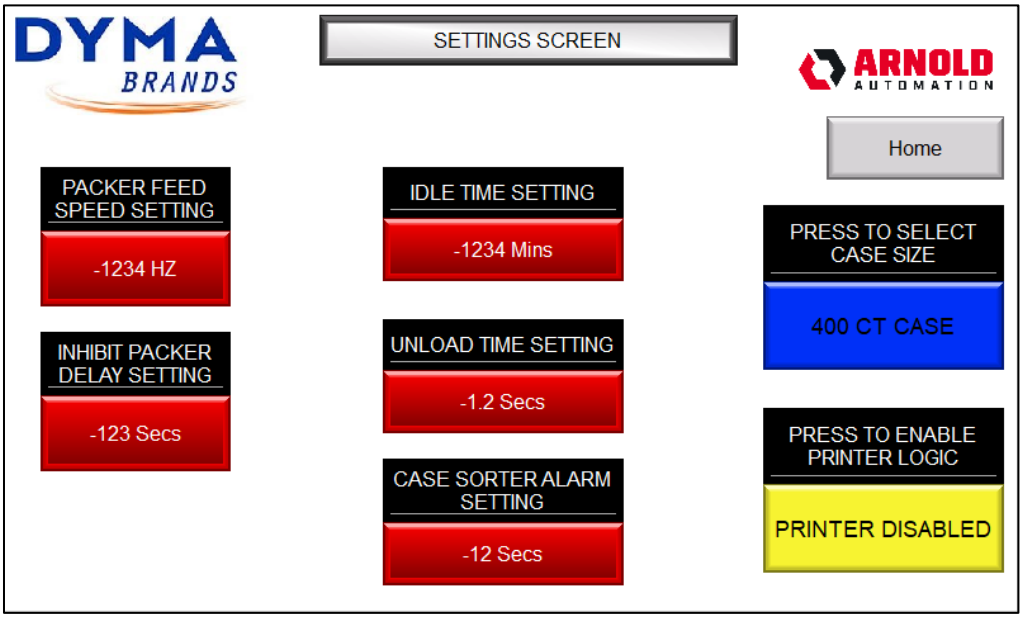
Status Indicators - This screen shows which components are active, including the packer, sealer, and erector.



Alarm history - This shows all alarms that have occurred in the system and when they were triggered.

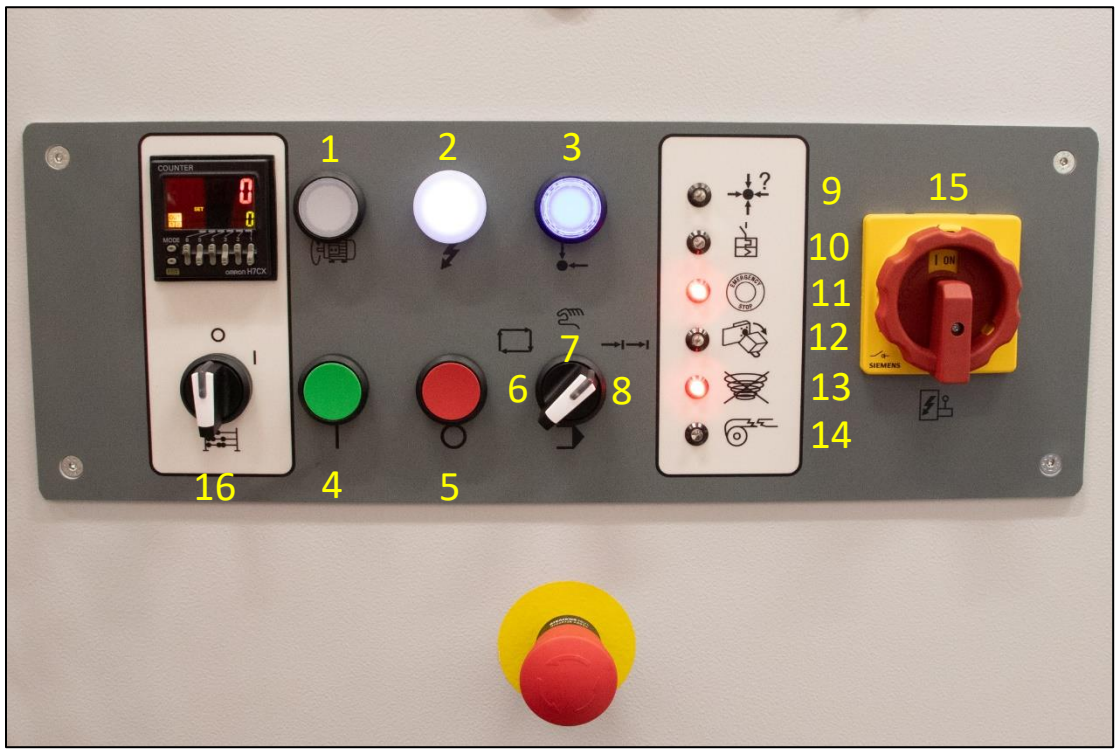


Manual Mode - Control the conveyors manually with this screen after clicking to enable manual mode. Automatic mode needs to be enabled before starting the system again, which can be done from the home screen.



System settings - From this screen, adjust the speed of the first conveyor, the idle time before the system shuts off after a period of inactivity, and the unload time to remove boxes from the last conveyor.

Case Erector HMI



1. Vacuum pump / belt drive start
2. Power indicator
3. Reset
4. Start
5. Stop
6. Continuous cycle mode
7. One box at a time mode - run erector on this mode after starting system from the HMI
8. Step through each cycle
9. Box blocking exit sensors
10. Tripped overload lamp
11. E-stop activated
12. Dropped case fault
13. No/ low air pressure
14. Tape error
15. Power switch
16. Case counter toggle