

Case Study

WEPA UK Overhead Production/Status Displays

Overview:

At its plant in Bridgend near Cardiff, WEPA UK specialises in producing bathroom and kitchen rolls. Its activities include both tissue-making and converting operations. Packing and dispatch of the finished products is a complex operation because the company produces multipacks in many different sizes, and these are arranged on pallets for transportation in a variety of patterns.

PLATCON were contracted to provide live production counts and machine statuses to the operations team working in the converting hall.

Due to the physical size/layout of the converting hall and the amount of equipment installed it was originally difficult for the operations team to react quickly to any equipment that required attention.

PLATCON proposed to install 2 large customised overhead display units, mounted at different high-level locations in the converting hall. The operations team are now able to view the converting hall production counts and machine statuses allowing them to quickly identify if a machine requires operator attention.

PLATCON designed a system that could communicate to the various identified PLC equipment in the converting hall via Industrial Ethernet and then with the use of bespoke programming transmit the relevant information to the overhead display units using TCP over Ethernet.

This involved designing a control system integrating propriety equipment in such a way that it provided WEPA with a cost-effective solution to visualise the relevant process information e.g. production counts and machine statuses onto the overhead display units

The overhead displays have been mounted at strategic locations in the converting hall, the idea being that the operations team are able to visualise when an alarm occurs so they can react as quickly as possible.



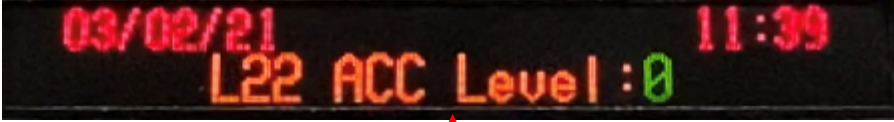
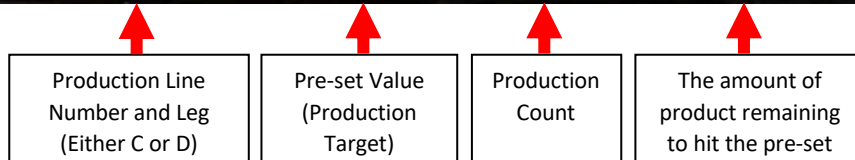
Production Information Displayed:

- Pre-set Production Count
- Actual Production Count
- Remaining Production Count
- Accumulator Levels
- Machine Alarm Statuses

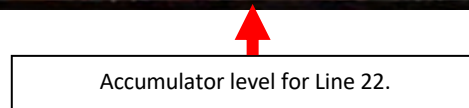
Overhead Display Information




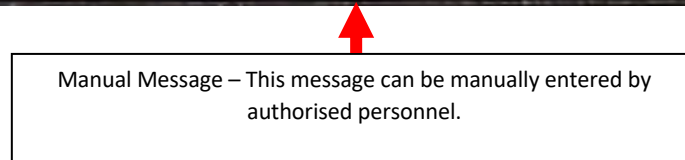
L22 C P: 1920 C: 5 R: 1915



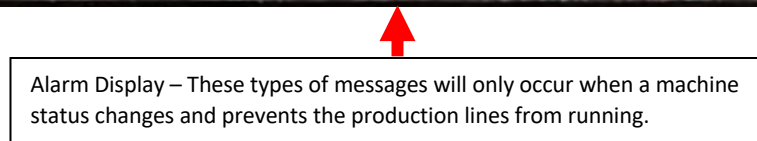
03/02/21 11:39
L22 ACC Level : 0



HANDS, FACE, SPACE - COVID19




L22 Pulsar Conv Network Alarm




Web Interface

A simple remote web interface has been developed to give authorised personnel the capability to view the alarm statuses remotely and to disable any required machine alarms due to long term maintenance work being carried out. This will prevent unnecessary alarm messages being displayed.

The web interface also allows a manual message to be entered which can also be displayed along with the process information.



HALL 2 - LINE 22 OVERHEAD DISPLAYS



PULSAR ALARM ENABLED ●	FULL PALLET ALARM ENABLED ●	KORBER WRAPPER ALARM ENABLED ●	KORBER BUNDLER ALARM ENABLED ●
TMC BUND ALARM ENABLED ●	TMC BELTS ALARM ENABLED ●	LANTECH WRAPPER ALARM ENABLED ●	TMC WRAP ALARM ENABLED ●
OCME35 ROBOT ALARM ENABLED ●	MANUAL MESSAGE TO BE DISPLAYED <input style="width: 100%; height: 20px;" type="text"/>		
			MANUAL MESSAGE ENABLED ●

CURRENT ALARMS:

Hall 2 Full Pallet - Alarm Present	Line 22 Pulsar Network Conveyor - No Alarm	Line 22 TMC Belts - No Alarm
Hall 2 Lantech Wrapper - No Alarm	Line 22 Korber Wrapper - No Alarm	Line 22 Korber Bundler - No Alarm
Line 22 TMC Bundler - No Alarm	Line 22 TMC Wrapper - No Alarm	Hall 2 OCME 35 Robot - No Alarm

In order for the alarms to be displayed, each specific alarm must be enabled as shown in the screen above.

Green = Enabled
Red = Disabled

Manual message entry to be displayed on the overhead displays.

Shows the current alarm states of the machines associated with Line 22.

Red = Alarm Present
Green = No Alarm