

Pandolfo Alluminio

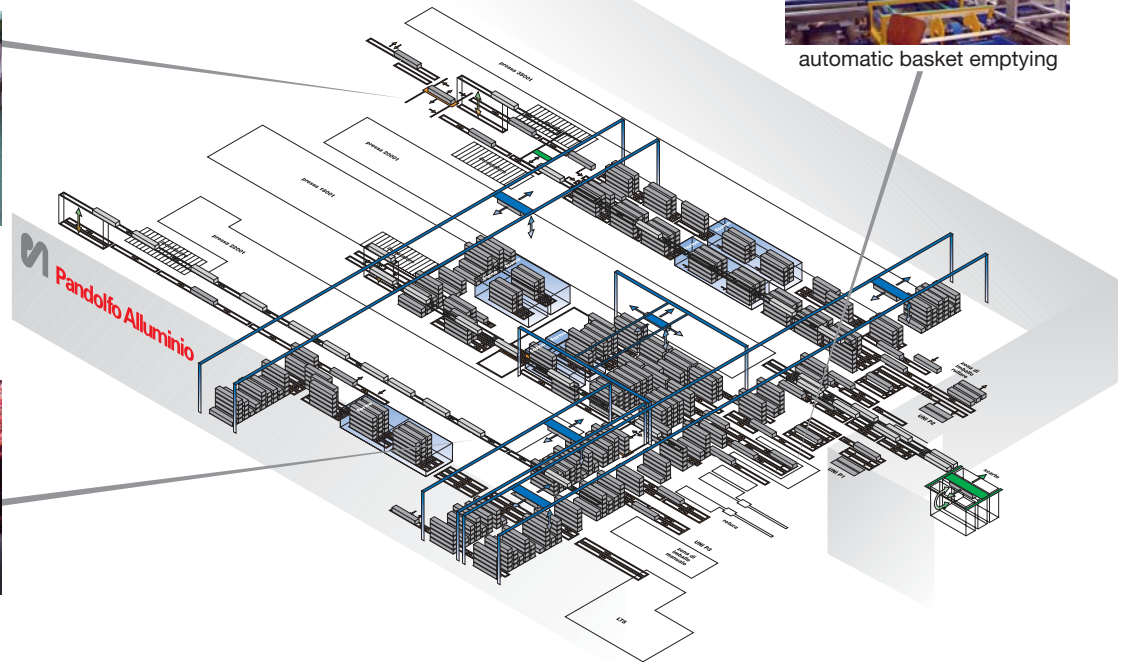
Transport control system and automatisaton engineering for the intraplant flow of material at Pandolfo Alluminio s.p.a. · Italy



distributor carriage basket checkup station



empty basket-supply +3500 mm



automatic basket emptying

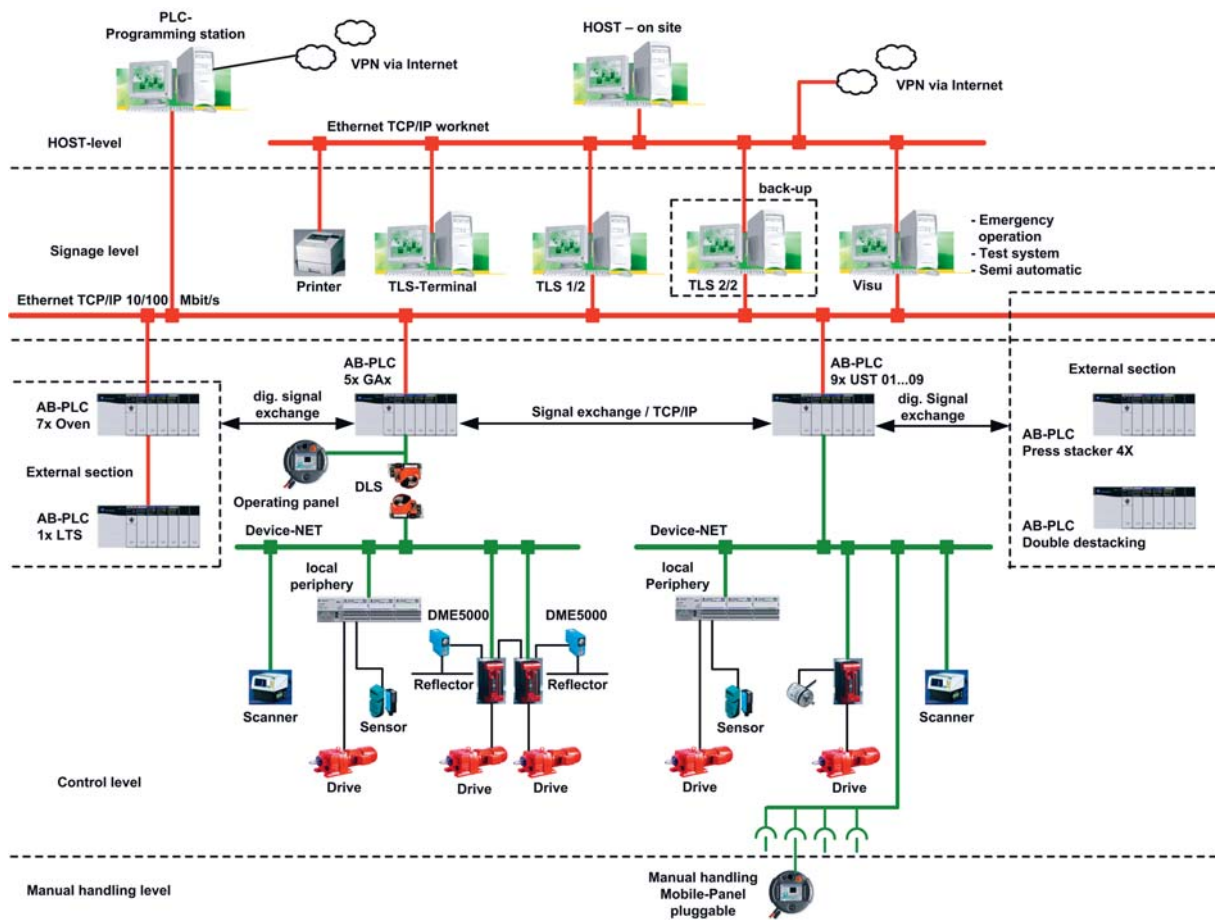
Task

The Pandolfo Alluminio company is one of the leading aluminium producers of profiles in Italy. In the existing pressing plant the complete material transport had to be realised after an intensive previous period of planning via connecting conveyor roads, five automatic basket manipulators including a partly automatic package plant. The task of a completely automatic basket- and material transport had to convert in two stages. The execution contained the connection of four press lines. Commencing at the automatic profile stack until to the completely package at the partly automatic package places. For the intermediate storage of the baskets various block storage areas fully automatic have been constructed. For ageing of the profiles existing as well as new ageing ovens has been integrated into the complete concepts. The construction and the start of operation as well as the integration of the plant occurred predominant during the updated workshop.

Integrated components

A new transport control system TLS executed as a redundant Cluster-computer system with Host-interface and 15 screen workstations (clients) provides for the improved material flow control as well as -management. An amply plant visualisation which is available by all Clients, provides the graphical surface as well as Reports at anytime an ideal plant overview. The 21 subordinated SPS-controls are connected with the TLS by an Ethernet-Network. The communication occurred by TCP/IP. For the multifarious control tasks of the conveyor, basket manipulators and automatic package places Allen Bradley controls (ControlLogix) are in operation. A obvious handling is realised by portables Multi-Panels as well as radio control units. The big quantity of sensors as well as the applied scanners is connected on the field bus level (DeviceNet) with the controls. The drive engineering of the basket manipulators as well as further positioned axles have been realised by intelligent converter- and distance measurement engineering. The required safety engineering (access prohibition) have been converted with the most advanced technology.

System configuration



packing place with scrap container



packing place

Solution

Control system engineering as well as the automation which are realised by Aberle Steuerungstechnik GmbH are based on approved standards and technologies. If necessary these customer requirements as well as the plant conditions can be coordinated exactly. Due to a reasonable plant basic concept and control apportionment as well as failsafe computer systems result inclusive a very big plant availability.

Advantages for the customers

The ideal solution of the company Aberle Steuerungstechnik GmbH which contained all steps from the preparation of the fine requirements specification up to the definition of the communication interfaces, control standards and the safety engineering, allows the company Pandolfo also for the integrated subsystems uniform structures. The continuous realised concept guarantees a permanent control and transparency of the total production plant.



Aberle Steuerungstechnik GmbH · Daimlerstraße 40 · D-74211 Leingarten · www.a-s.de
Fon +49 (0) 71 31/90 59 0 · Fax +49 (0) 71 31/90 59 59 · Email: Info@a-s.de



www.a-s.de