



Stepping up digital management of service and parts

Cavanna sets out to reduce costs of these two service areas by adopting smart technologies

ABSTRACT

Cavanna ha sviluppato servizi basati sulla connessione remota e su Cavanna Supporto App che permettono di dare assistenza al tecnico manutentore del cliente e di ridurre i costi degli interventi. Le indicazioni vengono fornite avvalendosi della realtà aumentata in tempo reale dalla sede. A supporto dei tecnici del cliente, sono stati messi a punto anche dei video "how to do" per aumentare la comprensione e favorire la ripetibilità dei principali interventi periodici e programmati sui componenti più importanti delle macchine.

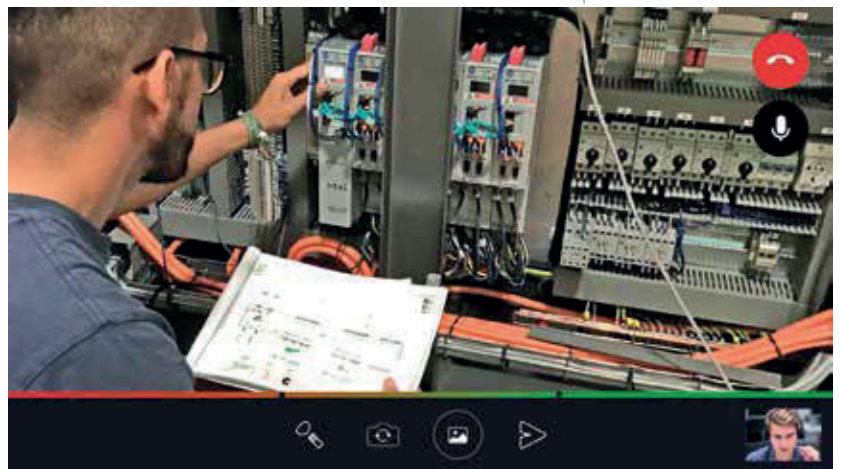
With 60 years experience on the market of high and medium speed flowpack packaging lines, Cavanna is making constant innovations in the after-sales area. The company began the process of digitizing parts six years ago; an important step was the investment in an automated





vertical storage system to allow a build-up of stocks to the advantage of user costs. Recently, Cavanna has activated the new 'e-spare' platform that enables users to identify the needed spare parts via the web or a dedicated app. The process starts with the QR Code applied to the functional units of the machines; thanks to the spare parts app, the relevant unit is identified, the 3D technical drawing is opened, the part is identified and the order is placed based on availability and price approval.

"Cavanna has installed a total of 6,000 lines and stand-alone machines in the world," says Antonio Marangon, who claims 20 years of detailed experience and is now service manager of Cavanna Group. "Of these, 4,500 are running, but there may be even more. This is



in operation). Through the expansion in services, the company will be able to establish a joint collaboration for the whole OPEX period with positive effects for the machine manufacturer and the user alike.

"By developing the service area, we can offer 'guarantees' on the machine's efficiency," points out Marangon. "With the user's commitment to observe the predictive maintenance program with low costs, the manufacturer ensures performance."

Since 2014, Cavanna has seen a rapid development from preventive to predictive maintenance, and now towards proactive maintenance. Current efforts are being directed to implementation of the Industry 4.0 paradigm.

The biggest customers have a greater preparation when it comes to digitization and are pushing towards predictive maintenance by analyzing the data on machine efficiency. The SMEs, on the other hand, still prefer preventive maintenance, but the situation is shifting: gradually, even this category of companies is becoming equipped to adopt the Industry 4.0 paradigm and opening up to proac-



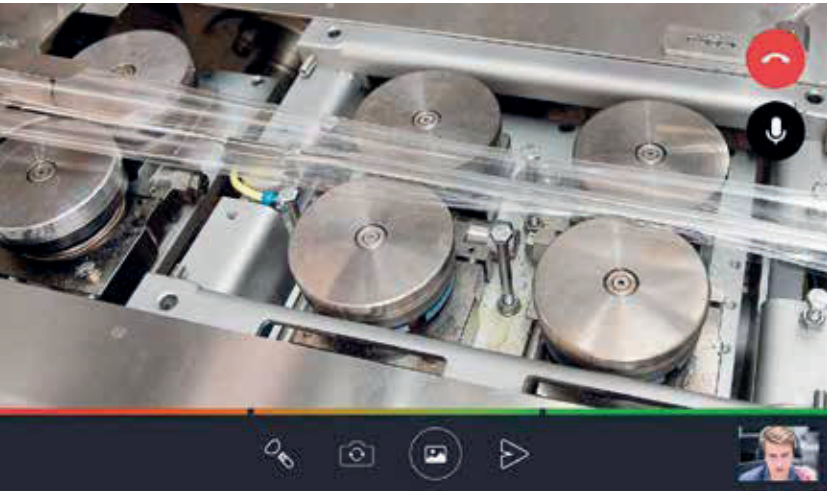
machinery that requires substantial investments in components, warehouse management, spare parts service and revamping. This latest action will make it possible, also through application of electronic systems, to extend the average life of lines and plants."

Focus on after-sales

With 800 active customers, the customer service area is becoming ever more important: over the last five years, its contribution to total revenues has grown on average 10% per year (for parts, modifications, technical assistance on an increasing number of machines installed and

TCO IN BRIEF

Total Cost of Ownership (TCO) indicates the total costs of managing a plant and should be considered on two levels: the first is CApital EXpenditur-CAPEX (cost of investment and start-up of a new plant), and OPerating EXpense-OPEX (the overall costs inevitably generated during the lifecycle of the plant and which the machine supplier can become a partner in reducing these costs).



tive maintenance. It's a spontaneous evolution, with the demand generated by clients.

Evolution at Cavanna

Today most maintenance operations are performed by the technician who goes in person to the line at the customer's plant. Cavanna has recently developed services based on remote connection and the Cavanna Support App which provide assistance to the customer's maintenance technician, resulting in a reduction in maintenance costs. The indications are provided via augmented reality in real time

from the headquarters. As a support to the customer's technicians, "how-to" videos have been produced to increase understanding and encourage the repeatability of the main regular and programmed maintenance procedures on the major machine components.

Cost analysis

Until a few years ago, only a limited number of companies used CAPEX and OPEX for purchases; today that number is growing. Cavanna's team of engineers can help the customer understand how to correctly process CAPEX and OPEX according to the type of machinery, customer's product and other variables that characterize its production. The role of the manufacturer is also to design, along with the user, lines and machines that respond to certain requisites of CAPEX and OPEX, which obviously differ according to the case. For example, by means of simulators, it is possible to demonstrate how the addition of a buffer increases CAPEX, yet how it reduces the OPEX in as little as a couple of years.

"From an OPEX viewpoint, there can be substantial reductions in costs for users," assures the Cavanna service manager. *"However, a purchase made on the basis of the two TCO parameters, CAPEX and OPEX, is not a spontaneous process or that widespread; the customer must always be guided."* ■

EVOLUTION IN TECHNICAL ASSISTANCE

Maintenance is a process that starts with what is defined as 'reactive'. Over the years, manufacturers developed preventive, then predictive maintenance to arrive at today's proactive maintenance.

This evolution presumes the transition from services focused on the product to those focused on the customer's business.

Preventive maintenance is meant as the set of precautionary maintenance operations on the lines which are regularly programmed.

Predictive maintenance, an evolution of preventive maintenance, analyzes the current and actual conditions of a plant and requires a remote connection between the user and manufacturer of the plant in order to share big data regarding efficiency, hours operated, format changes and alarms. This enables prompt action to be carried out on the causes and maintenance performed only where strictly necessary.

Also referred to as enhancement, proactive maintenance entails an operation that modifies an aspect so that the problem does not repeat.

This type of maintenance provides useful experience for an improvement of the lines to be designed in the future.