Ronchi Provides Outstanding Customer Service Through an End-To-End Digital Transformation Featuring the Arbortext Content Delivery System

About the Company

Ronchi Mario SpA is a small company with a huge impact!

Founded in 1966 in Milan, Italy, Ronchi is a manufacturer of very large industrial packaging equipment for liquid, detergent, cosmetic, pharma, and food products.

Ronchi has a global service footprint — including UK, USA, South America, and China — supplying all the biggest multinational companies with sorting, orienting and filling/capping machineries. But all the design and manufacturing work is still centered in Milan, and is accomplished by a team of about 200 people!

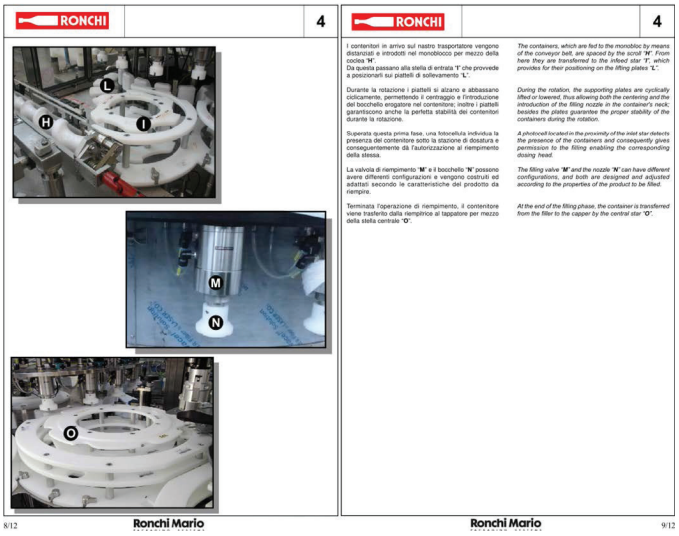
The fascinating thing about Ronchi's products is that each machine is a one-of-a-kind, uniquely designed and built for the customer. This equipment also has a very long lifespan, and it evolves over time to process new bottles and caps formats through mechanical/software modifications.

Business Challenges

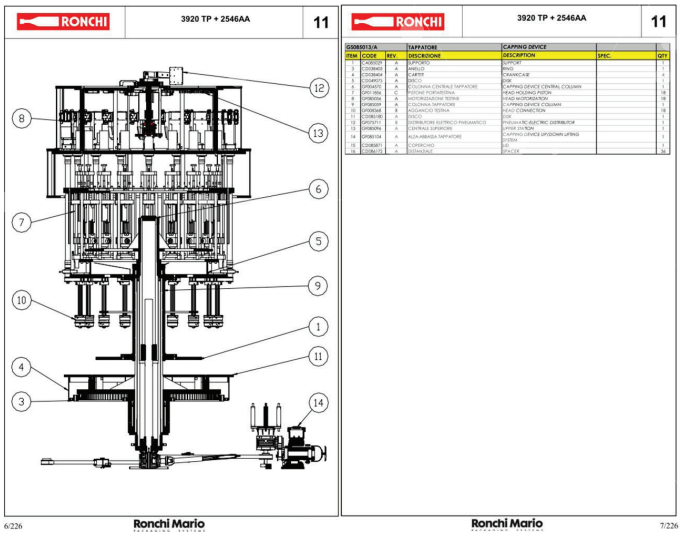
The unique nature of Ronchi's products presents a major challenge for ongoing service and support. Historically, they shipped basic service information with the product in pdf form using USB keys—they did not have an online presence. The problem was that any print-based service or parts information became obsolete almost immediately. Any updates required a new shipment of the manual. As a further complication, the information was developed in a legacy desktop publishing system, which meant that any changes required adjustments to the template and page flows.

Other related problems included:

- Outdated (ineffective) page-based design with basic illustrations.



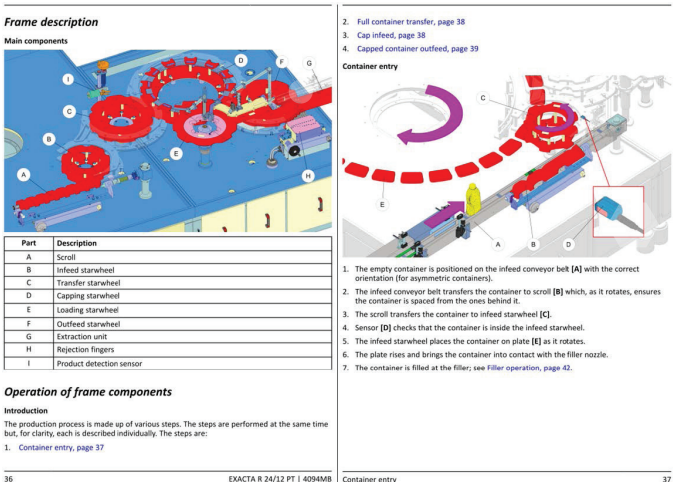
- No content management system; any reuse was copy and paste with no controls.
- No useable search capability.
- No spare parts strategy or parts lookup capability.



- Manual (expensive) translation and localization processes.

Beginning in 2018, with help from consulting partner CDM Tecnoconsulting SPA, Ronchi realized they needed to make an end-to-end Digital Transformation. It was clear that they needed to find better ways to:

- Distribute service information to their customers—and keep it up to date,
- Track and manage parts data for each unique machine, as well as make spares and replacements easier to identify and supply for the customers,
- And, improve the development, effectiveness, and availability of operational and service information.



Frame description

Main components

Part	Description
A	Scroll
B	Infeed starwheel
C	Transfer starwheel
D	Capping starwheel
E	Loading starwheel
F	Outfeed starwheel
G	Extraction unit
H	Rejection fingers
I	Product detection sensor

Operation of frame components

Introduction

The production process is made up of various steps. The steps are performed at the same time but, for clarity, each is described individually. The steps are:

1. Container entry, page 37
2. Full container transfer, page 38
3. Cap infeed, page 38
4. Capped container outfeed, page 39

Container entry

1. The empty container is positioned on the infeed conveyor belt **[A]** with the correct orientation (for asymmetric containers).
2. The infeed conveyor belt transfers the container to scroll **[B]** which, as it rotates, ensures the container is spaced from the ones behind it.
3. The scroll transfers the container to infeed starwheel **[C]**.
4. Sensor **[D]** checks that the container is inside the infeed starwheel.
5. The infeed starwheel places the container on plate **[E]** as it rotates.
6. The plate rises and brings the container into contact with the filler nozzle.
7. The container is filled at the filler; see Filler operation, page 42.

36 EXACTA R 24/12 PT | 4094MB Container entry 37

The Solution

The obvious answer to Ronchi's dilemma would seem to be an online portal, such as the **Arbortext Content Delivery** system (ACD). However, to make this strategy most effective, there was a lot of infrastructure to put in place first.

The first step was to gain control of the product structures themselves using **Windchill BOM Management** tools. Once an Engineering Bill of Materials (eBOM) was developed, the tools allowed development of an associated list of service parts (sBOM) that identified serviceable replacement parts and kits, specific to each customer.

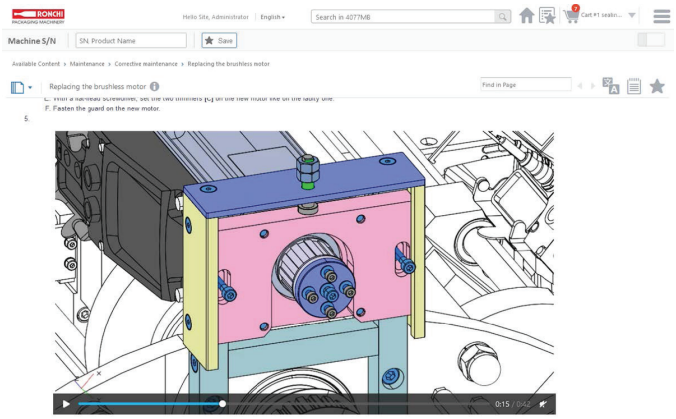
With reliable product data in place, Ronchi could then use existing CAD models to develop intelligent 2D and 3D parts drawings using **Creo Illustrate**. These drawings provided a foundation for development of interactive Parts Catalogs using Windchill for Parts List. In addition, 3D animations are developed in **Creo Illustrate** for use in demonstrating service procedures.

Along with these improvements, Ronchi began using **Arbortext Editor** to transform their service procedures from page-based documentation to task-based information units in XML, organized by product structure. These content units could then be managed using **Windchill CMS** functionality to maintain version controls, linking to the parts data, and potential reuse across products, releases, and output formats. In addition, **Windchill Translation Management** tools can now be used to reduce localization costs while providing multi-lingual version of documentation.

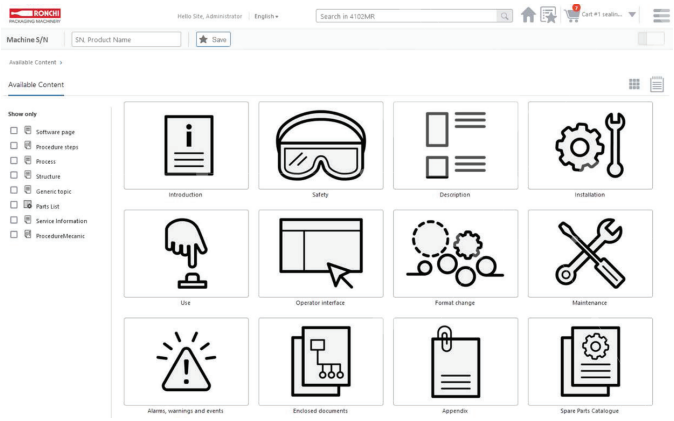
Finally, with all of this in place, **Arbortext Content Delivery** could now be launched as a one-stop source that delivers everything technicians need to maintain and service their equipment, as well as identify the parts they need. Features include the following:

- Each customer has access only to their own unique product information.
- "Super Users" have access to regional data.
- Multi-lingual versions available.
- Information can be located visually, or by search, including serial numbers, model numbers, part numbers, diagnostic codes, or full text.
- Technicians can click on a part in the 3D model and identify the parts they need, including all part details.

- A request for quote for required parts can be submitted through the system.
- All technical information is available in both print and interactive electronic formats, including animations.



- Information for each machine is continuously updated throughout its life cycle.
- Updated information is available to users both online and offline.



Key Benefits

- Reduction of the time needed to obtain information to support the machines
- Consistency of information
- Product specific parts list
- Improved accuracy of spare parts ordering
- Modular access to information to provide exactly the information needed.
- Capture of customer machine fleet by type, plant.
- Creation of re-usable lists of items to improve the supply of consumables.

Learn more

For more information about Arbortext Content Delivery and the entire portfolio of Arbortext software products, visit: **www.ptc.com/go/arbortext**.

RONCHI
PACKAGING MACHINERY