



# 360° Packaging and Beverage Solutions

*KOSME operates at 360° in planning and creating complete Packaging & Beverage production lines with custom solutions according to their explicit philosophy: high performances, high reliability and simplicity-of-use.*

Kosme s.r.l. was established in 1981 and started operating directly with planning and producing automatic labeling machines. After a very successful year in 1987, they soon became a major company with new ambitions to expand their production range by creating a Packaging division and venture into the industrial market of packaging machines mainly being packers, palletisers, depalletisers, blowmolders, wrappers and carton sealers. These machines have been designed and are manufactured for those companies that have a medium to high production turnover.

After years of uninterrupted production they branched out into another sector to form a

Filling division. From Gravifillers to weighfillers, Jet cleaners which rinse, sterilize and blow dry gravity fillers to weighfillers, the filling division soon gained the same popularity and success of their other divisions.

In 2001 Kosme went into partnership with Krones, a world leading company, allowing Kosme to re-enforce and expand its production line by exchanging synergies and know-how with Krones while maintaining their essential traits which have made them famous throughout the years: bespoke solutions, high performances, high reliability and simplicity-of-use.

### **Onboard machine**

**technology** The Kosme automation engineers have matured a vast experience in control and visualization solutions. Generally, the company use B&R or Siemens products for control with visualization initially based on a proprietary software solution developed internally. However in 2005 they adopted a new strategy to use a Scada/HMI standard platform on the company production line defined by the Group. Their aim was to reduce engineering time, use open technology

with a unified software – machine approach while maintaining the one philosophy, both for training technical office personnel and testing. Their choice of Scada/HMI was initially oriented on the group’s product line. After experiencing how various systems worked, Kosme decided to proceed in creating its own line of system solutions. So in 2008 they took on a Scada/HMI platform which responded more to their modularity, potentiality and cost requirements after being quite impressed with Movicon 11 involving a five year contract agreement with Progea. Deployment flexibility was fundamental to Kosme’s strategy in building systems based on Windows CE and those more advanced based on Windows XP Embedded. In addition to this, the company is strengthening its competence in its line of supervision solutions in response to the growing demand for more complete turnkey solutions to cover all processes throughout the production line, from filling through to packaging then finally loading onto pallets. Being a crucial factor to connect different HMI systems up in a network, meant Kosme had to



*The Kosme Flypack machine.*

focus on supervisory modularity to optimize costs and get the right co-ordination in order to achieve multi-project harmony.

### **The case of the Flypack shrinkwrapper application**

One of the first HMI projects developed by the Kosme R&D group with Movicon dealt with a system to visualize a packaging process line involving their new Flypack shrinkwrapper machine.

Kosme’s insight on secondary packaging fast becoming a major importance to packaging process lines influenced them to invest important resources in designing a new packaging system. This system turned out to be breakthrough innovation not only in the group’s production range, but in the entire packaging sector in general. This project was very successful and their Flypack shrinkwrappers are now delivered and used all over the world. This project was designed on a modular machine, featuring a product compacter unit, a wrapping unit and a heat shrinker tunnel. Built with a tray erector and layer pad inserter module, it can also handle trays and film packs.

To the full benefit of the user, the Flypack system has been divided into an “operator side” and a “service side”. The operator side is where all the handwheels, for format change-over and control panel, with Movicon 11 based HMI system, are located. The engines are located on the “service side”. A varied choice of packaging modes has been provided which include film only, tray only, film + tray or film + layer pad options. The container formats are very versatile and can be produced in any size and supported material type (different types of bottles, cans, containers in different PET material, glass, aluminium etc.). The Flypack is the new addition to the Kosme machine range with speed up to 45 ppm, a perfect example of results obtained by extensive Kosme research uniting technical innovation with top quality.

### Movicon advantages

“The technical motivations that drove us to change our software technology by adopting Movicon are manifold”, explained engineer Rondelli from the Kosme R&D group.

“The very impressive innovative technology and openness of the Movicon system, totally based on XML, along with extreme simplicity-of-use enhanced with a great variety of graphical solutions provided by the system, has sure left a great impact on us. We have been able to create user interfaces with much improved graphics and independently from the screen resolution sizes. They are much more pleasing to the eye and look very realistic, which together with the additional functionalities are difficult to find in any other competitive system”. It has indeed become more essential for machine manufacturers to have HMI systems that are capable of allowing them to create interfaces with a mixture of graphics and functionalities that make machines more intuitive to manage with the aid of a richer variety of functions to use for the operator.

“Project modularity is also another important factor” added engineer Rondelli. “By using Movicon, projects can be centralized or distributed with solutions that allow us to deploy fewer resources in planning and maintaining them in the various machines”.



The Movicon main screen showing the Kosme Flypack machine.



A Movicon screen showing the Kosme filling machines

Kosme actually uses control panels based both on Win XP Embedded and WinCE as required. Therefore it was essential that the Scada project guaranteed enough flexibility to allow projects to support one or both of these operating systems indifferently. The Movicon XML projects were just what they were looking for and fitted nicely to their requirements being identical in graphical interface and function both for Win32 and WinCE.

This meant no compilation or exportation was needed. Therefore, much simpler and cheaper to run.

### **Advance HMI functionality**

Movicon also offers ready-to-use solutions which have allowed Kosme to satisfy all types of technical requests whether straightforward or out of the ordinary. In addition to the standard solutions, which completely support dynamic language change in any project string type and character, or user and password protection management compliant to FDA CFR21 Part 11 regulations, and important alarm notifications by SMS or Email (all functions available for both WinXPE and WinCE control panels), Movicon provides Kosme with other optional functionalities which can be enabled on already existing licenses without needing additional



*Thanks to Movicon 11 technological solutions graphics are captivating, simple and intuitive to use for managing Kosme machines.*

installations or modifications to any of their projects in order to use them. Some of the most popular features include tracers, production report and statistics, connectivity via web to machines that thanks to the Movicon Web Client technology, consents access to the visualization system with log on from any part of the world using any internet browser, without installing anything on Server or Client side to do so. Platform and operating system independence is also guaranteed at the same

time. This aspect, together with the possibility to access as client from any mobile phone (Java J2ME), is greatly appreciated and exploited by end clients using projects created with Movicon by Kosme.

### **Conclusion**

The first projects were most satisfactory and lived up to Kosme's expectations. It can definitely be said that the right choice was made proving to day to be much more advantageous compared to those solutions used beforehand solutions in terms of technology, service and overhead expenses of the whole system. Not only was it profitable in using this type of license but planning, management and maintenance of the whole system within the company proved less expensive. Thanks to Movicon's openness and modularity, it is safe and low costing to implement and operate, ensuring quick returns on investments.

Kosme accredited an essential part of this success to the supplier's technical support service. The company responsible for producing Movicon, whose research and development team are based in their Italian headquarters, provides very efficient technical help to all programmers or project engineering teams that use the Movicon platform in their production lines and company. This support gave Kosme the confidence to experiment knowing that their partnership with the Movicon makers was very reliable and efficient to respond when needed. This kind of relationship is a great competitive advantage and an added value which can only lead to higher, improved productivity with the best end results.

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