Vine-clad slopes
Nestling in the spectacular riverscape of the Moselle, with its steep and steeper terraced vine-clad slopes, is the Moselland eG Winzergenossenschaft, the biggest winegrowers’ cooperative in the state of Rhineland-Palatinate, and the second-largest in all of Germany, who last year asked Krones to install a complete line rated at 2,500 containers an hour for bottling small batches and premium wines. A new dimension for Krones. The client had a specially developed triple-channel rinser incorporated, for example, so as to dependably guarantee the quality of the bottling operation. Back in 2007, Moselland had commissioned a filler and a labeller from Krones for an 11,000-bph line used to bottle its standard range, and is very satisfied with their performance.

The Moselle, plus its tributaries, the Saar and the Ruwer, loop and meander through a cultivated scenic backdrop where the Celts and the Romans were growing vines more than 2,000 years ago. The sheltered valley landscape makes the region into one of Germany’s warmest climate zones. More than 5,000 vintners cultivate around 8,900 hectares of vines in 520 different vineyards. This means the Moselle is Germany’s fifth-largest wine-growing area. Half of the vines grow on slate slopes with a gradient of more than 30 per cent, though 50 and 60 per cent are not uncommon either. In other words: lots of manual labour.

The Riesling Experts

Conditions here are particularly favourable for the late-ripening Riesling variety, one of the world’s most exquisite white-wine grapes, which produces elegant, graceful, fruitily memorable wines: Germany’s flagship vintages. Moselland eG Winzergenossenschaft started off in 1969 as an alliance of regional cooperatives, tasked with promoting the interests of the area’s wines and vintners, and marrying cherished traditions to the requisite innovations. Since then, the central bottling operation and a large proportion of the vinification have been grouped together at the production facility in Bernkastel-Kues. More than half of all the cooperative’s vineyards along the Moselle and the Nahe are planted with Riesling, which in recent years particularly has enjoyed an incredible renaissance among wine connoisseurs. With this acreage of vines, Moselland Winzergenossenschaft is nowadays one of the world’s largest Riesling producers, and so rightly claims the title of the “Riesling Experts”.

In 2000, Moselland incorporated the members of the Nahe Winzer eG cooperative, and is thus also the biggest marketer of Nahe wines in Germany. Four years later, the company entered into a cross-regional alliance with the winegrowers’ cooperatives Rietburg eG in the Palatinate, and Niersteiner Weingenossenschaft eG in Rhenish Hesse. The alliance with Rietburg culminated during 2011 in a merger with the Palatinate-based cooperative. Nierstein has remained autonomous, and is responsible for the grape production of its vintners; vinification, bottling and marketing, however, have likewise been taken over by Moselland. In all, Moselland Winzergenossenschaft now has 2,300 member vintners with 2,200 hectares of vines under cultivation, and operates 21 grape reception and pressing stations.
Moselland produces a portfolio totalling more than 1,000 different articles. The premier constituent of the range, of course, is the Moselland Riesling series in the region’s typical, aesthetically appealing 0.75-litre hock bottle, with wines from the steep terraced slopes.

Moselland Winzergenossenschaft is the biggest winegrowers’ cooperative in the state of Rhineland-Palatinate, and the second-largest in all of Germany.

In the cellars, the cooperative can store 70 million litres in casks and 6.3 million litres in bottles. The facility in Bernkastel-Kues, now with three bottling lines, produces around 40 million units a year.
The filler involved is a counterpressure filler from Kosme with automatic adjustment of its 16 valves. “The counterpressure filler is without a doubt more suitable than a low-vacuum filler, because it enables us to preserve the carbon dioxide content in the wine without any problems.”
A full portfolio of wines from Moselle, Nahe, Palatinate and Rhenish Hesse

With this full range of products from the four major wine-growing areas in the state of Rhineland-Palatinate, Moselland has embarked upon a marketing thrust under its own umbrella brands, targeting German and international food retailers, which together purchase over 90 per cent of the output. In 2010/11, Moselland’s turnover totalled 75 million euros, with exports accounting for around a third of this sum, primarily in North America, the Benelux nations and Scandinavia. Moselland processed 24 million litres of must (including ten million litres of Riesling) from the 2011 harvest with a workforce totalling 195. In the cellars, the cooperative can store 70 million litres in casks and 6.3 million litres in bottles. The facility in Bernkastel-Kues, now with three bottling lines, produces around 40 million units a year. Only the approximately 400,000 bottles of house sparkling wine are produced and filled by the subsidiary Porta Nigra Sekt Kellerei Max Mann GmbH in Wiltingen.

Two bottling lines for the standard range

For bottling its wines, Moselland operates firstly with a 14,000-bph line dating from 2001, featuring an Italian low-vacuum filler and a Krones Top-module labeller retrofitted in 2007, and secondly with an 11,000-bph line, upgraded in 2007 with a Krones counterpressure filler and another Top-module labeller, conveyors and a Kettner packer. Each of the Topmodule labellers features two cold-glue and two pressure-sensitive labelling stations, and has the same direction of travel. “This enables us to interchange the stations at need – for instance, we can also use four cold-glue stations or four pressure-sensitive ones on one Topmodule”, explains Production Manager Thomas Roth. “This was important to us – it means that, with only a few exceptions, we can run each of our articles on each of the lines.” Both machines are fitted with photo-electronic orientation.

Third line for quantities of 2,000 litres and more

The third line, on which special-shaped bottles, premium wines and small batches are filled in
what are sometimes very small quantities from 2,000 litres upwards, had hitherto been located outside the facility in a rented hall. Since it was meanwhile getting on in years, the management seized the opportunity, discontinued external bottling, and freed up some space in the main plant. “In terms of logistics, this is significantly more advantageous; we don’t have to drive the wine in tanker trucks elsewhere for bottling and bring the filled bottles back again”, comments Deputy Plant Manager Engineering Andreas Gibbert. “What’s more, we’ve concentrated the spare parts store and the workshop here, we simply have better access to the line, and can deploy our staff more flexibly”. Moselland chose Krones as the vendor for the new small-size line rated at 2,500 bottles an hour.

The client wanted the line to handle a broad spectrum of options: bottle heights from 200 to 500 millimetres, bottle diameters from 54 to 124 millimetres, bottle sizes from 0.2 to 1.5 litres, plus an option for fitting three different kinds of closure: natural corks, 28-millimetre screw-caps, and 30/60 Longcaps. Krones and Moselland teamed up to develop the layout: “A well-thought-out concept”, is the verdict from Production Manager Thomas Roth.

**Triple-channel rinser as a customised model**

The filler involved is a Kosme counterpressure model with automatic adjustment of its 16 valves, which is monobloc-synchronised with a Kosme Jetclean triple-channel rinser, likewise with 16 treatment points. This rinser is a customised design specially requested by Moselland. To quote Thomas Roth: “We’ve been using this electro-pneumatic triple-channel concept since 2003 in the large line as well, and it’s done an excellent job. It’s really quite simple: if you admix any cleaning agents or disinfectants for cleaning the bottles, you have to explicitly make sure that all traces of them are removed again. But what hasn’t been added doesn’t have to be removed either. Admittedly, a triple-channel rinser is a bit more energy-intensive than a single-channel model, but we think the product safety achieved is worth it.” The bottles, then, are first of all pre-rinsed with hot water at 60 degrees Celsius. The same nozzle then changes over to sterile steam at 125 degrees Celsius. “With this gentle warm-up concept, the number of bursting bottles is practically zero.” A second nozzle, finally, blows the containers out with sterile air. It was also important that the nozzles exhibit the same jetting force for all the bottle heights between 20 and 50 centimetres. “Krones and Kosme solved all this really well”, lauds the Production Manager. “And by the way: I know it says Kosme on the machines, but there’s always more Krones in there.”

**“The future belongs to pressure-sensitive labels”**

The entire line has been designed to ensure that the bottles run straight through it, without having to be turned even once. At the filler’s discharge, a closer is monobloc-synchronised, able to apply natural corks or 28-millimetre pillerproof closures with a rotary head, or 30/60 Longcaps with a second closing element. This is followed by a capsule applicator and crimper, before the bottles proceed to the servomotor-driven Kosme Extra AD labeller with four pressure-sensitive labelling stations: “The future belongs to pressure-sensitive labels”, is Thomas Roth’s firm conviction. “Given the sheer diversity of our product range, particularly, cold-glue labelling would be very expensive, we would have to operate with a whole range of different specialty adhesives, not least for the satinised bottles. As things are, we don’t need any glue pallets, no more label handling parts - the labels are now simply unwound from the reel. Overall, we’re very satisfied with the line, and that’s the truth.”

The new line, which went into operation in February 2012, is currently being used for the following containers: 0.25-litre and 0.375-litre portion bottles, 0.5-litre gift bottles (satinised and unsatinised), 0.75-litre avant-garde bottles, the standard 0.75-litre hock bottle, and a 1.5-litre magnum Bordeaux bottle. “The change-over is no problem at all, takes about 15 to 20 minutes”, emphasises Deputy Plant Manager Engineering Andreas Gibbert.

**Indispensable: the life-cycle service**

Moselland uses the line on approximately 200 bottling days a year, with a rising trend, and thus significantly more often than many smaller wineries who operate lines of a similar size on only 50 to 60 days a year. “For this purpose, we need a can-do partner like Krones, where spares are
always in stock, and where new starwheels for special-shaped bottles can be quickly milled at need”, says Andreas Gibbert.

“Our contact partner for this line is Krones. This means that for the installation work German-speaking fitters were here, and the service support is handled from Neutraubling, likewise with German-speaking staff. This is an inestimable advantage, as we have learned from the past. The life-cycle service from Krones is unbeatably good. In an emergency, I can ring the service hotline at midnight and the spares will be delivered at six o’clock the next morning”, emphasises Production Manager Thomas Roth.

More than 1,000 different articles
Moselland produces a portfolio totalling more than 1,000 different articles. The premier constituent of the range, of course, is the Moselland Riesling series in the region’s typical, aesthetically appealing 0.75-litre hock bottle, with wines from the steep terraced slopes available in different variants from dry and off-dry to sweet, from Hoch-gewächs to Kabinett, Spätlese to Auslese. Plus wines from the Nahe, such as the “Dr. Faustus” series, the Palatinate wines like the Rietburg Vintner Series or the Dornfelder line. Also the wines from Rhenish Hesse, with the “Carl Zuckmayer” series. From the Moselle itself, Moselland eG also offers a “young” grape variety series called “Accents”, terroir wines, certified organic wines, and much, much more. One of Moselland’s premium wines is the “Goldschild” brand, in limited quantities from selected terroirs, yield-reduced and with eclectic manual harvesting.

Specialising in Rieslings does not, of course, preclude product diversity: the repertoire also includes Elbling, Rivaner, Silvaner, Weisser/Grauer Burgunder, Dornfelder and Spätburgunder. It all adds up to quite a lot. And for this you need ultra-flexible, maximally dependable bottling kit, which Moselland eG Winzergenossenschaft certainly has with its Krones/Kosme line.

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