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## FEATURES IN THE NEXT ISSUE

**Tank containers**

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The Schütz Wine-Store-Age IBC is billed as a real alternative for the maturation and storage of wine

## Schütz claims breakthrough for wine IBC

**B**illed as a “real alternative for the maturation and storage of wine”, Schütz’s new Wine-Store-Age IBC is equipped with an EVOH barrier for controlled oxygen supply.

The IBC and its benefits have been tested by experts in Australia. Studies are also currently being carried out at the Institute for Oenology at the University of Geisenheim, Germany, and Schütz says the initial results are “very promising”. Compared with conventional tanks, wine manufacturers can save time and costs in their supply chain. Schütz is now looking for wine growers and producers as test partners.

Schütz is currently asking German wine growers

and producers to consider the new solution, arguing that the cubic bulk packaging of the IBC is a great tool for use in wineries, cellars and warehouses. The best proof of this claim is a 2016 Rheingau Riesling dry: this wine was the result of a co-operation with the Institute for Oenology at the University of Geisenheim. Schütz’s Ecobulk Wine-Store-Age was the focus of a series of scientific tests conducted at the institute.

Three years ago, this IBC was extensively and successfully tested by experts at the Australian Wine Institute (AWRI) using a barrique variant of a Shiraz red wine. In Germany, the oenologists at Geisenheim University led by Professor Rainer Jung

also focused on this topic. Together with Schütz, they chose a typical Riesling from the slate slopes of the Rhine Valley, representing the numerous white wine varieties that are grown in Europe.

In order to continue these tests in day-to-day winery operations, Schütz is has been recruiting wine growers and producers interested in testing the Wine-Store-Age IBC.

Applicants were invited to register stating briefly how they intended to use the IBC; then Schütz selected a number of testers, each of whom received five containers along with project support and inclusion in joint marketing and PR.

A variety of container shapes and materials are used during the wine production process. Wine typically matures in barrels or – as a modern alternative – in steel or plastic containers. Protecting this oxidation-prone product from external influences is one of the main challenges. This also determines the choice of container, which must ensure that only small quantities of oxygen can permeate. Oxygen is the number one enemy of wine: it alters the flavour and character, accelerates premature ageing and diminishes the quality. However, wine also depends on oxygen to mature, as it influences the content of phenols, the colour, the tannins and other essential aroma substances.

*Continued on p3.*

## US tariff threat to tanks

**A**s Bulk Distributor went to press, the International Tank Container Organisation (ITCO) advised members of the possible imposition of tariffs by America on imported tank containers.

ITCO issued an advisory stating that as the USA is in negotiation within the scope of the World Trade Organisation (WTO), and in the process of increasing tariffs on specified imports, primarily from China and Europe, this could in certain cases, concern tanks imported from China.

United States Tariff Representative (USTR) issued Docket USTR 2018-0018 on 15 June 2018. The docket refers to the US Harmonised Tariff Schedule Section 301. Annex C lists items under consideration for China import tariffs and includes sub-heading 8609.00.00 intermodal ISO containers, among these “containers for transport

of fluids”.

If implemented, tank containers imported into the USA from China will be subject to an import tariff of 25 percent of value.

ITCO is co-operating with the Institute of International Container Lessors (IICL), the US-based container leasing organisation). IICL has requested confirmation from its legal counsel on the free movement of international containers for temporary import, and ITCO is waiting for documented findings.

The free movement of tank containers in international trade and displaying the standard plate marking ‘Approved for Transport Under Customs Seal’, ie, containers that are engaged in temporary import to USA, should remain tariff free and continue to ply their trade as before.

However, if containers manufactured in China



Tank and dry containers at Port of Los Angeles. Containers imported into the USA from China could be subject to a tariff of 25 percent

are imported into the USA - for example containers repurposed for continued use within the USA - the tariff is expected to apply.

In addition to the actual containers, the list includes items that might be considered tank container parts: “check valves other than of copper or iron or steel, for pipes, boiler shells, tanks, vats or the like”; and “safety or relief valves for pipes, boiler shells, tanks, vats or the like”.

The notification docket lists an extensive number of items which although not readily identified as relevant to a tank container or its parts, they might in due course be interpreted to apply in part.

ITCO says its members will understand that this is a complex issue and subject to change, but the organisation will endeavour to keep members informed, as further information becomes available in due course.

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# Qube bags 'em up for Cristal

*An Australian logistics firm fills up to 10 bulk bags an hour for an abrasive minerals customer*

**Q**ube Bulk, a division of Australia's largest provider of import and export logistics services, manages more than 20 million tonnes of bulk product shipments each year.

Services now includes filling of bulk bags with three abrasive mineral sands for Cristal Mining Australia, Ltd using a Flexicon bulk bag filling system.

Cristal Mining produces and sells products derived from mineral sands deposits. The main products sold are rutile, leucoxene, ilmenite and zircon. When Cristal decommissioned its in-house bagging operation, Qube Bulk's Picton, Western Australia facility seized the opportunity to improve bagging of the sands by devising a bulk bag filling solution in concert with Flexicon Corporation (Australia).

The result is a mobile system that fills up to 80 bulk bags, or 160,000 kg, with the abrasive materials per eight hour shift.

Bulk truck shipments from Cristal's mineral separation plant are delivered to storage sheds at Qube Bulk's Picton facility. With limited lead time for outgoing orders, productivity is key to the bulk bagging process, according to Jos Pascoe, Qube Bulk regional manager.

"Often, due to market situations, we receive orders fairly late and need to bag the product in a short time span to get the shipping containers loaded with bulk bags and to the port on schedule," he says. "The need to respond to orders for any combination of the three materials stored in different sheds demanded a mobile solution."

Flexicon proposed a skid-mounted mobile filling station having a 2.5 cbm capacity hopper and a 220mm diameter, 3m long rigid tube screw conveyor moving materials to the bulk bag fill head. It delivers 20 cbm per hour, filling bulk bags weighing 1,000kg or 2,000kg. The skid measures



*The filled bag and pallet move out on the roller conveyor and are removed for shipment*



A skid-steer loader deposits mineral sands into the 2.5 cbm capacity hopper while the screw conveyor moves the material to the bulk bag fill head



The Swing-Down fill head pivots to a vertical position, allowing the operator to attach bag straps to filler latches while standing on the plant floor. Pushing one button inflates the material inlet against the bag spout, and initiates all automatic bag filling functions

4m by 2.25m, and the unit stands 3.4m high.

A forklift moves the mobile filler between storage sheds, depending on which material needs to be loaded. Pascoe reports that the system, including its 2.75m long offload roller conveyor, can be set up and running at a new location in 20 minutes or less.

### From bulk to bag in three minutes

Once an order is received and the filling station is positioned in the appropriate storage shed, Pascoe's crew can fill up to 80 bags per eight hour shift. He says about half that time is actual material filling and half is spent placing pallets, hanging empty bags and conveying filled bags out of the station. "Obviously, filling larger bags takes a bit longer," he says, "but that's still only about three minutes per 2,000kg bag."

A skid-steer loader empties bulk material into the feed hopper. The bottom of the hopper funnels the granular mineral into the steel tube

screw conveyor inclined at 45degs. The conveyor is equipped with a heavy-duty stainless steel spiral to handle the free-flowing but abrasive mineral sands, which range in density from 2,200kg/cbm to 2,750kg/cbm. The design of the conveyor itself does not include any bearings or rotating seals, and the drive motor is mounted above the discharge point, preventing abrasive minerals from grinding on bearings or seals at the drive shaft. A pneumatically-operated product sampler automatically captures a 142g specimen from the material stream during the fill cycle, for product quality documentation.

Pascoe plans for greater productivity as his crew becomes used to the new system. "We're targeting 100 bags in an eight hour shift," he says. "That will allow us to fulfil a typical 40-container order in about five working shifts." The short turnaround is critical because Pascoe's biggest scheduling concern is the time between releasing of shipping containers for pick-up and packing of containers to meet shipping deadlines.

### Ergonomic features

In keeping with Australia's focus on workplace health and safety, Pascoe required an operation that was ergonomic as well as efficient. To this end, the pivot-down fill head allows safe, rapid connection of the bag loops to the filler latches without standing on the roller conveyor, straining to reach overhead bag connection points or inserting hands between fill head components.

Dust is contained by an inflatable bag spout seal and a telescoping discharge chute between the conveyor outlet and filler inlet, and by venting displaced air and dust to a filter sock.

Once a bag is filled, the latches automatically release the bag loops and the roller conveyor moves the bag out of the filling area for tagging and transfer to the shipping container.

"Features like easy bag attachment and no manual handling of loaded bags or pallets minimise worker exposure to potential injuries," Pascoe says. "We were concerned about workers

being exposed to dust in the storage sheds, but the filler discharge chute contains all the dust."

### Precise measurement

The unit's PLC automates everything except connecting of the bag straps to the latches and pulling the bag spout over the deflated spout seal. "It's all programmed and the accuracy has been impressive," Pascoe reports. "All you have to do is set the PLC for 1,000 kg or 2,000 kg bags. Once the bag is in position, you press the start button, the inflator for the bag spout starts automatically and the product starts flowing." Load cells under the filler send signals to the PLC to stop the conveyor when the bag gains the desired target weight.

The PLC also automates other aspects of the process including activating the powered roller conveyor and product sampler and other actions based on feedback from sensors.

[www.flexicon.co.uk](http://www.flexicon.co.uk)

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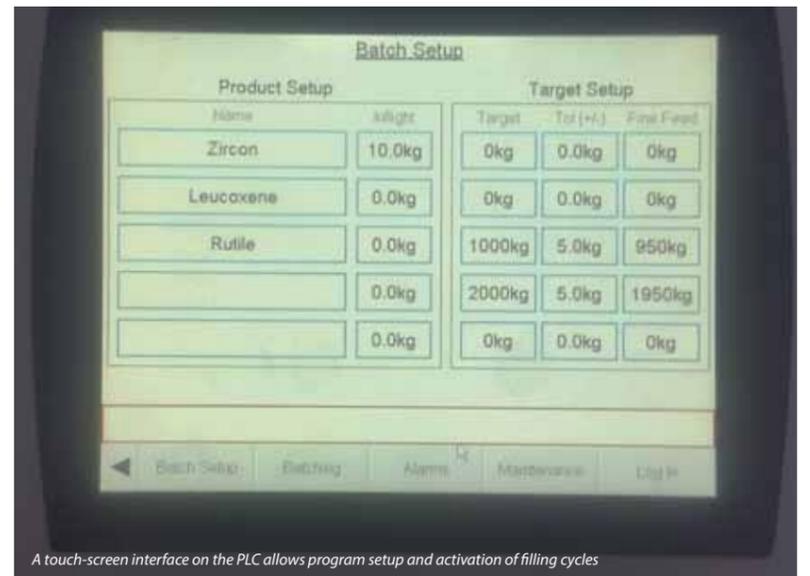
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**Tank Storage Germany**  
5-6 December 2018  
Hamburg, Germany  
[www.easyfairs.com](http://www.easyfairs.com)



A touch-screen interface on the PLC allows program setup and activation of filling cycles



A pneumatically operated product sampler captures a 4.3oz (142g) specimen from the material stream for product quality documentation

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