



A Real All-Rounder

Insights: Infeed station and first cleaning head; the exterior cleaning booth is on the right in the background.

KHS has developed a special keg line for medium-sized businesses / Special characteristics: very low space requirement, low budget, system efficiency of 95%, capacity of up to 90 kegs per hour, expansion options. The pilot system is running successfully.

A hot tip for companies in the brewing, soft drinks, mineral water, fruit juice, and wine segments whose keg filling capacity is unlikely to exceed 90 kegs per hour in the future is the Innokeg Till CombiKeg. The new development from the market leader in keg technology is an extremely compact keg washing and racking machine.

All processes are integrated within a single frame and include external and internal cleaning, the filling process, up to five media tanks, the control system, and an infeed and discharge conveyor. The system fits exactly into one container and is ready-piped, cabled, and thoroughly pre-tested in the KHS plant. It can therefore be installed, connected up, and commissioned at the filling plant in just a few days. Once the media and product connections have been prepared on site, all that remains to be done is to erect and connect up the machine, press the start button, carry out the first CIP operation – and production can start. Long live the Plug & Produce principle!

Features and advantages

The new Innokeg Till CombiKeg processes 60 to 90 kegs an hour and is based on the principle of rotary processing which has been successfully employed and continuously developed by KHS for several decades. Advantages include cyclic processing and a low space requirement. If more than 90 kegs per hour are to be processed on a continuous basis, KHS recommends the in-line Innokeg Till Transomat which can be expanded without difficulty.

But back to the main features and advantages of its little sister, the Innokeg Till CombiKeg. With this machine, the infeed and discharge areas are not separate but are arranged directly next to one another, making them extremely user-friendly. Just one operator can place the

empty kegs onto the infeed conveyor and, without having to walk any distance at all, subsequently remove and palletize the racked kegs straight off the discharge conveyor. Another exceptional feature is that the system is modular, enabling a great number of options.

**Three or five
washing heads, depending
on capacity.**

The basic Innokeg Till CombiKeg R 3 machine has three washing heads and one racking head, and works with a classic, pressure-dependent racking system and return gas control. Performance: 60 kegs per hour. The Innokeg Till CombiKeg R 5 is fitted with five washing heads and one racking head, and uses the patented KHS Direct Flow Control (DFC) filling process (which can also be integrated into the basic machine at any time). Performance: up to 90 kegs per hour. Further peripheral components, such as scales, keg turners, keg cappers, and cameras can of course also be integrated into the system concept.

The cladding, which is fixed within the machine frame and is designed in accordance with Hygienic Design specifications, is easy to clean and enables optimum process control and rapid maintenance access. Tried-and-tested KHS washing and racking heads, simple, clearly arranged matrix piping, and the use of hygienic membrane valves for media supply make for easier servicing and reliable processing.





Innokeg Till Combikeg compact keg washer and filler. Specially for small and medium-sized companies in the beverage industry.



Proven technology

If the kegs are severely contaminated, the keg fittings can be sprayed with water as they travel along the infeed conveyor. This ensures that no particles of dirt which may be on the fitting are washed into the inside of the keg. Essential features of the cleaning process naturally include a leakage test, the blowing out of any remaining beverage with sterile air, and optimum pulsating cleaning with up to three cleaning media. As an option, the exterior keg washer can be incorporated into the system housing. The space within the system intended for the exterior washer otherwise remains unused. The system achieves optimum soaking of the interior of the keg with caustic using two stations. Retro-fitting is possible without any problems.

Filling takes place after the keg has been rinsed with hot water and finally blown out with steam. The filling process uses either the classical, pressure-regulated filling system or the DCF filling process with its advantages of a 40%-lower CO₂ consumption, extremely accurate filling control, and reduced oxygen pickup for improvement of the product quality. The whole process is distinguished by significant savings in water, waste water, and energy. An important aspect is that, for uncomplicated products, fewer steps and a less complex machine design are possible.

Once the keg has run through the racking process, it is sent on to the discharge station. Here, a check shoe pushes it from the machine onto the discharge conveyor.

” Practical experience speaks for itself

Innokeg Till CombiKeg pilot system at Schönbuch Braumanufaktur

The Schönbuch Braumanufaktur in Böblingen near Stuttgart is now in its sixth generation and managed by Werner Dinkelaker and Götz Habisreiter, ably supported by master brewer Gustavo Tresselt. Their company is already using the Innokeg Till CombiKeg pilot system from KHS. In the following, two experts of the trade voice their impressions of and describe their first-hand experience with the new system.

Werner Dinkelaker: “As we know that we can rely on KHS in every respect, we were confident in investing in the pilot system for the newly developed Innokeg Till CombiKeg. In retrospect, this was exactly the right decision.”

Gustavo Tresselt: “Because our proportion of kegs is high, it was important for us to invest in a robust, reliable system which takes into account our high quality requirements.”

Werner Dinkelaker: “And it also saves space. Our operators don’t feel constricted in their work, even in this small space. It wouldn’t have been possible to install a conventional inline machine.”

Gustavo Tresselt: “There are no long distances with this system, as is common with inline machines. This saves us an operator.”

Werner Dinkelaker: “Sustainability as a company tradition starts with the little things. We are very careful to use resources sparingly in every respect.”

Gustavo Tresselt: “Actually, we hadn’t intended to include the brushing station in our machine. Then during the KHS in-house exhibition we noticed that kegs which had been brush-cleaned looked considerably better. An advantage with this option is also that the brush is automatically perfectly matched to

the particular keg diameter to be processed by means of an electric adjustment motor.”

Gustavo Tresselt: “We are extremely satisfied with our Innokeg Till CombiKeg. Our confidence in KHS and our courage to invest in the pilot system have been rewarded by us gaining a reliable, compact system.”

Werner Dinkelaker: “This will enable us to approach the future positively. However, we are also planning growth in the future, not for growth’s sake but only if the profits are right. And also because our beer means a lot to us. At Schönbuch, we believe in beer quality in the truest sense of the word.”

An operator removes the keg or, in the case of bad kegs, a warning signal is given. An automatic rejection station for bad kegs can be provided. An automatic palletizing system is also conceivable.

The Innokeg Till CombiKeg also processes non-returnable kegs. To this end KHS also supplies the Petainer keg, developed in cooperation with Petainer UK Holdings Limited. All that’s needed to rack them are additional adapters made of plastic. These are pushed onto the plastic kegs prior to treatment so that they form a single unit during the washing and racking process.

Conclusion: The Innokeg Till CombiKeg is in every respect an advantageous all-rounder for medium-sized businesses. The system not only cuts down on costs and

required space but also provides tried-and-tested washing and racking quality with maximum flexibility and a line efficiency of 95%. This is not only of interest to the European market but also to already growing keg markets, such as that in the USA (in particular amongst craft brewers), and the still developing keg markets in Asia and Africa. And if that isn’t a hot tip ...



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