

Bulk Filling System

BACKGROUND

AGC Chemicals Europe is a leading manufacturer of fluoroplastics, and the world's largest producer of ETFE (ethylene-tetrafluoroethylene copolymer) and ion exchange membranes. Based in Russia, Amsterdam, and the UK, AGC Chemicals produce a vast range of chemicals for use in automotive fuel, coatings, lubricants, films and much more.

CHALLENGE

At the UK factory, shop floor operators were filling chemicals into kegs manually, meaning they would sometimes overfill the kegs which were resulting in product giveaway.

AGC Chemicals Europe wanted a solution that would automate the manual process, as well as ensure that kegs were filled to the correct amount, providing consistency for customer orders.

SOLUTION

After attending AGC Chemicals Europe's site in the UK to see their existing processes, a Bulk Filling System was designed using Stevens software which controls the filling and sieving apparatus, as well as manages and records the weights of the kegs for each job.

A job is scheduled in the Stevens Management software, and on the shop floor, the operator uses the Stevens Vantage 2.1 Terminal to start and stop jobs.

During the job, the Stevens software communicates with the Stevens floor scale where the kegs are tared and await filling. The software then communicates with the PLCs controlling the fast-fill sieving machine, as well as the slow filling machine which the chemicals go through before they go into the kegs.

Within the Stevens software, different thresholds are set, so when the keg is at a certain limit, the Stevens software will communicate with the PLCs which controls the sieving and filling machines, meaning when the keg is at a certain limit, the filling and sieving machines will stop, so the keg is not overfilled.

RESULT

By implementing the Stevens Bulk Filling System, operator time has been saved as the manual labour has been reduced.

Additionally, product giveaway has been reduced as the Stevens system is dictating how much, and when to start and stop filling the kegs.

The automated system has also enabled AGC Chemicals Europe to record the details of each job giving their customers peace of mind that each job is consistent and won't be underfilled because of the way the system is set up.

