VIA Oberflaechentechnik relies on modified alcohol with stabilizer for fine cleaning

FINE CLEANING: RELIABLE PROCESS WITH DOWCLENE™* 1601 AND MAXISTAB™ SD-5

If industrial parts cleaning is offered as a service, this confronts the cleaning service provider with special challenges: the enormous variety of oils and residues on the parts to be cleaned can lead to the creation of organic acids or sulphur compounds and as a result to odour nuisances, corrosion and other possible damage to the cleaning system and items to be cleaned. The new sump stabilizer MAXISTAB SD-5, which is added directly to the distillation unit in the system, acts both preventively as well as reactively with regard to such challenges. VIA Oberflaechentechnik has been using the stabilizer for about a year and since then has a significantly improved cleaning process.

VIA Oberflaechentechnik, based in Lennestadt, has been providing industrial parts cleaning for absolute product cleanliness since 1996. VIA is a specialist when it comes to the degreasing, cleaning and polishing of industrial workpieces. From filigree small parts to massive parts weighing a ton, the company cleans all parts of industrial production in programmes specially adapted to the component. The company generates an annual turnover of approximately fifteen million euros in three plants in Germany and one subsidiary in Poland.

Parts cleaning to the highest standards

At the Lennestadt location, the company meets the cleaning requirements of the customers in a total of ten different systems with different processing features. "We have been catering to the wishes and concerns of our customers for twenty years, with high standards for our own services. Our goal is to find the optimal cleaning process for each workpiece," explains Kai Lechner, Head of the Technical Department of VIA Oberflaechentechnik.

fine cleaning in DOWCLENE 1601

For many customers with high demands on the cleanliness of the parts, an optimal cleaning process also includes fine cleaning. When the company bought a new system in 2008, the decisive factor for VIA was also to be able to work with modified alcohols during fine cleaning. It chose a machine from Duerr Ecoclean (today SBS Ecoclean Group). Since 2008, the company has been using the DOWCLENE 1601 solvent from SAFECHEM in the system. While the cleaning results were always outstanding, the periodic bath monitoring revealed that acid had been produced in the system - the highest value measured was about 5,000 ppm. Consequently, VIA changed the solvent in the distillation unit up to four times a year and had to subject it to an elaborate cleaning process. Including the time needed for the machine to cool off, this meant a downtime of the system of about two shifts in each case. Additional standstill times arose due to the need to change gaskets.

Process reliability with MAXISTAB SD-5

VIA contacted the solvent manufacturer SAFECHEM for the troubleshooting. The stabilizers of the MAXISTAB S-Series proved to be the ideal solution: developed to act without contact against organic acids and when using sulphurized oil, MAXISTAB SD-5 is the ideal sump stabilizer for the challenges faced by VIA. After a renewed bath change in October 2016, VIA Oberflaechentechnik used MAXISTAB SD-5 for the first time. The stabilizer proved effective immediately: since then, the problem of over-acidification has completely disappeared - the acidic values have remained consistent in a reliable range thanks to the admixture of MAXISTAB SD-5.

The stabilizer MAXISTAB SD-5 acts efficiently to prevent the production of sulphur and acids in the system.

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The admixture of MAXISTAB SD-5 at VIA occurs at regular intervals through the distillation unit. It is filled in during ongoing operation: the stabilizer is drawn into the vacuum distillation, where it remains. This mode of action ensures that neither sensitive gaskets, flaps and similar parts of the system come into contact with the stabilizer nor the workpieces to be cleaned. The stabilizer prevents the formation of organic acids, which can lead to problems like corrosion or shortened service life of gaskets and extends the bath service life. The cleaning process is stable and efficient.

The process reliability achievable with MAXISTAB SD-5 can also be measured in euros and cents at VIA Oberflaechentechnik: "Since the end of October 2016, i.e. for about 11 months, we have not made any more bath changes and not cleaned the distillation either. Compared to the quarterly bath changes, this is naturally a huge saving in effort, costs and downtimes. Since the system runs continually in two-shift mode, we are talking about big savings here," revealed Mr Lechner.

Odour on parts gone

Another effect of the stabilizer is evident at VIA as a positive side effect: "Our customers, 90 percent of which come from the automotive industry, only contact us occasionally if something isn't running ideally. Occasionally, customers used to complain that there was an unpleasant odour of sulphur on the cleaned parts," explains Kai Lechner. "But since we started working with the stabilizer, no customer has called us any more." VIA owes this satisfaction to the active operation of MAXISTAB SD-5 against the formation of sulphur and organic acids in the system.

Other service elements for outstanding cleaning results

To facilitate a reliable process, regular checks of the solvent are indispensable. SAFECHEM provides the MAXICHECK DCL-1S Test Kit with all the accessories needed, specially adapted to the solvent and stabilizer system, for regular measurement of the alkalinity. The results of the analyses are recorded in an logbook and forwarded to SAFECHEM. The view from outside of the processes at the customer and on the use and consumption of solvents provides the latter with important information that contributes significantly to the great process reliability and economic efficiency. "The logbook has always been a great assistance to us, because we can detect the condition of the solvent and any harmful developments with easy measurements. We fill it out regularly and send it to SAFECHEM. As a result, we feel very sure about our cleaning process," Kai Lechner explained in conclusion.

The cleaning system from Duerr Ecoclean (today SBS Ecoclean) is in the fine cleaning room at VIA

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