

Prestigious New Distributorship



Standard Industrial Systems Ltd. is proud to announce its appointment as the UK's official and exclusive distributor for the German manufacturer of advanced solvent and aqueous cleaning technologies Karl Roll GmbH of Stuttgart.

With 150 employees and for over 50 years Roll has been at the forefront in the design and manufacture of the world's most advanced metal cleaning technologies – a quest for cleaning excellence driven not only by an increasingly demanding customer base but also by significant changes in environmental and Health & Safety legislation.

The Roll scope of manufacture includes single chamber/multi-step aqueous formats with both immersion and spray cleaning as well as multi-chamber units with automated handling. Solvent systems are designed for chlorinated solvents, general hydrocarbons and the latest generation of modified alcohols such as DOWCLENES*

The Solvent Emissions (England & Wales) Regulations 2004 requires absolute Compliance by October 31 2007 and the latest EU Standard EuroNorm EN12921/4 is now imposing further restrictions to a maximum level of residual solvent of 1 gm/m³ within a system's working chamber before access by an operator is permitted. These emission limits have been standard in Germany since the early 1990's and it is therefore quite understandable that German technology is the accepted world leader – Karl Roll being one of the largest such manufacturers offering the highest quality at the most competitive prices.

Quickest cycle times

Of course many existing users of traditional "tank" type chlorinated solvent systems have been enjoying first class cleaning and drying results due to the excellent solvency characteristics (Kauri Butanol value) along with the high vapour pressures inherent with the popular solvent species utilized. However, the quick processing times achievable in open tanks has so often been at the cost of a fundamentally uncontrolled process consuming such large quantities of solvent in evaporative stack and fugitive losses – precisely the motive for the environmental and Health & Safety legislation with which UK manufacturing is now struggling to come to terms.

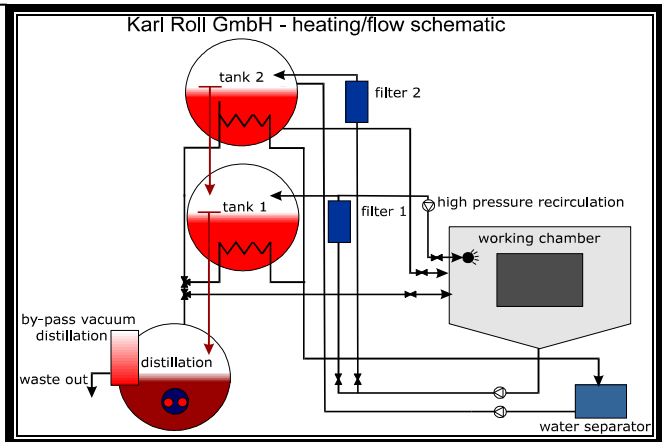
So many systems currently available in the UK purporting to be Compliant are, in fact, relying heavily upon the utilization of carbon as the primary "abatement" feature within the entire process. Such "add-ons" may reduce stack emissions to below the required levels of 20 mg/m³ for perchloroethylene (2 mg/m³ for trichloroethylene) but it must be remembered that this is only required if the solvent Consumption threshold exceeds 1 tonne per annum/per site.

In spite of the significant capital investment often required for additional carbon abatement for such systems, the cost of disposal of non-regenerable carbon is increasing as the number of licenced disposal sites for hazardous waste was reduced from 245 to only 16 in July 2005. On the other hand, if a regenerable carbon programme is adopted it must be remembered that the adsorption/desorption process effectively removes stabilizer from the solvent which must be replaced – an additional cost often omitted in the planning stages. All of this is in addition to the necessary increases in the cost of the solvent itself which are inevitable in order to guarantee the future of the entire industry.

Roll has taken a different approach. Due to an advanced vacuum and condensing drying system Roll standard systems offer cycle times as quick as 5 minutes without the need for any carbon system for final abatement, the systems being fundamentally Compliant by design.

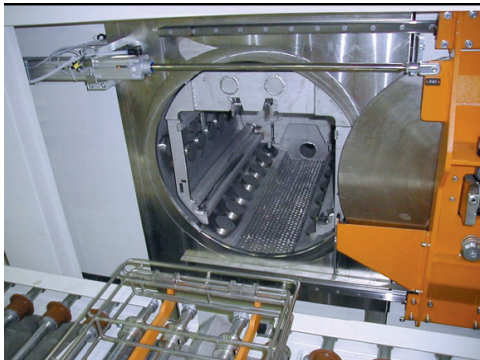
Energy saving operation

Unique to Roll is the way that the solvent tanks are heated indirectly by solvent vapour produced in the distillation unit – this greatly reduces the amount of heat energy required per cycle and ensures that Roll systems are 10 – 20% more energy efficient than many competitive systems. In addition, the need for chilled water for primary solvent condensing is eliminated on standard machines due to an integral air/liquid chiller unit.



Reduced maintenance

Traditionally one of main problems associated with hermetically sealed solvent systems is distillation efficiency. Many designs incorporate a double jacket heating format which can lose efficiency rapidly if the heated base becomes contaminated with waste residues. This has led to various manual or automatic “scraper” options which are designed to maintain a clean and therefore efficient heated surface. Again Roll solves the problem at source by using centrally mounted cylindrical heaters on which residues cannot settle.



Whereas many systems incorporate the option of two “push pull” ultrasonic transducers, Roll’s advanced technology with multiple transducers (16 per kW) ensures a more even distribution of mechanical action throughout the chamber, lower loading per unit giving extended life and high cleaning efficiency even in the event of a single unit failure.

With over 5000 units world wide, Karl Roll GmbH remains at the highest technical level, quality being assured by producing all component parts including automated handling and ultrasonic accessories in house at the Stuttgart factory. An extensive test department is available for in depth trial cleaning with both aqueous and solvent technologies, specific cleanliness being evaluated in the well equipped laboratory. Roll is the preferred supplier for many world class companies including the Robert Bosch Group.

*DOWCLENÉ is a registered trade name of the Dow Chemical Company.