

m

6 SOLVENT UNIT WITH EP > 55 °C

Cleaning units - tanks

for use of inflammable liquids with high boiling point, with and without heating and separately set-up ultrasonic generators.

These units are designed for applications using inflammable liquids with a flash point >55 °C. These inflammable liquids are no longer recorded in the BetrSichV (Classification as per German Health and Safety at Work Regulations). The safety requirements to handling inflammable liquids are still valid, though.

The ultrasonic oscillating tanks are filled directly. The maximum permissible operating temperature is limited to UEP = the lower explosion point (inflammation point minus 15 °C).

The operating temperature is maintained by a regulating thermostat. The safety thermostat prevents the heating of the solvent above the inflammation point. The cleaning tanks should be covered between the operating cycles and at the end of the operation the solvent should be poured into a closed container.

The cleaning tanks should be operated in a well ventilated work area. Attention should be especially paid to adherence to the MAK values (maximum workplace concentration).

The safety data sheets as per guideline 94/155/EWG give information regarding all the safety related data of the relevant inflammable liquid and should be provided by the manufacturer or the supplier. While using inflammable liquids with an inflammation point < 200 °C the temperature class (=/<T4) should be particularly considered when selecting explosion-proof electrical operating media (e.g.filter pumps).

The KLN ultrasonic product range

consists of the complete ultrasonic cleaning palette ranging from high frequency generators in user desired performance range, through ultrasonic oscillators as submersible transducers or oscillating plates, oscillating tanks and modular units to complex special units with various cleaning media.

Since more than 60 years KLN Ultraschall AG is into developing and applying the ultrasonic technology for industrial cleaning. With continuous advancement of this method they have made available a wide range of environment-friendly cleaning systems for a variety of industrial cleaning processes.



KLN Ultraschall A Crest Group Company

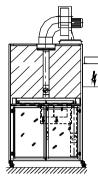
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IMMERSION CLEANING ~~~~ $\overline{\bullet}$

SOLVENT UNITS



3	Ultrasonic cleaning

Transport

Rinsing

Drying

Rust inhibition

Spray cleaning



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ultrasonic generator with switch box 4.4 Suspension tank for the solvent Oscillating tank

Design

- design as per Atex
- primary and secondary explosion protection measures
- welded tanks
- indirect exposure to sonic waves
- various fit-in type tanks available
- switch for ultrasound (timed and continuous operation)
- solvent drain through stainless steel valves
- ex-protected exhaust fan with monitoring

Options

- changeable suspension tanks
- various ultrasonic frequencies
- vacuumed evaporation area
- cooling tube

- cover, edge and floor suction

Ventilated workplaces and solvent units are customized as per the specific requirements.

In addition to the standard systems the KLN product range also includes systems for explosionproof rooms for operation with or without solvents.

Design

- Design as per Atex
- primary and secondary explosion protection measures
- tanks made of stainless steel
- direct exposure to sonic waves with ex-protected submersible transducers
- gas monitoring
- free board with cooling
- indirect heating
- edge and floor exhaust
- ex-proof ventilation, monitored
- ultrasonic frequency: 40 kHz
- cooling tube
- frame made of stainless steel
- no explosion-proof room required

~~~~ 6 SOLVENT UNIT WITH $FP < 55^{\circ} C$



Options

integrated filling and draining

- automation
- combination with aqueous units

