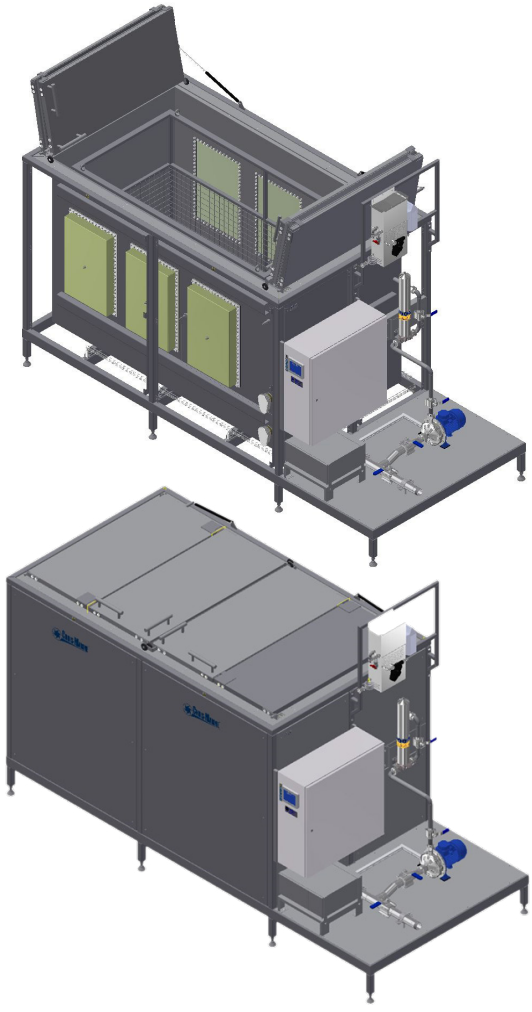
Cleaning
Ultrasonic Cleaning System

CHRIS-MARINE®
UCS 4600

UCS4600 is an electrically powered cleaning system that uses ultrasound to meet the cleaning requirements of industrial companies, workshops, power generation and marine industries, including the cleaning of engine parts like pistons, piston rings, valve spindles, fuel injectors, cylinder heads, intercoolers and heat exchangers.





Application areas
- Manufacturing industries
- Workshops
- Power generation
- Marine industries

Key benefits

- Efficient and gentle cleaning method extending the lifetime of costly engine parts
- High-quality transducers and generators integrated in the system provide ultrasonic efficiency leading to reduced cleaning time
- Generators feature automatic constant stabilization of the adjusted output power
- Remotely Integrated filtration unit including oil separator to increase the lifetime of costly chemicals
- User-friendly and easy operation of the system setting thanks to color touch panel

Sustainable engine operation

Ultrasonic cleaning is an efficient and gentle cleaning method that extends the lifetime of costly engine parts. Regular and proffessional cleaning of engine parts helps maintain the engine in top condition and is a more environmentally friendly than replacing engine parts. In addition, it is more cost-efficient.

Cleaning system details

The UCS 4600 generates electrical alternating currents. This is applied to transducers attached to the long sides of the stainless steel tank, causing them to vibrate mechanically at the same frequency whereas radiate sound waves are created in the cleaning liquid. As the cleaning power developed in the liquid is high, millions of tiny bubbles constantly form in a process known as cavitation. The bubbles then collapse, through implosion, thereby loosening and removing dirt and grime from the surfaces within seconds.

High-quality components

The high-quality electrical components are developed and produced in Sweden. The conical transducers are made of high-quality alloyed V4A stainless steel. Optimal sonication of the tank is achieved through the specific arrangement of the transducer elements which operate at a standard frequency of 25 kHz.

The system is powered by 6 ultrasonic generators featuring the following:

- Microprocessor control
- The newest components mount technique
- Robust electrical components specially designed for the daily use in harsh workshop environments
- Automatic adjustment of impedance and frequency
- Automatic constant stabilization of the adjusted output power

Compact integrated filtration unit

As part of the standard system supply a compact integrated filtration unit is included. It incorporates into the system an oil separator, pre-filter, bag-filter, and centrifugal pump in order to increase the lifetime of expensive cleaning chemicals and improve the cleaning process.

Ultrasonic Cleaning Chemical

Ultra Rinse Intercooler
A high alkaline product that is suitable for all types of metals including aluminum, titanium, brass and copper, thus enabling efficient cleaning of intercoolers and turbo parts.



Technical specifications

• Weight	1550 kg	• Cleaning power	6 x 2 kW at 25 kHz
• Weight load	Max 3000 kg	• Circulation pump	1.8 kW
• Dimensions (L x W x H)	1620 x 3720 x 2480 mm	• Circulation filter	75 µm mesh
• Tank size (L x W x H)	2400 x 1300 x 1500 mm	• Ambient air temperature	+10°C ... +40°C
• Object size (L x W x H)	Max 2200 x 1100 x 1000 mm	• Noise level	≤ 80 dB (A) at the operator position ≤ 80 dB (A) above the cleaning tank with closed lids
• Tank capacity	Max 4000 l	• Tank	Stainless steel AISI 316L
• Power supply	3 x 380 - 415 V, 50/60 Hz with neutral, 50 kW	• Drain	2" BSP
• Electrical connections	Power cable 5G25 mm²	• Humidity	Max 70 %, non condensing

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H001-2512E