

# IST4000 PERFORMANCE ULTRASONIC CLEANER



Overall dimensions
Tank dimensions
Ultrasonic power
Transducer configuration
Ultrasonic frequency
Heating

Tank material
Tank construction
Cover material
Pump and filter
Drain tap

Ultrasonic control
Heat control
Tank capacity
Control cabinet
Power supply

Power consumption Gross weight

Approvals

2300(l) x 1700(w) x 1700(h)mm

2000 x 1500 x 1500mm

16.8kw peak

Side wall mounted

30KHz 2 x 12kw

Stainless steel 2mm SUS316 Double braced, TIG weld Stainless steel SUS304

Yes 2" B.S.P.

Adjustable digital timer
Adjustable digital thermostat

4000L

1200(l) x 400(w) x 2000(h)mm AC 380 - 415V, 50/60Hz 3ph

34kw full loading

1500kg CE

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#### What is **Ultrasonic Cleaning?**

Ultrasonic cleaning works by producing millions of jets or streams of cavitation bubbles within a liquid which collapse against any hard surface removing contaminated particles with each implosion. As these cavitation bubbles are smaller than one micron they penetrate into all areas.

#### Why choose Hilsonic?

With over 35 years' experience, we pride ourselves on being THE experts in ultrasonic cleaning innovation, technology and construction. Our equipment is specifically designed and constructed for superior performance, long life and continuous service and is used in marine, power generation, aerospace, medical and many other sectors in the UK and throughout the world.

#### **Unique characteristics**

#### Generator

The powerful generator system offers a patented frequency sweep for uniform and intense cavitation. With its efficient energy transfer, the generator requires no forced air cooling and channels energy directly into the transducers.

#### Transducers

The transducers are made of high quality phosphor-bronze/silver construction in order to minimise heat build up, thus extending the life of the transducers and piezo electric crystals.

Hilsonic ultrasonic cleaning systems offer an effective solution to the cleaning requirements of the power generation and marine industries including:

- Valve spindles

- Pistons

Fuel injectors

- Heat exchangers

- Filters

- Intercoolers

- Cylinder heads









## **Optional accessories**

#### Oil Separator or Oil Skimmer

External floor-mounted oil separator or CIP mounted oil skimmer can be added to assist with the removal of oil contamination from the system. By using the oil separator or the oil skimmer, you obtain even better cleaning results, maintain chemical integrity and save on disposal costs.

#### **Chemicals**

Hilsonic marine cleaning solution is specifically designed for the removal of scale, rust and oil.

The Hilsonic intercooler cleaning solution is based on a synergistic blend of components, which enables rapid penetration and removal of heavy carbon deposits, oils and general contamination.





# Patented technology

Our transducers are built in house to a unique patented design to minimize erosion and provide all round cleaning operating at 30kHz +/-2. The FMG600 generator features a frequency sweep for more uniform and intense cavitation, Auto-follow to maintain power levels independent of loading, protected from over-voltage, over-temperature and mains born transients. With its high efficiency this generator requires no forced air cooling and channels the energy directly into the transducers.

Our patented generator technology features predetermined frequency sweep and our twin tandem transducers capable of driving up to 2 metres in height with full cavitation, a most mportant feature in the cleaning of the larger intercooler and heat exchanger.

Cavitation not only breaks down the contamination but also speeds up the chemical reaction time thereby not only cleaning to 'like new' standard but in a fraction of the time taken with more traditional methods.

### **Before and After**

Our patented frequency sweep moves the cavitation bubbles up and down the item to be cleaned at a hundred times a second, ensuring no part of the item gets too much or too little cavitation.

#### **BEFORE ULTRASONIC CLEANING**









#### AFTER ULTRASONIC CLEANING









Designers and Manufacturers of **Ultrasonic Cleaning Equipment** 



