



## **SPECIFICATIONS ULTRASONIC GENERATORS RAL730P and RAL730F**

### Technical specifications

- Power supply: 230Vac - 50 / 60Hz
- Total power absorbed from the network: from 1000VA to 2500VA (different versions depending on the application)
- US card protection fuse (depending on the absorbed power)
- Fan protection fuse: 500mAT
- Optimum frequency band: from 22 kHz to 50 kHz (depending on the specific application)

### **FUNCTIONAL SPECIFICATIONS**

- Ultrasonic generator suitable for optimal driving of piezoelectric transducers used in high power US industrial washing applications.
- Variation of the output power by means of a discrete 12-position switch external to the generator (wiring 1.50mt). In the RAL730F version, also frequency variation via potentiometer mounted on the generator container (not accessible to the end user)
- Automatic coupling of the generator to the resonant frequency of the array of piezoelectric transducers as the operating conditions, temperature and aging of the transducers vary. An algorithm automatically modifies the optimal frequency of transducer driving according to the applied load: manual control of the frequency is not necessary. This manual control is only possible on the RAL730F model.

- Automatic washing cycle with periodic degassing functions of the cleaning liquid (amplitude modulation of the output power) and frequency modulation of the output signal to optimize the uniformity of the treatment and minimize the negative effects of the stationary acoustic waves.  
The frequency modulation parameters of the output power have been optimized to ensure high homogeneity of treatment and to minimize the problems deriving from erosion due to cavitation on the treated objects and on the washing tank.  
An appropriate combination of the amplitude and frequency modulations on the waveform of the output signal also allows to obtain a multi-frequency treatment that diversifies the penetration power of the cavitation on the treated objects.
- Automatic control and limitation of the maximum output power according to the operating conditions.
- Automatic control of the generator temperature (threshold set at 70 ° C) which deactivates the system in the event of an alarm, then reactivates it when the temperature returns to normal operating values.
- Forced ventilation that guarantees continuous operation at maximum power.
- In these models there are no commands such as work cycle timings and temperature control.

**PLEASE NOTE: Read this instruction manual carefully. The working parameters currently set by default are a standard configuration, check and possibly configure the parameters appropriately for your application.**

## START OF THE WASHING CYCLE

The generator starts operating as soon as it receives power. There is no general switch, which must be provided on the external panel of the finished machine.

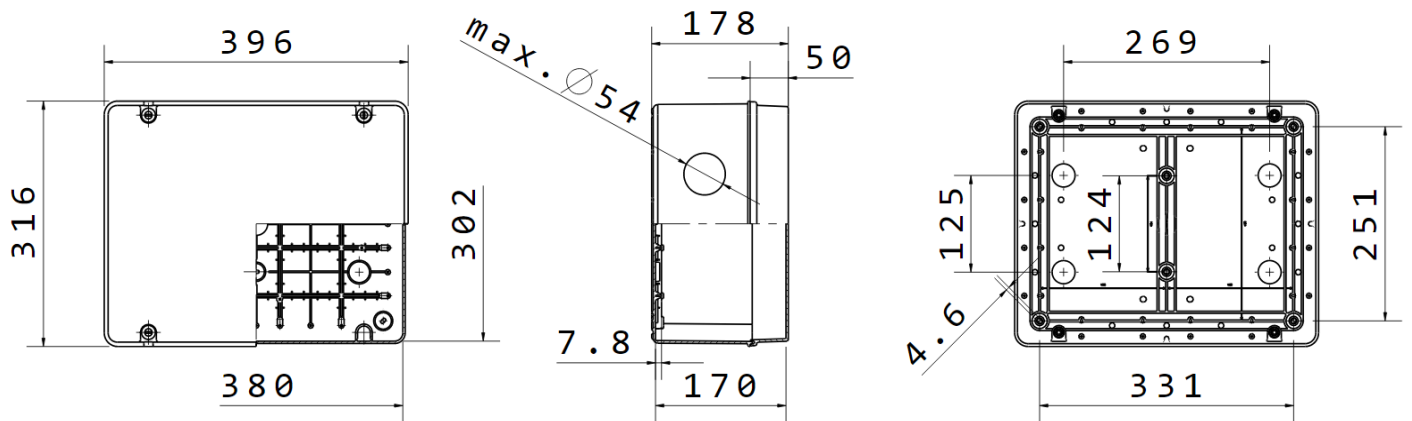
## POWER SETTING

Once the generator is powered, the power can be modulated continuously by acting on the external potentiometer (to be fixed on the panel).

## FREQUENCY SETTING (on RAL730F model)

Once the generator is powered, it is possible to modulate the frequency continuously by acting on the potentiometer mounted on the external container of the generator.

**Dimensions in mm of the external container of the generator:**



**RAL730P ultrasonic generator board connections diagram (also valid for RAL730F):**

