# UCEI

#### Introduction

The base of the US cleaner is ultrasonic transducer. It is a source of mechano-acoustic energy, which is transferred to the cleaning liquid and creates an ultrasonic field. As a result of changing acoustic pressure and underpressure in liquid occurs, so called cavitation (hydrodynamic cavity created in liquid at sharp descent in ambient pressure), which is interfering coupling between impurities and surface of cleaning item. Because that cavitation is in all of liquid volume, the cleaning is realized also in not accessible places, in corners, hollows, etc., which is hard cleaning with standard cleaning system.

UCEI cleanears are intended for more demanding industrial applications. Tanks are welded from stainless steel with 2 mm thickness, membrane is from stainless steel with 3 mm thickness.

We produce volumes 40, 80, 120 and 160 liters. They contain overflow container, where flows the excess liquid when cleaned item is immersed. They contain also water level sensor. If the cleaning liquid level is not in the desired height, it is not possible turn on the cleaner.

Digital control allows besides other things to set temperature, time and power of ultrasound and save up to 10 cleaning programs with these parameters.

Dissolved gas in the cleaning liquids reduce the cleaning effect. Therefore, the cleaners have funcion DEGAS, which helps to degas of cleaning liquids.

Function SWEEP helps to ensure that ultrasonic field is more equable for whole volume in cleaning liquids.

# **Applications**

- empty toner cartridges
- rubber mouldings forms
- microchip wafers
- glass parts of crystal chanfeliers
- fire detectors in buildings
- engine components
- stencils
- series of hundred thousands metal parts before assembly
- subtitles film strips
- objects prior to surface treatment
- mechanics of printers
- printed circuit boards with electronic components
- filters
- objects intended for decontamination in nuclear power stations
- and many more



#### **Technical parameters**

| Version        | all-stainless steel  |
|----------------|--|
| Control        | digital control panel  |
| Protection     | water-level sensor for protection of heating elements and ultrasound transducers |
| Intake valve   | 3/4"   |
| Drain valve    | 3/4"   |
| Overflow valve | 1/2"   |
| Function DEGAS | yes  |
| Function SWEEP | yes  |
| Lid            | yes  |
| Bas            | not included - must be ordered separately  |

#### **Technical parameters**

| Туре       | Volume | Inner tank dimen-<br>sions vane<br>(w x l x h) | Liquid<br>level | Ultrasonic power<br>(vintage / effective) | Heating | Overell dimensions |
|------------|--------|--|-----------------|---|---------|--------------------|
|            | liter  | mm   | mm              | W   | W       | mm                 |
| UCEI40.00  | 40     | 548 x 240 x 400                                | 300             | 1200 / 600                                | 2000    | 440 x 750 x 830    |
| UCEI80.00  | 80     | 660 x 400 x 400                                | 300             | 2400 / 1200                               | 4000    | 600 x 880 x 830    |
| UCEI120.00 | 120    | 680 x 450 x 500                                | 400             | 3600 / 1800                               | 6000    | 650 x 880 x 830    |
| UCEI160.00 | 160    | 880 x 450 x 500                                | 400             | 4800 / 2400                               | 6000    | 650 x 1080 x 830   |

### **Marking of cleaners**

| UCEI             | 40  | • | 00 |
|------------------|-----|---|----|
|                  |     |   |    |
|                  | 80  |   | 01 |
|                  | 120 |   | 02 |
| volume in liters | 160 |   | 03 |
|                  |     |   |    |

04 departure from the standard

#### **Basket dimensions**

| Туре     | Basket dimensions (w x l x h) |
|----------|-------------------------------|
|          | mm                            |
| UB40/01  | 490 x 180 x 340               |
| UB80/01  | 600 x 340 x 340               |
| UB120/01 | 620 x 390 x 440               |
| UB160/01 | 820 x 390 x 440               |

#### **Marking of baskets**

| UB               | 40  | / | 01 | ı |
|------------------|-----|---|----|---|
|                  |     |   |    | l |
|                  | 80  |   | 02 |   |
|                  | 120 |   | 03 |   |
| volume in liters | 160 |   | 04 |   |
|                  |     |   | 05 |   |

departure from the standard

#### Production and development:

- ultrasonic compact cleaners
- ultrasonic industrial cleaners
- ultrasonic cleaning technologies
- ultrasonic generators for cleaners
- membrane and immersion ultrasonic emitters
- bar type ultrasonic emitters
- rinsed tanks
- ultrasonic welders
- ultrasonic generators for welding
- ultrasonic transducers for welding
- welding sonotrodes
- ultrasonic cutting systems
- ultrasonic generators for cutting systems
- ultrasonic transducers for cutting systems
- guillotine and blade cutting sonotrodes
- ultrasonic cleaning of items



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