

# ED

## EMPOWERING DEVICE

Housed in a special designed container, it is transportable, silence-able, modular, expandable and easily implementable in any already existent workflow. With the setupped accessories, it is possible to treat any kind of liquid: after the analsis, the pollutants and / or minerals and / or salts will be removed and, if necessary, the water will even made drinkable. It can be easily placed at the input, at the output or in parallel to any existing process or we could easily build around it a new chemical plant.

+ HANDLED PRODUCT  
+ QUALITY  
- COSTS  
- TIMES REQUIRED  
+ FLEXIBILITY

### WHY USE IT

The advantage obtainable changes from process to process. The time required to complete a process can also be cut by 90% compared to the use of the "traditional" methods previously used.

### WHAT DOES IT DO

**ED** manages at least 7 cavitations, 5 of which are of a different nature, which harmoniously coexist in the same geometric space to the point where there is no significant vibration.

### WHAT IS

A controlled cavitation apparatus able to accelerate chemical processes of any kind and nature. It reduces energy consumption as it is designed to be a diffuser.

### NOT USE

In a short time, does not adopt a cavitation apparatus will mean to have a production capacity from 40 to 90% lower than the competitors with much higher production costs. **ED** is about 10 years ahead of the competitors.

### ADVANTAGES

The compactness, the simplicity of installation and use are without a doubt some of the peculiarities of our cavitation apparatus. The total flexibility of use makes it unique.

### FOR WHO IS IT

In addition to being able to operate completely independently, our apparatus can easily be inserted in any pre-existing industrial loop, multiplying it, accelerating it and increasing it even more than 10 times.

### HOW DOES IT WORK

The sum of the effects produced by each cavitation further implements the efficiency of the chemical-physical-biological processes that take place inside the apparatus resulting in a consequent further cut to the already low energy consumption as well as a sharp contraction of processing times.

### CERTIFICATION

Executed by:  
CSM s.p.a. - RINA Group  
Project No. RC910007 - Report No. 19225R



To carry out the process validation, were added to the cavitation apparatus 18 liters of biomass gasifier washing water sample, 26 liters of water and 4 liters of 5% hydrochloric acid.

The cavitation treatment reduced by about 90%, compared to the white, the COD of the biomass gasification washing water sample, having made the biomass contained therein more disaggregated.