

Dual PEF Pilot System to Sanitise Juices or to Soften Organic Tissues:



- **coaxial PEF chamber** for liquids with three replaceable central electrodes for 3-, 4- and 5-mm gaps to the wall.
- **co-linear PEF chamber** to replace a coaxial chamber for creating volume discharges in juices.
- **12L batch volume** with a juices-controlled preheating, a circulation pump, valves to switch between direct and circulation flows.
- **flat PEF chamber** with 14cm round ground and HV electrodes and a variable gap between both of 0.5-3cm. It is already in place and its electrical connection can be in a minute switched from a coaxial or co-liner chamber. The flat chamber is for PEF assisted juice extraction from leaves, roots or for softening hard roots or meats.

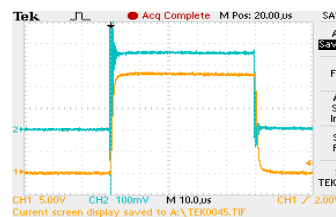
Control panel:

Has simple to use analogue controls to select from the broadest choices of pulse parameters:

- Pulse rates: 4-500Hz at Pulse widths: 2,5-50 μ s;
- Electrical fields **5-65kV/cm**;
- Pulsing Timer: 1s-9h;
- 25kV 2kW pulser, *options - up to 10kW*;

Pulse shapes:

- positive rectangular,
- fronts/tails $\sim 1 \mu$ s;
- $\sim 10\%$ flat at 50 μ s



Up to 50 μ s long pulses at very high el. fields along with selected pulse rates, adjusted juice conductivity by its T°C will insure efficient deactivation of bacteria by PEF.

The system material & dimensions:

W-79cm, H-100cm, wheels with stoppers; B-59cm; Food grade stainless steel, PA6 insulators, ca. 70kg.
Electrical: 1 phase 230VAC, 12A, 2kW, EU plug

PEF sterilizes juices by one of two very different el. processes:

1: by stretching bacteria only up to its ruptures by 20-40kV/cm electrical fields generated by short pulses in coaxial chambers;
2: by creating volume electrical discharges in a co-liner chamber so its discharge electrons collide with both bacteria and spores till its full deactivation. It requires increasing juices conductivity e.g. by a controlled preheating of juices. [Details:](#)



We offer to find optimal PEF parameters for your juice sanitation or for PEF assisted juice/nutrient extraction from roots, grass, etc., or for softening hard meats, etc. with our flat PEF chamber.

PEF vendors are already present on the market yet under pressure to reduce costs while increasing the process flexibility with broader PEF parameters. **Our new dual PEF pilot is to meet this request.**

This advanced dual PEF pilot is now far below market prices!