

KKS Systems for the etching of dental implants

The fully automatic etching systems of KKS are specially designed for structuring the surface of dental implants. Their modular design allows an individual combination of various process steps, such as single etching, double etching, rinsing and drying.

KKS-engineering services include:

- Development of individual masking elements for blasting and etching
- Process development for etching, final rinsing & drying with direct access to ISO clean room for packaging (no unmasking).
- Equipment Qualification (DQ/IQ/OQ) plan/execute/report
- Performance Qualification support onsite (process validation)
- 2nd source surface treatment @ KKS Medical Surface center

Thanks to their specifically adjustable process control, KKS etching systems are your guarantee for reproducible surface qualities.

Unloading station with gate into the cleanroom



Etching tank made of chemical resistant polymer (PTFE) with automatic swivel cover and integrated exhausting



Simple filling, refilling and emptying of the etching medium by coupling of pumping stations



Elaborated safety devices for personal protection

KKS Etching Systems Single- or Double Etching

Swiss Quality



Complete enclosed system with individual etching modules .

Double acrid fume exhaust management and optimized basket processing for maximum productivity and process safety.

))) KKS (((

Technical data of the standard versions	
Tank capacity (liters)	20
Usable dimensions (mm)	280 x 230 x 150
Maximum weight per batch (kg)	10
Ultrasonic frequencies (kHz)	DUAL: 27 & 80 / 30 & 60 / 40 & 100
Tank heating (°C)	30 - 120
Hot air dryer (°C)	30 - 120

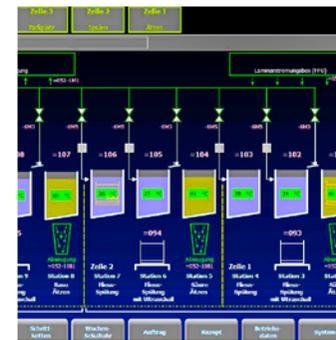
Optional accessories	
Lift-Out	✓
Loading / unloading conveyor belt	✓
Loading / unloading gates	✓
DI-water loop bead and groove free PVDF piping incl. welding protocols	✓
Bar code reader	✓
Neutralization tank	✓
Vacuum dryer station	✓
Air scrubber	✓
Qualification Documentation DQ, IQ, OQ	✓
Support in performance qualification (PQ / validation)	✓

KKS Etching Systems are custom-made and adapted to individual needs.

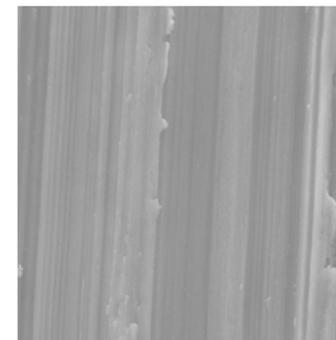
Special features:

- State-of-the-art IPC control
- Automatic creation of a batch report (target and actual values) file in pdf format
- Backup and archiving of data on a network drive or an external drive
- Ultrasonics / SINGLE, DUAL and MIX-frequency technology
- Process-specific equipment

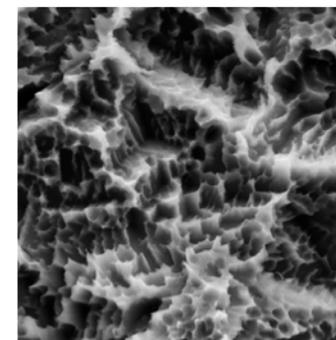
We plan and produce our Etching Systems according to your specifications. You can always rely on the proven etching technique of KKS.



Touch Screen panel with overview of process tanks



Surface before etching process
× 10 000



Surface after etching process
× 10 000

