

# MODULAR UNITS

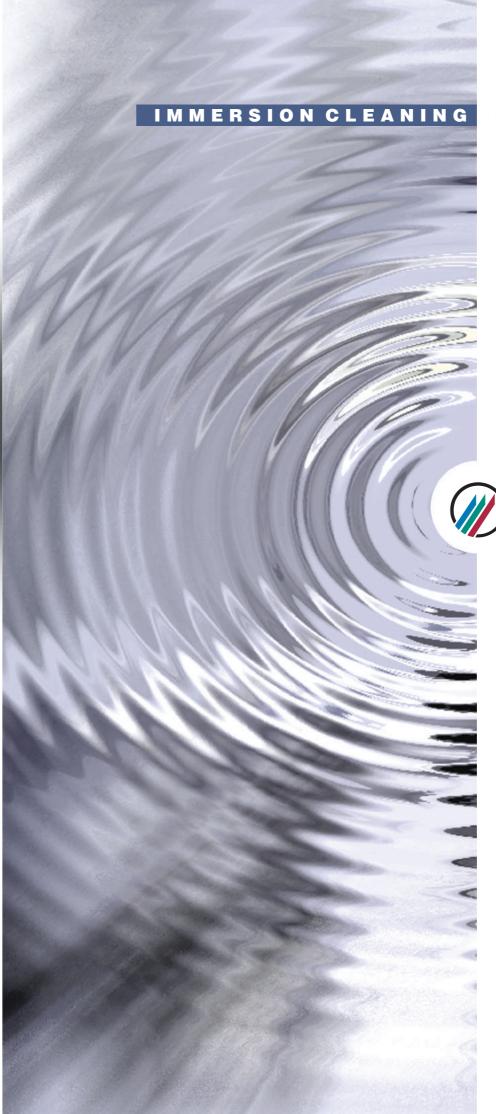


# The KLN ultrasonic product range

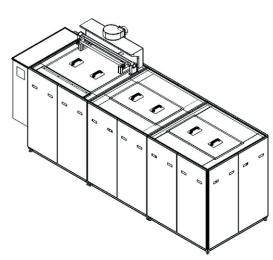
consists of the complete ultrasonic cleaning palette ranging from high frequency generators in user desired performance range, through ultrasonic oscillators as submersible transducers or oscillating plates, oscillating tanks and modular units to complex special units with various cleaning media.

Since more than 60 years KLN Ultraschall AG is into developing and applying the ultrasonic technology for industrial cleaning. With continuous advancement of this method they have made available a wide range of environment-friendly cleaning systems for a variety of industrial cleaning processes.





#### MODULAR UNITS







Ultrasonic cleaning



Transport



Rinsing



Drying



Rust inhibition



Spray cleaning



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KLN has created a series for accurate cleaning of parts with aqueous and organic cleaning media, media which fulfills the demands of the most varied industrial branches and jobs in the cleaning technology.

The components can be combined in any composition of modular system, which offers maximum possible flexibility in the process technology.

All the process, automation and peripheral components for accomplishing the cleaning, rinsing and drying jobs are manufactured in proven KLN quality.

### Design

- any combination of cleaning, rinsing and drying modules
- largest batch sizes at smallest installation space
- ergonomic design
- any degree of process automation
- variations in the process parameters to meet special cleaning requirements
- maximum possible operational stability and long service life
- easy to maintain
- maximum safety of operation
- use of environment-friendly concepts
- flexible modular technology for a sustainable modification or enlargement of the unit, thus high investment security.



Module		M055	M080	M120	M160	M225	M400
effective dimension of the tank	[mm]	350 x 450 x 350	400 x 550 x 350	450 x 600 x 450	500 x 700 x 450	600 x 750 x 500	700 x 950 x 600
outer dimension of each module	L [mm]	650 x 950 x 900	700 x 1050 x 900	750 x 1100 x 120	800 x 1200 x 1050	900 x 1250 x 1050	1000 x 1450 x 1250
bath content approx.	[1]	55	80	120	160	225	400
ultrasonic power ground borne sound	[ W ]	900/ 1800	1200/2400	1600/3200	1900/3800	2600/5200	3000/6000
ultrasonic power 2- sound from the side	[ W ]	900/ 1800	1200/2400	2000/4000	2400/4800	2600/5200	3800/7600
ultrasonic power 3- sound from the side	[ W ]	1800/ 3600	2400/4800	3600/7200	4800/9600	5200/10400	6800/14600
Heating power per heated module	[ kW ]	5		9		11	14

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# **System Components**

- Cleaning
- ultrasonic cleaning even in multiple cascades base, two-side, three-side ultrasound high-pressure spray cleaning ultrasonic cleaning with organic solvents having an inflammation point > 55 °C
- Rinsing rinsing even in multiple cascades rinsing, cold or heated rinsing by flooding injection rinsing, manual or automatic
- Drying hot air or air circulation dryer hot air blow dryer vacuum dryer vacuum-air circulation dryer
- Accessories steam exhaust tank agitation automatic nozzle strip automatic spray strip flooding pipe overflow protection
- Circulation systems pump-filter units ion exchange, active carbon filter, ultrafiltration sedimentation tank, oil separator disinfection, vaporizers, separators
- Transport systems transport units for loads up to 1000 kg multiple transport units, lift & shifting systems, rotation lift systems for loads up to 1000 kg basket supply and unloading systems

