







# Cleaning systems Overview

You have the cleaning tasks, we have the appropriate solutions. Our cleaning systems cover the whole spectrum of industrial part cleaning:

Using the joke BioCleaner cleaning tables, you can conduct purely water-based cleaning without solvents. The microorganisms effectively and rapidly degrade the contaminants.

For ultrasonic cleaning, you have a choice between single-frequency (joke Basic-Clean) and multi-frequency systems (joke Multi-Clean), ranging in size from S to XXXL.

The modular design of the joke Flex-Line devices allows configuration of an ultrasonic cleaning installation exactly according to your requirements. Assemble different components to suit your needs. In this series, there are also models specifically for cleaning with solvents, the joke Flex-Line LSM devices. In addition to the versatility of the devices, we have also compiled a comprehensive selection of matching ultrasonic cleaning products.



















# **Cleaning tables** joke BioCleaner

# Cleaning tables joke BioCleaner

Cleaning with the new joke BioCleaner cleaning tables is performed completely without the use of solvents. Processing brines, cooling lubricants, corrosion protection products, light greases and other contaminations are optimally removed by water-based means. The natural microorganism ensure that the contaminations are immediately degraded. The particulate debris is separated by the integrated filter system.

- Cleaning on a biological basis without solvents and without cold cleaners
- pH-neutral, therefore less risk of skin irritation
- very good and consistent cleaning performanceby an optimum combination of mechanical action, chemistry and nature
- no hazardous substances and/or dangerous goods; this means no restrictions on storage, handling, etc.
- optional fine filter (250 µm) for optimised filteringof the cleaning fluid consequently an extended period of use
- two models: BioCleaner 930 with a high load-bearing capacity for a large working area and BioCleaner 760 with optimum use of working area with a compact construction





Cleaning table joke BioCleaner 760



Cleaning table joke BioCleaner 930

Work height	950 mm	950 mm
Working chamber dimensions (W x D x H)	760 x 560 x 20/50 mm	930 x 545 x 250/110 mm
Operating temperature	41 °C	41 °C
Load bearing capacity of work area	100 kg	250 kg
Heating power	0.6 kW in the heating-up phase, on average 0.1 kW	1.0 kW in the heating-up phase, on average 0.1 kW
Pump output	approx. 4 l/min	approx. 4 l/min
Tank volume	80	100 l
Dimensions (W x H x D)	890 x 750 x 1,155 mm	1,010 x 785 x 1,140 mm
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz
Weight	45 kg	55 kg
Order No.	0 958 020	0 958 000
Price	1,287.00 €	2,070.00 €





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# Cleaning tables joke BioCleaner

# \* Accessories / spare parts

				Price fr	om
		for model	Order No.	1 set	1 piece
Filter set (Fineness 250 µ	ım)				
	filters pollutions and improves the life time of the cleaningfluid; with changeable sieve insert (fineness 250 µm), incl. fastening angle and connection (pre-mounted)	BioCleaner 930	0 958 001	156.00 €	
		BioCleaner 760	0 958 020-2	149.66 €	
Folding lid					
	incl. hinge and fastening material	BioCleaner 930	0 958 003		229.00€
		BioCleaner 760	0 958 020-1		189.00€
Cleaning fluid for BioCle	aner				
	for de-oiling and degrease of metal and plastic workpieces; cleaning	20 litres	0 958 009		116.70€
	on the basis of water (is not subject to solvent regulation!)	200 litres	0 958 010		1071.00€



Optional fine filter (fineness 250  $\mu\text{m})$  for both models available!



# **Energy-saving mode**

The BioCleaner 930 may be switched to an energy-saving mode with a constant temperature of 30 °C during shutdown periods (nights, weekends). In this mode, the microorganisms remain active, thereby guaranteeing optimum oil and grease degradation.







Price from

# Steam cleaners ES 8000 basic

# NEW!

## High-performance steam jet cleaner ES 800 basic

This high-performance steam jet cleaner is the right companion wherever material-friendly removal of stubborn soiling is required. They can now be found in many workshop areas and for pre- and final cleaning in the watch and jewellery industry.

Simple operation and convenient handling were the focus of development here. The stainless steel surface is therefore easy to clean; the pressure vessel is simply filled via a filling trough, a fixed water connection or suitable canister. The filling level indicator provides information about the filling level and when the device needs to be refilled. The device also indicates when descaling is required and guides the user through the following steps. All other functions are controlled or activated via a pushbutton/rotary knob. The lock mode for application pauses deactivates the handpiece and foot switch as a safety measure. With automatic switchover to eco mode, the operating pressure is reduced to 3 bar, thereby saving enerav.

# Scope of supply:

tweezers, sieve, maintenance hose, flushing set, safety screw cap with 3 replacement seals and measuring strips.

# Other highlights:

- 3-year guarantee
- choice of 2 pressure ranges: soft from 4 to 6 bars and strong from 6 to 8 bars (adjustable in 0.5 bar increments)
- · constant steam availability due to high heating capacity
- optional steam control for wet and dry steam
- · optionally only compressed air
- optional use of rigid nozzle and/or flexible handpiece
- tested according to DIN EN 61010-1
- intelligent pump control to avoid work breaks owing to refill cycles



Steam cleaner ES 8000 basic available in different variants.

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		Design	Order No.	1 piece
nner				
Technical data: Mains voltage:	220 – 240 V	with flexible handpiece, pump and compressed air	0 668 070	3307.00 €
Mains frequency: Max. power consumption: Material, housing:	50/60 Hz 3,120 watts stainless steel	with rigid nozzle and flexible handpiece (1.7 m), foot pedal	0 668 071	2775.00 €
Material, pressure vessel:	stainless steel/	with rigid nozzle and foot pedal	0 668 072	2233.00 €
Weight:	aluminium bronze 20 kg	with flexible handpiece, pump, compressed air and wet steam	0 668 073	3548.00 €
Pressure vessel volume: Max. filling volume: Max. working pressure:	5   3.8   8 bars	with rigid nozzle, pump, compressed air and foot pedal	0 668 074	3005.00€
Steam temperature in pressure tank:	185 °C	with flexible handpiece (1.7 m)	0 668 076	2534.00 €
Steam temperature at nozzle: Dimensions (W x D x H):	160 °C 285 x 350 x 520 mm	with rigid nozzle and flexible handpiece (1.4 m), pump, 2 x compressed air and foot pedal	0 668 090	3883.00 €



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# Steam cleaners ES 8000 basic NEW!■

# \* Accessories / spare parts

			Price fr	rom
		Order No.	1 piece	1 set
Reservoir with level r	egulation			
D	Only for devices with an integrated pump	0 668 075	272.00 €	
	• Volume 10 litres • Hose length 2 metres			
Adapter set				
	8-piece, incl. tongs	0 668 077		666.00€
Screw-on adapter				
	for the adapter set	0 668 078	109.20 €	
Evaporating dish				
		0 668 079	215.00€	





# **Ultrasonic cleaning**Basic principles

The term "ultrasound" means vibrations that are beyond the range of frequencies audible to the human ear (above 20 kHz). In liquids, these vibrations create tiny vacuum bubbles, which form and break within a fraction of a second. This breaking (imploding) results in extremely rapid liquid movements, which remove any contaminants from the work-pieces.

#### Advantages of ultrasonic cleaning

#### **Unlimited cleaning power**

The vigorous movement of the cleaning liquid allows cleaning anywhere on the component immersed in the fluid. Even narrow grooves, bores or blind holes, which are impossible or very difficult to reach with other methods, are thoroughly cleaned.

## **Contact-free cleaning**

Cleaning is performed exclusively by liquid movement, i.e. contact-free. The cleaned component is not stressed or damaged, as would be inevitable with other cleaning methods (for example brushing) even if great care is taken. Ultrasound is therefore more gentle than almost all other conventional cleaning methods.

#### Effortless cleaning

All you need to do is place the dirty parts in the cleaning bath and take them out again after a predetermined time – and all your components will be thoroughly clean. This is achieved without any manual effort, just the power of ultrasound. There is another side-effect working in your favour: because the cleaning process runs automatically, you save plenty of time for other activities.

## Ultrasound in all sectors

Ultrasound is therefore an efficient, gentle and labour-saving cleaning method with applications in many different sectors. It was originally used in the field of science and medicine, but is now, due to larger and more powerful units, increasingly applied in the industrial sector, too.



## The joke ultrasonic cleaning systems

#### Single-frequency

# joke Basic-Clean

- Useful volume 0.7 to 75 litres
- All units with heating system (also available without)
- Sweep and DeGas as standard
- Cleaning frequency 37 kHz

# Multi-frequency

## joke Multi-Clean

- Useful volume 3.5 to 16.8 litres
- All units with heating system
- Sweep and DeGas as standard
- Cleaning frequency 25 kHz und 45 kHz

# joke Multi-Clean Premium

- Useful volume 22 to 215 litres
- All units with heating system
- Sweep and pulse function as standard
- Cleaning frequency 25 kHz und 45 kHz

# 

# joke Flex-Line 1 / 2

- Useful volume 32 to 112 litres
- All units with heating system
- Sweep, DeGas and pulse function as standard
- Cleaning frequency 25 kHz und 45 kHz

# joke Flex-Line LSM

- Useful volume 21 and 50 litres
- All units with heating system
- DeGas as standard
- Cleaning frequency 25 kHz und 45 kHz



# Functional description "Sweep" and "DeGas"



#### What is "Sweep" and "DeGas"?

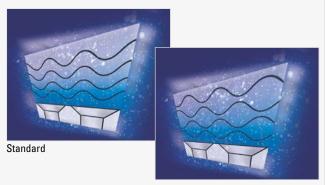
All our ultrasonic cleaners feature the Sweep and DeGas functions – but what exactly does that mean?

#### Sweep

When the Sweep function is activated, the ultrasonic bath unleashes its full power. Frequency modulations ensure even distribution of the ultrasonic vibrations in the cleaning fluid.

#### Pulse

The cleaning performance can be markedly increased by a newly developed use of two slightly different frequencies. Local removal of stubborn contaminants can therefore be achieved before one switches over to "sweep" again for uniform final cleaning. With the new joke MultiClean Premium devices, the system automatically transfers to "sweep" mode after "pulse" is deactivated, thereby guaranteeing optimum cleaning results.



with Sweep



DeGas

## **DeGas**

The DeGas function degases the cleaning liquid quickly and efficiently. This is necessary, because gas and air bubbles interfere with the cleaning process. This function is particularly useful each time the liquid is replaced.



# **Application advice**

Ultrasonic cleaning combines many factors, which in turn influence the achievable results. These results are influenced by the parts to be cleaned as well as the cleaning environment. We offer you the chance of a free cleaning trial at our premises. These trials should establish the perfect result for your application. The questionnaire that we have developed (available in PDF format or as a fax form) covers all relevant aspects for this test process.

Please consult us: Tel. +49(0)2204/839-0 sales@joke.de





# **Ultrasonic cleaners** joke Basic-Clean

#### Ultrasonic cleaners joke Basic-Clean

The new introductory series of joke ultrasonic cleaning units offers fully developed technology, practice-orientated equipment and operator convenience at a fair entry-level price. All units feature cleaning troughs made from cavitation-proof stainless steel and a dry run-safe and electronically controllable heating temperature as well as cleaning time. The auto-start option allows the user to preset a temperature at which the cleaning process is to start automatically. With the Sweep and DeGas functions, these models ensure perfect and effective cleaning.

Further useful characteristics: all units (with the exception of 80 H and 175 H) feature a drain cock for rapid emptying of the troughs. The optional cover can also be used as a drip tray – just turn it over. The collected liquid can thus be reused in the cleaning trough.

Whether you are using ultrasound only occasionally or on a regular basis: the new Basic-Clean units offer modern design, efficiency and quality "Made in Germany".



## A single series – two signal shapes!

The signal shape of the ultrasound has been adapted to the trough geometries of the units. The small units work with impulse sound and from 275 H and above, the units work with double half-wavelength sound. Consequently, a 4 to 8-fold value results in this case for the ultrasonic output data!

	Basic-Clean 80 H	Basic-Clean 175 H	Basic-Clean 275 H	Basic-Clean 425 H	Basic-Clean 575 H	Basic-Clean 690 H
Recommended useful volume	0.7 l	1.2	1.9	3.2	4.3	5.2
Working chamber dimensions (W x D x H)	190 x 85 x 60 mm	151 x 137 x 100 mm	240 x 137 x 100 mm	240 x 137 x 150 mm	300 x 151 x 150 mm	505 x 137 x 100 mm
Device dimensions (W x H x D)	206 x 116 x 178 mm	175 x 180 x 212 mm	300 x 179 x 214 mm	300 x 179 x 264 mm	365 x 186 x 264 mm	568 x 179 x 214 mm
Frequency	37 kHz	37 kHz	37 kHz	37 kHz	37 kHz	37 kHz
Ultrasonic output, effective	30 W	35 W	80 W	140 W	150 W	150 W
Ultrasonic peak output, max.	240 W	280 W	320 W	560 W	600 W	600 W
Drain	_	_	3/8"	3/8"	3/8"	3/8"
Heating power	60 W	60 W	200 W	200 W	400 W	600 W
Power consumption	90 W	95 W	280 W	340 W	550 W	750 W
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz
Weight	2 kg	2.1 kg	3.3 kg	4 kg	5.1 kg	5.6 kg
Suitable cover	0 669 003, included in delivery	0 669 013	0 669 023	0 669 033	0 669 043	0 669 053
Suitable baskets	0 669 002	0 669 012	0 669 022	0 669 032	0 669 042	0 669 052
Order No.	0 669 000	0 669 010	0 669 020	0 669 030	0 669 040	0 669 050
Price	380.00 €	664.00 €	714.00 €	1,049.00 €	1,229.00 €	1,316.00 €

## **Baskets**

Basket dimensions (W $x$ D $x$ H)	177 x 73 x 30 mm	112 x 103 x 50 mm	198 x 106 x 50 mm	190 x 105 x 75 mm	255 x 115 x 75 mm	465 x 106 x 50 mm
for model	Basic-Clean 80 H	Basic-Clean 175 H	Basic-Clean 275 H	Basic-Clean 425 H	Basic-Clean 575 H	Basic-Clean 690 H
Order No.	0 669 002	0 669 012	0 669 022	0 669 032	0 669 042	0 669 052
Price	40.60 €	44.30 €	51.75 €	59.35 €	74.40 €	174.00 €

## Cover

Material	Plastic	Plastic	Plastic	Plastic	Plastic
for model	Basic-Clean 80 H	Basic-Clean 175 H	Basic-Clean 275 H & 425 H	Basic-Clean 575 H	Basic-Clean 690 H & 940 H
Order No.	0 669 003	0 669 013	0 669 023	0 669 043	0 669 053
Price	15.50 €	21.55 €	24.35 €	30.40 €	38.15 €



# **Ultrasonic cleaners** joke Basic-Clean



Basic-Clean 940 H	Basic-Clean 950 H	Basic-Clean 1275 H	Basic-Clean 1800 H	Basic-Clean 2800 H	Basic-Clean 4500 H	Basic-Clean 9000 H
7.3	7.5 l	9.0	12.9 l	20.6 l	35.0 l	75.0 l
505 x 137 x 150 mm	300 x 240 x 150 mm	300 x 240 x 200 mm	327 x 300 x 200 mm	505 x 300 x 200 mm	500 x 300 x 300 mm	600 x 500 x 300 mm
568 x 179 x 264 mm	365 x 278 x 264 mm	365 x 278 x 321 mm	390 x 340 x 321 mm	568 x 340 x 321 mm	615 x 370 x 467 mm	715 x 570 x 467 mm
37 kHz	37 kHz					
150 W	150 W	200 W	200 W	300 W	400 W	800 W
600 W	600 W	800 W	800 W	1,200 W	1,600 W	3,200 W
3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"
600 W	400 W	800 W	800 W	1,200 W	1,600 W	2,000 W
750 W	550 W	1000 W	1000 W	1500 W	2000 W	2800 W
230 V, 50/60 Hz	230 V, 50/60 Hz					
6.4 kg	5.9 kg	7.5 kg	8.5 kg	11 kg	25 kg	<b>42</b> kg
0 669 053	0 669 073	0 669 083	0 669 093	0 669 103	0 669 113, stainless steel	0 669 123, stainless steel
0 669 062	0 669 072	0 669 082	0 669 092	0 669 102	0 669 112	0 669 122
0 669 060	0 669 070	0 669 080	0 669 090	0 669 100	0 669 110	0 669 120
1,528.00 €	1,468.00 €	1,885.00 €	2,073.00 €	2,540.00 €	3,273.00 €	5,029.00 €

455 x 106 x 75 mm	255 x 200 x 75 mm	250 x 190 x 115 mm	280 x 250 x 115 mm	455 x 250 x 115 mm	455 x 270 x 194 mm	545 x 450 x 250 mm
Basic-Clean 940 H	Basic-Clean 950 H	Basic-Clean 1275 H	Basic-Clean 1800 H	Basic-Clean 2800 H	Basic-Clean 4500 H	Basic-Clean 9000 H
0 669 062	0 669 072	0 669 082	0 669 092	0 669 102	0 669 112	0 669 122
208.00 €	158.00 €	158.00 €	182.00 €	209.00€	323.00 €	430.00 €

Plastic	Plastic	Plastic	Stainless steel	Stainless steel
Basic-Clean 950 H & 1275 H	Basic-Clean 1800 H	Basic-Clean 2800 H	Basic-Clean 4500 H	Basic-Clean 9000 H
0 669 073	0 669 093	0 669 103	0 669 113	0 669 123
38.15 €	40.60 €	48.15 €	85.70 €	158.00 €
	Basic-Clean 950 H & 1275 H 0 669 073	Basic-Clean 950 H & 1275 H Basic-Clean 1800 H 0 669 073 0 669 093	Basic-Clean 950 H & 1275 H         Basic-Clean 1800 H         Basic-Clean 2800 H           0 669 073         0 669 093         0 669 103	Basic-Clean 950 H & 1275 H         Basic-Clean 1800 H         Basic-Clean 2800 H         Basic-Clean 4500 H           0 669 073         0 669 093         0 669 103         0 669 113

# **Ultrasonic cleaners** joke Multi-Clean TI-H

# Ultrasonic cleaners joke Multi-Clean TI-H

Compact tabletop units with two frequencies for intensive cleaning at 25 kHz and for gentle cleaning at 45 kHz, during which even the finest openings and grooves inthe goods to be cleaned are reached. The frequencies can be changed by simple commutation. All units have adjustable onboard heating and likewise a rear drain forsimple emptying in addition to a timer function. All devices are equipped with infinitely adjustable ultrasonic output as standard.





	Multi-Clean TI-H 5	Multi-Clean TI-H 10	Multi-Clean TI-H 15	Multi-Clean TI-H 20	
Recommended useful volume	3.5	8.6	12.2	16.8 l	
Working chamber dimensions (W x D x H)	240 x 130 x 150 mm	300 x 240 x 150 mm	300 x 240 x 200 mm	330 x 300 x 200 mm	
Device dimensions (W x H x D)	340 x 300 x 370 mm	400 x 415 x 370 mm	400 x 415 x 420 mm	430 x 470 x 420 mm	
Frequency	25/45 kHz	25/45 kHz	25/45 kHz	25/45 kHz	
Ultrasonic output, effective	100 W	200 W	200 W	250 W	
Ultrasonic peak output, max.	400 W	800 W	800 W	1,000 W	
Drain	1/2"	1/2"	1/2"	1/2"	
Heating power	400 W	800 W	1,000 W	1,400 W	
Power consumption	500 W	1000 W	1200 W	1650 W	
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	
Weight	10.5 kg	14.8 kg	16 kg	20 kg	
Suitable cover	0 667 001	0 667 011	0 667 011	0 667 031	
Suitable baskets	0 667 003	0 667 013	0 667 023	0 667 033	
Order No.	0 667 000	0 667 010	0 667 020	0 667 030	
Price	2,310.00 €	2,572.00 €	2,890.00 €	3,032.00 €	

# Baskets

Basket dimensions (W x D x H)	200 x 100 x 90 mm	260 x 210 x 90 mm	260 x 210 x 135 mm	290 x 270 x 135 mm
for model	TI-H 5	TI-H 10	TI-H 15	TI-H 20
Order No.	0 667 003	0 667 013	0 667 023	0 667 033
Price	115.20 €	164.00 €	164.00 €	189.00 €

# Stainless steel cover

for model	TI-H 5	TI-H 10 & 15	TI-H 20
Order No.	0 667 001	0 667 011	0 667 031
Price	33.90 €	49.45 €	57.10 €



# **Ultrasonic cleaners**



Ultrasonic trough in cavitation-proof stainless steel

Ergonomic, easy to operate, splashproof











# **Ultrasonic cleaners** joke Multi-Clean Power NEW!

## Ultrasonic cleaning device Multi-Clean Power

As the successor to the joke Multi-Clean Premium line, the new "power devices" are convincing in their customary high quality and are thus perfect when it comes to cleaning stubborn soiling and sensitive surfaces. Three different cleaning programs markedly increase your options. In "sweep function", frequency modulations ensure uniform distribution of the ultrasound waves in the cleaning fluid. At 25 kHz, you can free your workpieces intensively from coarse contamination; at 45 kHz, you can clean gently and finely into the tiniest openings and grooves. The "pulse function" increases your peak ultrasound performance, thereby removing particularly stubborn contamination. In the "dynamic function" both "sweep" and "pulse" functions are combined and run automatically in alternation, consequently the results can sometimes be increased by up to 20 %.

# Highlights:

- 3 different programs for maximum cleaning performance
- high heating output with temperature control between 30 80 °C
- Oscillating tank made of particularly cavitation-proof special stainless steel
- Control panel with protection against projected water

	Multi-Clean Power 300	Multi-Clean Power 500	Multi-Clean Power 600	Multi-Clean Power 800
Recommended useful volume	22.0	42.0 l	45.0 l	70.0
Working chamber dimensions (W x D x H)	300 x 300 x 300 mm	300 x 300 x 500 mm	500 x 330 x 350 mm	500 x 330 x 500 mm
Device dimensions (W x H x D)	500 x 550 x 936 mm	500 x 550 x 936 mm	670 x 580 x 936 mm	670 x 580 x 936 mm
Frequency	25/45 kHz	25/45 kHz	25/45 kHz	25/45 kHz
Ultrasonic output, effective	480 W	540 W	800 W	900 W
Ultrasonic peak output, max.	600 W	600 W	1,000 W	1,000 W
Drain	Ball valve	Ball valve	Ball valve	Ball valve
Heating power	1,400 W	1,400 W	1,400 W	4,200 W
Noise level	< 80 dB(A)	< 80 dB(A)	< 80 dB(A)	< 80 dB(A)
Power consumption	2000 W	2000 W	2400 W	5200 W
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	3 x 400 V/N/PE
Weight	40 kg	45 kg	55 kg	61 kg
Suitable cover	0 690 101 0 690 102 Noise protection cover	0 690 101 0 690 102 Noise protection cover	0 690 121 0 690 122 Noise protection cover	0 690 121 0 690 122 Noise protection cover
Suitable baskets	0 690 103	0 690 113	0 690 123	0 690 133
Order No.	0 690 100	0 690 110	0 690 120	0 690 130
Price	3,645.00 €	4,132.00 €	4,619.00€	5,593.00 €
Baskets				
Basket dimensions (W x D x H)	255 x 230 x 170 mm	255 x 230 x 370 mm	400 x 255 x 220 mm	400 x 255 x 370 mm
for model	Multi-Clean Power 300	Multi-Clean Power 500	Multi-Clean Power 600	Multi-Clean Power 800
Order No.	0 690 103	0 690 113	0 690 123	0 690 133
Price	259.00 €	347.00 €	359.00 €	435.00 €

## Cover

for model	Multi-Clean Power 300 & 500	Multi-Clean Power 600 & 800
Order No.	0 690 101	0 690 121
Price	81.70 €	94.15 €

# Noise protection cover

for model	Multi-Clean Power 300 & 500	Multi-Clean Power 600 & 800
Order No.	0 690 102	0 690 122
Price	371.00 €	397.00 €







Multi-Clean Power 1400	Multi-Clean Power 1600	Multi-Clean Power 2500
97.0 l	133.0	215.0
600 x 600 x 350 mm	600 x 600 x 450 mm	750 x 650 x 520 mm
885 x 850 x 936 mm	885 x 850 x 936 mm	1,035 x 900 x 936 mm
25/45 kHz	25/45 kHz	25/45 kHz
1.440 W	1.600 W	1.600 W
1,800 W	2,000 W	2,000 W
Ball valve	Ball valve	Ball valve
5,000 W	7,500 W	7,500 W
< 80 dB(A)	< 80 dB(A)	< 80 dB(A)
6800 W	9500 W	9500 W
3 x 400 V/N/PE	3 x 400 V/N/PE	3 x 400 V/N/PE
87 kg	93 kg	107 kg
0 690 141 0 690 142 Noise protection cover	0 690 141 0 690 142 Noise protection cover	0 690 161 0 690 162 Noise protection cover
0 690 143	0 690 144	0 690 163
0 690 140	0 690 150	0 690 160
6,812.00 €	8,639.00 €	11,806.00 €
490 x 525 x 210 mm	480 x 525 x 300 mm	630 x 575 x 370 mm
Multi-Clean Power 1400	Multi-Clean Power 1600	Multi-Clean Power 2500
0 690 143	0 690 144	0 690 163
435.00 €	459.00 €	554.00 €

Multi-Clean Power 1400 & 1600	Multi-Clean Power 2500
0 690 141	0 690 161
196.00 €	221.00 €

Multi-C	ean Power 1400 & 1600	Multi-Clean Power 2500
	0 690 142	0 690 162
	535.00 €	585.00 €



# **Modular ultrasonic cleaning system** joke Flex-Line

#### Modular ultrasonic cleaning system joke Flex-Line

Built to cope with any cleaning task. Owing to the modular construction, the new joke Flex-Line cleaning devices offer a wide range of configuration possibilities. Ultrasonic cleaning in modern multifrequency devices forms the basis of this module line with the joke Flex-Line 1. Equipped with an oscillation unit that already results in a cleansing rinsing effect with its up-and-down movements. The joke Flex-Line 2 includes a rinsing module in addition to the ultrasonic cleaning device. Consequently, in the combination of ultrasound, oscillation and rinsing, a three-stage cleaning process in two chambers results. Maximum cleaning performance guaranteed! The high flexibility of the joke Flex-Line also makes subsequent additions or adaptations to the cleaning process possible at any time.

The structure of the optionally available accessories is also modular. A matching circulating air dryer is available for each size. Likewise, an oil separator, a showering device and a filter-pump unit are available. These components optimise the cleaning result and markedly extend the period of use of the cleaner by optimised filtering.



# Flex-Line 1 Cleaning

	Flex-Line 1 - 300	Flex-Line 1 - 550	Flex-Line 1 - 800	Flex-Line 1 - 1200
Recommended useful volume	32.0	55.0 l	84.0	112.0
Working chamber dimensions (W x D x H)	296 x 332 x 264 mm	296 x 501 x 309 mm	296 x 501 x 459 mm	519 x 600 x 321 mm
Device dimensions (W x H x D)	500 x 770 x 1,100 mm	500 x 940 x 1,200 mm	500 x 940 x 1,500 mm	730 x 1,070 x 1,500 mm
Frequency	25/45 kHz	25/45 kHz	25/45 kHz	25/45 kHz
Ultrasonic output, effective	600 W	600 W	1.000 W	1.800 W
Ultrasonic peak output, max.	2,400 W	2,400 W	4,000 W	7,200 W
Drain	1"	1"	1"	1"
Heating power	1,700 W	3,000 W	5,800 W	7,500 W
Power consumption	2310 W	3650 W	6810 W	9320 W
Supply voltage	230 V, 50/60 Hz	3 x 400 V/N/PE	3 x 400 V/N/PE	3 x 400 V/N/PE
Weight	80 kg	90 kg	110 kg	200 kg
Suitable cover	0 665 005	0 665 205	0 665 205	0 665 305
Suitable baskets	0 665 108	0 668 102	0 665 206	0 665 306
Order No.	0 665 001	0 665 101	0 665 201	0 665 301
Price	8,219.00 €	9,403.00 €	10,158.00 €	11,730.00€
Baskets				
Basket dimensions (W x D x H)	248 x 258 x 193 mm	244 x 424 x 340 mm	438 x 524 x 210 mm	244 x 424 x 204 mm
for model	Flex-Line 1/2 - 300	Flex-Line 1/2 - 800	Flex-Line 1/2 - 1200	Flex-Line 1/2 - 550
Order No.	0 665 108	0 665 206	0 665 306	0 668 102
Price	293.00 €	374.00 €	574.00 €	343.00 €
Stainless steel cover				
for model	Flex-Line 1/2 - 300	Flex-l ii	ne 1/2 - 550 & 800	Flex-Line 1/2 - 1200 & 160
Order No.	0 665 005	TIOX EII	0 665 205	0 665 305
0.000.				- 500 000



# Modular ultrasonic cleaning system joke Flex-Line



# Flex-Line 2 Cleaning and rinsing

## Advantages through additional rinsing module:

- less moving around when working and drier working environment
- optional showering device: rinsing water refreshment, cleaner surfaces, environment-friendly owing to multiple reuse of water
- optional circulating air dryer as an additional module improves the drying process

	Flex-Line 2 - 300	Flex-Line 2 - 550	Flex-Line 2 - 800	Flex-Line 2 - 1200
Recommended useful volume	32.0	43.0	84.0	112.0
Working chamber dimensions (W x D x H)	296 x 332 x 264 mm	296 x 501 x 309 mm	296 x 501 x 459 mm	296 x 501 x 309 mm
Device dimensions (W x H x D)	1,100 x 770 x 1,100 mm	1,100 x 940 x 1,200 mm	1,100 x 940 x 1,500 mm	1,450 x 1,070 x 1,500 mm
Frequency	25/45 kHz	25/45 kHz	25/45 kHz	25/45 kHz
Ultrasonic output, effective	600 W	600 W	1.000 W	1.800 W
Ultrasonic peak output, max.	2,400 W	2,400 W	5,800 W	7,200 W
Drain	1"	1"	1"	1"
Heating power	1,700 W	3,000 W	5,800 W	7,500 W
Power consumption	2310 W	3650 W	6810 W	9320 W
Supply voltage	230 V, 50/60 Hz	3 x 400 V/N/PE	3 x 400 V/N/PE	3 x 400 V/N/PE
Weight	160 kg	180 kg	210 kg	400 kg
Suitable cover	0 665 005	0 665 205	0 665 205	0 665 305
Suitable baskets	0 665 108	0 668 102	0 665 206	0 665 306
Order No.	0 665 501	0 665 601	0 665 701	0 665 801
Price	11,857.00 €	14,092.00 €	14,642.00 €	17,710.00 €



## We will be pleased to advise you!

You will achieve optimum results following comprehensive advice. Please consult us in order to individually compile the components of the Flex-Line system in the right combination:

Markus Abstoß

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# Cleaning products for ultrasonic cleaning joke Clean

## Cleaning products for ultrasonic cleaners

The ultrasound plays an important role in the cleaning process. In addition to the further factors temperature and time, cleaning chemicals are the fourth component. The cleaning media must correspond to the kind of contamination and be compatible with the surface of the cleaning items. Also, not all media are suitable for ultrasonic cleaning.

The cleaned items must be rinsed with water after the ultrasonic cleaning process. To prevent water stains, de-ionised or distilled water (possibly with added corrosion protection) must be used. If such protection cannot be used, corrosion should be prevented by using a rinsing medium that vaporises without leaving residues (e.g. alcohol). Thus, the whole process consists of three stages: cleaning, rinsing, drying.

# Cleaning of metals and corrosion

Unalloyed steels are very susceptible to corrosion, particularly after acid ultrasonic cleaning. They require a corrosion protection (at least temporarily) to be added to the cleaning bath and in particular to the aqueous rinsing baths, or a water-displacing rinsing medium (e.g. solvents with added oil). Another successful measure against corrosion is immediate blowing off after the final rinse.

				Price from
		Content	Order No.	1 piece
joke Clean 500 A				
	·	0.85 kg	0 666 300	21.65 €
Clean 500 A	ultrasonic cleaning of metal, plastic and rubber surfaces. For grey, die-cast zinc and aluminium surfaces. Removes scaled, hardened oils and greases and likewise wax, remains of lacquer and paint, in addition to grinding and polishing media. Not suitable for non-alkali-resistant plastics and plastics with a tendency towards tension cracking. Magnesium alloys and lacquering are to be tested for resistance.	25 kg	0 666 301	258.00 €

				Price from
		Content	Order No.	1 piece
joke Clean 100 S				
	steel, plastics and also glass. Likewise for passivating of rustproof and chrome-alloyed steels. Brass and copper-based alloys are	2.5	0 666 320	31.25€
		10	0 666 321	83.95 €
joke Clean 100 S (A) (The Company of the Company of		25	0 666 322	215.00 €

				Price from
		Content	Order No.	1 piece
oke Clean 110				
	Liquid alkaline cleaning concentrate for the elimination of stub-	2,5	0 666 103-1	27.75€
Foke Clean 110  Single of the Control of the Contro	born soiling from metal, ceramic and plastic surfaces in ultrasonic immersion baths. Excellent suitability for the cleaning of: metal surfaces, many plastic surfaces, rubber surfaces and in particular quartz and silicon wafer cleaning following mechanical processing. Removes metal oxides, quartz deposits and stubborn organic soiling such as: oxidised and gummy oils and fats, waxes, lacquer and paint residues. Not suitable for light metals (AI, Mg and their alloys); plastics must be initially tested for resistance (not suitable for plastics susceptible to tension cracking).	25	0 666 102-1	219.00€



# Cleaning products for ultrasonic cleaning joke Clean

				Price from
		Content	Order No.	1 piece
joke Clean 210				
	Liquid, weakly alkaline cleaning concentrate. Suitable for gentle	2,5	0 666 113-1	37.30 €
joke Clean 210 (A) TO	cleaning of metal and plastic parts. joke Clean 210 delivers excellent cleaning results on steel, non-ferrous heavy, noble and light metals, in addition to nickel, chrome, zinc and nickel-silver surfaces (including material combinations) and on plastics resistant to tension cracking. Mg-, MgZnAl ("electron") alloys and plastics must be tested for resistance before use. This cleaner has an emulsifying effect and eliminates the following substances: aqueous cooling lubricant emulsions, fats and oils, abrasive and polishing compounds. A prior suitability check should be performed for polishing media containing animal fats.	25	0 666 112-1	335.00€

				Price from
		Content	Order No.	1 piece
oke Clean 225				
	Liquid, mildly alkaline multipurpose cleaning concentrate for ultra-	2,5	0 666 123-1	27.95 €
joke Clean 225 James Clean 225	sonic immersion baths. Suitable for metal, glass, ceramic, plastic and rubber surfaces. Light metal alloys of AlSiMg type must be checked initially for resistance. For elimination of oils, fats, combustion residues, soot and other organic contamination and dust. Also suitable for overhaul cleaning (printed circuit boards, protection masks, copiers and printers).	25	0 666 122	165.00 €

				Price from
		Content	Order No.	1 piece
oke KS				
THE	Liquid temporary corrosion protection for addition to the cleaning or rinsing bath. For use in immersion baths with or without ultrasound. Corrosion-sensitive metal materials such as steel, grey cast iron and solid carbides are coated with a protective film providing temporary corrosion protection.	11	0 666 201	36.70 €
joke KS		2,5	0 666 200-1	82.00€
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