

LCT POLY ultrasonic and rinsing tanks



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Description/product characteristics

The ultrasonic cleaning, preservation and rinsing tanks in the POLY series are robust and reliable devices for cleaning industrial parts. They are characterised by their wide range of applications – their versatility – and their high and constant power output. The devices are available in a range of designs and combinations. You can choose from devices with oil separators, devices with 2 chambers for cleaning and rinsing as well as rinsing tanks with overflow compartment and flow rinsing kits.

Optimal corrosion protection of the cleaned parts is ensured by the preservation tanks. In addition, the POLY product series also includes a powerful hot-air dryer as well as a blow-off table to conveniently blow off the parts manually with compressed air.

Product characteristics

Ultrasonic and rinsing tanks

- Tank insert made of special highly cavitation-resistant stainless steel 1.4462 (X2CrNiMoN22-5-2, 318 LN, Duplex)
- Tank base slopes to improve drainage of the cleaning fluid
- Rounded corners to ensure good cleaning of the tank.
- Liquid drain at the back of the device made of stainless steel 1.4301 (X5CrNi18-10, 304, V2A)
- Heating element fixed to the outside of the tank with temperature control (30°C – 90°C).
- Integrated safety functions:
 - Level monitoring as dry-running protection for the heating system
 - Level monitoring as dry-running protection for the ultrasonic system
 - Plain text message on the display

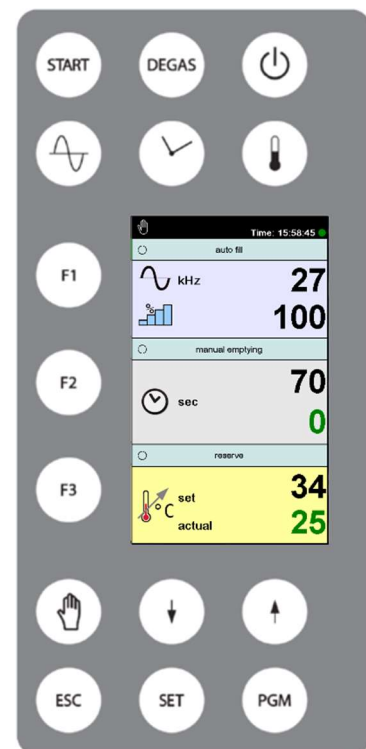


Preservation tanks

- Tank insert made of stainless steel 1.4401 (X5CrNiMo17-12-2, 316)

Dryer

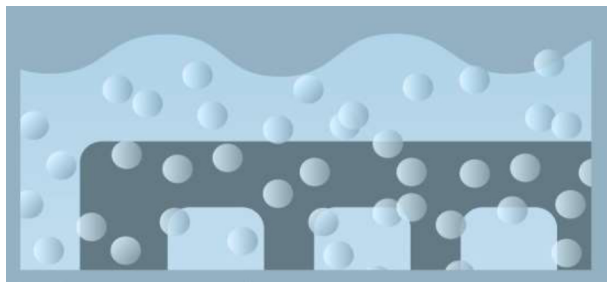
- Tank insert made of stainless steel 1.4301
- Basic housing made of high-strength polymer
- Heating register consisting of 6 x 1 kW heating elements outside the drying area with temperature control (up to 120°C)
- Simple, intuitive operation using the LCT control panel
- Set values as well as target and actual values shown on the LC display
- Ultrasonic frequency can be switched automatically or manually
- Manual mode with timer function (minutes or seconds)
- Automatic programme mode with 10 programmable process sequences
- Weekly timer for energy-efficient control of the heating
- Freely programmable key lock for every key so that defined process data cannot be changed
- Language selection of the display for German, English, Chinese, French, Italian, Spanish, Turkish, Dutch, Portuguese, Russian



Ultrasound

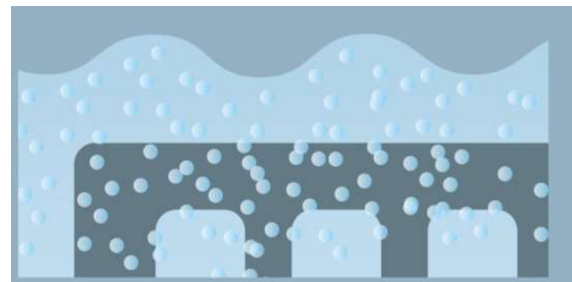
Coarse cleaning: low US frequency, from 27 kHz
 Fine cleaning: high US frequency, from 40 kHz upwards
 Ultra-fine cleaning: very high US frequency, from 80 kHz upwards

LCT systems	Frequencies [kHz]						Remarks
SINGLE frequency	27	30	40	60	-	-	Device operates at one frequency
DUAL frequency	27 or 80						Frequency can be selected; either/or
		30 or 60					
			40 or 100				
MIX frequency (only available for cleaning tanks)	27 and 80						Device operates at two frequencies simultaneously
		30 and 60					
			40 and 100				



Low frequencies

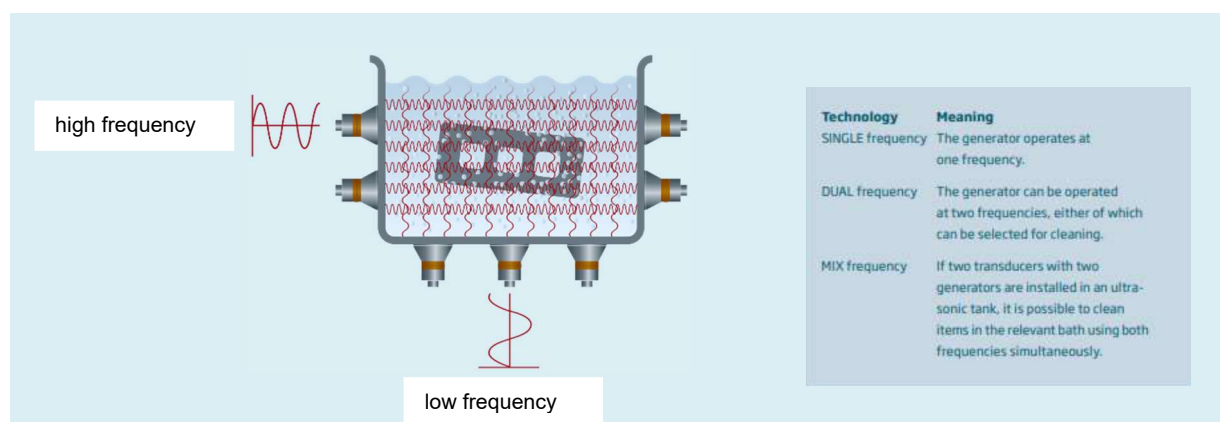
Generate larger, but fewer cavitation bubbles.
 The bubbles develop very high implosion forces.



High frequencies

Generate small, but many cavitation bubbles.
 The bubbles develop lower implosion forces, thereby protecting the part's surface.

Using sequential or simultaneous ultrasound treatment at two harmonious frequencies, such as 27 kHz and 80 kHz allows extraordinary cleaning results to be achieved in relatively short processing times.



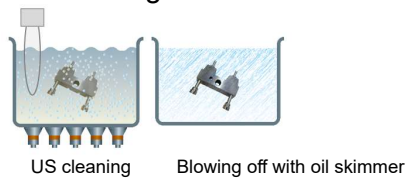
All LCT ultrasonic systems can be equipped with SINGLE, DUAL or MIX frequency technology, depending entirely on your wishes and requirements:

- ♣ SINGLE: 27 / 30 / 40 / 60 kHz
- ♣ DUAL: 27 & 80 kHz / 30 & 60 kHz / 40 & 100 kHz
- ♣ MIX¹: 27 & 80 kHz / 30 & 60 kHz / 40 & 100 kHz

¹ Only for cleaning tanks

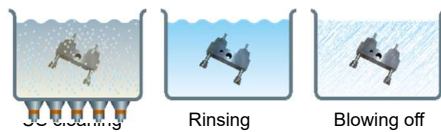
Cleaning processes

Pre-cleaning



Demulsifying cleaners are removed with the oil skimmer, which increases the service life of the cleaning agent.

Coarse cleaning



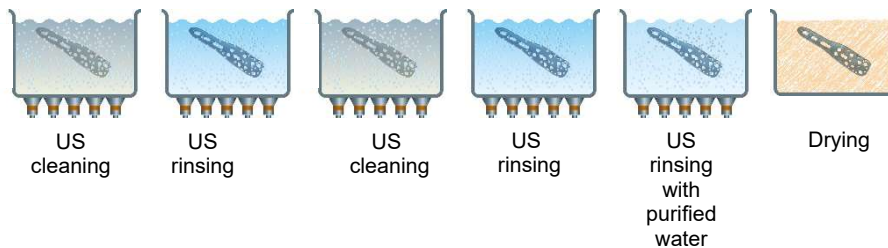
Very dirty parts can be easily and efficiently freed from oil, grease or particulate contamination. Depending on the requirements, the parts are "only" cleaned, partly rinsed with water or additionally blown off with compressed air.

Intermediate cleaning



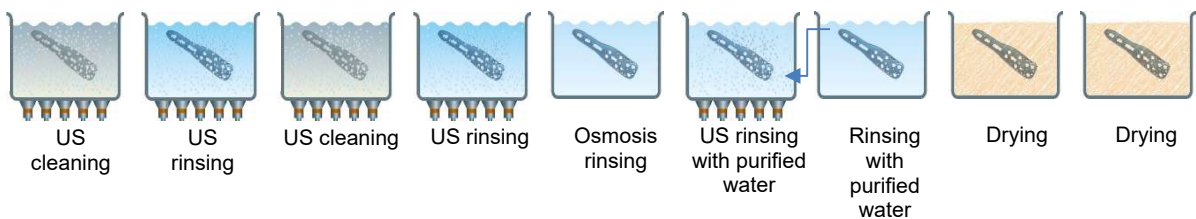
Depending on the application (e.g. after sandblasting), the rinsing tank can additionally be equipped with a filter circuit to increase the bath service life.

Fine cleaning



The cleaning process is determined and defined by tests, depending on the contamination and purity requirements. Based on the cleaning process, the cleaning line is assembled with the necessary tanks. The drying time usually defines the basket output per time unit.

Ultra-fine cleaning



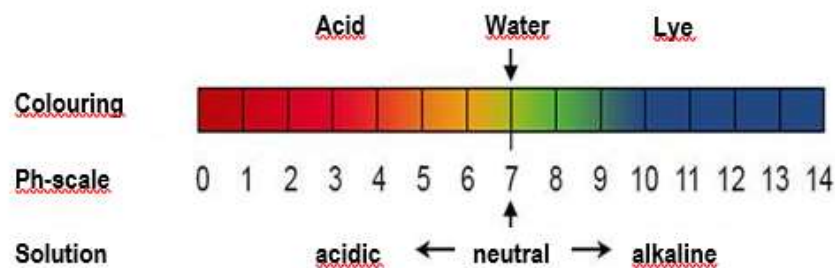
The cleaning process is determined and defined by tests, depending on the contamination and purity requirements. Based on the cleaning process, the cleaning line is assembled with the necessary tanks. The drying process generally takes the most time. If the number of dryers is increased, the basket output per time unit increases accordingly. A cascade between two rinsing tanks minimises water consumption.

Cleaning agents - effect and use

Important cleaning factors and parameters:

- Material/surface
- Contamination/dirt
- Cleaner
- Ultrasound (SINGLE, DUAL, MIX, frequency, power, configuration, etc.)
- Water quality
- Temperature
- Time

A number of factors have to be considered if ultrasonic cleaning is to be really effective. For instance, the material of the parts to be cleaned and the nature of the contamination determine which type of cleaner to use. The extent of the contamination and the type of cleaner dictate the temperature that is set and the duration of the cleaning process. The stubbornness of the contamination and the sensitivity of the material of the parts define the ultrasound parameters to be applied. Finally, rinsing of the parts with water of varying quality is extremely important to ensure that the cleaning agents and all the dirt they have picked up are completely removed from the surface of the part in question. The use of demineralised water in the final stage of the process guarantees a spotless finish when the parts have dried.



Configuration variants

The following type code shows the numerous configuration variants of the POLY series:

	R-	P100	-	BS	2780	M -	OHF	/	D
Use:									
R:	Cleaning								
S:	Rinsing ²								
K:	Preserving								
RS:	Combination device with 2 tanks (R cleaning/S rinsing)								
T:	Dryer								
PA:	Passivation								
Volumes:									
P45:	45 litres ³								
P70:	70 litres ³								
P80:	80 litres ⁴								
P100:	100 litres								
P120:	120 litres ⁴								
P140:	140 litres								
Ultrasound positioning:									
Empty:	No ultrasound								
B:	Sound from below								
S:	Sound from the side ⁵								
BS ⁶ :	Sound from below and the side ⁵								
Ultrasonic frequencies:									
SINGLE:									
27:	27 kHz								
30:	30 kHz								
40:	40 kHz								
60:	60 kHz								
DUAL:									
2780:	27 kHz / 80 kHz								
3060:	30 kHz / 60 kHz								
40100:	40 kHz / 100 kHz								
Ultrasound type:									
M:	MIX ⁷								
-:	Sequential frequency change								
Device configurations:									
H:	With heating								
HF:	With heating and filter circuit								
OHF:	With oil separator, heating and filter circuit								
XL:	Oil separator in the additional tank								
S:	Special model, can be combined with all versions								
Operation and control									
D:	With LCT universal display								

² with overflow

³ RS only

⁴ with overflow compartment. Identified by F in the device configuration (O HF, HF)

⁵ Active transducer surface at rear

⁶ Prerequisite for M IX⁷ ultrasound type

⁷ Enables work with two different frequencies simultaneously

Baskets

For cleaning lines, the smallest tank dimensions must be considered.

Basket to hold parts. Depending on the application, different maximum loads are permissible:

- Without basket oscillation: 20 kg
- Heavy basket oscillation: 10 kg

Standard baskets & coatings							
Tank	Type	Mesh width [mm]	External dimensions [mm]	Effective dimensions [mm]	Item no. Stainless steel, electropolished	Item no. with Halar coating	Item no. with Rilsan coating
OHF	P80	10 x 10	520 x 315 x 250	504 x 299 x 400	4433-1	*	555-99/o10
	P120	10 x 10	520 x 315 x 450	504 x 299 x 550	4434-1	*	*
R / S / K / T / OHF-XL	P100	10 x 10	520 x 360 x 250	504 x 348 x 330	4419-2	*	555-99/o11
	P140	10 x 10	520 x 360 x 450	504 x 348 x 550	4424-2	555-99/n	*
2 chambers	P45	10 x 10	245 x 390 x 250	230 x 377 x 400	4431-3	*	555-99/o9
	P45 with WB	10 x 10	220 x 340 x 250	208 x 328 x 300	4431-33	*	*
	P70	10 x 10	245 x 390 x 450	230 x 377 x 550	4432-3	555-99/m	*
	P70 with WB	10 x 10	220 x 340 x 450	208 x 328 x 450	*	*	*

* on request



Figure: Basket P100

Plastic coating on baskets:

As the baskets are made of stainless steel and the ultrasound makes the parts move easily, sensitive parts that rest on the stainless steel can be scratched in rare cases. This is particularly the case with soft materials like aluminium. By coating the baskets, the parts are protected and do not scratch.

Halar coating

Halar ECTFE has very good resistance to numerous chemicals, including strong acids and alkalis. In terms of abrasion resistance, ECTFE is one of the best fluoropolymers. The non-porous and smooth surface has a high level of electrical insulation.

Halar has a layer thickness of 0.5 to 1.5 mm and very good chemical resistance in the temperature range up to 150°C.

Areas of application: The chemicals industry, electroplating, food, mechanical engineering and wire goods

Rilsan coating

Particularly noteworthy are the excellent abrasion resistance and chemical resistance, as well as an insensitivity to oil. Rilsan has excellent thermal and electrical insulation, corrosion and weather resistance.

Areas of application: Electroplating, food, automotive industry, electrical, mechanical engineering and wire goods

R 100-OHF-XL cleaning tanks

Combines the possibilities afforded by the cleaning and OHF tank. Oil separator in the additional tank on the side of the cleaning tank. This enables sound from the base and side as well as basket oscillation.



R 100 cleaning tank with oil separator and filter circuit						
Technical data/type	R 100 -B- OHF-XL		R 100 -BS- OHF-XL		R 100 -BS-M- OHF-XL	
Ultrasound source	base sound		base and side sound		base and side sound with MIX function	
Filling volume [L]	100					
Internal dimensions W/D/H [mm]	550 / 420 / 500					
External dimensions W/D/H [mm]	810 / 550 / 850					
Basket effective dimensions W/D/H [mm]	504 / 348 / 330					
Electrical data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 6kW 8.7A		3 x 400VAC+N, 50/60Hz 5kW 8.7A			
Ultrasonic frequency [kHz]	SINGLE:	Item no.	SINGLE:	Item no.		
	27	5555-6/1	27	5555-6/8		
	30	5555-6/2	30	5555-6/9		
	40	5555-6/3	40	5555-6-10		
	60	5555-6/4	60	5555-6/11		
Item number	DUAL:	Item no.	DUAL:	Item no.	DUAL/MIX:	Item no.
	27/80	5555-6/5	27/80	555-4	27/80	555-5
	30/60	5555-6/6	30/60	555-4/1	30/60	555-5/1
	40/100	5555-6/7	40/100	555-4/2	40/100	143632
Ultrasonic power [W]	1000		2000			
Sound density [W/L]	10		20			
Heat output [W]	5000		3000			
Heat-up time ΔT 30°C [min]	51		85			
Ball valve drain ⁸	Internal thread Rp 1"					
Cover	Removable cover 1.4301					
Weight [kg]	100		110			
IP protection	32					

R 140-OHF-XL cleaning tanks

Vereint die Möglichkeiten der Reinigungs- und der OHF Wanne. Ein Öl-Ablasshahn anstelle des Ölabscheiders im Zusatztank seitlich der Reinigungswanne verhindert eine Verschleppung der Reinigungschemie durch das Skimmerband. Damit sind Boden und Seitenschall sowie Warenbewegung möglich. Das Sprührohr befindet sich gegenüber der Überlaufftasche und spült so aufschwimmende Schmutzpartikel ab.



R 140 cleaning tank with oil separator and filter circuit						
Technical data/type	R140 -B- OHF-XL		R 140 -BS- OHF-XL		R 140 -BS-M- OHF-XL	
Ultrasound source	base sound		base and side sound		Base and side sound with MIX function	
Filing volume [L]	140					
Internal dimensions W/D/H [mm]	550 / 420 / 700					
External dimensions W/D/H [mm]	1400 / 550 / 850					
Basket effective dimensions W/D/H [mm]	504 / 348 / 550					
Electircal data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 8kW 13.0A		3 x 400VAC+N, 50/60Hz 7kW 13.0A			
Ultrasonic frequency [kHz]	SINGLE:	Item no.	SINGLE:	Item no.		
	27	*	27	*		
	30	*	30	*		
	40	*	40	*		
	60	*	60	*		
Item number	DUAL:	Item no.	DUAL:	Item no.	DUAL/MIX:	Item no.
	27/80	*	27/80	*	27/80	*
	30/60	*	30/60	*	30/60	*
	40/100	*	40/100	*	40/100	*
Ultrasonic power [W]	1000		2000			
Sound density [W/L]	7.1		14.3			
Heat output [W]	7000		5000			
Heat-up time ΔT 30°C [min]	51		72			
Ball valve drain ⁸	Internal thread Rp 1"					
Cover	Removable cover 1.4301					
Weight [kg]	120		130			
IP protection	32					

R 100 cleaning tanks

The ultrasonic cleaning tanks in the POLY series can be fitted with SINGLE, DUAL or MIX frequency technology as requested or depending on the cleaning requirement.



R 100 cleaning tanks						
Technical data/type	R 100 - B-H		R 100 - BS-H		R 100 -BS- M-H	
Ultrasound source	base sound		base and side sound		base and side sound with MIX function	
Filling volume [L]	100					
Internal dimensions W/D/H [mm]	550 / 420 / 500					
External dimensions W/D/H [mm]	810 / 550 / 850					
Basket effective dimensions W/D/H [mm]	504 / 348 / 330					
Electrical data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 6kW 8.7A		3 x 400VAC+N, 50/60Hz 5kW 8.7A			
Ultrasonic frequency [kHz]	SINGLE: 27 30 40 60	Item no. 4415 4415-2 4415-1 4415-3	SINGLE: 27 30 40 60	Item no. 4417 4417-2 4417-1 4417-3	DUAL/MIX: 27/80 30/60 40/100 Item no. 4419 4419-4 4419-5	
Item number	DUAL: 27/80 30/60 40/100	Item no. 4416 4416-1 4416-2	DUAL: 27/80 30/60 40/100	Item no. 4418 4418-1 4418-2		
Ultrasonic power [W]	1000		2000			
Sound density [W/L]	10		20			
Heat output [W]	5000		3000			
Heat-up time ΔT 30°C [min]	52		86			
Ball valve drain ⁸	Internal thread Rp 1"					
Cover	Removable cover 1.4301					
Weight [kg]	76		80			
IP protection	32					

R 140 cleaning tanks

The ultrasonic cleaning tanks in the POLY series can be fitted with SINGLE, DUAL or MIX frequency technology as requested or depending on the cleaning requirement.

R 140 cleaning tanks						
Technical data/type	R 140 - B-H		R 140 - BS-H		R 140 -BS-M-H	
Ultrasound source	base sound		base and side sound		base and side sound with MIX function	
Filling volume [L]	140					
Internal dimensions W/D/H [mm]	550 / 420 / 700					
External dimensions W/D/H [mm]	810 / 550 / 850					
Basket effective dimensions W/D/H [mm]	504 / 348 / 550					
Electrical data						
Mains	3 x 400VAC+N, 50/60Hz		3 x 400VAC+N, 50/60Hz			
Output	8kW		7kW			
Max. phase load	13.0A		13.0A			
Ultrasonic frequency [kHz]	SINGLE:	Item no.	SINGLE:	Item no.		
	27	4420	27	4422		
	30	4420-4	30	4422-2		
	40	4420-1	40	4422-1		
	60	4420-3	60	4422-3		
Item number	DUAL:	Item no.	DUAL:	Item no.	DUAL/MIX:	Item no.
	27/80	4421	27/80	4423	27/80	4424
	30/60	4421-1	30/60	4423-1	30/60	4424-5
	40/100	4421-2	40/100	4423-2	40/100	4424-6
Ultrasonic power [W]	1000		2000			
Sound density [W/L]	7.1		14.3			
Heat output [W]	7000		5000			
Heat-up time ΔT 30°C [min]	51		72			
Ball valve drain ⁸	Internal thread Rp 1"					
Cover	Removable cover 1.4301					
Weight [kg]	81		86			
IP protection	32					

S 100 rinsing tanks

The ultrasonic cleaning tanks in the POLY series can be fitted with SINGLE, DUAL or MIX frequency technology as requested or depending on the cleaning requirement

The rinsing tanks are fitted with an overflow compartment as standard.



S 100 rinsing tanks			
Technical data/type	S 100	S 100-B-H	S 100-BS-H
Ultrasound source	-	base sound	base and side sound
Characteristic 2	with overflow compartment and spray pipe		
Filling volume [L]	100		
Internal dimensions W/D/H [mm]	550 / 420 / 500		
External dimensions W/D/H [mm]	810 / 550 / 850		
Basket effective dimensions W/D/H [mm]	504 / 348 / 330		
Electrical data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 5kW 8.7A	3 x 400VAC+N, 50/60Hz 6kW 8.7A	3 x 400VAC+N, 50/60Hz 5kW 8.7A
Ultrasonic frequency [kHz] Item number	Item no. 555-3/0	SINGLE: Item no. 27 555-3/00 30 555-3/01 40 555-3/02 60 555-3/03 DUAL: Item no. 27/80 555-2 30/60 555-2/1 40/100 555-2/2	SINGLE: Item no. 27 555-3/1-1 30 555-3/1-2 40 555-3/1-3 60 555-3/1-4 DUAL: Item no. 27/80 555-6 30/60 555-6/1 40/100 555-6/2
Ultrasonic power [W]	–	1000	2000
Sound density [W/L]	–	10	20
Heat output [W]	5000	5000	3000
Heat-up time ΔT 30°C [min]	51	51	86
Ball valve drain ⁸	Internal thread Rp 1"		
Overflow	External thread R 1"		
Rinsing	External thread R 1/4"		
Cover	Removable cover 1.4301		
Weight [kg]	67	72	78
IP protection	32		

S 140 rinsing tanks

The ultrasonic cleaning tanks in the POLY series can be fitted with SINGLE, DUAL or MIX frequency technology as requested or depending on the cleaning requirement

The rinsing tanks are fitted with an overflow compartment as standard.

S-P140 rinsing tanks			
Technical data/type	S 140	S 140-B-H	S 140-BS-H
Ultrasound source	-	base sound	base and side sound
Characteristic 2	with overflow compartment and spray pipe		
Filling volume [L]	140		
Internal dimensions W/D/H [mm]	550 / 420 / 700		
External dimensions W/D/H [mm]	810 / 550 / 850		
Basket effective dimensions W/D/H [mm]	504 / 348 / 550		
Electrical data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 7kW 13.0A	3 x 400VAC+N, 50/60Hz 8kW 13.0A	3 x 400VAC+N, 50/60Hz 7kW 13.0A
Ultrasonic frequency [kHz] Item number	Item no. 555-3/3	SINGLE: Item no. 27 555-3/4 30 555-3/5 40 555-3/6 60 555-3/7 DUAL: Item no. 27/80 555-3/8 30/60 555-3/9 40/100 555-3/10	SINGLE: Item no. 27 555-33/1 30 555-33/2 40 555-33/3 60 555-33/4 DUAL: Item no. 27/80 555-33/5 30/60 555-33/6 40/100 555-33/7
Ultrasonic power [W]	-	1000	2000
Sound density [W/L]	-	7.1	14.2
Heat output [W]	7000	7000	5000
Heat-up time ΔT 30°C [min]	51	51	72
Ball valve drain ⁸	Internal thread Rp 1"		
Overflow	External thread R 1"		
Rinsing/spray pipe	External thread R 1/4"		
Cover	Removable cover		
Weight [kg]	72	77	83
IP protection	32		

P100 preservation tanks

Corrosion protection treatment is often essential to protect cleaned parts from corrosion. To ensure optimum protection of your parts, the POLY series also includes preservation tanks in two sizes.

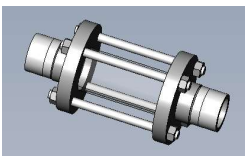
The preservation tanks do not have an overflow compartment.



P100 preservation tanks		
Technical data/type	P100	P100-H
Characteristic 1		With heating
Characteristic 2		Without overflow compartment
Filling volume [L]	100	
Internal dimensions W/D/H [mm]	550 / 420 / 500	
External dimensions W/D/H [mm]	810 / 550 / 850	
Basket effective dimensions W/D/H [mm]	504 / 348 / 330	
Electrical data Mains Output Max. phase load	-	3 x 400VAC+N, 50/60Hz 5kW 8.7A
Item number	555-3A	555-3B
Heat output [W]	---	5000
Heat-up time ΔT 30°C [min]	---	51
Ball valve drain ⁸	Internal thread Rp 1"	
Cover	Removable cover 1.4301	
Weight [kg]	65	67
IP protection	32	

Dewatering kit

When using demulsifying preservatives



Dewatering kit	Item no.
Consisting of: - 1x inspection glass - 2x ball valve - 90° angle	*

P140 preservation tanks

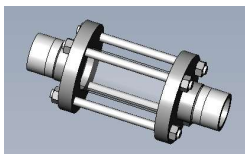
Corrosion protection treatment is often essential to protect cleaned parts from corrosion. To ensure optimum protection of your parts, the POLY series also includes preservation tanks in two sizes.

The preservation tanks do not have an overflow compartment.

P140 preservation tanks		
Technical data/type	P140	P140-H
Characteristic 1		With heating
Characteristic 2		Without overflow compartment
Filling volume [L]	140	
Internal dimensions W/D/H [mm]	550 / 420 / 700	
External dimensions W/D/H [mm]	810 / 550 / 850	
Basket effective dimensions W/D/H [mm]	504 / 348 / 550	
Electrical data Mains Output Max. phase load	-	3 x 400VAC+N, 50/60Hz 7kW 8.7A
Item number	555-4A	555-4B
Heat output [W]	—	7000
Heat-up time ΔT 30°C [min]	—	51
Ball valve drain ⁸	Internal thread RP 1"	
Cover	Removable cover 1.4301	
Weight [kg]	70	72
IP protection	32	

Dewatering kit

When using demulsifying preservatives



Dewatering kit	Item no.
Consisting of: - 1x inspection glass - 2x ball valve - 90° angle	*

T-P100/140 dryer

In addition to ultrasonic and rinsing tanks, the POLY product series also includes a powerful hot-air dryer.



Dryer		
Technical data/type	T-P100	T-P140
Filling volume [L]	100	140
Internal dimensions W/D/H [mm]	550 / 395 / 495	550 / 395 / 630
External dimensions W/D/H [mm]	810 / 550 / 850	810 / 550 / 850
Basket effective dimensions W/D/H [mm]	504 / 348 / 330	504 / 348 / 550
Electrical data		
Mains	3 x 400VAC+N, 50/60Hz	3 x 400VAC+N, 50/60Hz
Output	6kW	6kW
Max. phase load	8.7A	8.7A
Item number	555-7	555-7A
Heat output [W]	6000	6000
Heat-up time [min]	approx. 5	approx. 5
Cover	Hinged cover, flat, 1.4301	
Weight [kg]	83	105
IP protection	32	

Blow-off table

The blow-off table, made entirely of stainless steel, lets you conveniently blow off the parts manually with compressed air.

It is compatible with size -100 as well as -140



Blow-off table	
Technical data/type	Blow-off table
Work surface [mm]	750 x 500
Working height [mm]	835
Overall dimensions W/D/H [mm]	810 / 550 / 1440
Item number	555-7B
Max. load [kg]	80

RS cleaning tanks with two working tanks

The design with two working tanks allows two work steps to be carried out in a single device. The standard design is a cleaning tank with DUAL frequency technology, combined with a rinsing tank with SINGLE frequency technology and an overflow compartment.

The standard working direction is from left to right



RS cleaning tanks (R cleaning/S rinsing)				
Technical data/type	RS-45		RS-70	
Filling volume [L]	2 x 45		2 x 70	
Internal dimensions W/D/H [mm]	270 / 420 / 500		270 / 420 / 700	
External dimensions W/D/H [mm]	810 / 550 / 850		810 / 550 / 850	
Basket effective dimensions W/D/H [mm]	245 / 390 / 250		245 / 390 / 400	
Electrical data Mains Output Max. phase load	3 x 400VAC+N, 50/60Hz 4.4kW 6.4A		3 x 400VAC+N, 50/60Hz 5.2kW 8.7A	
Ultrasonic frequency [kHz]	DUAL cleaning: 27/80 30/60 40/100	SINGLE rinsing: 27 30 40	Item no. 4431 44311-1 44311	DUAL cleaning: 27/80 30/60 40/100
Item number				SINGLE rinsing: 27 30 40 Item no. 4432 44322-1 44322
Ultrasonic power [W]	600	600	600	600
Sound density [W/L]	13.3	13.3	8.5	8.5
Heat output [W]	1600	1600	2000	2000
Heat-up time ΔT 30°C [min]	72	72	90	90
Ball valve drain ⁸	Internal thread Rp 1" on both tanks			
Overflow rinsing tank	External thread R 1" on rinsing tank			
Rinsing/spray pipe	External thread R ¼" on rinsing tank			
Cover	2x removable cover 1.4301			
Weight [kg]	85		90	
IP protection	32			

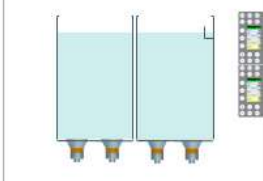
Schematic representation of RS version

Standard version, working direction is left to right

	1st tank: Cleaning Base sound with DUAL frequency 2nd tank: Rinsing Base sound with SINGLE frequency Flow rinsing with overflow compartment
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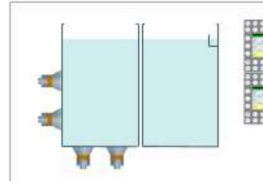
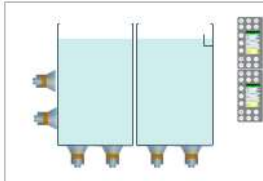
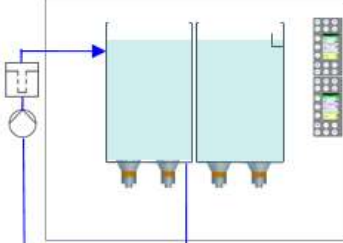
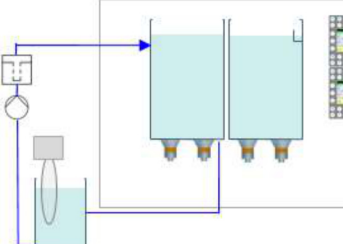
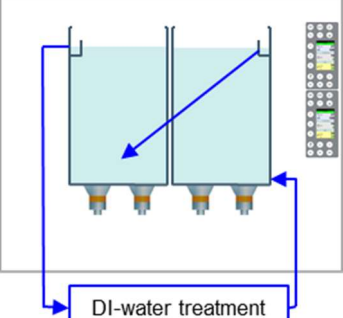
Diagrammatic representation of the RS design

In the standard design, the working direction is from left to right

	1st tank: Cleaning Base sound with DUAL frequency 2nd tank: Rinsing Base sound with SINGLE frequency Flow rinsing with overflow compartment
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Additional variants of RS designs

Besides the standard design, a range of other variants are also possible. For example, the ultrasound can be configured as base + side or even MIX. Similarly, a range of other options, such as oil skimmers or filter or demineralised water circuits, are also possible.

	1st tank: Cleaning Base and side sound MIX option 2nd tank: Rinsing Flow rinsing with overflow compartment	
	1st tank: Cleaning Base and side sound 2nd tank: Rinsing Base sound Flow rinsing with overflow compartment	
	1st tank: Cleaning Base sound 2nd tank: Rinsing Base sound Flow rinsing with overflow compartment Filter circuit	
	1st tank: Cleaning Base sound 2nd tank: Rinsing Base sound Flow rinsing with overflow compartment External oil skimmer and filter circuit	
	1st tank: Cleaning Base sound Overflow compartment 2nd tank: Rinsing Base sound Overflow compartment Demineralised water circuit with cascade	

Cleaning tanks with oil separators

The ultrasonic tanks with oil separators can be fitted with SINGLE or DUAL frequency technology. They are the ideal solution when large amounts of oil need to be removed.



Cleaning tanks with oil separators				
Technical data/type	R 80-B-OHF		R 120-B-OHF	
Filling volume [L]	80		120	
Internal dimensions W/D/H [mm]	550 / 340 / 500		550 / 340 / 700	
External dimensions W/D/H [mm]	810 / 550 / 850		810 / 550 / 850	
Basket effective dimensions W/D/H [mm]	504 / 299 / 420		504 / 299 / 550	
Electrical data				
Mains	3 x 400VAC+N, 50/60Hz		3 x 400VAC+N, 50/60Hz	
Output	4kW		5kW	
Max. phase load	8.7A		8.7A	
Ultrasonic frequency [kHz]	SINGLE:	Item no.	SINGLE:	Item no.
	27	4433	27	4434
	30	4433/1	30	4434/1
	40	4433/3	40	4434/2
	60	4433/2	60	4434/3
Item number	DUAL:	Item no.	DUAL:	Item no.
	27/80	4433/4	27/80	4434/4
	30/60	4433/5	30/60	4434/5
	40/100	4433/6	40/100	4434/6
Ultrasonic power [W]	900		900	
Sound density [W/L]	10		7	
Heat output [W]	3000		4000	
Heat-up time ΔT 30°C [min]	68		77	
Ball valve drain ⁸	Internal thread Rp 1"			
Cover	Removable cover 1.4301			
Weight [kg]	95		98	
IP protection	32		32	

PVDF passivation tank with extraction

Our POLY passivation tanks can be operated with the NITRIC-2, NITRIC-4 for nitric acid or CITRIC-2 and CITRIC-3 for citric acid methods, as described in standards ASTM-F86, ASTM A967-05 and ASTM A380-06, as well as with other commercially available methods. Extraction is passive. Passivation tanks are always fitted with a hinged cover. A barrel pump is used for draining.



Passivation tank		
Technical data/type	P 100	P 140
Filling volume [L]	100	140
Internal dimensions L/W/D [mm]	540 / 390 / 435	540 / 390 / 635
Outer dimensions L/W/D [mm]	824 / 598 / 850	824 / 598 / 850
Basket effective dimensions W/D/H [mm]	504 / 348 / 330	504 / 348 / 550
Item number	555-2A	555-2B
Max. load [kg]	20	20
Mains connection [V]	400 V / 3Ph / N / PE	400 V / 3Ph / N / PE
Mains frequency [Hz]	50/60	50/60
Power input [W]	2000	2000
Heat output [W]	2000	2000
Heat-up time ΔT 30°C [min]	depending on the medium	depending on the medium
Weight [kg]	84	95
Cover	PVDF hinged cover	
Extraction Ø [mm]	96	96

Accessories

Hinged cover

Hinged cover with two hinges, can be locked in the open position. The hinged cover cannot be supplied in combination with basket oscillation.



Model	Item no.
R / S / K / T	4419-1
RS 45 or RS 70	4431-1 oder 4432-1

Pediment cover

POLY with pediment cover for larger parts or special baskets with long handles.



Model	Item no.
R / S / K / T / OHF-XL	4419-1A

Stay-cool cover

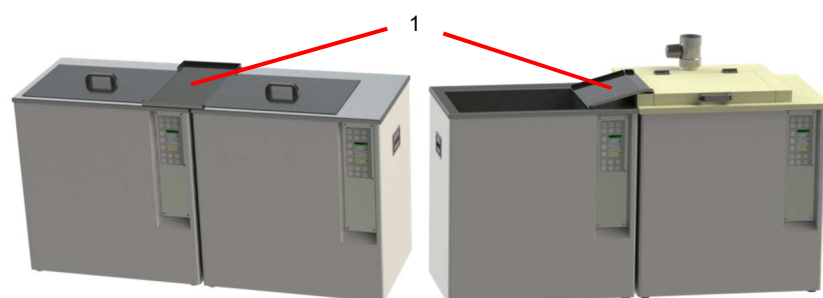
POLY dryer lid with two covers and air as a cushion prevents a hot surface



Model	Item no.
All models	555-7-a

Apron plate

The apron plate [1] prevents liquid from running down between the tanks.



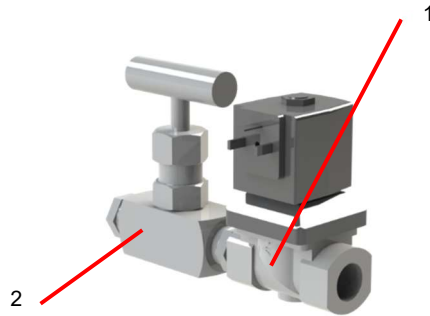
Apron plate	Item no.
All models	4419-1B

Flow rinsing kit

In the case of greater carry-over and higher demands on the rinsing water quality, flow rinsing kits ensure the rinsing water is replaced at specified times.

Flow rinsing kit	Item no.
POLY with display	555-99/g

The kits consist of a solenoid valve [1] and a needle valve [2].



Control panel with goods movement

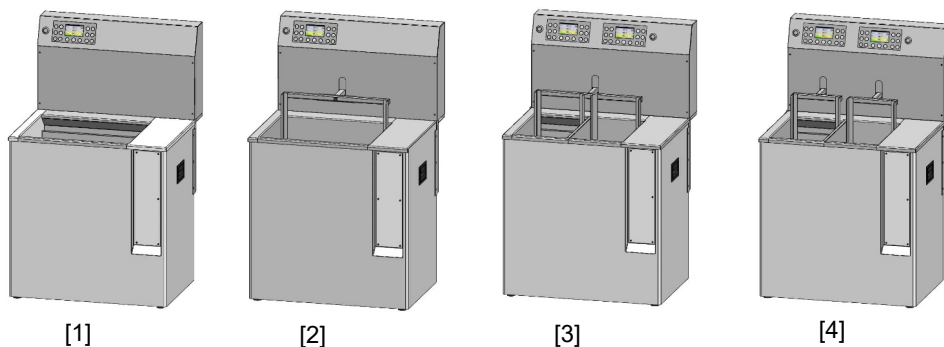
Devices from the POLY series can optionally be equipped with a control panel. In addition to the movement of goods the display and a button for starting the process are located at the optimal operating height.

The movement of goods improves the cleaning effect. The stroke is approx. 50 mm, the fixed number of strokes is approx. 10 strokes per minute.

The movement of goods can be equipped with different variants of goods carriers. Suitable for standard baskets or customized. The maximum loading weight is 10 kg.

Panel Optionen	Artikel Nr.
[1] 1x display / 1x start button	555-99/b
[2] 1x display / 1x start button + 1x goods movement	555-99/c
[3] 2x display / 2x start button + 1x goods movement (P45/P70)	555-99/d
[4] 2x display / 2x start button + 2x goods movement (P45/P70)	555-99/e

Only available with support lid.



POLY mobile

If mobility is required, the devices in the POLY series are fitted with 2 locking castors as well as 2 fixed castors.

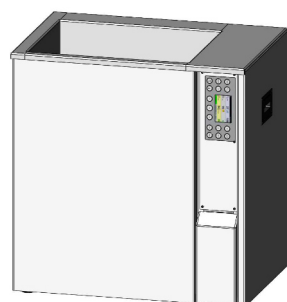
In the mobile full design, the tank is positioned on a welded frame with large castors. This allows the tank to be moved even when it is full, but it has a new working height.



Option	Item no.
POLY - mobile empty	555-99
POLY - mobile full	555-99/a

Stainless steel casing

All devices in the POLY series, except for the dryer, are also available in stainless steel.



Option	Item no.
Stainless steel casing	555-99/i

Base tanks

Liquid that runs down from the tank is reliably collected. The stainless steel base tank is larger than the tank unit, the devices are positioned directly in the base tank without brackets.

Available in PP upon request.

Max. 3 tanks per base tank, working height 850 mm

Option	Item no.
1 tank	555-1-a
2 tanks	555-1-b
3 tanks	555-1-c



Collecting tanks

The stainless steel collecting tank collects all of the liquid (in line with WHG [Federal Water Resources Act] 19). The devices are slightly raised, a base sensor can be installed upon request.

Available in PP upon request.

Option	Item no.
1 tank	555-0-c
2 tanks	555-0-a
3 tanks	555-0-b

Several collecting tanks can be connected in series, working height 900 mm



Riser for drainage

PP riser for draining with barrel pump. (incl. pipework)

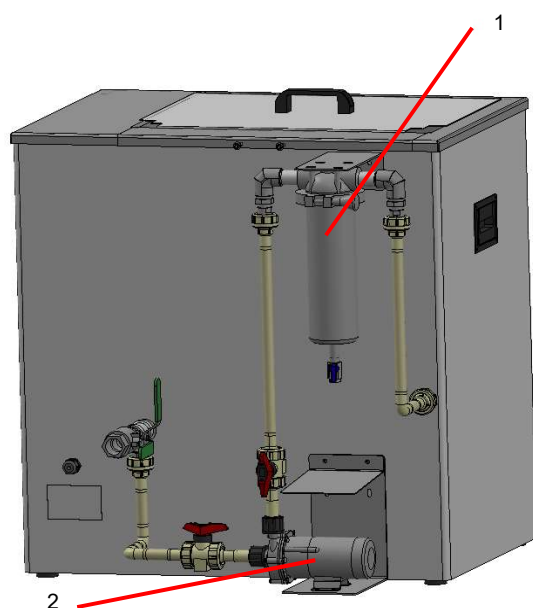
Option	Item no.
Riser	555-99/k
Barrel pump	* depending on the medium



Filter circuit

For continuous preparation of the cleaning medium. The filter circuit is adapted to the relevant requirements.

The filter circuit consists of a cartridge filter [1] and a circulation pump [2].

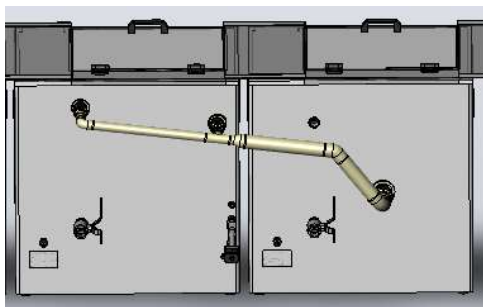


Filter circuit	Item no.
Standard - Max 60°C 1 cartridge in plastic housing - Pump with 10l/min	555-99/11
Strong + 60°C - cartridge in stainless steel housing - several cartridge (e.g. mixed bed + particle filtering) - Pump with 40l/min	555-99/1

Filter cartridges	
1µm	
5µm	
10µm	
25µm	
50µm	

Cascade

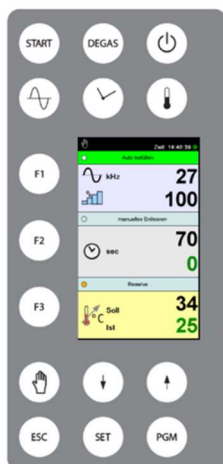
Cascade piping between two rising tanks



Model	
alle Modelle	

Preparation of the F key for special functions (display)

Including 1 cable bushing at the rear



Preparation of the F key	
All models	

Conductance measurement

Consisting of conductance sensor including transmitter (Easy Sense) and signal column for the display.
Sensor mounted directly in the tank or in the overflow piping.

Model	Item no.
All models	555-99/j



Water treatment

Mixed-bed or activated charcoal for rinsing water treatment



New content	Item no.
LCT-6000 Activated charcoal 46 l	555-99/o1
LCT-6000 Mixed-bed resin 46 l	555-99/o2
LCT-4000 Activated charcoal 30 l	555-99/o3
LCT-4000 Mixed-bed resin 30 l	555-99/o4

Cartridge with content	Item no.
LCT-6000 Activated charcoal 46 l	555-99/o5
LCT-6000 Mixed-bed resin 46 l	555-99/o6
LCT-4000 Activated charcoal 30 l	555-99/o7
LCT-4000 Mixed-bed resin 30 l	555-99/o8

Input transformer

Worldwide use of our devices independent of the power supply.
The precise specifications are defined in mutual consultation



Model	Item no.
All models	On request

Signal lamp/horn

Display for process end, conductance alarm or similar



Model	Item no.
All models	On request

Material certificates

Material certificates for parts in contact with the medium

- Tank sheet metal
- Drains
- Riser
- Ball valve
- Spray pipe

Model	Item no.
All models	*

Operating instructions/declaration of conformity

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