

## [ CPE ] CLOSURE PROCESSING EQUIPMENT



Advanced Solutions for Infection Control



### DESIGNED FOR

*LAST Technology's Closure Processing Equipment (CPE) Series, was designed for complete processing (from dirty to ready for sterilization or use) of pharmaceutical closures such as rubber stoppers, rubber pistons, rubber seals, plastic parts, aluminum caps and combi-seals.*

### PROCESS FEATURES

The CPE series was developed in accordance with GAMP and cGMP regulations and includes both user customizable programming and pre-programmed cycles. Possible washing steps include any combination of the following: pre-washing, de-latching, washing (with or without chemicals), WFI pulsed rinsing, siliconization, steam sterilization at 121 °C, and hot air drying (HEPA 14 filtered). During product cleaning (pre-washing, washing, and rinsing) the water becomes a fluid bed with air bobbles which are created by the sanitary recycling pump. This stimulated water displaces and then captures the particles contained in the product and removes them while in the water suspension which is discharged by an overflow device. At the end each phase the water is completely drained out and an automatic system cleaning (CIP) is run to ensure complete removal of the particles.

LAST CPE 11 16



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## TECHNICAL DATA FOR CLOSURE PROCESSING EQUIPMENT

MODEL	REGULAR STOPPER 13 mm	REGULAR STOPPER 13 mm	REGULAR STOPPER 13 mm	LYO STOPPER 13 mm	LYO STOPPER 20 mm	LYO STOPPER 32 mm	ALU CAPS 8 mm	ALU CAPS 13 mm	ALU CAPS 13 mm	ALU CAPS 13 mm
CPE 50	700 / 24.7	13000	3000	45000	19000	1850	125000	50000	10000	2300
CPE 100	1000 / 35.3	26000	6000	90000	38000	3700	250000	100000	20000	4600
CPE 150	1600 / 56.5	39000	9000	135000	57000	5550	375000	150000	30000	6900
CPE 220	2000 / 70.6	57200	13200	198000	83600	8140	550000	220000	44000	10120
CPE 250	3000 / 106	65000	15000	225000	95000	9250	625000	250000	50000	11500
CPE 300	3600 / 127	78000	18000	270000	114000	11100	750000	300000	60000	13800

## TECHNICAL DATA FOR CLOSURE PROCESSING EQUIPMENT

MODEL	CHAMBER VOLUME [LITERS / CU. FT]	NUMBER OF HOPPERS	USEFUL HOPPERS VOLUME [LITERS / CU. FT]	TOTAL HOPPERS VOLUME [LITERS / CU. FT]	OVERALL DIMENSIONS		
					WIDTH	HEIGHT	LENGTH
CPE 50	700 / 24.7	4	50 / 1.8	150 / 5.3	2800 / 110	2800 / 110	1300 / 51
CPE 100	1000 / 35.3	8	100 / 3.5	300 / 10.6	2800 / 110	2800 / 110	1500 / 59
CPE 150	1600 / 56.5	12	150 / 5.3	450 / 15.9	3200 / 126	3000 / 118	1700 / 67
CPE 220	2000 / 70.6	18	220 / 7.8	660 / 23.3	3200 / 126	3000 / 118	1900 / 75
CPE 250	3000 / 106	20	250 / 8.8	750 / 26.5	3600 / 142	3200 / 126	2100 / 82.5
CPE 300	3600 / 127	24	300 / 10.6	900 / 31.8	3600 / 142	3200 / 126	2300 / 90.5

### PROCESS DESCRIPTION

After product loading, the pre-washing cycle begins, then washing. During product washing, chemicals may be injected to improve the cleaning action of the system, but are not generally needed. If chemicals are used, a cycle called de-latching occurs between the pre-washing and washing phases and is used to “exhaust” all chemical residuals contained in the product. Product siliconization is achieved by silicone being dosed upstream of the water recycling pump through an accurate and reliable system which ensures excellent distribution of the silicone to avoid any stratification. At the end of the process the water with the silicone is completely drained out. Product sterilization is completed through a fractioned vacuum

process (removal of air through alternative pulses of vacuum and injection of clean steam). After the removal of all air, clean steam is injected into the chamber through a P&ID controlled valve at the desired set point while condensate is continuously evacuated through the drain creating excellent distribution of the heat during the entire exposure phase with a temperature deviation below  $\pm 0.4$  °C). At the end of the exposure time, the steam is evacuated by means of a vacuum brake filter and vacuum pulses. Drying of product is by injection of a large quantity of hot clean air which has been subject to a HEPA filtration. At the end of the process, fresh air is injected to cool-down the product.

***Last Technology systems offer innovative design, energy savings, reduced foot-print dimensions, environmental sustainability, user friendly solutions and easy validation***

