



WC100 VAPOR VACUUM CAPPER OPERATING MANUAL

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1. SAFETY MESSAGE

1.1 Safety Message

Only authorized personnel should operate the WC100 capper. The operator must wear proper safety gear such as safety glasses and thermal protective gloves. Only containers and closures within manufacturing specifications should be used for successful application. During initial set-up and maintenance of the capper, ensure that the main switch is turned off and the steam shut-off valve is closed.

2. TECHNICAL INFORMATION

2.1 Technical Information

The Silgan WC100 is a semi-automatic sealing machine with Silgan White Cap vapor vacuum technology. It is ideal for trial runs, small production runs, and laboratory use.

Special Features	Simple set-up and adjustment for Twist-Off® and PT closures Installation independent of production lines Quick and easy handling
Closure Type	Suitable for all Ø27mm-10mm Twist-Off® and PT closure types
Max Container Height	Ø30-280mm
Max Container Diameter	Ø40-150mm
Electrical requirements	120VAC single phase / 13.3 FLA, use 15 or 20 Amp circuit
Dimensions	304 x 584 x 1200mm
Weight	100 kg
Steam requirements	Supply pressure min. 4 bar, max. 8 bar Operating pressure 1 bar

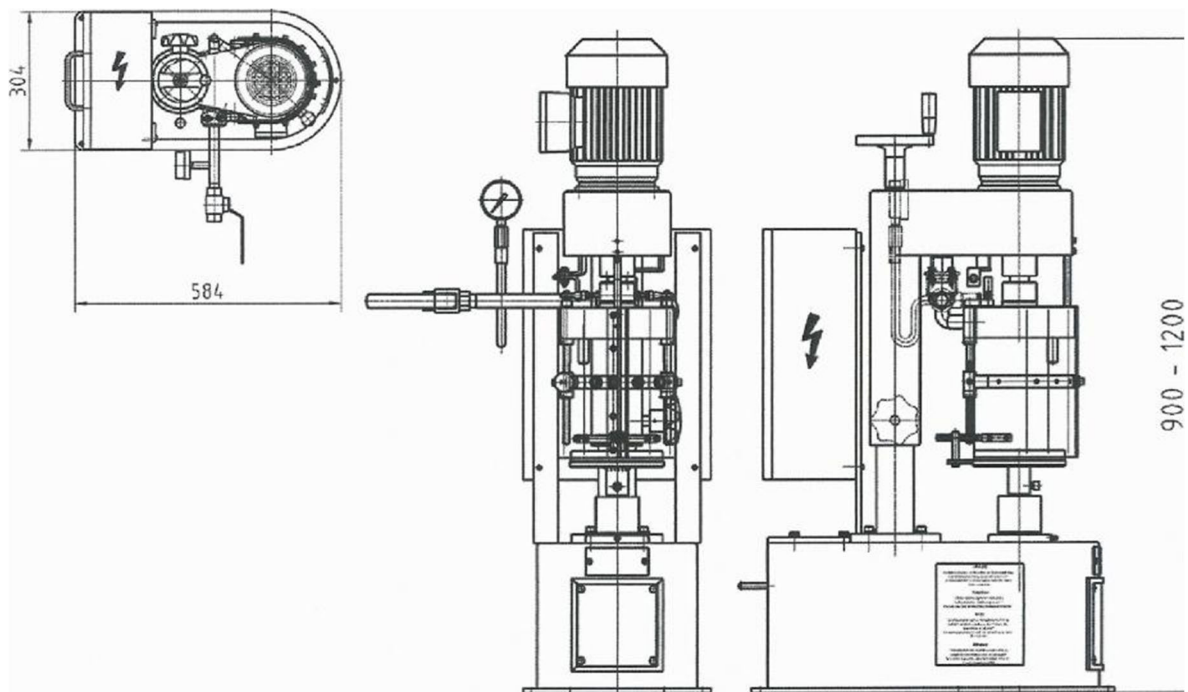


Figure 2-1: WC100 Footprint

3. DESCRIPTION OF OPERATION

3.1 Description of Operation

The Silgan WC100 capper is a semi-automatic sealing machine. A closure is applied to the capping head and the container is placed on the lift plate. When the operator closes the safety door, a proximity sensor is activated. Pressing the **start** button initiates the capping process. During this process, the lift plate will bring the container into the capping head. The closure is applied. Once the container is sealed the lift plate goes down and the capping head comes to a stop. The safety door can be opened and the sealed container removed from the capper.

3.1.1 Start Up

Check the capper head direction of rotation before setting up the unit. It should rotate clockwise. If it doesn't, reverse the polarity by swapping 2 phases of the 3 phase motors. On the WC100 steam separator, connect the steam line to the 3/4" V-strainer. Disconnect the power and close the steam valve before proceeding with set-up.

Note: Even though the capper supply voltage is 120VAC, 230V 3 phase is generated by the control box to power the two motors.



Figure 3-1: Manual Adjustment of Lift Plate



Figure 3-2: Adjusting Bottle Guides

3. DESCRIPTION OF OPERATION

3.1.2 Set Up

Turn off power to the capper. Select a container and closure for the current job. Place the appropriate cap centering ring into the capper head. The centering ring must match the cap used in the current job. By hand, apply the closure to the container. Manually insert the closure/container into the centering ring. Raise the lift plate by hand until it touches the bottom of the container (*Figure 3-1*).

Adjust the bottle guides (*Figure 3-2*). Unlock the column. Adjust the capper head height with the hand crank. Look for a plastic pin fixed to the capper head (*Figure 3-3*). This pin should contact the container mouth indicating the correct position for the adjustment. Verify the adjustments. Place a cap into the centering ring. Fill the container with water. Place the container against the lift plate guides. Raise the lift plate by hand. Ensure the mouth will go into the cap without jamming (*Figure 3-4*).

Perform a live run test. Plug in the capper power cord, and switch on the power switch. Open the safety door. Insert a closure into the centering ring. Place a filled container on the lift plate against the guides. Ensure the emergency stop button is pulled out. Press the blue **safety reset** button to enable the machine. Close the door. Then press the **start** button to start the capping operation. Verify the cap application. If it is too tight, slightly raise the capper head. If it is too loose, slightly lower the capper head. If the upper head section of the capper flexes upward when the container is raised, slightly raise the capper head. Examine the position of the container and how it interacts with the closure. Ensure the container can insert into the closure without jamming. If it jams, the similar prior adjustment step must be repeated. Once adjustments are satisfactory, engage the column lock. Open the shut-off valve. Regulate the steam pressure to 1 bar maximum.



Figure 3-3: Plastic Pin to Adjust Head Height

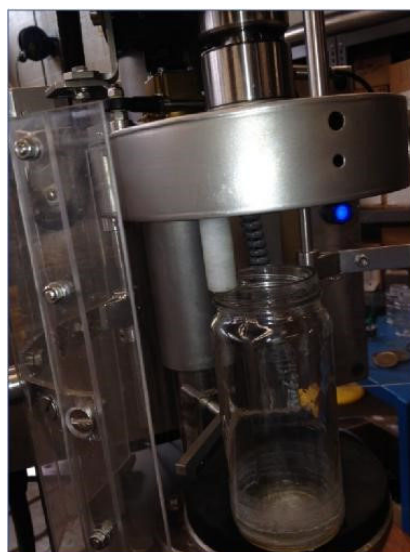


Figure 3-4: Manual Adjustment Verification

3. DESCRIPTION OF OPERATION

3.1.3 Process Adjustments

There are two adjustment knobs on the rear of the control panel.

Preheat Delay

Adjust from 0 to 5 seconds. This is a delay from when the steam is turned on in the capping cycle, to when the lift motor is turned on to apply the cap to the jar. Using this time delay can be useful if the compound sealant in the cap needs preheating for a good seal, if a buildup of steam is needed to pull a good vacuum, or for imitating processes in other cappers. Most of the time no delay, or a short delay of 1 second or less, is adequate for a good seal.

Twist Speed

Adjust from 0 to 700 RPM. This adjusts the speed of cap rotation as it is being applied to the jar. PT style caps require no rotation. This can be set to zero when using PT caps. RTO style caps require rotation. When setting up for RTO caps, start at maximum speed (700 RPM). Then reduce, if needed, for a smoother capping operation or to lower cap removal torque.



Figure 3-5: Process adjustments

4. LUBRICATION

4.1 Lubrication

Establish a lubrication schedule. Proper preventative maintenance will ensure your WC100 works as required. On a monthly schedule, use food grade grease to lubricate points (1) and (2) (*Figure 4-1*). Keep the main column well-greased. Ensure the oil pan at point (3) contains the proper amount of oil. Use 1/8 liter of gearbox oil or machine oil.

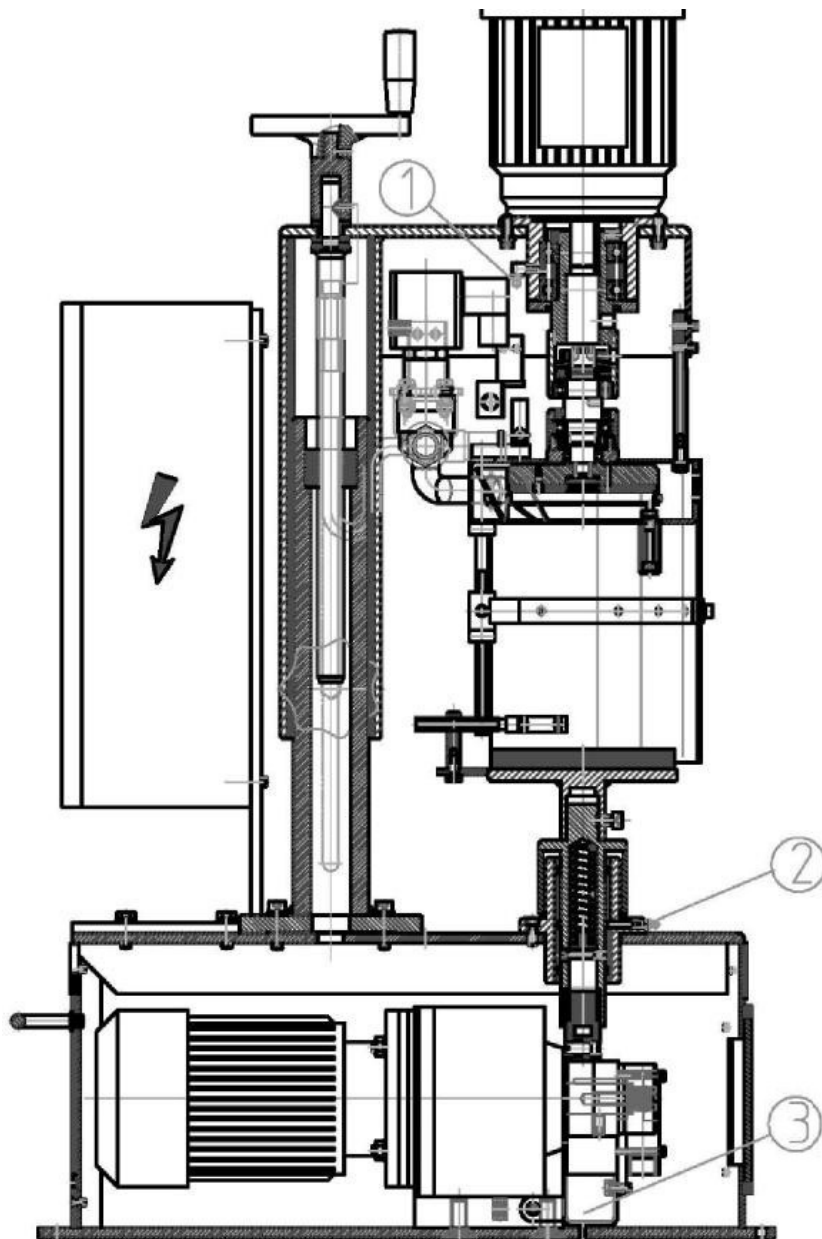


Figure 4-1: Lubrication Point Diagram