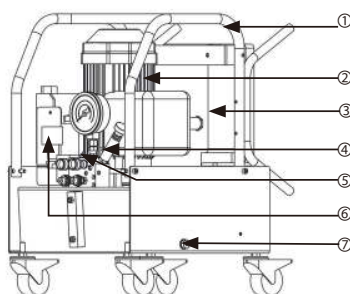
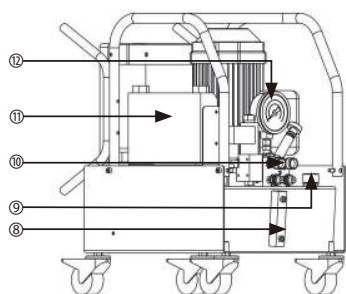


► EX-HE5TW Product Components:



NO	Name
1	Protected Framework
2	Explosion-proof machine
3	Explosion-proof Electric Cabinet
4	Relief Valve
5	R Port Pressure Limiting Valve
6	Explosion-proof electromagnetic directional valve
7	Oil Outlet
8	Oil Level Gauge
9	Refueling And Exhaust Outlet
10	Quick Interface
11	Cooling aluminum bar
12	Manometer

► Component Function Introduction:

► Hand Shank

The EX-HE5TW is equipped with a dual-button handle. The start and stop of the motor and the opening and closing of the valve are controlled by the control handle. The motor start and stop rotary button is the hold button. When starting, rotate the rotary switch to the " II " position. The valve switch button is a self-resetting button to control the opening and closing of the valve. Press it to apply pressure, and release the button to return.



► Overflow pressure regulating valve

Before use, adjust the system pressure through the relief pressure regulator before connecting the tool to prevent damage from excessive pressure. When adjusting, first loosen the locking nut of the relief valve and turn the handle of the relief pressure regulator counterclockwise to release it. Connect the power supply and press the button on the handle to start the motor; at this point, the pressure gauge will display the pressure at port R. Next, press the solenoid valve switch button to establish pressure at port A. Continue pressing this button while turning the relief pressure regulator clockwise to reach the target pressure, then tighten the locking nut.



► Solenoid Directional Valve

The electromagnetic reversing valve regulates the oil supply to port A or port R. When the solenoid valve is not energized, oil is supplied to port R. Port R is connected to the female connector. Port R is the low pressure oil port with a maximum pressure of 12MPa;

When the solenoid valve is energized, oil is supplied to port A, which is connected to the male connector. Port A is a high-pressure oil outlet with a maximum supply pressure of 70MPa.



► R Port Pressure Limiting Valve

The function of the pressure limiting valve is to limit the pressure in port R of the hydraulic pump. When the pressure reaches the set value, the pressure limiting valve opens overflow and makes the pressure no longer rise, so as to protect the components related to this branch from damage due to high pressure.



► Refueling And Exhaust Outlet

The function of the pressure limiting valve is to limit the pressure in port R of the hydraulic pump. When the pressure reaches the set value, the pressure limiting valve opens overflow and makes the pressure no longer rise, so as to protect the components related to this branch from damage due to high pressure.



► Oil Level Gauge

Before starting, check the pump's oil level; it should be above 2/3 of the upper oil gauge. If the oil level is too low, prolonged operation without oil can affect the pump's lifespan and normal use, potentially damaging the motor. When hydraulic oil is insufficient, open the oil filler port and inject the same type of wear-resistant hydraulic oil as the original pump (it is recommended to use ISO VG46 grade hydraulic oil).



♦The oil level should be observed after all actuating elements have returned to their positions.

► Product Usage Steps:

1.Preparation Before Use

- Check that all parts (frame, motor, pressure gauge, etc.) are undamaged, the feet are stable, and all connections are not loose.
- Check the rated voltage (EX-HE5TW electric hydraulic pump is available in two voltages (220V/380V).



Check the electronic control box to determine the rated.



Check the pump nameplate to confirm that the marked voltage is 220V/50HZ

♦After confirming that the voltage is consistent, use a power socket in accordance with specifications to connect reliably. If the voltage is not consistent, do not force the adapter connection to avoid burning out the motor or causing short circuit

-Check the hydraulic oil level of the pump. The oil level should be above 2/3 of the upper oil gauge. When the hydraulic oil is insufficient, open the filling port and inject the wear-resistant hydraulic oil of the same model as the original pump (it is recommended to use the hydraulic oil grade ISO VG46). The maximum filling amount is the top of the oil gauge.



Hydraulic oil level gauge

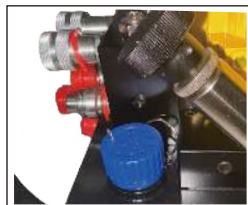


If the oil level is lower than 2/3, please rotate and remove the plug of this out-let, and then carry out the refueling operation.

-Install the exhaust plug, align the exhaust plug with the fuel filling exhaust port, and then rotate it slowly in a clockwise direction until it is tightened to the appropriate degree. Ensure that the tank ventilation function is maintained; replace the exhaust plug during handling or transportation and reinstall the sealing plug to ensure that it is sealed to prevent oil leakage.



Exhaust plug

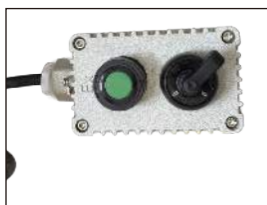


Install the exhaust plug

♦If the exhaust plug is not installed to discharge air, it will seriously affect the normal operation of the equipment. The internal air in the oil tank will cause pressure fluctuation and flow deviation, causing component wear and failure, reducing the smoothness and accuracy of operation.

2. Start And Set The Pressure

-Connect the power supply, press the motor switch button of the handle, touch the generator to run, check whether the motor runs normally, and observe the pressure gauge to check whether the initial reading of the pressure gauge is zero.



Press the motor start button to start the motor.



Under no-load condition of the system, confirm that the initial reading of the pressure gauge is zero.

♦If the initial reading of the pressure gauge is not zero or the motor runs abnormally, stop the machine immediately to troubleshoot the fault.

-Set The Working Pressure

Preparation: Before pressure adjustment, make sure that the pump is not connected to tools or other hydraulic equipment to avoid damage caused by misoperation.

Initial adjustment: rotate the locking nut on the relief valve counterclockwise to release.

Start and observe: After connecting the power supply, press the motor start button on the control handle. The motor starts and pressure begins to be established. At this time, the pressure gauge shows the pressure of port R.

Switching and Pressure Adjustment: Press and hold the pressurization button on the control handle, and the pressure at port A will start to be established. At this time, pay close attention to the pressure value at port A displayed on the pressure gauge. Continue to press the solenoid valve switch button, and at the same time, slowly rotate the overflow pressure regulating valve clockwise to gradually increase the pressure to the target pressure value. During the adjustment process, attention should be paid to the speed of pressure rise to avoid excessive pressure adjustment.

♦ When the pressure is close to the target pressure, the overflow pressure regulating valve should be adjusted more slowly to ensure that the pressure reaches the target value accurately. After reaching the target pressure, immediately lock the overflow pressure regulating valve locking nut to fix the pressure setting.



Loosen the lock nut on the relief valve and slowly turn the relief regulator clockwise so that port A reaches the target pressure.



The return pressure is regulated by the R-port pressure limiting valve

-Return Pressure Regulation Method

- 1 Loosen the upper locking nut of the R port pressure limiting valve.
 - 2 Press the pump switch button, at this time the pressure gauge shows the pressure of port R, use a hexagonal wrench to rotate the top adjustment bolt, clockwise pressure increases, counterclockwise rotation pressure decreases.
 - 3 Press the pressure indicator to target the pressure and then turn off the electric pump.
 - 4 Tighten the locking nut to complete the pressure adjustment of port R.
- ♦ The factory pressure of the R port pressure limiting valve has been set, and generally does not need to be adjusted.

-Connect the hydraulic wrench. The EX-HE5TW electric pump is equipped with two male and two female quick connectors at the standard outlet. The outlet thread is NPT3/8, and the plug is standard. The rated pressure of the electric pump is 700Bar.

Press the motor switch button of the handle, and after the motor stops running, keep the hydraulic oil pipe axially aligned and fully push it into the base of the outlet port. Rotate the sealing joint, rotate the outer lock ring clockwise to the limit mark and then tighten it.



The oil pipe is fully pushed into the outlet by axial alignment



Secure the outer lock ring.

- ♦ EX-HE5TW electric hydraulic wrench pump must be connected with the same pressure or higher pressure and matching joints or hoses when used, connecting the joints or hoses with lower pressure grades may cause the joints to fly out or the tubing to break, thus causing personal injury to the user.

3.Operation And Adjustment Of The Work

-Start the electric pump, confirm that the pressure has been set and the load equipment is correctly connected, then press the motor start button on the control handle to start the electric pump.

-The EX-HE5TW is equipped with a three-position four-way explosion-proof solenoid directional valve. The three-position four-way solenoid directional valve can achieve dual oil outlet, and the middle position can be selected as H type or Y type.

-Control the hydraulic directional valve by operating the solenoid valve switch button on the handle to adjust the flow of system oil.

When the solenoid valve is not electrified, R port supplies oil, suitable for low pressure working scenarios;

When the solenoid valve is energized, oil is supplied from port A, which is suitable for high pressure working scenarios.



Through the solenoid valve control button on the handle, the system oil flow direction is accurately controlled.

♦During the operation, smooth switching should be made to avoid excessive pressure fluctuation caused by frequent and rapid switching.

Indicator light function description

- Power alarm (red indicator light): When there is an abnormal situation with the power supply, this red indicator light will turn on to issue an alarm signal, prompting the operator that there is a problem with the power supply and that it needs to be checked and dealt with.
- Power indication (green indicator light): It is used to indicate whether the power supply of the equipment is connected normally. When this green indicator light turns on, it means that the equipment has been connected to the power supply normally and subsequent operations can be carried out.
- Pump running (green indicator light): It is used to show whether the relevant pump is running. When this green indicator light turns on, it means that the corresponding pump is running; when the indicator light is off, it means that the pump is in a stopped state.
- Pressurization (green indicator light): It is used to show whether the equipment is performing a pressurization operation. When this green indicator light turns on, it means that the equipment is performing a pressurization action; when the indicator light is off, it means that the pressurization has stopped.



Indicator light

4. Monitoring during operation

-Pressure monitoring: pay real-time attention to the pressure gauge value, and adjust the overflow pressure regulating valve through fine adjustment to maintain the working pressure of the system at the target value, so as to ensure that the pressure fluctuation is controlled within the range of $\pm 0.5\text{MPa}$

-Oil level monitoring: continuously observe the oil level of the oil gauge. If the oil level is lower than 1/3, stop the machine immediately and wait for the equipment to cool down. Then slowly inject an appropriate amount of ISO VG46 hydraulic oil through the oil filling exhaust port to restore the oil level to the normal range. During the oil filling process, pay attention to avoid impurities mixed into the hydraulic oil.

5. Release Pressure And Shut Down

- Work completion: After the work action is completed, release the valve switch button. Oil returns to port A and pressure is established at port R. The tool starts to return. After the tool has fully returned, turn off the motor.
- Turn off the motor: Rotate the switch button of the electrical control box to the "minute" position, then press the motor stop button on the control handle to turn off the motor. After that, cut off the power supply and unplug the power plug to ensure that the equipment is completely powered off.
- ♦ The electric pump may have residual pressure. Before pulling out the oil pipe, it is necessary to press the pressure button briefly to cut off the oil circuit connection at ports A and R.
- Remove the oil pipe: After the system pressure has completely dropped to 0 and all the actuating elements have returned, carefully pull out the hydraulic oil pipe. When removing the oil pipe, be careful to avoid the residual hydraulic oil in the oil pipe splashing out to prevent injury to personnel or pollution of the working environment. After the oil pipe is removed, it should be properly sorted and stored for the future use.

► Troubleshooting:

Troubleshooting Guide		
Issue	Possible causes.	Solution
1. The pump does not start	Not connected to a power source.	Check whether the circuit is connected normally and restart.
	The electrical circuit of the pump is short-circuited or tripped.	Check whether the circuit is connected normally and restart.
	The voltage is too low.	Check the voltage and turn off other electrical loads.
	The socket cord is too long and too thin	Replace the high-power socket strip
	The handle button is damaged.	Contact the manufacturer for repair.
	Pump components are damaged.	Contact the manufacturer for repair.
2. The motor stops during pressurization	The voltage is too low.	Check the voltage and turn off other electrical loads. Replace the strip and check the input voltage.
	Current overload	Check the system for large damping terms that are causing overpressure.
3. The pump is not pressurized or the upper pressure is too low	Insufficient amount of oil.	Check the oil level and inject new hydraulic oil.
	The electromagnetic unloading valve opens.	Check the energization of the unloading valve.
	Leakage from the outside of the pump.	Observe leaks and carry out repairs or replacement of accessories.
	The hydraulic oil is too dirty and blocking the suction port.	Change the hydraulic oil and clean the suction port.
	Leakage inside the pump.	Contact the manufacturer for repair.
	System leaks.	Check for system leaks and repair them.
4. The system establishes pressure, and the tool does not move	Overloaded.	Check and select the right load.
	System congestion.	Check if the system is clogged and unblock the system.
5. The flow is too small	The hydraulic oil is too dirty and blocking the suction port.	Change the hydraulic oil and clean the suction port.
	There is a throttle valve in the system	Adjust the throttle flow.
	System congestion.	Check if the system is clogged and unblock the system.
6. The tool cannot be returned normally	The tool backstroke has a large damping	Check and remove the large damping term.
	The system has a return throttle valve.	Check the system and adjust the throttle valve.
	The system throttle valve adjustment is smaller.	Check the circuit and readjust the flow valve.
	Motor failure.	Contact the manufacturer for repair.
7. Severe fever	The system throttle valve adjustment is smaller.	Check the circuit and readjust the flow valve.
	Motor failure.	Contact the manufacturer for repair.