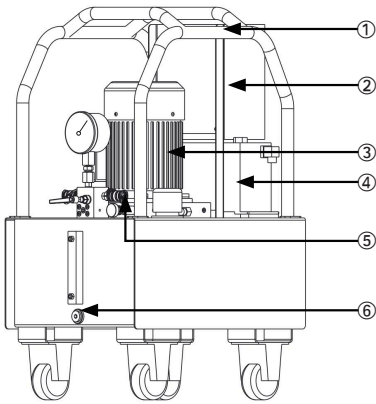
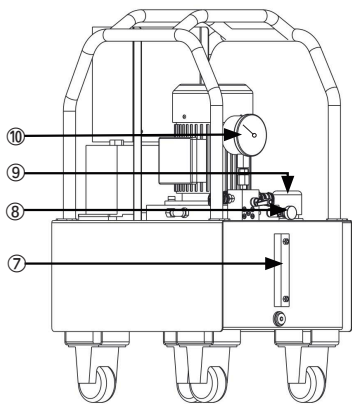


► EPU Product Components:



NO	Name
1	Protected Framework
2	Electric Cabinet
3	Power-Driven Machine
4	Air Cooling Radiator
5	Quick Interface
6	Oil Outlet
7	Oil Level Gauge
8	Relief Valve
9	Refueling And Exhaust Outlet
10	Manometer

► Component Function Introduction:

► Handle (optional)

The EPU can be optionally equipped with a single-button handle. The start and stop of the pump are controlled by the control handle. The handle is standard with a non-holding button. The motor starts when the button is pressed and stops when the button is released. After the pressure reaches, it can be released. If additional pressure is needed, start again. The motor should not run for a long time after the pressure reaches, otherwise it will cause heating.



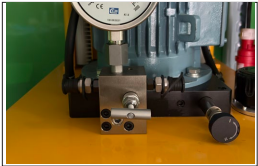
► Overflow Pressure Regulating Valve

Before use, adjust the system pressure through the overflow control valve first, then connect the tool to prevent damage from excessive pressure. Ensure that the unloading valve is fully closed, loosen the locking nut on the overflow valve, and rotate it counterclockwise a few times to ensure the real-time pressure is below the target pressure. Press the handle button to start the motor, and the pressure begins to build up. Continue pressing the button while rotating the overflow control valve clockwise to the target pressure, then tighten the locking nut.



► Manual unloading valve

When the valve is closed, the hydraulic oil flows to the outlet, and the pressure is established after the motor starts, and the pressure is maintained after the motor is closed. When the valve is open-the hydraulic oil returns to the tank and the pressure cannot be established.



► Release the exhaust port

This interface is not sealed. When transported in oil- containing state, it is normal for hydraulic oil to leak. It is recommended that the transportation should be oil-free.



► Oil Level Indicator

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



► Product Usage Steps:

1. Preparation Before Use

- Check all parts (frame, motor, pressure gauge, etc.) without damage, casters are in good condition, and no loosening at each connection.
- Check the rated voltage (EPU electric ultra-high pressure pump has rated voltage 380VAC).



Check the electronic control box to determine the rated.

♦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 anti-wear 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



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

2.Start And Pressure Setting

-Connect the power supply, press the motor switch button of the handle / rotate the switch to ON position, touch the generator to run, check whether the motor is running normally.



Press the motor start button to start the motor.



Connect the power supply. The "READY" green light ON the left side will light up. Turn the rotary switch to the "ON" position and start under pressure.

When the power is connected, if the "ALARM" red light on the right side of the equipment is on, it indicates that the power phase sequence is wrong. At this time, the rotary switch will be turned to the "ON" position, and the motor cannot start.

The solution is as follows: first cut off the power supply, switch the two external power lines to each other, and then reconnect the power supply. At this time, the "READY" green light is on, and then turn the rotary switch to the "ON" position, and the motor can start normally.

-Set the working pressure

Preparations: Before adjusting the pressure, make sure that the relief valve is tightened and that the pump is not connected to tools or other hydraulic equipment.

Initial adjustment: rotate the locking nut on the relief valve counterclockwise to the open state, and rotate the relief valve counterclockwise several times to ensure that the real-time pressure is lower than the target pressure.

Start and observe: After connecting the power supply, press the motor switch button on the control handle, the motor starts and pressure is established.

Pressure regulation and verification:

-Set target pressure:

- Continue to press the control handle button and rotate the overflow valve clockwise slowly until the pressure gauge shows the target pressure.
- Maximum pressure limit: EPU3500 is 3500bar; EPU2500 is 2500bar; EPU1500 is 1500bar.
- ♦ The pump pressure can only be adjusted from low to high, not in reverse. If the pressure needs to be adjusted from high to low, unloading is required first. The relief valve pressure should be adjusted below the target pressure, and then the relief valve should be repressurized to the target pressure.

-Pressure holding verification:

- Release the handle button, and the system automatically maintains pressure after the motor stops. If the overpressure is exceeded, open the unloading valve to discharge the pressure below the target value, close the unloading valve, and readjust.
- ♦ The pressure of the relief valve is not affected by the counterclockwise adjustment under the pressure holding condition.

-Calibration and verification:

- Open the relief valve to discharge pressure to 0, and close the relief valve again
- Restart the motor and observe whether the pressure is consistent with the target value.
- Two pressures are consistent and effective; if not, adjust repeatedly until the standard is reached.

Locking and closing:

- Lock the nut on the relief valve.
- Final depressurization: Open the unloading valve to ensure that the system pressure is completely zero.



Loosen the locking nut to adjust the overflow pressure.



When depressurizing, hold the solenoid unloading valve on the handle and reduce the system pressure to the pressure indicator number 0.

-Connect the extender, and install a CEJN female (or male) fitting at the outlet. The outlet thread is G1/4, with a standard plug. The rated pressure of the electric pump is 1500Bar, 2500Bar and 3500Bar.

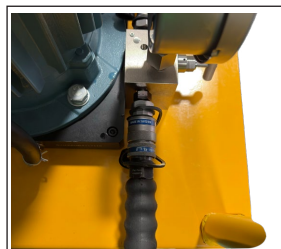
Retreat of the outer lock ring: Push the outer lock ring of the joint axially backward to make the joint in a state of connection.

Axial alignment insertion: Keep the tubing and fitting aligned axially, and slowly and smoothly insert the tubing into the fitting along the axial direction.

Forward push rotation lock of the outer lock ring: When the tubing is fully inserted into the joint, push the outer lock ring forward along the axial direction until the outer lock ring reaches the locking position and is firmly locked. The fixing condition of the outer lock ring can be checked by pushing it with appropriate force to ensure that it is locked in place.



The outer lock ring is pushed back, and the oil pipe is fully pushed into the outlet by axial alignment.



After pushing the oil pipe, push the outerlock ring forward and rotate it clockwise to lock.

♦ The EPU ultra-high pressure electric pump must be connected to a matching fitting or hose with the same or higher pressure when in use. Connecting a fitting or hose with a lower pressure grade may cause the fitting to fly out or the oil pipe to break, thus causing personal injury to the user.

3. Operation And Adjustment Of Work

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

-When the pressure exceeds the target range, open the unloading valve to perform unloading operations until the pressure drops to 0. Then, readjust the target pressure according to the set pressure method.

♦ A check valve is configured between the pressure regulating valve and the outlet. The pressure can only be adjusted from small to large, but cannot be adjusted in reverse.

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 quantity of the oil gauge. If the oil level is too low, stop the machine immediately. After the equipment is cooled, slowly inject an appropriate amount of ISO VG46 anti-wear hydraulic oil through the oil filling exhaust port to restore the oil level to the normal range. During the process of adding oil, pay attention to avoid impurities mixed into the hydraulic oil.

5. Release Pressure And Shut Down

- Turn off the motor: After the work is completed, release the motor stop (red) button on the control handle, turn off the motor, then cut off the power supply, pull out the power plug, and ensure that the equipment is completely powered off.
- Cut off the oil circuit: Press the solenoid unloading valve on the control handle, start the electromagnetic unloading valve, and reduce the pressure to 0 to achieve system depressurization.
- Remove the oil pipe: After the system pressure has completely dropped to 0 and the stretcher has fully returned, pull out the hydraulic oil pipe. When removing the oil pipe, be careful to avoid splashing any residual hydraulic fluid inside, to prevent injury or contamination of the work environment. Properly organize and store the removed oil pipe for 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.