

Ultra-High Pressure Filter Press Instruction Manual

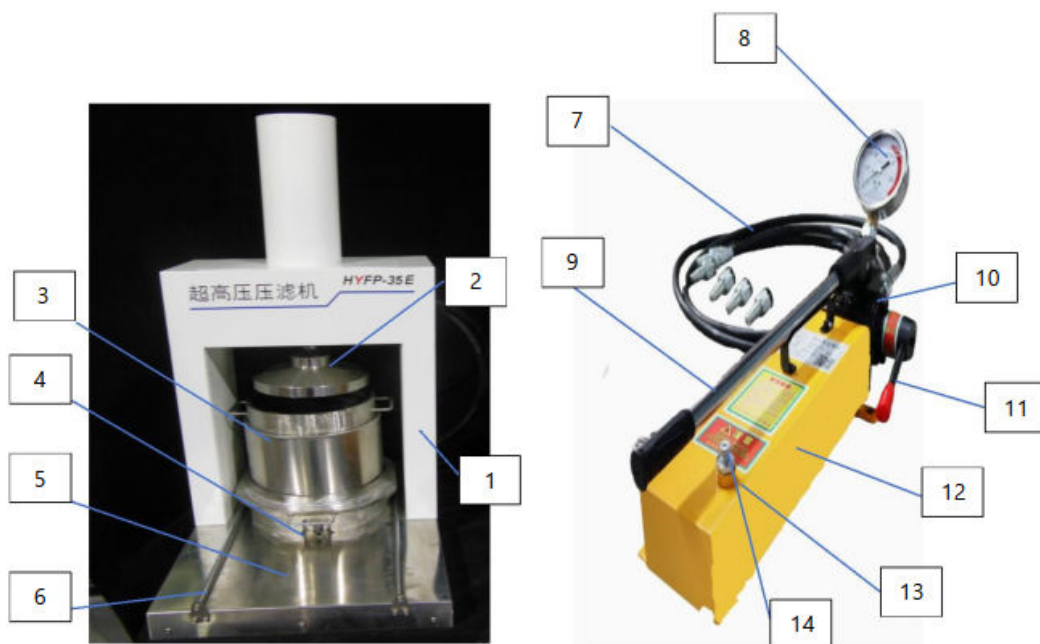
(Model: HYYL-35)

I. Product Introduction

The ultra-high pressure filter press is mainly used in laboratory solid-liquid separation scenarios such as liquid filtration and rapid dehydration. Its ultra-high-pressure system provides 30MPa pressure, which is transmitted to the solution to be filtered in the filter cylinder through the pressure plate. After extrusion, the filter cake remains in the filter bag, and the liquid flows into the collection tray, realizing solid-liquid separation with moisture content below 40% for rapid dehydration and filtration.

The press is easy to operate, safe, reliable, and has an extremely short operation cycle, making it an ideal replacement for suction filtration equipment in laboratories.

II. Equipment Composition and Functions



1. Main body: Supports the equipment
2. Hydraulic cylinder and pressure plate: Provide pressure
3. Filter cylinder: Includes filter cartridge and filter plate, supporting and limiting the filter bag
4. Collection tray: Collects filtered liquid
5. Slide plate: Supports the filter cylinder for free sliding
6. Protection rod: Prevents the filter cartridge from touching the equipment shell
7. Hydraulic pipe: Channel for hydraulic oil flow
8. Pressure gauge: Displays hydraulic oil pressure
9. Pressure rod: Drives the hydraulic pump head

- 10. Hydraulic pump: Compresses hydraulic oil to form high pressure
- 11. Directional valve: Changes hydraulic oil flow direction
- 12. Oil tank shell: Stores hydraulic oil
- 13. Oil filling port: For adding hydraulic oil
- 14. Exhaust device: Keeps hydraulic oil connected to the atmosphere

III. Operation Method

3.1. Pre-operation Preparation

Check the hydraulic pump, hydraulic pipe, and hydraulic cylinder for oil leakage. If leaking, wipe clean, observe the leakage point, and stop use immediately if leakage is severe.

3.2. Feeding

Select a filter bag with appropriate mesh according to filtration requirements, put it into the filter cylinder, then feed. The feeding height shall not exceed the filter cylinder height. Tie the bag mouth tightly before filtration, as close to the liquid surface as possible.

3.3. Filter Cylinder Reset

After feeding, gently push the filter cylinder to the specified position. Ensure it is vertical to the base without inclination, the vertical projection of the hydraulic cylinder pressure plate fully falls into the filter cylinder, and there is no interference with the cylinder's surroundings.

3.4. Filter Pressing

Turn the directional valve to "Position B" (down pressure), then press the pressure rod to increase pressure gradually. Observe filtrate outflow. If no liquid is discharged from the outlet when pressure reaches 0.3Mpa, the filter membrane is blocked or its precision is too high, so adjust the precision. Maximum pressure shall not exceed 30MPA.

Special tips:

- 1. Pressurize slowly; after pressure exceeds 5MPa, interval between each pressurization is at least 10S.
- 2. Keep the exhaust device open during pressurization.
- 3. Generally, filtrate discharge slows down after 20MPa; maintain maximum working pressure for 1min.

3.5. Pressure Relief

Turn the directional valve to "Neutral" (pressure relief); pressure relief is usually completed within 3S.

3.6. Taking out the Filter Cylinder

Turn the directional valve to "Position A" (rising), press the pressure rod to increase pressure gradually. The hydraulic cylinder drives the pressure plate up until it leaves the filter cylinder completely, then pull out the cylinder.

3.8. Taking out the Filter Cake

Pull the filter cake out of the filter cylinder. If there is much cake, separate the filter cylinder from the filter plate first.

3.9. Cleaning

Turn the directional valve to "Neutral" (pressure relief), clean the equipment thoroughly with clean water. If necessary, use a suitable solvent, then clean with water for later use.

IV. Precautions

4.1. Pressurize slowly; do not pressurize rapidly. Maximum pressure shall not exceed 35MPA.

4.2. After use, turn the directional valve to "Neutral".

4.3. Keep the exhaust device open during use.

4.4. Regularly check hydraulic oil level and replenish when insufficient.

4.5. Beware of hand pinching and ensure safety during operation.

V. Main Product Parameters

1. Working pressure: 20~30MPA (approx. 7500kg)
2. Maximum pressure: 35MPA
3. Filter cylinder inner diameter: 202mm
4. Pressure plate diameter: 198mm
5. Maximum volume of extracted solution: 5L
6. Fastest extraction time: 180S

VI. Product Warranty and After-sales Maintenance

The whole machine has a 1-year warranty (excluding wearing parts); wearing parts have a 3-month warranty.

Within the warranty period, if damage is caused by improper operation, the manufacturer will charge for parts replacement or maintenance.

In case of any problem during use, contact the manufacturer immediately; do not disassemble the instrument without permission.

After-sales service telephone: 15837137855

VII. Packing List

Equipment main body × 1 Filter bags (500 mesh) × 2

Equipment manual × 1 Certificate of conformity × 1