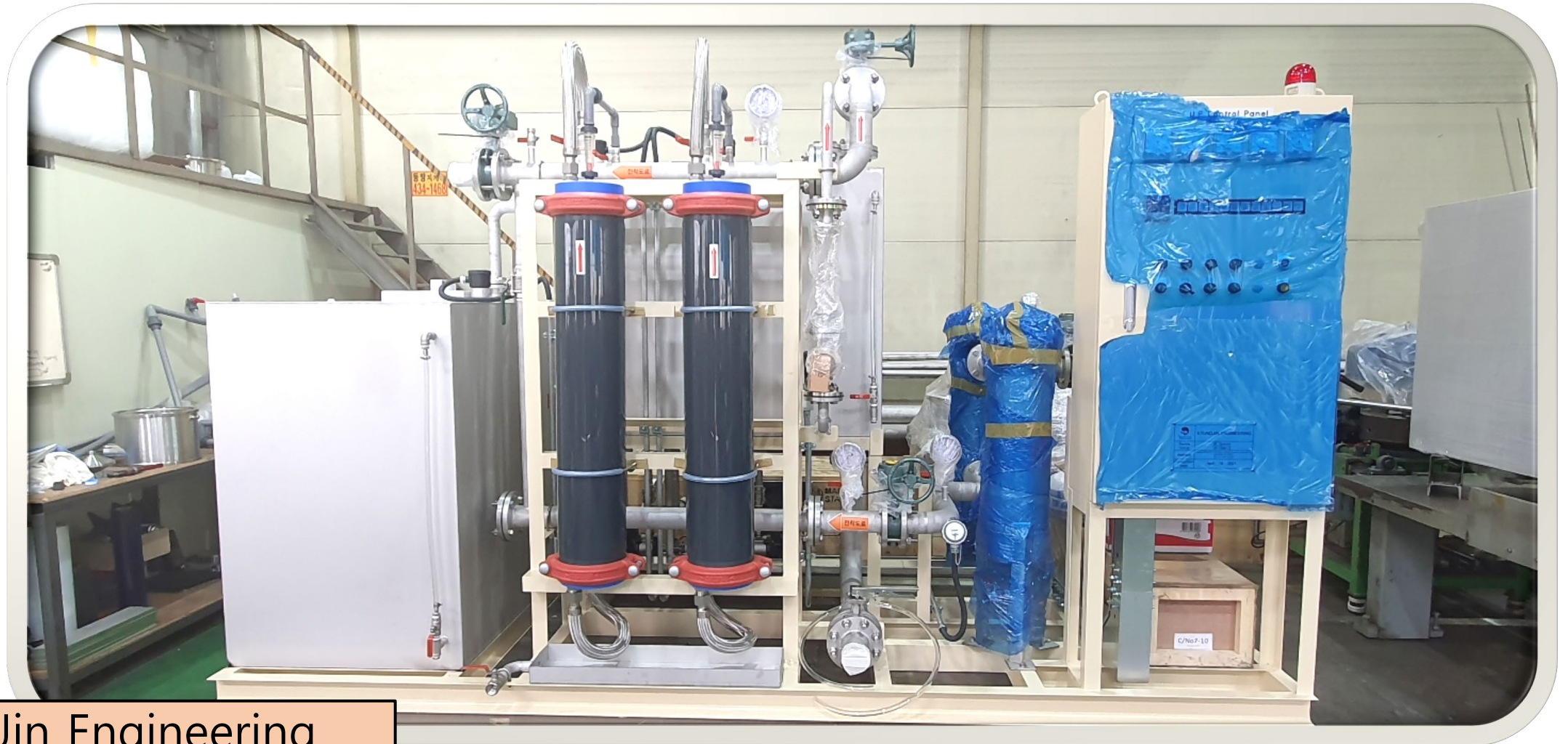
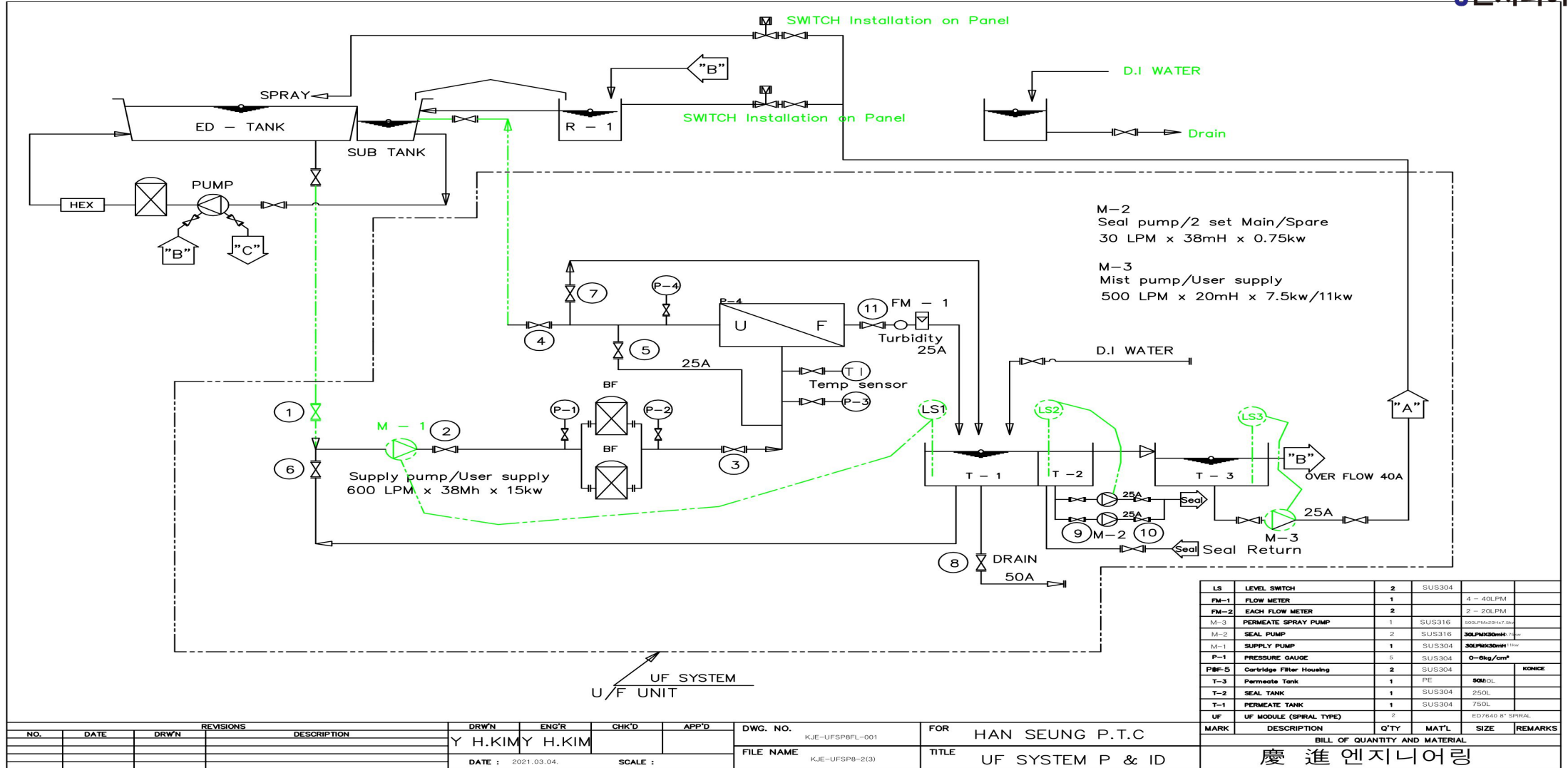


UF System Manual



Kyung Jin Engineering
JULY 19. 2021

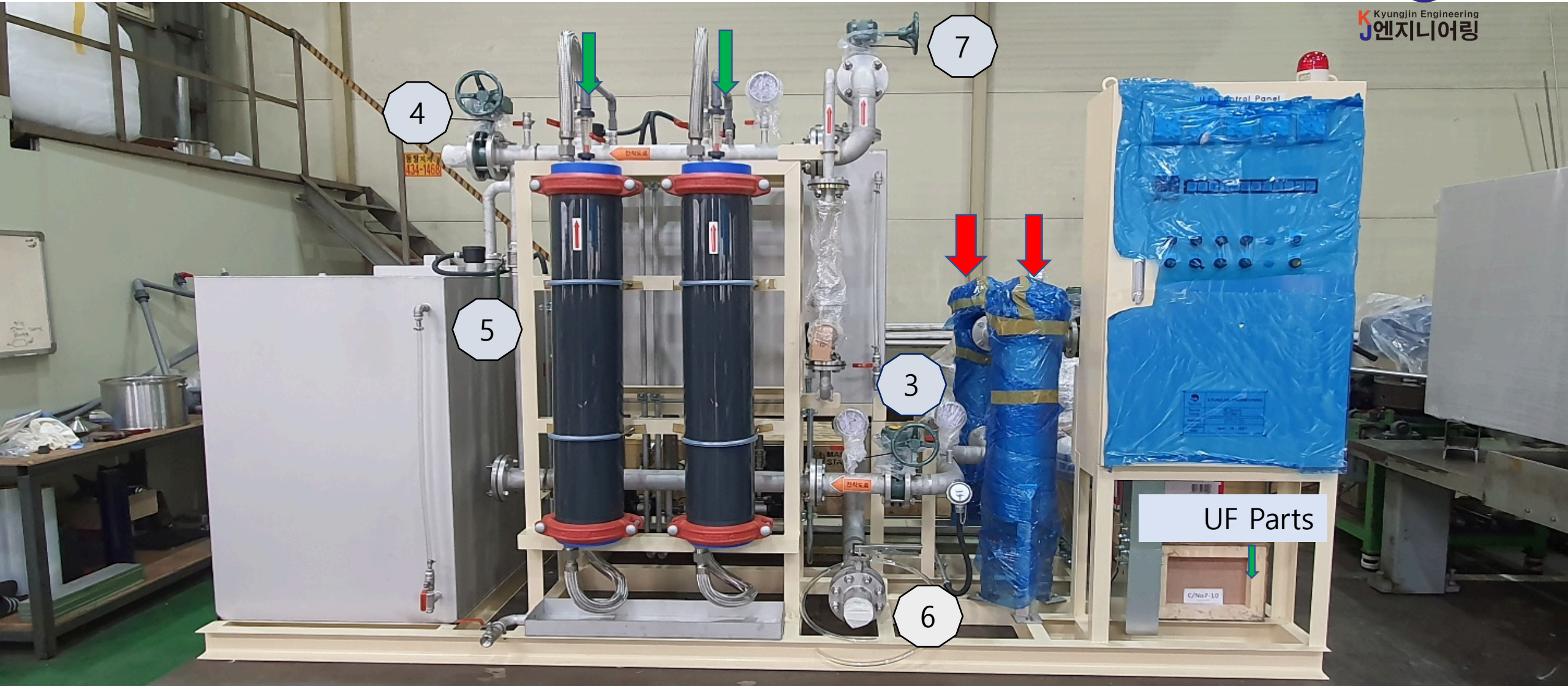
SYSTEM FLOWSEET



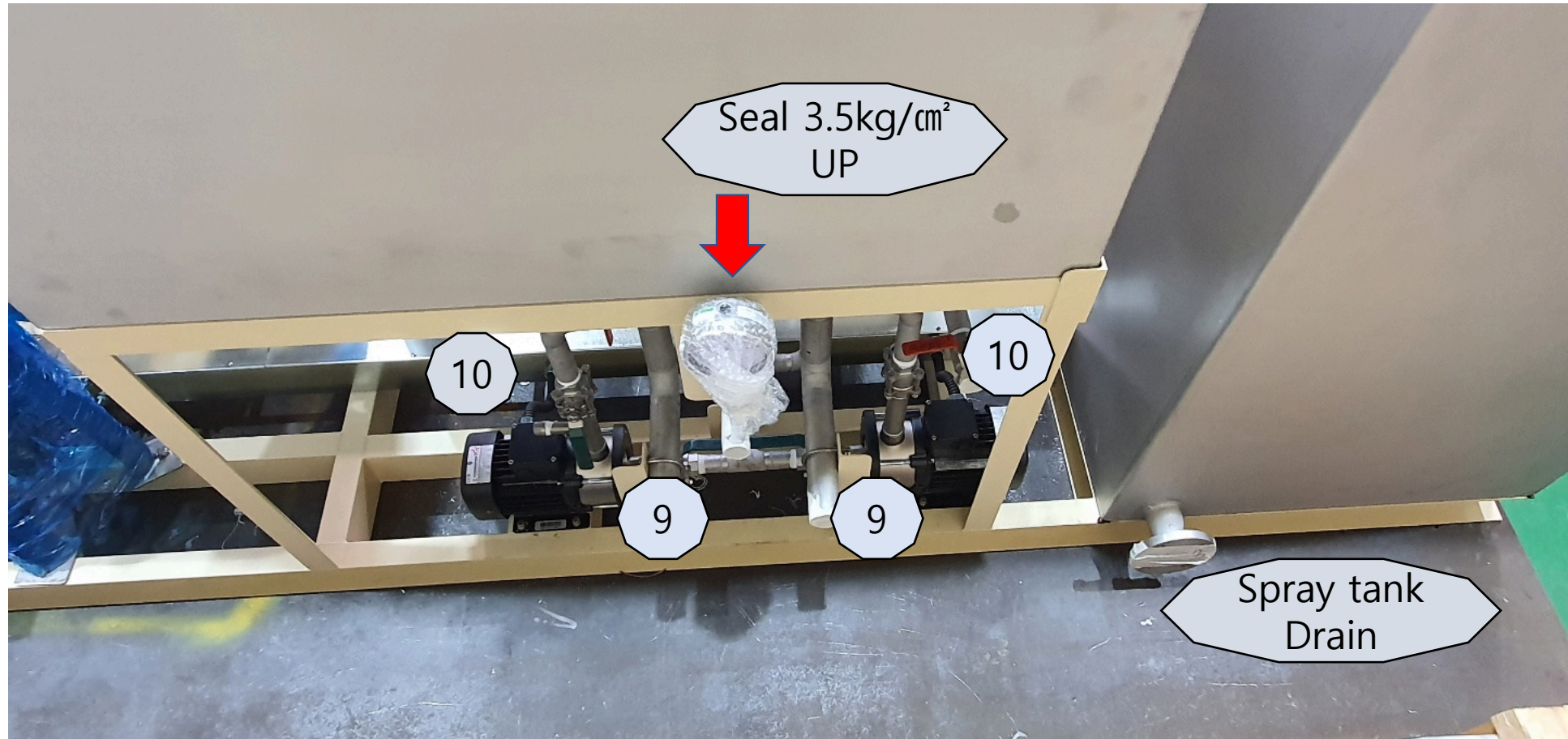
POSITION OF VALVES



Kyungjin Engineering
엔지니어링



SEALING WATER SUPPLY SYSTEM



1. SYSTEM ORDER OF OPERATION



1. Adjust the valves 9, 10, and 11 to operate the SEAL supply device normally. (Check the pressure 3.5Kg/cm² UP)

When pure water is supplied to the initial seal tank, the level sensor is not detected. Supply 500mL of acid

2. Fully open valves 1, 2, 4, and 5 check that valves 6, 7, and 8 are closed, and valve 3 is only ¼ open.

Turn on the supply pump to start the UF supply pump. (Before operating the device, fill the ultrafiltrate tank with pure water.)

3. Adjust valves 3, 4 and 5 to suit operating conditions.

UF inlet pressure 3 ~ 3.5Kg/cm², UF outlet pressure 0 ~ 1Kg/cm²

4. Check that the system is operating normally.

5. Check whether the produced ultrafiltrate flows normally into the spray tank.

6. During production, the automatic valve on the spray pipe is adjusted to ensure spraying.

At this time, make sure that the amount of spray is not more than the amount of ultrafiltrate.

2. SYSTEM ORDER OF STOP



1. Turn off the supply pump switch to stop the UF supply pump.

(Check that the ultrafiltrate tank is full before stopping the device)

2. Close the valve 1 then open the valve 6

3. Operate the supply pump and stop just before the ultrafiltrate tank runs out.

4. Fill the ultrafiltrate tank with pure water and operate the UF supply pump again to push the paint inside the system into the E-coat tank.

5. Close valve 4 and 6 completely.

As a result, the system has been replaced. In this condition, it can be stopped for about 2 hours.

3. BAG FILTER REPLACEMENT



* Proceed after SYSTEM stop

1. Close valves 2 and 3 completely while the SYSTEM is stopped.
2. Open the drain valve at the bottom of the bag housing completely and open the air vent valve at the top to drain all the liquid inside the housing.
3. Open the lid of the housing and replace the bag filter inside.

Cover the O-ring area with the lid while being careful not to contaminate it. (Fill the lid with pure water before closing the lid.)

4. Check the opening and closing of all valves in the same condition as the initial unit operation.

5. After checking all the valves, operate the UF supply pump.

Adjust the valve to meet the driving conditions.

6. Replacement of the BAG FILTER is carried out when the differential pressure between the inlet and outlet is 0.5 bar, but replacement is recommended once every 2-3 weeks.

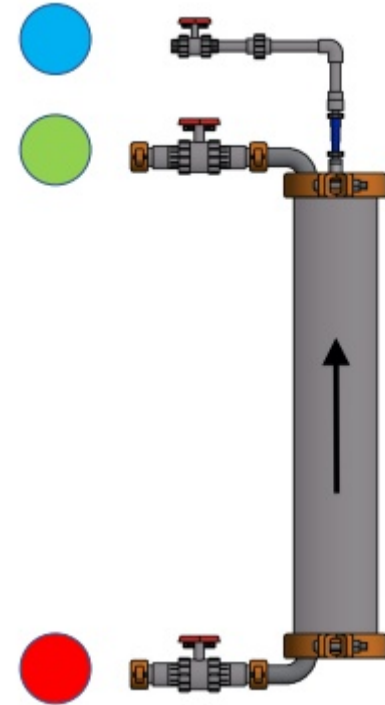
4. UF Membrane cleaning

1. The UF Membrane will either reduce the amount of the transmittance to less than 70% of the initial amount or perform a one-time cleaning every three months.
2. Cleaning is carried out after the bag filter replacement is completed.
3. After replacing the bag filter, use pure water and sanitizer (acetic acid or antic acid and neutralizer) in the tank.
4. Fill the cleaning tank with pure water to the marked line.
(Never allow the level of cleaning fluid to reach over flow.)
5. Check whether the valve is open or closed. Operate the supply pump with valves 6 and 7 fully open and valve 3 1/4 open. The solvent is supplied to a concentration of 1%.)
6. Adjust valves 5, 6 and 7 to suit the driving conditions.
Continue until the temperature of the cleaning solution reaches 40.°C.
7. When the temperature of the cleaning solution reaches 40 °C, the system automatically stops.
Drain all cleaning fluid inside the unit, fill the tank with pure water, and run the unit for approximately 10 minutes.
After operating the precision, stop the unit again and drain all liquids.
- 8.1 Adjust the device's feet, as in how the device works on the fifth slide, and then restart the device.
(If the device is shut down for a long time, stop it after cleaning is completed.)

5. How to stop individual UF modules

(Keep the other modules running)

1. Close the supply valve.
2. Close the return valve.
3. Close the permeate valve.
4. Return the paint to the ED tank.



6. How to operate individual UF modules

(Keep the other modules running)

1. Open the permeate valve

2. Caution is required in this order.

- Place one hand on the return valve and open it.
- Place the other hand on the supply valve and open it.

* Slowly open the two valves simultaneously (for about 45 seconds).

