

[Precautions for Units with Humidifier]

- Supplied water must be clean water that meets the requirements prescribed by the laws and regulations of each country, and also be purified water (municipal water / tap water or water equivalent in quality) that conforms to the following water quality standards.
- Acid consumption: 50 mg/L or less, Total hardness: 70 mg/L or less, Ionic silica: 30 mg/L or less
- *If the humidifying element becomes contaminated with impurities (silicone, machining oil, etc.), humidification performance may decrease.
- Immerse in a solution of 25 g of citric acid per 1 L of water for about 3 hours, then rinse thoroughly with water.
- Perform cleaning and rinsing at room temperature. Depending on the installation location, cleaning may be required about once a month. Frequent cleaning may shorten the replacement interval.
- Dirty water may cause valves to clog, dirt to accumulate in water tanks, and resulting in poor humidifier performance. (Never use water from a cooling tower or warm water for heating.)
- Always install service and drain valves in the water supply piping system.
- Make sure the supply water is between 5 °C and 40 °C in temperature and 0.02 MPa to 0.49 MPa (0.2 kg/cm² to 5 kg/cm²) in pressure. Include a pressure release valve between the humidifier and the strainer if the water pressure will be higher than this range.
- Connect the water supply pipe to the product's water inlet with flexible pipes or equivalent to absorb vibrations and ensure anti-condensation work is done.
- Perform drain piping and anti-condensation work without fail.
- In regions with a risk of freezing, implement antifreeze measures.
- Do not connect drain pipes directly to sewage systems with an ammonia smell, as ammonia can corrode the product internally through the drain pipe.
- Install a shut-off valve for water supply and drainage (sourced locally) within reach of the inspection port.
- During water supply piping work, ensure cleanliness by washing away debris with tap water before piping, or by thoroughly draining murky water through a shut-off valve. Avoid contamination by cutting oil or cleaning solutions used in piping work.
- Maintain a slope of at least 1/100 in the drain piping to prevent water accumulation.
- For collective drain piping, other connected products may increase internal pipe pressure, hindering drainage. Ensure the pressure does not rise.
- Always attach the included drain hose to the drain outlet.
- Keep the product's installation location and humidification air conditions above 0°C.
- Install the product horizontally or slightly inclined towards the drain outlet (within 1°) to avoid water accumulation in the drain pan.
- Avoid placing items that should not get wet under the product. Condensation may drip if humidity exceeds 80% or if the drain outlet is clogged.
- The lifespan (replacement cycle) of the humidification element is approximately three years, though it may shorten based on water quality and operation conditions.
 - Conditions:
 - Evaporation residue: 150ppm
 - Total hardness: 53mg/L
 - Ionic silica: 20mg/L
 - Annual operating time: 10 hours/day × 26 days/month × 5 months = 1,300 hours.
 - Replacement cycle: When initial humidifying capacity falls to about 70%. This is a guideline for safe long-term use, not a warranty period.
- Install a locally sourced humidity control device to prevent over-humidification.
- For 24-hour operation, regular maintenance (e.g., part replacement) is necessary.