# Installation & Ancillary Devices

For minimal maintenance and long life, clean air and purified water must be supplied to the system. IKEUCHI, having vast expertise, provides a wide range of ancillary devices for purifying water/air and automatic humidity control.



## Humidity Controllers

Humidity controller, humidity sensor, and solenoid valve unit work together to provide automated control that maintains the specified humidity level.

## Humidity Controller (RHC-C11)



- Digital display of present humidity and target humidity
- Compact size to fit any place
- •Measurement accuracy: +/-3%
- Supply voltage: 100–240 VAC
- •Range of operation 0–85% RH (0–50°C)

## Humidity Controller (RHC-D\*\*B)

(Controller model numbers are entered in \*\*.)



\*Humidity sensor is sold separately. (This photo is RHC-D22B)

- Digital display of present humidity and target humidity
- •Measurement accuracy: +/-3%
- Supply voltage: 100–110 VAC or 200–220 VAC
- •Using a single controller, up to four zones spread over a wide area can be controlled individually.

## **Solenoid Valve Unit**



A solenoid valve and reducing valve are bundled together as a unit for pressure relief. When the humidifier stops spraying, the remaining air pressure in the piping is instantly relieved, so that only fine fog is sprayed.

## Air Filter

- For removal of dust and moisture contents over 0.3 µm from the compressed air with micro-fiber.
- Available in a variety of sizes.
- Air ancillary device set includes an air filter and oil filter with a manual discharging drain and nipple.



## Water Filter

- •For removal of foreign particles over 5 µm.
- •Available in a variety of sizes.
- •Water ancillary device set includes a water filter, a pressure regulator and nipple.



## Recommended pipe size chart (when using nozzle type 03C)

The total number of 03C nozzles		1 2 3 4	5 6 7 8 9	10 11 12 13 14 15 16 17	18 19 20 21 22	23 24 25 26 27 28 29 30 31 32 33
Air consumption	L/min, Normal (SCFM)	29 L/min, Normal (1.08 SCFM) × the number of nozzles				
Water consumption	L/hr (GPH)	2.4 L/hr (0.63 GPH) × the number of nozzles				
Recommended pipe size (Stainless steel pipes should be used)	Air	1/4" or over	3/8" or over	1/2" or ove	er	3/4" or over
	Water	1/4" or over	3/8" or over		1/2" or over	

If you plan to use 03B or 04E nozzles, please contact us.

#### Air compressor selection chart (when using nozzle type 03C)



Notes: 1. When spraying at 0.3 MPa air pressure, please refer to the black line ( — ).

- When spraying at 0.5 MPa air pressure, please refer to the red line ( ).
- 2. Type of compressor: reciprocating compressor for 0.4–7.5 kW and a screw compressor for 11 kW.
- 3. Using this chart as a target, consult your compressor catalog and confirm the output capacity.

#### For minimal maintenance and long life, supply clean air and pure water

The following table shows the required air and water quality specifications to prevent nozzle clogging.

	Air	Water
Pressure	0.2–0.5 MPa (29–73 psi) for 03C/04E 0.3–0.35 MPa (44–51 psi) for 03B at point of use	0.05–0.2 MPa (8–29 psi) Note: Even if set within given range, water pressure may temporarily exceed 0.2 MPa due to operating and other conditions. The recommended setting is 0.1 MPa (15 psi).
Temperature	5°C (41°F)–Room temperature	Room temperature
Quality	Air without moisture, oil mist, or dust; Dew point 10°C.	No particles. Electric conductivity = 0.07–10 micro-S/cm (Resistance 14–0.1 M ohm/cm)