

### General Notes:

- / Do not make any adjustments. This unit has been thoroughly tested and preset to operate at desired settings. Any change made (including the addition of refrigerant) that is not authorized by M A N Systems will void the warranty. Note to refrigeration contractors: Do not add refrigerant unless authorized by M A N Systems – this equipment is critically charged.
- / Unit must be installed on a level surface. Always keep the unit upright, protect from freezing, protect from construction dust and do not operate until construction is complete.
- / Unit must be installed so that the control panel can be easily accessed and removed by the user. A minimum of 12” service access is recommended on the control panel side.
- / The CW-30 is intended for indoor installations only. It should not be installed in an environment subject to temperatures below 4°C (40°F) or temperature and humidity levels exceeding 27°C (80°F) and 70% RH. Mechanical rooms with hydronic equipment tend to exceed these limits. For applications where the operating environment does not meet these criteria, install unit within the treated space.
- / Units are to be used in fully insulated and sealed rooms. An air tight room is critical – even a very small gap under the door can compromise anticipated equipment performance. Exterior grade doors with jamb and threshold seals should be used to limit warm/cold air in/exfiltration. Air tightness of the treated space is also critical for humidity control.
- / The CW-30W must be installed within the treated space.

### Plumbing Connections:

- / Please refer to utility rough-in instructions.
- / Once final connections have been made and the unit has become operational, confirm there are no water leaks. Ensure the CW-30 has been installed so that any potential water leaks will not damage surrounding materials. After a month of operation, reconfirm there are no leaks.

### Electrical Connection:

- / Please refer to utility rough-in instructions.
- / Unfold line cord prior to use.
- / Plug unit directly into receptacle (do not use an extension cord). Ensure that all plumbing connections are complete and that the water supply is on.

### Thermostat Installation and Connection:

- / Please read the instructions for installation supplied with each thermostat. Consult Operating Instructions for thermostat operation. Ensure that thermostat is installed inside the treated space, in a location which will best indicate the average temperature of the room.

**Clearances & Ducting Requirements for the CW-30M and CW-30W:**

- / If a CW-30 is installed within the treated space, it is not required to have a ducted air return. A minimum clearance of six inches is required between the return air opening on the unit and any adjacent wall or millwork. An air path to the return air opening of the unit with a minimum free area of 80 sq. in. must be provided (Please note that model CW-30W must be installed within the treated space).
- / The supply air grille/opening should be as close to the ceiling as practical or designed to discharge air toward the ceiling. The return air should draw from as close to the floor as possible. Supply air must be ducted and discharged a minimum distance of four feet away from the return air grille to prevent short-cycling. In some cases, supply and return air can both be located at the ceiling level, but special care must be given to prevent short-cycling.
- / Choose one of the following duct sizing methods:
  1. Use optional duct kits offered by M A N Systems.
  2. Quick duct sizing method: All ducting must have a minimum cross-sectional free area of 80 sq. in. Since the supply air opening is only 6" Ø a duct increaser must be installed at the supply air collar of the unit. Return and supply duct runs must not exceed a combined total of 25' in length. The CW-30W requires a supply air grille with a minimum area of 120 sq. in. If a return air grille is used it should be directly in front of and match the size of the return air opening of the unit. The CW-30M requires a supply and return air grille with a minimum area of 144 sq. in. Grilles should have a minimum of 50% free area.
  3. Detailed duct sizing method: Qualified engineers or designers can use the fan performances below for custom duct sizing solutions.

<b>CW-30M FAN PERFORMANCE</b>					
(COIL PRESSURE DROP = 0.3; DESIGN AIRFLOW = 400 CFM)					
STATIC PRESSURE (INCHES WATER)	0	0.24	0.77	1.51	2.06
AIRFLOW (CFM)	450	444	420	374	303

<b>CW-30W FAN PERFORMANCE</b>					
(COIL PRESSURE DROP - 0.15; DESIGN AIRFLOW = 300 CFM)					
STATIC PRESSURE (INCHES WATER)	0	0.12	0.37	0.85	1.32
AIRFLOW (CFM)	330	317	300	280	244

- / Noise caused by vibration transmission can be dampened by using flexible ducting/connectors. Air/fan generated noise can be dampened by using acoustic duct lining. Both are recommended although not required.
- / Only fasten ducting to the return and supply air flanges. Do not drill any holes on any other part of the unit as this may result in damage not covered by the warranty.
- / All duct joints must be sealed with duct tape or preferably with a duct sealant (paste). Ducting located outside the treated space must be insulated to an R10 factor.