



**jaga** canada climate systems inc.

## LOW-H<sub>2</sub>O STATIC HEAT EXCHANGER IOM

### Jaga installation

1. An output calculation according the local standards should be made by a qualified engineer. The required heat output will be determined by the tables and the shedule of the building engineer.
2. The coil should be connected to a two pipe system with a same end connection, other end connections are available optionally. Type 04 - 09 - 14 and 19 have standard opposite end connections. Type 11, 16 and 21 are never available as opposite end connections.
3. The heat exchanger is equipped with two brass collectors for left or right 1/2" NPT same end connection. Air vent 1/8" NPT and drain plug 1/2" NPT are NOT included. In case of same end connection, the supply has to be connected on top and the return on the lowest position.
4. In order to totally block off the cold draft from the window, it is preferable that the length of the coil covers the full length of the window. (The coil does not necessarily need to cover the entire wall).
5. In case curtains are installed, the distance between the window and Jaga unit must allow airflow into the room. The Jaga unit should never be covered by any type of curtain.
6. The coil must remain accessible for maintenance and inspection at all times.
7. The guarantee for the coil is not valid if the system is drained at set times or remains empty after installation for longer than 6 months. The quality of the water has to be in accordance to the VDI 2035-2 directives. PH level has to be below 10 at all times.

### Jaga operation

1. Coils are manufactured in Belgium. The coil is manufactured from round, seamless, tubes of Pure Copper and Aluminum fins with brass collectors. The units should be only used in closed hydronic systems to prevent corrosion of any system components.
2. Proper operation depends on adequate flow of water trough the coil (which can only be accomplished when all the air has been fully vented from the system). In addition to this, free space for supply and return air must be respected as per cut sheets , this is required for optimal airflow and correct outputs.
3. Units should each be vented, with the system pressurized but in a static state (pumps off). Venting may need to be done periodically.
4. DO NOT OVER-PRESSURIZE RADIATORS: Jaga radiators are designed to operate to a maximum standard pressure which is NO MORE THAN 145 PSI. The coils are factory tested at a maximum pressure of 300 PSI.
5. Careful design considerations have been made to minimize the thermal expansion of the heat exchanger. Piping attached to the radiator must provide the necessary expansion compensation as to not force the heat exchanger from its install location.
6. Flexible piping and elbowed piping are two simple ways to provide a typical 1/8 inch to 1/2 inch of flexibility required in expansion situations.
7. Jaga Radiators require less flow rate than typical hydronic heating products. If flow noise is apparent, balance the system until the noise is insignificant.
8. For proper flow rate please consult with the manufacturer or authorized engineer.
9. Many levels of control are available for hydronic systems. Jaga Radiators will provide nice, even heating whether operated by a simple thermostat to baseboard loop system, or an advanced boiler reset controller with motorized mixing valves, constant circulation and 2-pipe distribution.

### Jaga maintenance

1. Hydronic system maintenance should include routine checks for piping leaks (usually indicated by frequent makeup water), and a yearly diagnosis of the system water pH to evaluate its corrosive potential.
2. Internal radiator maintenance depends entirely on the system water makeup and proper venting. Hydronic system additives are available for protection against freezing.
3. External radiator maintenance consists of keeping the surfaces clean.