

**PURE Humidifier Company**  
**Sample Specification**  
**“ESDDR” Series**

**Humidifier**

The humidifier shall be an electrically heated immersion heater type as manufactured by PURE Humidifier Company of Chaska, Minnesota.

The humidifier shall be tested and approved by ETL/ETL-C Testing Laboratories, Inc. (ETL #472940).

The humidifier shall be suitable for use with pure water such as deionized, demineralized or reverse osmosis water with a maximum purity of 18 megaohms per sq. centimeter.

The humidifier shall have an evaporating reservoir with a gasket sealed cover which is capable of operating at pressures of at least 19”-48 cm (W.C.) without steam or water leaks. The reservoir shall be made of type 304 stainless steel with welded joints.

The humidifier shall be designed to facilitate easy removal of the heater assembly for inspection. The cover and heater assembly shall be secured to the unit by the use of quick release clamps. The heater assembly shall be removable from the side of the humidifier without disturbing the cover or injection tube system’s steam supply piping.

Humidifier shall be field convertible from an electric immersion heater style "ESDDR" humidifier to a steam heat exchanger style "SXDDR" humidifier with a simple change of the side entry assembly.

A stainless steel float operated low water cut-off switch shall be provided. The float switch shall provide positive low water cutout of the humidifier immersion heaters.

The immersion heater(s) shall be incoloy clad and designed for 80 watts per sq. inch.

A stainless steel float operated water fill valve mounted on the top of the reservoir near the front shall be provided. The fill valve shall provide automatic refilling of the humidifier reservoir. The water inlet shall be located to allow a minimum water gap of 1 ½” (3.81 cm).

The humidifier shall have a ¾” (1.9 cm) over-flow pipe to prevent overflowing of the humidifier reservoir.

A ¾” stainless steel ball valve shall allow for manual draining of the humidifier reservoir.

The humidifier shall have a manual reset over-temperature switch factory installed on the humidifier reservoir. The temperature switch shall provide humidifier over-temperature protection.

The humidifier shall be provided with an ETL listed JIC NEMA 12 control cabinet, shipped loose (reference factory mounting option). The control cabinet shall be made of 14 gauge steel with ANSI 61 gray polyester powder coating, continuous hinge and oil-resistant gasket. The panel shall include a factory wired sub-panel with magnetic contactor(s), time delay relay, fused control circuit transformer, numbered terminal block and heater fuse(s).

An INTAC<sup>®</sup> programmable microprocessor controller shall be factory mounted and wired on the cover of the control panel. The control cabinet shall have a factory wired time delay relay circuit. The delay circuit shall prevent cycling of the low water interlock circuit due to water fluctuations within the humidifier reservoir.

Injection tube(s) shall be 1 ½" (3.81 cm) O.D. type 304 stainless steel, .049" wall, and shall be as long as required by the humidifier model and duct size. For each "Angle Tube" or "Universal Tube", the unit cover shall have a matching connection so that the tube can be connected by using a 8" (20.32 cm) flexible connector with stainless steel hose clamps. Two piece duct plate shall be included for sealing the duct opening