

# ACIDIC CONDENSATE WASTEWATER pH TREATMENT SPECIFICATION

~ Condensing Boilers, Furnaces, Hot Water Heaters, Flue Economizers, and Flue Drains~

Part 1 - GENERAL / **Heater Units with BTU Inputs of 1-300 MBH.**

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications, apply to this Section.

## 1.2 SUMMARY

A. This section includes Fireside acidic condensate wastewater treatment.

B. Related Sections include the following:

1. Division 23 Section "Breeching, Chimney, and Stack Drains.
2. Division 23 Section "Acidic condensate collection and treatment.
3. Division 23 Section for control wiring for automatic pH treatment control of acidic condensate wastewater.

## 1.3 SUBMITTALS

A. Product Data: Include rated capacities; shipping; installed, and operating weights; furnished specialties and accessories for each model indicated.

B. Shop Drawings: Detailed equipment assemblies and indicated dimensions, required clearances, and method of field assembly, components, and location and size of each field connection.

C. Maintenance Data: Include in the maintenance manuals specified in division 1. Include parts list, and maintenance guide.

## 1.6 QUALITY ASSURANCE

A. All tank components shall be ABS, Polypropylene, and Polycarbonate. **The tank design shall be designed so the service technician does not have to disconnect unions or piping when recharging is required.**

## 1.7 WARRANTY

A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents. Installing contractor shall provide one year of warranty parts and labor.

B. Special Warranty: Submit a written warranty, executed by the contractor for the acidic condensate wastewater treatment tank.

C. Warranty Period: Shall be two years from date of Commissioning for manufactures defects. The warranty does not include recharging of the tank.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURES:

A. Available Manufactures: Manufacturer shall be a company specializing in the manufacturing of the products specified in this section with minimum five (5) years experience.

B. Service Access: **The acidic condensate wastewater treatment tank shall have a removable clear see through access cover for replacing and recharging active ingredient. The active ingredient shall be Magnesium Hydroxide Pellets.**

D. Testing: Contractor shall test pH level at the outlet of the tank with a digital pH meter and submit a report to the design Engineer.

#### 1.4 Manufactures

A. Manufacturers: JJM BOILER WORKS, INC. is the basis of design. Listed acceptable manufacturers shall be subject to compliance with the requirements. Provide pH treatment tank or tanks by one of the following:

MODEL: **NBT-23 Acidic** Condensate wastewater pH Treatment Tank with a Maximum rating of 300,000 BTUs and 2.4 GPH.

1. JJM Boiler Works, Inc.
2. Viessmann, USA
3. Nu-Con Company

**The active ingredient shall be Magnesium Hydroxide Pellets. Limestone, calcite flakes, and marble chips will not be accepted on this project has an active ingredient.**

#### 1.5 COMPONENTS:

- A. Wall mounting brackets. Tank can also be floor mounted.
- B. Pre-charged Magnesium Hydroxide Pellets within an porous bag for easy recharging. Provide an extra recharge porous pellet bag kit.
- C. Two: .5" NPT x .75 O.D. Barb fittings.
- D. Two: .5" NPT x .75" PVC Socket Fittings.
- F. One: .75" NPT PVC Socket Inlet Port.

G. One .75" MNT PVC Socket Outlet Port

H. The tank shall have an orifice baffle for flow control.

2.2 Product Rating:

A. Shall be rated up to 300 MBH Input of heating unit.

B. Flow rate shall be up to 2.40 GPH

C. Horizontal Mounting Only.

D. Schedule

Model	MBH	GPH	Manufacture
NBT-23	300 Max	2.4	JJM Boiler Works

2.3 COMMISSIONING:

1. Contractor shall engage a Factory-authorized service representative to provide startup service or commission may be done by the contractor. Start up to be performed only after complete boiler room operation is field verified by the installing contractor. One Year labor and parts warranty shall be provided by the contractor.

