

## **SECTION 22 99 00 - ADJUSTING AND BALANCING**

### **PART 1 - GENERAL**

#### **1.1 WORK INCLUDED**

- A. Provide labor, materials, equipment and services to perform operations required for complete adjusting and balancing Work as required in Contract Documents.

#### **1.2 SUBMITTALS**

- A. Provide information in report form listing items required by the Project specifications. Report shall be typed and three copies submitted for review. Results shall be guaranteed. Contractor shall be subject to recall to site to verify report information before acceptance of the report by the Owner's Representative.
- B. Report format shall consist of the following:
  - 1. Title sheet with job name, contractor, engineer, date, balance contractor's name, address, telephone number and contact person's name and the balancing technician's name.

#### **1.3 QUALIFICATIONS**

- A. Follow procedures and methods published by one or more of the following:
  - 1. Individual manufacturer requirements and recommendations.
- B. Maintain qualified person at project for system operation, trouble shooting and perform mechanical adjustments in conjunction with balancing procedure.
- C. Balancing contractor shall be current member of AABC or NEBB.

#### **1.4 GENERAL REQUIREMENTS**

- A. Before concealment of systems visit the job site to verify and advise on type and location of balancing devices and test points. Make changes as required to balancing facilities.
- B. Place systems in satisfactory operating condition.
  - 1. Adjusting and balancing shall be accomplished as soon as the systems are complete and before Owner takes possession.
  - 2. Prior to balancing adjust balancing devices for full flow; fill, vent and clean plumbing systems, replace temporary strainers.
  - 3. Initial adjustment and balancing to quantities as called for or as directed by the Engineer, to satisfy job conditions.

## **PART 2 - PRODUCTS**

### **2.1 GENERAL REQUIREMENTS**

- A. Provide tools, ladders, recording meters, gauges, thermometers, velometers, anemometers, inclined gauge manometers, magnehelic gauges, amprobes, voltmeters, psychrometers and tachometers required. Instruments used shall be accurately calibrated as per AABC or NEBB requirements.

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Examine Bid Documents and notify Owner's Representative of any questions regarding balancing, within thirty days after receipt of bid and prior to starting work.

### **3.2 WATER SIDE**

- A. Test, adjust and record the following:
  - 1. Hot Water Re-circulating and Circulation Pumps:
    - a) Check rotation
    - b) GPM
    - c) Running suction pressure
    - d) Running discharge pressure
    - e) Running load amps
    - f) RPM - motor
    - g) Complete nameplate motor and pump
  - 2. Domestic Hot Water Re-circulation System Balancing Valves:
    - a) Balance every valve to GPM noted on the Drawings.

**END OF SECTION**