

## **1. General Information**

### **1.1 Summary**

#### **.1 Section Contents**

- .1 Balancing dampers intended for mechanical ventilation and air conditioning installations.**

### **1.2 References**

- .1 Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)**
  - .1 SMACNA, HVAC Duct Construction Standards, Metal and Flexible.**
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)**
  - .1 Material Safety Data Sheets (MSDS).**

## **2. Products**

### **2.1 General information**

- .1 The dampers must be manufactured in accordance with the relevant SMACNA standards.**

### **2.2 Air distribution dampers**

- .1 Dampers with the blade(s) made from the same material as the air duct, but with the normalized thickness immediately superior than that of the latter, with an appropriate reinforcement device.**
- .2 Blade(s) made from two layers of sheet metal.**
- .3 Control rod with locking mechanism and position indicator.**
- .4 Rod shaped to prevent it from completely entering the air duct.**
- .5 Pivot mechanism with a piano hinge.**
- .6 Blade(s) with leading edge folded over.**

### **2.3 Single flap dampers**

- .1 Single flap dampers made from the same material as the air duct, but with the normalized thickness immediately superior than that of the latter, with a V-groove for improved rigidity.
- .2 Shape and dimensions in accordance with SMACNA recommendations, except for the maximum height, which must be 100 mm as indicated.
- .3 Extended locking area appropriate for the air duct's thickness of insulation.
- .4 End bearings for the interior and exterior in bronze.
- .5 Shaped frame made of the same material as the air duct in which the damper is mounted, and equipped with angle stops.

### **2.4 Multiple flap dampers**

- .1 Factory made dampers with materials compatible with the air ducts in which they are mounted.
- .2 Opposing flaps, shape, thickness (metal) and manufacturing in accordance with SMACNA's recommendations.
- .3 Maximum height of the flaps in accordance with the indications.
- .4 Self-lubricating bearings with a bronze padded pin made of nylon.
- .5 Locking sector control linkage with extension.
- .6 Shaped frame made of the same material as the air duct in which the damper is mounted, and equipped with angle stops.

## **3. Execution**

### **3.1 Manufacturer's instructions**

- .1 Compliance: Comply with manufacturer's written requirements, recommendations, and specifications, including any available technical bulletins, instructions for handling, storing, and installing products, and data sheet instructions.

### **3.2 Installation**

- .1 Install the dampers where indicated.
- .2 Install the dampers in accordance with SMACNA's recommendations and the manufacturer's instructions.
- .3 Install balancing dampers in bypass ducts for supply, return and exhaust systems.
- .4 Mount a single flap balancing damper in each of the bypasses connected to a damper or diffuser and place it as close to the main duct as possible.
- .5 Install the dampers to prevent vibration.
- .6 Install control devices where they are clearly visible and accessible.
- .7 The corrections and adjustments will be performed by the Engineer.

### **3.3 On-site quality control**

- .1 Tests
  - .1 The tests must be performed for a period of at least 2 days and must demonstrate that the system is working as directed.

### **3.4 Cleaning**

- .1 Perform cleaning activities
- .2 Once the installation and performance monitoring work is complete, remove excess materials and equipment, waste, tools and equipment from the construction site.

**END OF SECTION**