

PART 1 GENERAL

1.1 RELATED SECTIONS

- .1 Section 23 31 13.01 - Metal Duct - Low Pressure to 500 Pa

1.2 REFERENCES

- .1 Sheet Metal and Air Conditioning 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).

1.3 SUBMITTALS

- .1 Product Data:
- .2 Submit manufacturer's printed product literature, specifications and datasheet in accordance with Section 01 33 00 - Submittal Procedures. Include product characteristics, performance criteria, and limitations.
 - .1 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS) in accordance with Section 01 33 00 - Submittal Procedures.
- .3 Quality assurance submittals: submit following in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .2 Instructions: submit manufacturer's installation instructions.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Packing, shipping, handling and unloading:
 - .1 Deliver, store and handle in accordance with Section 01 61 00 - Common Product Requirements.

PART 2 PRODUCTS

2.1 GENERAL

- .1 Manufacture to SMACNA standards.
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2.2 SUYPPLY AIR BALANCING DAMPER

- .1 Damper shall consist of: a 1mm galvanized steel frame with 162mm depth.
- .2 Blades fabricated from 1mm galvanized steel.
- .3 10mm square plated steel axles, acetal bearings.
- .4 Damper suitable for pressures to 250 Pa, velocities to 10.2 m/s and temperatures to 82°C.
- .5 Testing and ratings to be in accordance with AMCA Standard 500-D.

2.3 EXHAUST AIR BALANCING DAMPER (FUME Hood)

- .1 Damper shall consist of: a 1mm stainless steel hat channel frame with 127mm depth.
- .2 Triple V type blades fabricated from 1.5mm stainless steel.
- .3 12mm diameter plated steel axles; external blade-to-blade linkage.
- .4 Damper suitable for pressures to 1,000 Pa, velocities to 10.2 m/s and temperatures to 82°C.
- .5 Testing and ratings to be in accordance with AMCA Standard 500-D.

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

3.2 INSTALLATION

- .1 Install where indicated.
 - .2 Install in accordance with recommendations of SMACNA and in accordance with manufacturer's instructions.
 - .3 Locate balancing dampers in each branch duct, for supply, return and exhaust systems.
 - .4 Runouts to registers and diffusers: install single blade damper located as close as possible to main ducts.
 - .5 Dampers: vibration free.
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- .6 Ensure damper operators are observable and accessible.
- .7 Make corrections and adjustments as directed by Contract Administrator.

3.3 FIELD QUALITY CONTROL

- .1 Tests:
- .2 Tests to cover period of not less than days and demonstrate that system is functioning as specified.

3.4 CLEANING

- .1 Proceed in accordance with Section 01 74 00 - Cleaning and Waste Management.
- .2 Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION
