

PART 1 - GENERAL

- 1.1 REFERENCES .1 Sheet Metal and Air Conditioning National Association (SMACNA)
.1 SMACNA HVAC Duct Construction Standards, Metal and Flexible-Latest Edition.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
.1 Material Safety Data Sheets (MSDS).
- 1.2 ACTION AND INFORMATIONAL SUBMITTALS .1 Product Data:
.1 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.
- 1.3 QUALITY ASSURANCE .1 Health and Safety Requirements:
.1 Do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- 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.
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PART 2 - PRODUCTS

- 2.1 GENERAL .1 Manufacture to SMACNA standards.
- 2.2 SINGLE BLADE DAMPERS .1 Fabricate from same material as duct, but one sheet metal thickness heavier. V-groove stiffened.
- .2 Size and configuration to recommendations of SMACNA.
- .3 Locking quadrant with shaft extension to accommodate insulation thickness.
- .4 Inside and outside bronze end bearings.
- .5 Channel frame of same material as adjacent duct, complete with angle stop.
- 2.3 MULTI-BLADED DAMPERS .1 Factory manufactured of material compatible with duct.
- .2 Opposed blade: configuration, metal thickness and construction to recommendations of SMACNA.
- .3 Maximum blade height: 100 mm.
- .4 Bearings: pin in bronze bushings.
- .5 Linkage: shaft extension with locking quadrant.
- .6 Channel frame of same material as adjacent duct, complete with angle stop.
- .7 Maximum leakage : 5% at 300 Pa.
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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.
- .6 Ensure damper operators are observable and accessible.
- .7 Corrections and adjustments conducted by Engineer.
- 3.3 FIELD QUALITY CONTROL .1 Tests:
.1 Tests to cover period of not less than 3 days and demonstrate that system is functioning as specified.
- 3.4 CLEANING .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 Upon completion and verification of performance of installation, remove surplus
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3.4 CLEANING .2 (Cont'd)
(Cont'd) materials, excess materials, rubbish, tools
and equipment.