

PART 1 - GENERAL**1.1 REFERENCES**

- .1 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).
- .2 Sheet Metal and Air Conditioning Contractors' National Association (SMACNA).
 - .1 SMACNA - HVAC Duct Construction Standards - Metal and Flexible, 95.
- .3 National Fire Protection Association (NFPA).
 - .1 NFPA 90A-2009, Installation of Air Conditionning and Ventilating Systems.
 - .2 NFPA 90B-2009, Installation of Warm Air Heating and Air Conditionning Systems.
- .4 Underwriter's Laboratories of Canada (ULC).
 - .1 CAN/ULC-S110-M86(R2001), Fire Tests for Air Ducts.
 - .2 UL 181-1996, Factory Made Air Ducts and Connectors

1.2 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data.
 - .1 Submit manufacturer's printed product literature, specifications, and data sheet. Indicate the following:
 - .1 Flexible connections.
 - .2 Duct access doors.
 - .3 Turning vanes.
 - .4 Instrument test ports.
 - .2 Submit Material Safety Data Sheets (MSDS).

AIR DUCT ACCESSORIES

- .3 Test Reports: Submit independent laboratory test reports in order to certify that the products and materials satisfy the performance criteria.
 - .1 Technical data provided by the manufacturer must be reliable and confirmed by tests performed by the manufacturer or by independent laboratories in order to certify their compliance to the standards.
- .4 Certificates: Submit documents signed by the manufacturer in order to certify that the products and materials satisfy the performance criteria.
- .5 Instructions: Submit manufacturer's installation instructions.
- .6 On-field Manufacturer Inspection: Submit reports for these inspections.
- .7 Closeout Submittals: Submit maintenance data sheets and join them to the manual mentioned in section 01 78 00 - Closeout Submittals.

1.3 QUALITY ASSURANCE

- .1 Health and Safety:
 - .1 Apply required measures in accordance with section 01 35 29.06 - Health and Safety Requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Waste Management and Disposal.
 - .1 Remove from site and dispose of packaging materials at appropriate recycling facilities.
 - .2 Collect and separate for disposal packaging material in appropriate on-site bins for recycling, in accordance with Waste Management Plan.
 - .3 Divert unused metal materials from landfill to recycling facility as approved by Departmental Representative.

PART 2 - PRODUCTS**2.1 GENERAL**

- .1 Accessories to be manufactured in accordance with SMACNA - HVAC Duct Construction Standards.

2.2 ACCESS DOORS IN DUCTS

- .1 Non-Insulated Ducts: Sandwich construction of same material as duct, one sheet metal thickness heavier, minimum 0.6 mm thick complete with sheet metal angle frame.
- .2 Insulated Ducts: Sandwich construction of same material as duct, one sheet metal thickness heavier, minimum 0.6 mm thick complete with sheet metal angle frame and 25 mm thick rigid glass fibre insulation.
- .3 Gaskets: Neoprene, 20 mm x 10 mm.
- .4 Hardware.
 - .1 Doors, up to 300 mm x 300 mm: Two locks, Duro Dyne SL-1, with chain.
 - .2 Doors, up to 301 mm x 450 mm: Four locks, Duro Dyne SL-1, with chain.
 - .3 Doors, from 451 to 1,000 mm height: One continuous piano type hinge and at least two locks, Duro Dyne SL-1.
 - .4 Doors, over 1,000 mm height: One continue piano type hinge and three handles operable from both inside and outside.
 - .5 Door holder: Device to keep doors in open position.

2.3 TURNING VANES

- .1 Factory or shop fabricated single or double thickness, to recommendations of SMACNA and as indicated.

PART 3 - EXECUTION

3.1 INSTRUCTIONS DU FABRICANT

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

3.2 INSTALLATION

- .1 Access Door Duct.
 - .1 Size:
 - .1 610 x 1,520 mm for person size entry.

AIR DUCT ACCESSORIES

- .2 460 x 460 mm for handhole.
 - .3 300 x 200 mm for viewing.
 - .4 As indicated.
- .2 Locations:
 - .1 Devices requiring maintenance.
 - .2 Required by Code.
 - .3 Elsewhere as indicated.
- .3 Handhole location:
 - .1 Located to give access to the smoke evacuation dampers and fire dampers
 - .2 Located to give access to balancing dampers.
 - .3 Located to give access to devices requiring periodical maintenance.
 - .4 Located as required by standards.
 - .5 Located where indicated.
- .2 Turning vanes.
 - .1 Install in accordance with recommendations of SMACNA and as indicated.

3.3 CLEANING

- .1 Once installation work is completed, clear the job site of all surplus material, waste, tools and safety barriers.

END OF SECTION