

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Flexible ductwork, materials, joints, accessories and related installation methods.

1.2 RELATED SECTIONS

- .1 Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.

1.3 REFERENCES

- .1 Unless otherwise indicated, all the works must be done in accordance with the latest edition of the Quebec Construction Code (QCC).
- .2 Furthermore, works must be carried out in accordance with any other code or standard having jurisdiction, as per the latest edition, including, but not limited to:
 - .1 National Fire Protection Association (NFPA).
 - .1 NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems.
 - .2 NFPA 90B, Standard for Installation of Warm Air Heating and Air-Conditioning Systems.
 - .2 Sheet Metal and Air-Conditioning Contractors' National Association (SMACNA).
 - .1 SMACNA, HVAC Duct Construction Standards - Metal and Flexible.
 - .3 Underwriters Laboratories Inc. (UL).
 - .1 UL 181, Factory Made Air Ducts and Connectors.
 - .4 Underwriters Laboratories of Canada (ULC).
 - .1 CAN/ULC-S110, Standard Methods of Test for Air Ducts.

1.4 SUBMITTALS

- .1 Submit required documents and samples in accordance with Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.

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.2 Shop drawings:

.1 Shop drawings must indicate the following:

- .3 Thermal properties.
- .4 Friction losses.
- .5 Acoustic transmission.
- .6 Tightness.
- .7 Fire resistance characteristics.

1.5 CLOSEOUT SUBMITTALS

.1 Submit all required closeout submittals and integrate them into the "Operating and Maintenance Manual", according to Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.

.2 Maintenance data:

.2 Submit the following maintenance data:

- .1 Description of equipment, including manufacturer name, type, model, year of manufacture, and power, flow rate or capacity.
- .2 Pertinent details on operation, servicing and maintenance.
- .3 A list of recommended spare parts.

1.6 RELIABILITY OF TECHNICAL DATA

.1 Data taken from manufacturer documentation and catalogues must be reliable, confirmed by tests conducted by the manufacturer itself or by independent laboratories on behalf of the manufacturer, and must result in certification that the equipment complies with existing codes and standards.

PART 2 - PRODUCTS

2.1 GENERAL

- .1 Factory fabricated to CAN/ULC S110.
- .2 Flame spread rating not to exceed 25. Smoke developed rating not to exceed 50.

Rev. 00: Issued for tender (2013-11-19)

2.2 INSULATED ACOUSTIC FLEXIBLE DUCTS (LOW PRESSURE)

- .1 Three-ply aluminum foil flexible ducts, perforated, with glass fibre insulation, covered with aluminum foil vapour barrier.
 - .1 Duct core thickness: 0.22 mm.
 - .2 Insulation thickness: 25 mm.
 - .3 Vapour barrier thickness: 0.14 mm.
- .1 Performance:
 - .1 Minimum service pressure: 900 Pa.
 - .2 Acceptable products: Trans Continental Equipment model RAA.

2.3 ACCESSORIES

- .1 Nylon ties, UL rated class 1.
 - .1 Acceptable products: Duro Dyne Dyne-O-Ties.

PART 3 - EXECUTION

3.1 INSTALLATION OF FLEXIBLE DUCTS

- .1 Install flexible air ducts where specified in compliance with SMACNA recommendations, ANSI/NFPA 90A and 90B, and UL 181 standards.
- .2 Flexible ductwork must be supported in accordance with SMACNA recommendations.
- .3 Flexible duct length connected to diffuser must not exceed 1200 mm.
- .4 Flexible duct length connected to boxes must not exceed 900 mm.

END OF SECTION

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