

PART 1 - GENERAL

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| <u>1.1 REFERENCES</u>                          | .1 | American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE).   |
|  | .2 | Department of Justice Canada (Jus).<br>.1 Canadian Environmental Protection Act (CEPA).<br>.2 Transportation of Dangerous Goods Act.  |
|  | .3 | Health Canada/Workplace Hazardous Materials Information System (WHMIS).<br>.1 Material Safety Data Sheets (MSDS).   |
|  | .4 | National Fire Protection Association (NFPA).<br>.1 NFPA 90A-Latest Edition, Standard for the Installation of Air-Conditioning and Ventilating Systems.<br>.2 NFPA 90B-Latest Edition, Standard for Installation of Warm Air Heating and Air-Conditioning Systems. |
|  | .5 | Sheet Metal and Air-Conditioning Contractors' National Association (SMACNA).<br>.1 SMACNA HVAC Duct Construction Standards - Metal and Flexible.  |
|  | .6 | Underwriters' Laboratories Inc. (UL).<br>.1 UL 181-Latest Edition, Standard for Factory-Made Air Ducts and Air Connectors.  |
|  | .7 | Underwriters' Laboratories of Canada (ULC).<br>.1 CAN/ULC-S110-Latest Edition, Fire Tests for Air Ducts.  |
| <u>1.2 ACTION AND INFORMATIONAL SUBMITTALS</u> | .1 | Product Data: submit for the following:<br>.1 Thermal properties.<br>.2 Friction loss.<br>.3 Acoustical loss.<br>.4 Leakage.<br>.5 Fire rating.   |
|  | .2 | Samples: submit samples with product data of different types of flexible duct being used in   |
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<u>1.2 ACTION AND INFORMATIONAL SUBMITTALS (Cont'd)</u>	.2	Samples: (Cont'd) accordance with Section 01 33 00 - Submittal Procedures.
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<u>1.3 QUALITY ASSURANCE</u>	.1	Certification of Ratings: .1 Catalogue or published ratings to be those obtained from tests carried out by manufacturer or independent testing agency signifying adherence to codes and standards.
	.2	Health and Safety: .1 Do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.

<u>1.4 DELIVERY, STORAGE AND HANDLING</u>	.1	Protect on site stored or installed absorptive material from moisture damage.
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## PART 2 - PRODUCTS

<u>2.1 GENERAL</u>	.1	Factory fabricated to CAN/ULC-S110.
	.2	Pressure drop coefficients listed below are based on relative sheet metal duct pressure drop coefficient of 1.00.
	.3	Flame spread rating not to exceed 25. Smoke developed rating not to exceed 50.
<u>2.2 METALLIC - INSULATED</u>	.1	Type 2: spiral wound flexible aluminum with factory applied, 37 mm thick flexible glass fibre thermal insulation with vapour barrier and vinyl jacket, as indicated.

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| 2.2 METALLIC -<br>INSULATED<br>(Cont'd) | .2 | Performance:<br>.1 Factory tested to 2.5 kPa without<br>leakage.<br>.2 Maximum relative pressure drop<br>coefficient: 3. |
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PART 3 - EXECUTION

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| 3.1 DUCT<br>INSTALLATION | .1 | Install in accordance with:<br>CAN/ULC-S110SMACNA.           |
|                          | .2 | Limit length of flexible duct to no more than<br>1.5 meters. |