1. **PART 1 – GENERAL**
	1. **References**
		1. All work shall be in conformance to the latest revision of « Quebec Building Code – Chapter I», unless otherwise indicated.
		2. All work shall conform to the latest revised codes and standards that having jurisdiction, including but not limited to:
			1. ANSI / ASME B16.1, Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250 and 800.
			2. ANSI / ASME B16.3, Malleable-Iron Threaded Fittings, Classes 150 and 300.
			3. ANSI / ASME B16.5, Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and other Special Alloys.
			4. ANSI / ASME B16.9, Factory-Made Wrought Steel Buttwelding Fittings.
			5. ANSI B18.2.1, Square and Hex Bolts and Screws.
			6. ANSI / ASME B18.2.2, Square and Hex Nuts.
			7. ANSI / AWWA C111 / A21.11, Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
			8. ASTM A47M, Specification for Ferritic Malleable Iron Castings.
			9. ASTM A53, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless.
			10. ASTM A536, Specification for Ductile Iron Castings.
			11. ASTM B62, Specification for Composition Bronze or Ounce Metal Castings.
			12. ASTM E202, Test Method for Analysis of Ethylene Glycols and Propylene Glycols.
			13. CSA B242, Groove and Shoulder Type Mechanical Pipe Couplings.
			14. CSA W47.1, Certification of Companies for Fusion Welding of Steel Structures.
	2. **Submittals**
		1. Product Data:
			1. Submit shop drawings and technical data in conformance with client’s instructions
	3. **Instruction and Maintenance Manual**
		1. Submit manufacturer’s installation and start-up instructions.
		2. The maintenance manual will comprise of or indicate the following:
			1. A description of the major components; the manufacturer, series or model reference number;
			2. All details relating to the operation, care and maintenance of component;
			3. A list of equivalent component replacements.
2. **PART 2 – PRODUCT**
	1. **Suction Diffuser**
		1. Cast iron construction Class 125. Maximum working pressure 1207 kPa (175 psi) and maximum working temperature 121°C (250°F).
		2. Connection: Flanged Rating Class 125 ANSI flat face.
		3. Suction Diffuser is a combination flow straightener and strainer. Strainer portion is composed of a “Start-up” mesh and permanent cylindrical sieve. Adjustable foot mounted support.
			1. “Start-Up” Sieve: 20 screen mesh.
			2. Permanent Sieve: Stainless Steel cylinder perforated with 3/16" (4.76 mm) holes.
		4. All suction diffusers are designed to withstand a differential pressure equal to the maximum head of the pumping system at no flow.
		5. The length of the flow straightening vanes will not be less than twice the diameter opening of the discharge flange connection.
		6. Flow and size: according to the pump tables on [piping schematics] [specifications].
		7. Acceptable component: Flo Fab series ASDFF.
3. PART 3 – EXECUTION
	1. **Installation**
		1. Installation shall conform to National Plumbing Code of Canada and any other local laws and regulations.
		2. Install strainers allowing sufficient space to perform regular removal and maintanence of the screen and is correctly oriented, arrow embossed on body indictes direction of flow.
		3. Install foot support or pipe hangers such that the pump flange is not supporting the weight of upstream fittings and piping. Refer to details and installation instructions of the manufacturer.
		4. Start-up:
			* 1. Ensure that the screen is easily accessible;
				2. Do not proceed with the start-up unless all of the deficiencies have been identified and corrected;
				3. Start-Up sieve with attached contaminates is to be removed and discarded after the initial start-up sequence.

**End of Section**