# Armstrong Vortex Steam Flow Meter Specifications

* + - 1. The steam flow meter shall be AVF/AVI Series vortex type technology, as manufactured by Armstrong International and supplied by XXXXXXXXXXXXX, Tel: XXX-XXX-XXXX.
			2. The steam flow meter shall provide multivariable measurement of volumetric or mass flow including temperature (1000 ohm platinum RTD), pressure and velocity measurements for a fully compensated mass flow rate corrected for density with real time calculations with turndown up to 100:1. The temperature and/or pressure sensors shall be integral to the meter body. External temperature and/or pressure sensors will be unacceptable.
			3. Inline body wetted materials shall be 316L stainless steel, carbon steel, or Hastelloy Cwith Class 150, 300, or 600 lb ANSI flanges or DIN PN 16, 40, 64 flanged connections for sizes ½” to 12” diameter dependant on application.
			4. For applications that cannot be shut down the model AVI insertion vortex meter shall be used for pipe sizes 2” (50 mm) (DN 50) and above with either flanged or NPT process connections up to ANSI Class 600 (PN64). An optional retractor tool shall be available providing easy hot-tap installation and removal.
			5. Output communication shall be available through up to (3) 4-20mA outputs, Pulse, Relay, BACnet. HART™ protocol, Modbus or BACnet and shall be integral to the vortex meter electronics.
			6. Input power shall be available as 12 – 36 VDC LP/DC or 100 – 240 VAC AC.

Display shall be LCD alphanumeric 2 line x 16 character LCD digital display with six bush button configuration housed in NEMA 4X enclosure. Display shall be available for 90° interval mounting for better viewing. Pushbuttons can be operated with magnetic wand without removal of enclosure covers. Meter must have the option to remote electronics display in NEMA 4X enclosure complete with remote cable.

* + - 1. The meter shall have an operating temperature range of -330° - 750° F and a maximum pressure range of 1500 PSI. Electronics ambient operating temperature range of -40°F - 140°F.
			2. Accuracy shall be of the following:
				1. Volumetric Flow Rate - ±1.0% of rate
				2. Mass Flow Rate - ±1.5% of rate
				3. Temperature - ±2.0°F (±1°C)
				4. Pressure - ±0.3% of full scale
				5. Density - ±0.5% of reading
			3. Repeatability shall be the following:
				1. Mass Flow Rate - ±0.2% of rate
				2. Volumetric Flow Rate - ±0.1% of rate
				3. Temperature - ±0.2°F (±0.1°C)
				4. Pressure - ±0.05% of full scale
				5. Density - ±0.1% of reading