FAIRBANKS SCALES ENGINEERING SPECIFICATIONS FOR:

FB2255 Instrument ABS Plastic Enclosure

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PART 1 – GENERAL

1. SCOPE. This section covers the requirements for one desktop digital scale instrument for use in the . The scale instrument shall be furnished and installed complete as specified hereinafter, including the services of the manufac­turer’s service representative.
	* 1. Acceptable Manufacturer. The scale instrumentation furnished under this section shall be manufactured by Fairbanks Scales or equal ISO accredited manufacturer.
2. GENERAL. Equipment furnished and installed under this section shall be assembled, calibrated and placed in proper operating condition in full conformity with wiring, specifications, engineering data, instructions and recommen­dations of the equipment manufacturer unless exceptions are noted by the Engineer.
	* 1. General Equipment Stipulations. The General Equipment Stipulations shall apply to all equipment furnished under this section.
		2. Governing Standards. The scale systems shall have been issued a Certificate of Compliance by the National Type Evaluation Program, (N.T.E.P.) and shall conform to the following federal, state, local, and industrial standards.
		3. National Bureau of Standards, NBS Handbook 44, "Specifications, Tolerances, and Technical Requirements for Weighing and Measuring Devices".
		4. National Electrical Manufacturers Association and the National Electrical Code.
		5. Applicable state regulations for commercial weighing devices.
		6. Power Supply. Unless otherwise specified, the power supply to the equipment will be a dedicated 120 volts, single phase, 60 Hz. Where control voltages lower than the power supply voltage is required, suitable control power transformers shall be furnished.

PART 2 – PRODUCTS

* 1. SCALE INSTRUMENT DESIGN. The scale instrument shall be a Fairbanks Scales model FB2255 NEMA 1 digital scale instrument or approved equivalent.
		1. The scale instrument shall be N.T.E.P. approved with an Accuracy Class of III / IIIL.
		2. The scale instrument shall carry a NEMA 1 rating.
	2. SCALE INSTRUMENT HARDWARE SPECIFICATIONS
		1. Instrument shall have two (2) internally accessible COM ports capable of RS232, RS422, and RS485 connections.
		2. Minimum of one (1) externally accessible DB9 connection on ABS model.
		3. Dedicated 20 mA interface for interfacing with remote displays. Interface shall support both active and passive remote displays.
		4. Internal expansion slot for adding a fieldbus accessory such as Modbus TCP, PROFIBUS-DP, DeviceNet, ControlNet or Ethernet/IP.
		5. Internal expansion for adding an Ethernet TCP/IP.
		6. The scale instrument display shall be a green backlit, 1” inch, 6-digit, LED display.
		7. The scale instrument shall feature a full numeric keypad.
		8. The scale instrument shall be capable of interfacing to serial printers for the purpose of producing tickets or reports.
		9. The scale instrument shall be capable of using direct AC power. The FB2255 is designated to operate from 80 to 260 volts AC, 50 to 60 Hertz.
		10. The scale instrument shall be capable of using a DC battery accessory that uses five (5) Size “D” Alkaline batteries at 1.5 volts DC each.
		11. The scale instrument shall be able to power up to eight (8) 350 ohm load cells or sixteen (16) 1000 ohm load cells with direct power.
		12. The scale instrument shall be able to power one (1) 350 ohm load cell for 46 hours with a battery accessory, or four (4) 350 ohm load cells for 26 hours with a battery accessory.
		13. Instrument shall be manufactured in the United States.
	3. SCALE INSTRUMENT FUNCTIONS. The scale instrument shall be a self‑contained, operating unit providing a digital weight instrument driven by appropriate con­ditioning and control circuitry. The scale instrument shall provide the capability to directly print a certified weight ticket.
		1. The scale instrument shall feature a one touch ON/OFF function key to power the instrument up or down.
		2. The scale instrument shall feature programmable Zero button settings from 0 to 100% Zero capability. Zero button shall also have the capability to be completely disabled. Zero settings must also allow for a programmable Zero band threshold to be established based on weight, to facilitate a single print per weighment.
		3. The scale instrument shall feature a Print button capable of printing custom or standard print formats.
		4. The full numeric keypad shall allow for quick entry of tare weights and numeric IDs.
		5. The FB2255 shall be capable of custom units of measure.
		6. The FB2255 will allow multi-point calibration to eliminate linearity problems.
		7. The scale instrument shall feature a piece counting function that can turn any scale into a basic counting scale.
		8. The instrument will have an accumulation feature allowing users to continuously store individual weight reading and count/total the readings whenever desired.
		9. The FB2255 will feature a Peak Hold function which captures the highest weight reading and stores it.
		10. Instrument shall be capable of Bluetooth communication between serial devices such as printers and PCs.

PART 3 – EXECUTION

* 1. INSTALLATION. The scale instrument shall be installed by a scale company that has a minimum of five years of experience installing similar scale systems.

The scale company must have an established service center in \_\_\_\_\_\_\_\_\_\_\_\_ and have a current license on file with the local Weights & Measures Authority.

3-2. MANUFACTURER'S FIELD SERVICES. Where scheduled in the equipment schedule section, an experienced, competent, and authorized representative of the manufacturer shall provide field services for equipment furnished under this section. Field services shall meet the requirements of Manufacturer's Field Services in the quality control section of customer’s specification.

3-3. FIELD TESTING AND ACCEPTANCE. The authorized representative of the manufacturer shall provide the required scale certification for capacity and accuracy to the Engineer as required by the local Weights and Measures Authority any other applicable State or County agency.

3-4. PERSONNEL TRAINING. An experienced, competent, and authorized representative of the manufacturer shall train the Owner's personnel in operating and maintaining the equipment specified in this section. The training provided shall meet the requirements specified in the quality control section. The number of training sessions and duration of each session shall be as scheduled in the equipment schedule section.

End of Section