



CONTROL / FILTER CONSOLES

SECTION 13411 INSTRUMENT CONSOLES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Instruments consoles.

1.2 REFERENCES

- A. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics.
- B. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Test results of representative fiberglass reinforced plastic laminate.
- C. Shop Drawings: Show:
 - 1. Critical dimensions, jointing and connections, fasteners and anchors.
 - 2. Materials of construction.
 - 3. Sizes, spacing, and location of structural members, connections, attachments, openings, and fasteners.
 - 4. Color(s).
- D. Samples: 8-inch square sample of representative fiberglass reinforced plastic laminate.
- E. Manufacturer's installation instructions.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products indoors or in weather protected area until installation. Protect from construction traffic and damage.
- B. Each console shall be shipped individually with plywood protective crating.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. The product shall be manufactured by TRACOM, Inc.; 6575-A Industrial Way, Alpharetta, Georgia 30004; Tel. (877) 435-8637, Fax (770) 664-6565, www.tracomfrp.com.
- B. Requests for substitution must be made in writing and received by the engineer's office a minimum of ten (10) business days before bid opening. Substitutions shall be made in accordance with the provisions of Section 01600.
- C. Substitutions: Manufacturers not pre-approved shall not be allowed.
- D. Warranty: Consoles shall be warranted to be free of defects in workmanship and materials for a period of two years from shipment.

2.2 CONSOLE STYLE

- A. The console(s) shall be **(SELECT)**:
 - a. Table-top style, 36 inches wide, Model 500.
 - b. Table-top style, 48 inches wide, Model 750.
 - c. Table-top style, 66 inches wide, Model 1000.
 - d. Low breakfront style, 36 inches wide, Model 1250.
 - e. Low breakfront style, 48 inches wide, Model 1500.
 - f. Low breakfront style, 66 inches wide, Model 1750.
 - g. High breakfront style, 36 inches wide, Model 2000.
 - h. High breakfront style, 48 inches wide, Model 2250.
 - i. High breakfront style, 66 inches wide, Model 2500.

2.3 MATERIALS

- A. One-Piece Molded Composite Construction:
 - 1. Laminate: Isophthalic polyester resin and chopped commercial grade E-glass strand fiberglass with a coupling agent that will provide a suitable bond between the glass reinforcement and the resin, with a minimum glass content of 25%.
 - i. Exterior surface: 15 mil gel coat with U.V. inhibitors and a gloss finish, lightly textured and free from fiber pattern, roughness, or other irregularities.
 - ii. Wall laminate: 1/8 inch thick (minimum); chemically bonded to the surface gel coat and encapsulating a 2 mil Cormat reinforcement layer.
 - iii. Interior surface: 15 mil gel coat with U.V. inhibitors and a satin finish, and free from exposed glass or other irregularities.
 - iv. Laminate properties:
 - 1. Tensile strength (ASTM D 638): 9,000 psi.
 - 2. Flexural strength (ASTM D 790): 13,000 psi.
 - 3. Flexural modulus (ASTM D 790): 800,000 psi.
 - v. Instrument mounting surface laminates shall be 1/4 inch thick (maximum) with one layer of 2 mil Cormat reinforcement.

- vi. Sidewall surface laminates shall be 1/8 inch thick (minimum) with one layer of 2 mil Cormat reinforcement.

2.4 CONSTRUCTION

- A. One-piece molded construction. No metal strips required to form mechanical joints.
- B. Smooth gloss exterior gel coat.
- C. 1/2 inch radius rounded corners.
- D. Recessed, lift-off access doors with Southco Type 44 latches.
 - a. Front Access Doors (24 inches height by 28 inches wide):
 - i. 36 inch wide models: One.
 - ii. 48 inch wide models: One.
 - iii. 66 inch wide models: Two.
 - b. Rear Access Doors (32 inches height by 28 inches wide):
 - i. 36 inch wide models: One.
 - ii. 48 inch wide models: One.
 - iii. 66 inch wide models: Two.
- E. Open bottom construction.
- F. 2 1/2 inch wide internal base mounting flange.

2.5 OPTIONAL EQUIPMENT

- A. Gasketed front and rear access doors.
- B. P-200 power struts (REQUIRED FOR SUB-PANELS – SPECIFY LOCATIONS).
- C. FRP power struts.
- D. Instrument cutouts.
- E. Hinged access doors (IN LIEU OF SOUTHCO LATCHES).
- F. Hoffman painted steel sub-panel, mounted on power struts, _____ high by _____ wide (REQUIRES POWER STRUTS – 2.5.C).
- G. 1/4 inch thick fiberglass sub-panel, mounted on power struts, _____ high by _____ wide (REQUIRES POWER STRUTS – 2.5.C).

2.6 FINISHES:

- A. Color: #1555 Whale Bone.
- B. Color: _____ **(OPTIONAL)**.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that the concrete slab is level, true to plane, and of the correct dimensions to receive the structure. Correct all deficiencies before proceeding.

3.2 INSTALLATION

- A. Install products in accordance with engineer's instructions, plans, blueprints, etc, local codes, and in a manner consistent with the installation instruction and recommendation of the manufacturer.
- B. Ensure that products are installed plumb and true, free of warp or twist, within the tolerances specified by the manufacturer and as indicated in the contract documents.
- C. Anchor consoles to the floor with expansion anchor bolts.

3.3 ADJUST AND CLEAN

- A. Clean surfaces in accordance with the manufacturer's instructions.
- B. Remove trash and debris, and leave the site in a clean condition.

END OF SECTION

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