FIBERGLASS CONTROL CONSOLE

1. REFERENCE SPECIFICATIONS, CODES, AND STANDARDS
   1. ASTM D256 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
   2. ASTM D638 – Standard Test Method for Tensile Properties of Plastics.
   3. ASTM D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
   4. ASTM D2583 – Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.
   5. All references shall be of the latest revision.
2. SUBMITTALS
   1. Units
      1. All submittals, specifications, drawings, brochures, installation instructions, descriptive literature, etc. shall have all units of measurement in both Imperial and SI units.
   2. Drawings
      1. Project specific drawings, showing:
         1. Critical dimensions.
         2. Joints, connections, fasteners.
         3. Sizes, spacing, and locations of structural members, ribs, anchoring clips, and dimensional bracing.
         4. Materials and thicknesses of construction.
      2. Generic layouts or check marked brochures shall be rejected without review.
   3. Specifications
      1. Project specific specifications.
      2. Generic or check marked specifications shall be rejected without review.
   4. Receiving, Handling, and Storage Instructions
   5. Installation Instructions
   6. Operation and Maintenance Instructions
   7. Product Warranty
   8. Test Data
      1. Independent certified test results confirming material properties.
         1. Test results are to be performed on specimens representative of the resins and reinforcements submitted upon with such resins and reinforcements listed by the certifying party.
         2. Data shall be no more than three (3) years old.
   9. Laminate Sample
      1. 6-inch [15.24 cm] square sample of representative laminate, upon request.
3. RECEIVING, HANDLING, AND STORAGE
   1. Receiving
      1. Inspect for damage
         1. All parts should be inspected upon delivery to the site, noting any missing items or visible damage.
         2. Verify that surfaces have not been damaged or otherwise marked during transit.
         3. Base and panel connection flanges should also be inspected.
         4. For smaller boxed items make sure to verify that all packaging seals are in place and that there is no visible damage to the packaging.
      2. Investigate for order correctness and count
         1. Once the order has been received review the packing list against what has been received. Should any items not appear to be present or the configuration of the items does not match the description on the packing list, contact Openchannelflow immediately.
         2. Small connection hardware (nuts, bolts, etc.) not attached to the Control Consoles ship in individual boxes – with those contents clearly marked. Special care should be taken to secure these and any other small items that can be misplaced on a job site.
   2. Handling
      1. While rugged and designed for a long service life, Controls Consoles must be handled with care.
      2. When cranes, hoists, and other machinery are used to Control Consoles, spreader bars and lifting straps should always be used. When performing any overhead lift, all lifting eyes must be used in conjunction with good rigging practices. Rigging and lifting sequences and schedules of equipment are solely the responsibility of the installing party.
      3. Chains, ropes, and the like should never be used to move or position any Control Consoles as they may serrate the fiberglass laminate or compromise the protective gel coat surfaces.
   3. Storage
      1. Control Consoles not intended for immediate installation may be stored until the site is ready for their installation.
      2. Control Consoles should only be stored in a location that is clean, level, and protected from construction traffic.
      3. When shipped on pallets, Control Consoles should be left on those pallets until such time as they are needed.

1. MANUFACTURER
   1. Supply Control Consoles as manufactured by:
      1. Openchannelflow (phone: 855.481.1118 / fax: 855.3316475 / [www.openchannelflow.com)](http://www.openchannelflow.com))
         1. Locally represented by:
            1. XX
2. SUBSTITUTIONS
   1. Manufacturers wishing consideration as acceptable substitutes must follow the steps outlined below.
   2. Include a copy of this specification section with all applicable plans sheets / details, addendum updates, and all referenced / applicable sections.
   3. Each paragraph must be check marked to indicate complete compliance with the specification or clearly marked to indicate a request for deviation from the specification requirements.
      1. Use check marks (✔) to denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated and, therefore requested, underline each deviation and denote by a number in the margin to the right of the identified paragraph.
      2. The remaining portions of the paragraph not underlined will signify compliance on the part of the Manufacturer with the specifications.
      3. Include a detailed, written justification for each numbered deviation.
      4. Failure to comply with the above is sufficient cause to summarily reject the entire request for substitution.
   4. Requests for substitution must be made in writing and be received by the engineer’s office a minimum of ten (10) business days before the bid opening.
   5. Manufacturers not pre-approved shall not be given consideration.
   6. To ensure strict quality control, the Manufacturer may incorporate raw materials from outside vendors, but the Manufacturer must fabricate the final product.
      1. Job shopping or outside fabrication / sourcing shall not be acceptable.
   7. In addition, the request for substitution must provide information regarding a minimum of ten (10) comparable North American installations, including:
      1. Owner’s name, location, and contact information.
      2. Application and performance specifications.
      3. Date of installation.
      4. Operational history.
      5. Equipment arrangement, including configuration and materials of construction.
3. WARRANTY
   1. Control Consoles within the continental United States shall be warranted to be free of defects in workmanship and materials for five (5) years with a completed warranty registration.
   2. The warranty period shall begin from the date of shipment.
4. SYSTEM DESCRIPTION
   1. Configuration
      1. Style:
         1. Table Top.
         2. Low Breakfront.
         3. High Breakfront.
      2. Size:
         1. Width:
            1. 36-inches [91.44 cm].
            2. 48-inches [121.92 cm].
            3. 66-inches [167.64 cm]
   2. Materials of Construction
      1. Fiberglass reinforced plastic laminate
         1. ISO certified polyester laminating resin:
            1. Low VOC.
            2. Properties shall meet or exceed:

Tensile Strength (ASTM D638) 12,000 psi [82.74 MPa].

Flexural Strength (ASTM D790) 23,000 psi [158.6 MPa].

Flexural Modulus (ASTM D790) 800,000 psi [5.516 GPa].

Barcol Hardness (ASTM D2583) 30.

Notched Izod (ASTM D256) 8 ft-lb/in [4.272 J/cm].

Temperature limit 150° F [65.56° C].

* + - 1. E-glass:
         1. Minimum of 30% of laminate content by weight.
         2. Silane coupling agent.
         3. C-glass shall not be allowed.
    1. Gel coat:
       1. All surfaces must be gel coated.
       2. 15 mil cured thickness.
       3. U.V. inhibitors in all gel coat formulations, regardless of application or installation location.
       4. Color:
          1. Interior surfaces: White.
          2. Exterior surfaces: White.

1. COMPONENTS
   1. Access Doors
      1. Front
         1. (2) lift-off style:
         2. 28-inches W x 24-inches H [71.12 cm x 60.96 cm].
         3. Southco Type 44 latches at each corner.
      2. Rear
         1. (2) lift-off style:
         2. 28-inches W x 32-inches H [71.12 cm x 81.28 cm].
         3. Southco Type 44 latches at each corner.
   2. Base
      1. Open.
   3. Sub-panel
      1. Strut mounted.
      2. 12 gauge painted steel.