

Specification for **AbleVIEW®** Modular Consoles

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I. General

- 1) The control room console shall be **ImageVision, Inc.** of La Grange, TX consisting of individual modular units, and angled sections, each designed to be assembled into a complete console structure.
- 2) The console shall be fully modular in design & construction.
- 3) The console system shall ship in individual fully assembled units to be leveled in position and bolted together at the end user's site.
- 4) The console shall be ergonomically designed for operator comfort and suitable for housing and mounting personal computers, 21" CRT's, 19 inch rack mount equipment, video monitors, PLC's, Distributed Control Systems, and other items required in a control room environment.
- 5) The console system shall have the ability to house panel mounted components such as panel meters, chart recorders, push buttons, pilot lights, and other components required by the system. Internal sub-panels shall be available as an option for mounting panel components.
- 6) The console system shall have the option of being one, two or three monitor tiers high.

II. Construction

- 1) **ImageVision, Inc.** console modules shall be fully assembled and fabricated from steel. Fabrication will be provided in a fabrication facility utilizing published quality standards.
- 2) The base frame is constructed out of multiform 14-gage steel. This base frame utilizes patented corner construction, which is suitable for electronic and process control cabinetry deployed worldwide. (Similar frame structures of different sizes, using the same design have passed a static load test with 3000 lbs. applied to the frame). The construction techniques employed herein and these tests insure that the frame structure maintains its dimensional accuracy during shipping and installation.
- 3) Various means are employed to mount equipment, including ball bearing pullout CPU trays, solid floor panels with conduit entries; side mounted sub-panels, movable equipment shelves, and EIA rails for rack mounting equipment.
- 4) To assure alignment of the complete system, levelers are provided at each corner. The rigidity of the frame does not rely on contact with the floor for support. The worksurfaces on the console units are to be joined with a "self-aligning" draw-bolt assembly to insure smooth seams between units.

5) All end and rear panels shall be lift-off and constructed out of 16-gage steel. These panels feature smoothly dressed, welded, beveled corners to both enhance appearance and avoid square corners that could cause injury.

6) Front or rear hinged doors are welded 16-gauge steel with stiffeners and smooth radius edges for strength and rigidity. Doors are to include lockable handles.

7) Console Modules

A) The base module constitutes a desk structure for supporting the work surface and the upper tier modules. The standard base unit shall consist of front hinged doors and rear lift-off panels. The work surface height shall be 29" from the bottom of the console frame to the top of the work surface to insure maximum operator comfort while using a standard computer keyboard. The height is adjustable for optimum comfort via the leveling feet. The manufacturer shall provide the following options:

- Pull out equipment trays with full extension 100 lbs. rated slides with clearance for standard tower PC.
- 19" EIA rack mount rails (front or rear rail pairs, or both when needed). To include EIA rack mounted fixed-shelf option.
- Slide out racks to be available where required.
- Sub-panels for the mounting of electrical panel components on the front, rear, or either side.
- Drawer pedestals as separate options.
- Adjustable shelves and bottom panel shelves
- Front & Rear hinged (lockable) doors or both.
- Printer and worktables; to include drawer modules as separate free-standing accessory when required.

B) The monitor tiers shall be constructed from 14-gauge steel frames with retractable front monitor doors. The monitor tier housings shall be interchangeable between the 1st and 2nd tier.

C) A separate (removable) goose-neck task light module shall be mounted to the end frame of the 1st tier.

D) For optimum ergonomics, the front shall slope back at a 10-degree angle and include 0.15-inch thick tempered glass with an anti-glare to minimize screen glare for the operator. Positive mechanical retention of glass shall be by metal clips.

E) The lower monitor tier shall accommodate a monitor size of 21 inches and allow easy removal of the monitor from the rear without the use of special tools. The housing shall employ an adjustable tilt monitor tray to allow the monitor to be properly positioned within the housing.

F) The front retractable door can be replaced with fixed panels shall have the option to accommodate EIA mounting rails or a full width panel to mount control components.

G) Work surface shall be rated to withstand a distributed load of 500-lbs.

H) Work surfaces shall utilize a bull nose 2" thick design on the front edge, with a Nevamar Charcoal Matrix (or equivalent) post forming laminate on the top, sides, and a portion of the underside. The console manufacturer shall offer other laminates at the request of the end user. The work surfaces are also available in full depth desk style for consoles without monitor tiers. Once assembled the work surfaces shall appear to be continuous utilizing draw bolts and plates to tie each individual work surface together. Laminate front edge shall be seamless to avoid wrist irritation.

III. Finish

- 1) All metal shall be thoroughly cleaned and prepped prior to the application of the powder coat paint finish.
- 2) All exterior surfaces shall be powder coat painted in an opaque beige finish. Interior surfaces are to be opaque gray. The console manufacturer shall provide custom colors when desired by the end user.

IV. Assembly & Shipment

- 1) **Each unit in the console system shall be shipped fully assembled.** The individual units will be located within the control room/operations area, leveled, and bolted together.
- 2) Console units shall be edge protected & strapped to individual pallets to assist handling.
- 3) The console system shall be shipped via air ride van to minimize the risk of damage during shipment.

V. Electrical

- 1) Each Console section shall have Surge Protected power strips with EMI/RFI protection and 6 foot cords.