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## Xybix Healthcare Desk/Workstation Detailed Overview

Xybix is pleased to share details about our ergonomic healthcare workstations.

We designed every aspect of our workstations specifically for the needs of 24/7 healthcare professionals, and we're honored to serve this market. We believe that providing sit-to-stand flexibility and comfort for radiologists, nurses, technicians and other caregivers leads to better patient outcomes. Our desks are also designed to delight with special features like personalized lighting, heating and cooling. Staff from IT appreciate the cable management and easy access to equipment while the finance department approves of the overall value and long life of our workstations.



During our first 20 years in business at Xybix, we developed our expertise in ergonomics while serving the 911 dispatch market. We knew that people who work long shifts in mission-critical jobs with heavy reliance on technology needed something special. The stress of their jobs and the round-the-clock nature of the work made them susceptible to eyestrain, neck pain, carpal tunnel, lower back injuries and more. This is why everything from the desktop height to the desk shape to the monitor array exceeds ergonomic standards. In fact, Xybix co-founder Dave Carson, a proven leader in ergonomics, helped set the national standard for computer workstations. Carson remains closely involved in the family business.

Over the last decade, Xybix has expanded into the healthcare market with Made in the USA workstations that are perfect for radiology, telemetry, critical care, hospital command centers and healthcare security. We started with our solid base and engineered our workstations to respond to healthcare-specific needs, including the weight of radiology monitors, personal lighting for radiology rooms and GREENGUARD Gold certification that contributes to healthy air in the workplace. Our workstations are now in 200+ healthcare environments, and we're gratified to hear from our customers about improvements in accuracy, productivity and morale.

As a family business, we take everything personally at Xybix, and we value innovation, quality and value over time. It's our honor to design and manufacture workstations that care for the caregivers who give so much to others.

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# Xybix Healthcare Workstations Primary Features & Benefits



## Workstations for Healthcare Height-Adjustable Ergonomic Imaging Desks for Radiology, PACS, Telemetry, and more



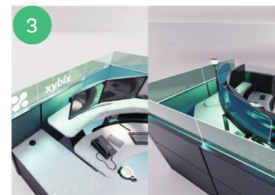
### Workstation Lift System

Ultra quiet, large profile lifting columns allow keyboard and monitor surfaces to lift independently. Precise ergonomic adjustments can be made with these durable electric table legs.



### Dual Height-Adjustable Work Surfaces

Finding your optimum ergonomic seated or standing position is now easier than ever with a monitor and keyboard surface that have independent height adjustment.



### Monitor Adjustment & RollerVision™

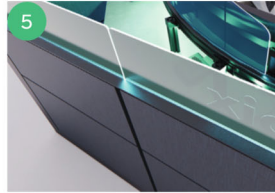
Proper focal depth adjustment is a key metric in achieving ergonomic health. Move your monitors simultaneously forward and backward to reduce eyestrain.

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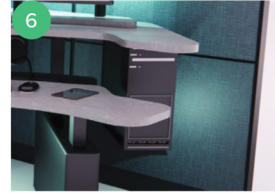
**Data Dock**

Easily connect keyboards, mice, and other devices without a costly call to IT and the lost productivity associated. Configurable to connect: USB, CAT6, phone and data equipment as well as additional plug-ins.



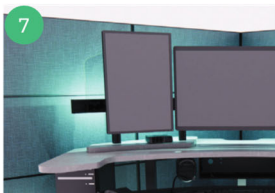
**Privacy Panel Systems**

Optional acoustical tile panel systems reduce noise pollution and aid in concentration. The panels are a perfect solution for open areas where privacy is required.



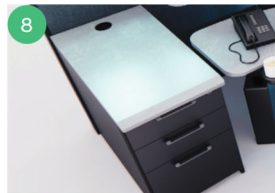
**Electronic Equipment Storage**

Xybix healthcare desks are equipped with hanging computer shelves to keep the floor areas clear and all wiring concealed and organized. Additional storage options are also available.



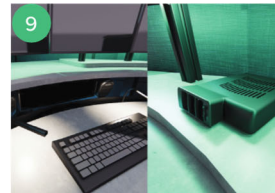
**Bias Lighting**

This indirect lighting source helps make computer viewing more comfortable by reducing eye strain and fatigue. Bias lighting can be easily dimmed or brightened via the Aaxis control center.



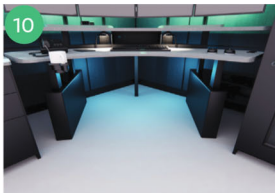
**Work Surfaces**

Complete the look of your room with a customizable range of optional additional work surfaces for extra workspace, storage and organization.



**Personal Climate Control**

Control your environment and comfort at your fingertips, using personal climate controls within the Aaxis system. Having complete control over your workspace temperature can lead to a more productive workday.



**Cable Management**

Proper cable management eliminates clutter and simplifies the appearance of your workstation. End-to-end cable management will rid you of loose connections and a "rat's nest" of cables. Technicians love the easy access, quick changes, and reduced maintenance.



**Aaxis Control Center**

Control everything from your desk height, to your lighting, to your temperature at the touch of a button. Save your favorite combinations as "scenes," which can be recalled quickly and easily. Aaxis accommodates a variety of users, scenes, and control devices.



# Xybiz Smart Workstation Controller: Axys

## Axys System Specifications

**Voltage:** Standard 110 volt power  
**Amps:** 5 amps (with Heater) or 0.85 amps (without Heater)

**Heater:** Two (2) 250-watt ceramic heaters with vertical rotation for a total of 500 watts and 4.5 amps

**Fan:** One (1) low-voltage fan with adjustable speed

**Lighting:** Capacity to control up to five (5) lighting locations with unlimited color or brightness at 9 watts each

**Lighting Locations:** Task Lighting, Undersurface, Down Bias, Monitor Arc, and Panel Top

**Lift Controller:** Built-in support for unlimited lifts controlling three (3) lift systems

**Profile Settings:** Unlimited profiles available per station with unlimited settings per user

**Help or Status Light:** Priority-driven single tier with unlimited color selection or multi-tier banner light

**Display:** App-driven software available for desktop computer (Windows) or dedicated tablet / mobile device (iOS or Android)

**Motion Detection:** Motion detection to pause usage after 15 minutes with no movement

## axys by xybiz

**Introducing Axys from Xybiz. Control every aspect of your workstation from a PC or tablet. Everything from the desk height to a variety of color settings and combinations is only a touch away.**





Create your scene to go from one color scheme to another at the press of a button.

Create and save your favorite scenes for quick and easy recall.



# a:ays

## Ergonomic Console Adjustments

Set it and forget it. With an unlimited number of users, each person can easily program their favorite positions for sitting, standing, or any other need with customizable "scenes." Positions can be recalled instantly via a quick touch, and allow you to change positions throughout your shift.



### Task Lights

Dim or turn these lights on/off with a touch of the screen. They're an ideal way to provide additional light for your desktop.



### Ambient Lights - Panel Top

Light up the clear acrylic panel tops with the color of your choice. Customize your console with your logo or station ID via laser etching.



### Ambient Lights - Monitor Arc

Light up the top of your monitors with this clear acrylic. The acrylic hides your monitors, provides easy station identification, and allows for custom color configurations.



### Help/Status Light

One click on the always present Help tile will toggle the flashing red help light on your workstation.



### Heating/Cooling

Ays workstations can be equipped with two 250w heaters and a cooling fan to keep your staff comfortable. Heaters can adjust to warm your hands or feet. Fan speeds are fully customizable.



### Calorie Counter

Standing burns more calories than sitting. Track the amount of calories you burn each day and set/trck your goals via our handy calorie measurement tool.



### Ambient Lights - Bias Lighting

Bias lighting provides a glow beneath monitors to ease eye strain. Like all Ays lighting options, the color and intensity can be customized.



### Ambient Lights - Undersurface

Give your workspace a space-age look with accent lighting that shines down into the footwell. Undersurface lighting pairs perfectly with bias lighting.



# Preventing Health Issues with Sit-to-Stand Flexibility

## Issue

According to the CDC, 25% of American adults sit more than 8 hours per day. This type of prolonged sitting—especially in non-ergonomic positions—is linked to vascular problems, lower back pain, spine issues, heart disease, weight gain, diabetes and even cancer.<sup>1</sup> Doctors often recommend the flexibility of sit-to-stand desks for the benefits to both body and mind.<sup>2</sup>

## Innovation

Xybix was the first manufacturer to design sit-to-stand workstations focused on meeting the needs of diverse employee populations, including the height range from 4'11" to 6'2" and those who use wheelchairs. We know that the option to stand throughout the day is not enough—the workstation must be the right height for any user. A desktop that is too high or too low can lead to musculoskeletal issues, eyestrain, and headaches from standing, sitting, typing, and peering at multiple screens in a non-ergonomic fashion—especially given the long hours in healthcare.

To ensure that users of any size, sitting or standing, can work in the proper ergonomic fashion—enabling pain-free work—Xybix meets or exceeds all specifications in the American National Standard Institute's HFES 100-2007 Human Factors Engineering of Computer Workstations standard. In addition to height, the standard specifies knee and leg clearance for seated users, and Xybix easily meets that standard as well.

Xybix has always given users the power to adjust the height of their shared workstation with a touch of a button. In the last year, we introduced smart consoles powered by our Axys technology. With Axys, users easily save settings for desktop height, lighting, colors, heating/cooling, and more, so they can easily change throughout the day.

## Competition

Xybix is the only manufacturer to design healthcare workstations that comply with the entire ANSI-HFES 100-2007 Human Factors Engineering of Computer Workstations standard, including exceeding the height-range standard. Of our closest competitors,

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<sup>1</sup> "Why Is Sitting so Bad for Us?" Aug. 28, 2019, Yale Medicine. <https://www.yalemedicine.org/news/sitting-health-risks>

<sup>2</sup> "Standing Desk Ergonomics: 7 Benefits of Standing at Work," Feb. 8, 2021, Orthopaedic Hospital of Wisconsin. <https://www.ohow.com/2021/02/08/standing-desk-ergonomics-7-benefits-of-standing-at-work/>

Biomorph complies with the height-adjustable standard while AFC and Redrick do not. Xybix, Redrick, and BioMorph offer ample knee and leg space according to the standard; AFC does not.

### **Regulation & Verification**

The ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations standard 8.3.2.4.3 details the requirements of a height-adjustable workstation.<sup>3</sup> The illustration on the following page shows Xybix compliance with this standard.

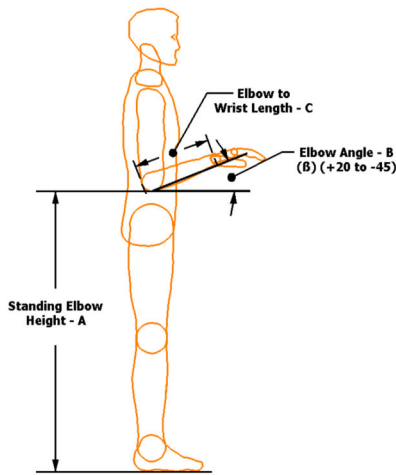
What's more important than ergonomic compliance, however, is how it matters to users. Studies show benefits to the body and mind, including less pain, fewer musculoskeletal issues, higher engagement and increased productivity.<sup>4</sup> In addition, many customers are happy to share anecdotes about how they benefit from their Xybix workstations—including no longer needing bimonthly steroid shots, standing as a strategy to remain alert during a long shift in a dark radiology reading room, kicking off a fitness journey with a desk treadmill, and experiencing less fatigue and fatigue-related work errors.

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<sup>3</sup> "ANSI/HFES: Human Factors Engineering of Computer Workstations," 2007, American National Standards Institute. <https://webstore.ansi.org/Standards/HFES/ansihfes1002007>

<sup>4</sup> "The Benefits of Using a Standing Desk." Sept. 5, 2019, U.S. News & World Report. <https://health.usnews.com/wellness/articles/the-benefits-of-using-a-standing-desk>





**Figure 8-4. Method of combining height and tilt for input-device support surfaces**

Height adjustment, or a combination of height and tilt adjustment, is necessary to successfully accommodate the desired range of users. The interaction between height and tilt is illustrated in Figure 8-4. Acceptable height and tilt angle combinations may be calculated according to the procedures described in Appendix A. Tilt angles greater than 20 degrees above horizontal or more than 45 degrees below horizontal are not acceptable.

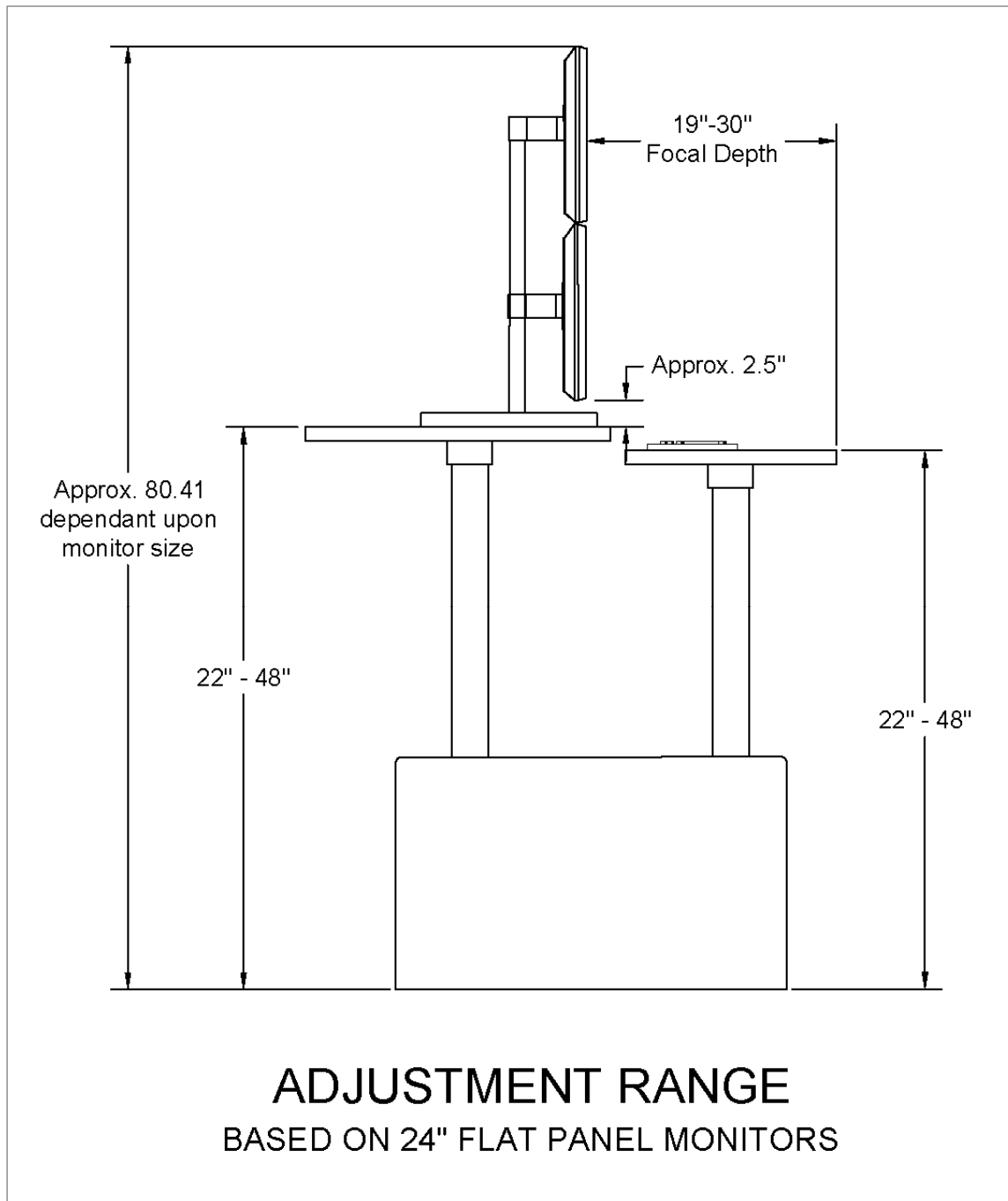
#### 8.3.2.4.3 *Sit/Stand Working Postures*

If height adjustable only, the input-device support surface designed for both sitting and standing work postures **shall**

- Adjust in height between 56 cm and 118 cm (22 and 46.5 in.) as measured from the floor to the surface at the front edge of the support.
- Comply with the clearance requirements specified in Section 8.3.2.1 when used in the seated position

If height and tilt adjustable, the input-device support surface designed for both sitting and standing work postures **shall**

- Accommodate seated workers by adjusting in height in some portion of the range between 56 cm and 72 cm (22 and 28.3 in.) as measured from the floor to the surface at the front edge of the support
- Accommodate standing workers by providing additional height adjustability (greater than 72 cm [28.3 in.]) when combined with tilt as described in Equation 8-1
- Adjust in tilt in some portion of the range between +20 and -45 degrees, to include 0
- Comply with the clearance requirements specified in Section 8.3.2.1 when used in the seated position



*Xybix workstations feature sit-to-stand adjustment range of 22" (low) to 48" (high), exceeding the standard of 46.5" (high).*

## Preventing Eyestrain & Neck Pain

### Issue

Staring at a screen for up to 12 hours a day is enough to give anyone eyestrain. Add to that the need to track 60 patients on 8 screens in a telemetry room, expertly review an endless stream of scans in a dark radiology reading room or keep an eye on 10 screens streaming security camera footage. The resulting eyestrain, headaches and neck pain—common complaints from workers in healthcare environments—can lead to lower productivity and errors.

### Innovation

The key to preventing eyestrain and neck pain is viewing screens from the proper focal depth and angle. This is different for all users, and that's where Xybix comes in. With our patented Rollervision technology, users can quickly move an entire array of monitors to suit their own vision and the needs of the job at hand. Here's how it works:

- Rollervision provides a stable platform for up to 8 monitors as large as 52" each in various configurations, including dual rows. Monitors are bolted to the monitor arc, complying with requirements for seismic anchoring and, significantly, protecting the tens of thousands of dollars invested into high-end monitors.
- As users come on shift or sit back, lean forward, and stand throughout the day, a quick touch moves all the monitors to the appropriate focal depth for each user. For the ideal focal depths, monitors should be arranged in an arc with all the screens approximately 20" to 30" from the user's eyes. With Rollervision, monitors glide into place in seconds.

Rollervision solves the focal depth requirement but it's the height-adjustable desk itself that allows users to view screens at the proper ergonomic angle. For maximum comfort and sightlines, users should be gazing 15°–25° downward. In some cases, this requires monitors to be placed lower than the desktop. Xybix easily achieves this with its unique dual-surface workstations.

The ANSI HFES 100-2007 Human Factors Engineering of Computer Workstations standard proscribes both focal distance and viewing angle. However, another issue is at play when it comes to eyestrain: lighting. Radiology rooms tend to be darker to allow for maximum contrast onscreen. Every time users look away to patient charts and other resources, they need to refocus their eyes, leading to fatigue. Xybix solves this through

built-in bias (ambient) light and task lighting recommended for reading rooms.<sup>5</sup> Bias lighting, in particular, can decrease fatigue, increase contrast onscreen and improve the picture.<sup>6</sup> Through our new Axys technology, lighting preferences can even be saved as “scenes,” so users can adjust workstation height, lighting, and heating/cooling with one touch.

At Xybix, we take a real-world approach to ergonomics. The fact that our workstations comply with ergonomic standards means nothing if our users don’t make any adjustments. That’s why we’re focused on technology that makes adjusting a workstation so easy that it becomes second nature.

### **Competition**

Single-reach monitor adjustment is common in healthcare desks, with Xybix, AFC, and Redrick all providing this feature; BioMorph does not. All our competitors offer bias and task lighting but none allow for saving lighting with scenes as Xybix Axys technology does.

### **Regulation & Verification**

The ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations standards 8.3.2.2 and 8.3.2.3 detail the requirements of a height-adjustable workstation. The illustration on the following page shows Xybix compliance with this standard.

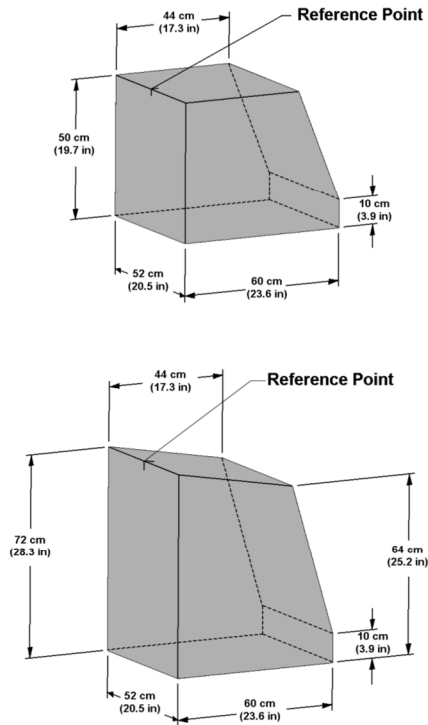
The standard is designed to reduce eyestrain and neck pain—and the ensuing fatigue and errors that may occur.

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<sup>5</sup> “The Perfect Radiology Reading Room,” April 13, 2020, Double Black Imaging.  
<https://doubleblackimaging.com/2020/04/13/designing-radiology-reading-rooms/>

<sup>6</sup> “What Bias Lighting Is and Why You Should Be Using It,” Nov. 13, 2017, How-To Geek.  
<https://www.howtogeek.com/213464/how-to-decrease-eye-fatigue-while-watching-tv-and-gaming-with-bias-lighting/>

Figure 8.3b Illustration of the Clearance Spaces Used in Method 2 (8.3.2.1.2)



### 8.3.2.2 Work Surfaces

The work surface **should**

- be at least 70 cm (27.6 in.) wide

The depth of the work surface **should**

- Allow a viewing distance of at least 50 cm (19.7 in.)
- Allow positioning of the monitor so that the angle between the horizontal level of the eyes and the center of the screen ranges between 15 and 25 degrees
- Allow positioning of the entire viewing area (e.g., including the keyboard) in an arc 60 degrees below horizontal eye level

A minimum workstation width of 70 cm (27.6 in.) is based on the forearm-to-forearm breadth of a 95th percentile male user with the addition of an 8.5-cm (3.3-in.) margin for postural adjustment

(Gordon et al., 1989). This is strictly an anthropometric requirement. In fact, the functional requirements of the task will most likely dictate a larger width. The overall area of the work surface required depends on the size and number of components in the workstation in addition to the monitor and keyboard, including books, papers, and telecommunication equipment.

### 8.3.2.3 Monitor Support Surface/Device

The monitor support surface manufacturer **shall**

- Specify the size and weight of monitor that can be accommodated by the support surface because monitor support surfaces may not be compatible with certain-sized monitors
- Specify the range of adjustment if the support surface is adjustable

The support surface **should**

- Be designed so as to allow placement of the viewing area of the screen at a minimum viewing distance of 50 cm (19.7 in.)
- Be designed so as to allow placement of the monitor's viewing area below the user's horizontal eye height
- Be stable during use
- Not interfere with the user's ability to adjust the height, tilt, and rotation of the monitor

There are a number of devices for supporting a monitor or monitors. The monitor may rest on the work surface, or it can be supported by an articulated platform attached to the work surface, other workstation components or a fixed platform resting on the work surface. The monitor may also be supported by a separately adjustable work surface or by a platform built into the work surface but at a different level. Placement of the monitor is dependent on a variety of factors, including visual display factors, the user's optical correction (if present), the size and shape of the monitor, and the effort required by the user to activate adjustment controls. The proper location of larger monitors with respect to viewing distance and angle may be particularly problematic. Accordingly, the manufacturers of monitor support surfaces are responsible for specifying the characteristics of monitors that are compatible with their products.

### 8.3.2.4 Input-Device Support Surface

Input-device support surfaces may be designed for use while seated only, standing only, or while seated or standing. The reader's attention is directed to the requirements for placement of input devices within the recommended space specified in Section 5.2.3.4.

All input-device support surfaces **shall**

- Adjust in height, or a combination of height and tilt

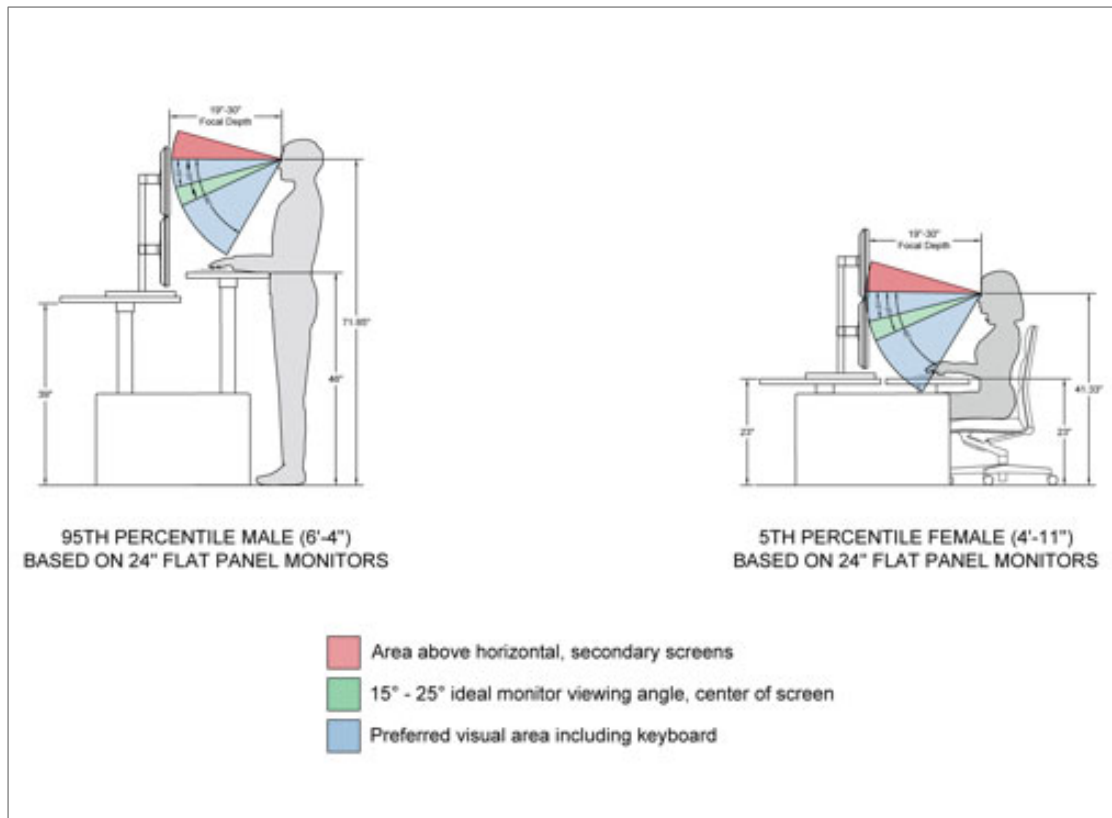
The manufacturer of an input-device support surface **shall**

- Provide information regarding the range of height adjustment
- Provide information regarding tilt adjustments

All input-device support surfaces **should**

- Adjust fore and aft in the horizontal plane
- Adjust in side-to-side placement within the optimal area for input devices
- Tilt





*Xybix workstations comply with the ergonomic standards to achieve a focal depth from 20"–33" and a downward viewing angle of 15°–20°.*

## Preventing Carpal Tunnel & Tendonitis

### Issue

Using a keyboard and mouse for hours on end can lead to wrist and shoulder injuries. For example, carpal tunnel syndrome (CTS) impacts 1–5% of adults, leading first to chronic pain and lower productivity, then to surgery and lost work time, and finally, in some cases, to employees leaving their jobs. A few numbers illustrate the impact of CTS alone.<sup>7</sup>

- Lost work time related to CTS: 27 days (median)
- Percent of workers with CTS who leave their job within 18 months: 18%
- Annual costs of CTS surgery in the U.S.: \$2 billion
- Non-medical costs associated with CTS surgery: 1 to 4 times costs of surgery

In addition to CTS, computer users are prone to tendonitis in the wrist and shoulder.

### Innovation

Xybix workstations allow users to keep a neutral wrist and limit reaching—two keys to preventing wrist and shoulder pain and injuries. Keeping a neutral wrist while typing and using a mouse depends on the desktop height. This is why Xybix exceeds the ergonomic standards for desk height adjustment and offers a dual-surface workstation that allows users to independently raise and lower the keyboard surface. In addition, Xybix desks are designed to maximize the primary reach zone as defined by sweeping the forearm horizontally at the elbow. Arm motions within the primary reach zone decrease the physiological cost of movement while increasing speed and accuracy.

### Competition

Xybix exceeds the height-range and primary reach-zone requirements in the HFES 100-2007 Human Factors Engineering of Computer Workstations standard. Biomorph complies with the height-range standard while AFC and Redrick do not. All of Xybix main competitors offer workstations that maximize the primary reach zone.

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<sup>7</sup> "Carpal Tunnel Syndrome: What We Know," June 1, 2018, Occupational Health & Safety Online. <https://ohsonline.com/Articles/2018/06/01/Carpal-Tunnel-Syndrome.aspx?Page=2>

## Regulation & Verification

The ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations standards 5.2.4.1 and 5.2.4.2 detail the requirements for the primary reach zone. The illustration on the following page shows Xybix compliance with this standard. The standard is designed to help prevent carpal tunnel and tendonitis and the related pain, surgery and lost work time.

appropriately (Albin, 1997; Damann & Kroemer, 1995; Feng, Grooten, Wretenberg, & Arborelius, 1997; Grandjean, 1987).

Wrist/palm supports that are less than 3.8 cm (1.5 in.) deep (see Figure 5-8) may not be appropriate as they may cause increased contact pressure (Paul & Menon, 1994). Wide, flat surfaces (>3.8 cm; 1.5 in.) for wrist/palm supports are recommended.

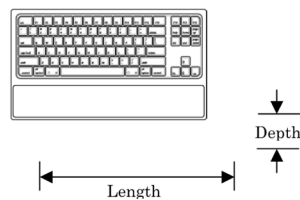


Figure 5-8. Nomenclature for wrist/palm support dimensions.

### 5.2.4 ON TOP OF THE WORK SURFACE

#### 5.2.4.1 Horizontal Work Envelope

When located on the horizontal surface, the input devices **shall** be

- Located as specified in 5.2.3.4

The horizontal work envelope **should**

- Accommodate the user postural design criteria described in Section 5.2.1.1, User Postures
- Be at least 70 cm (27.6 in.) wide

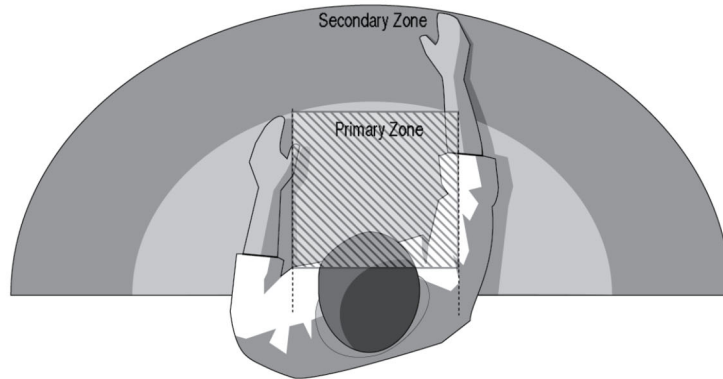
The most commonly used objects **should**

- Be located in the primary work zone

The primary work zone (illustrated in Figure 5-9) is the shape swept out on the work surface by rotating the forearm horizontally at elbow height. Arm motions within this area reduce the physiological cost of movement and improve movement speed and accuracy (Konz & Johnson, 2000).

Space requirements must be determined by analyzing the task requirements. The suggested range of minimum widths for normal work activity is comparable to the 95th percentile male forearm-to-forearm breadth plus a 7.5-cm (3-in.) movement allowance. A work surface of minimum width would not be appropriate for tasks that require space for equipment other than the VDT.

This standard specifies a location for input devices. Work surface space, if used as input device support, would need to be at least wide enough to support the input devices in the recommended space but may be wider to accommodate other work tasks.



**Figure 5-9. Recommended space for input devices and primary, secondary, and tertiary horizontal work zones.**

#### 5.2.4.2 Monitor Support Surface

The visual display support surface **shall**

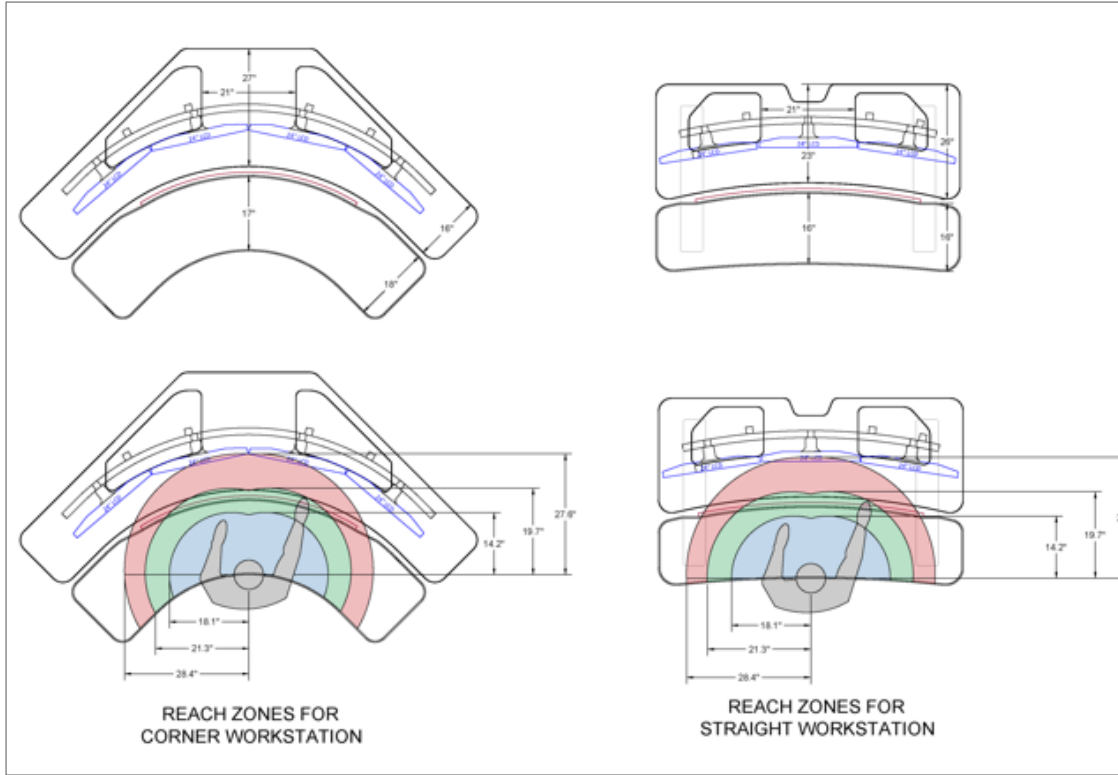
- Allow users to adjust the line-of-sight (viewing) distance between their eye point and the front (first) surface of the viewable display area
- Allow users to adjust the tilt and rotation angle between their eye point and the front (first) surface of the viewable display area

The visual display support surface **should**

- Allow users with normal visual capabilities to adjust the line-of-sight (viewing) distance between their eyes and the front (first) surface of the viewable display area within the range of 50 to 100 cm (19.7 to 39.4 in.)

Viewing conditions are based in part on the visual effort needed to accommodate and converge on the viewable display surface at close distances. Near work causes the eyes to converge and the lenses to accommodate. This causes the extraocular and ciliary muscles of the eye to contract and maintain contraction (Turville, Psihogios, Ulmer, & Mirka, 1998). This is thought to contribute to visual discomfort in VDT workers. Studies indicate that users with normal visual capabilities often report greater visual fatigue for viewing distances of 50 cm than for 100-cm viewing distances (Jaschinski-Kruza, 1990), and these observers often consider 50-cm distances too close (Jaschinski-Kruza, 1988, 1990, 1991).

These design limits, however, may need to be shortened for users of some flat-panel display workstations or for users with low visual capabilities, given that they may need closer viewing distances (even less than 40 cm [15.7 in.]) to achieve acceptable postures and viewing. Nevertheless, it is often advantageous to locate frequently viewed surfaces at or near the same optical distance to minimize visual fatigue.



*Xybix workstations comply with the primary reach-zone ergonomic standard.*

## Safe, Stable, Durable Workstations

### Issue

Reliability is key in healthcare workstations. The round-the-clock nature of the work means that staff are continually raising and lowering the desk and adjusting monitors throughout the day. The workstation motor, legs and monitor arms must not fail. In addition, the workstation may need to handle \$10K+, 55 lb radiology monitors without sagging or tipping.

### Innovation

At Xybix, our design, engineering and manufacturing processes are focused on building workstations that are durable, stable and safe. The Xybix owners are closely involved in testing the workstations by setting up various real-world scenarios at the headquarters. For example, to test the lift, we ran the frame up and down for 20,000 cycles with 300 lbs on the desktop to test its durability against competitor frames. The tests ran 24/7 for 3 months and proved that Xybix is producing the highest quality in the industry.

Our internal testing is supplemented by third-party testing to show compliance with standards set by the Business and Institutional Furniture Manufacturers Association (BIFMA), a trade association for furniture manufacturers. BIFMA is accredited by the American National Standards Institute (ANSI), with whom it develops safety and performance standards. BIFMA standards are voluntary guidelines that manufacturers can follow to ensure their products will be safe and reliable for years to come. ANSI/BIFMA standard tests include:

- Force stability test
- Distributed functional test load
- Leg strength test
- Work surface vertical adjustment test
- Racking resistance test
- Storage unit drop test
- Force test for door locks
- Cycle test for extendible elements

All Xybix products are BIFMA compliant—and they always have been—to ensure optimal performance in demanding healthcare work environments.

### Competition

Workstations from Xybix, AFC and BioMorph are BIFMA compliant; RedRick workstations are not.



## **Regulation**

BIFMA compliance is voluntary according to the U.S. Department of Commerce, but some states may require compliance.<sup>8</sup> Xybix meets and exceeds BIFMA testing to help ensure 100% uptime for busy healthcare workers. Xybix is always working to improve quality, and the current failure rate of our desks is approximately 0.1%.

## **Verification**

Xybix workstations are the No. 1 choice for mission-critical 911 dispatch departments thanks to our reputation for quality and innovation. We know that healthcare workers, like dispatchers, can't afford downtime. So in the rare instance that something does go wrong with a workstation, a live customer service agent is available 24/7/365.

Xybix workstations easily perform through the typical lifespan of 10–15 years for this type of furniture. (In fact, some of our customers stretch the life to 20 years.) We are so confident in our workmanship that our products are backed by the best warranty in the industry.

The following pages show the BIFMA testing results for the workstation table and legs; BIFMA test results for Xybix CPU hangers, filing cabinets, pedestals and panels are available upon request.

---

<sup>8</sup> "A Guide to Furniture Compliance Requirements," March 2016, U.S. Department of Commerce.  
<https://www.cpsc.gov/s3fs-public/04.12.2016%20Guide%20to%20US%20Furniture%20Requirements.pdf>



Test Request Number: AFT-02776

3480 Windquest Dr.  
Holland, MI 49424  
PH 616-928-0791  
FAX 616-928-0792  
www.furnituretest.com



Page 1 of 7

Requester:	XYBIX Systems, Inc. 8207 SouthPark Circle Littleton, Co 80120
Contact Name / Number:	Toby Alonge (800) 788-2810
Dates Tested:	03/24/15
Date Submitted:	03/24/15
Technician:	Dan Baron
Customer Request I.D.	N/A

**Scope:** To evaluate a 4-Leg Adjustable Height Table manufactured by XYBIX Systems, Inc., by subjecting it to the following tests:

**Requested Tests:**

<u>Test Name</u>	<u>Requirement</u>
Stability Under Vertical Load Test	ANSI/BIFMA X5.5-2014, Section 4.3
Force Stability for Tall Desk/Table Products	ANSI/BIFMA X5.5-2014, Section 4.5
Distributed Functional Load Test	ANSI/BIFMA X5.5-2014, Section 5.3
Distributed Proof Load Test	ANSI/BIFMA X5.5-2014, Section 5.5

**Product Description:**

<u>Specimen</u>	<u>Description</u>	<u>Supplier</u>
1	4-Leg Adjustable Height Table	XYBIX Systems, Inc.

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Test Request Number: AFT-02776

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Page 2 of 7

**Summary:**

Test Name	Results
Stability Under Vertical Load Test	Met Requirement
Force Stability for Tall Desk/Table Products	Met Requirement
Distributed Functional Load Test	Met Requirement
Distributed Proof Load Test	Met Requirement

**Load Calculations**

Specimen	Surface	Type	Calculation	Load (lbs.)
1	Top - 1	Distributed Functional	193" x 1.5	290 lbs.
	Top - 2	Distributed Functional	218" x 1.5	327 lbs.
			Total Functional	617 lbs.
	Top - 1	Distributed Proof	193" x 2.3	444 lbs.
	Top - 2	Distributed Proof	218" x 2.3	501 lbs.
			Total Proof	945 lbs.

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**Test Results:**

**1. Stability Under Vertical Load Test:**

Testing was performed per ANSI/BIFMA X5.5-2014, Section 4.3.

**Notes:**

- Two 125 lb. loads were applied through 12" discs, with the center of each disc 12" from the side edge.
- The center of 12" discs were positioned 7" from the front edge at the least stable position.
- See Photo 1 for setup.



<u>Specimen</u>	<u>Load Location</u>	<u>Observations</u>
1	Center of each disc 12" from the side and 7" from the front edge.	Unit did not tip over.

**Requirement:** *The unit shall not tip over. If an extendible element(s) opens during the test and prevents the unit from tipping over due to contact with the test platform, the unit does not meet the acceptance criteria.*

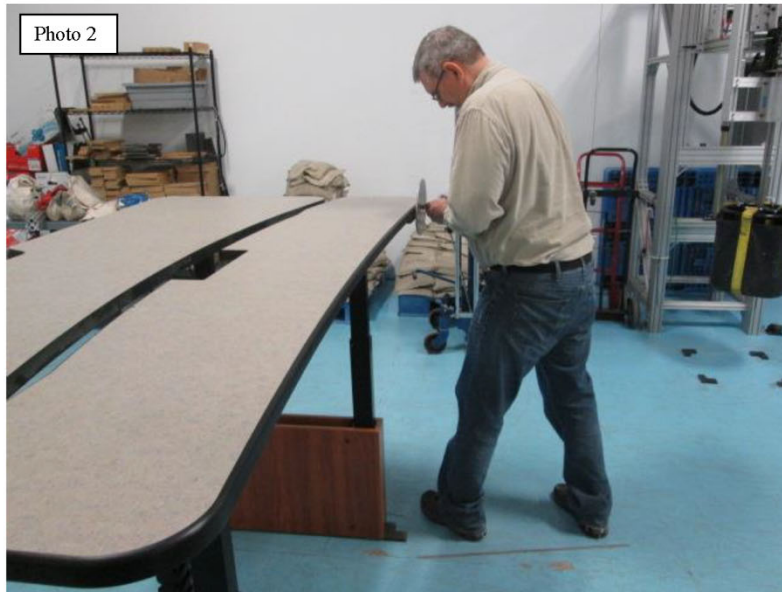
<b>Equipment:</b>	Tape measure (TD-099), Scale (TD-008)
-------------------	---------------------------------------

## 2. Force Stability Test for Tall Desk/Table Products:

Testing was performed per ANSI/BIFMA X5.5-2014, Section 4.6.

### Notes:

- A force was applied to the side of the table top, at the following locations:
  - A) Front of the unit at its left side
  - B) Front of the unit at its right side
  - C) Back of the unit at its left side
  - D) Back of the unit at its right side
- The force was applied until 40 lbs. or 10° of tip was achieved.
- See Photo 2 for setup.





Test Request Number: AFT-02776

3480 Windquest Dr.  
Holland, MI 49424  
PH 616-928-0791  
FAX 616-928-0792  
www.furnituretest.com



Page 5 of 7

**2. Force Stability Test for Tall Desk/Table Products (continued):**

<u>Specimen</u>	<u>Location</u>	<u>Force (lbf)</u>	<u>Angle (°)</u>	<u>Observations</u>
1	Front left	40	N/A	Unit did not tip over.
	Front right	40	N/A	Unit did not tip over.
	Rear left	40	N/A	Unit did not tip over.
	Rear right	40	N/A	Unit did not tip over.

**Requirement:** *The unit shall not tip over, and there shall be no loss of serviceability. Assembled desk/table products shall not disengage. If one or more extendible elements opens during the test and prevents the unit from tipping over due to contact with the test platform, the unit does not meet the acceptance criteria.*

Equipment:	Scale (TD-008), Force gage (TD-007), Digital protractor (TD-073), Tape measure (TD-099)
------------	---



**3. Distributed Functional Load Test:**

Testing was performed per ANSI/BIFMA X5.5-2014, Section 5.3.

**Notes:**

- Temperature / humidity 75° F / 45 RH%.
- Table was set to the top of its height adjustment.
- See table on Page 2 for load calculations.
- Load applied for 60 minutes.
- See Photo 3 for setup.



Specimen	Surface	Load (lbs.)	Time (min.)	Observations
1	Top - 1	290	60	No loss of serviceability.
	Top - 2	327	60	No loss of serviceability.

**Requirement:** *There shall be no loss of serviceability. Upon completion of the test, the extendible member(s) shall meet the pull force requirements of Section 19.*

Equipment:	Tape measure (TD-099), Stopwatch (TD-002), Digital level (TD-073)
------------	---

**4. Distributed Proof Load Test:**

Testing was performed per ANSI/BIFMA X5.5-2014, Section 5.5.

**Notes:**

- Temperature / humidity 76° F / 43 RH%.
- Table was set to the top of its height adjustment.
- See table on Page 2 for load calculations.
- Load applied for 15 minutes.
- See Photo 4 for setup.



Specimen	Surface	Load (lbs.)	Time (min.)	Observations
1	Top - 1	444	15	No sudden and major change in structural integrity.
	Top - 2	501	15	No sudden and major change in structural integrity.

**Requirement:** *There shall be no sudden and major change in structural integrity of the product. Loss of serviceability is acceptable.*

**Equipment:** Tape measure (TD-099), Stopwatch (TD-002), Digital level (TD-073)

Reviewed by: Doug Woodard  
Approved by: Doug Woodard

Version 1.0

## Contributing to Healthy Indoor Air Quality through GREENGUARD Gold Certification

### Issue

Many building materials, home furnishings and office products emit volatile organic compounds (VOCs) that can be harmful to people's health and the environment over time. The health impacts<sup>9</sup> from VOC emissions can include eye, nose and throat irritation; headaches and low concentration; difficulty breathing; nausea; organ or central nervous system damage; and even cancer.<sup>10</sup> Familiar toxic VOCs include benzene and formaldehyde, and uncontrolled VOC emission may act as greenhouse gasses and lead to climate change.

### Innovation

Xybix minimizes VOCs by paying attention to the materials and manufacturing techniques that go into making our workstations. For example, we selected a water-based spray adhesive with zero VOCs to protect our employees during the manufacturing process and to protect our customers in everyday usage. Our products undergo independent testing every quarter to achieve GREENGUARD Certification, the widely adopted and trusted standard for identifying and labeling low-emitting VOC products.

As of April 14, 2022, Xybix earned GREENGUARD Gold Certification, which includes more health-based criteria to ensure that products are acceptable for use in schools and healthcare facilities. The certification ensures that all parts of the console—even the 3D laminate desktop—meet the most stringent chemical emission standards in the world.<sup>11</sup>

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<sup>9</sup> "Volatile Organic Compounds' Impact on Indoor Air Quality," June 30, 2022, U.S. Environmental Protection Agency. <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>

<sup>10</sup> "Volatile Organic Compounds," Feb. 12, 2020, American Lung Association. <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>

<sup>11</sup> "Fact Sheet, UL GREENGUARD Certification Program." Accessed July 18, 2022, UL Solutions. <https://www.ul.com/resources/ul-greenguard-certification-program>

## **Competition**

Compared to our three top competitors, Xybix is the only manufacturer to earn GREENGUARD Gold Certification. AFC and BioMorph have the standard level of GREENGUARD Certification; RedRick does not.

## **Regulation**

UL Solutions sets the standard and testing protocols for GREENGUARD and GREENGUARD Gold Certification. The criteria and Xybix certificates follow.

Xybix focuses on low VOC emissions and achieved GREENGUARD Gold Certification because we care about workplace health, especially in 24/7 public safety and healthcare environments. Products that emit low or no VOCs contribute to healthier indoor air quality and better patient outcomes.<sup>12</sup>

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<sup>12</sup> "Using Sustainable Material and Zero VOC Materials in Medical Spaces," Feb. 22, 2016, Simour Healthcare Interior Design. <https://simourdesign.com/using-sustainable-material-and-zero-voc-materials-in-medical-spaces/>



## GREENGUARD Certification Criteria for Individual Office Furniture Products

Criteria	CAS Numbers	Maximum Allowable Predicted Concentrations				Units
		GREENGUARD Tier Compliance Criteria				
		Certified		Gold		
		Open Plan	Private Office	Open Plan	Private Office	
TVOC <sup>a</sup>	-	345	694	152	306	µg/m <sup>3</sup> hr
Formaldehyde	50-00-0	42.3	85.1	6.2	12.5	µg/m <sup>3</sup> hr
Total Aldehydes <sup>b</sup>	-	2.8	5.7	1.2	2.4	µmol/m <sup>3</sup> hr
Individual VOCs <sup>c</sup>	-	1/10th TLV	1/10th TLV	1/100th TLV	1/100th TLV	
4-Phenylcyclohexene	4994-16-5	4.5	9.0	-	-	µg/m <sup>3</sup> hr
<b>Individual VOC Criteria<sup>d</sup></b>						
Acetaldehyde	75-07-0	-	-	48	97	µg/m <sup>3</sup> hr
Benzene	71-43-2	-	-	1	2.1	µg/m <sup>3</sup> hr
Carbon disulfide	75-15-0	-	-	214 <sup>e</sup>	432 <sup>e</sup>	µg/m <sup>3</sup> hr
Carbon tetrachloride	56-23-5	-	-	14	28	µg/m <sup>3</sup> hr
Chlorobenzene	108-90-7	-	-	318 <sup>e</sup>	640 <sup>e</sup>	µg/m <sup>3</sup> hr
Chloroform	67-66-3	-	-	103	209	µg/m <sup>3</sup> hr
Dichlorobenzene (1,4-)	106-46-7	-	-	276	557	µg/m <sup>3</sup> hr
Dichloroethylene (1,1)	75-35-4	-	-	24	49	µg/m <sup>3</sup> hr
Dimethylformamide (N,N-)	68-12-2	-	-	28	56	µg/m <sup>3</sup> hr
Dioxane (1,4-)	123-91-1	-	-	497 <sup>e</sup>	1,002 <sup>e</sup>	µg/m <sup>3</sup> hr
Epichlorohydrin	106-89-8	-	-	1	2.1	µg/m <sup>3</sup> hr
Ethylbenzene	100-41-4	-	-	689	1,392	µg/m <sup>3</sup> hr
Ethylene glycol	107-21-1	-	-	138	278	µg/m <sup>3</sup> hr
Ethylene glycol monoethyl ether	110-80-5	-	-	24	49	µg/m <sup>3</sup> hr
Ethylene glycol monoethyl ether acetate	111-15-9	-	-	103	209	µg/m <sup>3</sup> hr
Ethylene glycol monomethyl ether	109-86-4	-	-	21	42	µg/m <sup>3</sup> hr
Ethylene glycol monomethyl ether acetate	110-49-6	-	-	31	63	µg/m <sup>3</sup> hr
Hexane (n-)	110-54-3	-	-	1,215 <sup>e</sup>	2,450 <sup>e</sup>	µg/m <sup>3</sup> hr
Isophorone	78-59-1	-	-	193 <sup>e</sup>	390 <sup>e</sup>	µg/m <sup>3</sup> hr
Isopropanol	67-63-0	-	-	2,413	4,874	µg/m <sup>3</sup> hr
Methyl chloroform	71-55-6	-	-	345	696	µg/m <sup>3</sup> hr
Methylene chloride	75-09-2	-	-	138	278	µg/m <sup>3</sup> hr
Methyl t-butyl ether	1634-04-4	-	-	1,243 <sup>e</sup>	2,506 <sup>e</sup>	µg/m <sup>3</sup> hr
Naphthalene	91-20-3	-	-	3	6	µg/m <sup>3</sup> hr
Phenol	108-95-2	-	-	68.9	139	µg/m <sup>3</sup> hr
Propylene glycol monomethyl ether	107-98-2	-	-	2,413	4,874	µg/m <sup>3</sup> hr
Styrene	100-42-5	-	-	310	627	µg/m <sup>3</sup> hr
Tetrachloroethylene	127-18-4	-	-	12.1	24.4	µg/m <sup>3</sup> hr
Toluene	108-88-3	-	-	103	209	µg/m <sup>3</sup> hr
Trichloroethylene	79-01-6	-	-	207	418	µg/m <sup>3</sup> hr
Vinyl acetate	108-05-4	-	-	68.9	139	µg/m <sup>3</sup> hr
Xylenes (m-, o-, p- combined)	-	-	-	241	487	µg/m <sup>3</sup> hr
1-Methyl-2-pyrrolidinone <sup>f</sup>	872-50-4	-	-	110	223	µg/m <sup>3</sup> hr

# CERTIFICATE OF COMPLIANCE



## Xybiz Systems Inc.

### Xybiz ErgoPower® Electric Height Adjustable Workstations and Consoles

9688-420  
Certificate Number

04/14/2022 - 12/02/2022  
Certificate Period

Certified  
Status

UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Commercial furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011(R2016) and determined to comply with ANSI/BIFMA X7.1-2011(R2016) and ANSI/BIFMA e3-2019 Credit 7.6.1, 7.6.2, and 7.6.3 in an Open Plan Office and Private Office Environment. Products also determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 in the office environment. Product tested in accordance with UL 2818 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.



UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified

#### GREENGUARD Gold Certification Criteria for Furniture and Mattresses

Criteria	CAS Number	Maximum Allowable Predicted Concentration	Units
TVOC <sup>(A)</sup>	-	0.22	mg/m <sup>3</sup>
Formaldehyde	50-00-0	9 (7.3 ppb)	µg/m <sup>3</sup>
Total Aldehydes <sup>(B)</sup>	-	0.043	ppm
4-Phenylcyclohexene	4994-16-5	6.5	µg/m <sup>3</sup>
1-Methyl-2-pyrrolidinone <sup>(C)</sup>	872-50-4	160	µg/m <sup>3</sup>
Individual VOCs <sup>(D)</sup>	-	1/2 CREL or 1/100th TLV	-

- <sup>(A)</sup> Defined to be the total response of measured VOCs falling within the C<sub>6</sub> - C<sub>16</sub> range, with responses calibrated to a toluene surrogate.
- <sup>(B)</sup> The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.
- <sup>(C)</sup> Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/day.
- <sup>(D)</sup> Allowable levels for chemicals not listed are derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/EHLB/Standard Method v1.2 and BIFMA level credit 7.6.2 and 1/100th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).



UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified



## Panel System for Sound Absorption & Privacy

### Issue

Working in noisy shared and open-plan offices has a negative impact on productivity and performance while causing stress and annoyance.<sup>13</sup> In addition, healthcare environments may require quiet spaces to make audio recordings or protect patient privacy. The ability to easily communicate with coworkers, however, is still important.

### Innovation

Xybix offers acoustical panel systems designed to provide sound absorption and privacy without limiting communication. A degreed and experienced designer who understands your needs and workflow will help with panel placement, height and color to decrease noise pollution and echo, provide separation, and unify the look and feel of the room. Xybix panel system is flexible enough to create everything from a room full of cubicles to a single panel that blocks light and sound from a breakroom.

Xybix panels are composed of steel and acoustical fiberglass in a variety of fabrics and colors. They feature a Noise Reduction Coefficient (NRC) of 0.75 indicating a high level of sound absorption and a Class A Flame Spread rating denoting fire resistance. The ease of cleaning Xybix panels was proven throughout the Covid pandemic.

### Competition

The Xybix panel system provides superior sound absorption and separation options, and are fire resistant and easy to clean. AFC and RedRick also offer acoustic panel systems while BioMorph does not.

### Regulation & Verification

The American Society for Testing Materials (ASTM) uses Acoustics Procedure C423-08 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method to rate the Noise Reduction Coefficient (NRC) of products. The Xybix panel system material has an NRC of 0.75, indicating that 75% of the sound energy that contacts that material is absorbed, and not reflected back into the room. ASTM's E-84 Test for Surface Burning Characteristics of Building Materials verifies the Class A Flame Spread rating of Xybix systems.

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<sup>13</sup> "A Cross-Sectional Survey on the Impact of Irrelevant Speech Noise on Annoyance, Mental Health and Well-being, Performance and Occupants' Behavior in Shared and Open-Plan Offices," Jan. 19, 2019, National Library of Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6351961/>

**WESTERN ELECTRO - ACOUSTIC LABORATORY  
TRANSMITTAL**

25132 Rye Canyon Loop, Santa Clarita, California 91355  
Telephone: (661) 775-3741 Fax: (661) 775-3742

To: Xybix Systems, Inc.  
8207 Southpark Circle  
Littleton, CO 80120

Date: November 3, 2010

WEAL Project Number: 9300-413

We are sending you:

Attached

under separate cover via \_\_\_\_\_ the following items:

- Prints    Shop drawings    Plans    Specifications  
 Samples    Test Reports    Sketches    \_\_\_\_\_

Copies	Date	Number	Description
1	6/25/10	AB10-163	Laboratory Sound Absorption Test Report

These are transmitted as checked below:

- For approval    As requested    Approved as submitted    Returned for corrections  
 For your use    Approved as noted    For review & comment    \_\_\_\_\_  
 PRINTS RETURNED AFTER LOAN TO US

REMARKS:

COPY TO:

SIGNED: 

If enclosures are not as noted, kindly notify us at once.

Number: 2150



## WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

TESTING • CALIBRATION • RESEARCH

25132 Rye Canyon Loop Santa Clarita, California 91355 Tel: (661) 775-3741 Fax: (661) 775-3742 www.weal.com

### SOUND ABSORPTION TEST REPORT NO. AB10-163

Xybix Tackable Acoustical Office Screen  
(Type "K" mounting)

CLIENT: **Xybix Systems, Inc.**  
8207 Southpark Circle  
Littleton, CO 80120

Page 1 of 3  
6 July 2010

TEST DATE: 25 June 2010

#### INTRODUCTION


The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure C 423-08, *Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*. Copies of the test standard are available at [www.astm.org](http://www.astm.org). The test chamber volume is 275 cubic meters. Western Electro-Acoustic Laboratory is accredited by the United States Department of Commerce, National Institute of Standards and Technology under the National Voluntary Accreditation Program (NVLAP) Lab Code 100256-0 for this test procedure. This test report relates only to the item(s) tested. This report must not be used to claim product certification, approval, or endorsement by WEAL, NVLAP, NIST or any agency of the federal government.

#### DESCRIPTION OF TEST SPECIMEN

The test specimen consisted a Xybix tackable acoustical office screen designated Genesis Korea and Gusa. The test specimen consisted of a 914 mm (36 inch) module and a 610 mm (24 inch) module bolted together side by side. Each module was nominally 1.65 m (65 inches) tall and had three removable panel tiles on each side which hung on the metal frame. The bottom panel tiles were nominally 610 mm (24 inches) high and all other panel tiles were 457 mm (18 inches) high. The panel tiles consisted of a perforated metal face in front of 25.4 mm (1 inch) thick 48 kg/m<sup>3</sup> (3 lb/ft<sup>3</sup>) fiberglass. Around the perimeter of each tile the fiberglass was trimmed to 12.7 mm (1/2 inch) thickness so that it would fit into the system. The perforations were 5 mm (3/16 inch) diameter holes on 8 mm (5/16 inch) staggered centers and extended to the edges of the tiles. Each tile was covered with Guilford of Maine, Model FR-701 fabric. The thickness of the specimen was 79 mm (3-1/8 inches). The test specimen was sitting on four adjustable feet which raised it approximately 22 mm (7/8 inch) above the test chamber floor. The faces of the panel were not parallel to any wall surface. The overall dimensions of the specimen were 1.52 m (60 inches) wide by 1.64 m (64-1/2 inches) high by 79 mm (3-1/8 inches) thick. The overall weight of the specimen was 54.9 kg (121 lbs.).

Test results are presented on the following page.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Gary E. Mange  
Laboratory Director

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## SOUND ABSORPTION TEST REPORT NO. AB10-163

TEST DATE: 25 June 2010

Page 2 of 3  
6 July 2010

Mounting per ASTM E 795-00: Type K

Area tested: 53.75 ft<sup>2</sup> (4.99 m<sup>2</sup>)

Temperature: 75.2° F

Humidity: 47.3%

Pressure: 28.55 in. of Hg

### TEST RESULTS

#### 1/3 Octave Band Absorption Data

Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	30.8	0.57
125	24.0	0.45
160	22.0	0.41
200	26.1	0.49
250	29.5	0.55
315	36.0	0.67
400	39.5	0.73
500	38.8	0.72
630	43.9	0.82
800	46.7	0.87
1000	48.0	0.89
1250	48.4	0.90
1600	49.0	0.91
2000	49.7	0.92
2500	48.5	0.90
3150	48.9	0.91
4000	49.0	0.91
5000	47.5	0.88

NRC 0.75  
SAA 0.78

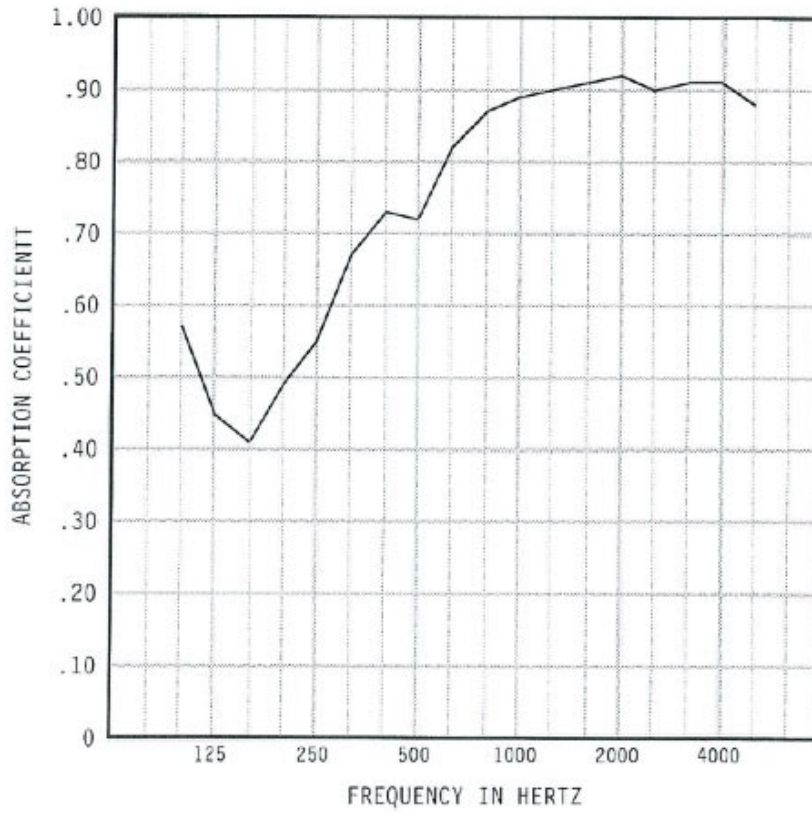
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WESTERN ELECTRO-ACOUSTIC LABORATORY

# SOUND ABSORPTION TEST REPORT No. AB10-163

Test Date: 25 June 2010

Page 3 of 3  
6 July 2010



Specimen Area: 53.75 sq.ft.  
Temperature: 75.2 deg. F  
Relative Humidity: 47.3 %

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## Space Planning for Accessibility & Safety

### Issue

To meet the demands of the users and required equipment, workstations for healthcare environments—whether telemetry, radiology or security—are substantial in size and weight. As a result, they are difficult to move, so getting the layout right the first time is important.

Considerations include compliance with the Americans with Disabilities Act, electrical codes and fire codes along with creating a pleasing space that fosters communication.

### Innovation

Xybix hires only degreed and experienced interior designers and architects to plan floor space for customers. For ease of communication, each project is assigned a dedicated designer who understands the space and customer needs. The designer starts by producing a 2D floorplan for the customer to review the dimensions, number of workstations, room features and obstructions, panel systems, alarm and electrical box clearances (3 feet), ADA clearances for doors and walkways (3 feet), windows and sightlines.

Your Xybix designer, however, goes beyond simply meeting regulations when space planning. He or she can create 3D renderings that show how the workstations will look in color, in the space, loaded up with equipment and monitors. We understand that the floor plan can encourage—or inhibit—communication, so the designer will listen carefully to your workflow and needs, offer creative solutions, and may share a virtual walkthrough of your space. Finally, our experienced interior designers can offer advice on the color and materials—in everything from the desktop laminate to the panel walls to the carpet and paint—that work together to create looks with lasting appeal.

### Competition

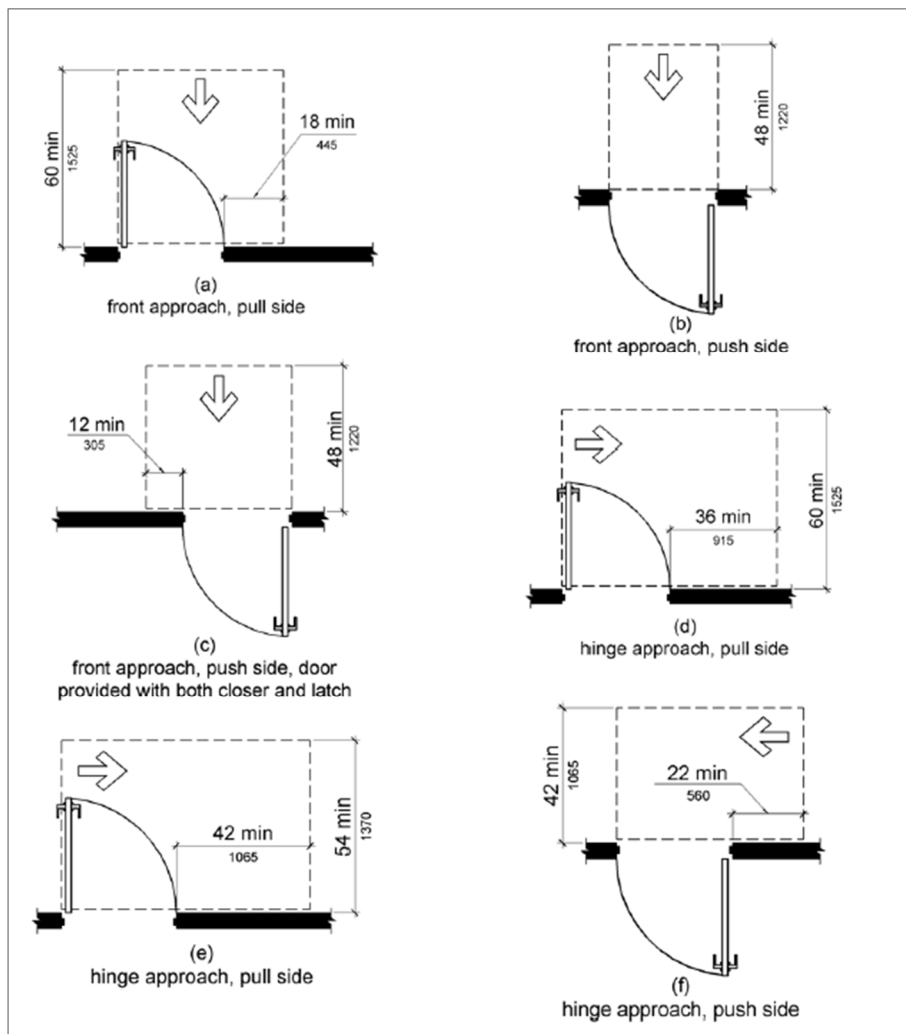
Xybix and AFC provide degreed and experienced interior designers for each project. RedRick and BioMorph do not.



## Regulation & Verification

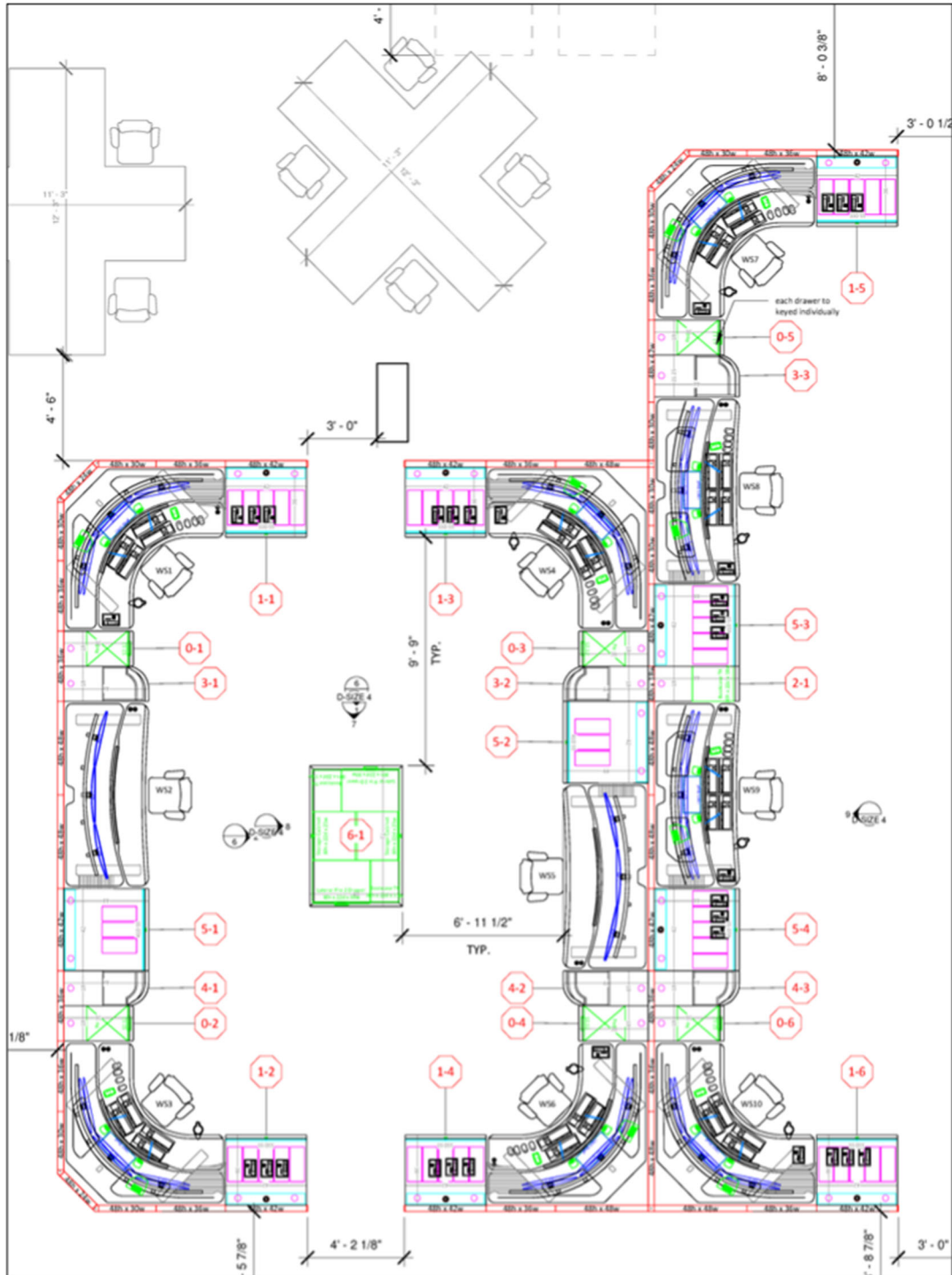
For space planning, Xybix complies with Chapter 4: Accessible Routes of the ADA Standards for Accessible Design.<sup>14</sup> Two key provisions include:

- **403.5.1 Clear Width.** Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.
- **404.2.4 Maneuvering Clearances.** Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.



<sup>14</sup> "2010 ADA Standards for Accessible Design, Americans with Disabilities Act," Sept. 15, 2010, Department of Justice. <https://www.ada.gov/reg2010/2010ADASTandards/2010ADASTandards.htm#c4>

Because each project is different, there is no blanket proof of accessible and safe space planning. Xybix has a long history of complying with ADA regulations, electrical codes, and any local building codes. As part of our stringent quality controls, we use an ADA checklist and second reviewer on all space plans.





## Creature Comforts

Xybix workstations include many thoughtful touches designed for the comfort and convenience of healthcare workers. These include:

- Personal fan and heater
- Built-in coffee cup holder
- Data dock for device charging
- Bias lighting in all the colors of the rainbow
- Optional treadmill or bike
- Optional matching lockers, file cabinets, pedestals and other furniture
- The AXYS Control System for saving all workstation settings as “scenes” to activate with the touch of a button
- Integration with health apps (in development for 2023)



## Service

Every aspect of Xybix service—from design to installation to maintenance—is focused on minimizing downtime and getting it right the first time. Our services include:

- Knowledgeable salespeople who help with selecting the products you need.
- Degreed and experienced interior designers who analyze your space, understand your workflow, and create floorplans in compliance with ADA, electrical and fire codes.
- 2D, 3D, and virtual flythrough renderings show how the workstations, panels, room features (windows, posts, doors, etc.) and colors work together.
- Project managers who are available to help coordinate carpet/flooring, paint and more prior to installation.
- Installers with expertise in planning live cutovers for existing spaces and working with architects or staff on new spaces.
- Training on the technical and ergonomic features of workstations.
- Access to a live customer service agent 24/7 along with plenty of resources for DIY problem solving.



## **Financial Benefits**

Xybix healthcare workstations offer a full value proposition—complementary design and space planning services, workstations that are built to last, ergonomic features that can help prevent costly repetitive stress injuries and lead to better patient outcomes, and improved morale.

## **Planning the Space**

Xybix offers complementary space planning and design assistance from degreed and experienced interior designers. These professionals ensure the workstation layout looks good and enhances communications while complying with ADA, electrical and fire codes. Xybix is also available for project management services and our installers are highly experienced in live cutovers to prevent downtime.

## **Delivering Quality and Durability**

As a family business, Xybix takes great pride in delivering quality and value to healthcare workers. (See Performance Testing & Compliance on page 45.) Our healthcare workstations are engineered to last with continual usage for 15–20 years in 24/7/365 settings. In fact, some of our 911 dispatch customers are using workstations purchased in the early 2000s. The durability of Xybix workstations saves our customers on downtime and replacement costs, and the warranty reduces costs on repairs and parts.

## **Preventing Repetitive Stress Injuries**

The ergonomic design of Xybix workstations can prevent repetitive stress injuries and musculoskeletal issues such as carpal tunnel, tendonitis, and hip, knee and lower-back pain. These types of injuries frequently result in workers' compensation claims, productivity losses from time off, and attrition related to chronic pain or stress. Direct and indirect costs associated with these preventable workplace injuries include workers' compensation payouts, increased insurance premiums, opportunity costs due to absenteeism, and the need to recruit, hire, and train new employees.

Preventing these costs does take more than ergonomic workstations. Xybix salespeople are all ergonomic experts, and they are available to train customers in proper usage—including desktop height, wrist/shoulder position, and posture—to take advantage of the workstation and prevent injuries and chronic pain.

## Improving Patient Satisfaction Scores

Ergonomic and comfort features of Xybix workstations are designed to prevent conditions that can lead to mistakes—eyestrain, headaches, neck pain, cold hands, and physical or mental fatigue. Preventing these conditions naturally leads to an increase in productivity, a decrease in errors and, therefore, higher patient satisfaction.

The Xybix Rollervision monitor array helps prevent eyestrain and headaches by providing quick adjustments for achieving proper focal depth and viewing angle. Users can quickly pull screens in for a closer look rather than craning their neck, leading to pain. Bias lighting and the ability to view all monitors at the same focal depth (rather than constantly refocusing) help prevent eyestrain as well.

In addition, the ability to alternate between sitting and standing throughout the day is proven to increase focus and energy, leading to higher productivity throughout the day.<sup>15</sup> Xybix workstations provide personal climate controls, including a heater to prevent errors associated with cold hands.<sup>16</sup>

## Enhancing Morale

Improving morale and engagement helps organizations retain employees, saving the costs of replacing employees. Employees who believe their employer cares about them are 38% more engaged at work, and a clear way to express that caring is with an ergonomic sit-to-stand workstation.<sup>17</sup> Many studies show that sit-to-stand desks enhance productivity, engagement and overall health while decreasing fatigue and stress.<sup>18</sup> These studies are supported by Xybix customers, who frequently cite improved morale as a significant benefit of our workstations. Individual users are particularly enthusiastic about the personal climate controls and thoughtful touches, such as the phone charging dock.

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<sup>15</sup> “4 Ways Standing Desks Improve Employee Productivity,” Aug. 19, 2021, Flexispot: Health, Body and Mind. <https://www.webmd.com/fitness-exercise/standing-desks-help-beat-inactivity>



<sup>16</sup> “The hand in the cold, performance and risk,” Sept. 2, 1995, TNO Human Factors Research Institute, Soesterberg, The Netherlands. [https://www.researchgate.net/profile/George-Havenith/publication/14305859\\_The\\_hand\\_in\\_the\\_cold\\_performance\\_and\\_risk/links/547351510cf2d67fc0362ce8/The-hand-in-the-cold-performance-and-risk.pdf](https://www.researchgate.net/profile/George-Havenith/publication/14305859_The_hand_in_the_cold_performance_and_risk/links/547351510cf2d67fc0362ce8/The-hand-in-the-cold-performance-and-risk.pdf)

<sup>17</sup> “Workplace Well-Being, Quantum Workplace.” 2015. Quantum Workplace. [http://www.limeade.com/wp-content/uploads/2015/01/Workplace-Well-Being\\_FINAL.pdf](http://www.limeade.com/wp-content/uploads/2015/01/Workplace-Well-Being_FINAL.pdf)

<sup>18</sup> “Standing desks boost productivity, not just health, study finds,” May 31, 2016, The Washington Post. [https://www.washingtonpost.com/lifestyle/wellness/standing-desks-boost-productivity-not-just-health-study-finds/2016/05/31/b7948390-2358-11e6-8690-f14ca9de2972\\_story.html](https://www.washingtonpost.com/lifestyle/wellness/standing-desks-boost-productivity-not-just-health-study-finds/2016/05/31/b7948390-2358-11e6-8690-f14ca9de2972_story.html)

## Performance Testing & Compliance

Xybix backs all performance claims with results from independent labs that test according to industry standards.

Certification	Category	Benefits
	<p><b>Ergonomics:</b> Xybix meets all crucial performance requirements of the nationally recognized ANSI/HFES100-2007 ergonomic standard. Xybix products all meet requirements for:</p> <ul style="list-style-type: none"> <li>• Input Device – Keyboard/Mouse Support Surface</li> <li>• Input Surface Shape – Primary Reach Zone</li> <li>• Input Surface – Height Adjustment Range</li> <li>• Monitor Support Surface</li> <li>• Monitor View Angle Positioning Requirements</li> <li>• Monitor Focal Length Requirements</li> <li>• Operator Clearances</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces musculoskeletal injuries</li> <li>• Decreases absenteeism and workers' compensation claims</li> <li>• Increases morale and retention</li> </ul>
	<p><b>Quality:</b> Xybix exceeds all rigorous testing for structural integrity and durability of the Business and Institutional Furniture Manufacturers Association (BIFMA). This includes testing all:</p> <ul style="list-style-type: none"> <li>• Height-Adjustable Workstations</li> <li>• Panel Systems</li> <li>• Cabinetry</li> </ul>	<ul style="list-style-type: none"> <li>• Guarantees strength and stability</li> <li>• Promotes longer life with fewer service calls</li> </ul>

	<p><b>Emissions:</b> GREENGUARD Indoor Air Quality testing ensures low chemical emissions from all materials. Xybix products are Gold certified according to the UL 2818-2013 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings.</p>	<ul style="list-style-type: none"> <li>• Promotes healthier indoor air</li> <li>• Earns points toward LEED certification</li> </ul>
	<p><b>Fire &amp; Electrical Safety:</b> Underwriters Laboratories (UL) and Canadian Standards Association (CSA) test electrical components for fire and electrical safety.</p>	<ul style="list-style-type: none"> <li>• Ensures safety</li> <li>• Lowers energy usage</li> <li>• Decreases heat production</li> </ul>
	<p><b>Sound &amp; Fire Safety:</b> The American Society for Testing Materials (ASTM) protocols are used to verify sound absorption and fire safety characteristics.</p> <ul style="list-style-type: none"> <li>• Acoustics Procedure C423-08 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method verifies the high NRC values of Xybix systems.</li> <li>• E-84 Test for Surface Burning Characteristics of Building Materials verifies the Class A Flame Spread rating of Xybix systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Quieter workspaces for concentration</li> <li>• Decreases fire risk for a safer workplace</li> </ul>



## Current Users

Xybix sit-to-stand healthcare desks help employees remain alert and pain free at hundreds of healthcare facilities nationwide. Often, after seeing the benefits, our customers come back to us for more workstations in radiology centers, telemetry labs, communication centers, and security departments.

In addition, Xybix has furnished thousands of 911 dispatch centers and control centers for transportation and security. These customers frequently share their appreciation for the sit-to-stand flexibility, improvements to communications through thoughtful space planning, and the special touches such as the personal heater and phone charger.

- Airlift Northwest
- Alberta Health Services
- Allina Health System
- Atlantic Health System
- AtlantiCare Medical Center
- Atrium Health
- Avez Rizvi, MD. Sidra Medical & Research Center Qatar
- Baptist Hospital Security
- Beaumont Health System
- Bethesda Naval Medical Center
- Carol Milgard Health Center
- Carolina Medical Center
- Carondelet
- Centra Health
- Centura St. Francis Hospital
- Charleston Radiologists
- Charlie Norwood VA Medical Center
- Christiana Care Health System
- Dana Farber Cancer Center
- Dana Farber Cancer Institute
- Dartmouth Hitchcock Hospital
- Denver Health & Hospital Authority
- DuPage Imaging
- Eastern Health Authority
- Emory University Hospital Midtown
- Ephrata Community Hospital
- Erlanger Medical Center
- Evans U.S. Army Hospital at Fort Carson
- Exempla Saint Joseph Hospital
- Exeter Hospital
- Froedtert Hospital SOC
- Greenville Health System
- Hannibal Regional Health
- Harris Health System
- HCA—Lone Peak Hospital
- Henry Ford Macomb Hospital
- HonorHealth
- ImmunityBio Inc.
- Inspira Medical Systems
- Jefferson Regional Medical Center
- Johnston Memorial Hospital
- Kaiser Permanente — 31 locations

- Kettering Health Network
- Lackland Air Force Base
- Lawrence Memorial Hospital
- Lehigh Valley Health Network
- Longs Peak Hospital
- Lutheran Hospital
- Madigan Army Medical Center
- Marquette University
- Martha Jefferson Hospital
- Martin Health PBX Room
- Mayo Clinic
- Medcenter Air Morris Field
- Medical Center Hospital
- Medical Transportation Coordination Center
- Memorial Hospital West
- Mercy Medical Center Sioux City, IA
- Meriter Hospital
- Metrowest Medical Center in Massachusetts
- Milwaukee Area Technical College
- Mission Hospital Memorial Campus
- MRH Breast Center
- National Jewish Health
- National Naval Medical Center
- National Teleradiology Program Honolulu
- Natividad Medical Center
- Naval Hospital Camp Lejeune
- NewYork–Presbyterian Brooklyn Methodist Hospital
- North Colorado Medical Center
- NorthEast Medical Center
- OhioHealth
- Olive View–UCLA Medical Center
- Olmsted Medical Center
- Orlando Health South Lake Hospital
- OSF Saint Anthony Medical
- Parkview Medical Center
- PHI Air Medical
- Promedica
- Radiology Associates
- Radiology Imaging
- Regional West Medical Center
- Roper St. Francis
- Rutland Regional Medical Center
- Saddleback Medical Center
- Saint Anthony Hospital West
- Saint Charles Medical Center
- Saint Luke's Hospital
- Saint Mary's Dean Ventures Cardiology
- Saint Mary's Health Care–Trinity Health
- Saint Mary's Hospital
- San Joaquin General Hospital
- Siemens Medical–UTMB
- Silver Cross Hospital
- St. Joseph Medical Center
- St. Mary's CareFlight
- Tenet Healthcare–West Boca
- TRA Medical Imaging
- UC Health Highlands Ranch



- UC Health–Colorado Springs
- UCLA — 12 locations
- University Community Health
- University of Colorado Hospital
- University of Maryland Medical System Hospital
- University of Miami Medical Center
- University of Michigan Health System
- University of New Mexico Hospital
- University of Texas Medical School
- University of UT Neuro Room
- University of Virginia Health System
- VA Medical Centers and Hospitals — 17 locations
- Vancouver Clinic
- Virginia Commonwealth University — 11 locations
- Vista–Integrated Practice Services
- West Haven VA
- Yuma Regional Medical Center