

Monitor Arm Solutions:

Enhancing Employee Productivity
and Workstation ROI

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Executive Summary



In today's modern workplace, everyone from employers and architects to installers and facility managers is looking for innovative solutions to increase employee productivity and workstation return on investment (ROI). Whether it is through densification projects, eco-friendly buying decisions, refacing legacy facilities to attract top-tier leasers, or even improving workplace feng shui, the business community is requiring more out of the workstation environment than ever before.

Recent improvements in workstation technology have helped businesses realize a healthier workstation ROI through more productive employees, usable office space and cost-effective ways of doing business. With the computer and monitor acting as the heart and soul of workplace technology, it is no surprise that many businesses have upgraded workstations to better integrate technology and user comfort. Examples of upgrades include transitioning from bulky cathode ray tube (CRT) monitors to flat panel monitors, which enable extended desktops with multiple monitors and incorporate flexibility for laptop users. Unfortunately, monitor upgrades alone are not enough to complete a workstation transformation.

In the end, businesses must rely on other innovative advancements, such as an adjustable monitor arm to streamline their work environments. Creating more usable desk space due to greatly reducing unused workspace, maximizes workstation ROI through increased productivity.

Industry Challenge



Figure 1. A stationary flat panel monitor provides a smaller monitor footprint, but no real usable space advantages.

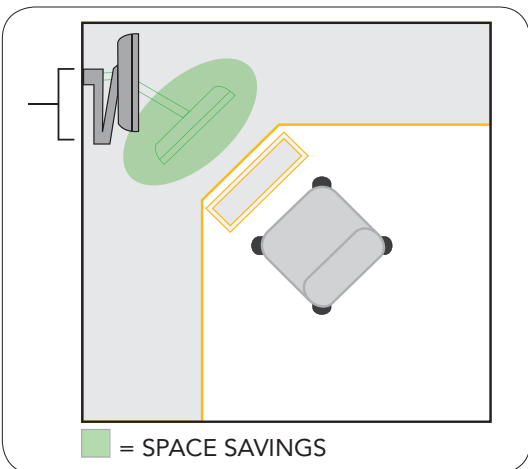


Figure 2. The traditional five-sided corner work surface, shown with adjustable monitor arm and Ergonomic Reach Zone.

In the past five years, the average workspace has changed dramatically. For the most part, gone are the bulky CRTs that hogged electricity and desk space. In their place are sleek, energy efficient, low glare flat panel monitors. Space-saving CPU mounts, and keyboard and mouse trays now can be installed conveniently under the desk. Chairs, keyboards, mice and even footrests are more ergonomic than ever before. Thus, one would think that workspace issues of the past are resolved and we are much happier, productive and cost effective, right? Not exactly.

Yes, there have been some pretty remarkable technology advances recently that have led to more productive, ergonomic and cost-effective workstations. But many work environments still have not reached maximum ROI and, monitors are to blame. For example, just upgrading from a CRT to a flat panel monitor doesn't complete a workstation transition (Figure 1). For the most part, workers still leave their flat panel monitors stationary on their desk surface, not allowing them to take advantage of the abundant free space behind the monitor. This prevents employees from achieving efficiency and comfort in daily multitask projects such as writing notes, making phone calls, reviewing notes or referencing company manuals.

Another example of ROI shortfalls deals with densification issues. As more and more businesses transition to flat panel monitors, they no longer need their existing large work surface footprint. For example, the traditional five-sided corner work surface (Figure 2) was designed around the bulky CRT. The cost savings of eliminating the five-sided corner alone would pay for workstation technology improvements, such as a monitor arm. However, most employers have not reconfigured their work environments to make up for this new abundance in square footage. This means that many companies have missed out on potential bottom-line



savings in maintenance, rent, furniture and facilities fees. So, to realize maximum ROI, the workstation itself must be further streamlined. This can be accomplished with the addition of a cost-effective, durable and easily adjustable mounting solution (Figure 3). In addition to increased employee productivity, better ergonomics and more usable desk space, mounting solutions can offer rewarding cost-saving benefits to employers, integrators, architects, designers, installers, and IT and facility managers.

Figure 3. A mobile flat panel monitor/ adjustable monitor arm solution provides an immediate increase in usable work surface space.

Solution

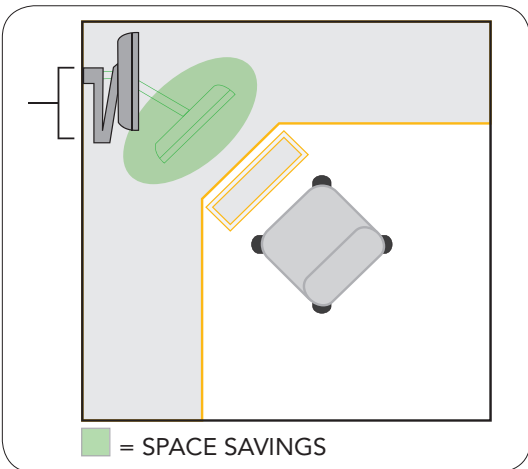


Increase Productivity and Ergonomics

One of the most important benefits of an adjustable monitor arm solution is the amount of increased productivity it brings to its user. How is that possible? Simply put, an adjustable monitor arm greatly enhances the user's ability to comfortably multitask at their workstation. Additional benefits include: increased usable work surface area, multi-monitor capacity and integrated ergonomics.

More Work Surface Enables Greater Multitasking

The key to a well-designed monitor arm is one that can dramatically increase work surface area, workstation performance and user comfort. And, when users combine the sleek design of today's flat panel monitors with the flexibility of an adjustable mounting arm, they can reclaim vast amounts of real estate once taken up by bulky CRTs.



With this new found space, referred to as the Ergonomic Reach Zone (see Figure 2), users can now use every inch of their work surface for multiple performance tasks (such as writing, making phone calls, reviewing manuals and materials, etc.) directly in front of their monitor – all while keeping the monitor out of the way and optimally positioned for viewing¹. With an adjustable monitor arm, users can extend their monitor more than 20 inches and collapse it to about 4 inches. This ability to extend/collapse the monitor provides users with a much larger functional area in which to multitask while positioned at a traditional 24-inch deep work surface space.

Figure 2. The traditional five-sided corner work surface, shown with adjustable monitor arm and Ergonomic Reach Zone.



Figure 4. Standard adjustable arm configuration shows unique extension capabilities.

Flexibility and Ease of Use

Another productivity benefit centers on monitor arm flexibility and ease of use. Monitor arms provide far superior technology for monitor tilt adjustment than standard desk stands. And, monitor arms enable customization per the user's needs for ease of movement or maximum adjustment. This flexibility (Figure 4) is extremely helpful for a variety of user populations, including:

- Sit/Stand environments
- Multi-user requirements
- Special work injury/ergonomic needs
- Aging workforce
- Bifocal wearers

When it comes to flexibility, monitor arms provide users with a wide range of tilt and swivel options for the side-to-side, front/back and up/down movement that today's workforce requires. For instance, mounting solutions allow bifocal users to tilt their monitor as much as 90-degrees flat back on top of itself and/or drop the bottom of the monitor all the way down to the work surface – all while positioned 18 inches from the user. This means no more leaning back and tilting the head up or looking down to read the monitor screen.

In addition, articulating mounts allow for quick height travel adjustments up to 13 inches with no knobs or levers, which creates an ideal situation for sit/stand or multi-user environments. Some mounts provide up to 26 inches of height adjustment which can accommodate from the 5th to the 95th percentiles of users. Monitor mounts can also be used with height-adjustable tables, enabling even more user flexibility.



Privacy and Information Sharing

Some work environments demand screen privacy, while others require information sharing. Monitor arms can be easily positioned anywhere within a 360-degree arc extending 20-plus inches from the base. The value of this is felt in the “paperless” office, allowing co-worker or client discussions across a desk while using the monitor screen as a presentation tool in real time. Or, value can come from not having to worry about passers-by when opening attachments that contain personal information. Adjustable mounts also change easily from portrait to landscape configuration, which enables “smart” software applications that dynamically change the display properties with monitor configuration. So, rather than cropping a page layout or picture in halves to read on the screen, the user can swivel the screen to portrait mode and use all the screen real estate.

Multi-Monitor Capacity

In many multi-monitor work environments, such as healthcare, call centers, banking and financial, continuous productivity is a key to both bottom line and customer service success. One way to enhance productivity in such multitask environments is through mounting solutions that enable users to integrate from two to twenty monitors in a customized workstation. In fact, such multi-monitor workstation configurations (Figure 5) have been proven to increase user productivity by up to 44 percent². Mounting solutions better facilitate multiple monitor workstations through space utilization and easy monitor alignment to minimize impact of monitor bezel and spacing when mousing across monitors. This option helps increase monitor viewing area and efficiencies, while reducing user errors and health issues. Figure 5 shows examples of multi-monitor workstation configurations utilizing monitor arm solutions.



Figure 5. Examples of multi-monitor workstation configurations using monitor arm solutions.

Laptops

Another often forgotten multi-monitor environment is the growing number of laptop users, which encompasses nearly 60 percent of computer sales today³. Laptops increase user mobility and convenience, however, the ergonomic benefits associated with standalone laptop usage are sub par at best. To minimize poor



Figure 6: Desk mounted monitor/laptop mount combination option.

workstation ergonomics when using for extended periods, users should elevate the laptop screen and use a separate keyboard and mouse. Users can maximize productivity and ergonomics by using a secondary flat panel monitor with a monitor arm/laptop mount combination (Figure 6). This unique mount solution helps seamlessly position the monitor and laptop for an “extended desktop” environment that allows users to run their desktop over two monitor screens – meaning they can mouse and scroll from laptop to monitor screen. This enables users to keep multiple windows open to drag and drop information across applications, all without minimizing or maximizing applications. Once again, such a multi-monitor environment can improve user productivity by 44 percent.

Enhanced Ergonomics

A final key to increasing employee productivity is end-user comfort and well being. Mounting solutions are designed to help users adhere to the latest industry ergonomic standards. This end-user focused design allows users to customize their monitor settings so the top line of text on their monitor is slightly below eye level and 15-26 inches from their eyes (Figure 7). Adhering to these important ergonomic standards means that users no longer have to continually struggle with a monitor that is either too high, too low or in the way of multitasking. Eliminating monitor placement challenges promotes a more comfortable and healthy workstation environment by drastically reducing an employee’s risk of neck, shoulder and eye strain; or potentially worse workplace injuries such as musculoskeletal disorders, repetitive strain injuries and cumulative trauma disorders⁴.

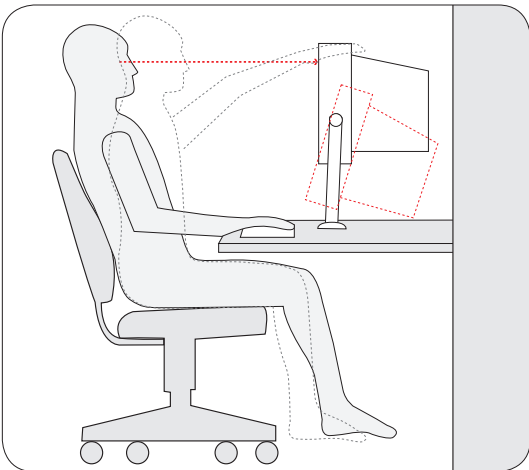


Figure 7: Illustration showing proper monitor height placement and ergonomic hot points

Reduce Workstation Footprint, Maximize Office Space

An increase in effective work area not only enhances employee productivity and well-being, but can help decrease the traditional workspace footprint without a reduction in usable work surface area. Through densification projects, employers can keep the same functional work area for their employees, but shrink that office footprint by 25 percent (i.e., going from 8’ x 8’ of office space to 6’ x 8’ of office space). Thus, office designers and builders can now tailor workstation footprints to the specific needs of their clients – saving valuable space and money.

In addition, densification projects help promote eco-conscious business practices. For example, businesses that streamline their workstation footprint consume less building materials (i.e., furniture, wood, metal, etc.), save energy by using energy-efficient flat panel monitors, and minimize heating and cooling costs due to smaller office space needs.

In an effort to show how designing a workstation that incorporates monitor arms and flat panel monitors can maximize office space and reduce workstation footprint, facility space savings were evaluated⁵ for two benchmark workstations commonly used in high density, computer intensive environments. “These workstations included:

- **Carrel:** A very small workstation (similar to a library study carrel) often found in the highest density telephone call centers⁵.”
- **Small Cubicle:** “A six-foot square cubicle with an L-shaped work surface, ideal where private work is necessary but abundant storage space is not⁵.”

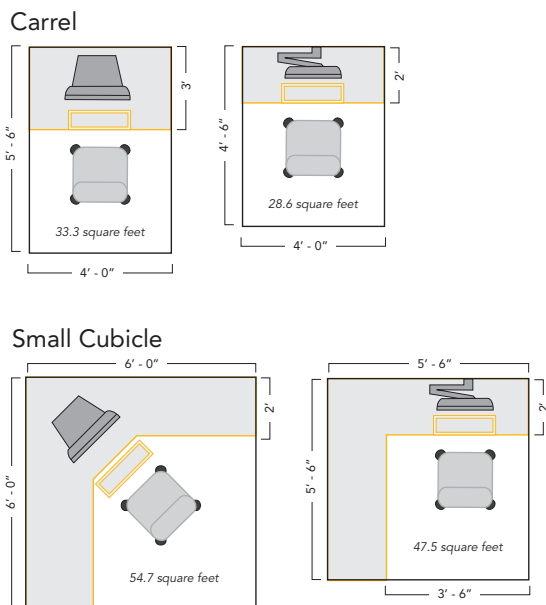


Figure 8: Regular vs. modified office footprint evaluation⁵

In this evaluation, both workstations were redesigned around the flat panel monitor and mounting arm solution incorporating ergonomic parameters. Figure 8 shows each of the workstations in the regular and modified configurations⁵.

As you can see by Figure 8, the combination of a flat panel monitor and mounting arm greatly reduces the traditional office footprint. Table 1 on the next page shows the resulting savings in rent, and furniture. Rent savings equal the reduced workstation area, including circulation, incorporating a 15 percent markup factor to convert from usable square footage to rentable square footage⁵. The rental rates are gross rents which include taxes, utilities, maintenance and janitorial. Furniture savings result “from smaller size and reduced complexity⁵.” In addition, transitioning to the modified carrel and small cubicle footprint not only decreases workstation size, but offsets the cost of integrating technology accessories like monitor arms into the workstation itself.

Save Money

The end result of increased employee productivity, enhanced ergonomics and a reduced work service footprint is realized cost savings for everyone in the buying cycle including integrators, architects, designers, installers, and IT and facility managers. When all is said and done, cost is usually the most important factor regarding any office space implementation. Such cost savings can come in many forms. For example, mounting solutions can foster more productive and healthy employees, which can lead to an increase in business, less downtime due to workplace injuries and a lower risk of workman’s compensation claims. In addition, monitor arms promote more efficient use of workstation design that leads to smaller office footprints (referred to in Table 1) and substantial bottom-line savings through:

- Reduced building costs
- Less expensive furniture costs
- Decreased maintenance costs
- Potential reduction in rent

	Carrel Annual Savings	Small Cubicle Annual Savings
Electrical	\$26.74	\$26.74
Furniture	\$42.63	\$212.15
Tenant Fit-out	\$12.44	\$18.93
Total Annual Savings	\$81.81	\$257.82

Table 1: Savings Table for Reduced Office Footprint Evaluation⁵

Conclusion

Even with the recent improvements in workstation environments and the addition of sleek flat panel monitors, businesses still must close the gap between advancing technology and employee productivity, unused desktop space and legacy workstation footprint issues.

Through the use of Chief's adjustable monitor arm solutions, businesses can close this gap by unlocking vast unused monitor desk space and allowing the traditional work surface to finally transition into a fully functional, multitask environment. In the end, Chief's monitor arm solutions can greatly enhance employee productivity and workstation ROI through increased ergonomics, more usable desk space and streamlined workstation footprints that will help save cost.

About Chief

Chief, a division of Milestone AV Technologies, has more than 30 years of proven product and service excellence. Committed to responding to industry needs in the Pro AV, Residential and Office markets, Chief offers a complete line of mounts, lifts and accessories for flat panel displays and projectors.

Our adjustable monitor arms greatly enhance any workstation where productivity, space, ergonomics, collaboration and/or privacy are at a premium. Relying on our extensive past performance in product and service excellence, we offer the largest line of standard and customized mounts, lifts and accessories in the world.

Chief leverages its multiple product awards and patented designs to provide a full line of mounting solutions to fit virtually any workstation situation and monitor weight, including monitors up to 32 inches. These flexible solutions include single, dual and multiple monitor mounts in standard and customizable configurations. We are recognized worldwide for delivering quality products that incorporate our patented Centris® Technology for easy fingertip monitor positioning, one-of-a-kind cable management and the ability to handle the heaviest monitors. All of our products are made of solid steel construction, are quick and easy to install, and promote fluid end-user flexibility in movement and design – making them one of the top choices in mounting solutions for integrators, architects, designers, installers, IT and facility managers, and employees.

With custom mounting solutions for more than 25 furniture system manufacturers and roughly 80 system connectors, we have an extensive range of solutions to fit a variety of unique workspace challenges. All of our products and accessories are backed by award-winning technical support and customer service. From large corporations to small business and from traditional cubicles to multiple monitor environments, we continue to break new ground with next-generation products that help end users increase productivity and ergonomics, maximize office space and save money.

With sales offices in the United States and Europe, we support a global network that spans the Americas, Europe, the Pacific Rim and beyond. Chief distribution centers are located in Minnesota, Hong Kong and the Netherlands. For more information about Chief, please visit www.chiefmfg.com.

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