BOSTONtec

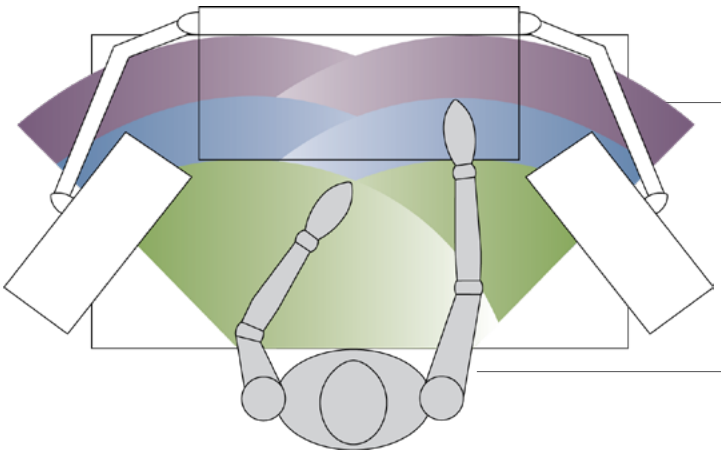
Ergonomic Workstations

BUILD A BETTER WORKSTATION

Ergonomics in the Workplace

A properly designed, ergonomic workstation can increase productivity up to 25% and reduce workplace injuries caused by repetitive motion tasks.

By utilizing a range of adjustable components, workstations can be configured to meet the needs of 90% of operators or what ergonomists refer to as the 5th to 95th percentile.



BOSTONtec has a wide variety of accessories to help place needed items according to the ergonomic zone

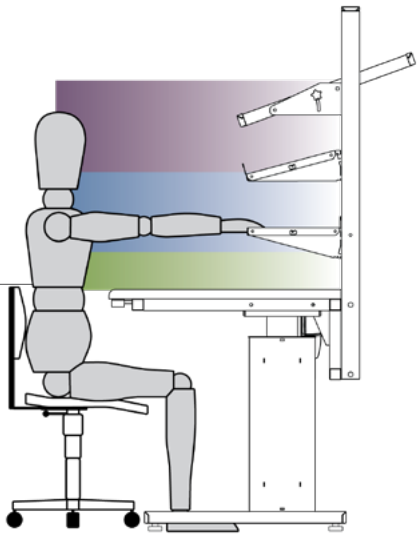
Ergonomic Horizontal Reach Zones

1st Zone
- High use items
- Least stress, most comfort
- Easiest access to items with minimal movement required

2nd Zone
- Medium use items
- Operator can comfortably reach by extending arm and rotating shoulder
- Requires little time to access items but extensive time in this position can cause fatigue and skeletal stress

3rd Zone
- Low use items
- Involves operator moving core body while in sitting position
- Substantial reduction in efficiency from first two zones

4th Zone
- Storage only- Located outside of all three reach zones



Ergonomic Vertical Seated Reach Zones

1st Zone
- High use items
- Offers most operator comfort and fastest access to items

2nd Zone
- Medium use items
- Requires little time to access items but extensive time in this position can cause fatigue and skeletal stress

3rd Zone
- Low use items and storage
- Involves operator trunk movement representing significant efficiency reduction

For more information, go to the Ergonomics at Work section at **bostontec.com**

Build Your Own Workstation in 4 Simple Steps

The following are some things to consider when selecting the right components for your workstation. For more helpful tips, go to Ergonomics at Work and Plan Your Workstation sections at bostontec.com.

1 Select Workstation Base Frame

Size – The size of the frame is dependent on the size of the work surface. Decide how much surface is necessary to perform tasks – and how much space is available in the work area. The space should be large enough to perform the necessary tasks but compact to limit reaching and stretching.

Types – There are two types of traditional workstation frames – cantilevered and center-justified.

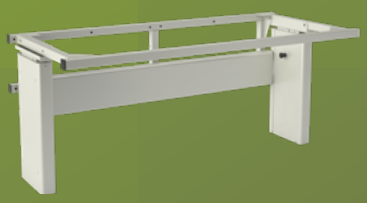
- Cantilevered units have a rear fixing frame to accommodate uprights to attach accessories such as shelves, power bars and lights.
- Center-justified units are designed for tasks requiring access from both sides of the station. They do not accommodate uprights.

Capacity – Determine the maximum capacity required including shelving, equipment, components – and if the weight will be distributed evenly. Excessive weight in one area of a workstation could require a higher capacity frame.

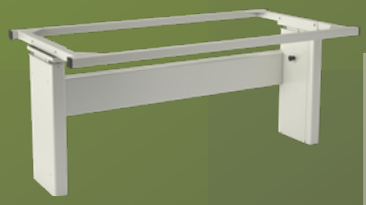
Users – Consider whether there will be multiple users of the workstation – or if the operator will transition between sitting and standing. A good rule-of-thumb to determine whether manual or electric height adjustability is appropriate: if the height needs to be adjusted more than four times per year, electric adjustability is suggested.

Workstation Base Frame Options

Load Capacity: Medium Duty = 600 lbs. Heavy Duty = 1,200 lbs.



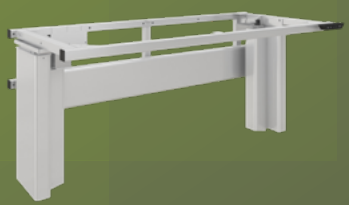
AFH Manual Heavy Duty Cantilevered



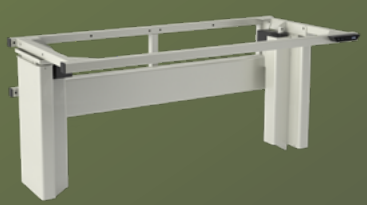
AFHC Manual Heavy Duty Center-Justified

Four Post with Levelers

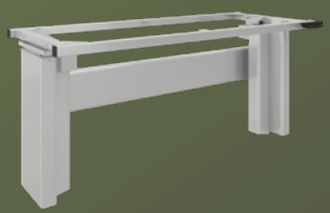
Four Post Center-Justified with Casters



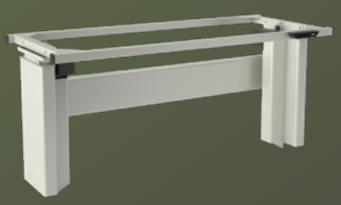
PBM Electric Medium Duty Cantilevered



PBH Electric Heavy Duty Cantilevered



PBMC Electric Medium Duty Center-Justified



PBHC Electric Heavy Duty Center-Justified

2 Select Feet & Casters Type

Mobility – Determine how often the workstation will be moved within the work area.

- Leveler feet are used for mostly stationary units.
- Casters are recommended for stations that will be occasionally or frequently moved or repositioned. For safety at least two casters must be lockable; for additional security select all four locking casters.
- Leveling casters are also available which allow the workstation to be moved but when set, rests the unit onto leveler padded feet.

Load – Evaluate the distribution of the load the station will support and any force that could affect the stability of the unit. Lag plates are an option that attach to standard leveler feet allowing the workstation to be bolted to the floor.

BOSTONtec's special drop down feet are designed to add casters to workstations without increasing the starting height.* Drop down feet are included with casters on all industrial units.

3 Select Work Surface Type

Size – With the size already determined when selecting the base frame, choosing the correct type and material are next.

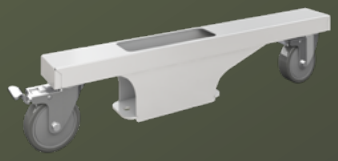
Style – For style, consider whether the user will perform most functions from a sitting or standing position. A rounded front edge is more ergonomic for operators who rest their forearms on the front edge of the work surface while performing a task.

Material – For material, think about the tasks to be performed and substances that will come in contact with the surface.

- For most general purpose applications, laminate work surfaces are durable and economical. Laminates are also available in electrostatic discharge (ESD) versions that reduce electric current transfer.
- Some tasks such as assembly are well suited to a hardwood surface which is durable and can be sanded down periodically to remove shallow scratches. Wood surfaces are generally not recommended for use in humid areas.
- Know the elements that will come in contact with the work surface. If chemicals will be used, stainless steel and phenolic resin are good options.

Feet & Caster Options

Leveler Feet



Drop Down Feet

Lag Plates

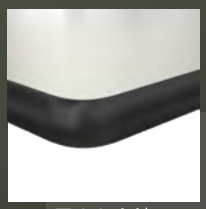
Medium Duty ESD Casters

Universal Locking Casters

Universal Leveling Casters

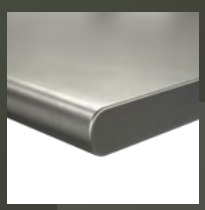
Work Surface Options

Standard Edge*



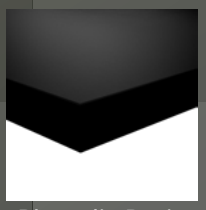
T-Mold*

Cleanroom*



Stainless Steel

Maple



Phenolic Resin

Didn't see what you need? We've got you covered.

Contact us today for additional options.

** Also available in an Electrostatic Discharge (ESD) version. Flush ESD grounding bolt is included.*

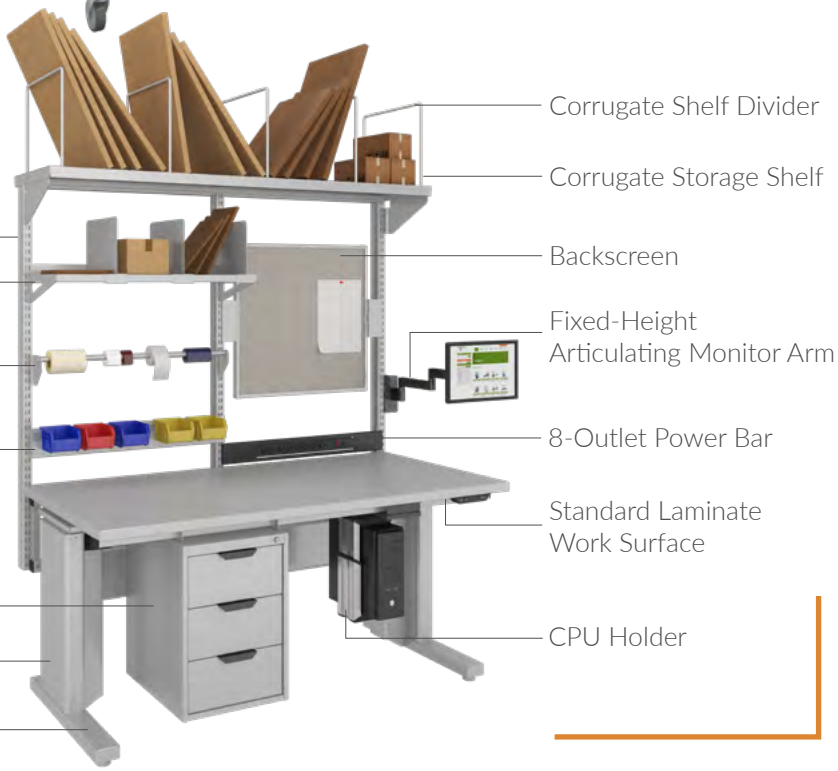
4 Select Accessories

Once the basic components of the workstation are selected, accessories are added to place items based on safety, frequency and sequence of use and other factors to reduce operator stress and increase productivity.

- Review the proper ergonomic reach zone guidelines. Utilizing uprights with shelves, bin rails, and label holders allows the operator to place items where appropriate while keeping the work surface clear for tasks.
- Evaluate any computer equipment that will be used at the workstation. Large CPU units should be stored out of the way under the work surface. Monitor arms and keyboard trays allow the operator to place equipment at the appropriate height for proper posture and reduced eyestrain.
- Consider whether the operator will be using power tools. Placing a power strip close to the work surface makes access to tools and computer equipment simple and easy. This avoids bending or stretching to reach outlets.
- Evaluate lighting where the workstation will be placed. For detailed additional lighting may be necessary to reduce eye strain and avoid accidents. For meticulous work, special task lights or magnifiers are also helpful.
- Drawers and storage accessories provide secure locations for improved organization of items freeing up valuable work surface for tasks and frequently-used items.

Typical Assembly Workstation

Typical Fulfillment Workstation



Build Your Ideal Workstation

Access our new 3D builder to create your perfect workstation.

Customize with the best bases, uprights, and accessories to fit your needs.

Try it here

Check out our **full line of** accessories at **bostontec.com**

QUICKSHIP

SHIPS IN 5-9 DAYS!*

Our most popular models and accessories.

- Light gray laminate work surfaces
- Full powder coat color selection
- For quantities of 5 or less

Visit bostontec.com for more details.
(*5-9 business days. For quantities greater than 5, consult BOSTONtec.)

Easy, Affordable Customization

BOSTONtec is the industry leader in customized workstation solutions. Our in-house capabilities take your ideas from concept to final product.

Working with the customer, our design team identifies and addresses the specific needs of the application. Our engineering team then creates a customized solution with renderings to assist in completion of the final design.

Once designs are customer-approved, our engineering and production teams turn the drawings into ergonomic workstations.

Experience Work with Color

Color Selection

Available at no additional charge.

*Denotes matte finish

WHITE | CREAM | NEUTRAL | LIGHT GRAY | PLATINUM* | STEEL GRAY | BLACK*

BURGUNDY | FIRE ENGINE RED | CLEMENTINE ORANGE* | VIBRANT GREEN* | CLASSIC BLUE | NAVY

Custom Colors

We can match colors to show your company pride, or color code work zones.

All paint is environmentally safe
Epoxy powder coat in semi-gloss finish, unless otherwise noted.

Made in USA

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