

# An Easy Reach: Industrial Ergonomics

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Ergonomics can be thought of as much like a dinner table setting: Everything should be in easy reach and no one should have to reach too far or stretch into an unnatural position to get at what they need, says Ed Metzger, president of [BioFit Engineered Products](#) [2]. “By ensuring that workers can easily access the materials they are assembling and that they have the freedom to move comfortably and naturally, companies can prevent many of the musculoskeletal injuries and much of the fatigue that leads to lost time and productivity.”

Workers who do not have access to proper ergonomic support can face a number of risks throughout their workday, including repetitive stress injuries and ailments. Metzger adds, “These common injuries can be alleviated by ensuring that workers have the freedom to move naturally throughout their workspaces, and that their furnishings deliver full support and adjustability.”

“Studies show that workers who have full ergonomic support are more productive,” says Metzger, “and the best way to ensure that is by providing the right furnishing for the job.” While no ‘one size fits all’ position or setting guarantees ergonomic support, the key to providing the right furnishing for the job lies in its adjustability

to meet the specific needs of the worker and the environment — and that can change throughout the work day.

### A Comfortable Seat

Offering control over posture, the chair can give users an advantage by putting them in healthier working positions. Seating that offers full adjustability, from the lumbar and armrests, to the seat height and five-caster base, is one way to give workers an ergonomic advantage. By considering all the ways that ergonomics factor into the construction of a chair, furniture suppliers are offering support “that give workers — and their company — a competitive edge,” says Metzger. While there is no correct posture for continual sitting, changing postures frequently in a fully adjustable ergonomic chair remains an important factor in alleviating problems. According to BioFit, truly ergonomic seating includes proven components and options such as:

- A five-legged pedestal base.
- Fully adjustable and cushioned armrests.
- A seat that allows for even weight distribution.
- Lumbar support.
- Easy-to-use height adjustment.

“The durability of the seating also plays a role,” adds Metzger. “A chair with parts that break down or wear out may cause a worker to sit differently in order to compensate, and that can place him or her in a position that is less ergonomic. Quality ergonomic seating should be considered a long-term investment.”

### The Right Height

What could be considered the other half of an ergonomic workstation, the work bench is also an important part of a safe, productive working environment. Height adjustable workbenches allow different height operators to raise and lower the work surface, matching the heights of neighboring workstations and eliminating unnecessary lifting as tools can be slid between the surfaces. “By adjusting the position of the workers tools, equipment, and parts, the risk of injuries and fatigue is reduced by allowing the operator to work in a more comfortable position and reduce the amount of motion a worker needs to make,” explains Bob Simmons, senior vice president of [Pro-Line](#) [3], a leader in ergonomic workstation design. “Height adjustable work benches allow different height operators to raise and lower the work surface so they can stand up (or sit not slouched), reducing back pain.”

And back injuries account for more than one million workplace injuries each year, according to the Bureau of Labor Statistics. One-third of these could be prevented through better job design. “Back pain is a common problem,” adds Simmons. “Height adjustable work benches and adjustable accessories reduce this risk greatly.” With the simple push of a button, or the crank of a lever, today’s ergonomic workbenches can be easily adjusted to fit individual workers’ needs.

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Other workstation options include adjustable lighting to alleviate worker fatigue, tool balancers and tool trolleys to handle the weight of tools, and articulating bin arms that bring the tool to the operator so the operator doesn't need to unnaturally stretch to reach what they need. All of these ergonomic advances work toward two common goals: worker safety and workplace productivity.

### **Stay Safe, Stay Working**

"It only makes sense that ergonomic solutions can positively affect productivity," says Metzger. "Not only does ergonomic support help keep workers on the job, but the ability to move freely and comfortably adjust means that employees are able to periodically attack their work from a fresh perspective." While the field of industrial ergonomics is still emerging, this is one area facility managers can easily look to when striving to create a safer, healthier, and more productive workplace. Preventing injuries before they occur can save a worker physical discomfort — and a company potentially millions of dollars in lost productivity and worker compensation claims. So where does a facility manager look first?

It all starts with evaluating the work each worker is being asked to perform, explains Simmons. "Break down each task and the ergonomic solution for each one. Do they have multiple people working at the same station or different height products at the same station?" If so, height adjustable work benches may be the answer. "Look at each step in the process before you come up with a solution," he instructs.

According to Pro-Line, there is a three-fold approach to workplace ergonomics:

1. Evaluate the injuries: When and how are injuries occurring? Are new employees predominately getting hurt?
2. Redesign the job: "Once the evaluation is done, redesigning the job to conform to sound ergonomic principles is probably the single most important factor in increasing productivity and reducing worker injuries."
3. Re-evaluate your equipment: Does the equipment feature a worker-friendly, ergonomic design that will reduce strain and fatigue?

No matter where a company first addresses worker safety via ergonomic solutions, it is a worthwhile endeavor, and one that may be further addressed as budget constraints allow. "They may start out with a base work bench," explains Simmons, "and then add optional modular accessories as the budget allows, items like balancers and articulation options."

Whether you are revamping an assembly line or replacing a piece of equipment, the idea is the same: the job should fit the worker. An increasingly diverse workforce is moving into today's manufacturing environment, and today's workspace will only be successful if it is able to adapt.

Says Metzger, "Smart companies maintain worker safety, comfort, and performance."

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[2] <http://www.biofit.com/>

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