

Approaching the Bench: What to Consider Before You Purchase a Workbench

*By James Anderson and Ron Santoro
Product Managers, Lista International Corp.*

On the surface, you might think that purchasing a workbench or workstation is a relatively simple proposition. Your employees have work to do, and they need an efficient, comfortable and practical place to do it. But before you can be sure that you're getting the right workbench, you need to perform a bit of upfront work yourself. There are, in fact, many variables to consider. What follows is a step-by-step approach to selecting the right workbench for all your needs.

What are you doing?

There's one overriding consideration that will affect just about every aspect of your workbench purchasing decision: what type of work will be performed there? The answer to this question will factor into all the considerations that follow, affecting everything from the size of the workbench to the surface material, to storage requirements, to ergonomic considerations.

For example, say you're in the business of assembling and maintaining cell phones, and you need to furnish a workspace for your repair technicians. You want a small workbench, perhaps one that is height-adjustable to bring the detailed repair job up close to the technician's eyes. Along these

lines, you'll need an excellent lighting accessory. You'll likely also need bins above the worksurface to provide direct access to small parts, and an articulating arm that can hold assembly guidelines or diagrams. And depending on the flow of your repair operations, you might want to consider a material transfer worksurface, or even a conveyor workstation, both of which can cost-effectively expedite material handling.

Or maybe you're working in a pharmaceutical lab, where the things to consider might be completely different. Now the material that your worksurface is

made of becomes a more important decision.

Depending on the liquids and solids you're handling, you might want either a stainless steel or epoxy resin chemical-resistant worksurface to ensure long-lasting durable use (just as an electronics lab might require an ESD worksurface). If your lab is in a clean room environment, your workstation will need to meet certain NSF standards. You might also



need to store a combination of small beakers and instruments with large testing equipment requiring a

variety of storage solutions both above and below the worksurface.

The “what am I doing here” consideration is the umbrella factor that shades all the decisions that follow, starting with the size of the workbench.

Sizing up your needs.

The size of your workbench is determined by a number of factors. First, how much space is available in the work environment (how big a footprint)? With today's modular workbenches making maximum use of cubic volume, you may not need as big a workbench as you think. Next, how much worksurface area does your application demand, both in terms of width (left to right) and depth (front to back). Does the entire worksurface need to be within easy arm's reach (by, say, an assembly technician)? Will you be working with large equipment or parts? If so, you may not only need a larger worksurface, but might also need to factor in the weight-bearing capacity of your workbench.



Go with the flow.

At this point you should also consider whether the workspace, the work to be done and your company's particular type of workflow, are best served by a group of workstations laid out in a particular configuration. Some companies offer modular workstations that are specifically designed to accommodate different configurations, and thus different types of workflow.

If you're operating with a progressive workflow, you may want to configure your workbenches to create an integrated, moving production line. Flow racks can then be used to stage and deliver parts utilizing gravity and reducing material handling time and cost.

If your team is functioning in cells or groups, this type of environment is usually best served by different

shaped configurations that encourage easy communication. Some workstations are available in Starter, Adder and Corner modules, so they can easily be combined to create everything from in-line and in-line back-to-back configurations to T, U, X and Y-shaped configurations; the design you opt for can position your team for maximum efficiency.

Finally consider transforming your workbenches into mobile workbenches.

Easily accomplished with mobility enhancing accessories, mobile workbenches can provide for easy, smooth-rolling relocation, accommodating both day-to-day and future changes as well as easing cleaning activities.



Exploring storage.

There are plenty of options for storage, both above and below the worksurface, so with careful planning you should be able to get a workstation that exactly addresses your storage needs with little or no wasted space.

From plastic parts bins to a variety of shelving options to every size and configuration of drawer, there's a lot to consider. Obviously think about what you will be storing, in terms of size, shape, weight, quantity, fragility, how accessible those items need to be, and how much security they demand.

You can simplify your storage decisions by reducing the items being stored to only those items that directly address your workbench applications. Do you

need a home for shipping documents? A bar code scanner? Label printers? Small parts? Tools?

After determining exactly what needs to be stored, zero in on making the workspace more efficient. Create a designated storage location for every item. This is easily accomplished with modular drawer cabinet interiors that can be custom configured to produce almost infinite layout options. This high level of organization is particularly important if different people are using the same workbench at different times. Time savings are maximized and inventory control becomes a non-issue.



Seeing the light.

As I mentioned earlier, determining the lighting needs of your different workbench tasks is an important consideration. Does each station need separate lighting? Does the room itself have lighting deficiencies? Does the room light cast an unwanted color?



And if you decide you need to equip your workbenches with lighting accessories, are your technicians best served by overhead fluorescent lighting or a swing arm that can be easily positioned and/or moved out of the way when not needed? Do you need an accessory that can diffuse the light and reduce glare?

Feeling the power.

After you weigh your lighting needs and options, you should next move on to your electrical requirements. From clean rooms to quality control departments to R&D, having a convenient source of power at each workbench can be essential. There are diverse options to consider from power beams and air beams to air supply brackets and cable management accessories. You can narrow your selections down to the necessary few by asking the right questions.

First consider the applications. Will each workbench be home to a computer monitor and other computer equipment? Do you



need a data beam? Will the tasks at hand require compressed air, and what is the source of that air?

How many outlets do you need at each workbench (and how much power)? Where should the outlets be positioned? Do you require a ground-fault circuit interrupter (GFCI) to provide protection against severe shock and electrocution? Consider cord management, both from an aesthetic point of view, as well as the safety factor. To keep power cords from becoming tripwires, cable trays may be needed.

Other accessories.

No matter what the task, there's an accessory option to help you get your employees' job done. By taking advantage of the abundant vertical space above the worksurface, and the many interchangeable accessory options available, you can create a highly efficient work center. Picking the right accessories really comes down to Question #1: What jobs are being performed in this workspace? Do you need shelving for manuals or instruments? Do you need parts bin rails, a monitor bracket, or a keyboard holder?

As long as you carefully consider the needs inherent to each job or jobs, you're certain to be satisfied with the final accessorized result.

A stress-free decision.

It is essential to factor in ergonomics as both a safety and productivity issue. To minimize stress and strain, a 30 1/2" worksurface height will accommodate 99.5% of all male and 99.9% of all female workers when they are sitting down. And when they are standing, the optimal worksurface height can depend entirely on the type of work being performed, be it precision work (higher worksurface) or heavier work (lower worksurface).

But what if different shifts are using the same bench? And/or what if different tasks are being performed on the same bench? If these variables come into play, you may want to consider an adjustable-height workstation. With a bench such as this, users can adjust the bench height with the simple turn of a crank, with a motor drive or via a slide leg, and the worksurface can travel between approximately 25" and 41".

A complete solution.

Your company probably has multiple departments, from manufacturing to testing to shipping, and beyond. Using a common workbench platform throughout your facility has many benefits from better utilization of inventory to easier reconfiguration to interchangeability of accessories and aesthetic appeal.

When you standardize in this way, accessories can be swapped between departments, colors and designs match, and there are no surprises when employees shift to a different department.



Design assistance.

Maybe you'd prefer not to have to sort out these many issues by yourself. Choose a workbench provider who offers design planning assistance to guide you through the process and advise you of the

most appropriate choices. Free services such as surveys and CAD drawings can make the process virtually painless.

The upshot of this is that you should consider working with a workbench provider that offers maximum breadth of product, and flexibility. To this end, you can view all of your workbenches as part of a complete picture, although each has been custom-built to accomplish a unique task. In keeping with this step-by-step philosophy, you'll have taken many smart steps for each department, and one giant leap for your business.

James Anderson and Ron Santoro are Workbench Product Managers at Lista International Corp. Both have decades of experience in the workbench field.



For more information, contact:

Lista International Corporation

106 Lowland Street
Holliston, MA 01746-2094

USA

Phone: (800) 722-3020

Fax: (508) 626-0353

Internet: www.listaintl.com

E-mail: sales@listaintl.com

ISO 9001 Certified