



## THE ULTIMATE WORKSHOP SET-UP GUIDE

# Why Do You Need to Set Up a Workshop?

Being a true craftsman is a dream come true for most people. But, this dream cannot be compared with the joy that comes from having your own woodworking shop. Being a proud owner of your workshop adds professionalism to your career as a craftsman. Woodwork in all its forms is an enormously popular hobby amongst enthusiasts of all ages. Most people, regardless of their abilities, just like to tinker with a bit of wood and make something. Starting out should be easy if you carefully follow these tips.

So, what is the big question that you need to ask yourself?

## **WHY DO I NEED TO SET UP A WORKSHOP IN THE FIRST PLACE?**

As absurd as this question might sound, it is pretty crucial for you to know exactly why you need to set up a shop.

*Do you want to set up a workshop to further your career as a craftsman?*

*Or do you have the unrealistic aspirations of most other entrepreneurs?*

*Do you want to set up a workshop because you have absolutely no idea what to do with your life?*

These questions can go on and on. However, the point of this eBook is to provide answers to these troubling questions.

You need to know why you want to open a workshop, or else you might become frustrated along the way. Answering these vital questions does not only make you self-aware, it also makes you consider a lot of factors that might affect your workshop in the long run.

Preparation is the first step to reaching your goal; and, answering the “why” of setting up your workshop to yourself.

After answering this fundamental question, the next step to take is to write down the answers and dwell on them.

## FIRST THINGS FIRST: EXAMINING YOUR NEEDS

Setting up your workshop can be quite daunting. There is so much to do and you might get lost in the planning process. As a first timer, setting up a shop might prove to be a tricky task because you might have plenty of needs on your plate and you might be tempted to do everything at once (typical first-timer's mistake).

Fortunately, the newbie syndrome (getting lost in the sea of desires for his business) can be avoided. To prevent the attack of the newbie syndrome, you need to get your act together and examine the basic needs for your workshop.

### WHAT ARE THE MOST IMPORTANT TOOLS I NEED TO GET STARTED?

While you might be tempted to rank a 6" Starrett combination square as one of the first tools to purchase, it is necessary to forget about this particular choice to focus on low-cost materials such as a cordless drill (especially if you are on a budget).

Examining your basic workshop needs is one task that needs critical attention; it is a decision that will make or break your business as a woodworker.

Reflect on the basic things you will need for your workshop, write it down along with their prices. Afterwards, prepare a scale of preference where you rank the listed basic needs in terms of their relative importance.

### FACTORS TO CONSIDER WHEN PLANNING YOUR WORKSHOP LAYOUT

The recent boom in the woodwork industry has led to a demand for larger workshops and the number and sizes of tools and machinery has significantly increased. Presently, many people prefer to set up their workshops in their home basements, garages or even rooms meant for other purposes. As a result, it is vital that you consider certain factors when planning your workshop layout. Here are some critical factors that should be considered when designing a workshop layout.

- **SPACE.**

Despite obvious intentions to keep a tidy workshop, these workshops always tend to be messy. So, when thinking of tools to be used in the workshop, be careful not to overlook the consideration of the space needed to use the tool.

Generally, there are two main methods to save space and prevent clutter. These two methods include:

- Utilizing the corners for essential tools like drill presses
- Positioning tools such as band saws close to doors or windows.

These methods allow you to work with long planks of woods without infringing on internal space. Also, it is vital to consider setting up a window that will provide ventilation for toxic chemicals that are constantly used in the workshop.

- **PRACTICALITY.**

The ease of getting tools in and out of storage should be considered when setting up a shop. While storing multiple tools can prove to be efficient, it might not be much of a benefit if it takes hours to unpack these items when you need to utilize them.

- **RUST.**

Preventing rust is a factor to keep in mind when planning a workshop layout. It's no secret; tools are one of the most vital investments you'll ever have, and it is necessary that you protect them adequately when they are not in use.

Apart for people living by the sea, one of the major catalysts for rust is the dust in the air. However, this effect is mitigated with steps such as treating tools with oils. Also, the choice of storage solution features prominently in how well these tools will be maintained.

Instead of using wall racks and shelves that are exposed to humidity, use chest boxes and sealable plastic boxes as alternative options for protecting these tools against rust.

However, these factors need to be balanced with due consideration to easy access to these tools.

- **STORAGE.**

Storage should be close to the entrance of your shop. It is best for you to store wood near the shop entrance. This does not only prevent you from resorting to dragging wood around the shop, it also makes the offloading of timber more efficient.

- **ASSEMBLY**

It is best to use assembly tables (stand-alone or double) centrally. It provides easy entry to individual parts, it also offers a center around which you can comfortably set up your equipment.

## Essential Tools to Include in Your Workshop during Set-up

As established earlier on in this book, the first step to take in setting up a workshop is to determine your needs. First, a suitable location for the workshop must be planned. Whether in the garage or any part of the home, a workshop can be situated anywhere. However, the ideal location is often a basement or garage. You should plan for future expansion before launching into the design of your workshop. This is because of the likelihood of your business outgrowing your proposed workshop. There are several factors that are often considered during the design of a workshop; some of these factors include; assembly, rust, storage, practicality and space.

Due to these critical factors often undermined, there is a need for some essential tools to be included in your workshop. The importance of these tools cannot be over-emphasized as they are related to the factors considered before setting up a workshop. Here are some of these tools:

### **A. DUST COLLECTION EQUIPMENT**

Dust collection tools are crucial to the maintenance of a woodworking environment. The use of dust collection equipment helps to prevent rust, which accounts for the deterioration of most workshop tools. For instance, the preparation and dimension of timber related machines leads to an excessive amount of dust and shaving. Eventually, this copious amount of dust infiltrates the air if not removed from the source.

Fine wood dust is quite dangerous to your health as it is capable of causing health problems, especially when you are exposed to it for long periods of time. Hence, the best way to prevent airborne dust is to collect it at the source of production.

A modern dust collection system comprises several ducts/pipes leading to a central collection area. This system of pipes stems from the major dust producers in the shop such as the table saw, jointer, thickness planer, and sanding tools.

Dust collection capacity is determined by the shop size and length of ducting. Unlike vacuum cleaners, dust collectors work on a high volume at a much lower suction strength. Consequently, the ductwork has to be standardized to 4 inches. This 4-inch

size ducting is sufficient enough to move higher volumes of wood dust and chips to the central dust collector.

Generally, dust collection equipment comes in different sizes – 1 HP to 2 HP, for the average workshop. 1 HP dust collectors perform the primary need of being wheeled around to the machine currently in use. In sharp contrast, the 1.5-and above dust collectors can be set up at the center to lead to different devices. Also, there are larger versions of HP dust collectors which are 5HP and above. They allow the use of three or more machines simultaneously.

Airborne dust, if not captured, will settle on horizontal surfaces; and this will accumulate a layer of dust that will become hazardous to a workshop environment. Having an efficient dust collection system leads to a clean and safe environment; this will, in turn, lead to lower insurance premiums.

## **B. WORKBENCH.**

A workbench is an indispensable tool in a workshop. Essentially, a workbench is a structurally inflexible table to work on. A workbench must be reliable, durable and firm. The overall structure of a workbench should be comfortable for you to work on any given project.

Workbenches can either be purchased or built. However, it is advised that you buy an already-made workbench because many useful details are fused into the design and it will prove helpful. This tool's job is to make sure that devices do not extend beyond the working area above the level of the top of the table.

Other typical features of a workbench are drawers or shelves under the working area and two vices. The vices are necessary for holding the workpiece firmly.

When choosing a workbench to purchase or when designing one, make sure that the workbench should be comfortable and highly practical. You can place the workbench in the center of the shop; this will enable you to work on all four sides of the bench. This arrangement allows further space in the workshop which permits you to maneuver large tools. Also, it offers an accessible wall space for the storage of tools.

Despite the apparent advantages of an already-made workbench, one of the downsides to it is that it is quite expensive. On the other hand, a home-made version can be made to suit your requirements. The typical frame for a workbench is usually bolted together.

## **C. WORKSHOP STORAGE**

Storage is an essential aspect in a workshop. It is almost indispensable. Without storage provision, tools will be left on the workbenches and other work surfaces.

Storage allows for the compartmentalization and arrangement of tools for easy access. This concept is an excellent strategy for a workshop. One of the workshop storage assets is the tool's cabinet. Tool cabinets are usually designed to include a low profile to prevent excessive extensions into the workshop. Cabinets also keep dust away from the tools, it keeps them in a closed area free from airborne dust.

#### **D. BANDSAW DUST COLLECTION**

One challenge to dust collection is the Bandsaw. It serves as a significant obstacle to the concept of dust collection. Usually, fine dust is created, and it follows the Bandsaw wheel motion. The factory dust ports situated at the bottom of the Bandsaw table are designed to capture part of the fine dust generated. The need for another dust port at the apex of the lower wheel becomes imperative to gather all the fine dust before it leaves the low wheel cover housing.

## **DETERMINING YOUR SHOP SIZE AND LAYOUT**

While it is pertinent to establish your needs as a craftsman and also to determine the vital tools which you'll be needing in your shop, an essential factor which you must not overlook is the determination of the size of your shop and layout.

Usually, the minimum recommended area for a workshop intended for woodworking is 75 square feet. The number of power tools that the workshop is capable of holding determines its size.

In the layout of your shop, the central workbench should be designed for two purposes; seated and standing. Normally, the workbench is situated approximately 4 feet from fixed machines.

The machines in the workshop should be allowed a minimum of 3 feet space apart. However, if there is minimal space, install a rolling base on the machine. Install a window or door for the entrance and exit of raw lumber and finished goods. Make allowances for ample space for doorways.

Besides the above, bright lighting is also necessary. The ideal lighting should be sunlight or a natural ambient light. However, try to prevent bright sunlight from directly shining into your eyes. Paint the ceilings and walls of your shop white to create a reflection of maximum light.

In your layout, a general floor plan for your workshop must be drawn out. Every piece of equipment available in the shop should be positioned in a manner that provides maximum flexibility and the ability to maneuver around the machines and workbenches. Also, timber storage is vital and can be located either in the workshop or outside.

## ENSURING WORKSHOP SAFETY

As a craftsman just moving into his workshop (or maybe setting up a new one), you might be overexcited or tempted to overlook some useful safety tips needed in the workshop; this is the mistake most people make. However, it is a costly one. Lack of caution or pro-safety in the workshop can lead to accidents and other work-related hazards. However, these accidents can be prevented with ease and due consideration. After all, prevention is better than cure.

In summary, workshop safety rules entails handling tools with caution. Here are some efficient ways to ensure workshop safety.

- **Always read the instructions carefully and slowly.** It is necessary that you carefully read the instructions of the tools and machines in your workshop, this will prevent or mitigate the chances of an accident. Never be too dismissive to avoid reading instructions no matter the ease of use or familiarity you have with the tool.
- **Use tools correctly;** you must endeavor to use workshop tools correctly to avoid unfortunate events. Also, if devices are adequately utilized, they will boost your craftsman qualities as well as the lifespan of the tool.
- **Concentrate on the work at hand.** Whenever you are working on a project, you must avoid distractions from any other activity; focus on the project at hand.
- **Always unplug tools that are not in use.** Unplug workshop tools when changing bits or vanes.
- **Keep a fire extinguisher in the shop.** It is crucial to keep at least one fire extinguisher in the workshop. Generally speaking, there are different types of fire extinguishers to choose from. Many insurance companies believe that woodworking shops have readily available, accessible fire extinguishers. An area where the fire extinguisher is stored should be kept in an orderly fashion for easy accessibility during potential fire hazards.
- **Wear headphones to protect the ear.** Using a router or table saw often produces elevated noise decibels and this can restrict/damage your hearing. Hence, it is vital that you get headphones to prevent damaging your ears.
- **Wear goggles to prevent dust entering your eyes.** Eye safety should be one of the first pieces of safety equipment to buy as it is relatively inexpensive.



## WHAT NEXT?

At this point, you have successfully read this eBook, now; the question should be;

*What next?*

The next step to take is to get off your butt and start working towards setting up your workshop. By now you're aware of the ultimate guide to setting up a workshop. Knowledge is power (though some people say "power is power"). Use the knowledge you have today to start a reputable workshop.

Go and do it!

That is the next step.

See you at the peak of your career.