



**MN SONS LAB SOLUTION**  
QUALITY WITH INTEGRITY

## Laboratory Furniture



**Fume Hood Manufacturer**

# **MN SONS LAB SOLUTION**

## About Us:

An ISO 9001:2015 certified company who manufacture premium laboratory furniture, fume hood and its scrubber system. Formally we were known as 'Scientific Lab'. Since, 2007 we have been manufacturing customised laboratory furniture addressing the distinctiveness of every lab. Our planning of lab furniture placement ensures that your laboratory have ergonomic work environment and our products are made durable enough to last against high corrosive atmosphere.

## MN Sons Lab Solution



We are a group of professionals committed to offering top-notch fume hoods and laboratory equipment to various sectors, including healthcare, education, and research. As a recognized manufacturer with years of expertise, we are renowned for our superb craftsmanship and dependable goods.

Our cutting-edge facility enables us to modify our products to satisfy each client's requirements. Since laboratory settings demand precision and accuracy, we only utilize the best materials and production techniques to produce goods of the highest caliber.

Apart from manufacturing lab furniture and fume hood. MN Sons lab solution also provide planning assistance for laboratory furniture placement, Re-installation or shifting of laboratory furniture and maintenance of lab furniture.



# MN Sons Manufacturing Process:



Procurement of GI steel and CRCA steel from Tata Steels / Essar Steels.



Sheet metal is cut into the needed component size on laser cutting machines.



Bending of the components are done on semi automatic bending machines.



The components are then spot welded together.



Seven tank pretreatment process is performed to ensure that components are ready for powder coating.



Powder coating is done by electrostatic process in spraying booth.



Powder coated components are cured in the oven to obtain smoother finish. **(70-80 microns)**



Components are assembled in semi knocked down condition and packed ready for dispatch.

## CERTIFICATION





# Laboratory Work Station:

Laboratory Work Station is a support system for working in defined laboratory environment. It is an exclusive space for placing variety of instruments and equipment required in various laboratories.

## How To Use Laboratory Work Station:

- In case of spillage of chemicals, wipe off the work surface immediately delay may damage the affected work surface.
- Turn off a heating apparatus, gas valves and water faucets when not in use.
- Do not block the sink drains with debris.
- Place chemicals in chemical storage only preferably with acid resistant lining connected to exhaust.

- Solvents should be stored in flameproof cabinets only.
- Ensure that drawers are not overloaded.
- Drawer and door alignment will enhance cabinet's life.
- Deep scratch on powder coated component invites rust on exposed portion, immediate touch-up ensure long life of the component.
- Always wear appropriate eye protection long-sleeved laboratory coat and shoes that cover the whole foot.
- Do not use laboratory workbench as a stool -Do not use work bench as a dining table



# Types Of Laboratory:



For use in lab experiments or other scientific procedures, a wall bench is a laboratory bench or work surface attached to a wall. Wall benches are frequently used in smaller labs or offices when there is a lack of space for a traditional bench or where a fixed bench is more effective.

## Wall Bench

When selecting wall bench lab furniture, factors such as material durability, chemical resistance, ergonomic design, and compliance with safety standards should be considered to ensure the functionality and safety of the laboratory workspace.

A laboratory island bench is a free standing work surface, not attached to any walls, and offers a flexible workspace for research in the lab or other scientific procedures. In larger labs or offices with more open floor space or where it is more practical to have a bench that is not set in place, island benches are frequently employed.

Island benches may come equipped with built-in sinks, gas and water fixtures, electrical outlets, and storage cabinets or shelves underneath to store equipment and supplies conveniently.



## Island Bench



## Peninsular Bench

A peninsular bench is a work table or laboratory bench style with one end linked to a wall and the other free standing, creating the shape of a peninsula. This offers a flexible workspace for lab experiments or other scientific procedures, with the advantage of a fixed attachment to the wall for increased stability and longevity.

The attached side can be utilized for additional storage or equipment installation, optimizing the use of available space.



## Double Analytical Table

A double analytical table is a lab work surface to support analytical balances or other delicate scientific instruments on a secure and long-lasting base. It is a double-sided table having a level, the vibration resistant surface on each side for analytical instruments.

The materials used in the construction of Double Analytical Tables are often resistant to chemicals and corrosive substances commonly encountered in laboratory environments, ensuring long-term durability and safety.



# High Performance Fume Hoods:



## How To Use Fume Hood:

- Please place your equipment and other materials at least six inches behind the sash; preferably in the middle of the fume hood.
- This will reduce the exposure of personnel to hazardous chemical vapors that may escape inside the lab due to air turbulence.
- When the hood is not in use, pull the sash all the way down. While personnel are working at the hood, pull down the sash as far as is practically possible.
- The sash is generally made of safety/toughened glass which protects users against fire, splashes, and explosions.
- Please keep fume hood sash open at or below 18 inches; preferably it should be below the nose level of the user.
- Do not keep loose papers or tissues inside the hood. This kind of material can be drawn into the blower and adversely affect the performance of the hood.
- Do not use a fume hood or its base as a storage cabinet for chemicals.
- Excessive storage of chemicals or other items will disrupt the designed airflow inside the fume hood. Particularly, avoid storing chemicals against the baffle at the back of the hood because this will interfere with the laminar airflow across the hood.
- In case, large equipment is must to be kept inside fume hood, please raise it at least 2 inches off the work surface to allow air to flow underneath. This reduces the turbulence within the hood and helps to increase its performance.
- Please do not block the front of a fume hood (e.g. refrigerators or lab coats hanging on the manual controls) as this can disrupt the airflow and draw contaminants out of the hood.
- It is to be understood that modifications made to a fume hood system can be a reason to make the entire system ineffective. Modifications should be done with the help of the experts.
- Avoid foot traffic in front of fume hood that causes turbulence and can draw contaminants out of the hood and into the room.

**“Using Fume Hood Correctly” OR “Right Fume Hood Wrongly” Gives NO Result**



# Types Of Laboratory Fume Hood:



**Bench Mounted Fume Hood**

A bench-mounted fume hood is to shield workers from potentially dangerous fumes, vapors, and particles that may be generated during laboratory research or other chemical handling procedures.

It is mounted on a workbench or laboratory bench and frequently has a sash or window that may be raised or lowered to regulate the airflow and stop the discharge of dangerous compounds into the surroundings.

A low bench fume hood is a lab fume hood with less height than typical fume hoods, making it perfect for usage in locations where ceiling height is constrained.

They are often mounted on a workbench or laboratory bench and have a sash or window that can be raised or lowered to regulate the airflow and stop the escape of dangerous compounds into the surroundings.



**Low Bench Fume Hood**



**Walk In Fume Hood**

A walk-in fume hood is a specific kind of laboratory ventilation system intended to give scientists a sizable enclosed work-space where they may work with dangerous substances, machinery, and operations that produce fumes or vapors.

A walk-in fume hood is exactly what its name implies: it is big enough for one or more individuals to go inside and conduct lab work.

Specifically designed to fit the needs of a particular lab or workspace, a bespoke fume chamber is a form of the laboratory fume hood.

By including special features and arrangements not present in conventional fume hoods, customized fume chambers are created to offer the highest levels of safety and effectiveness.

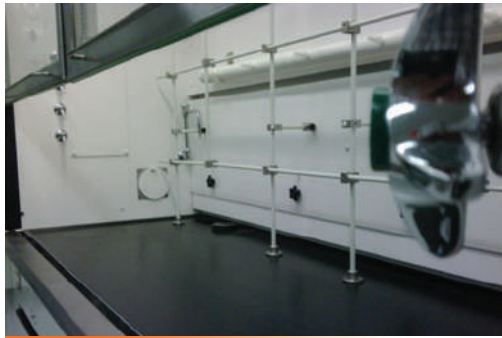


**Customized Fume Chamber**

## Fume Hood Assembly Details:



Fume Hood Valve.



Epoxy Grid.



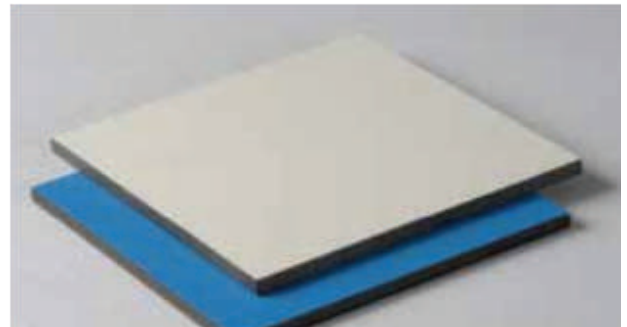
Acid Resistance lining.



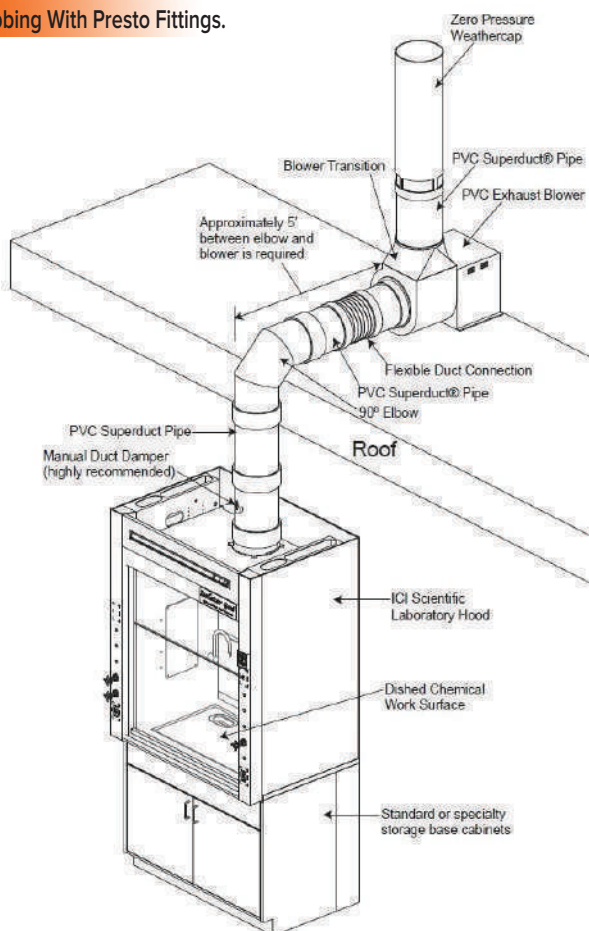
Brass Nozel &  
PU Tubbing With Presto Fittings.



Nylon Pulley & SS Rope  
For Counter Balance System.



Trespa lining (Optional)



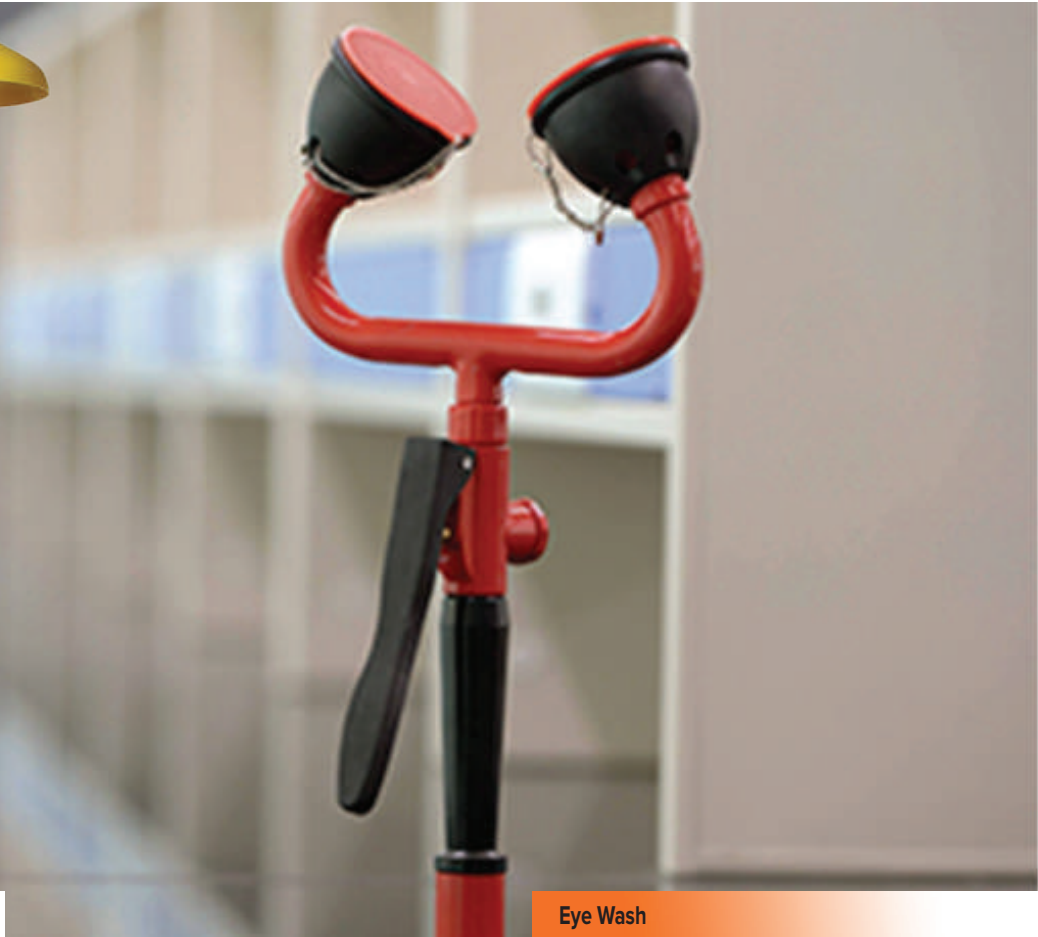
## Exhaust System Recommendations:

- Exhaust fans should be mounted on the roof so that the duct leading to the fan is under negative pressure. Please note that if exhaust fans are mounted inside the building, all duct connected to the fan outlet will be under positive pressure, and if leaks should develop in the portion of the duct inside the building, hazardous fumes could be forced out of the duct and into that area of the building.
- For the lowest possible noise level in the exhaust system, we suggest the following actions:
  - Use vibration isolators for mounting the exhaust fan.
  - Select an exhaust fan that will deliver the desired CFM and static pressure with the lowest practical impeller wheel RPM.
  - Use a flexible connection at the fan inlet to isolate transmission of noise from the duct to the hood.
  - Design the exhaust duct system with the fewest possible elbows or other fittings. Use radius type elbows and avoid square elbows.

# Utility Services:



Safety Shower



Eye Wash



3 Way Water Tap



1 Way Needle Cone Valve



2 Way Needle Cone Valve



Polypropylene Sink



Stainless Steel Sink



# Installation:



# Installation:





## Laboratory Stand Alone Units:



Anti Vibration Table



Chemical Storage



Cupboard



Locker



Cushioned Stool



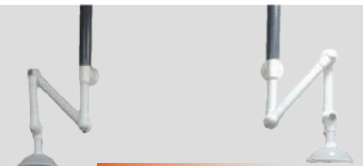
Low Back Stool



Chair



SS Trolley



Spot Extractor



## Aluminium Partion Work:



## Aluminium Partion Work:





# Our Clients:



## Thanks For Being With Us

All the processes which are required in manufacturing of lab furniture like bending, spot welding, pre-treatment, powder coating and assembly is done under one roof which ensures the quality of our product stays intact.



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