

# What Is A P-Trap? (Sizes, Uses, Diagrams For Plumbing)

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**Plumbing traps** prevent noxious sewage gases from entering your house by constraining gas or water in one particular place. There are various **types of plumbing** traps currently available for home or industrial uses.

However, none is as useful as the **p-traps in plumbing** systems. **P-traps** are pipes that ensure dirty water and toxic odors don't get access to your home, providing safety.

If you want to know more about **p-traps**, read on:

## **What Is A P-Trap? Types & Sizes Explained**

P-trap is a p-shaped bend pipe used in drainpipes to connect your sink's drain directly to the sewer system or septic tank. In usual circumstances, **p-traps** always retain some water.

They are made of cast-iron sheets or UPVC and have a robust water seal. One of the most crucial tasks of **p-traps** is to stop foul/noxious gases like methane from finding passage into the house.

These traps also make it quick and easy for homeowners to recover minor items that may fall into the drain. In a nutshell, **p-traps** play a consistent part in contemporary plumbing designs.

There are two main **types of p-traps** you'll come across: PVC and Chrome P-trap.

Chrome p-traps look aesthetically pleasing and ideal if you have a wall mount kitchen or bathroom sink. That's because these sinks are apparent and therefore should look beautiful to match the overall aesthetics.

They're suitable for high-temperature liquids and household acids. However, they are on the pricey side!

On the other hand, **PVC p-traps** use poly washers for joints and are incredibly tolerable to ultra-high temperature acids and liquids. Plus, they are a lot cheaper than chrome p-traps.

Lastly, although p-traps in the kitchen or bathroom sink work similarly, they are of different sizes. For example, the **bathroom sink p-trap** is usually **1 ¼ inch**, while the **kitchen sink p-trap** is **1 ½ inch**.

## **Role Of A P-trap: How It Works & Benefits**

Modern plumbing experts advise consumers to always have **p-traps** under their kitchen or bathroom sinks.

They catch debris that falls into the sink, minimizing the chance of a choke. Other than that, these traps protect the overall plumbing system by preventing litter from draining deeper into the main pipes.

Another good advantage of installing a **p-trap** in the kitchen or bathroom sink is preventing sewage gases such as Methane, Hydrogen Sulphide, Nitrogen, and Carbon Monoxide from coming back into your house via the drain.

These benefits have made this the go-to pipe component for plumbing; it works to keep you and your family safe from a toxic environment.

The **p-trap** creates an organic water seal, letting water gush into the main overflow pipe; however, the water can't flow back to the sink.

It also prevents [sewer gases](#) from returning to the house through the backflow prevention properties of water seals (as it traps water).

Keeping these gasses at bay is essential because not only do they exude an unbearable odor, but they are also poisonous.

### **P-Trap's Application: Where To Use**

Legal plumbing codes require **p-traps** installed on every open drain to transport wastewater in the drain waste vent system safely.

Kitchens are no longer using s-traps as they tend to dry up. However, p-traps are a suitable option as they always maintain a consistent volume of water, and they are effective at keeping sewage gases from escaping through the sink.

Furthermore, they allow convenient removal of bulky morsels of food that slip into the drain. All you have to do is close off the water.

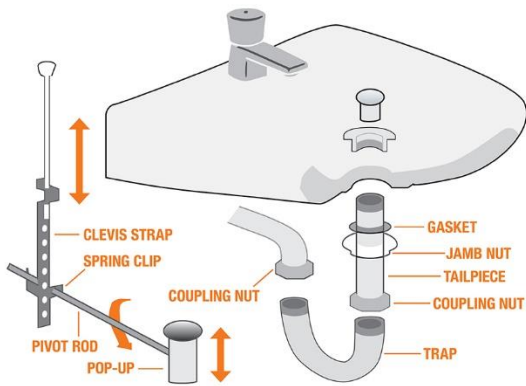
**P-traps** also excel in bathroom and toilet applications, as they offer efficient water sealing properties. Since they're available in various sizes (e.g., 1.5 inches in diameter), they are applicable in bathtub and **shower traps** too.

But that's just not it; there are also HVAC and **washing machine p trap** applications. Since both these systems involve wastewater, it has to be drained out in a manner that nothing seeps back in, be it gas or liquid.

It's convenient to fit them too because you won't be needing any extra tools for the job.

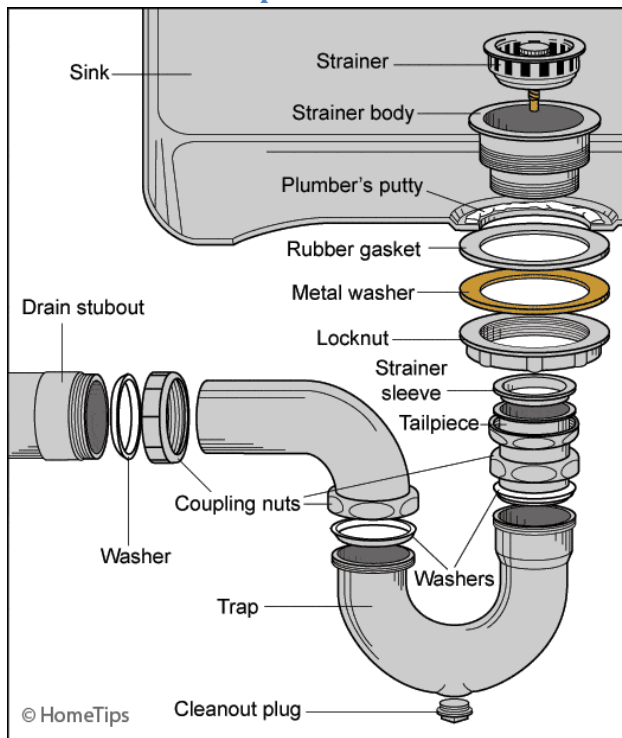
Check out the following p-trap diagram for various applications:

## Bathroom Sink P-Trap



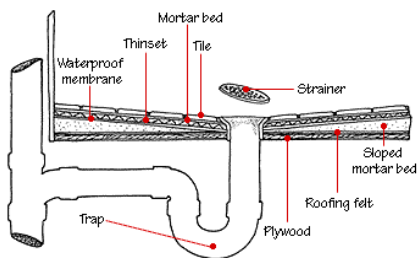
Source: [HomeDepot](https://www.homedepot.com)

## Kitchen Sink P-Trap



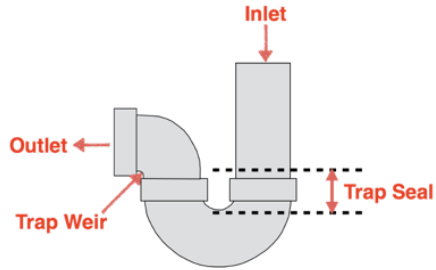
Source: [HomeTips](https://www.hometips.com)

## Bathtub And Shower P-Trap Drain



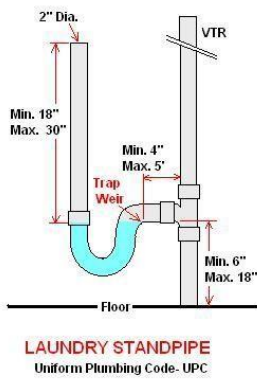
Source: [Kitchen Bed & Bar](#)

### Toilet P-Trap



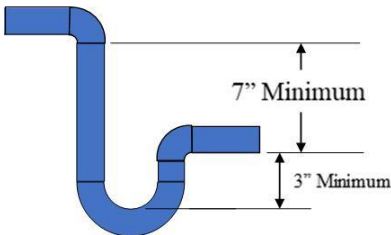
Source: [Hammerpedia](#)

### Washing Machine Drain P-Trap



Source: [Pinterest](#)

### Air Conditioner HVAC P-Trap



Source: [gPod](#)

### Common P-Traps Problems

It's essential to get it professionally laid into the system. In case a p-trap isn't installed correctly, it can damage and leak poisonous sewer odors into the house.

Here are some common p-traps problems many homeowners can bump into:

### Dry P-Traps

When the interceptor or trap loses its water seal, it provides sewer gases passage to re-enter the house via the drain.

### Leaky P-Traps

The leaks often start small and snowball into a big problem if not fixed straight away. This leak frequently leads to a clogged drain, causing a foul odor.

A leaky trap, like other faulty-ones, usually occurs as a result of a bad installation job.

### Smelly P-Traps

Smelly p-traps are often the worst. They occur when the sewer gases back up inside the home via the drain. If this problem isn't addressed urgently, it can eventually become hazardous for your entire family.

Some common gases emitted by the sewage system include carbon monoxide, nitrogen, methane, and hydrogen sulfide.

To avoid these, make sure to flush the drain!

### Clogged P-Traps

Clogged/blocked p-traps happen because of slow-running drains. When these go unchecked, they are likely to cause leaks that will also seep smell into the house.

## How To Replace & Install P-Traps: Plumber's Tips And Techniques

Before knowing how you can replace or install p-traps in your sink, you need to prepare some essential equipment for the job.

Here's what you'll need:

- Bucket
- Rags
- Work light
- Tongue-and-groove pliers
- Pip or hacksaw cutter
- Drain kit

Now, follow these instructions to install or replace p-traps:

### Prepare Work Space

Place a small bucket below the trap. Also, have some towels or rags ready for cleaning spills. Since the space below the sink can be cramped and dark, a flashlight or work light will come in handy.

### Remove Trap Bend

Remove the old bend (curved piece) by loosening the slip nuts from both ends. Try easing them off with your hands and then use pliers.

Pull the bend and cautiously drain its contents.

### Remove 'The Arm' Of The Trap

Loosen the slip nut first and then carefully pull the arm out. If it's stuck, spin it back-and-forth till it comes undone.

### Test-Fit New Trap

Test-fit your new trap arm and bend to ensure they will align with the wall pipe and tailpiece.

If required, cut down the new arm to equal the length of the previous one using a pipe cutter; this will provide an exact fit.

### Position The Washers And Nuts

Fit the slip nut into your trap arm and washer in the end. Make sure the washer bevel faces outward.

### Gather The Parts

Slide the trap arm onto the drain opening. Now, fit the bend over the arm and sink tailpiece. Next, slide the nuts against their fittings and thread them over the hubs.

Lastly, adjust the trap and bend to align correctly, and ensure that the arms go downwards against the wall. Tighten the nuts by hand first and then with pliers.

### Check The Fittings

Turn on the sink faucet to let the water run into the drain, allowing you to test the nuts for leaks.

To know more, check out this [YouTube tutorial](#) that covers all the steps in detail

## People Also Ask (FAQs)

### What Is The Difference Between P-Trap And S-Trap?

The main difference between **p-trap and s-trap** is the length of pipe used. P-traps are p-shaped and designed to exit via a wall, while S-traps are s-shaped and intended to go through the floor.

### How Is P-Trap Different From J-Trap?

The only difference between **J-trap and P-trap** is of the shape and nuts. While **p-traps** have removable nuts, a j-trap requires captive nuts.

### How Do You Connect The P-Trap To A Wall Drain?

Here's what you need to do: slide the shorter side of the **p-trap** over the tailpiece. Now, move around to line up the arm with the wall's opening.

Use a pipe cutter to cut the tailpiece if the **p-trap** isn't moving upward anymore, and that's all!

### How Do You Convert An S-Trap Into A P-Trap?

You can convert an s-trap into a **p-trap** by cutting its adapter off, or you can purchase thin-wall fittings; however, you will have to extend its pipe up.

### How Far Can P-Trap Be From A Shower Drain?

Anywhere between eight to twenty-four inches is the ideal distance between a p-trap and a shower drain.

### What Will Happen If P-Trap Is Lower Than The Drain Pipe?

It would be best not to have a p-trap under the drainpipe as water gravity will naturally force water out rather than flowing it downwards.

### What Is The Minimum Distance Off The P Trap To Drain?

Eight inches is the minimum distance of the p-trap to drain.

### What Is The Maximum Horizontal Distance Of The P Trap To Drain?

The maximum horizontal distance of the p-trap to drain should never surpass 30 inches.

### Conclusion

Plumbing traps are essential fixtures that every house requires, mainly because your sewer can discharge deadly gases harmful to your entire family.

P-traps are now the go-to pipes for drains, as they are efficient at blocking poisonous sewer gases. Furthermore, they are simple to install and wouldn't cost you an arm and a leg.