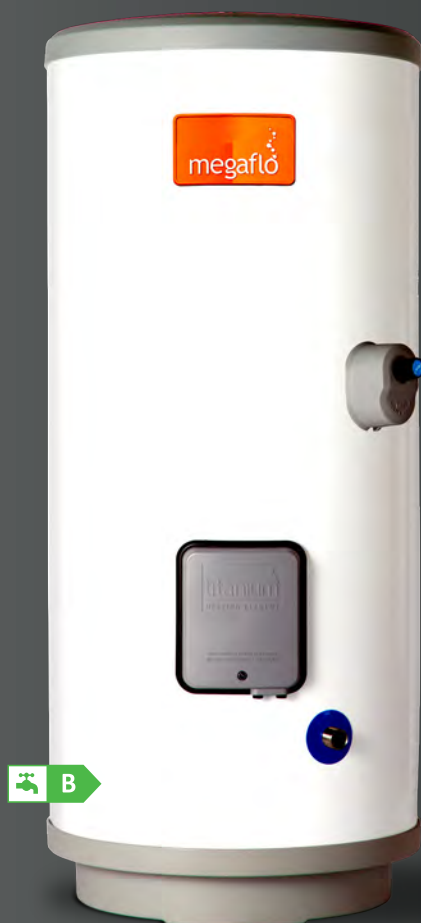




BY HEATRAESADIA



LOVE  
YOUR CYLINDER

Frequently asked  
questions about  
cylinders.

Trusted by the best.

# Love your cylinder.

**If you've got questions about hot water cylinders, then rest assured, you're not alone.** During my time working in the heating and hot water industry I've been asked many questions, from *'what's the difference between an indirect and direct cylinder?'* to *'what training do I need to install a cylinder?'*

Water consumption habits are changing in the UK, partially down to a rise in multi-generational living, which makes it more important than ever to highlight the importance of installing a hot water system that is equipped to handle this increase in demand.

Because of this, we thought it was time to tackle some of the most commonly asked questions in the industry, to help you get ahead of the competition and bolster your knowledge of all things 'cylinder'. This guide will take you through a number of key points, from how to choose a cylinder, to what you need to do once it's installed.

This concise FAQ guide has been designed so you can keep it with you wherever you go, providing you with a handy reference tool whenever you need it!

Of course, if you find that you still have questions about anything mentioned in this FAQ guide, then I'd love to hear from you!

Thanks for reading!



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## Getting to know hot water cylinders.

Before we dive in to selecting, installing and servicing a cylinder, it's useful to start back at the beginning by getting to know how cylinders work.

### What's the difference between an unvented and a vented cylinder?

Unvented systems work by drawing water direct from the cold-water mains, which means that there is no need for a cold-water tank in the loft.

The cylinder is pressurised, so is supplied with a number of components to control pressure and expansion.

Vented cylinders are connected to a cold-water cistern via a cold feed pipe, with pressure relieved through a vent pipe that is open to the atmosphere that discharges into the cold cistern.

### Why choose an unvented system?

An unvented system requires no cold-water storage, which means that there is greater flexibility in terms of where they can be installed in the home.

They also take up less space, and because they use mains pressure, are able to provide a much more even flow for baths and showers.

Finally, the energy efficiency means that homeowners can make great savings in the long run, and because of a sealed system, there is less risk of contamination.

### What is the difference between direct and indirect heating?

Hot water systems can be either directly or indirectly heated.

Indirect systems (the most common type) get heat from an external source (gas boiler, solar panels etc). The heated water from the external source then circulates through a coil, which in turn heats the surrounding water.

The coil is usually made from the same material as the cylinder. For example, a stainless-steel cylinder, such as a Megaflō will contain a stainless-steel coil.

A direct system, on the other hand, uses an internal heat source, such as an electric immersion heater. These types of system are most common when the property has no access to mains gas.



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### What is recovery time?

Recovery time refers to how quickly heat can be transferred into the water in the cylinder, and therefore how long the cooler water takes to 'recover' to the hot water temperature.

By taking this into account, a small cylinder can still meet relatively high demand if its recovery time is fast.

### Do I need to be qualified to fit a hot water cylinder?

You must be G3 certified to fit and maintain an unvented cylinder. This means that you will have the requisite knowledge and skills needed to work with hot water systems.

To get on to a G3 course you will need an NVQ Level 2 or equivalent.



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## Choosing a cylinder.

So, you've had a call from a customer looking for a new cylinder in their home, now what? How do you go about specifying the right cylinder for the job in-hand? Read on to find out:

### Does the size of the cylinder matter?

There is a common misconception that the bigger the cylinder, the better the performance, but it is crucial that the size is in proportion to demand. Although figures can vary depending on the appliance, Home Water Works estimates that the average shower uses 8 litres of hot water per minute.

Therefore, assessing the actual demand that will be placed on the cylinder along with the frequency of delivery, and the recovery time possible depending on the heat source, will ensure that the correctly sized cylinder is specified to meet the hot water needs of the residents.

### Do I need to account for an external expansion vessel?

Not always.

It depends on the brand and model of unvented hot water cylinder. If the cylinder is a type that can accommodate expansion internally (often called a bubble top or internal air volume type) then an external expansion vessel will not be needed.

If in doubt, contact the manufacturer.

Vented hot water systems expand back into the cold feed cistern, so do not require an expansion vessel.

### Does the siting of the cylinder matter?

There are a number of considerations to take into account when siting a cylinder, such as ease-of-access, availability of water supply, pipe runs, strength of supporting surface, etc.

A commonly overlooked factor is the discharge from unvented cylinder safety valves. Building Regulation ADG3 requires careful consideration of the siting of the tank to ensure that the discharge from an unvented cylinder is conveyed safely outside of the building, where it won't cause damage or danger to tenants or their property.

## Installing the cylinder.

So, you've specified the cylinder according to the homeowner's needs and hot water demands. Now it's time to install it.

### Can I fit plastic pipework to a cylinder?

Sometimes.

Plastic should not be used for the primary connections from the heating system i.e. the connections to the heating coil on an indirect system.

Unlike with a boiler, where the transmitted heat completely prevents the use of plastic piping, it can be used in other parts of the system, but the plastic should be rated for the appropriate temperatures and pressures.

### Can I use a water softener with a hot water cylinder?

It varies depending on the manufacturers. With a Heatrae Sadia Megaflo, you can use a water softener if you so wish, but this must not be detrimental to the incoming flow rate, and the softened water must not exceed a chloride value of 250 mg/litre.





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## Servicing.

The job isn't finished once the cylinder is specified, installed and commissioned. Some of the more common questions I get asked concern the servicing of the cylinder. Here are a few FAQs all installers should know the answers to.

### **Does a hot water cylinder need to be serviced?**

Just as you'd service a boiler to keep it performing at its best, we advise servicing the cylinder every 12 months.

### **What is the inner tank warranty on a cylinder in a residential property?**

It varies significantly depending on the manufacturer and type of material.

For the MegaFlo, there is a lifetime warranty on the stainless-steel inner tank, but it's worth bearing in mind that electrical components and valves may have a shorter period.

### **Do I need to check the expansion system used?**

The quick answer, yes.

You must check and service the expansion system. The method will vary depending on the system used.

With cylinder systems such as the MegaFlo Eco Plus - with an external expansion vessel - the mains supply should be closed and a hot tap opened to de-pressurise the cylinder. The pressure within the expansion vessel should then be checked and recharged according to manufacturer guidelines. Once complete, the installer is free to reopen the mains water supply.



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### How do I regenerate the air gap in a Megafluo?

With systems that use an internal expansion volume, such as the Megafluo, the air gap is regenerated by following these steps:

1. Turn off the mains cold water supply
2. Open the lowest hot tap in the property
3. Hold open the Temperature & Pressure Relief Valve (TPRV) until the gurgling noise stops and water stops running from the tap and valve
4. Close the TPRV and open the mains cold water supply. When water flows from the hot tap close the tap.
5. If water continues to drip or flow from the safety valves, the cylinder requires attention. Switch off heat sources (immersion heaters and boiler), DO NOT turn off water supply.

### What key checks must I carry out?

There are five key checks that installers must make when servicing cylinders.

- Check that the electrical components and wiring are safe
- Check whether the temperature and pressure relief valve and expansion valves are working
- Check that there are no blockages in the tundish drain



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## MEGAFLO REWARDS LOYALTY.

The dedicated  
MegaFlo  
installer loyalty  
scheme.

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[megaflorewards.co.uk](http://megaflorewards.co.uk)

# Where next?

Hopefully I've managed to answer all of your most pressing FAQs. With this information you'll be installing cylinders left, right and centre in no time. With that in mind, have you considered joining MegaFlo Rewards?

MegaFlo Rewards is a loyalty scheme built especially for installers of MegaFlo cylinders. You can start collecting points from the moment you install your first cylinder! You can either save up or spend your points on items ranging from workwear to tablet computers.

Being a member also brings with it the added benefit of easy warranty registration, priority call out, free annual service reminders and much, much more!

Thanks for reading.

Find out more  
[megaflo.com](http://megaflo.com)

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