



# The Ultimate Brewery Hose Buying Guide

#### Choosing the Correct Brewery Hose For Different Applications

Brewery hoses come in all sorts of lengths and bore sizes, suitable to complete a variety of tasks. Using the correct hose is essential to guarantee the quality of your product isn't compromised and you meet all the industry standards.

Specialist brewery hose assemblies can be seen initially to cost more, however this investment can easily be justified by the higher quality materials used in the construction of the hose. These hoses will not only stand and resist the daily rigours of the brewery process but will also insure that with <u>Brewflex's</u> non-tainting liners, users will be satisfied that the product they intended to make will taste the way they wanted it to.

#### How do you make sure that you have the right brewery hose?

There is a vast variety of hoses available on the market, all differing in quality, price point, flexibility and purpose. In this guide, we'll look at what you should consider, paying particular attention to the important elements of the brewing process.





# Understanding Your Needs

Within a brewery, different types of hoses will be necessary at different stages of the process or for different types and sizes of brewery setup. <u>Brewflex® hoses</u>, however, are expertly designed to be versatile throughout the entire process. These hoses have been created specifically for this sector, making them the ideal solution for any brewery.

To be fit for purpose, brewery hoses must be designed with usage in mind. These hoses should be resistant to alcohol and also suitable to undertake CIP cleaning regimes which include Caustic and PAA. Alcohol is the key element in the brewing process, while the CIP regime is used to clean the hoses after the brewing is complete. The latter can be extremely aggressive towards certain types of rubber, so the hoses used in the brewing process must be made with materials that are resistant to these types of agents.

We have conducted extensive research before finding the perfect material for our brewery hoses, and we found that many large breweries set up their site engineering standards to only use butyl-lined hoses for brewing. Butyl is a material extremely resistant to alcohol (up to 96%), caustic (2.5% concentration in regular cleaning applications), and steam cleaning up to 130° c. Though other rubbers may be able to cope with this for a period of time, butyl is by far the best material for this application. The **Brewflex**® range of butyl-lined hoses will operate at 120°C, pressure dependent.

Brewflex<sup>®</sup> hoses are built for purpose and expertly designed for longevity and product quality. Choosing a cheaper hose built with lesser rubber will expose your product to the risk of contamination. Over time, the rubber will start deteriorating from the extensive contact with alcohol and caustic, ultimately dispersing into the product you're brewing.

Most rubbers available on the market will be able to cope with up to 85 degrees. Our **Brewflex**® hoses, however, can operate up to 120 degrees continuously, as well as operating with 96% alcohol. They also come with easy glide covers for manoeuvrability as a standard, and are generally lighter and more flexible in terms of bending radius.



Choosing the right connections and end fittings is also a vital step in the brewery hose selection process. At Flextech, we only use **ShawlokTM** hygienic fittings, made from 316L Stainless Steel and designed specifically for our hoses for a completely permanent swage.

To guarantee the quality of your finished product, satisfy PUWER regulations and meet the stringent BRCGS standards, it's good practice to regularly test your hoses and connectors. When parts stop working correctly or aren't checked regularly, the entire brewing process can become compromised, potentially causing leaks or tainting the beer.

# What Are The Key Aspects Of A Brewery Hose?

Flextech specialises in the design, manufacture and supply of hose assembly solutions to support craft breweries and multinationals alike. Thanks to the versatility of our Brewflex® hoses, we can support hundreds of companies spanning across many industries.

The most common hoses found in brewery applications are delivery or suction transfer hoses, crush-proof hoses and steam/hot water washdown hoses. These have widths ranging between 1/2" and 4", and lengths ranging from 500mm (1.5ft) to 40m (131ft).



**Flextech** designed four key hose variants to provide application-specific assemblies.

The most common brewery hose and hose assemblies available in the <b>Brewflex</b> ® range are:			
Suction & Delivery Hose	<u>T5700C</u>	Brewflex® Crush Resistant Brewers Suction & Delivery Hose	
Crush Resistant Hose	<u>T5700L</u>	Brewflex® Crush Resistant Hygienic Brewers Hose	
Delivery Hose	<u>T5701</u>	Brewflex® Brewers Heavy Wall Delivery Hose	
Suction & Delivery Hose	<u>T5705</u>	Brewflex® Brewers Suction & Delivery Hose	

The estimated lifespan of a butyl brewery hose is between 3 and 5 years. With proper treatment and maintenance, however, they could see 7 years. **Brewflex®** specialist Paul Robinson has a few maintenance tips that could help them see the upper end of that life span:

- Be mindful of Operating Temperatures and Pressures along with other Cleaning Cycles and Conditions.
- Consider the External Environment. Mechanical damage such as abrasion from Floors or Damage from Vehicles running over flexibles, or exposure to external chemical attack.
- Don't exceed overbending of the hose radius, don't compress or stress hoses.
- Use end caps or plugs on your hoses to protect them from insects and external contaminants.

When choosing a new brewery hose, you should be looking for the following standards and parameters:

FDA-approved (Food grade) ADI-free (Free from animal-derived ingredients) BFR (Brominated flame retardant) ISO 9001:2015





# The Different Types of Brewery Hoses On The Market And How To Choose The Right One

The biggest mistake you can make is neglecting to regularly check your hoses and connectors. This can ultimately lead to poorer performance during the brewing process, production downtime, batch contamination and potentially ruin your end product. With regular testing, your hoses will reduce the chance of faults and issues in the long run. A common pattern we see is the most successful breweries use high-quality butyl hoses and employ a hose inspection maintenance and testing regime.

Another common mistake is opting for a cheaper brewery hose; while this might save you money in the short run, you might pay for your choice later on in the process. Choosing specialist hoses and connectors can decrease the margin for errors considerably.

When looking for a new brewery hose, keep in mind the STAMPED method, which will help you filter through the many options available. STAMPED is an acronym that stands for:

Size (Bore)	Internal diameter and length
Temperature	Of the product transferred and the external atmosphere
Application	What the required hose will be used for
Media	What is being transferred?
Pressure	Of the product being transferred
Ends	Hose fitting type
Delivery	How soon is the product needed?

Keeping all these points in mind will help you make a more informed decision. Specialist solutions like **Brewflex®** are ideal for brewing as they were designed with the desired application in mind.

The hose selection process will depend on the type of application you need. Different types of hoses are designed to work under pressure or under vacuum. This will determine if you should be opting for a "delivery hose", a "suction and delivery hose", or a "crush-resistant hose". Delivery hoses have textile plies, suction hoses use a wire helix to operate under vacuum, and crush-resistant hoses use a nylon wire spiral. The correct hose type will depend highly on the distance the liquid will need to travel. In larger spaces, you will need a pump to vacuum the liquid, therefore opting for a suction delivery hose is advised.

Our range of hygienic hose assemblies offer the peace of mind you need to know that both hose and connectors will maintain high performance after years of use. The hoses are the product of extensive market research, with the key features being cleanliness, flexibility, manoeuvrability, long service life, high-pressure rating and high tolerance to alcohol.

Being specifically designed for brewing applications, they are ideal to preserve the look, smell, and taste of beer. Flextech supplies **Brewflex**® hoses to around 600 breweries out of approximately 1800 in the UK (source: <u>SIBA</u>).

The initial cost for a specialist brewing hose is an investment to take your brewing process to the next level, ultimately saving you time, money and worry in the long run.



#### About Flextech

At **Flextech**, our high-quality, hygienic hose assemblies drastically reduce the risk of contamination, tailor-made for use at each stage of the brewing process. This raises the standard of health and safety for employee working environments, and it ensures the longevity of your hose assemblies. Most of all, it safeguards a pristine and enjoyable product for your customers and peace of mind for you.

To browse the **Brewflex®** range, visit: https://www.flextechhose.co.uk/brands/brewflex

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