

WHAT ARE CAMLOCKS?

Camlocks connect two hoses and/or pipes together so material can be easily transferred between them. They do not require tools to connect or disconnect. They are used in many industries, are versatile and ideal connections for many projects. Combined with their cost effectiveness, it makes them some of the most popular couplings in the world.

STANDARDS

Camlocks are manufactured to the military specification A-A-59326. This specification covers the dimensions and machining tolerances, materials, finish, and pressure ratings.

FUNCTION

The cams at the end of each lever on the female end align with circumferential groove on the male end. When the levers are rotated to the locked position, they pull the male end into the female socket, creating a tight seal against a gasket within the female socket. The arms lock into position preventing accidental decoupling. Safety pins are common features that provide additional security, and in some cases female end self-locking levers are also available. Because the groove is cut all the way around the male end, there is no specific rotational alignment necessary to couple, as there would be with threaded connections, and there is no opportunity for cross-threading. This results in a fast, error-resistant coupling operation.

ADVANTAGES

- Camlocks are versatile thanks to their rugged construction, which allows them to handle most liquid, powder, and fuel transfer applications without premature wear,
- Their cost effectiveness offers an affordable option when compared with conventional ways of connecting hoses and pipes. Their ease of use and reliability produce further cost savings in the form of reduced labor and maintenance costs.
- Easy to install and disassemble.
- Easy to keep clean - no threads required in the coupling process prevents the couplings from dirt and grime.
- Diverse — camlocks are used in many different industries such as chemical, pharmaceutical, military, water and sewage, fuel delivery, agriculture, construction, manufacturing, and oil industries.

TYPES AND SIZES

The most common types of camlocks are the ones listed below. The letter codes represent the common designation for each type. Sizes available range from 1/2" to 12".

- Type A - Coupler (male end) with female thread
- Type B - Coupler (female end) with male thread
- Type C - Coupler (female end) with hose shank/barb
- Type D - Coupler (female end) with female thread
- Type E - Coupler (male end) with hose shank/barb
- Type F - Coupler (male end) with male thread
- Type DC - Dust Cap (female)
- Type DP - Dust Plug (male)

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

CAMLOCK MATERIALS AND USES

Stainless Steel

Stainless steel is widely used for manufacturing fittings due to its strength, corrosion resistance, and ability to withstand extreme temperatures. This combination of properties makes stainless steel the ideal option for food and beverage applications, which entail frequent, high temperature sanitation protocols. However, their durability and corrosion resistance also lend themselves to marine, oil and gas, and similarly demanding environments.

Brass

Although brass is not as strong as stainless steel, it is highly resistant to damage and corrosion. Brass performs especially well against saltwater corrosion, so it is commonly found in marine applications.

Aluminum

Aluminum is a lightweight metal with an excellent strength-to-weight ratio. At the same time, aluminum is more cost-effective than stainless steel or brass, so it is a good alternative for general industrial applications. This combination of strength of material and cost-effectiveness makes it the most popular camlock material.

Polypropylene

Polypropylene is a cost-effective, high-performance alternative to metal options. Despite lacking the strength of stainless steel or aluminum, polypropylene offers excellent corrosion resistance and impressive durability, which makes polypropylene camlocks a strong choice for industrial and agricultural applications.

Nylon

Nylon has similar performance characteristics to polypropylene, but it can withstand higher temperatures, variable humidity, and has some additional chemical resistance versus the polypropylene. Nylon camlocks are used in industrial and agricultural applications where heat and moisture are of concern.

COMMON CAMLOCK MATERIALS AND APPLICATIONS

MATERIAL	FEATURES	APPLICATIONS
Stainless Steel	Strength, corrosion resistance and ability to withstand extreme temperatures	Food & beverage, chemical, marine, oil & gas
Brass	Strength, corrosion resistance - especially saltwater, non-sparking	Water, oil, marine, coolants
Aluminum	Lightweight, Excellent strength-to-weight ratio, cost-effective, best combination of durability and price	Agriculture, industrial, petroleum, construction, irrigation
Polypropylene	Cost-effective high-performance alternative to metals, corrosion resistance	Agriculture, industrial
Glass Reinforced Nylon	Corrosion resistance, higher temps and more chemical resistance than polypropylene	Agriculture, industrial

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