

Tri Clamp

Sizes



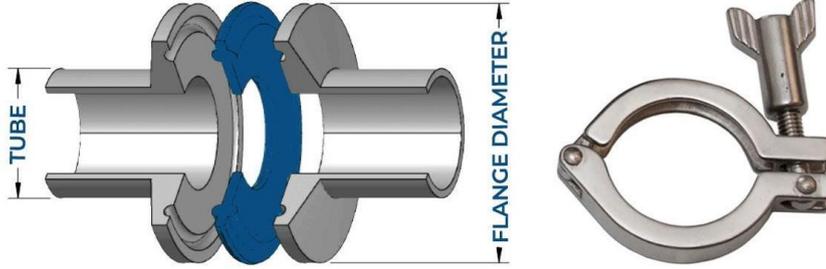
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Check sanitary clamp fittings dimensions as per DIN 32676 standards

Tri Clamp Sizes

Tube OD	Flange OD	Clamp Size
1/2"	0.984"	3/4" Clamp
3/4"	0.984"	3/4" Clamp
1"	1.984"	1.5" Clamp
1.5"	1.984"	1.5" Clamp
2"	2.516"	2" Clamp
2.5"	3.047"	2.5" Clamp
3"	3.579"	3" Clamp
4"	4.682"	4" Clamp



Tri clamp fittings dimensions available in 1/2" and 4" Tube OD

Maximum Clamp Pressure Ratings (PSI)							
Size	Single Hinge (13MHM)		Double Hinge (13MHM-DP)		High Pressure (13MHP)		Max Torque
	70F	250F	70F	250F	70F	250F	
3/4 in.	1500	1200	1500	1200	1500	1200	130 In LBf
1.5 in.	500	250	500	250	1500	1200	130 In LBf
2 in.	450	250	450	250	1000	800	130 In LBf
2.5 in.	400	200	400	200	1000	800	130 In LBf
3 in.	350	150	350	150	1000	800	130 In LBf
4 in.	200	125	200	125	800	600	200 In LBf
6 in.	150	75			300	200	200 In LBf
8 in.	100	50			250	150	200 In LBf
10 in.	40	30			200	125	200 In LBf
12 in.	30	25			150	100	200 In LBf



What is tube OD in tri clamp dimensions?

These sanitary fittings comprise a clamp end and a ferrule. The OD refers to the outside diameter of the tubing and is a significant metric in deciding the tri clamp dimensions. It is crucial to measure the OD of the tube and not consider the diameter of the flange as the reference point for selection. It can often lead to installation errors as the flange is about 1/2" larger than the tube.

For pipes with small outer diameters like 1/2" to 1 1/2", you can choose sanitary clamp sizes that match them. For example, tubes of 1/2" and 3/4" use ferrules of 3/4", which is roughly a 0.984" flange.

3/4" to 4" Clamp sizes of tri clover clamp are used in Brewing

How can you measure tri clamp sizes?

To measure tri clamp sizing, you have to measure the OD or the outside diameter of the tube. The size gets estimated based on the OD and not the diameter of the flange. The latter is larger than the tube, so using it will lead to improper fitting sizes. You can find the suitably-sized component by referring to a tri clamp size chart.

Experts recommend using the larger gasket size while picking tri clamp fittings dimensions. You can find ferrules based on the units in the pair (using the larger size). For instance, if you have tubes of 1/2" and 3/4", you can use ferrules of 3/4". It is roughly a 0.984" flange.



Is Tri Clover the same as Tri clamp?

Yes, the two are essentially the same. Tri clover fittings dimensions differ across sectors, but they get extensively used in medical, food, brewing, and chemical industries. Sanitary fittings were earlier called Tri-Clover after the registered trademark of the company Alfa-Laval, the leading manufacturer of these fittings. However, after a different company called Ladish Co. took over Alfa-Laval, these fittings were rebranded as tri clamps.

Initially, the term tri clamp referred only to tri-clover 3-segment clamps. But the term is now commonly used to describe sanitary clamps in different industries. Sanitary clamp sizes can vary per the requirement. They are excellent in settings that demand hygiene and strict standards of sterility.

Check tri clover fittings sizes as per ISO 2852 and BS 4825 standards

Gasket selection for stainless steel tri clamp

Stainless steel is a favored material for tri clamps due to its strength and abrasion resistance. You can use a stainless steel tri clamp for larger tubes over 2". But you have to select the gasket matching the pipe. For example, two 2" portions will need a 2" gasket for the connection.

You can join a pair of smaller compatible sizes directly. But use a gasket of the larger size. Otherwise, you risk poor hygiene around the unclamped or loose area. So, say you wish to join tubes of 1/2" and 3/4" or the corresponding tri clamp sizes in mm. In this case, you should select a 3/4" gasket.



Connecting differently-sized tubes will impact the flow, wherein the disparate tubing acts like an end cap reducer. You will require a **concentric** or eccentric reducer. Many applications use reducers for smaller tubes to prevent a sudden change in the fluid flow.

How can you select the right tri clover connection?

You can connect tri clovers in different ways based on the need of the application. The standard connection types for various tri clover sizes include a single hinge, double hinge, and bolted type without a hinge.

A two-segment single-hinge version is affordable and works well for many requirements. But a double-hinge design will be more appropriate if you need extra flexibility and limited space. ISO 2852 tri clamp dimensions can be a good guideline for choosing components for your application.

The bolted design gets used in high-pressure environments. It does not use a hinge but relies on a washer and a nut to create a permanent and reliable connection. The nut is generally made of brass for abrasion resistance when in contact with chemicals and other fluids.

Single Hinge (13MHM) and Double Hinge (13MHM-DP) are available in tri clover sizes ranging from 3/4 inch up to 12 inches

Is a high pressure tri clamp corrosion-resistant?

You can use a tri clamp in high-pressure environments. These settings typically utilize bolted clamps with two sections. A high pressure tri clamp doesn't have a hinge but uses a lock washer and a nut to fasten them together. The most preferred material is brass. It lends corrosion resistance



to these tri clamps as brass can fight galling.

A high-pressure sanitary tri clamp fitting usually gets manufactured for permanent applications. You should not need to service them too often. Ensuring safety in extreme environmental conditions is the priority. You can use a single-hinge or a double-hinge connection if your requirement does not involve high pressure or frequent changes.

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Email :
support@pipingmaterial.ae

Call :
+971 553561751

Address :
Office no. 1309, 13th Floor,
Creative Tower, Fujairah, Post Box 4422,
UAE (United Arab Emirates)