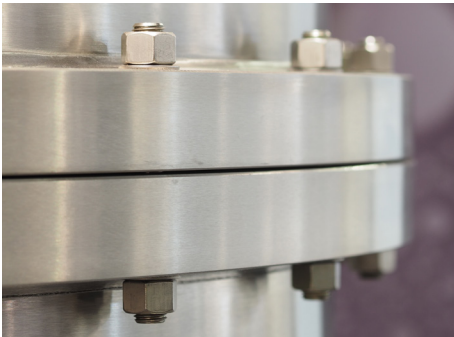


NEWS ARTICLE

HOW LONG WILL A BOLTED FLANGE GASKET LAST?



Have you ever received the dreaded 2 am. call from plant staff saying that things are at a standstill – production is down?

You arrive at the plant, walk through the parking lot, coffee in hand, and head to the locker room. When you come out on to the plant floor, there are several people staring at you with a look of panic on their faces as steam or process chemical sprays from a pipe flange.

Prognosis...gasket blowout.

You think to yourself “didn’t we just replace that gasket?”, or perhaps “we should have replaced it during the last shutdown but chose not to because of time constraints or cost cutting.”

If this scenario is new to you, you are lucky and you can go back to sleep... the 2 am. call was a wrong number. If it’s not new to you, this means you are most likely a Plant Supervisor, Maintenance Manager or Plant Personnel in some capacity.

Roll up your sleeves, grab your torque wrench and let’s get to work!

Gasket Lifespan

If I had a nickel for every time someone asked me, “How long will my gasket last?” I would be a rich man. As you can probably guess, “How long will my gasket last?” is a loaded question to which

the practical, factual, and political answer is... an Application Engineer’s nightmare!

A gasket may last 5 years, or it could last 20 years. I cannot give you an exact date or lifespan of a gasket; however I can give you some insight into factors that will give your gasket the best chance at a long and prosperous life between the flanges.

3 Factors to Help Prevent Bolted Flange Gasket Blowout

1. Gasket Selection

Choosing the right gasket will save you a lot of grief. It’s important to speak with an Applications Engineer to help determine the proper gasket for your application. You can also use a free tool like iGasket to help determine a suitable gasket material. Factors such as chemical compatibility or elevated temperature can severely affect elastomer-based gaskets and cause them to become brittle. When gaskets become brittle they lose their ability to expand and contract with cyclic conditions. Sometimes they can start to leak slightly and the natural urge is to just “snug” or re-tighten the bolts with your wrench... DO NOT DO THIS.

Remember the gasket is brittle and now retightening this gasket may cause it to crack or break, leading to a blowout which can cause serious issues.

2. Gasket Quality

As a gasket manufacturer, I can tell you that cost matters. For instance a \$2.00 compressed gasket may last 1 – 5 years, but a more expensive gasket such as a \$25.00 Kamprofile gasket could last 20 years. You don’t necessarily need to buy the most expensive gasket on the market; however, saving 50c on a lower-priced gasket should not be high on your priority list forsaking reliability and safety. In the end, you get what you pay for (within reason).

3. Installation

Installation is the most important factor to gasket longevity. Failing to install a gasket correctly is starting off on the wrong foot and indeed setting yourself up for a premature failure. Consider the following before gasket installation:

Do you have an installation procedure?

Do you use a torque wrench?

Do you know what torque values must be used?

If you answered ‘No’ to any of the above questions, I highly suggest you reach out to your gasket manufacturer for recommended installation procedures, and appropriate torque values. Better yet – get your hands on a copy of ASME PCC-1 and read it if you’re serious about extending the life of your gaskets.

Final Thoughts

There is no real way to predict the future and determine when gasket failure will occur. To ensure you get the best performance out of your gaskets, following these suggestions will ensure that your gaskets don’t prematurely end up in the trash bin. And maybe you won’t get any more of those dreaded 2 am. phone calls.

Find gasket material.

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