

Rotaflow Swivel Joint Stops Twist Issue in Discharge Hose

A swivel joint is often the unsung hero in manufacturing and production, helping to solve problems that otherwise would cause long and costly delays.

One of our most recent problem-solving interventions was for a global chemical company. In this particular case they had a persistent problem with a long 5" discharge hose. It was frequently twisting which led to extensive damage to the hose, hindering its use and effectiveness. This had the potential to become an expensive and time consuming problem if it was allowed to continue.

They reached out to Rotaflow to see if the introduction of a swivel joint could help solve the issue. Having designed swivels for similar purposes on previous projects, the Rotaflow design and engineering team knew how to approach the problem.



Swivel Joint Considerations

The introduction of a stainless steel flanged 90 degree swivel solved the issue and allowed the bulk power chemicals to pass through the full bore 5" line.

It wasn't quite as simple as that though.

As with most powders it was important to remove the potential for build-up of static charge and the subsequent explosion risk should there be a spark. As this particular supply was flanged, earthing straps could be fitted onto the connecting bolts which took care of the explosion risk issue and made the plant significantly safer. Given Rotaflow both design and manufacture the joints, they can supply the earthing strap connection points if required.

Rotaflow supply a lot of repeat customers with swivel joints manufactured in 316L stainless steel, so it is one of the few materials the company choose to stock machined parts in. This meant that the testing, delivery and fitting of the part could be done quickly and efficiently, resulting in the problem being solved with minimal loss of production time.

The reason the engineers opted for stainless steel over other materials is because its combination of corrosion resistant properties, strength and relatively low price makes it an ideal choice for hygienic and processing applications.



Engineering a Solution

Having delivered the swivel joint to site, Rotaflow were pleased to receive positive feedback that it was successfully installed, trialled and is working perfectly. It removes the twisting stress build up in the discharge hose and operates safely, removing the explosion risk from the static charge generated by the powder.

Although it may seem like a small and simple fix to a problem, it's an effective one and as such has allowed production to continue as normal on the plant. These minor interventions by skilled engineers are what help the world keep turning!

If you have any swivel joint or engineering requirements, talk to the Rotaflow technical department requirement today.

Tel: +44(0) 1663 735003

www.rotaflow.com