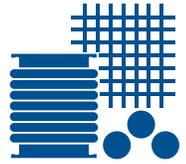


# CASE STUDY - SILO INSTALLATION



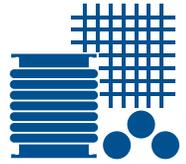
**Powder Silos** usually need some sort of activator at the bottom which ensures that product continues to flow, and does not clog the outlet. For this reason, two flexible connectors are needed to connect the activator to the silo above and to the outlet below.

The upper connector is usually of a fairly large diameter, the lower connector is much smaller as it leads to the connecting pipes or rotary valves. Both of these connectors cause the usual problems experienced with flexible connectors. The large diameter connector is typically installed in difficult to reach places and because of the sheer size it is very time consuming to replace. Traditionally, this connector is either held in place with hose clamps around the outside of the connector or with an internal clamp system which means that the connector needs to be pulled through two sets of steel rings which are then fastened with screws all around the whole circumference of the connector.

The hose clamp has the usual disadvantages of product leakage and poor pressure resistance, the ring connector is a slight improvement but is even harder to replace because of the numerous screws and the difficult process of pulling the connector into the correct position. Both the upper and lower connectors are subject to the usual leaking from around the clamp and are particularly vulnerable to major hygiene issues of product being caught for long periods of time between the flanges and the connectors.



**BEFORE**



# CASE STUDY - SILO INSTALLATION

*continued..*

**The BFM® solution.** In this particular case, the upper connector was a 1600 diameter and 100mm long. The lower connector was a 200 diameter with a length of 100mm. Below the lower connector was a tapered steel part enlarging the exit of the silo from 200mm to 250mm, which was the necessary diameter to connect the silo outlet to the rotary valve underneath. Quite often the vertical space is limited and the space requirement for BFM® connectors including the necessary spigots can be a problem. The solution was to remove the tapered steel part at the bottom and lower the complete activator down far enough to allow for the four spigots to be installed and still leave enough height for each connector. A tapered BFM® connector at the bottom solved the problem due to a difference in outlet and inlet diameter.

**The end result** was two BFM® connectors now solved all four problems; difficult and time consuming installations, unhygienic environment and areas around the clamped connector, product leakage and insufficient pressure resistance. Whereas it previously took the operators up to two days to complete a replacement of the upper connector, this can now be done within 15

minutes max. The lower connector which was previously held in place with hose clamps is now completely dust tight and when using the correct connector material, will withstand even exceptional inside pressures. In the past the hose clamp connectors would flow off occasionally when the valve below was not working properly and inside pressure was exceeding the normal range. So the customer now has a safe, hygienic and easy to maintain piece of equipment!



**AFTER**

