

Containing super-fine powder

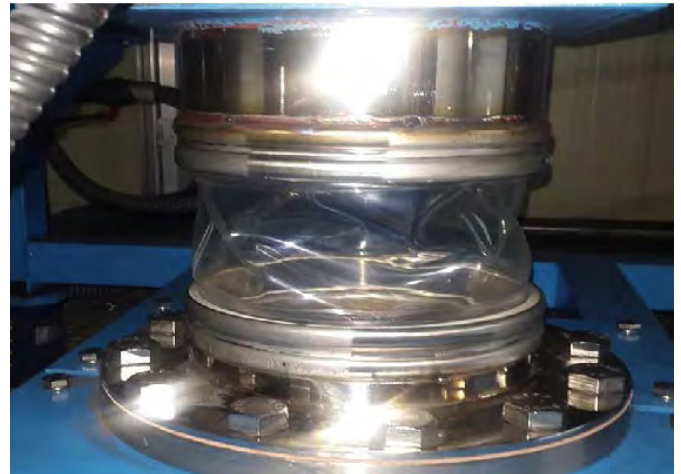
(Battery powder manufacturing)



Lithium nickel cobalt manganese oxide is the technical name for the powder inside rechargeable lithium batteries, and it is being produced in increasing quantities due to a rapidly growing global electric-vehicle market. A major lithium powder manufacturer in Korea had challenges with this extremely fine (10 μ) powder leaking throughout their production area, as well as time consuming connector fitting during product changeovers and cleaning. Then, they replaced their traditional hose-clamped connections with BFM[®] fitting, and have seen significant improvements in both changeover turn-around speed and retention of valuable product.



BEFORE



AFTER

The Challenge:

Super-fine lithium powder, used in re-chargeable batteries, was difficult to contain with traditional hose-clamp connectors, meaning this valuable product leaked constantly, causing a messy environment that required regular clean-ups.

Staff also had to regularly clean inside the machinery when they changed their material types, and the difficult removal and refitting of the hose-clamped connectors during the cleaning process caused considerable downtime.

The Solution:

BFM[®] fittings were installed to replace all existing hose-clip type connections on both the ultrasonic vibrating sifter and electronic magnet filter. Now the internal cleaning process can be completed in a much shorter time due to the fast and easy snap-fit removal and re-installation process of the BFM[®] fitting. There is also now a 100% seal so there is no additional mess to clean up around the connection, and no product is lost. There is also the added bonus of visibility of product-flow through the connector that was not possible before.

The Benefits:



DOWNTIME: Overall cleaning and replacement time has been drastically reduced.



HEALTH & SAFETY: Less product leakage means a cleaner working environment for the factory staff.



HYGIENE: The areas surrounding the equipment are much cleaner and there is no product loss.



INSTALLATION: Fitting the new BFM[®] connector is so much faster and easier than the old hose-clip connections.

“The BFM[®] fitting has significantly reduced the time it takes to replace connectors during product changeovers and because there is no leakage any more, there is no clean-up needed around the connections like we used to do before. We don't lose valuable product, and we've now got visibility of the product flowing which is great.” - *Factory manager*