

Case story – Milk powder production line

SimPulse 3C CIP retrofit project to boost capacity and cut production costs [Filter Technology](#)



The challenge

The new Simatek bag filter was a retrofit project to boost capacity on the milk powder production line. The old bag filter was the bottle neck for increasing the capacity. Capacity increase was a must to keep up with increasing milk volume.

The solution

Simatek decided to offer a robust solution based upon a SimPulse 3C CIP bag filter in sanitary execution throughout, with 10 meter bags to ensure that the air to cloth ratio was significantly lower than for the existing bag filter and then also with a more efficient bag pulsing system, using the SimPulse 3C technology.

Quote from customer

“The new bag filter runs at a stable pressure drop of 10-12 mBar until CIP of the spray dryer once every year, the old bag filter reached up to 30 mBar within 4 to 6 weeks, at which point it had to CIP’ed.

To increase capacity on the spray drying plant a new exhaust fan had to be installed and we went from 130 kW fan to a 250 kW fan. But due to the lower pressure drop over the filter is considerable lower, the exhaust fan is now consuming less kWh per m³ of air going through the new bag filter today, so we use less kWh per tons of milk powder produced. This results in 250.000 kWh less per year now, and this reduction is attributable to the change of the bag filter.



The new bag filter uses 10 meter bags, the existing had only 7 meter bags, but the diameter of the new bag filter is almost the same, so it was no problem fitting it in.”

Facts:

Filter type:	SimPulse JMR 240/100-08, 3C CIP
Application:	Total separation
Product:	Milk powder, SMP, WMP and buttermilk powder
Filter area:	1.029 m ²

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