

AN (COIL FREE) DAIRY AFFAIR

By Mariocarlo Memoli



“PFFF.” I’m sure you are all familiar with that sound when you first pull back the lid on a pot of yoghurt. If you are not careful you can even sometimes get a lively one! It’s a little bit of magic in the form of compressed air, that brings the milk from the cow to your dining table.

Whether you buy milk, yogurt, cheese, kefir, cream, or mozzarella, all these dairy items have one thing in common; they rely on clean compressed air to be produced, transformed, and packed, helping to ensure you eat and drink a product that is safe and of the best quality.

From Farm to Fridge

4 a.m. – at the crack of dawn – the farmers begin their long day. It certainly isn’t a job for the faint hearted; dairy cows must be milked twice a day. To preserve the integrity of the milk, equipment using oil free compressed air pumps milk directly from the milking cows to a refrigerated storage tank where it is quickly cooled to preserve freshness and, most importantly, safety. As milk is a farmer’s livelihood, they want to provide products of the highest quality. Contaminants or foreign bodies can render the whole batch of milk useless costing the farmer thousands of euros. Because compressed air is heavily involved in the milking process, oil free air is the preferred compressed air of choice to help protect your milk from farm to fridge.

Processing Piece of Mind

Fresh milk is then driven from the dairy farm to a local dairy processing plant in an insulated, sealed tanker. You have probably seen them on the motorway – they are like a giant thermos on wheels. Depending on the volume that needs to be collected, a tanker may carry out a single stop or stop at multiple farms to fill up prior to heading to the processing plant. Once the milk arrives at the processing plant, again Class 0 oil free air is used in the different processes and consequently, to get the milk from silo to bottle. From operating machinery to moving valves to coming into direct contact with the milk and its derivatives, oil free compressed air helps with the smooth and safe running of dairy plants.

Whilst it is vital to have Class 0 oil free air during the milking and processing phase, it remains just as vital for all the other products that derive from the processed milk. Dairy companies need to be very careful when it comes to the production processes. Air is used to transfer and agitate raw milk in silos, close and open pneumatic valves, clean and make product packaging, and palletize the finished products. Utilizing oil free air in all of these processes helps to significantly mitigate the risk of contaminants making their way into the end products that end up on our tables.

Whether it is to create that delicious butter to make a birthday cake, create one of thousands of flavoured yoghurts to the multitudes of cheese – from cream cheese, blue cheese to goats' cheese, each factory uses very specific processes to create its end product – and all use oil free compressed air.

The Sullair Oil Free Difference

The Sullair DSP (dry screw package) range provides consistent oil free compressed air for the dairy industry and beyond. Sullair designs and manufactures oil free compressors ISO8573-1 Class Zero certified, with 2-stage dry screw technology, reducing the risk of oil contamination during the entire dairy process. The DSP product range is available from 22 to 240kW, with fixed speed, VSD, water cooled and air-cooled models; each providing peace of mind to the food, beverage, pharmaceutical - and any “clean” industry operation.

So, listen carefully next time you open your pot of yogurt, you might hear this magical “PFFF” reminding you of the importance air compressors play in creating the product.