

Energy-efficient tissue line benefits from Sulzer's HSR turbocompressor

Cartiera Confalone S.p.A. chose Sulzer's HSR high-speed oil-free turbocompressor technology for their new, high-quality tissue paper line in Maiori, Italy. Thanks to the technical benefits of the HSR, the customer procured an additional machine to the converting line of their existing Montoro plant.



“We based our compressor decision on the 100% oil-free technology as well as on the low maintenance and total costs of ownership of Sulzer’s HSR. It was a good decision.”

Gaetano Confalone, mill owner

The project

The Italian company Cartiera Confalone S.p.A. manufactures household and sanitary papers. In 2019, the company decided to build a new, energy-efficient tissue line in Montoro, Avellino. The mill produces jumbo rolls in pure cellulose destined to the converting process for transformation into toilet paper, industrial rolls, kitchen rolls and napkins. Cartiera Confalone S.p.A. has another paper mill close by, in Maiori.

The compressors were not included in the turnkey supply package for the new tissue line. Having learned this, we suggested Sulzer’s HSR turbocompressors for the process. The requirement for the tissue machine was to have 100% oil-free compressors to avoid any stains in the product.



The solution

Because compressed air eventually finds its way out of the pneumatic devices and enters the factory premises, an oil-free turbocompressor was a must for both mills.

We quoted the HSR 145MR compressor for the new tissue machine and the HSR 145HR for the existing converting machine. The customer placed the purchase order for the two machines with dryers at the end of December 2019, and the turbocompressors were delivered in April and June 2020.

The installation and start-up were very easy in both plants. From an operational point of view, it is a stand-alone solution. The production lines are now working better and safer because there is no risk of oil contamination of the products.

Customer benefit

The machine is very silent and adapts to the need for compressed air much quicker than a standard compressor. That is why the customer was able to reduce the pressure level in the line (from 8.5-9 to 7 bar), which saves a lot of energy. And what’s more, the machine is already as such using less energy than standard compressors.

The hot water recovered from the HSR cooling system (turbines and inverter heat) is used as heating water for the converting plant, bringing remarkable additional savings.

Mr. Buongiorno, technical manager of the converting line, setting up a new HSR compressor.

Even though the machine is remotely controlled, the customer trusts it to operate safely. Until now they have only checked the air filter condition, which looked perfect after 6 months in use.

For the customer, the use of an oil-free compressor was a prerequisite considering future regulations. It is, however, an advantage as early as today to be able to offer the end customers oil-free hygienic paper.

Technical specification

Montoro tissue paper converting line

- HSR 145 HR
 - Duty point 27.2 m³/min @ 4.5-9 bar
 - Max. input power 205 kW
 - Cooling water flow 2.1 l/s
 - Max. energy transferred to coolant 190 kW
- Refrigerant dryer Drypoint RA 2400/AC

 [Read more about the HSR turbocompressor on sulzer.com](https://www.sulzer.com)



This is how it looks inside a HSR turbocompressor.

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