



CASE STORY

Recycling

Arkhum Tissue Group LLC

Vorsino (Russia)

Dust-free environment in tissue paper manufacturing with 42 suction points

In hygiene paper production, dust and residual paper must be completely cleared from production. The Arkhum Tissue Group has opted for technology from Hunkeler Systeme AG.

Last year, in the Vorsino Industrial Park, located south-west of Moscow, the Russian Arkhum Tissue Group LLC put a new plant for the manufacture of paper hygiene products into production. The raw material is converted into finished paper rolls on two converting lines from the Italian manufacturer Futura. Large quantities of dust and residual paper are produced during the converting process. Using technology from Hunkeler Systeme AG, the waste is extracted in a

controlled manner and the dust is filtered out of the air. The system returns the clean transport air to the working environment.

On both converting lines, the dust is extracted at 21 suction points per line. The residual paper itself, is removed from the processing area via one extraction point per line. A press compresses the waste into compact bales.

The technology from Hunkeler Systeme AG operates according to the proven negative pressure principle, with the fan located at the very end of the line. The resulting suction effect ensures that the dust-laden transport air cannot escape from the pipelines into the environment on its way into the jet filter system.



The technology of Hunkeler Systeme AG is connected to 42 suction points. The dust that accumulates during production is disposed and clean transport air is returned to the environment.



The technology operates according to the proven negative pressure principle, with the fan located at the very end of the line.



The paper dust leaves the extraction and filtration system in the form of compact briquettes.

Efficient energy management

The plant is in 24/7 operation. For dust extraction at the total of 42 connections, 64,000 cubic meters of air are transported every hour; for residual paper disposal, the air volume flow is 32,000 cubic meters per hour. To keep energy costs as low as possible, the extraction technology is equipped with an ESS energy-saving system. A frequency converter dynamically regulates the speed of the fan according to the air output required at any given time.

70,000 tons of sanitary paper

The Arkhbum Tissue Group LLC is part of the Arkhangelsk Pulp and Paper Mill (APPM), headquartered in Novodvinsk in

north-west Russia. The production facility in Vorsino represents the largest project that APPM has up to now realised. The plant, located on a 22.4 hectar plot of land, went into operation in September 2020. Initially, a 5.5 hectar plot was built up. According to the company itself, they have invested about 11.5 billion roubles, which corresponds to approximately 145 million Swiss francs. In the present stage of expansion, the annual capacity is sufficient for the manufacture of 70,000 tons of paper hygiene products. In a further step, capacity will be extended to 210,000 tons per year. The production plant in the Vorsino Industrial Park will be supplied with hygiene paper quality of one hundred per cent primary fibres by APPM.

Excellent advice, perfect technology

“The manufacture of hygiene products is dust-intensive. The dust must be disposed of in a controlled process so that we can work in a clean environment and offer our customers the best possible product quality.

The engineers at Hunkeler Systeme AG and its Russian subsidiary met our expectations with excellent advice and perfect technology.”

*Alexey Soloninin
Production Director, Arkhbum Tissue Group LLC*



The Arkhbum Tissue Group LLC put their new production facility at Vorsino Industrial Park into operation in September 2020..