

## NABEREZHNYE CHELNINSKY, (REPUBLIC OF TATARSTAN)

**The Naberezhnye Chelninsky Cardboard and Paper Factory, one of the largest corrugated cardboard producers in Tatarstan, disposes of cardboard waste with a suction and compaction system from Hunkeler Systeme AG. With 100,000 cubic meters of air volume, it is one of the largest systems ever planned and installed.**

The Naberezhnye Chelninsky Cardboard and Paper Factory (KBK) was founded in June 1981 and counts as one of the largest and most modernly equipped corrugated cardboard and pulp producers in the Republic of Tatarstan. Seven per cent of all Russian corrugated cardboard is manufactured by KBK.

cardboard shredder. The removal and disposal of production waste is now taken care of by a large system supplied by Hunkeler Systeme AG. Never before has Hunkeler Systeme AG planned or executed a suction and compaction system on such a massive scale.

Extensive experience in highly complex project engineering and the clean, energy-saving concept with negative pressure technology were the reasons that the contract was awarded to the Swiss company. The size of the system speaks for itself: with an air transport volume of 100,000 cubic meters per hour, the production waste is transported via a paper cutter to two



To ensure that the great quantity of cardboard waste is reliably disposed of in 24/7 operation, Hunkeler Systeme AG installed two high performance baling presses from the series VK 4212. The cardboard waste is transported to the presses via paper cutters.

About 60 per cent of the annual net profit flows back into the modernisation of its production technology.

The highly automated production operation is equipped with two corrugated cardboard system, 15 punch machines and a

high performance baling presses and pressed to compact bales.

The dust is removed from the air in filters and then pressed into briquettes. The filtered transport air is absolutely clean. In the summer, it is exhausted outside the building. In the winter



# CASE STORY PACKAGING

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it is used to warm the production area. The 15 automatic punches have been divided into groups of three or four machines. Conveyor belts collect the punch waste and deliver it via chutes to the suction technology. A shredder on the chute shreds the waste which is in the airstream and sent on to the baling presses.

At KBK the system is divided into two main groups with one times six and one times five connections, as well as a fan with a closed impeller per group. Hunkeler Systeme AG designed the system for full back-up capacity. In case the fan for one of the groups fails for any reason, suction on that production line is still ensured by the fans from the other groups. KBK placed the back-up function high up on the priority list in the system requirements. Especially on the two corrugated cardboard production systems, 24-hour operation, seven days a week, had to be guaranteed.

An energy saving system (ESS) ensures that the fans perform only when they are needed by the production system. Each machine connected to the suction system can be individually controlled.

The savings in electrical energy which KBK achieves, compared to operation without ESS, can be as much as 50 per cent.