

EV ReDoc Cleans the Cylinder Surface

Sonoco Alcore BM1 had produced paperboard for decades without any proper cylinder surface cleaning system. Contamination on cylinders surfaces resulted in remarkable loss of drying capacity and extra energy costs.

To eliminate the problem, the mill decided to invest in one unit of EV ReDoc for cylinder and roll surface reconditioning. After every cleaned cylinder surface, the mill removes the EV ReDoc for the next contaminated cylinder. This means in one year the mill could clean as many as about 10 cylinders.

The mill personnel is happy with the cleaning results. EV ReDoc has eliminated the dirt that was accumulated on the cylinder and calander surfaces over the years. Thanks to clean cylinder surfaces, drying is now more efficient and requires less energy than before. Also, the quality of the paperboard is improved. After the cleaning, the cylinder surfaces are still pretty clean after one year production time.



Before: Very dirty cylinder surfaces

After: Cylinder surfaces are as good as new



“EV ReDoc has cleaned properly all cylinder surfaces.”

Mikko Grön, BM 1 Technical Manager



Sonoco Alcore BM 1

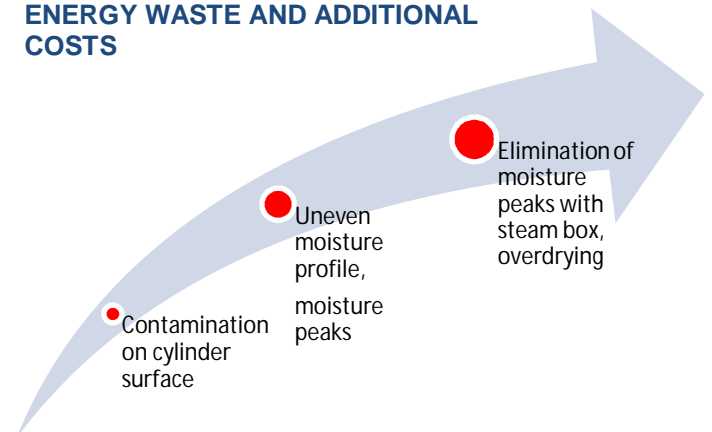
- Speed 200 m/min
- Width 3,0 m
- Grade core board
- Cylinders are cleaned with one, removable EV ReDoc unit

What problems are created because of dirty cylinder surfaces?

The cleanliness of cylinder surfaces has a remarkable effect on drying efficiency. Contamination and dirt on the cylinder surface create an isolating layer that prevents efficient heat transfer to the paper. As a result, at a contaminated cylinder easily 7% additional energy costs are created because of drying steam waste. If the mill has many dirty cylinders, it means significant energy waste and additional costs! Dirty cylinder surface also easily creates uneven moisture profile and paper or board quality problems.



DIRTY CYLINDER SURFACE MEANS ENERGY WASTE AND ADDITIONAL COSTS



What is the operation principle of EV ReDoc?

The steel brush collects the dirt in the bristles and stores it until the end of the cylinder surface. The dust and dirt will be removed from the brush when the brush reaches the end of cylinder surface. The tension of the brush is released and the brush throws the dirt away from the cylinder. Brushes do not create any deformation or erosion on the maintainable surface. Due to continuous reconditioning, rolls and cylinders stay as good as new.

The line pressure towards the cylinder / roll surface is adjusted with the EV ReDoc fine adjustment unit. This is why even old and worn out cylinders can be cleaned effectively with the help of EV ReDoc, when conventional doctoring system is not able to keep cylinders clean.

What are the operational costs of EV ReDoc?

It is very economical to use EV ReDoc. Basically, EV ReDoc should be used in positions where conventional doctoring does not bring any advantage. After the surface is cleaned, the brush consumption is minimal. Naturally, if there is need for more intensive cleaning, new brushes are required more often.

The electricity consumption of EV ReDoc is only minimal, as the brushes and the chain are operated by a small motor (0.18 kW).



EV ReDoc brush types