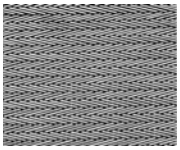

TECHNICAL BULLETIN

CLEANING BAKING BANDS

The key to maintaining a clean band is to prevent the build-up of deposits to the point at which it cannot be easily removed. This is only accomplished by establishing the cleaning technique and interval early. It should then be part of the routine maintenance program. Crackers, dog biscuits, etc. seldom pose problems. The rotating brush usually supplied by the oven builder will keep the mesh clear of any product debris.

Bands that are used to bake sweet goods require close monitoring and periodic cleaning. Shortening, sugar and other product debris can penetrate the mesh and combine to form solid deposits, which will result in broken spirals. Brushing is seldom adequate to remove this debris. Left unchecked, these deposits fill the voids in the mesh and begin to exert pressure on the spiral wires from the inside out. This unnatural bending force on the spiral wires as the mesh flexes around the terminal drums results in fatigue breaks. Broken wires then encounter the take-off blade often resulting in blade damage, and worse, product contamination.

Prevention through Inspection

Inspection and cleaning at regular intervals is the key to realizing long band life. If your products do leave debris in the band, it is important to get some idea of the rate of build up so that a cleaning interval can be established.

Removing Hard Deposits

The least messy cleaning procedure is to raise the temperature of the band to about 800-900 °F [400-480 °C] and carbonize the debris allowing it to break up and fall out. Since most ovens do not operate at these temperatures auxiliary burners can be added at a convenient location to provide *even* heat distribution over the entire *moving* bandwidth. It is important to monitor the band temperature. For carbon steel, 900º F produces a very dark red color that is barely visible in poor light. If the band becomes a dark red or a dull cherry red, the band temperature is far to high. Use the lowest temperature that works for your product! Higher temperatures will damage the band and increase the danger of fire.

Removing Soft Accumulation

Soft accumulation can be removed by steam cleaning with an industrial cleaning agent. Provision for drains must be provided for this method of cleaning. Use on sufficient heat to completely dry the band. *After cleaning, the band must be oiled to prevent rusting.*

CAUTION: DO NOT APPLY WATER TO A BAND AT HIGH TEMPERATURE AS IRREPARABLE DISTORTION COULD OCCUR.
Efforts to cool the edges of a baking band with water have resulted in irreparable band damage. Ashworth does not recommend this practice. Effectively, this is quenching a heated metal surface with water. The normal procedure for quenching is to use oil to have some control over the cooling rate. Quenching with water is the most severe method and will produce stress fractures within the grain boundaries of the material. Once these fractures are created any side pressure on the band may cause the band to fracture (crack) along the quenched zone. Buildup of the product on any support roll that causes the band to flex may also lead to broken wires in the area of the quench.

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