KITTI & FLY DEPOSITION

in Carding

Cotton Brazil Knowledge Hub

Technical Guide

High kitti and fly deposition on the web plate is observed mainly due to insufficient waste removal at the pre-cleaner, fibre rupture in the universal cleaner, low suction pressure in licker-in hoods, and stickiness in fibres. These issues cause fibre choking at the coiler calendar roll, resulting in lower efficiency.

Interventions

1. **Optimize Upstream Processes**
   - Control stickiness in fibre preparation before spinning and optimize blowroom processes.
2. **Optimize Blowroom and Card Setting**
   - Keep gentle opening in blow room to reduce the impact of variation in fibre quality.
   - Operate lower beater speeds in the blow room and cylinder & licker-in speeds in carding to reduce fiber rupture.
   - Extract maximum trash at the blow room stage, followed by carding.
   - Monitor key parameters such as neps/g and SFC(n) at the blow room input/output and carding input/output to achieve an optimum balance of trash levels, waste, and neps.
3. **Periodic Machine Cleaning**
   - Clean rotary flat cleaning brush in carding periodically to avoid clogging.
   - Maintain adequate suction pressure in dust extraction piping
     - Trützschler carding lines: ~800 to 850 pascals
     - Rieter carding lines: ~1,000 to 1,100 pascals
   - Clean the carding web-plate, trough, and coiler area every 8 hours with a dry cloth. Use water to clean, if stickiness is observed.
   - Ensure enhanced cleaning of LDF filter rooms for both blow room and carding.
4. **Maintaining Optimal Spinning Conditions**
   - Maintain relative humidity (RH) at 55 ± 2% and temperature at 34-35.

Desired Results

- Reduction in kitti build-up and fly on web plates.
- Smoother web formation and reduced carding breakages.
- Cleaner sliver with improved consistency for subsequent stages.