Essco Blade Wear Identification Troubleshooting

Blade Appearance and Symptoms	Probable Causes	Remedy
UNEVEN WEAR – Frequent blade change	A. Poor roll surface. B. Damaged or dirty blade holder. C. Deposits.	A. Use more flexible blade. B. Clean, repair or replace holder. C. Use abrasive blade.
EXCESSIVE WEAR IN CENTER OF BLADE, OR At ENDS	A. Doctor not machined to roll crown. B. Old doctor sagging into/away from roll.	 A. Refit and shim holder to doctor back as necessary. (Return new doctor for replaning if mismatch is excessive.) B. Replace old, sagging doctor.
EXCESSIVE WEAR ON ONE END	A. Doctor misaligned – not parallel to roll axis.	A. Shim, or move bearings and brackets as necessary to align doctor parallel to axis of roll.
EVEN WEAR BUT ROUGH EDGE	A. Deposits on roll. B. Excessive pressure on blade. C. Blade material too hard.	A. Use abrasive blade as required. B. Reduce pressure. C. Use softer blade.
EXCESSIVE WEAR IN SHEET RUN	A. Deposits left on roll by sheet.	 A. Use abrasive blade as required. B. Trim blade edges frequently. C. Use end slotted blades to prevent build-up of excessive pressure on roll ends.
EXCESSIVE WEAR OUTSIDE SHEET	A. Sheet lubricates roll.	A. Slot blade ends to relieve pressure.
LOCALIZED PITTING	A. Blade attacked by (1) Electrostatic Discharge, (2) Electrolysis, (3) Heat.	A. Insulate doctor from machine frame or use non-metalic blade.
BLADE DEVELOPS FEATHERED EDGE	A. Blade material too soft. B. Excessive pressure. C. Blade angle too flat.	A. Use harder blade. B. Reduce pressure. C. Move bearings or brackets to increase angle. Check for correct angle with gauge.
HOOKS ON BLADE OUTSIDE Roll Surface	Blade overhangs roll. A. Not centered. B. Too long. C. Not oscillating properly.	A. Center blade. B. Trim length. C. Adjust oscillation stroke.
DENT IN BLADE EDGE	A. Blade caught scab on roll at start-up. (Most common on old dryers.)	A. Change blade and remove scab.
INCREASING PRESSURE INCREASES DEFLECTION	A. Blade pressure changed after initial wear-in; opens blade tip to trap particles and lift blade – may cause wrap.	A. Reduce blade pressure or change blade.

NOTE: ALWAYS INSPECT WORN BLADES FOR CLUES TO ANY PROBLEMS.



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