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Improved techniques to measure corrugator glue machine meter gaps

Scope

This Technical Information Paper includes recommended operational and preventative maintenance procedures to measure the glue machine's meter roll clearance (gap between the applicator and meter rolls) to the nearest one thousandth (0.0254 mm) of an inch. One foot long (0.3048 m) feeler gauges are utilized when making this check.

During the past thirty plus years, the corrugated industry has sought improved techniques to measure the corrugator's glue machine meter gap. The meter gap is the distance between the adhesive applicator and meter rolls. These techniques are applicable to plant maintenance foremen, maintenance men, corrugator foremen, and corrugator crew members.

Safety precautions

Never check clearances between moving rolls without first being certain that the one foot long feeler gauge will fit between the rolls with no interference. Accomplish this action with drive stopped. **Always use “Lock Out/Tag Out (LOTO) Procedures” as established by your company before your initial checks.**

Insure the hold down mechanism (Rider roll or contact bar) to applicator roll gap, “a pinch point,” is **blocked up** using a wooden wedge cut to fit under the lift mechanism support arm.

Procedure

The “Typical Techniques” utilized world wide to check this clearance involves the following procedure:

- A. Raise the rider roll/contact bar upward manually, pneumatically, or hydraulically. Block the lift arm to using your company's prescribed procedure to insure safety.
- B. Check the meter, applicator roll clearance to the nearest one thousandth (0.0254 mm) of an inch using only a single one foot long (0.3048 m) feeler gauge (blade) in order to minimize accidents. Place the hand holding the appropriate feeler gauge and a portion of the arm under the rider roll and over the applicator roll. A “pinch point!”

CAUTION: This pinch point can crush or sever the hand or arm if air or hydraulic pressure is lost for any reason as the heavy rider roll/contact bar will drop downward onto the preset mechanical stops. The industry has had numerous serious accidents over the years when the lift arm has not been properly blocked to prevent movement.

The improved technique involves following a simple but easy procedure:

- A. Lower the glue pan off of its hooks pneumatically, hydraulically, or manually and allow the pan to hang

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- below the applicator, meter rolls.
- B. Have someone spray water in between and on top of both of the rolls (applicator and meter rolls) to keep them lubricated.
 - C. Measure the meter gap from *below* the applicator, meter rolls on the operator, middle, and drive sides to the nearest one thousandth (0.0254 mm) of an inch. Simple, easy, and safe!
 - D. If the glue machine to be checked is designed so that the glue pan cannot be lowered to permit measurement from below, you will have to block the rider roll/contact bar lift arm upward. This can be accomplished by cutting a hardwood wedge to the appropriate size to prevent the rider roll lift mechanism from dropping down unexpectedly causing potential injury.

Keywords

Corrugating machine, Gluers

Additional information

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