



SPINNAKER CORPORATION
EQUIPMENT AND PROCESS SOLUTIONS

SpinTech Newsletter

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Sheet Quality

It's All In Your Head(box)

The headbox is an intricate balance of chemical and mechanical interactions. It delivers the raw material for the final product yet is sensitive to the smallest imbalance, defects and imperfections. Routine care and tunes-ups are the key to keeping the headbox off your list of headaches.

The easiest and least costly action that can be taken is to keep the delivery edges of the slice and apron lips straight, honed, sharp, and free of imperfections. This is easier said than done as normal operation subjects them: to adjustment that can bend/warp the lips' profile; damage from the wire & other sources; and contaminants that cause pitting. If damage and/or pitting becomes too severe, streaks and fiber hang ups are the result.

Tune Up

An annual tune up is a good maintenance practice. The slice lip macro and micro actuator jacks are zeroed, and both



Honing Slice Lip



Checking Straightness

lips are optically measured. Once the optical profile is known, straightening is accomplished with the selective application of heating and quenching to adjust the apron lip back to the specified straightness. After straightening the delivery edge is then honed/sharpened for optimum formation characteristics and stock delivery. A tune-up will include polishing of the headbox internals, tube bundles when required, and rectifier rolls if so equipped. Tune-ups go a long way in

eliminating scratches and nicks in the delivery surfaces that cause streaks, warping/bending of the slice lip from mis-adjustment, wire bulge damage to the apron, and internal contaminants build up.

Mills use an outside service like Spinnaker/Paper Machine Services for slice and apron lip maintenance/installation, internal polishing, and complete tune-ups. We supply the personnel, tools and materials. The mill responsibility is to lower or remove the breast roll, raise the slice lip to the maximum opening, and provide the safety and confined entry requirements beforehand. Depending on the size & type of headbox, a tune-up can be completed in eight to twelve hours.



Headbox Service Crew

Internal Coatings

An application of TFE, a chemical compound with properties identical to Teflon®, can reduce and often eliminate problems associated with internal fiber and/or contaminant build up. The TFE fills the molecular voids in the stainless steel surface removing anchoring points for fiber or particulate build up. It is typically applied to the internal floor, walls up to the stock level, the slice & apron lips, tube bank, and rectifier rolls if so equipped.

The TFE application is a multi-step process of cleaning, surface preparation, liquid TFE application, and final cleaning. Depending on headbox type, design, and pond width, the work can be performed during a 3 – 8 hour shutdown. In many instances, TFE application is combined with the headbox tune-up described in the previous section. Duration of the coating is between 1 - 2 years depending on the furnish, flow, etc.

Previously internal coatings of this type were available only through a Japanese company. The TFE process however has been performed by Paper Machine Services since 2000 and is offered in partnership with Spinnaker Corp.

Maintenance Tip



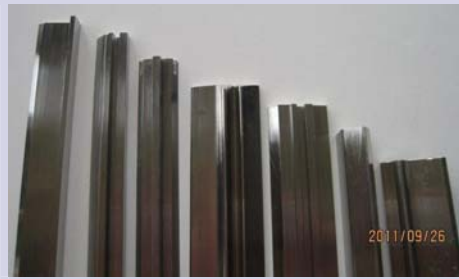
Many air pad headboxes use a Garloc like seal on the rectifier roll journals. The fit of the seals is often problematic resulting in leaks. An improvement is to upgrade to a Clipper Seal. These seals install two-deep on the journal and provide superior resistance to leakage. A Google search for "Clipper Seal" will turn up a lot of information and suppliers.

Spinnaker & Paper Machine Services, Inc.

In the year 2000, Paper Machine Services, Inc. (PMSI) was started by a talented group of ex-Beloit headbox engineers, technicians, and field service personnel to supply services and components for headboxes. In 2009, PMSI teamed up with Spinnaker to provide the most comprehensive range of headboxes services and components available to the paper industry. The list includes:

- Headbox tune-ups
- Field service including slice & apron lip repairs and installations

- Repairs
- New slice and apron lips
- Refurbishing slice and apron lips
- Cheek pieces
- Micro and macro actuators
- Rectifier/distributor rolls
- TFE (Teflon like coating) coating of headbox internals



Slice Lips

Call 920-265-094 for more information. You can also email us at: info@spin-corp.com.

To download the Paper Machine Services brochure, click this link:
http://attachment.benchmarkemail.com/c104065/PMSI_Brochure.pdf ,

To download the Spinnaker brochure, click this link:
http://attachment.benchmarkemail.com/c104065/Spinnaker_Brochure.pdf

New Address

We have relocated. The new mailing and billing address is:

Spinnaker Corporation
 3876 Whitetail Court
 Hobart WI 54155
 Ph.: 920-265-0941
 Fax: 920-227-4178

The shipping addresses remain the same but are listed here for your convenience:

Slice Lip Refurbishing
 Spinnaker Corporation
 1504 Sixth Street
 Beloit WI 53511

Shop Work
 Spinnaker Corporation
 3976 Packerland Drive
 De Pere WI 54115

The *SpinTech Newsletter* delivers articles on rope tailing systems, headbox service & components, calender rolls, suction rolls, mechanical drives, trim system, roll covers, and operations & maintenance topics.

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