

**New: AWA Medium Fluter "A"**

(**THE** original Concora Medium Fluter)



**TAPPI Test Method T 809 om-82.** Corresponds to other related standards (DIN ISO 7263.)

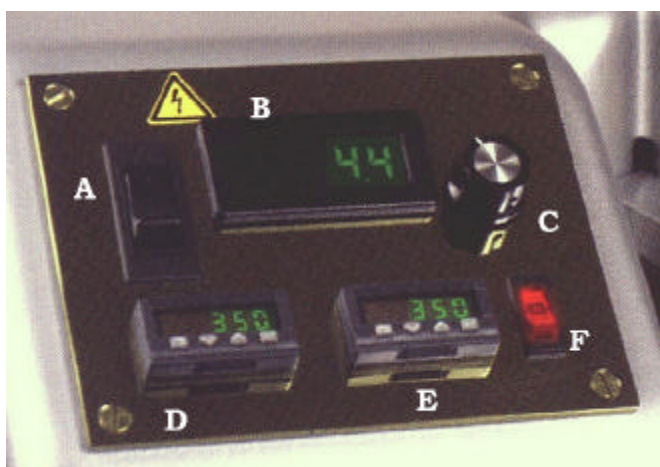
The **AWA Medium Fluter** evaluates the crush resistance of corrugating medium. From this value, a formula has been developed that enables the operator to predict the flat crush resistance of corrugated combined board.

The **AWA Medium Fluter** is available in standard A, B and C flute profiles and also modified A, B and C flute profiles for heavier weight media. Other profiles are available on request.

- *Control your temperature  $\pm 2$  degrees Fahrenheit*
- *Digital controllers for highest precision*
- *Control your roll speed within 1/10 of a RPM*
- *No messy, time consuming lubrication required*
- *100% maintenance free*

## Equipment Needed for Testing

- AWA Medium Fluter,
- Rack and Comb accessories,
- Double Coated Scotch Tape, #400 DC -3/4" wide, made of **3M**.
- A suitable *compression tester* with rigidly fixed and parallel platens. The platens of the tester should be covered with crocus cloth in such a way that the cloth will not slip on the platens. Strips of double coated scotch tape, carefully applied to the crocus cloth so that no ridges are formed, will serve to hold the crocus cloth in place on the platens. The cloth should be changed after each 2,000 tests. The crocus cloth eliminates leaning corrugation failures.
- A 0.5" x 6.0" AWA Sample Cutter used to cut the test specimen.



Control panel

### A : POWER SWITCH

When this switch is activated, it will supply power to the solid-state relays in the heating circuit. This switch enables the HEAT SWITCH ("F"), turns on the D.C. fluter roll drive motor and the cooling fan.

### B: RATE INDICATOR

Displays R.P.M. of the fluter roll drive motor.

### C: CONTROL POTENTIOMETER

Regulates fluter roll drive motor's speed.

### D: PID CONTROL

Controls heat on #1 heater (left side)

### E: PID CONTROL

Controls heat on #2 heater (right side)

### F: HEAT SWITCH

Supplies power to the PID heat controllers.

## Test Specimen

A Test Specimen shall be cut 0.5" x 6.0". The 6" dimension shall be in the machine direction of the medium.

## Conditioning

Whenever possible, the samples shall go through the standard conditioning cycle (TAPPI T 402 om-88). Samples should be tested immediately after fluting and applying tape.

At mills where samples are taken directly off the paper machine and tested, the moisture content will frequently vary from standard conditions of 7-8% moisture. If accurate values are desired, samples of each days production should be saved and conditioned before testing.

## Procedure

1. The fluting rolls shall be heated to 350°F. The instrument is up to heat and ready for use when the amber light goes out. After the initial heating, the amber light goes off and on as the heating element maintains constant temperature.
2. The 0.5" x 6.0" sample is fed into the slot on the left side of the AWA Medium Fluter, making sure the bottom edge of the sample is flat on the sample guide. When the fluted sample comes out the right side of the instrument, it is laid carefully on the fluted rack so that a portion of the specimen is resting on the flat surface at each end of the rack.
3. The comb is then placed over the fluted sample, so that it is held firmly into the flutes of the rack. A rolling motion of the comb as it is placed on the sample aids in forming the sample onto the rack. While the sample is held firmly in the rack, a 5" strip of tape, adhesive side down, is placed on the exposed flute tips and stroked down firmly.
4. The comb is then carefully slipped out of the flutes without damage to the sample. The "Single face" specimen is now carefully lifted straight up from the rack to avoid damaging the flutes. The sample is then placed in the compression tester with the flutes of the specimen up.
5. The specimen is tested in the same manner as the flat crush sample. The failure will be comparable to that of a flat crush specimen. ■

*Care should be taken to handle the specimen as little as possible to avoid damage or to affect its moisture content. Do not drop or bend the comb teeth.*