Flatten Your CD Profile with Headbox Dilution Profiling and a Radial Header

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70% Reduction in CD dry weight variation

Benefits of a Flat Sheet

- **MORE PRODUCTION** in a shorter time because you don’t have any more heavy zones creating wet streaks which force you slow down.
- **BETTER CONVERTING** on your customers’ machinery
- **LESS STEAM ENERGY COSTS** because you don’t have heavy zones to dry
Dilution Engineering Checklist

- Dilution Water Source
- Dilution Water Volume/Pressure
- Dilution Zone Spacing
- Size/Type of Dilution Valves
- Size of Water Supply Header

Operating Styles

A. MANUAL SLICE ACTUATORS
   - ZERO THE SLICE
   - ONLY USE DILUTION VALVES FOR PROFILING

B. AUTO SLICE ACTUATORS:
   - LEVEL THE PROFILE WITH DILUTION AT STARTUP ......
   - SWITCH ON AUTOMATIC SLICE

C. KEEP VALVES OPEN TO AVOID PLUGGING

Here are some more experiments showing how pressure works on a liquid.

1. Punch pinholes in the middle of a balloon.
2. Fill the balloon with water—all jets are the same length.

1. Punch five holes near the bottom of a tall juice can. Make them about one-half to three-quarters of an inch apart.
2. Fill the can with water. Notice that all the streams are the same length.

This proves something about water pressure. At any point, it is in proportion to that point's depth below the water's surface.
Automatic Dilution Profiling
Swing Away Cover

MINI TOWER
DR. HOGENKAMP DILUTION HEADBOX UPGRADE
FOR MULTIPLEX HEADBOX
DILUTION WATER TANK

DR. HOGENKAMP
DIFFUSER CHANNEL
MULTIPLEX HEADBOX.

DR. HOGENKAMP
DRAIN
SIDE ENTRY

ESCHER WYSS
P/E TANK

ESCHER WYSS
P/E TANK
CONVERTED TO A
RADIAL TOWER
**Radial Header : Stock Tank**

- Header is always balanced
- Hoses must be of equal length and layout
- Space hoses 2” apart
- Hydrodynamically Designed Diffuser Block is needed for side - entry inlet

**Radial Header - Attenuator Tank**

- Not needed on Air-Pad rectifier roll boxes
- Not needed on Voith W and some Valmet
- Is needed on Beloit boxes (unless original attenuator will be kept)
- Escher Wyss: reuse existing PE concept
Play Headbox Rebuild Movie!