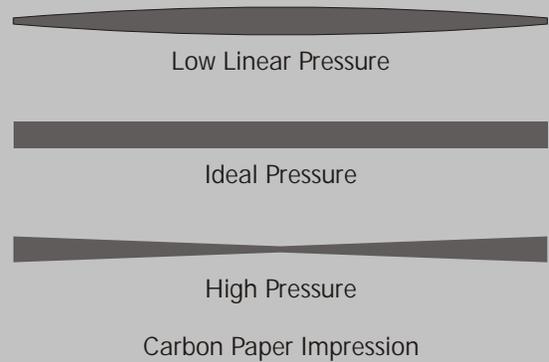
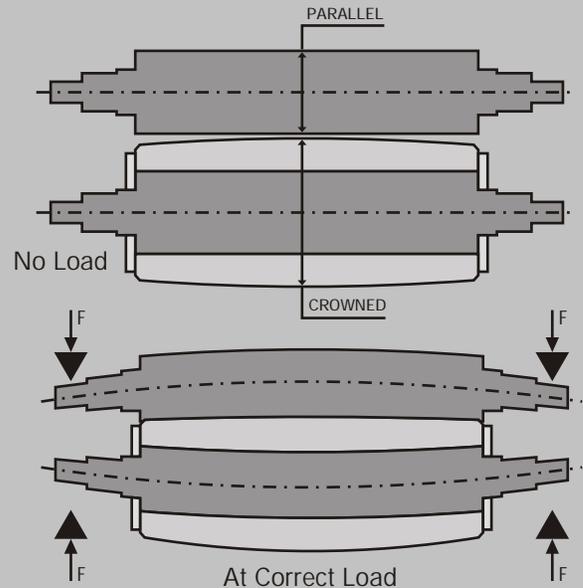


What & How of CAMBERING

Any Shaft or Roller which is supported at its ends when loaded (but not backed) will bend within its elastic limits resulting in unequal load distribution across the web as shown.

To compensate for such bending of rolls working on loads a parabolic curve is machined on the surface so that it matches with uniform nipline with the other roll transferring equal pressure across the web.

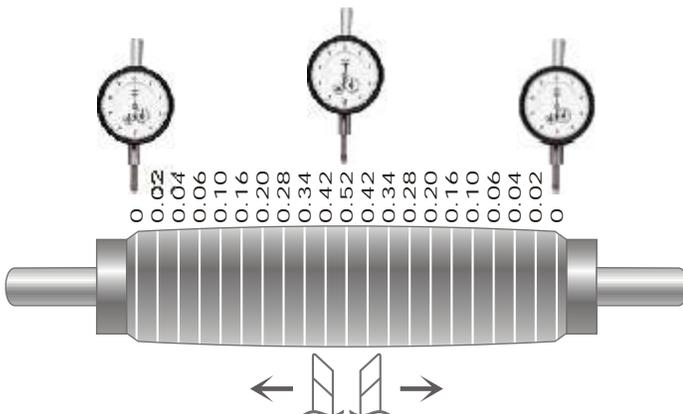
There are no set rules by which this bending/curve can be expected as with varying loads, speeds & conditions the curve profile also changes & moreover same roller may use different shafts & different hardness & some amount of estimation is always required & generally holds good once values get established.



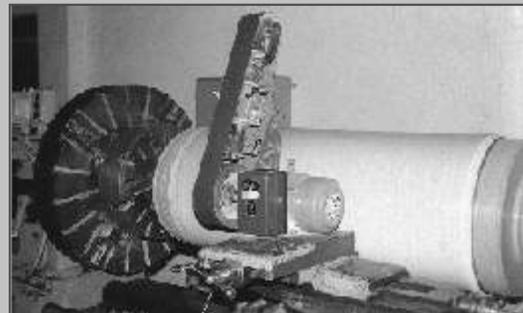
CAMBERING Conventionally

We have here under tried to share our experience by providing you practical method of roll cambering.

Divide the roll surface in 22 equal parts & load the dial by camber amount at the center of the roll. Gradually machine down the surface on both sides as shown by hand feeding & hand polishing using emery belts or belt grinder (also available from TECHAIDS) followed by running in on the machine for a few hours before resuming production.



Camber procedure for 1mm starting from Roll center.
Above values go Up / Down proportionately.



Lathe Mounted Belt Grinder

Newly Filled Cotton / Paper Bowl Conditioning Procedure

NEW COTTON / PAPER ROLL IS LIKE A PREMATURE NEW BORN BABY OR FRESHLY LAID CONCRETE SO PLEASE DO NOT IGNORE CONDITIONING PROCEDURE TO MAXIMIZE ROLL LIFE & PERFORMANCE.

- 1) All new bowls should be freely rotated at 30-50% of its final operating load & speed for 2-3 hours for settling of loose fibers.
- 2) Gradually raise the operating speed to about 80% & observe the rolls for any noise or squeaking & also any hot spot while constantly applying water on the rolls surface by a sponge mixed with Techzyme or a light detergent.
- 3) Light production can start after 2 shifts & can gradually be achieved full speed over 10-12 shifts.
- 4) Once roll surface gets dry and attains gloss it must then continue for a few days at top position only and gradually brought down to maximum load positions at the bottom of the stack.
- 5) In normal calendering it is always better to order new bowls just 3-4" more than maximum width of fabric as the exposed edges can burn much faster due to heat accumulation or else relieve the surface which will not be used.
- 6) Compressed air or blower / fan should be applied on exposed cotton roll surface to avoid burning.
- 7) To achieve proper effects of calendering the dead surface of bowl due to various dirt or chemicals accumulations must be scrapped with plastic scrapper, light detergent or by belt grinding for achieving best quality and good bowl life.
- 8) It is also very important to maintain roll-turning direction constant & direction once chosen must be maintained through the useful life of the roll & for long storage always condition newly filled rolls before shut down to stabilize the rolls.



TECHZYME
BOWL CONDITIONER



NON CONTACT LAZER GUN



ROLLER SIDE COOLING ASSEMBLY

Maintenance & Operations of LICOSYS

LIFE & PERFORMANCE OF LICOSYS IS DIRECTLY DEPENDANT ON FREQUENT CLEANING & GRINDING SIMILAR TO CLEANING / REPLACING AIR FILTERS IN A CAR ENGINE FOR EXCELLENT PERFORMANCE & ENGINE LIFE

- 1) LICOSYS Rolls operate on capillary cum vacuum principle & need sufficient saturation on the surface to get operational efficiency, which normally is achieved in 2-3 hours.
- 2) LICOSYS Rolls give optimum squeezing efficiency in a load range of 10-75 kgs/cms. Incase of Textile & Cold Rolling Mills & up to 150 kgs/cms for VSF production.
- 3) For best results fabric should remain in LICOSYS Roll contact with min. 25% overlap.
- 4) LICOSYS must be used with Ebonite, Metal or with another LICOSYS for bests squeezing results.
- 5) LICOSYS Rolls need proper care to avoid clogging of the porosity & even incase where LICOSYS are used for water extraction cleaning with hot water once every shift will enhance the roll life & performance.
- 6) Where rolls are not properly maintained the efficiency of LICOSYS keeps deteriorating & slowly the rolls get choked & will behave like an ordinary rubber/hard roll.
- 7) In dyeing / finishing ranges using Polysol & Softners they need about 10 mins. of boiling hot water wash including using diluted acetic acid + thinner & hard steel brushing of choked roller surface with each colour change & also once every shift.
- 8) LICOSYS should not be allowed to dry when expected to remain unused for long and should be hot water washed & packed suitably before storage with a anti fungal treatment to save it from mildew etc (similar to wet bread green fungus).
- 9) Shaving off the top skin of the roller surface on a lathe by 3-4 mm every few months will help in best efficiency & a much longer roll life as coating thickness is 3-4 times as compared to ordinary rubber rolls.
- 10) As LICOSYS rolls run unsupported always order machines machines with higher bearing diameter & ensure that the bearing touches the extreme end to avoid shaft breakage from the bearing shoulder.

TECHAIDS **NXG**
An ISO 9000 Company

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