

# DOX Brush Finishing

The reached progresses in manufacturing and improvement of paper and board during the last years involved further developments for a better surface, especially the printability.

Since many years DOX Brush Finishing Systems have been supplied with success into the paper industry to reach a higher surface quality of coated papers. The finishing process can be ensued single or double sided on-line with the board machine, in combination with a calender or as separate systems.



## Advanced Brush Finishing System

### DOX Brush Finishing Description

We built systems for the improvement of printing properties of coated board and papers as well as art board. These materials are not only used for packing purposes, but especially also for publicity print. Therefore the surface quality is especially important for the printing process.

The finishing process is based on a combination of flexible pressure of the filling material of the brush rollers to the web and a relative high speed between brush rollers and board web.

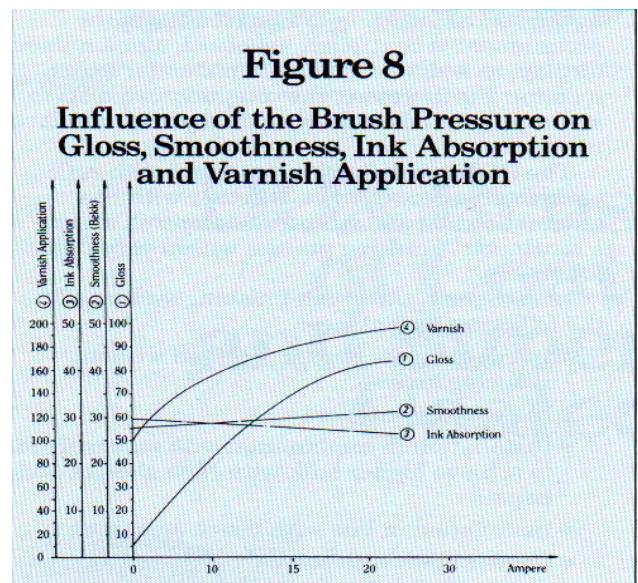
The use of the DOX Brush Finishing System has the especially advantage, that smoothness and gloss values will be increased without specific loss in volume, i. e. stiffness.

The DOX Brush Finishing, in the today's process controlled construction, is a new dimension in improving certain surface properties on coated board.

The brush finishing process is an economical technique in improving certain surface properties and is mostly used on-line with board machines after calenders and gloss calenders.

### Benefits to the Paper Industry

- increased gloss and smoothness without reducing bulk and stiffness
- 30 - 50 % increase of gloss, i.e. 40 - 45 % gloss 48° Hunter
- increased print gloss
- long lifetime of a brush (max. 5000 - 7000 h)



- installation in combination with calenders to achieve higher bulk with high gloss of coated papers
- installation on-line with board machines
- combination with soft calenders to increase gloss and smoothness with low pressure
- systems with unwind and rewind stations and other surface improving devices
- integrated control of the brush finishing process to guarantee constant gloss and smoothness

## Technical Features

- area brush finishing instead of line brushing (no marks and streaks)
- high gloss and smoothness without reducing bulk
- A.C. variable frequency drives of brush rollers for surface improving according coating formulation
- each brush roller rotates in either direction
- incorporated rope system according board machine
- integrated control system with PLC (Alan Bradley or Siemens S7) could connected to process control system

## Options

- single or double side finishing
- number of brushes
- different filaments (horse hair or tampico) of brush rollers according coating
- spare brush roller in the brush unit
- DOX aero surface cleaning system to keep the surface free of any dust

## Technical Specifications

- heavy construction; vibrationfree
- brush roller pivotings with special bearing housings for easy brush roller changing
- automatical hoisting of brush rollers
- special DOX brush rollers and guide rollers
- suction equipment with sound absorption
- driving arrangement for brush rollers
- electric control system (PLC)

## DOX Family

DOX Brush Finishing  
DOX Air Web Cleaning  
DOX Knife Dust Removal  
DOX Spray Tech<sup>Fine</sup>  
DOX Brush Spray Unit  
DOX Brush Roll<sup>HighTech</sup>

## Advanced Brush Finishing System Layout

