

Emulsion Dampening

In general, the film dampening systems presently available on the market can be divide into two broad categories, namely three- roller *emulsion* dampening systems, and four –roller *independent* dampening systems.

Three-roller emulsion type dampening systems comprise in succession: a pan roller covered with an elastomer and partially immersed in solution; a chromium-plated metering roller; and an elastomer-covered dampening form roller. In this system, the thickening of the dampening film on the metering roller is determined by the dampening solution passing between the elastomer-covered roller and the chromium-plated metering roller which are pressed against each other. A variable speed electric motor drives the pan roller and the chromium-plated which is couple thereto by gearing. A dampening form roller is in contact with the plate and with the vibrator ink drum rotating at plate cylinder circumferential speed. *The dampening form roller of the emulsion dampening system is thus the only one of the three rollers of the system to be driven at circumferential speed, with the slipping contact being established on the surface of the form roller making contact with the metering roller.*