

STEAM STEP DOWN CONTROL

With moisture control via steam pressure also the steam step down control should be implemented.

This control becomes necessary every time a web break occurs and prevent the dryer part (BRN/Burner Section-at paperoller, ADS/After Dryer Section or PDS/PreDryer Section) from Overheating.

This Overheating results in hard work to be carried out in order to remove broken paper pieces from the dryer cylinders and also extremely reduces the moisture content of the paper after the web get restored again a situation which can result in new breaks again and so on..

To overcome these problems and to assure the production quality META implements the SSDC - Steam Step Down Control.

According to this control once a webbreak signal is as secured detected (many times large holes on the web generate pseudo break signals), the moisture control will be suspended and the steam pressure (p_1 at time of webbreak) is steadily decreased till a predefined lower pressure value is achieved (pk_1) and will keep that pressure constant throughout the break period.

After the web is restored again the pressure will be steadily increased till a higher value (pk_2 normally at about 20-25% higher) than the pressure just before the web break occurred (p_1) in order to restore in minimum time the temperature conditions as they existed before the break. After reaching this over-pressure the control automatically decreases the pressure in an exponential modus (very rapid) till the steam pressure enters the 10-15% band (pk_3) of the pressure p_1 (pressure before break).

At this point the moisture control will be automatically switched on.

All parameters affecting the SSDC-control can be individually adjusted on site at customers machine.

The different stages of the Steam Step Down Control is depicted in Fig. below.

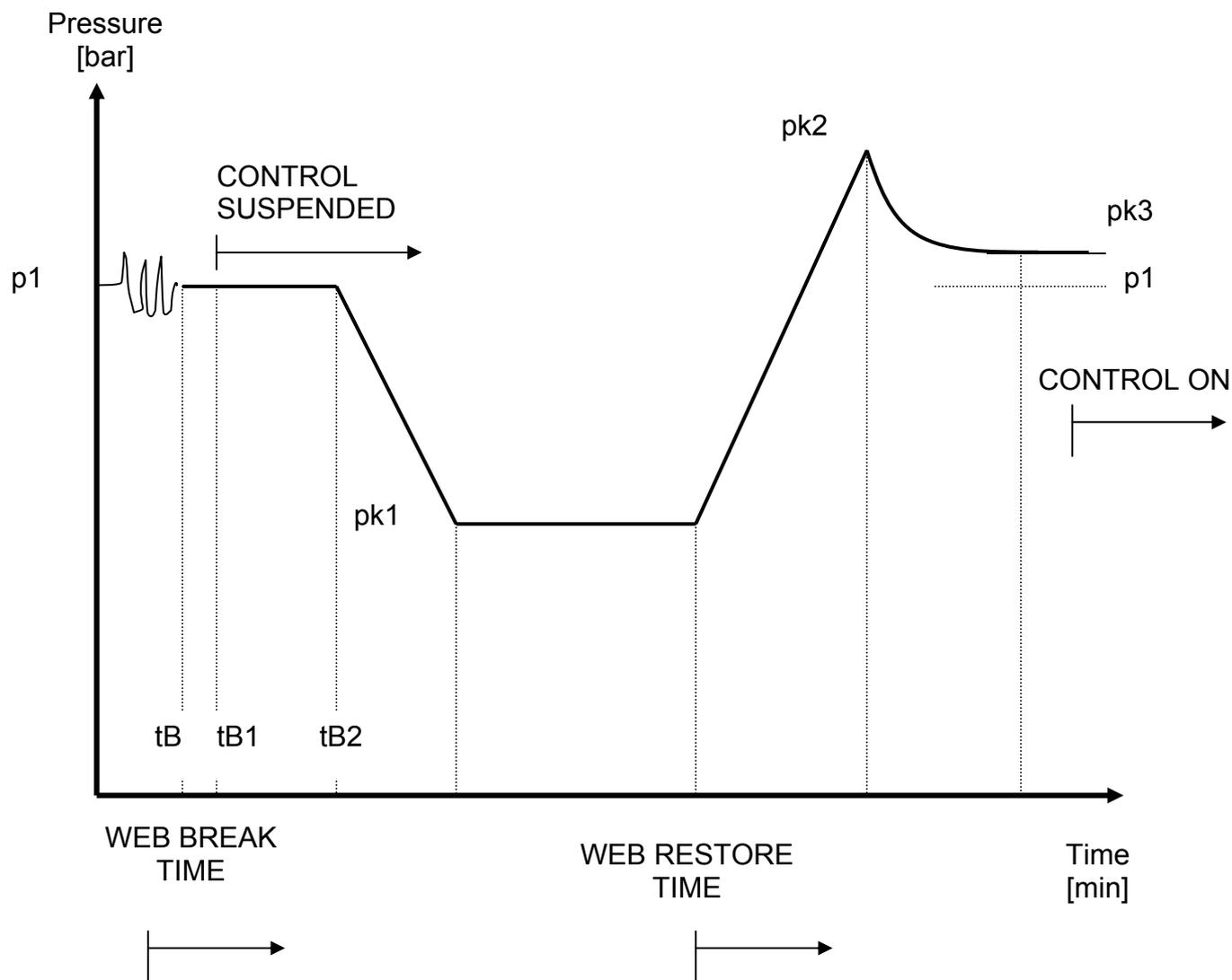


FIG.: Steam Step Down Control