

ABC-D™

Digital Advanced Bubble Control

The ABC-D system is designed to control the production of the lay-flat in *Blown Film Extrusion*. It has fully automatic control over the IBC (Internal Bubble Cooling) blowers and the balancing valve along with the calibrator cage size thus automatically achieving the desired lay-flat width.

The ABC-D system allows continuous changes of any product parameter and/or line operation during production while maintaining superior accuracy of the bubble size.

The ABC-D system controls the following:

- Bubble size and lay-flat width
- IBC blowers
- Calibrator cage motor
- Balancing valve
- Bubble gap

ABC Control Operation Mode <input checked="" type="button" value="Manual"/> Auto Continue		IBC Blowers Blowers Ratio: 2.000 Correction Range: 1.000 Control Ratio: 1.000 Actual Ratio: 1.000 Intake Speed: 25.8% Exhaust Speed: 38.4%		Balancing Valve Control Value: 5.000 Valve Position Open: 44.9% <input checked="" type="button" value="Close"/>	
Control Stage <input checked="" type="button" value="I"/> II III		Sensors		Balancing Valve Cage Factor: 750z Set Radius: 382mm Actual Radius: 381mm TO CR TC FL WM	
Radius 1	382.0mm	General Data Tower Height: 11.00m Coll. Frame Height: 3.00m Feedback Distance: 40.00m Width Error Alarm: 2mm Line Speed: 13.5M/min		Web Width Gap Set: 1200mm 1mm Actual: 1201mm 1mm Calibrate: 0mm	
Radius 2	384.0mm				
Radius 3	381.0mm				
Reference 4	250.0mm				
Cage 5	82.0mm				
Cage 6	81.0mm				
Gap 7	81.0mm				
Gap 8	80.0mm				

Features:

- Digital reading and control for superior accuracy and zero calibration.
- Eight digital ultrasonic sensors for measuring the bubble size and cage position.
- Easy installation, wiring and tuning.
- Unique electric circuit for fast and accurate digital measurements.
- Air balancing valve operated by servo.
- Calibrator cage position control (cage diameter).
- Bubble/Cage pressure control (bubble to cage gap).
- Atmospheric compensation to maintain accurate and uniform lay-flat width over time.
- Modeling control technique – ultra fast and stable width changes.
- Automatic width calibration by applying communication with the web-guide system (optional).
- Standard industrial PLC control with color touch-screen HMI.

