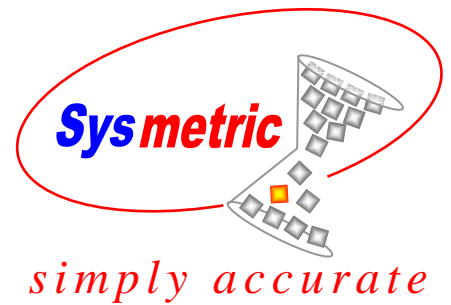


Line Control



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 TUNING		
ABC Control		
Operation Mode		
Manual	Auto	Continue
Control Stage		
I	II	III
Sensors		
Radius 1	382.1mm	
Radius 2	384.2mm	
Radius 3	381.9mm	
Reference 4	250.1mm	
Cage 5	81.5mm	
Cage 6	80.9mm	
Gap 7	82.1mm	
Gap 8	80.3mm	
IBC Blowers		
Intake Blower	1.100M ³ /s	
Blowers Ratio	1.200	
Correction Range	0.200	
Control Ratio	1.213	
Actual Ratio	1.214	
Intake Speed	45.2%	
Exhaust Speed	54.8%	
General Data		
Tower Height	10.50M	
Coll. Frame Height	2.50M	
Feedback Distance	40.00M	
Width Error Alarm	2mm	
Line Speed	13.5M/min	
Balancing Valve		
Control Value	5.0%	
Valve Position		
Open	52.3%	Close
Cage Control		
Cage Factor	750z	
Set Radius	382mm	
Actual Radius	381mm	
Web		
	Width	Gap
Set	1200mm	-1mm
Actual	1201mm	-1mm
Calibrate	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.

