

I-Flex™ AutoGauge Air Ring



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Brampton Engineering I-Flex family of gauge control systems provides flat film with its superior technology. Improve the quality of blown film by using a system that ensures minimal gauge variation and flat film. In addition, reduced gauge variation can result in substantial resin savings. For these reasons Brampton Engineering recommends the I-Flex AutoGauge Air Ring for almost all blown film installations.

Use the I-Flex AutoGauge Air Ring to improve overall film gauge and film flatness on both monolayer and multilayer blown film dies (with or without IBC). Use this air ring with virtually any low stalk blown film line configuration. Installation is simple, either as part of a new blown film line or as a retrofit to an existing line.

Method of Operation

The I-Flex AutoGauge Air Ring uses a non-contact capacitive sensor *or* beta gauge technology to continuously measure the film gauge without marking the film. The capacitive head circles the bubble via an oscillating ring apparatus whereas the beta gauge scans the layflat tube and computes the thickness profile of each sheet. The film thickness signal is used to produce a gauge plot that is precisely registered to the air ring actuator position. The beta gauge system has the added advantage of being completely insensitive to temperature changes in the film.

Using this gauge plot, a rapid response algorithm determines what gauge adjustment action is required. The desired correction is achieved by varying the cooling rate at each segment of the deflector vane.

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Quality: Brampton Engineering Inc. World Headquarters continues to meet the ISO 9001:2000 standard which covers design, manufacture, assembly, installation and service of our products.

Performance

Installation of I-Flex AutoGauge Air Ring typically reduces film gauge variation to at least half its original value, although much greater improvement has been observed. The extent of gauge improvement depends on original gauge variation, film thickness and structure, and other factors. Response time of the system is extremely fast, and depends primarily on the speed of data accumulation by the gauge sensing device.

Additionally, the I-Flex AutoGauge system provides a robust user-interface run on a stand-alone computer. It is included as part of BE's *ITALYCS* software. The I-Flex AutoGauge Air Ring software provides auto-alarm and records out-of-spec product and includes effective graphical statistical capabilities.

AutoGauge Model	Air Ring Lip Ø		No. Control Zones	Cover outside Ø	
	mm	in		mm	in
AG08E-06/32	75-150	3-6	20-32	1240	48.75
AG12E-10/48	180-250	7-10	32-48	1365	53.75
AG18E-14/64	300-350	12-14	64	1550	61.0
AG24E-24/96	400-600	16-24	64-96	1845	72.5
AG30E-30/112	660-760	26-30	112	1995	78.5
AG40E-38/144	800-960	32-38	112-144	2295	90.25

Specifications subject to change.

