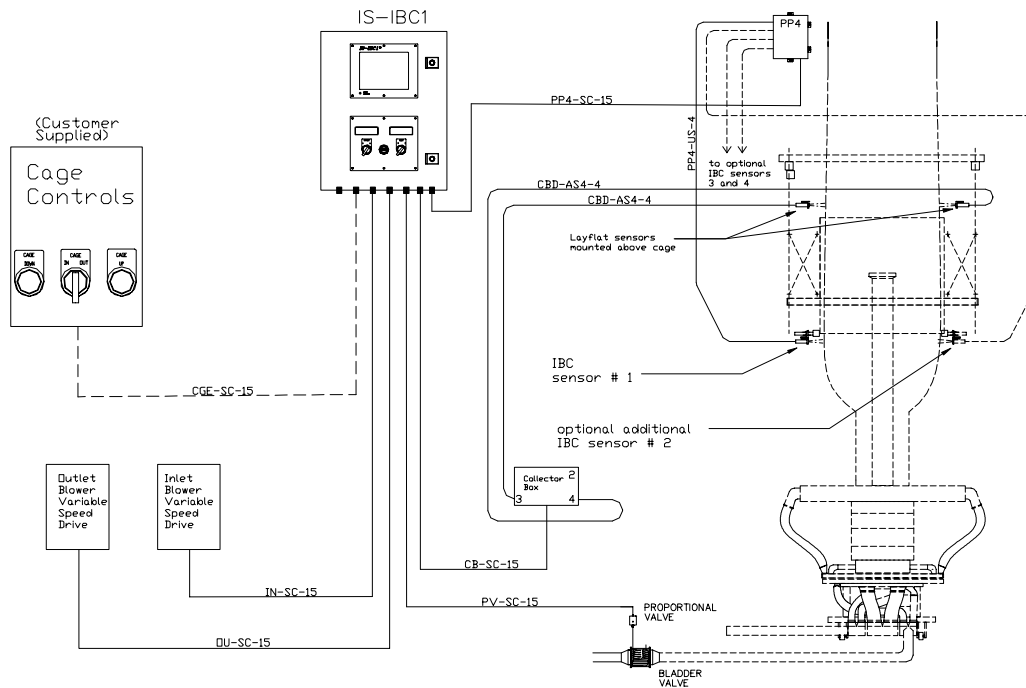


Specification Sheet

DRJ Part Number *ISIBC1STEBFC*

Drawing Set: *IS-99-19*



Application

This configuration is best suited for blown film applications that need to make multiple size changes per shift or have low manpower availability to operate the line. The many automated features make it ideal for situations where the customer has little or no IBC experience. Automatic layflat and cage control allow the operator to set the size and tend to other issues of operating the line. The color touch screen provides an easy to use and highly visible interface to quickly establish production settings. There are also helpful trend and maintenance screens to help determine if the line is running optimally. Online help and procedure tutors are also provided for the operators and maintenance personnel. All DRJ IBC systems come with both a comprehensive manual and a color operator's manual.

Select This Configuration When:

The customer is looking for an upgrade from an existing DRJ or competitive system and a stand-alone panel for the operator interface is desirable. Also, this configuration works well if the new IBC system will be part of a die upgrade package because it keeps installations costs down. The main system components and operator controls are installed in NEMA panel that is easily mounted to existing support structure. All original wiring is supplied with quick connect military style connectors. Main panel dimensions: Height-19.75" (500mm), Width-15.75 (400mm), and Depth-8.25" (210mm)

Assumptions

Sizing cage controls to be supplied by others. The sizing cage must have electrically adjusted diameter control. The movement of the cage must be smooth throughout the size range. The customer may need to provide a cage movement speed control for proper operation. Electrically adjusted height control is

recommended but not required. The system comes with an interface to allow the existing cage controls to continue to function even when the system is in automatic mode.

Variable speed drives may either be purchased with the system, supplied by another vendor, or be previously installed units from an existing IBC system. If drives are supplied by DRJ, the drives will be pre-programmed with all settings for proper IBC operation. If the drives are to be supplied by another vendor, check first with DRJ to ensure compatibility of the drive with the IBC system. DRJ will supply a wiring and programming guides for compatible drives. If previously used drives and blowers are to be integrated with this system, DRJ must check the variable speed drives for proper power ratings and the blowers for proper airflow to ensure optimum performance. Use the DRJ configuration form to identify any used equipment that will be used with this system.

Electrical

System comes standard with Allen Bradley "Euro" style switches. Optional Klockner Moeller switches are also available. Power requirements: 100-250 VAC, 50-60 Hz, 4 amps maximum. Input terminal block is fused with illuminated blown fuse indicator. A power switch is provided on the bottom of the main panel. All sub-systems and control voltages are powered by 24 volts DC and are individually fused.

General Installation Requirements

Main controller and power supply should be mounted in close proximity of the die. The IBC sensors must move linearly with the change in diameter of the cage. The IBC sensors must also move vertically as the cage moves. Layflat sensors are mounted on the top portion of the sizing cage in fixed positions. However, the layflat sensors must maintain a constant vertical distance above the IBC sensors. The flow control valve must be mounted within ten feet of the die for optimum performance. Color touch screen must be mounted at standard eye level or tilted upward when mounted below standard eye level.

Standard Features

Item	Description
High Performance IBC Control	Patented IBC technology provides the best possible control of the bubble at the highest air exchange rate. State of the art ultrasonic sensor technology provides optimum performance even in high bubble flutter conditions. Patented "bladder valve" technology allows very good control of airflow over a wide range of operating conditions. Layflat control capability is +/- 1/8 inch (+/- 3mm). Actual performance depends on alignment of equipment, stability of melt pressure, tension control and melt strength.
Internal Diagnostic Modem Interface	Allows DRJ to log into any IBC system and monitor and tune the operation of the system. Simply connect a standard analog telephone line to the system. No other devices required.
One-touch Layflat and On-the-Fly Sizing	The system allows the operator to enter the desired size and the system manages sizing cage automatically to achieve the desired size. This feature works both from a startup mode and while the line is running. Full integration with the IBC and blower balance features provides a system that can manage temporary bubble instability problems. This system does not control cage height.
One-touch Air Exchange Adjustments	The automatic blower balance feature completely eliminates the need for the operator to adjust both blowers to achieve the proper balance between the inlet and outlet blowers. By adjusting a single control, the operator can quickly set the air exchange rate a new setting. The system also automatically reviews the blower balance and readjusts without disturbing the process.
Six Inch Color Touch Screen	The touch screen provides standard operator controls and trend graphs of layflat and process information. The color touch screen also comes with context sensitive help messages and on-line tutors for seldom-used functions. All maintenance screens are password protected. The customer can change

Item	Description
	the password. Color touch screen also has a contrast adjustment to allow for changes in ambient lighting.
Operator Calibrated Layflat	This feature allows the operator to measure the web at the winding station and enter the layflat into the system. The system uses this information to calibrate the layflat control system and to account for draw down in the web.
Analog Output Interface (0-10V)	This feature provides a fully configurable analog output with a maximum range of 0-10 volts that is proportional to the indicated layflat width. This output is often used to provide layflat data to gravimetric systems, extrusion control systems, and data collection systems. This feature is configured using the color touch screen to assign a minimum and maximum signal level to the minimum and maximum layflat values. Analog output is isolated and fused.

Optional Features

Item	Description
Multiple Sensors	Provides 2, 3 or 4 IBC sensors to monitor bubble diameter. Useful in rotating die applications or when very large bubble diameter precludes the ability to maintain a round bubble. For example, if the bubble were too large to support it with a cage, then four IBC sensors would be the optimum configuration. Note: Gammatec CCN cages support a maximum of two IBC sensors.
Bubble Break Detector	Provides a relay output (4 contacts – normally open and normally closed) when bubble break is detected. The unit uses the layflat sensors to detect a bubble break. Both sensors must confirm the bubble break before the detector is activated. Timing circuits prevent false detections during startup. This feature arms itself automatically so the operator does not have to remember to arm it.
External Layflat Alarm	Provides a relay output (4 contacts – normally open and normally closed) when a customer specified layflat size deviation occurs. Operators can specify both undersize and oversize limits. A visual alarm indication is provided on the color touch screen even if this option is not selected. Alarm will remain active until the operator acknowledges the alarm.
Foreign Language Legends and Manual	The IBC system can be provided with manuals in several languages. Currently supported manual languages include French and Italian. To specify change the last letter of the part number to the first letter of the language. English manual is always provided. Example: ISIBC1STIKFC for Italian manual. Note: touch screen is only available in English and German.
Digital Communication Interface	Allows the IBC system to communicate with supervisory or shop floor data collection devices using the industry standard MODBUS protocol. All data that is visible on the color touch screen is available through the protocol. This option pre-empts the diagnostic modem.
Klockner Moeller Electrical Switches	Replaces the Allen Bradley switches with the Euro style switches from Klockner Moeller. Change the part number to ISIBC1STEKFC.