SisTrade®
Software Consulting, S.A.

PLASTIC EXTRUSION INDUSTRY

Software for Plastic Extrusion Industry

The extrusion is undoubtedly a complex process that requires advanced technology in terms of machinery and naturally, supported by an information system with data acquisition makes production more efficient and of higher quality.
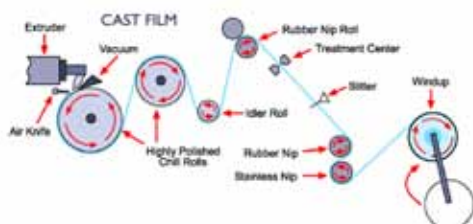
Since we consider that the extrusion industry has greater importance when associated with the processing of plastic, we directed our efforts towards the development of tools and technological solutions that would add value in this sector. There are various methods of extrusion, however, we concentrate on blown film, cast processes.

The extrusion process consists in material pressure through barrel, in order to give the material the same cross-section as the one of the barrel.

Through the technological solution Sistrade® verticalised for this production process, it is possible to get the exact consumption of the raw materials, in particular, to know the consumption in kilos of PP, PE, colorants, accelerators, anti-UV, etc., for a given job order or within a given period of time. On the other hand, it is possible to calculate in real time the quantities in metres and kilos of produced film. These data can be collected directly by the system with no human intervention given that SISTRADE solution includes sensing equipment, in order to turn the acquisition of signals as automatic as possible.
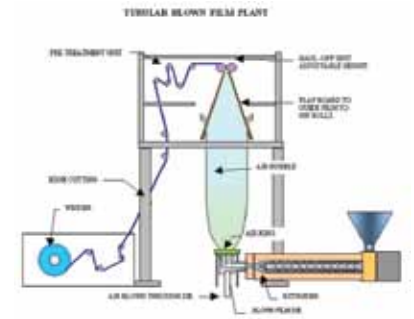
MAIN FEATURES

:: Production monitoring system (speed in kg/hour; operating state; downtime; alerts; etc).

:: Real-time monitoring of objectives versus accomplishments;

:: Automatic calculation system of metres and kilos of produced film reels;

:: Real-time consumption calculation per extruder, JO, lot;

:: Productivity rates per shift, extruder;

:: Efficiency, quality and availability ratio and OEE (Overall Equipment Effectiveness);

:: Sending alerts to unexpected downtime;

:: Identifying the film reels produced with barcode or RFID tag;

:: View of the weekly plan at the collection points installed on the factory floor;

:: Quality control tests of films, either visual or measurable, particularly, weights, micron rating, diameter, width, stained film, corrugated film, holes in the bubble, etc;

ERP | MIS
100% WEB
SQL Server

In addition, the system has features related to product formulation, process quality control, time control, production alerts, machine speeds, connection to scales, integration with measurers, integration with the electronic system of the machine, and other.

It is therefore a management and industrial control system, called MES (Manufacturing Execution System) or SFC (Shop Floor Control). This system can be integrated with ERP Sistrade® or any other enterprise management system that the company uses.

MORE MAIN FEATURES

:: Collection of the manufacturing data (PCs with barcode reader or touch screen placed in strategic locations of the factory in order to record the beginning and the end of a job order, to assign or unassign the employees, to classify the reasons of the downtime, to identify operation (setup or production), and other);
:: Identification of consumed lot per job order;
:: Palletisation (using PDT a pallet is created and identified with a barcode);
:: Assisted management in order to optimize of the delivery process
(with WiFi industrial portable terminal, warehouse worker prepares the delivery,
reads the bar codes of packages and automatically issues delivery notes/invoices);
:: Consultations of statistical analysis by job order;
:: Consultations of recorded downtime;
:: Quality consultations per lot of raw material, extruder, reel;
:: Analytical and graphical reports with the records of the extruders.

Modules of ERP | MIS Sistrade® Print system:

:: Commercial Management & Estimating
:: CRM
:: Financial Management
:: Human Resources Management
:: Fixed Assets Management
:: Stocks & Purchases Managemet
:: Production Management
:: Scheduling - Production Planning
:: SCADA & Shop Floor Control
:: Mobile Picking
:: E-business
:: JDF - Job Definition Format
:: Balanced ScoreCards
:: Equipment Maintenance
:: Quality Control
:: Mobile Business

Sistrade® Solutions for industry of:

:: Commercial Print
:: Flexible Packaging
:: Boxes
:: Labels
:: Digital
:: Envelopes
:: Forms
:: Editorial/Publisher
:: Plastic Extrusion
:: Metalworking
:: Textile
:: Food

	A	B	C
O.E.E. (Overall Equipment Effectiveness)	93,2%	95,5%	95,9%
Availability Ratio	100,0%	100,0%	100,0%
Efficiency Ratio	93,2%	95,5%	95,9%
Quality Ratio	100,0%	100,0%	100,0%