

## SUPERVISION

# DOTEXA MANAGER

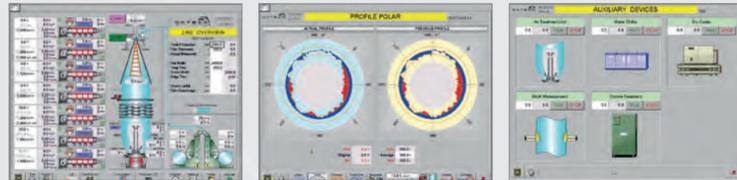
EXTRUSION LINE  
INTEGRATED  
MANAGEMENT SYSTEM

Simple and easy management of the extrusion line:

- Manage system operation from a single station.
- Easily and quickly set the operating parameters with precision.
- Recall previously stored settings, ensuring fast line start-up and changeover.
- Print production and consumption reports (optional).
- Monitor the process in real time, with immediate and detailed warnings of any faults or malfunction.
- Supplies process information needed to validate the manufacturing process as required by quality assurance.
- Network connection to factory supervisor.

### COMPLETE CONTROL OF PROCESS FUNCTIONS

- An advanced system designed for maximum operator convenience in managing the extrusion process, thanks to the touch screen, DOTEXA supplies an intuitive user interface and makes operating an extrusion line easier than ever.
- Provides complete monitoring and control of the extrusion process and functions: resin loading, materials blending, gravimetric feeding, extrusion pressure and temperature, cooling and calibration, thickness profiling, extruder, takeoff and auxiliary equipment speed (on request).



# DOTEXA VIEWER

REMOTE  
MONITORING SYSTEM

A software package developed in MS Windows that provides a consistent process control and data management of the production plant. From a single control point, DOTEXA VIEWER collects all the information from the connected gravimetric blenders.

- Management of databases for process parameter storage.
  - Recipe storing, upgrade and on-the-fly download.
- Raw material manager: stored with numerical code and description.
- Blending recipes manager: to create or modify and store blending recipes with numerical code and description.
- Melting profiles manager: to create, modify and store melting profiles with numerical code and description.
- Extrusion recipe manager: to create or modify and store extrusion recipes with numerical code and description.
- Product manager: to create or modify coded end products. Each product code is assigned to a blending, extrusion and melting temperature recipe.
- Order manager: to create or modify a list of job orders containing useful data for identifying and tracking each order. Each order is assigned a product code.
- Recording of raw material quantity used in the process. Totalling by ingredient.
- Recording of alarm events.
- Statistical process analysis (SPC) for blending and extrusion data.
- Data export for further analysis (Lotus, Excel).

### REPORTING

Inventory report viewing and printing: sorting by product code, job order, recipe and date.  
Quality report viewing and printing: sorting by job order.



WWW.DOTECO.COM

FOR THE COMPLETE LIST OF AGENTS AND SERVICE CENTRES

## THE COMPANY

Doteco has been operating successfully since 1994, specializing in the processing of plastics, specifically the extrusion of plastic films and synthetic fibers.

## MISSION

**PARTNERSHIP WITH STRATEGIC COMPANIES**  
Today, DOTECA works in partnership with strategic companies throughout the world and is at the forefront in manufacturing gravimetric and volumetric blenders, in process control and in factory supervision.

**CONTINUOUS TECHNOLOGICAL RESEARCH**  
Continuous technological research has enabled us to understand and predict advances in manufacturing processes and consequently to develop increasingly precise and effective automated procedures.

**THE BEST INVESTMENT**  
Our main competitive tools lie in a wide range of products, a great value which will increase your return on investment and a highly efficient after-sales technical service accessible to customers in any part of the world.

**DOTECO**  
ART OF CONTROL

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# DOTECO

ADVANCED SOLUTIONS FOR BLENDING  
CONTROL AND MANAGEMENT  
OF EXTRUSION PROCESSES

**DOTECO**  
ART OF CONTROL

## YIELD CONTROL

# EXTRUMATE

GRAVIMETRIC HOPPER FOR YIELD CONTROL

Suitable for mono and multi-layer extrusion, blown film, cast film and sheet lines, and for the production of tubing, profiles and cables.

Controls the weight per meter of end product reaching and maintaining tighter tolerances, regardless of changes in extruder throughput commonly caused by:

- progressive clogging of the filter
- variations in melt temperature
- variations in polymer viscosity or bulk density
- plasticizing screw wear

### BENEFITS

- Speed up start-up and production changes.
- Optimizes consumption of raw materials and cuts down on waste.
- Prevents out-of-tolerance production.
- Ensures constant quality and repeatability.
- Easy installation, designed to be placed directly on the extruder's mouth, throughputs up to 2000 Kg/h



## GRAVIMETRIC BATCH BLENDER

# GRADO ADROIT

GRAVIMETRIC GAIN-IN-WEIGHT BLENDER WITH INTEGRATED GRAVIMETRIC EXTRUSION CONTROL

A new concept of batch blending, with an innovative and original mix of design and technology. GRADO ADROIT is the highest expression of know-how, creative thinking and passion from a leading manufacturer of batch blenders for the plastic extrusion industry with over two decades of experience and more than 10.000 blenders produced. There is nothing comparable in terms of blending accuracy, higher throughput, easy maintenance and cleaning, modularity, reliability.

### BENEFITS

- 2,3,4,5 o 6 components with DIY modularity to add more ingredients (even after the installation)
- Up to 1300 Kg/h independently by the number of ingredients, minimum footprint
- Vibration dumpers on the weight bin
- Improved gravimetric efficiency
- Innovative techno-polymer flaps. Double lip polymer seals
- Easier cleaning and maintenance
- Quick removable slide-gate block for deep cleaning
- Suitable to be installed in-line, directly on the extruder throat or either on a mezzanine, and also off-line, on a take-off stand to feed one or more extruders.



## CONTINUOUS BLENDER FOR STARVE FEED EXTRUDERS

# GRAVIFEED

GRAVIMETRIC LOSS-IN-WEIGHT CONTINUOUS BLENDER FOR STARVE FEED EXTRUDERS

Continuous gravimetric blender, designed to blend pellets, regrind and flakes in the extrusion process where key-factors are the dosing accuracy and the capability to follow and compensate the variations of unstable processes.

### BENEFITS

- The system utilizes vibratory trays, suitable for dosing granules, regrind and bottle flakes with variable density and flowability.
- Efficiency of the measurement and control systems results in the highest degree of precision during the dynamic phases of the process, in which the system can accurately follow any change in the throughput inputs in real time and, consequently, offset melt pressure variations instantaneously.
- An advanced weighing system, immune to background "noises", for the highest degree of accuracy during the dynamic control stages. Highest level of accuracy and precision.
- Clean out doors for fast removal of dust or ingredient residues and for visual inspection.
- No scheduled maintenance is required.



## CONTINUOUS GRAVIMETRIC BLENDER

Designed to blend pellets, regrind or flakes in processes that require accurate dosing and repeatability with efficient mixing. BLENDO and COMPO have been designed to be easily mounted either directly on the extruder or over a mezzanine. Available in 12 models: from 2 to 6 ingredients and throughput up to 2000 kg/h.

### BENEFITS

- 2,3,4,5 o 6 components with DIY modularity to add more ingredients (even after the installation).
- Inclined screw feeders to improve metering accuracy and to prevent undesired dribble.
- A cascade mixer provides excellent additive dispersion, including ingredients with different bulk densities or granule size.
- Integrated weigh downcomer hopper for extruder demand or gravimetric throughput control.
- Load cell to sense variations in weight (no ultrasonic or capacitive sensor).
- Easily accessible auger screws for quick and thorough cleaning, no tools required.
- Standard supplied integrated refill valve, slide gate type or butterfly valve.
- Practical and easy access to all components.



# BLENDO ADROIT

CONTINUOUS GRAVIMETRIC BLENDER

- All ingredients are simultaneously metered through the auger directly into the Integrated weigh downcomer hopper, through the cascade mixer.
- The weight of blended material in the downcomer hopper is continuously monitored to sense level variations caused by changes in extruder throughput or non-alignment between the feeders and extruder throughputs.
- The feeders are individually controlled to achieve and maintain the preset blend ratios and to keep at the preset value of the downcomer hopper level. This means that the blending throughput is always aligned with that of the processing machine.



# COMPO ADROIT

CONTINUOUS GRAVIMETRIC FEEDER

- The side ingredients are simultaneously metered by auger screw feeders in the right proportion and are thoroughly spread out into the stream of the main ingredient flowing down from its feed hopper.
- The feeders of the side ingredients are individually controlled to achieve and maintain the preset blend ratios with the main ingredient. This means that the blending throughput is always aligned with that of the processing machine

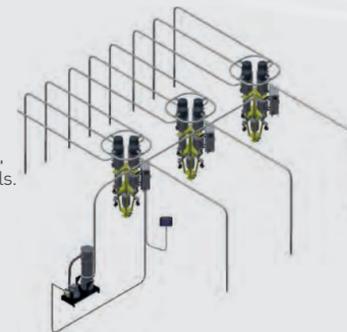
## PNEUMATIC LOADING AND CONVEYING

# SMARTCONVEY

INTEGRATED VACUUM LOADING SYSTEM

Integrated vacuum loading system, with centralized vacuum source, for all types of blenders and gravimetric systems.

A fully automated solution which can be used as an alternative to single vacuum loaders, to efficiently and practically solve all the problems involved in the loading of raw materials.



A STAND-ALONE VACUUM CONVEYING SYSTEM

# CONVYMATE

A stand-alone vacuum conveying system with centralized vacuum source, as an alternative to single loaders, automatically feeds more than one process machine, thus solving the problems involved in distribution of raw materials, efficiently and practically.

## IBC AND LAYFLAT CONTROL

# KALIBRO

AUTOMATIC CAGE CONTROL SYSTEM

When setting a new lay-flat, the system automatically adjusts the width size, acquiring and maintaining the new lay-flat set value through the control of the IBC valve.

### BENEFITS

- Continuous display of the lay-flat measurement.
- Reaches and maintains the lay-flat set value.
- Prevents lay-flat variations due to changes of the environment temperature (day / night).
- Suitable for blown film lines already provided with IBC, with stationary or rotating die and also for gusseted film.
- Save time and reduce waste during start-up and size changes.
- Lower tolerances and much better control than with manual adjustments.
- Supplies process information needed to validate the production lot as required by quality assurance.



## GAUGE CONTROL SYSTEM

# PROTUNE

GAUGE CONTROL SYSTEM WITH AUTOMATIC AIR RING BREEZE

The automatic control system gets the inputs from the thickness sensor and therefore adjusts the temperature of the air streams into each control zone, to compensate any deviation of the thickness profile, thanks to the automatic air ring BREEZE:

- Lower lip provides initial quenching to strengthen the melt and also the "venturi effect" between the bubble and the cone to "set" the bubble
- Forming cone: guides lower lip air and supports bubble while in the "semi-solid" state
- Upper lip provides the final "blast" of cooling air "adjustment"

The temperature of each individual air stream is controlled by cartridge heaters (control zones).

### BENEFITS

- Retrofittable.
- Design maximizes the cooling rate and utilizes the maximum blower efficiency with proven gauge deviation reduction.
- The operating principles assure a quick response time to any input for thickness correction.
- Superb gauge uniformity while maintaining excellent output.
- Suitable for running low melt-strength materials at higher blow-up ratios.
- Does not require any additional blower or use compressed air.
- No maintenance required.
- No alteration of the air flow.



## OPERATOR INTERFACES

Able to control the gravimetric blenders, the loading system or the whole extrusion line. The touch-screen display shows a user-friendly interface for easy management of the blenders. (HTML5)

### BENEFITS

- Integrated control of the blenders and loading system
- User friendly interface
- Reliable industrial PC's
- Solid state HD, best performance and reliability
- Remote Ethernet connection for line control and diagnostic

