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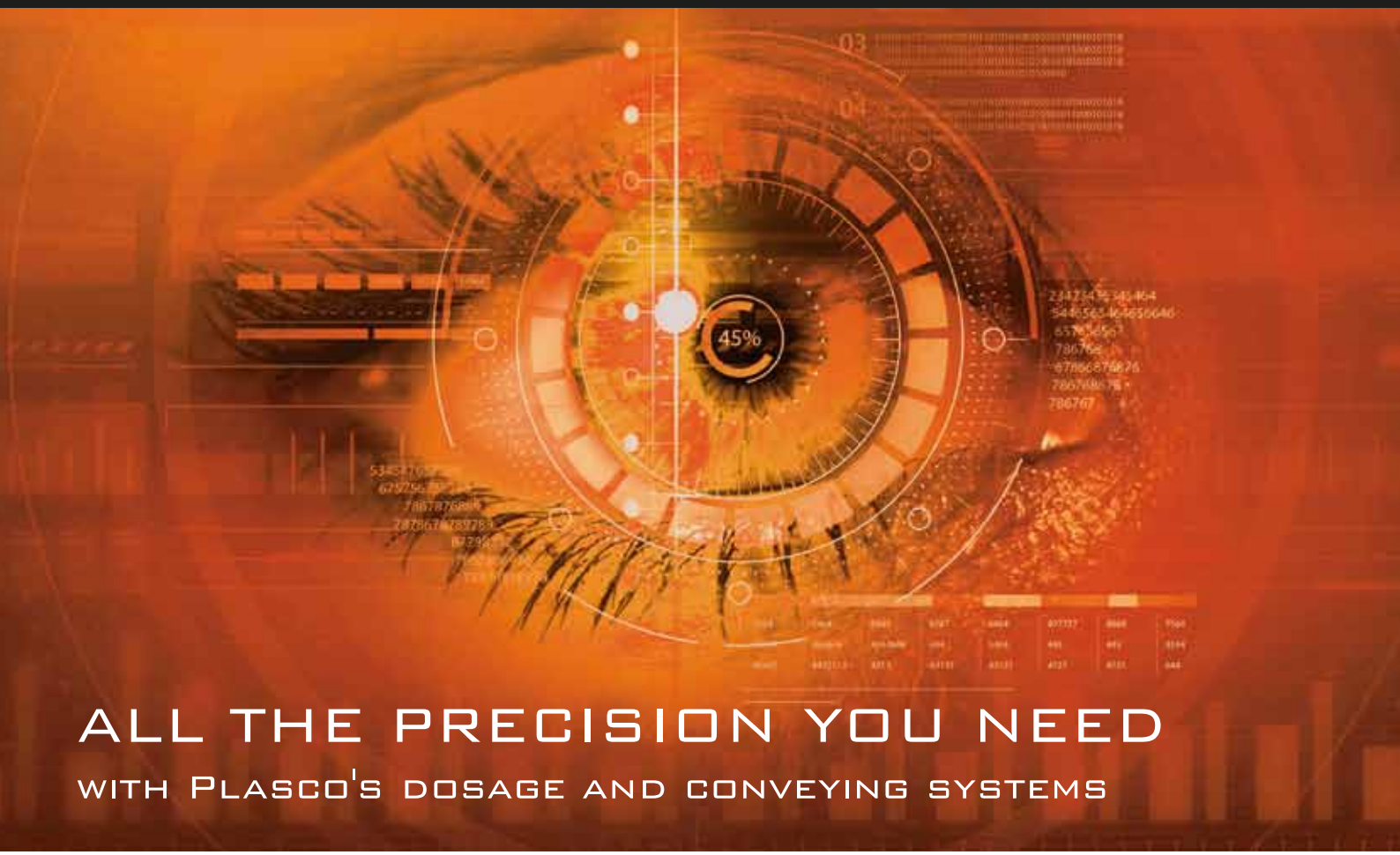



# ALL THE PRECISION YOU NEED

## WITH PLASCO'S DOSAGE AND CONVEYING SYSTEMS

PLASCO

TECHNOLOGY PRECISION CONTROL

VOLUMETRIC AND GRAVIMETRIC DOSAGE UNITS

CENTRALIZED DOSAGE AND CONVEYING SYSTEMS

AUTOMATION AND SOFTWARE

# Plasco S.r.l.

Plasco is a young and dynamic company specialized in the development and manufacture of systems to process plastic materials, such as volumetric and gravimetric dosage systems for granule and powder, centralized dosage and conveying systems, pneumatic hopper loaders.

Plasco was born in Bondeno (Ferrara, Italy) from the fusion of real experts of the sector, driven by passion and professionalism, present in the field of plastic processing machinery since 1986. The experience of the team Plasco offers flexibility and technical expertise that allow to assist the customer in a professional manner, offering an improvement in the technical quality of the production process.

**Our main strengths are :**

- **versatility and competence to offer customized solutions**
- **excellent quality / price ratio to minimize the investment return times**
- **constant pursuit of technological solutions**
- **importance of the after sales service to satisfy the customer quickly and effectively**

The passion for our work pushes the team Plasco towards ambitious goals: provide technology, precision and control to facilitate as much as possible the production activity of our customers.

# What do you need to dose?

PLASCOís systems are designed for the dosage and transport of materials in form of:
GRANULE, GROUND MATERIAL, POWDER, FIBRE.




Dosage systems designed and manufactured by PLASCO are divided into following categories:

## FOR GRANULE

VOLUMETRIC
**DVG** – volumetric dosage unit
**MVG** – volumetric mixer

GRAVIMETRIC
**BLW** – gravimetric loss-in-weight scale
**GLW** – gravimetric loss-in-weight dosage unit
**GRAVI** – gravimetric batch system

## FOR POWDER

VOLUMETRIC
**DVP** – volumetric dosage unit
**DVP-E** – volumetric dosage unit
**MVP** – volumetric mixer

GRAVIMETRIC
**PLW** – gravimetric loss-in-weight dosage unit
**PLW-E** – gravimetric loss-in-weight dosage unit

The complete range offers a high degree of personalization according to the customer's requirements. They are designed for single use or for dosage stations consisting of multiple components.

## Sectors of interest:

| | |
|---|---|
| EXTRUSION | film<br>hose<br>tubes in pressure<br>profiles<br>compound<br>thermoforming |
| INJECTION MOULDING | automotive<br>living<br>toys<br>gardening |
| BLOW MOULDING | preforms<br>bottles<br>containers<br>flasks<br>canisters |
| RECYCLING | production waste<br>ground material<br>densified material |

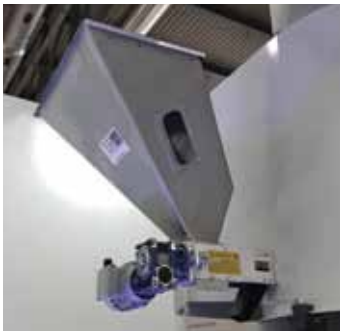
# Volumetric dosage unit for granule DVG

The single screw volumetric dosage units DVG are ideal to dose material in form of granule. They are usually employed to dose masterbatch, virgin material and regrind.

They have been designed to provide precise and reliable dosage. The predisposition to a quick disassembly allows easy and fast cleaning.

## Advantages

- no need to create blends beside the machine
- faster production changes



# Volumetric mixer MVG

The dosage and mixing systems MVG are suitable to dose and mix granule and heavy ground material.
Dosing screws are tilted for accurate material feed.
Dosage units are installed on a turret located on top of the mixer allowing quick maintenance and making it easier to add further components.
The mixer is spherical to avoid material stagnation.
The dosage and mixing systems MVG can be integrated with a centralized conveying system with controls inside the main operator panel.

Operation of dosage units is controlled by a last generation PLC. Input of dosage percentages occurs by setting work recipes through a functional keyboard and a touch screen display.


## Main features:

- tilted dosing screw for higher accuracy
- spherical mixer to avoid material stagnation. In the gravimetric version the mixer is located on load cells to calculate the output of the extruder
- it can be integrated with a centralized conveying system with controls inside the main operator panel
- the system is controlled by a last generation PLC. Input of dosage percentages occurs using a functional keyboard and a touch screen display.

## Advantages

- no need to create blends beside the machine
- faster production changes

# Gravimetric loss-in-weight dosage unit for granule GLW

Gravimetric dosage units GLW are loss-in-weight equipment used to dose material in granule.
They are available in several configurations to achieve outputs from 0,2 a 2000 kg/h. This dosage unit is usually supplied with a loading hopper and a butterfly valve.

They have been designed to provide precise and reliable dosage. The predisposition to a quick disassembly allows easy and fast cleaning.

## Advantages

- precision and repeatability of the performance in time
- constant dosage
- monitoring of production costs (total consumption)
- absence of periodic sampling operations
- supervision of the dosing process

# Gravimetric batch system GRAVI


Gravimetric batch systems GRAVI are sum-of-weight equipments employed to realize homogeneous mixtures of several components.
They are available in several configurations to achieve outputs from 20 to 1200 kg/h. Depending on the type of material to be dosed and the dosage percentage of each component, they can be supplied with dosage valves or with single screw dosage units.
They have been designed to provide precise and reliable dosage. The predisposition to a quick disassembly allows easy and fast cleaning.
Dosing screws are tilted for accurate material feed.

The mixer is spherical to avoid material stagnation and for certain types of applications (for instance film extrusion), it is positioned on load cells to calculate the output of the extruder.

## Advantages

- precision and repeatability of the performance in time
- monitoring of production costs (total consumption)
- control of the output of the extruder
- absence of periodic sampling operations
- supervision of the dosing process

# Volumetric dosage unit DVP

The single screw volumetric dosage units DVP are ideal to dose material in powder. They are usually employed to dose additives such as CaCo3, TiO2, talc.

Dosage units have been designed to achieve an accurate and reliable dosage. The predisposition to a quick disassembly allows easy and fast cleaning.

The hopper of the dosage units has been designed with a straight wall so as to allow free flow of material.

The shape of the body and the bridge-breaking system have been conceived to avoid material stagnation.

Main features:

- equipped with AC three phase motors to ensure a long lifetime of the system
- motor speed controlled by inverter
- simple and robust structure
- resistant to wear, requires little maintenance
- wide range of outputs
- outlet for sampling operations, in the volumetric version
- hopper specifically designed so as to allow free flow of material
- shape of the body has been conceived for materials in powder
- bridge-breaking system to avoid material stagnation

# Volumetric dosage unit for difficult material DVP-E

The new volumetric dosage unit DVP-E developed by Plasco for difficult materials is characterized by a cylindrical hopper in stainless steel which prevents the formation of “bridges” and a special agitator at the base of the dosage unit that feeds the dosing screw.
In this way it is possible to ensure the complete emptying of the hopper and a constant and precise dosage even with the most difficult materials such as grinded foil.
The predisposition to a quick disassembly allows easy and fast cleaning.

This dosage unit is able to dose material having a BD up to 0,1 kg/dmc.

## Advantages

- no need to create blends beside the machine
- faster production changes

# Gravimetric loss-in-weight dosage unit for powder PLW

Gravimetric dosage units PLW are loss-in-weight equipment ideal to dose material in powder. They are usually employed to dose additives such as CaCo3, TiO2, talc.
They are available in several configurations to achieve outputs from 0,5 a 2000 kg/h. This dosage unit is usually supplied with a loading hopper and a butterfly valve.
They have been designed to provide precise and reliable dosage. The predisposition to a quick disassembly allows easy and fast cleaning.

## Main features:

- equipped with AC three phase motors to ensure a long lifetime of the system
- motor speed controlled by inverter
- simple and robust structure
- resistant to wear, requires little maintenance
- wide range of outputs
- hopper specifically designed so as to allow free flow of material
- shape of the body has been conceived for materials in powder
- bridge-breaking system to avoid material stagnation

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## Advantages

- precision and repeatability of the performance in time
- constant dosage
- monitoring of production costs (total consumption)
- absence of periodic sampling operations
- supervision of the dosing process

TECHNOLOGY, PRECISION, CONTROL

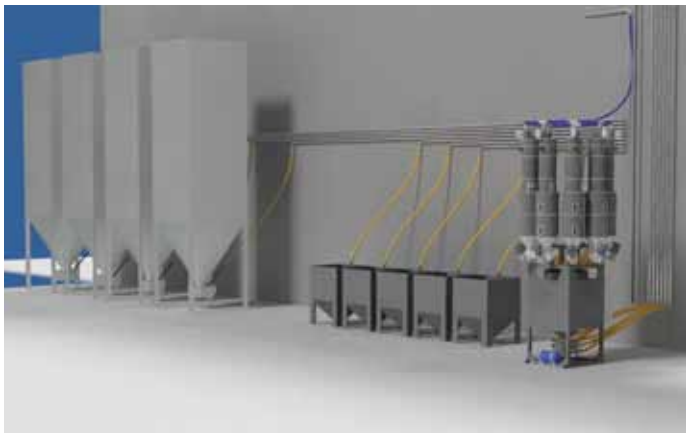
# CENTRALIZED DOSAGE SYSTEMS

Plasco's technicians, thanks to their decades of experience, can claim a specialization in the design of complex centralized dosage and conveying systems, developed according to the specific requirements of each customer.

These systems are mainly used in extrusion and can operate different lines simultaneously. The system manages every step of the extruder feeding process, from the transport of raw materials to the recipe to be conveyed to the extruder and for this reason it is very important that it is designed in detail and that it's managed by the best available technology on the market to be able to guarantee to the customer reliability and accuracy.

## Advantages

- single withdrawal point for the different components
- single station on the ground to prepare the recipes
- simplicity, efficiency and precision in the dosage
- feeding of each extrusion line through a single pipe
- Improvement of the quality of the final product
- saving on labour costs
- single operator panel to manger the entire system



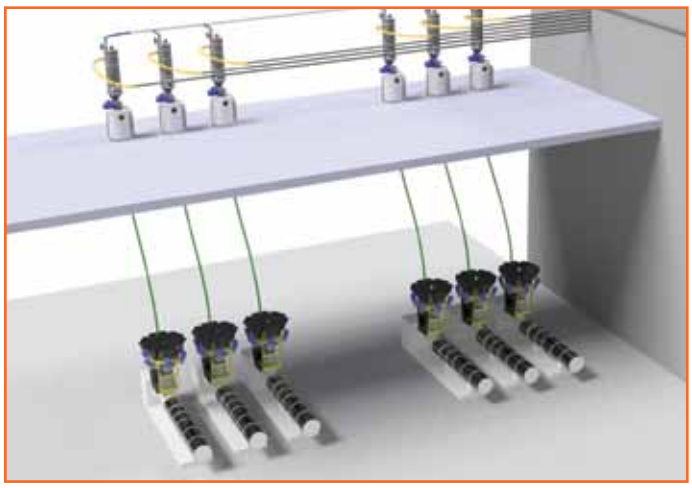
**Example of centralized dosing system with a production capacity of 2000 kg / h.**
**This application is able to feed 10 extrusion lines with the possibility of setting a different recipe for each line, choosing from 8 virgin materials.**

# CENTRALIZED CONVEYING SYSTEMS

Centralized conveying systems are used to integrate single or multiple dosage systems. These low pressure conveying systems ensure a reliable an clean operation to convey material in granule. The automatic filter collecting the dust protects the blower and the environment.

Cyclones employed in these systems are fitted with an air shut-off valve and a maximum level sensor. The system is entirely controlled by a PLC that manages loading operations and alarms in case of failed suction.

In the centralized dosage, these conveying systems can be used to feed both the dosage station and the single extruders.



### Advantages

- one blower for several cyclones
- cheaper compared to the solution with single hopper loaders
- feeding of each component through a single pipe
- controls integrated in the control panel of the dosage system

# Three-phase hopper loaders TPF

The most important feature of the three-phase pneumatic hopper loaders TPF series is the cyclone, designed with a new concept of modularity.

The operational cycle is controlled by a PLC that provides a signal in case of material shortage.

Main features:

- the metal mesh filter is a separator, material never reaches the lid
- filter cleaning by means of a compressed air at each aspiration cycle
- modular cyclone, easier to increase output
- blower with protection filter
- easy orientation at 360° with the fast closing bands
- inductive sensor that does not require a magnet
- modern design

# Automation and Software

To be able to offer its customers the latest technology and a complete service focused on the after sales, PLASCO has acquired in 2018 a company in the field of automation and software and is now able to offer its customers a 360° service.

The integration of these two companies along with the know how acquired by the team PLASCO in thirty years of experience in the sector, enables us to develop technological and customized solutions in order to realize the most suitable project according to customers' needs.

Our team can offer:
- Industrial automation
- Software development on PLC – PC
- Electrical control panels
- Design of plants and automatic machines
- Process controls
- Supervision systems
- Data collection
- Remote assistance
- Instructions manuals

Sizing, technical assessment, realization of the electrical plans, are processes performed entirely within our company structure.

**Our technical department designs all electrical plans and overseas control panels wiring on equipment developed both internally and by the customer.**

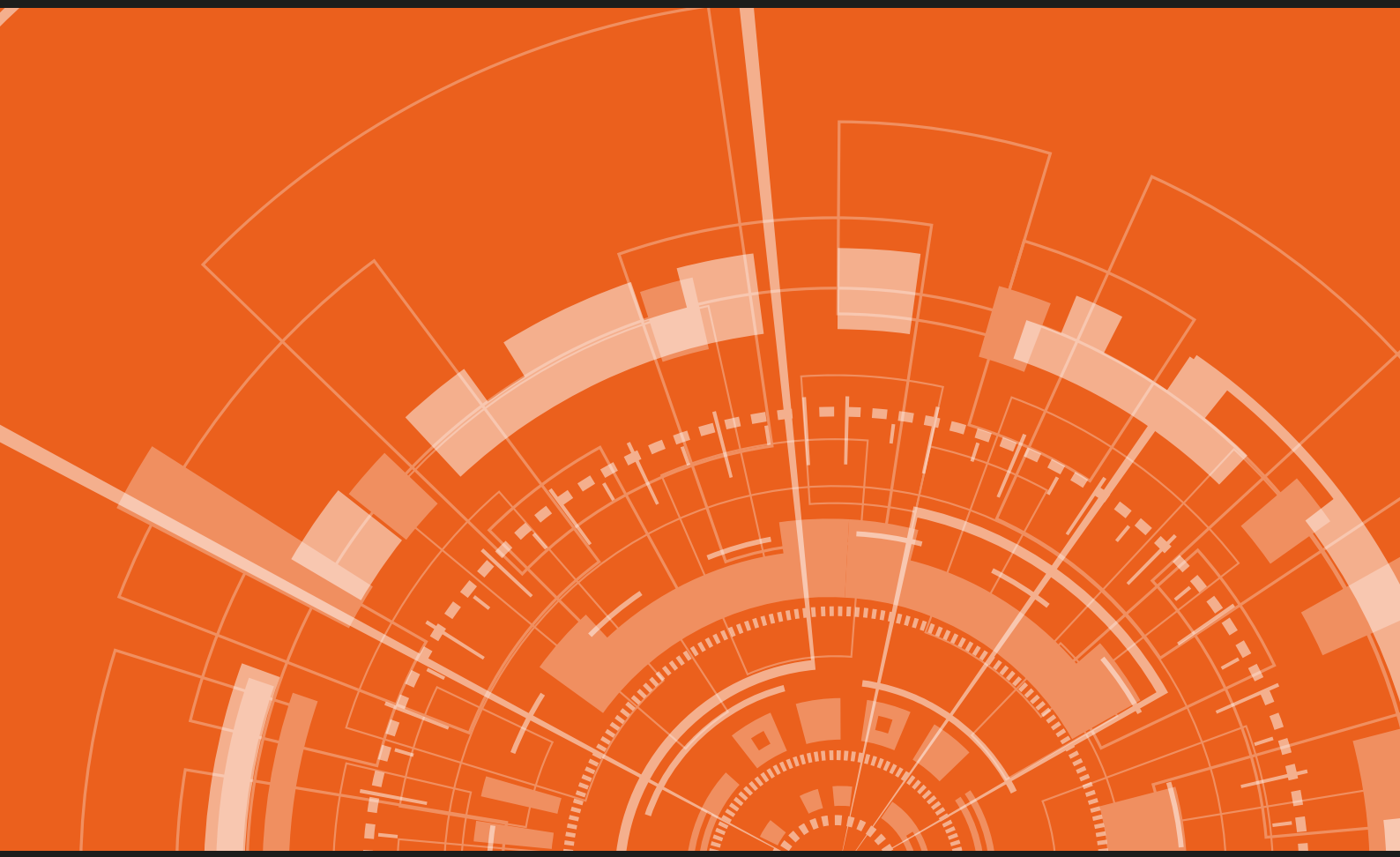
## Key to the symbols for the sectors of interest

**EXTRUSION**

**INJECTION MOULDING**

**BLOW MOULDING**

**RECYCLING**



WE DOSE YOUR AMBITIONS TO GROW TOGETHER

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