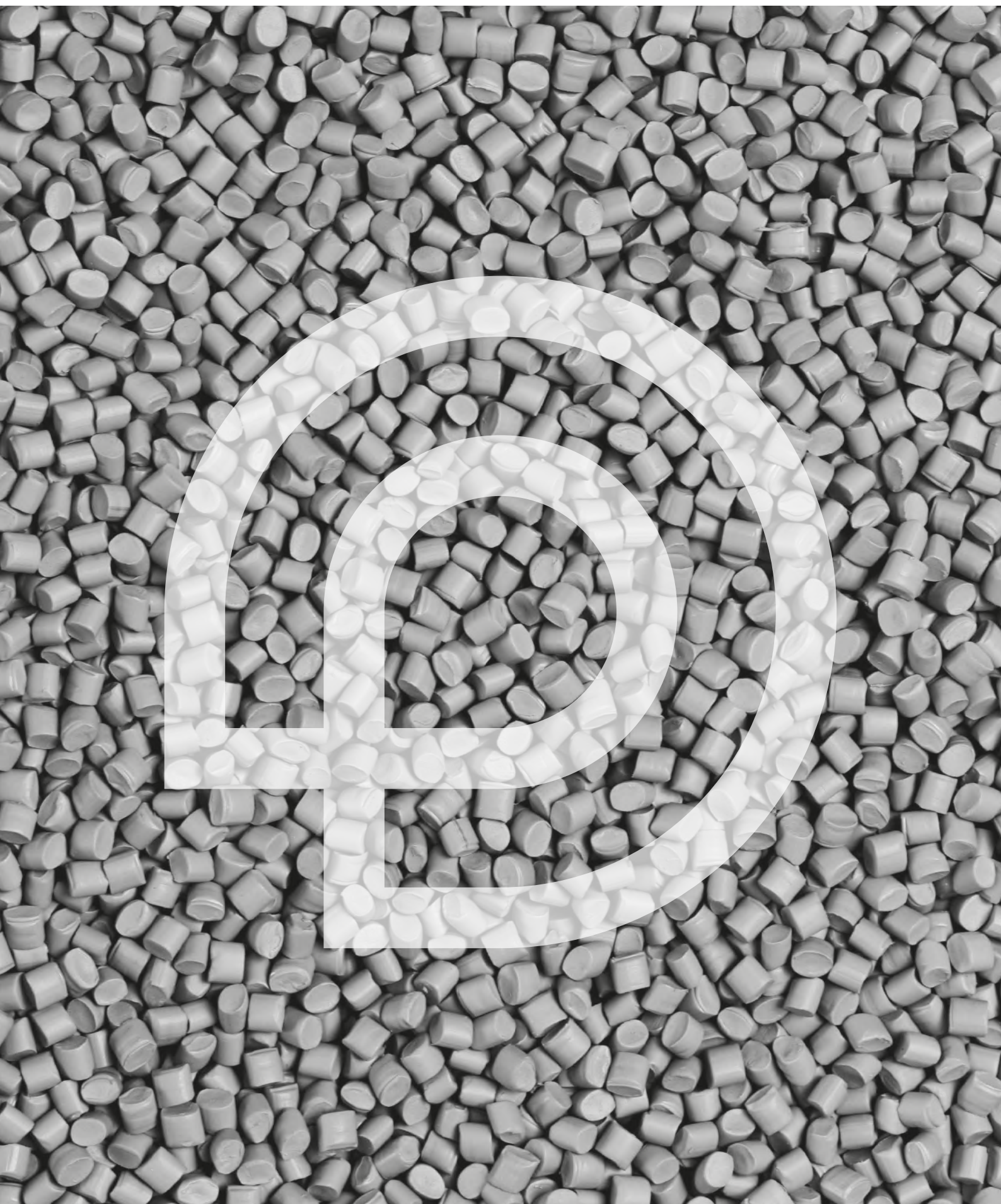


DOSING
English





THINKING BEYOND

Bringing Plastic in a new dimension



*“With more than 30 years of experience,
we design, manufacture,
and market machines for the storage,
transport, dehumidification, and dosing of
granules, flakes, and powders
used in plastic processing”*

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*For each product, features
and options will be available.*



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CHAPTER 1 – SINGLE-COMPONENT DOSING



DUG SERIES | GRAVIMETRIC DOSING UNITS

The DUG Series has been designed to **ensure optimal and efficient automatic dosing** of masterbatches, additives and regranulated material. These units combine design and technology into a synergistic system that ensures high flexibility, adapting to various dosing requirements on injection molding machines, blow molding machines, and extruders.

The range stands out for the **wide variety of stainless steel screws** available in different diameters.

The screw profile allows precise and consistent dosing, while the inclined dosing screw shaft guarantees maximum performance in terms of accuracy and stability.

TECHNICAL FEATURES:

- Inclined shaft feeder;
- Driven by brushless motor;
- Control panel and 7" LCD display installed directly on the feeder or remotely (optional);
- Self-learning calibration and tuning with simple manual slide gate opening;
- Lower slide gate for material discharge;
- Flanged connecting base for units installation;
- Equipped with static mixer;
- RS485 Modbus/OPC-UA interface;
- Patented solution: the DUG features a dual load cell system.

ADDED VALUE:

- Recipes database;
- Fast color change and quick cleaning;
- Wide range of stainless steel dosing screws and barrels;
- Minimized material waste at the start of weighing process;
- Adaptable to various types of material;
- Customized units for high throughput application and regrind materials.

COMPATIBLE ACCESSORIES:

- Remote control panel and 7" touch LCD display ;
- Polished stainless steel hopper;
- Material shortage alarm with capacitive sensor;
- Venturi feeder for compressed air material loading;
- Mixer;
- Cooled version for high temperature application;
- 14l hopper with hopper loader support.

DUG SERIES | GRAVIMETRIC DOSING UNITS

	Voltage	DUG10	DUG10H	DUG30	DUG30H	DUG60H
Dosing range (kg/h)	-	0.07÷17.5	0.07÷17.5	0.15÷32.5	0.15÷32.5	4.5÷72
Rated power (kW)	110-230/50	0.16	0.16	0.16	0.16	0.16
Noise level (dBA)	-	<80	<80	<80	<80	<80
Weight (kg)	-	18	20	19	21	29
Water flow rate (l/min)	-	-	5	-	5	5
Air flow rate (NI/min) *	-	105	105	105	105	248

"H" = cooled version | * Venturi feeding system.

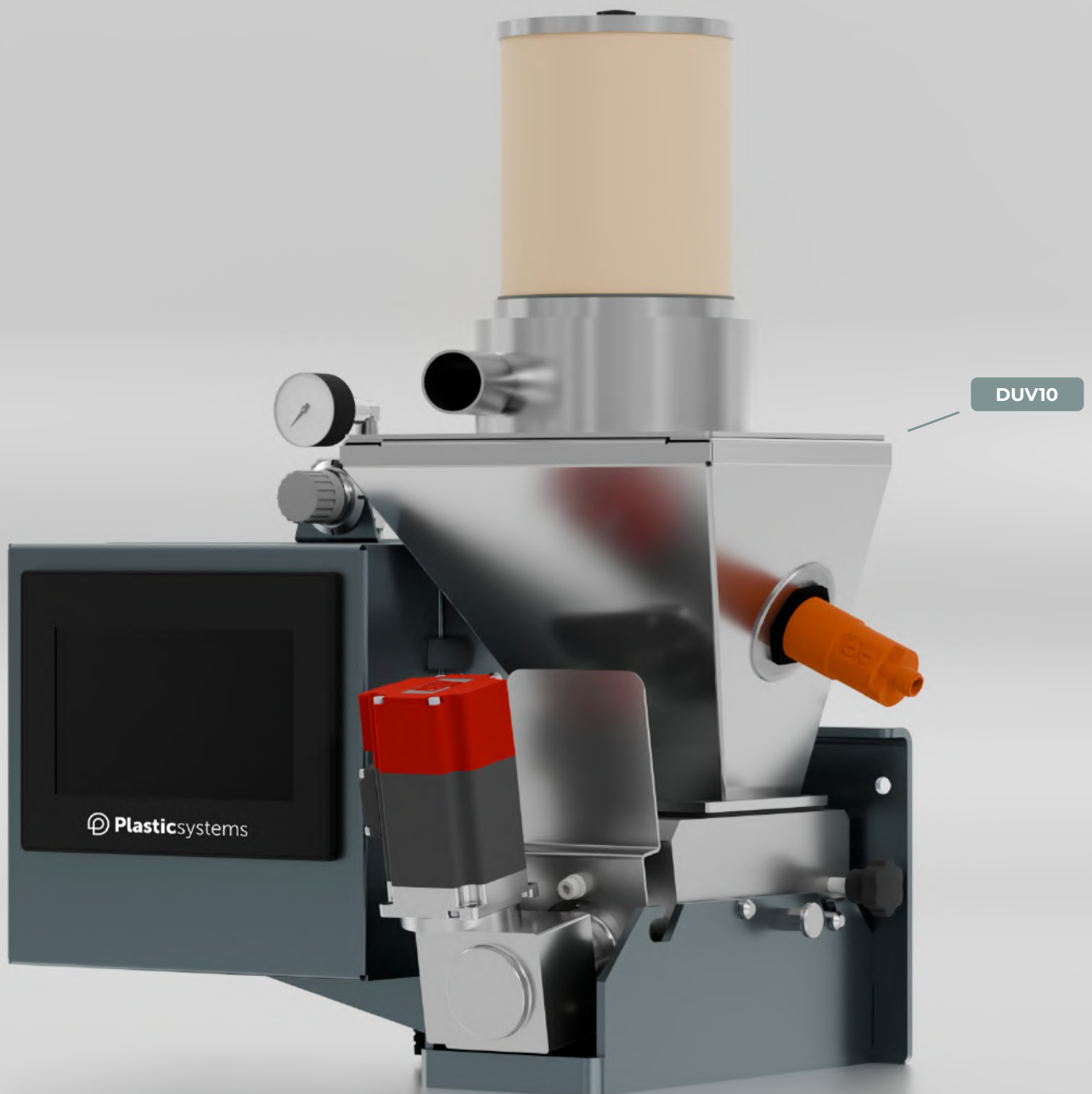


DUV SERIES | VOLUMETRIC DOSING UNITS

The DUV Series has been designed to **ensure optimal and efficient automatic dosing** of masterbatches, additives and regranulated material. These units combine design and technology into a synergistic system that ensures high flexibility, adapting to various dosing requirements on injection molding machines, blow molding machines, and extruders.

The range stands out for the **wide variety of stainless steel screws** available in different diameters.

The screw profile allows precise and consistent dosing, while the inclined dosing screw shaft guarantees maximum performance in terms of accuracy and stability.



TECHNICAL FEATURES:

- Inclined shaft feeder;
- Driven by brushless motor;
- Control panel and 7" LCD display installed directly on the feeder or remotely (optional);
- Self-learning calibration and tuning with simple manual slide gate opening;
- Lower slide gate for material discharge;
- Flanged connecting base for units installation;
- Equipped with static mixer;
- RS485 Modbus/OPC-UA interface.

ADDED VALUE:

- Recipes database;
- Fast color change and quick cleaning;
- Wide range of stainless steel dosing screws and barrels;
- Minimized material waste at the start of weighing process;
- Adaptable to various types of material;
- Customized units for high throughput application and regrind materials.

COMPATIBLE ACCESSORIES:

- Remote control panel and 7" touch LCD display ;
- Polished stainless steel hopper;
- Material shortage alarm with capacitive sensor;
- Venturi feeder for compressed air material loading;
- Mixer;
- Cooled version for high temperature application.
- 14l hopper with hopper loader support.

DUV SERIES | VOLUMETRIC DOSING UNITS

	Voltage	DUV10	DUV10H	DUV30	DUV30H	DUV60H
Dosing range (kg/h)	-	0.07÷17.5	0.07÷17.5	0.15÷32.5	0.15÷32.5	4.5÷72
Rated power (kW)	110-230/50	0.16	0.16	0.16	0.16	0.16
Noise level (dBA)	-	<80	<80	<80	<80	<80
Weight (kg)	-	18	20	19	21	27
Water flow rate (l/min)	-	-	5	-	5	-
Air flow rate (NI/min) *	-	105	105	105	105	248

"H" = cooled version | * Venturi feeding system.



CHAPTER 2 – CUSTOMIZED SINGLE-COMPONENT DOSING



DGS SERIES | LOSS-IN-WEIGHT DOSING UNITS

Plastic Systems gravimetric doser is engineered for **accurate, continuous, and fully controlled dosing** of both powders and granules, offering high precision and repeatability for a wide range of industrial applications. Its versatility allows the same system to handle fine powders, coarse powders, and free-flowing granules, making it an ideal solution for multi-material production lines.

For powders that are less free-flowing or prone to bridging, an **integrated agitator** ensures a constant and homogeneous material flow, preventing clogging, segregation, and flow interruptions. For free-flowing powders and granules, the system operates efficiently without agitation.

All parts in contact with the product are made of **stainless steel**, guaranteeing maximum corrosion resistance, and easy cleaning, essential for industries with strict quality and safety standards.

Operating in **loss-in-weight mode**, the system provides **real-time monitoring** of material consumption, ensuring the exact quantity of each component is continuously delivered.

Its **compact and modular design** allows for easy integration into existing extrusion lines, mixing systems, or other processing plants. The doser can handle a wide range of capacities making it suitable for both small-scale and large-scale production setups.

TECHNICAL FEATURES:

- Loss-in-weight dosing for precise, continuous, and reliable control;
- Real-time monitoring of material consumption and dosing accuracy via advanced control systems;
- Stainless steel contact parts for corrosion resistance, and easy cleaning;
- Versatile use for both powders and granules, handling fine, coarse, and free-flowing materials;
- Integrated agitator for powders that are difficult to flow, ensuring uniform material movement and preventing bridging;
- Quick and easy material changeover to support multiple product recipes;
- Durable components designed for long-term operation in industrial environments;
- Minimal maintenance requirements, reducing downtime and operating costs;
- User-friendly interface, typically with PLC control and touchscreen for intuitive operation;
- Flexible integration with extrusion lines, mixers, or other automated systems via standard industrial communication protocols (Profinet/OPC-UA).



CHAPTER 3 – MULTI-COMPONENT DOSING

DGB SERIES | GRAVIMETRIC BATCH DOSING SYSTEMS

In many plastic processing operations, **gravimetric dosing systems** play a crucial role by accurately weighing and controlling the proportion of each component before it enters the production process. There are 9 standard models available, with configurations ranging from 2 to 8 components.

The entire dosing cycle is fully automated. An integrated **smart control** with touchscreen allows the operator to easily set the desired dosing percentages for each material. Each component is weighed in its dedicated dosing hopper. Once the predetermined total batch weight is reached, the materials are discharged into the **mixer**, where they are thoroughly blended. The mixer ensures a homogeneous mixture.



DGB500

TECHNICAL FEATURES:

- Nine models suitable for production up to 3000 kg/h with different configurations;
- PLC or Microprocessor control;
- Colour touchscreen;
- Batch hopper with load cells;
- Mixer with load cells or level sensor;
- Set-up and report operation can be downloaded on an external drive;
- Stainless steel hoppers with manual slide gate for material fast discharge;
- Pneumatic slide gate for an accurate dosing;
- Polished stainless steel weighing hopper and mixer;
- RS485 Modbus/OPC-UA interface;
- Profinet interface for PLC version;
- Screw dosing unit for low percentages.

ACCESSORIES:

- Connecting base;
- Storage hopper on wheels;
- Capacitive level sensor for buffer hopper;
- Pneumatic slide gate valve to be installed under the mixer;
- Pneumatic bridge breaker for no free flowing materials;
- Customized hoppers for flakes and regrind materials.

ADDED VALUE:

- Constant monitoring of weighing;
- Automatic compensation for variations in component density;
- Automatic recalibration;
- Direct setting of component percentages;
- Precise and reliable control;
- Patented load cells under mixer.

DGB SERIES | GRAVIMETRIC BATCH DOSING SYSTEMS

	DGB 50	DGB 100	DGB 200	DGB 500	DGB 800	DGB 1200	DGB 1500	DGB 2000	DGB 3000
Maximum throughput (kg/h) *	50	150	200	500	800	1200	1500	2000	3000
Components (n°)	2-4	2-6	2-6	2-6	2-6	2-8	2-8	2-8	2-8
Dosing range (%)	0,5-100	0,5-100	0,5-100	0,3-100	0,3-100	0,3-100	0,3-100	0,3-100	0,3-100
Batch (kg)	0,5	2	2	5	8	12	15	20	30
Installed power (kW)	0,5	0,55	0,55	1,2	1,2	1,2	1,2	2,1	2,1
Voltage (V) / Frequency (Hz)	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60	400 / 50-60

* Value obtained with a recipe of 2 components (pellets with bulk density 0,7 kg/dm³).



CHAPTER 4 – CUSTOMIZED MULTI-COMPONENT DOSING



DVM SERIES | LOSS-IN-WEIGHT DOSING SYSTEMS

DVM dosers are widely used in the extrusion sector, ensuring **precise and reliable material handling**. Dosing is performed in a **loss-in-weight mode** for each component, with all materials being dosed simultaneously and continuously. This process allows the materials to self-mix seamlessly before entering the **single-screw or twin-screw extruder**.

For small dosages, augers driven by high-performance brushless motors guarantee accuracy and repeatability, while for larger dosages, vibrating channels equipped with their own **dedicated microprocessor control** ensure a constant and stable material flow.

The **PLC, fully interfaced with the extruder control system**, monitors and regulates the process in real time, ensuring that the correct, continuous, and homogeneous quantity of each material is consistently delivered to the extrusion line.

TECHNICAL FEATURES:

- A compact and modular frame allows integration from 1 to 12 dosing stations;
- Stations are mounted on load cells to ensure high-precision dosing;
- Pneumatic refill valves are integrated directly on the frame;
- PLC control with dedicated weighing boards and a 7" colour touch screen;
- Vibrating-channels for flakes/pellets;
- Auger dosing stations for low throughputs.

ADDED VALUE:

- Fast colour change and cleaning;
- Customized layout of the dosing system;
- Ideal for installations on single-screw and twin-screws extruders;
- The loss-in-weight system displays the recipe composition and the actual consumption in real time;
- Magnetic grid can be installed at the outlet of each buffer hopper;
- Profinet/OPC-UA Interface.

VIBRATING CHANNEL DVM 1-8			
Width (mm)	Hopper Volume (dm ³)	Granule Throughput (kg/h)*	Flake Throughput (kg/h)*
50	35	8-80	-
100	35	20-200	-
150	160	80-800	30-300
250	160	200-2000	100-1000
300	160	400-4000	200-2000

AUGERS		
Screw Type (DXP) (mm)	Hopper Volume (dm ³)	Granule Throughput (kg/h)*
12 x 8	35	0,2-0,8
16 x 10	35	1-15
30 x 20	80	3-40
30 x 20	80	8-80
50 x 50	160	50-500
80 x 80	160	120-1200

* The hourly production depends on the type of material. In the table below, the granules have an apparent density of 0.8 kg/dm³, while the flakes have an apparent density of 0.3 kg/dm³.



DGB SERIES - GRAVIMETRIC BATCH DOSING SYSTEMS





PEGASO INDUSTRIES GLOBAL BRANCHES



PEGASO
INDUSTRIES



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INDUSTRIES
ASIA PACIFIC





PEGASO

INDUSTRIES



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