

**PULSE<sup>®</sup>Electronic**

# DOSING SYSTEMS

## GRAVIMETRIC FEEDERS



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# **PULSE<sup>®</sup>Electronic**

The industry's firm, an expert in the field of industrial electronics, is bringing this power to the rest of the globe by making a difference with its innovative structure, R&D power, and experience.

PULS Electronic Systems laid in 2002 the foundations of its success story in the field of industry with the motto "We know the Load on you, because we can measure it". Our company based in Turkey, presents to the service of its customers the electronical and electromechanical products required in the machine industry and manufactured by our firm from an innovative perspective and with continuously developing knowledge accumulation.

Puls has gained a well established place in the world market since 2002 with a product range developed as a result of the continuous investment in R&D Studies. In addition to the firsts developed in the weighing industry (Crane Scale, Checkweigher with 100 mg accuracy), it has become the pioneer of the innovations such as 20-120kV Static Charger, Web-Cleaner.

Starting out the production life with several model load cells and weighing indicators, Puls Elektronik has adopted continuous development as the principle with over 200 product types currently held in 3 main activity fields (Weighing Systems, Static solutions, Silo Equipments) and takes pride in exporting to 86 countries having dealership structure in more than 28 countries. Puls Electronic Systems is at your service in 7 continents with its distinctive products that is continuously developed through its innovative and customer-oriented structure, R&D power, the experience it has gained and knowledge accumulated.

The operating principle of Puls Electronic Gravimetric Feeder with single screw is as follow; all of the feed system is standing one of the weighing platform. When the screw system works, each unit can also be weighed and decreasing the amount of material is calculated. This material amount is compared with the goal value and given the command to the engine for the calculated suitable speed. Simultaneous control and correction process with the target value is kept in a sensitive tolerance band.

## Advantages

Puls Electronic Gravimetric Feeder System has more important feature then the classic volumetric feed system. This feeder much more sensitive. This system provides saving of raw material to the system entry and ensures the homogeneity of the facility to more efficient operation of the system output. Volumetric system works with %10 sensitivity but the gravimetric dosing system works by 0,2% accuracy. So it provides to save the company rate of 9,8% for each hour. It has a special software. In a special thanks to the software, the system output checks the deviations of the target value and over time realize the changes of the characteristic of flow. By this way linearity can be ensured next of the accuracy. Furthermore, during and after Refill, the system continued in a control manner to contribute to the flow linearity.

The other advantages of gravimetric system are;

- It provides closed-loop control system with simultaneous weight matering and feed in the amount of supervision.
- 8 feeders can be controlled at the same time.
- Wide range limit automatically adapts differences in density of the material that may accur over time.
- Material and output amount can be controlled directly.
- It has high linearity.

## Applications

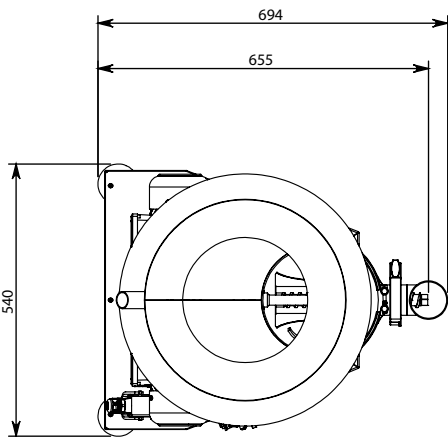
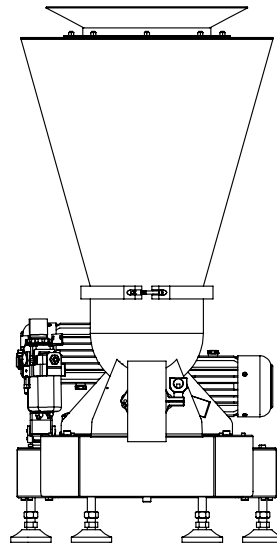
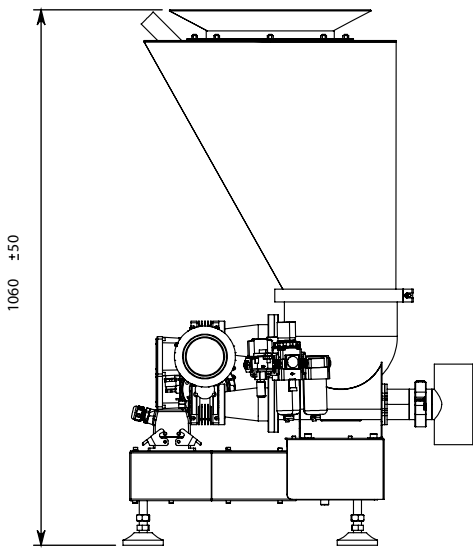
Loss in weight of the principle of gravimetric feeder has a wide area which sectors dosing applications commonly used. This sectors;

- **Plastic Industry**
- **Food Industry**
- **Mining and Chemical Industry**
- **Pharmaceutical Industry**

Gravimetric single screw feeder uses the following materials dosing continuous applications;

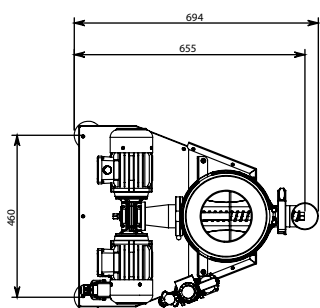
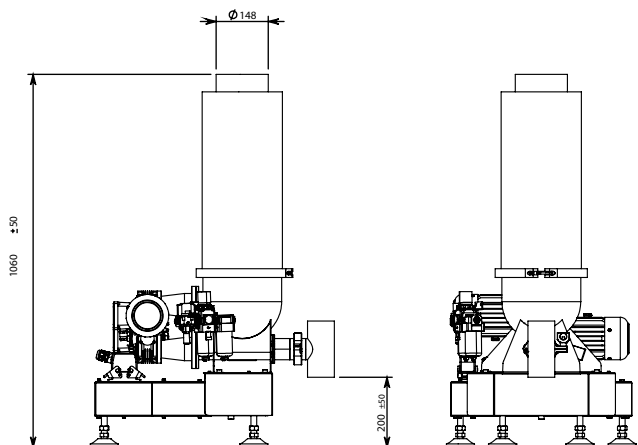
- **Granuler Materials**
- **Powder Materials**
- **Lumpy Materials**
- **Fibrous Materials**
- **Exfoliate Materials**

# GRAVIMETRIC TECHNICAL DRAWING

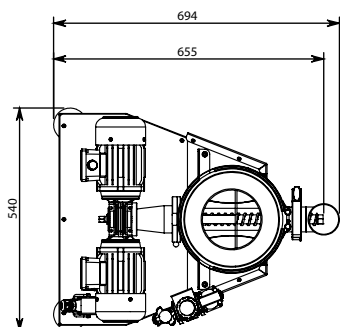
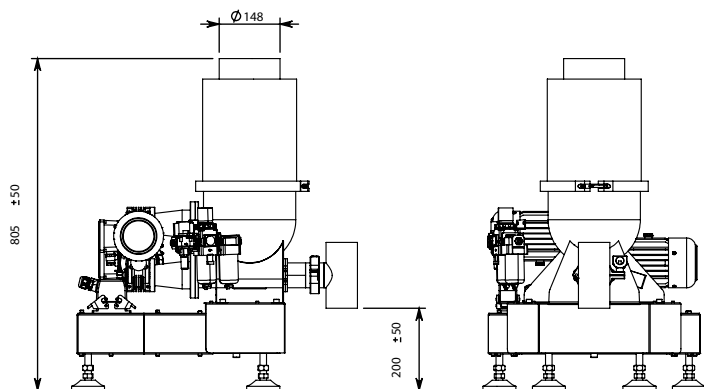


Model 1

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Model 2



Model 3

# TECHNICAL TABLE

SCREW TYPE								
	SPIRAL SCREW				AUGER SCREW			
Gearbox Max. Screw Speed	Ø 16x12 L/h	Ø 30x16 L/h	Ø 50x25 L/h	Ø 50x50 L/h	Ø 17x11 L/h	Ø 32x16 L/h	Ø 51x25 L/h	Ø 51x50 L/h
5 : 1 / 300	5-100	28-533	86-1635	151-2854	3-53	20-375	74-1395	126-2385
7,5 : 1 / 200	2-47	14-248	42-762	73-1330	1-25	10-175	36-650	61-1111
15 : 1 / 100	1-25	7-133	22-407	39-711	1-13	5-93	19-347	33-594















































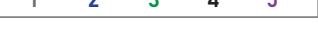




## The Projection


Thanks to its flexible design, offers suitable solutions for the different material and different capacity. Custom solutions could be found for the applications of granular, fiber or powder materials. The feeder capacity is changeable between the 0,1-3000 L/h. It seems elegant with projection of single engine. Gear system running a horizontal mixer provides a linear flow to the fluency of a low coefficient of powder materials and it reduces the feeder error rate to the minimum. The resolution is 1:1.000.000 for the Pulscell Weighing Unit. It provides to calculate the resolution of sensitive weighing and accuracy and linearity of supply system in a sensitive level like 0,2% rate. The control system has a friendly interface to be helpful for operators and it shows everything on the touchmatic screen.


Feed Capacity	0,1 - 3000 L/h
Operating Temperature	-10°C - + 45°C
Weighing Unit	Pulscell Weighing System
Feed Accuracy	+ - %0,2
Feed Type	Screw Mixer - Screw and Vibrated ( optional )
Feed Screw	Spiral and Auger Screw
Engine Operating Voltage	220 VAC


## Optional Preference


- Asymmetric or Symmetric Bunker
- Special vibrator supplement for dust and fibered material
- Different diameters of the screen options
- Vertical ascent tube


			
The Best Fluid			
Better Fluid			
Normal Fluid <input type="radio"/>			
Weak Fluid <input type="radio"/>			
Dusty <input type="radio"/>			
Sticky <input type="radio"/>			
Lump <input type="radio"/>			
Oiled <input type="radio"/>			
Damp - Wet <input type="radio"/>			
Humidity Attractive <input type="radio"/>			
Aided Bridge <input type="radio"/>			
Chimney Forming <input type="radio"/>			
Like Flood Flow			
Intensive <input type="radio"/>			
Variable - Unstable			
Flexible <input type="radio"/>			
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

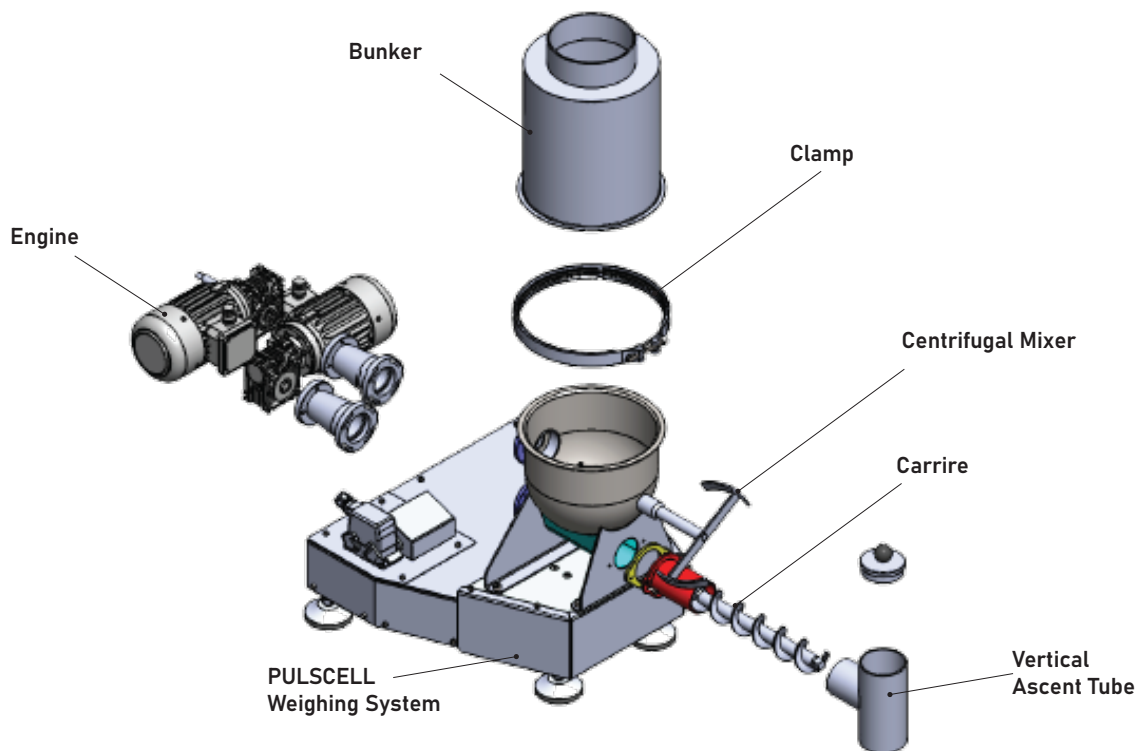
 Dust

 Lumpy

 Pellets

 Fiber

 The mixer must



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WEIGHING TECHNOLOGIES / STATIC SOLUTIONS / SILO EQUIPMENTS



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