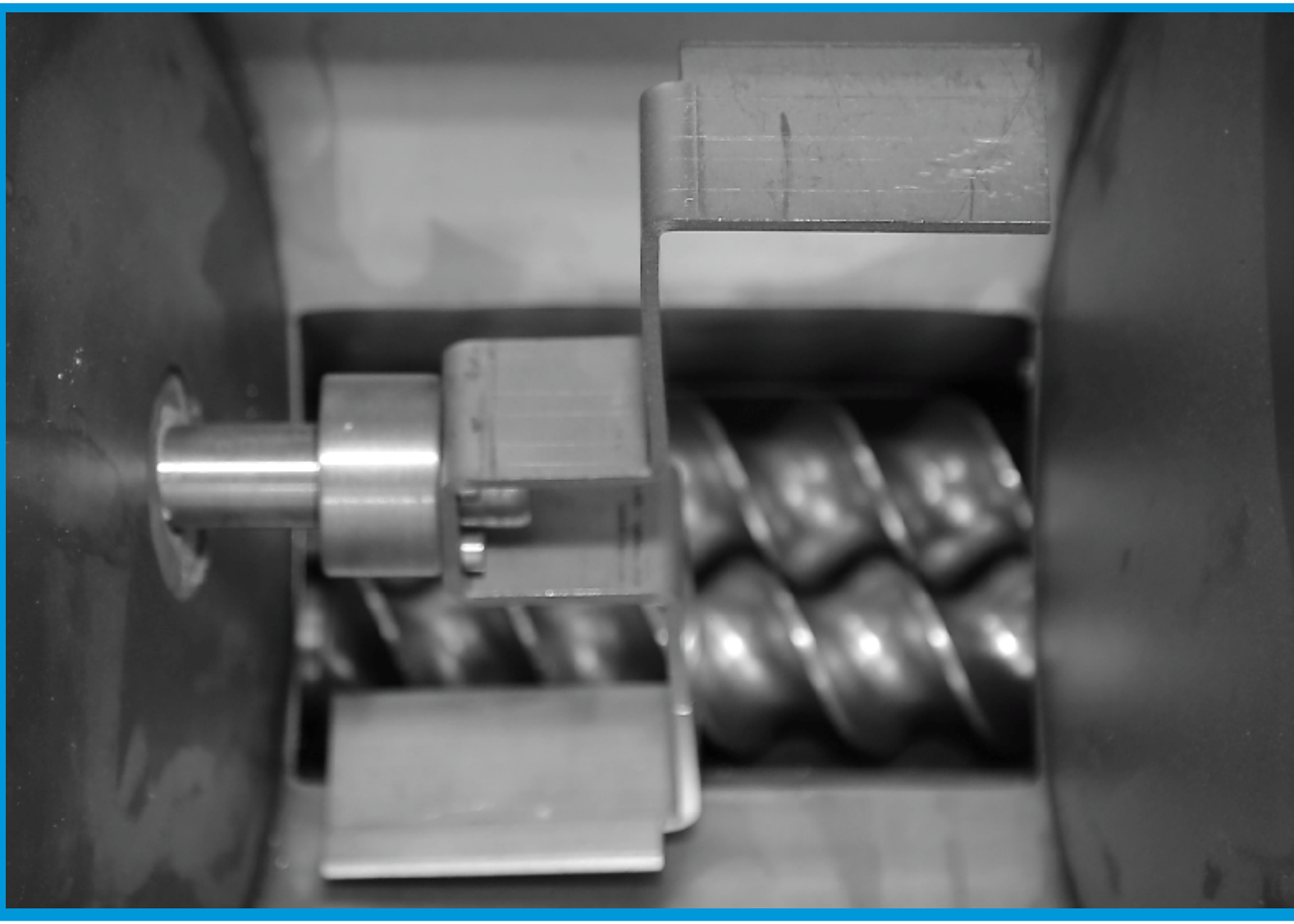
BEHPOO

Industrial Machines Design & Fabrication
Extrusion Room & Packaging Systems



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WHO ARE WE?

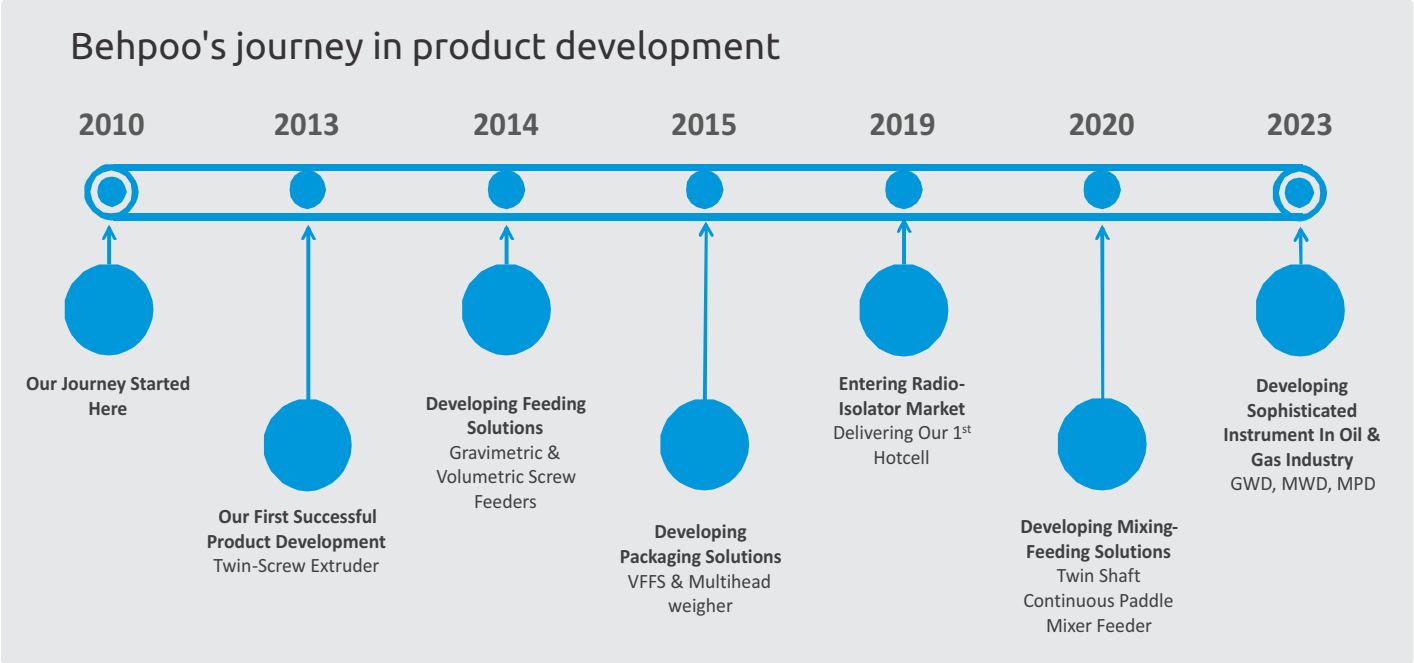
A group of graduates from Iran's most prestigious technical institutes established Behpoo Company in the year 2010.

In addition to having fourteen years of experience in the production of industrial equipment and machinery for a wide range of sectors, Behpoo is a specialist in the design and manufacture of feeding, dosing, batching, mixing, and packaging systems.

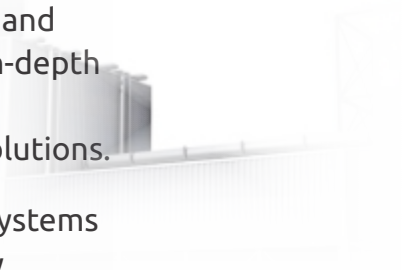
More than 70 experienced workers are currently employed by the company in the research and development, design, production, and quality control areas.

This business was recognized as a "Knowledge based company" in 2016 by the Iranian Presidential Deputy for Science and Technology. Additionally, it is a member of the Iranian Research Organization for Science and Technology (IROST).

OUR TECHNOLOGY



We have successfully acquired advanced technologies in Instrumentation and Control, Multidisciplinary Complex Systems, Rotating Equipment, Process Engineering, and Automation. Leveraging this expertise, along with in-depth software and hardware knowledge, the company is equipped to design and construct comprehensive solutions.



Our goal is to develop and deliver Extrusion Room systems tailored for the petrochemical industry. Additionally, Behpoo designs and manufactures specialized equipment for the petrochemical industry's packaging lines.

OUR MISSION

Our mission is to deliver comprehensive solutions for Extrusion Room systems in the petrochemical industry, utilizing the latest engineering methods and cutting-edge technologies worldwide.

EXTRUSION ROOM SOLUTIONS

GRAVIMETRIC FEEDER

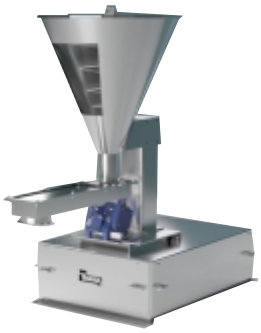
Gravimetric feeders integrate a volumetric feeding device within an advanced system that measures the mass of the material being fed. A weighing system, such as a weigh scale or load cells, monitors the weight of the hopper, feeder, and material. This data is transmitted to a controller, which accurately determines and regulates the material feed rate.

They are designed to precisely measure and control the material's injection rate into the process. Their closed-loop control system allows for precise adjustments to the feeder's speed to maintain the required material flow rate, achieving accuracy levels that can be better than 1%, depending on the material and installation environment.

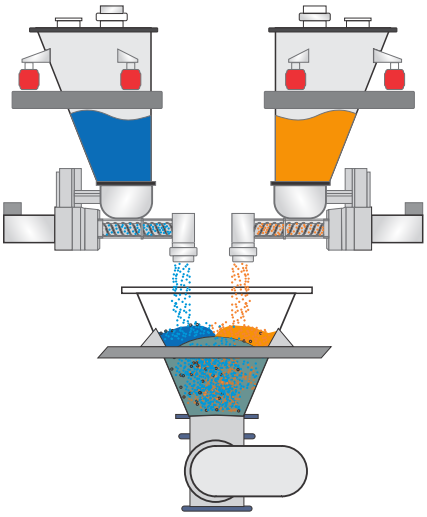
These feeders classified into two main categories: Loss-in-Weight (LIW) and Gain-in-Weight (GIW), based on how the weight is measured and the placement of the load cells.Behpoo designs and manufactures both GIW and LIW systems with high accuracy and native design, tailored to meet the specific needs of each client.

Loss-in-weight (LIW)

Using the Loss-in-Weight (LIW) method, multiple materials are simultaneously transferred to a hopper by gravity feeders. Each feeder is equipped with load cells to accurately weigh the corresponding material. Since the materials are weighed and injected concurrently, this method achieves a higher speed compared to the Gain-in-Weight (GIW) method.



Loss-in-Weight Feeders

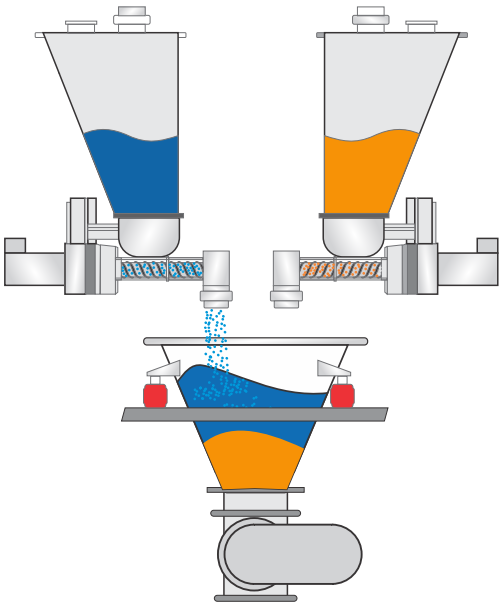


Collection Hpper

Gain-in-weight (GIW)

In the Gain-in-Weight (GIW) system, volumetric feeders deliver multiple materials to a hopper in a sequential manner, with load cells weighing the entire hopper for precise measurement. Behpoo Co. designs and produces both LIW and GIW systems with over 1% accuracy. These systems are available in various configurations, including single and twin screws, and can accommodate different screw types to meet diverse processing needs.

Volumetric Feeders



Collection Hopper
on Loadcell

VOLUMETRIC FEEDER

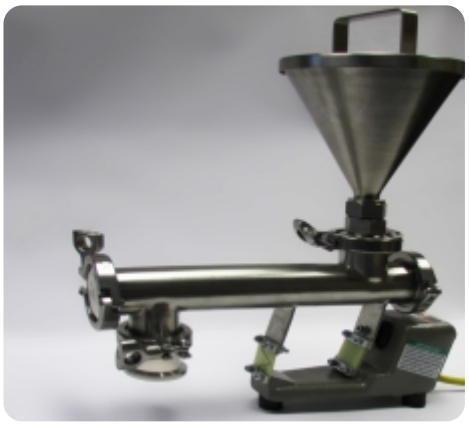
A volumetric feeder is a type of feeder that operates by measuring the volume of materials being moved. Here are its key specifications:

Volumetric feeders deliver a precise amount of material to the process at a specified rate, ensuring consistent performance. Their design is simple and cost-effective, allowing for efficient material injection from the hopper. These feeders are suitable for a wide range of materials, including powders, granules, pellets, fibrous substances, pastes, and sticky materials.

We offer a variety of volumetric feeders tailored to meet client capacity and specifications, available in single screw, twin screw, and vibrating configurations.

Vibratory Feeder

The vibratory feeder utilizes a combination of vibration and gravity to transport materials, making it ideal for continuous and uniform feeding. This system is extensively used across various industries, including chemical, food, and mineral sectors, to ensure a controlled flow of bulk materials, granules, and similar substances, thanks to its efficient design.



Vibratory Feeder Specification	
Discharge Rate (lit/h)	0.1 to 10000
Feeding accuracy	1 to 2% (Depending on the product)
Chassis Material	Stainless steel/ Painted plain carbon
The size of the Inlet Funnel (lit)	5 to 100
Power (KW)	0.1 to 1
Suitable for	Powdery and Granular Products

Single & Twin Screw Feeders

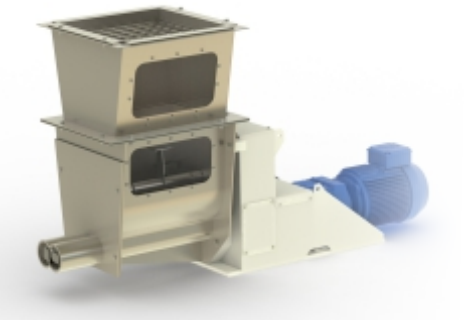
The screw feeders are used to regulate how materilas flow and are distributed in the system within a specific amount of time.

These feeders have the capacity to modify the rate at which materials are transferred, allowing them to modify the material flow rate in accordance with the established feeding rate.

The screw feeder operates on the principle that the material is normally filled to approximately 100% of the inlet.

The material can then be discharged to the required amount by varying the screw feeder's speed and structural parameters, such as diameter, pitch, etc.

We design and manufacture twin and single screw feeders based on the requirements provided by the client. We have a track record of manufacturing a range of screw feeders that meet the following specifications:



Double Screw Feeders

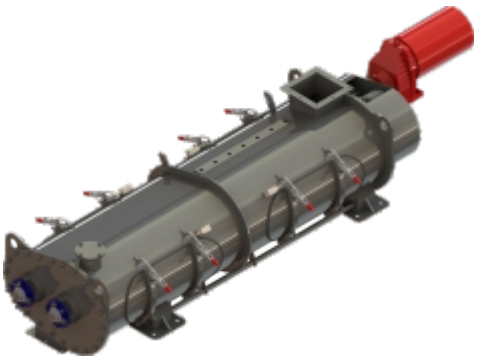
Specification	FDR-DS18	FDR-DS18	FDR-DS70	
Discharge Rate (lit/h)	1 to 20	10 to 500	200 to 5000	Customized
Feeding accuracy	1.5 to 2.5% (Depending on the product)			
Chassis Material	Stainless steel / Painted plain carbon			
The size of the inlet funnel (lit)	10	40	80	Customized
Motor Power (KW)	0.5	1	3	Customized
Screw Diameter (mm)	18	37	70	Customized
Screw Material	SS 304 / SS 316			
Suitable for	Powdery and Sticky products			

Single Screw Feeders

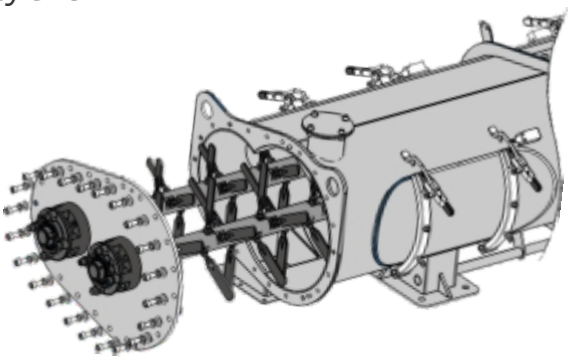
Specification	FDR-SS20	FDR-SS40	FDR-SS80	
Discharge Rate (lit/h)	3 to 30	30 to 600	500 to 6000	Customized
Feeding accuracy	1.5 to 2.5% (Depending on the product)			
Chassis Material	Stainless steel / Painted plain carbon			
The size of the inlet funnel (lit)	10	40	80	Customized
Motor Power (KW)	0.5	1	3	Customized
Screw Diameter (mm)	20	40	80	Customized
Screw Material	SS 304 / SS 316			
Suitable for	Granular products			

CONTINUOUS MIXER

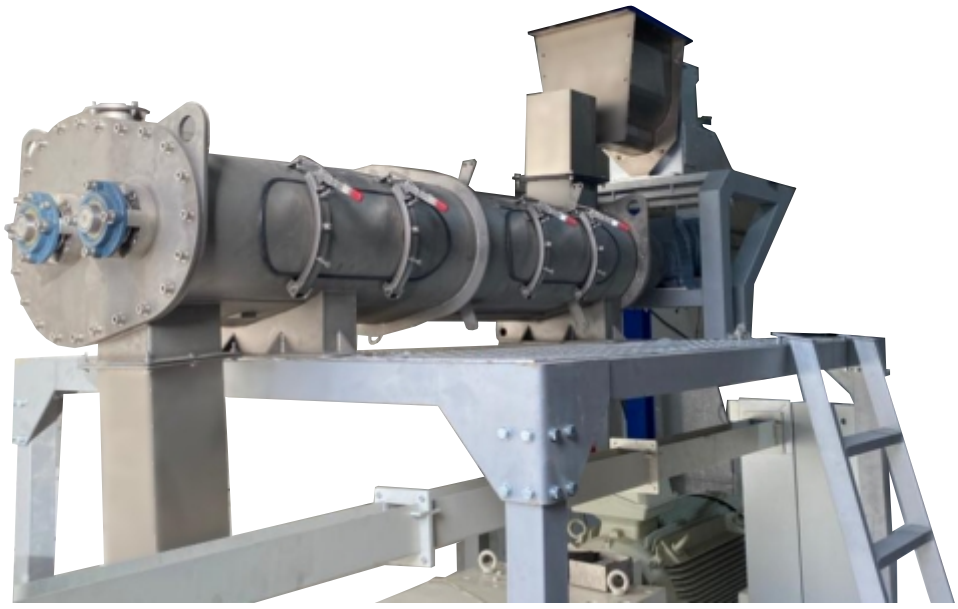
In the process industries, continuous mixers, also known as mixer-feeders, are the preferred choice for mixing bulk materials. These systems excel in applications requiring high capacity and quick mixing times, ensuring optimal material handling and minimal ingredient damage. Available in both one-shaft and two-shaft configurations, our two-shaft models provide superior ingredient mixing for enhanced performance.



Behpoo is renowned for its expertise in designing and producing mixer-feeder systems, with or without paddles. We are committed to delivering tailored solutions that meet our clients' unique specifications, ensuring the highest quality and efficiency in every project



Mixer-feeder specification	
Flowrate (t/h)	1 to 50
Type	2-Shaft
Shell diameter	200 to 1000 mm
Length	1500 to 12000 mm
Chamber Volume (m3)	2 to 12
Shaft	One-piece construction
Material	Stainless steel/ Painted plain carbon



BAG UNLOADING PACKAGE

The bag unloading package system is one of Behpoo's innovative products, backed by extensive experience in designing and building automation systems based on Multidisciplinary Complex Systems. This system is specifically designed for use in the extrusion rooms of the petrochemical industry, where it plays a crucial role in the mixing of additives within silos. The system automates the unloading of small additive bags, typically weighing 25 kg, which are placed on pallets. Depending on the design configuration, the system's output can be directed into large bags that are subsequently emptied into designated silos.

PACKAGING SOLUTIONS

We have over ten years of experience in the design and production of packaging systems, with a particular emphasis on weighing and inspection equipment for the petrochemical industry.

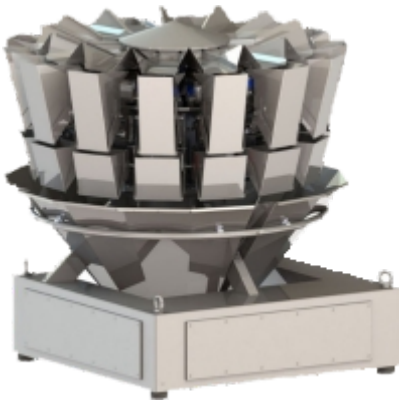
WEIGHING MACHINES

Behpoo specializes in developing and producing a broad range of weighing systems, essential for the efficiency and performance of packaging lines, particularly in high-speed operations. These systems ensure materials are accurately and quickly dispensed into packages.

We offers various weighing systems, including screw feeders, auger powder fillers, cutgates, and multihead weighers. Each system is designed for specific material types, such as powders, granules, and more. Our production weighing systems are fully optimized for high-speed packaging, capable of handling over 2,000 packages per hour.

Thanks to our extensive research and development, Behpoo's weighing systems can be customized to meet each customer's unique requirements.

Auger Powdery Filler



Multi Head Weigher

Cutgate System

INSPECTION SYSTEMS

Our inspection machines are designed to ensure product quality at the end of the packaging line. They help customers detect metal contaminants and weight anomalies with precision. We offer a diverse range of machinery to meet various inspection needs

Checkweigher

At the end of the production line, checkweighers reliably and accurately measure the weight of the packages and removes the out of the expected range products.

Features:

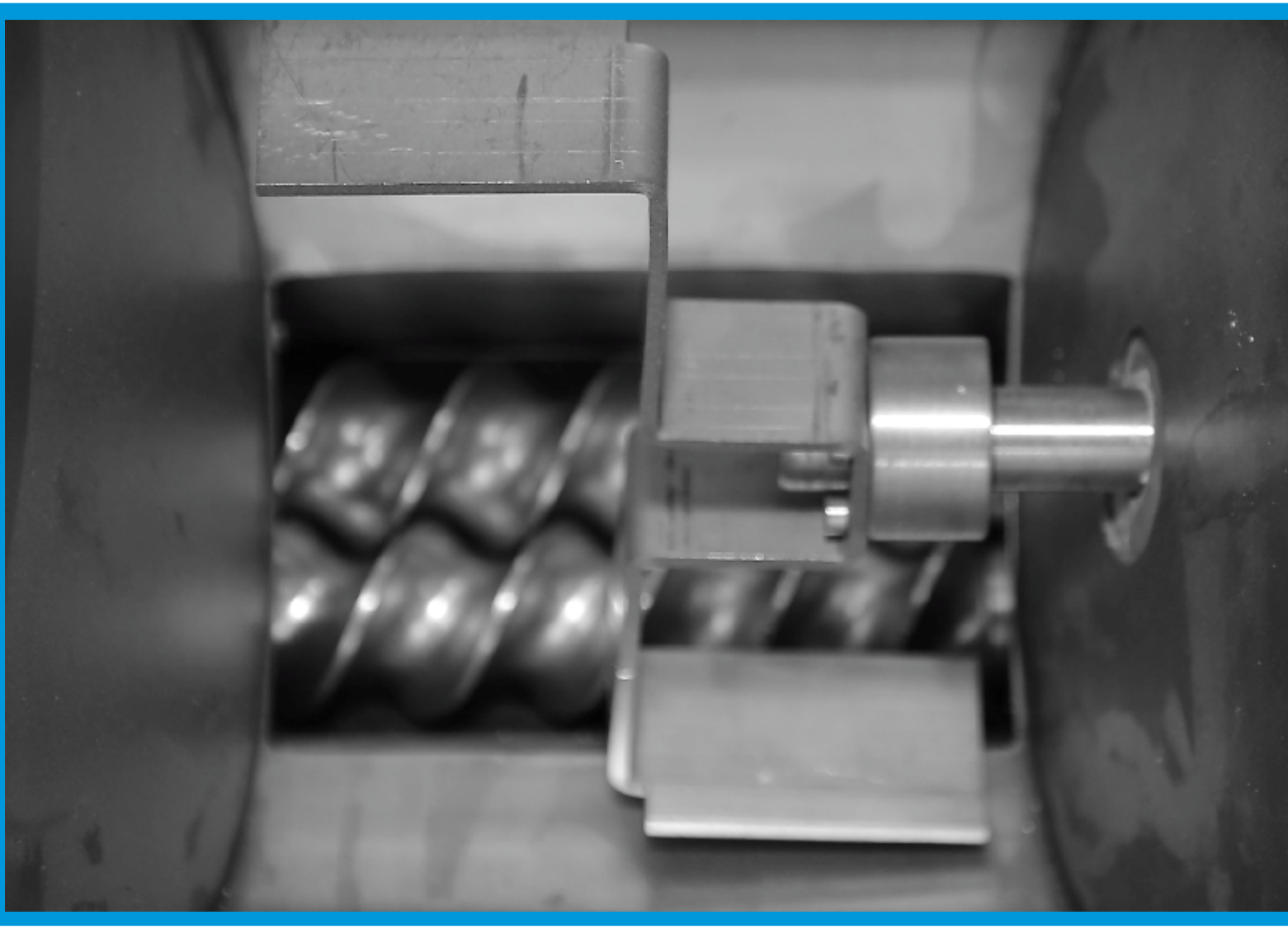
- ☑ Rejecter system for over and under ranged bags
- ☑ Tolerance setting for qualified range
- ☑ Alarm for out-of-range bags
- ☑ Spacing systems between bags

	BC-LW10	BC-LW50	BI-CW250
Weighing range	10 gr- 1000gr	1 kg – 5 kg	5 kg to 25 kg
Speed	40-100 bag/min	20 – 40 bag/min	up to 40 bag/min
Weighing accuracy	1 gr	5 gr	10 gr
Belt width	220 mm	350 mm	500 mm
Data output	USB		
Weight	120 kg	190 kg	310 kg
Power supply	220V / 50-60 Hz / 500 W	220V / 50-60 Hz / 700 W	220V / 50-60 Hz / 900 W
HMI	7”	7”	10”
Communication port	Modbus TCP / Network Port		

Metal Detector

We offer metal detector systems, designed to detect metals at the end of the packaging line with the following specifications.

	BI-MD250
Detection Head Internal Height	250-300 mm
Detection Head Internal Width	550-600 mm
Conveyor Length and Height	Customized as Request
General Nominal Detection Accuracy	1.5 mm Fe;2.0mm 316 Stainless Steel
Conveyor Belt	Plastic Chain Modular Belt or Urethane Belt



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