

Your Extrusion Allies

 **bausano**

RECYCLING LINES

E-GO R Single-Screw Extruders



A specialized single screw extruder applied to gently melt the pre-compacted material. The plastic scraps will be well melted. With single or double-zone vacuum degassing system, volatiles such as low molecular and moisture will be removed efficiently, especially suitable to heavy printed film and material with water content.



TECHNICAL DATA

Models		E-GO R 75	E-GO R 90	E-GO R 105	E-GO R 125	E-GO R 150	E-GO R 160
Screw diameters	(mm)	75	90	105	125	150	160
L/D ratio	L/D	37	37	37	37	37	37
Capacity	kg/h	180/225	250/300	400/500	550/650	800/950	900/1100
Reduction ratio	no.	l=10	l=10	l=10	l=12,5	l=12,5	l=12,5
Extruder AC motor power	(kW)	66 (1450 RPM)	90 (1450 RPM)	160 (1450 RPM)	210 (1450 RPM)	280 (1450 RPM)	330 (1450 RPM)
Speed Screw	RPM	130	130	130	120	110	110

Data may vary according to design specifications.

The extruders can be equipped with different material feeding systems:

CONICAL FORCE FEEDING UNIT

More precisely: We use a special conical screw, designed to process leaf, film, expanded, rigid, agglomerated, densified materials and granules, or we equip the system with a more economical, cylinder-shaped locking screw which allows the processing of rigid, densified materials and granules. The feeding system is essentially

made up of a collection silo and three moving areas for material: a constant-speed agitator, with four blades, placed on the bottom of the silo, feeds the horizontal extraction screw which, in turn, feeds the vertical forcing screw which has the task of introducing the material to the extruder.

Forcing Screw Power (kW)	Dosing Auger Power (kW)	Agitator Power (kW)	Capacity (kg/h)
3	0,75	4	100 ÷ 170
4	1,5	5,5	210 ÷ 280
7,5	1,5	5,5	350 ÷ 450
7,5	1,5	5,5	450 ÷ 660
9	2,2	5,5	700 ÷ 1300

VERTICAL SINGLE SCREW FORCE FEEDERS

The forced feeding system is the most effective system for the introduction into the extruder of grinded material with a low specific weight, particularly suitable for thermoplastic film. It is essentially made up of a collection silo and two areas for moving materials: a variable speed agitator, with four blades, placed on the bottom of the silo, constantly feeds the vertical forcing screw, whose speed

is maintained constant at a value set based on the characteristics of the material processed.

In this way, the system allows the user to take advantage of the whole power applied to the extruder, independently from the apparent density of the material processed.

Forcing Screw Power (kW)	Agitator Power (kW)	Capacity (kg/h)
5,5	4	100 ÷ 170
5,5	4	210 ÷ 280
7,5	5,5	350 ÷ 450
7,5	7,5	450 ÷ 660
11	7,5	700 ÷ 1300
15	7,5	1400 ÷ 1700

Data contained in this catalogue are purely indicative and may change.

CONICAL FEEDING SYSTEMS

The The CONICAL series series uses a special conical screw, designed to process leaf, film, expanded, rigid, agglomerated, densified materials and granules, or we equipped with a more economical, cylinder-shaped locking

screw which allows the processing of rigid, densified materials and granules. The machine can be controlled with automatic adjustment or manual adjustment.

Forcing Screw Power (kW)	Capacity (kg/h)
3	100 ÷ 170
4	210 ÷ 280
7,5	350 ÷ 450
7,5	450 ÷ 660
9	700 ÷ 1300

VOLUMETRIC DOSING UNITS

The volumetric dosing units are normally used to feed, or directly the extruder or the other feeding systems, with granules, pellets, rigid material and masterbatch.

The adjustment can be either manual or controlled type with special software that adjusts the flow according to the speed of the extruder screw.

Models	Capacity (kg/h)
DPM 1530	0,3 ÷ 50
DPM 1550	1,3 ÷ 300
DPM 1580	10 ÷ 1500
DPM 15100	50 ÷ 5000
DPM 1530	0,6 ÷ 40
DPM 1550	2,8 ÷ 170
DPM 1580	16 ÷ 1000

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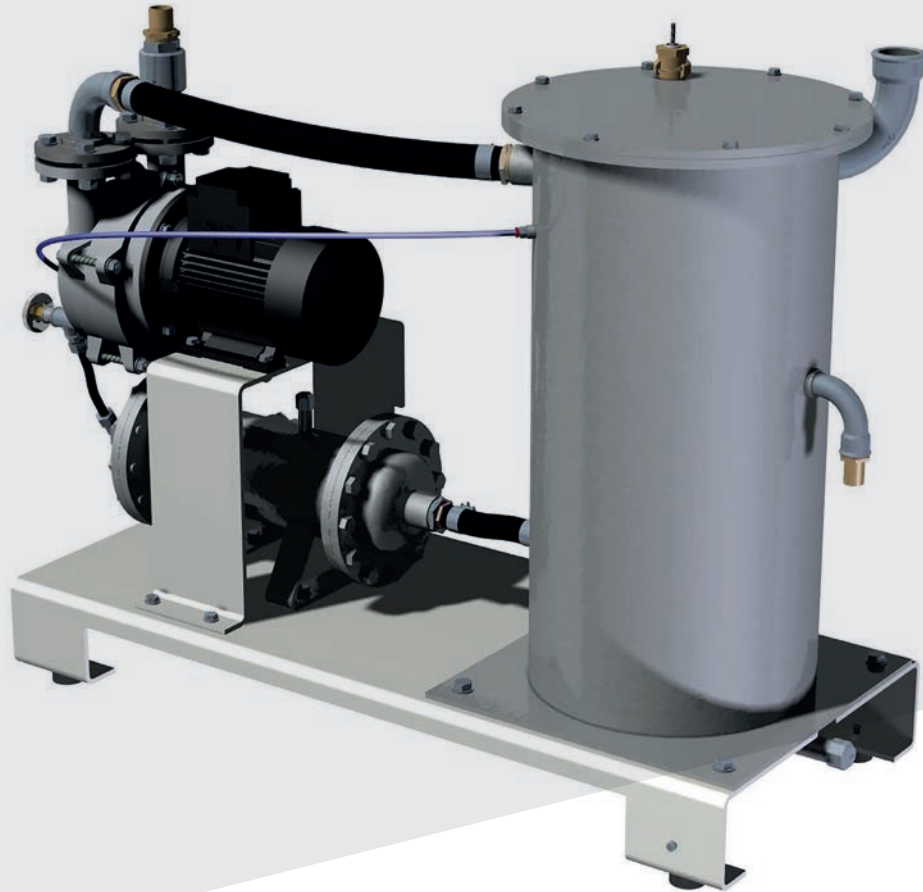
Cutter-Compactor for high umidity and low density materials

The plastic waste is chopped by rotating knives in the proven concept of a cutter compactor. Specially arranged internal deflectors provide additional compacting of this material. This frictional heat densifies the plastic and force feeds it to the extruder screw.

The customized extruder geometry guarantees efficient use of the preheated and compressed material from the cutter compactor. The result is maximum output and a high degree of homogenization while minimizing energy consumption. The advantage: It can process scrap material with high

moisture and/or contamination, reliably converting it into top quality pellets that meet the highest standards in downstream processing.

The rotatory blades of compactor with cut up incoming scraps. Frictional heating which caused by high speed rotatory blades will heat and let scraps shrinking just below their agglomerating point. Optional designed guide structure compacts the material and directs it into extruder screw. Crushes, dries and compacts the material which enables a fast and stable feeding from the compactor directly into the extruder.



Melt degassing

Extruder degassing, also known as hot melt degassing, venting or devolatilization, is carried out during various extrusion processes to remove any residual moisture, air, solvents, reaction products, decomposed materials as well as to purify plastics in various steps of plastics recycling.

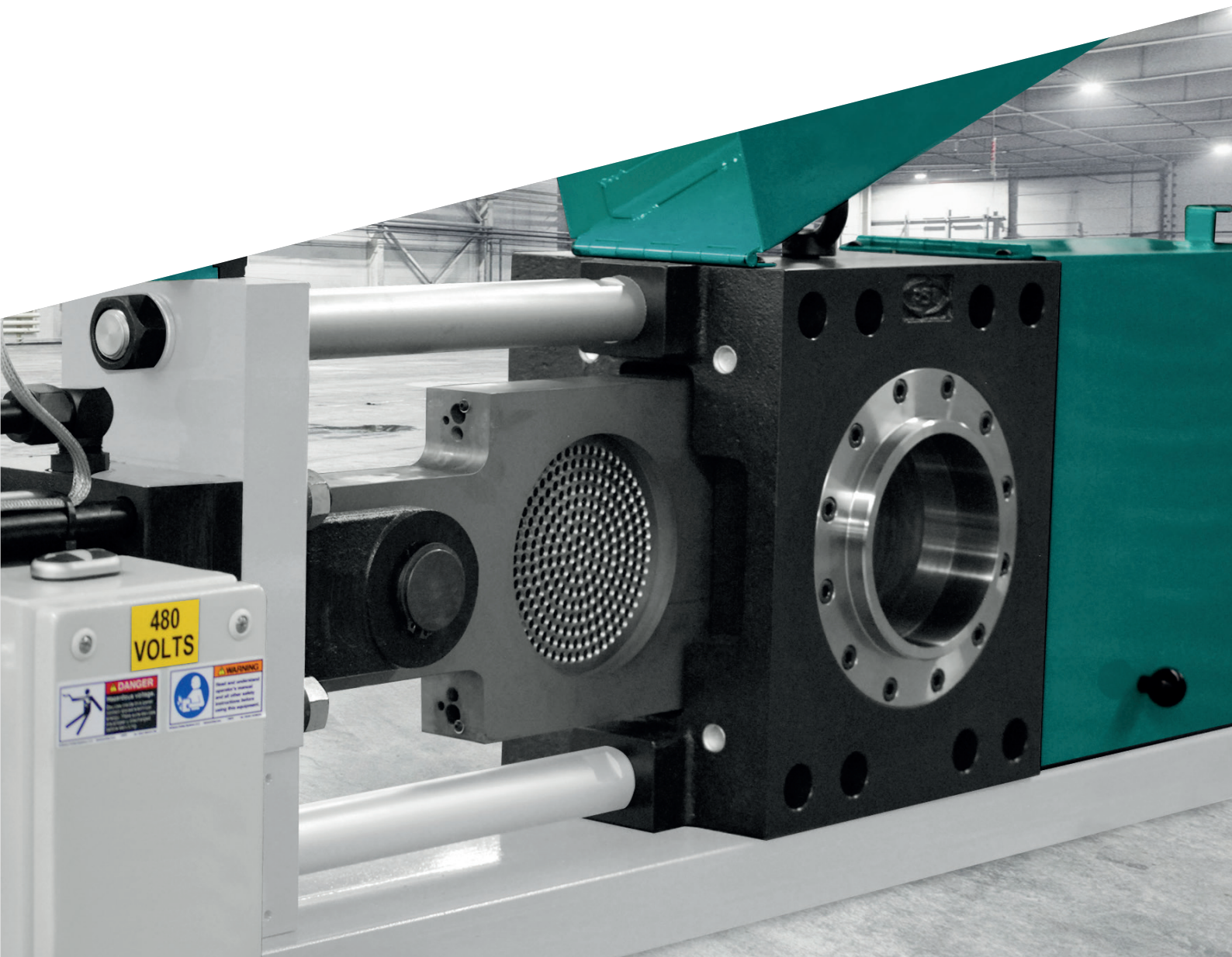
The vacuum levels used for degassing is less than 0,8 mbar and depending on the end product. Effective degassing has multiple effects on products in the plastic industry, including an increase in the free volume, reduction in the residual moisture content, improvements in odour, changes in the visual appearance, alterations in mechanical properties, prevention of bubbling or foaming, and homogenous mixing.

Water vapour must be removed from the polymer melt as it will otherwise degrade the quality of the final product.

Bausano offers a range of next generation pumping technologies with superior performance and high quality levels in applications with high presence of vapors in suction, which can condense inside the pump body.

Melt filtration

The screen changer is a manual or automatic switching device consisting of one or more filters, which is used to filter out foreign particles and impurities when plasticizing material flow filters. As we all know, the cleanliness of the recycled materials and the technological use of the final regenerated particles determine the filtration technical standards of the filtration system. For different melt filtration loads, the conventional non-stop single-plate double-station or two-piston double-station screen-changing filtration system is applied to achieve excellent melt filtration performance. The requirements on the filter technology depend heavily on the quality of the input material as well as the planned use of granules.





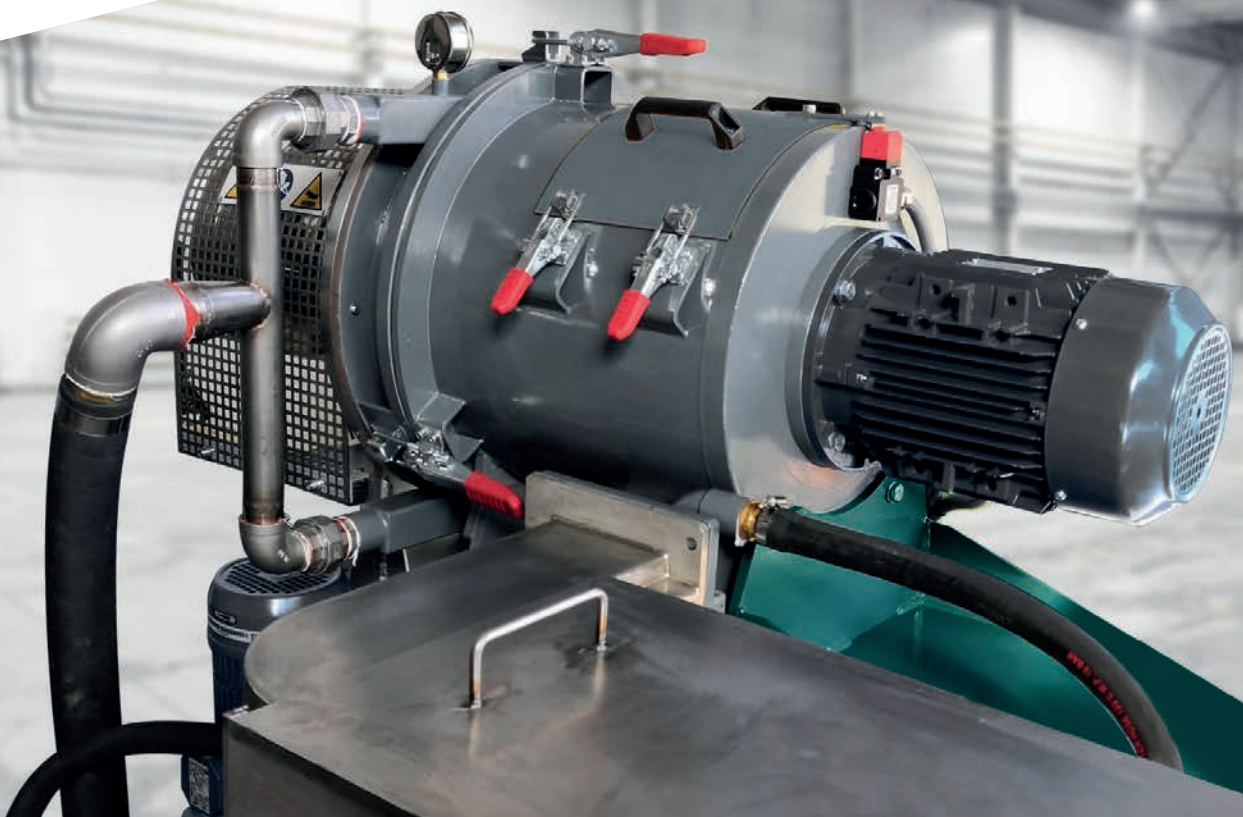
Strand Pelletizing System

Bausano's strand pelletizing systems offer a method for pelletizing a wide range of plastic materials including HDPE, LDPE, PP and PE. Our strand pelletizing systems are available as both wet and dry cut strand pelletizing equipment, producing the highest quality of cylindrical pellets or microgranular compounds ideal for further processing.

Easy to use and clean, all parts in contact with the products to be granulated are made with stainless materials; the cutting rotors are made with multiple blades in order to give low noise and long life.

Water ring pelletizing system

Pellet is immediately cooled inside a cylindrical chamber, using a tangential jet of water. The water and the material go through a conveyor and are separated before entering into the vertical drying centrifuge. The material is expelled through an unloading cyclone, on which a fan for the extraction of humid air and a flow sensor can be installed. The centrifuge and the cyclone are soundproofed to respect the noise limits permitted by current regulations. All the parts of this machine which come into contact with water are made of stainless steel. The mounting of a suitable water-water heat exchanger on the machine allows the user to maintain a suitable temperature for cooling the granules on the basis of the capacity required.





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