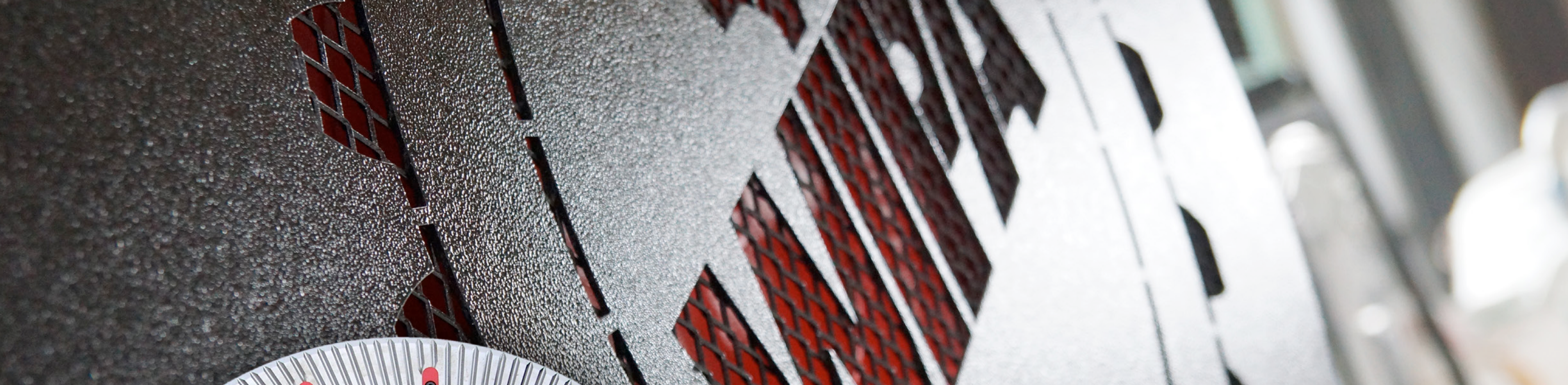




ENG

THAT'S THE WAY TO RECYCLE

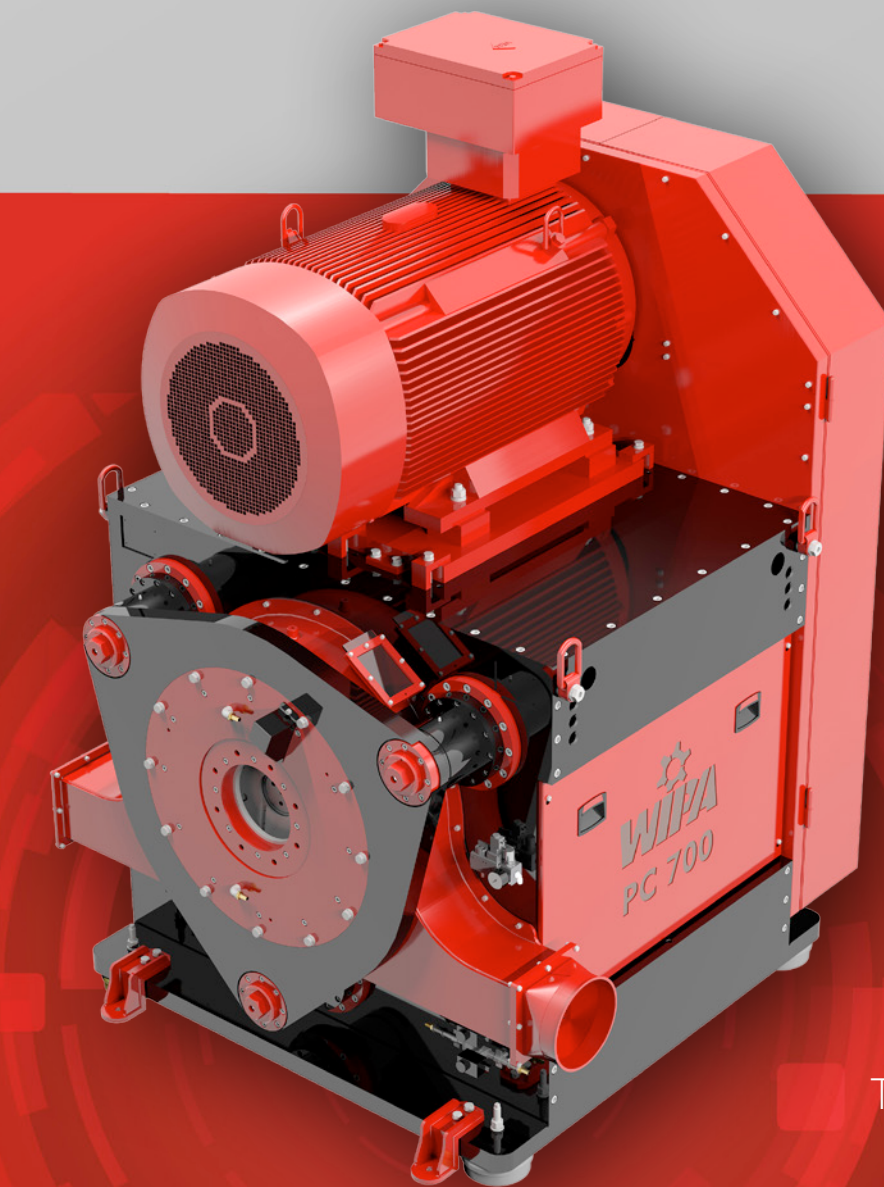


PRODUCT RANGE:

PLAST COMPACTORS / AGGLOMERATORS
GRANULATORS
SHREDDERS
GUILLOTINES
PULVERIZING SYSTEMS
WASHING SYSTEMS
EXTRUDERS
SILOS



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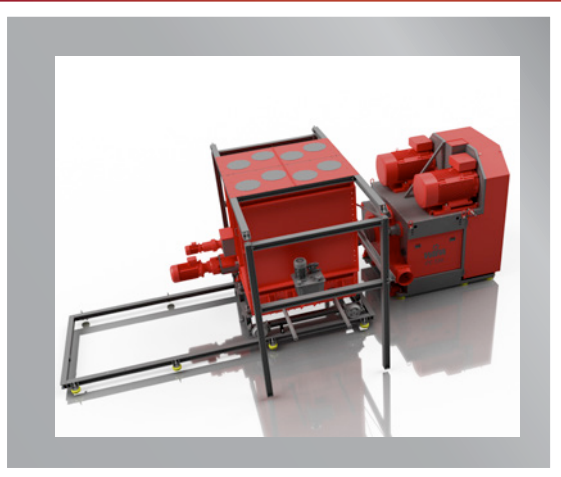
Type PC

WIPA PLAST COMPACTOR

www.wipa-germany.de



WiPa: Your worldwide partner in the field of recycling



Agglomeration with WiPa Plast Compactor

WiPa Plast Compactor

The WiPa Plast Compactor Type PC is an agglomerator for gentle densification of plastics with low bulk density, for example:

- fibres
- film
- stretch film
- foamed materials
- powder
- fine particles

During the process the WiPa Plast Compactor transforms the low bulk density plastic into an easy-dosable agglomerate with high bulk density, with lowest possible thermal damage.

The process

A feeding system transports shredded plastic to a buffer container. An agitator in the buffer container guarantees permanent filling of the feeding screw and prevents bridging. The feeding screw pre-compacts the plastic to be recycled and feeds it to the Plast Compactor's disc pair. The disc pair consists of a moving rotor disc and a non-rotating stator disc serving as counter element. Kneading and rolling between the discs creates friction heat and plastifies, sinters and compresses the material. The process is 100% PLC controlled and needs only a few operators to feed the machines with material.

Gentle densification

The thermal impact on the material in WiPa Plast Compactor can be hardly compared to the conventional agglomerators, which work in a batch process or standard extruders, because the dwell time of the material in the machine is only a matter of seconds. During this process step the melting point is not reached, because the material is only being transformed into a pasty condition and leaves the discs on its own volition.

The agglomerate

During the process finger size agglomerates are created which are cut to the desired grain size by means of a granulator installed downstream. The size of the agglomerates is determined by the screen installed in the granulator. To cool the material down and avoid dust as well as fines accumulation in the final product, the agglomerate passes through an air sifting unit after the granulator and before conveying to a silo or big bags.

Agglomeration and drying

The WiPa Plast Compactor is mainly used to increase the bulk density of plastic materials. Nevertheless, there are several other fields of application: For example, efficient drying of plastics being processed in a washing line. During the process the material gets heated, moisture evaporates, so that final humidity content is reduced up to less than 0,5%. In this condition the material is prepared for further processing in an extruder or an injection moulding machine.

Compounding

Additives and fillers like color pigments, plasticizers, etc. can be fed via special dosing units directly into the feeding screw of the Plast Compactor. The material is being warmed in the compacting zone until the fillers have been absorbed.

Crystallization of PET flakes

Crystallization of PET flakes after a hot washing process is also a possible task for the WiPa Plast Compactor. The material gets warmed till it reaches a pasty condition what aligns the molecules. Crystallization of the PET starts with temperature of 80°C, which is fast and easily reached by a WiPa PC. The viscosity (IV) remains almost unchanged, because during the process the melt point is not reached.

Type PC	150	300	500	600	700	850	1400
Main drive kW	15-45	30-75	75-160	110-200	160-315	315-630	400-1000

Bulk Density	g/l						
Throughput rate	kg/h	kg/h	kg/h	kg/h	kg/h	kg/h	kg/h
HDPE	370	80-150	280-350	480-700	750-1200	1150-2000	1700-3000
PE film	350	60-130	200-500	500-800	750-1150	800-1600	1200-2100
PE foam	350	50-120	200-500	400-700	700-1050	750-1400	1000-1650
PP non woven	390	60-120	150-300	400-700	700-1250	750-1400	1050-1850
PS film	460	60-120	150-300	300-700	700-1200	750-1300	1100-1900
EPS	500	70-125	180-300	300-700	700-1200	750-1200	1000-1600
PVC film	600	90-160	250-400	300-700	750-1250	800-1500	1150-1850
PVC foam	500	80-140	250-400	300-700	700-1200	800-1450	1000-1650
PET film	600	90-150	200-300	600-900	750-1350	800-1700	1150-2150
PET fibers	600	85-140	150-300	400-600	750-1100	850-1450	1200-1750
PET foam	550	80-130	100-250	250-600	550-1000	650-1100	1000-1550
PET fleece	600	90-150	200-350	400-700	650-1250	800-1750	1100-2150
PET flakes (bottle)	550	100-160	200-400	400-1000	700-1300	950-1800	1380-2200
PA film	430	80-130	150-300	400-900	650-1250	850-1650	1200-2100
PA 6 / 6.6 fibers	450	80-120	150-250	400-900	650-1050	800-1250	1000-1700
Carpet waste	390	70-120	100-250	350-600	600-1000	800-1200	1000-1600
Synthetic rubber	420	90-140	150-400	250-700	650-1500	800-1850	1100-2200
Wood plastic	350	90-120	150-350	250-600	650-1350	800-1650	1000-1900

