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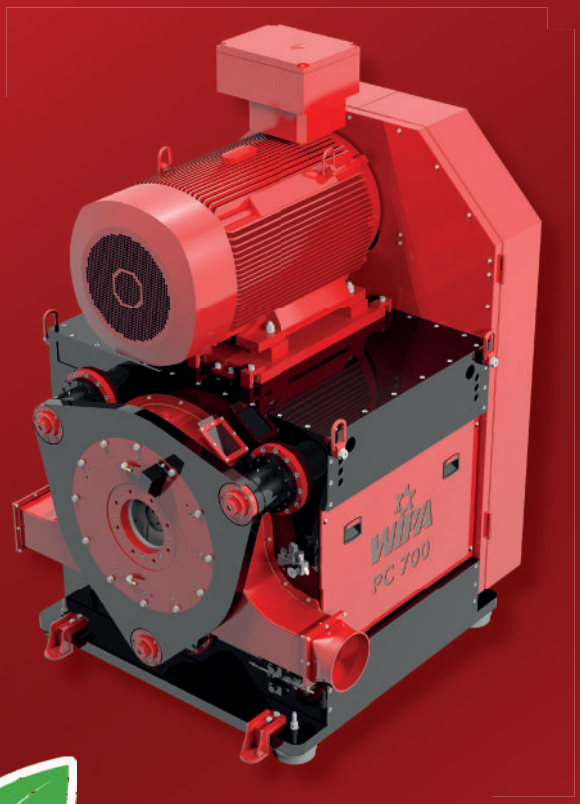


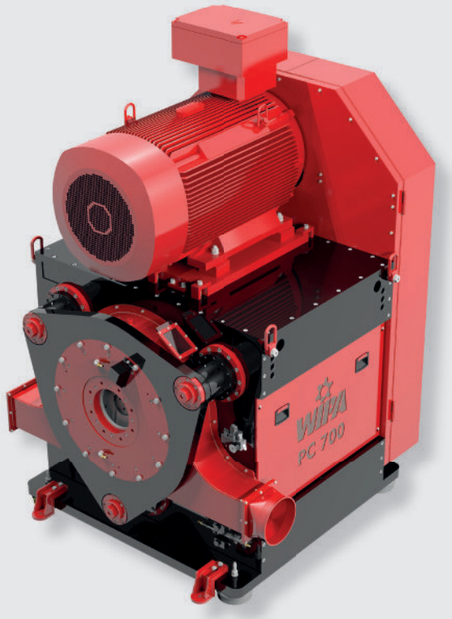
THAT‘S THE WAY TO RECYCLE

PRODUCT CATALOGUE

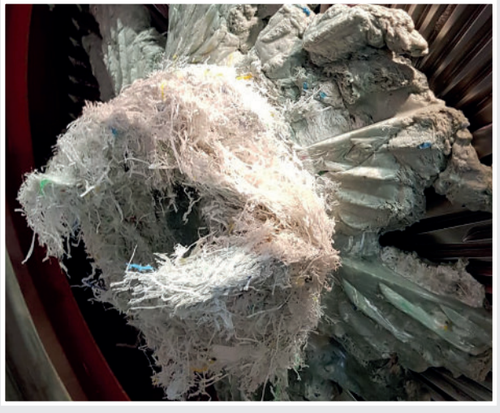
PLAST COMPACTOR

WIPA Werkzeug- und Maschinenbau GmbH

PLAST COMPACTOR



TYP PC



Agglomeration with
WIPA Plast Compactor

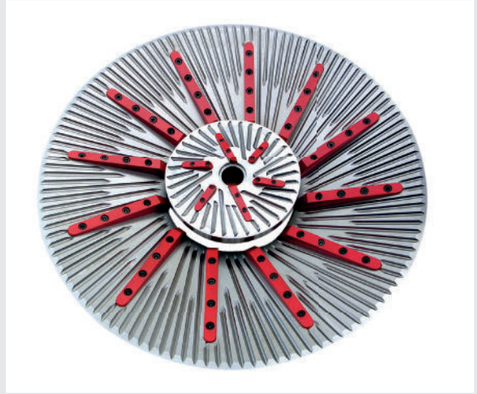
WIPA PLAST COMPACTOR

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 particels

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.

PLAST COMPACTOR



INPUT PROCESS AGGLOMERATE

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.

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PLAST COMPACTOR

Gentle densification

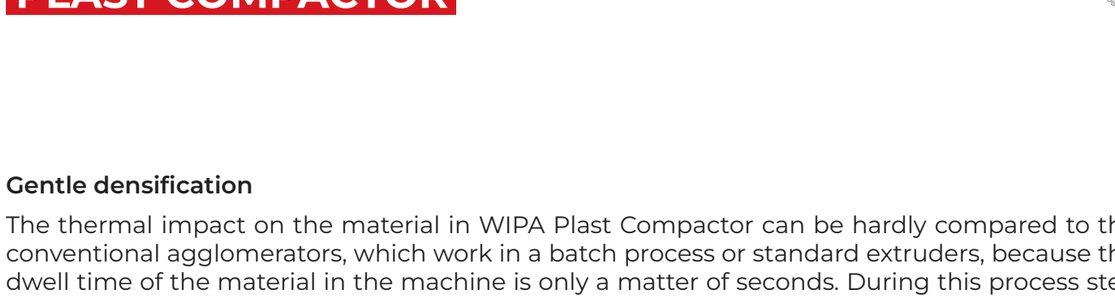
The thermal impact on the material in WIPA Plast Compactor can be hardly compared to the conventional agglomerators, which work in a batch process or standard extruders, because the dwell time of the material in the machine is only a matter of seconds. During this process step the melting point is not 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 Plast Compactor. The viscosity (IV) remains almost unchanged, because during the process the melt point is not reached.

PLAST COMPACTOR

Type PC		300	500	600	700	850	1400
Main drive kW		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**
HDPE	370	280-350	480-700	750-1200	1150-2000	1700-3000	2500-4000
PE Folie	350	200-500	500-800	750-1200	800-1600	1200-2100	2000-3500
PE Schaumstoff	350	200-500	400-700	700-1050	750-1400	1000-1650	2000-3200
PP Vlies	390	150-300	400-700	700-1250	750-1400	1050-1850	2000-3100
PS Folie	460	150-300	300-700	700-1200	750-1300	1100-1900	2150-3250
EPS	500	180-300	300-700	700-1200	750-1200	1000-1600	1900-2700
PVC Film	600	250-400	300-700	750-1250	800-1500	1150-1850	2100-3100
PVC Foam	500	250-400	300-700	700-1200	800-1450	1000-1650	1850-2700
PET Film	600	200-300	600-900	750-1350	800-1700	1150-2150	2100-3400
PET Fibers	600	150-300	400-600	750-1100	850-1450	1200-1750	2000-2600
PET Foam	550	100-250	250-600	550-1000	650-1100	1000-1550	1700-2400
PET Fleece	600	200-350	400-700	650-1250	800-1750	1100-2150	1800-2600
PET Flakes (bottle)	550	200-400	400-1000	700-1300	950-1800	1380-2200	2400-3900
PA Film	430	150-300	400-900	650-1250	850-1650	1200-2100	2150-3400
PA 6 / 6.6 Fibers	450	150-250	400-900	650-1050	800-1250	1000-1700	2000-3200
Carpet waste	390	100-250	350-600	600-1000	800-1200	1000-1600	1900-2900
Synthetic Rubber	420	150-400	250-700	650-1500	800-1850	1100-2200	2100- 3200
Wood plastic	350	150-350	250-600	650-1350	800-1650	1000-1900	2000-3000

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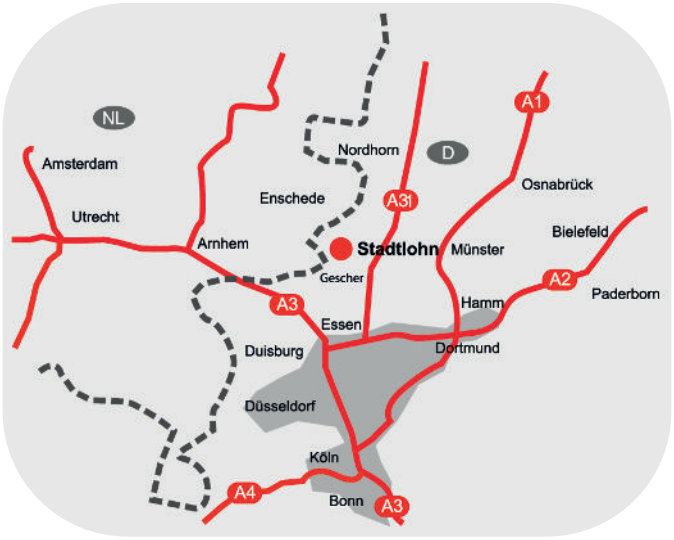

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Version 01