

# GRANULATORS

## COMPACT LINE CL



# HOSOKAWA ALPINE

PROCESS TECHNOLOGIES FOR TOMORROW<sup>SM</sup>



Since the market launch in 1995, our CL product line has been systematically enhanced. The focus thereby was always on the maximum degree of practical effectiveness and a high level of customer satisfaction. The new CL generation also sets standards in its own machine segment: The modular concept offers the maximum in flexibility and offers our customers a range of closely graduated machine sizes, a great variety of equipment features and different construction materials. The universality and the technical features shift the new Alpine CL granulator product line right into the centre of the customised systems for the recycling of plastic waste and plastic film of all types and shapes as well as other cuttable materials.

### 80/140 CL



#### DESIGN FEATURES

- Rotors in patented Alpine cross-scissor-cut technology
- Robust framework construction in "triple-frame" technology
- Electrohydraulic dual opening system for mill top section and screen support for fast and comfortable access to rotor and grinding chamber
- Gap elimination/minimisation for optimal cleaning
- Machine sizes from 30 kW to 500 kW
- Modular design for short delivery periods

As a standard feature, Alpine Compact Line Granulators CL offer all the integrated technology that is necessary these days for the cost-effective comminution of all kinds of plastics - and at an attractive price. Developed as a universal granulator, the success of this product line bases on the many details aimed at maximum user benefits.



#### USER BENEFITS

- Alpine cross-scissor-cut rotor guarantees optimum material intake and distribution and thus high throughput rates at reduced energy consumption.
- The standard electrohydraulic opening mechanism of machine top section and screen support ensures optimum accessibility when cleaning the machine before changing the feed product or the product colour.
- Screen can be rotated through 180°, rotor knife adjustment takes place outside the machine, the stator knives can be used on 4 sides. The concept and design of the cutting knives endows them with an extremely generous potential for being resharpened, thus reducing the spare parts requirement.



**HOSOKAWA ALPINE**

For well over 100 years, Hosokawa Alpine's name has stood for competence in all aspects of comminution technology. Many years of close cooperation between the customers' R&D departments and the Alpine engineers have made us foremost specialists on the global market for powder technology. Alpine's name is a byword for high quality and reliable machines and systems as well as for the innovative power of the company in developing new technologies and processes. Top-quality products call for

competence in development, design & engineering, manufacture and assembly. And this competence in turn stems from the training, know-how, experience and motivation of the employees. The setting of our company headquarters in Augsburg has always fulfilled these requirements in the best possible way. And it is here that we find the dedicated and excellently trained staff who render a great service to the company, the products and the success of our customers. For this reason and in the tradition of

our own self-imposed commitment to high quality, the logo "ENGINEERED, MANUFACTURED AND ASSEMBLED IN GERMANY" continues to apply to Alpine machines and systems.



# COMPACT LINE CL SERIES

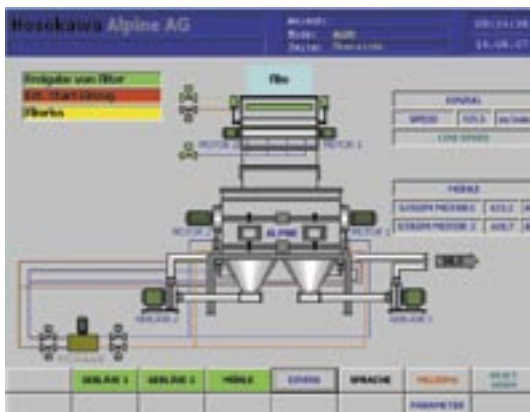


Compact Line	Type CL	45/71	45/100	45/140	60/100	60/140	80/140
Drive	kW	37 - 55	45 - 75	55 - 90	75 - 110	90 - 132	110 - 160
Throughput *	approx. kg/h	500	900	1200	1200	1500	2000
Cross-scissor-cut rotor	rpm	650	650	650	500	500	400
Number of rotor knife rows		4	4	4	4/6	4/6	4/6/8
Number of stator knife rows		2/3	2/3	2/3	2/3	2/3	3

Compact Line	Type CL	80/170	80/200	90/200	90/240	90/270	90/300
Drive	kW	132 - 200	160 - 250	250 - 315	2 x 160	2 x 200	2 x 250
Throughput *	approx. kg/h	2500	3000	4000	4800	5400	6000
Cross-scissor-cut rotor	rpm	400	400	350	350	350	350
Number of rotor knife rows		8	8	10	10	10	10
Number of stator knife rows		3	3	3	3	3	3

\* Reference value using an 8-mm screen



PROCESS CONTROL BY  
STATE-OF-THE-ART  
VISUALISATION



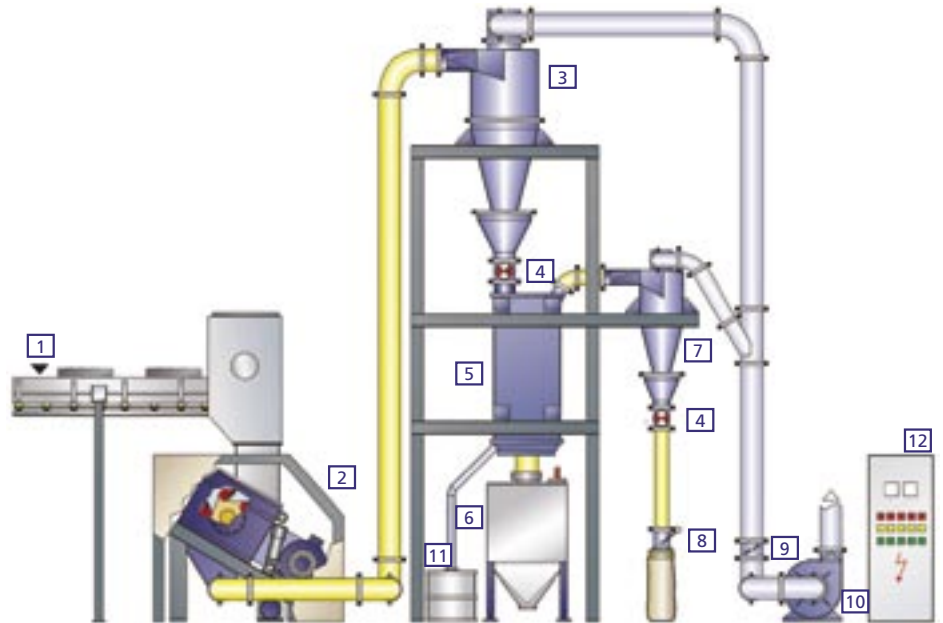
COMPACT LINE  
GRANULATOR 80/170 CL



# APPLICATION EXAMPLES

## COMMINUTION SYSTEM FOR PLASTIC FUEL TANKS

- 1 Feed conveyor belt
- 2 Granulator
- 3 Cyclone
- 4 Rotary valve
- 5 Separator
- 6 End-product bin with level indicator
- 7 Cyclone
- 8 Stop slide valve
- 9 Butterfly valve
- 10 Fan
- 11 Metal scrap
- 12 Control cabinet



### PLASTIC FUEL TANKS



### PVC WINDOW PROFILES

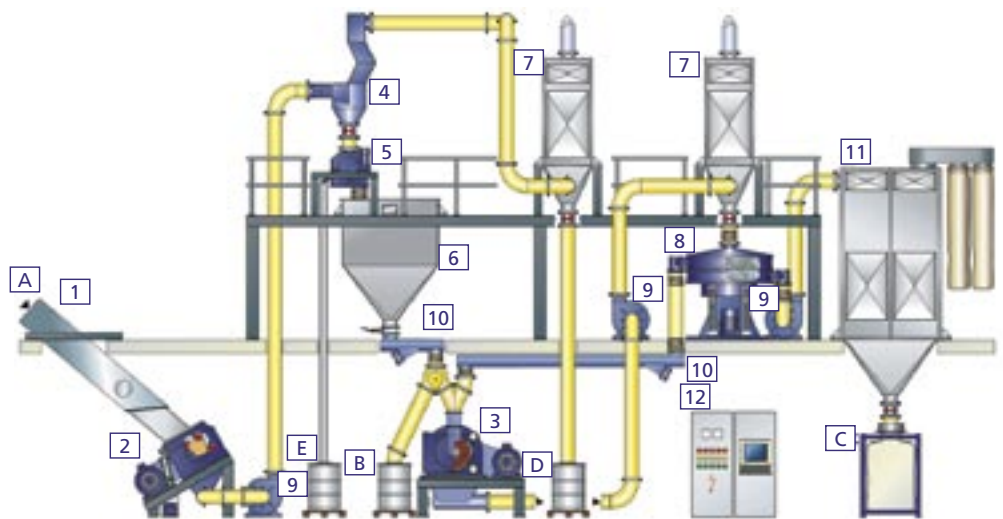
## INHOUSE-RECYCLING FOR PROFILES AND PIPES

- 1 Feed chute
- 2 Granulator 45/71 CL
- 3 Fine cutting mill 500 AFS
- 4 Dedusting system DE
- 5 Metal separator
- 6 Bin
- 7 Filter
- 8 Screening machine
- 9 Fan
- 10 Conveying channel
- 11 Filter
- 12 Control cabinet

System flowchart

Feed material: faulty and start-up profiles up to 6 m in length

Task: to fine-grind PVC profiles, separate dust and protective film



- A PVC profiles
- B Ground product
- C PVC powder (end-product)
- D Film particles
- E Metal particles

# APPLICATION EXAMPLES



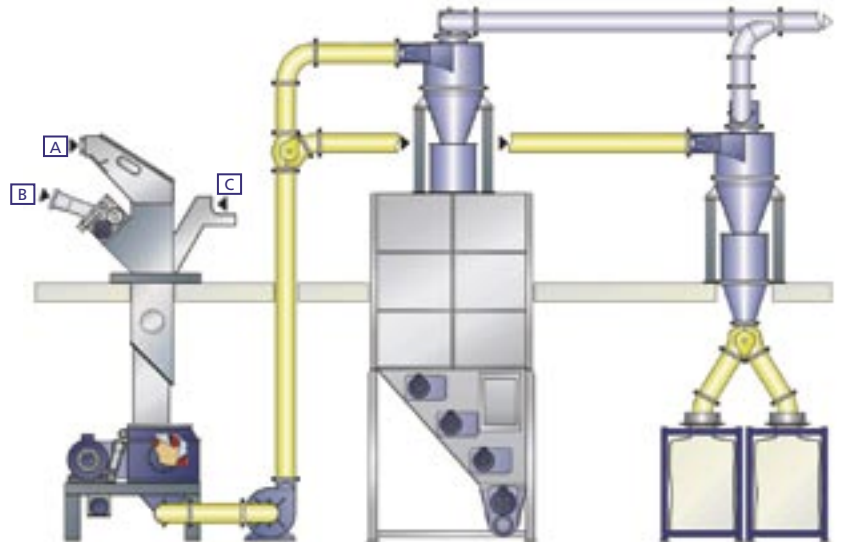
## IN-HOUSE RECYCLING SYSTEM FOR THIN FILM (BOPP, BOPET, BOPA)

### OFF-LINE SYSTEM

Combined feed station for:

- A Continuous film strips
- B Edge trims
- C Manual feed

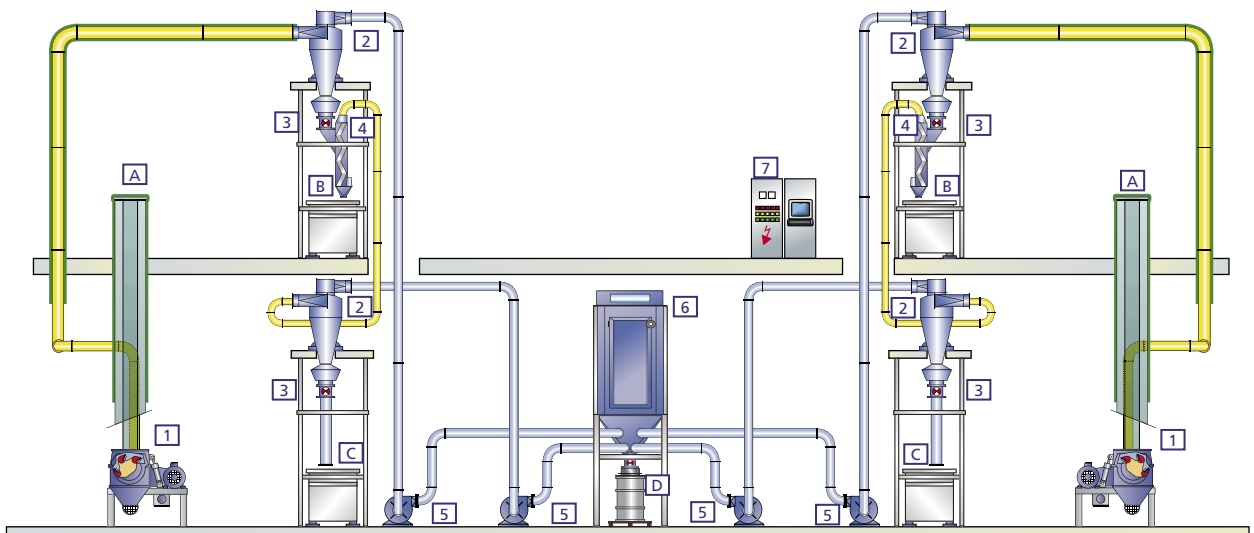
System includes silo and big-bag filling station.



## TWIN GRINDING SYSTEM FOR THERMOFORMING OFFCUTS

Integration of a dedusting unit possible, includes a common exhaust air filter

- |  |  |                                   |
|--|--|-----------------------------------|
| <span style="border: 1px solid black; padding: 2px;">1</span> Granulator with feed valve, motor and suction tank | <span style="border: 1px solid black; padding: 2px;">6</span> Exhaust air filter | Green = insulation                |
| <span style="border: 1px solid black; padding: 2px;">2</span> Cyclone  | <span style="border: 1px solid black; padding: 2px;">7</span> Control cabinet    | Yellow = product-bearing ductings |
| <span style="border: 1px solid black; padding: 2px;">3</span> Rotary valve                                       | <span style="border: 1px solid black; padding: 2px;">A</span> Feed               |                                   |
| <span style="border: 1px solid black; padding: 2px;">4</span> Zigzag classifier                                  | <span style="border: 1px solid black; padding: 2px;">B</span> Granules           |                                   |
| <span style="border: 1px solid black; padding: 2px;">5</span> Fan  | <span style="border: 1px solid black; padding: 2px;">C</span> Fine granules      |                                   |
|  | <span style="border: 1px solid black; padding: 2px;">D</span> Dust               |                                   |



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## **HOSOKAWA ALPINE Aktiengesellschaft**

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