

PHARMAPAKTOR® C 250

The New Generation

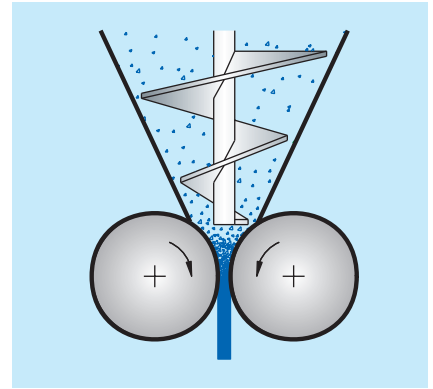


HOSOKAWA ALPINE Compaction

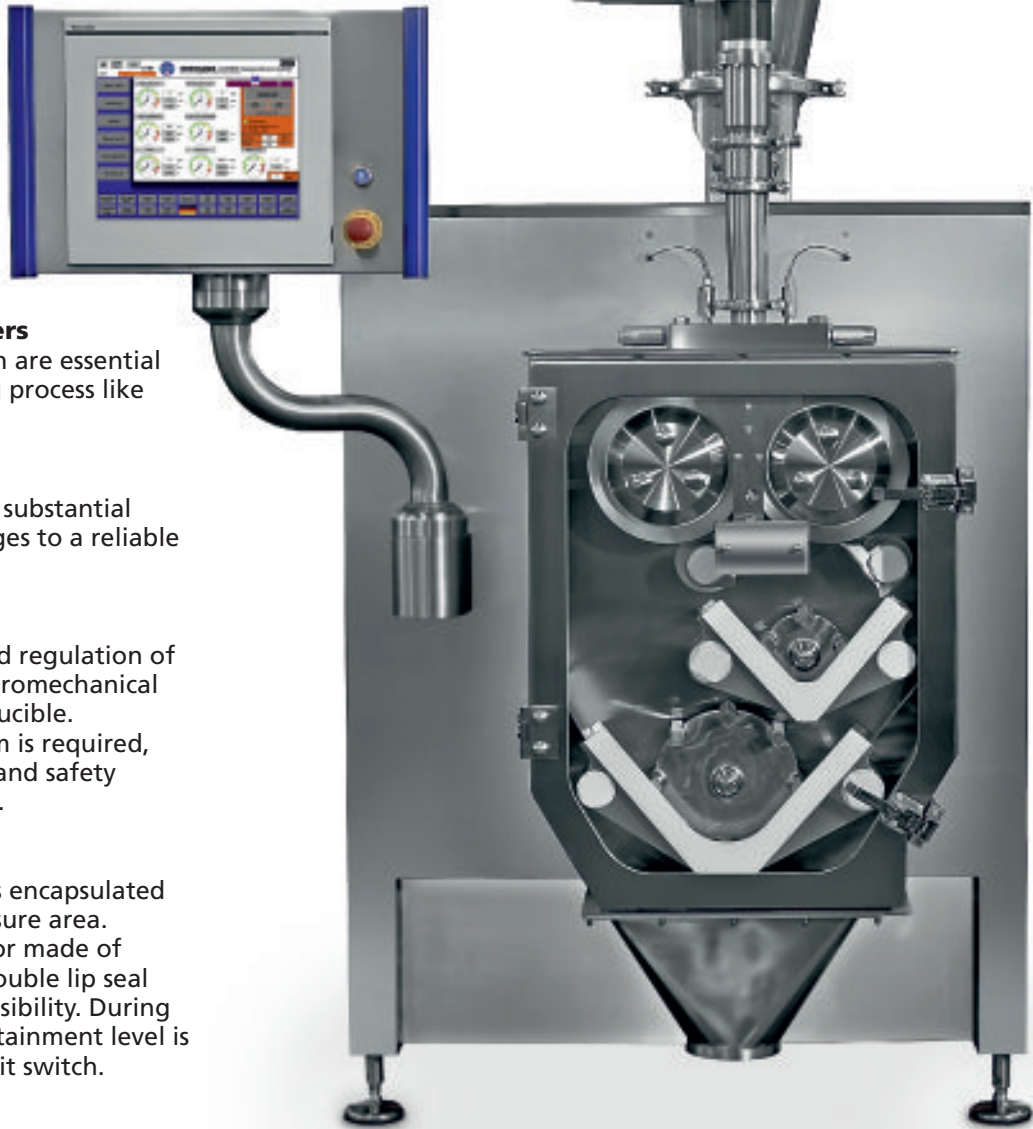
A Division of HOSOKAWA ALPINE Aktiengesellschaft

PHARMAPAKTOR® C 250

Superior Process Equipment



The PHARMAPAKTOR series C offers anything demanded by the pharmaceutical industry.



Process Parameters

The variables which are essential for the compacting process like

- roll gap
- press force
- speed

are interrelated by substantial automation packages to a reliable system.

Roll Gap

The adjustment and regulation of the roll gap is electromechanical and exactly reproducible.

No hydraulic system is required, thus maintenance and safety checks are omitted.

Containment

The product area is encapsulated in a negative pressure area. Nevertheless, a door made of safety glass with double lip seal ensures good accessibility. During operation, the containment level is supervised by a limit switch.

Cleaning

Plain surfaces, no gaps and a minimum of single components - the cleaning is done fast and completely. Screws and nuts have mainly been replaced by push fit components and quick release fasteners.

Uniform flakes and consistent particle sizes after granulation are essential for tableting and capsule filling operations.



Standards

The Pharmapaktor is made of stainless steel 1.4404 (316 L).

The seals are made of FDA compliant materials and are supplied together with the necessary certificates. Observing the GMP guidelines is ensured.

UNIFORM FLAKES - CONSISTENT GRANULES

For Qualification and Validation

Material Feeding

Horizontal screws feed the material in a dosed way from the surge bin into the vertical predensifier screw. There, the actual pre-densification and dosed feeding to the compacting rolls is carried out.

Vacuum De-Aeration

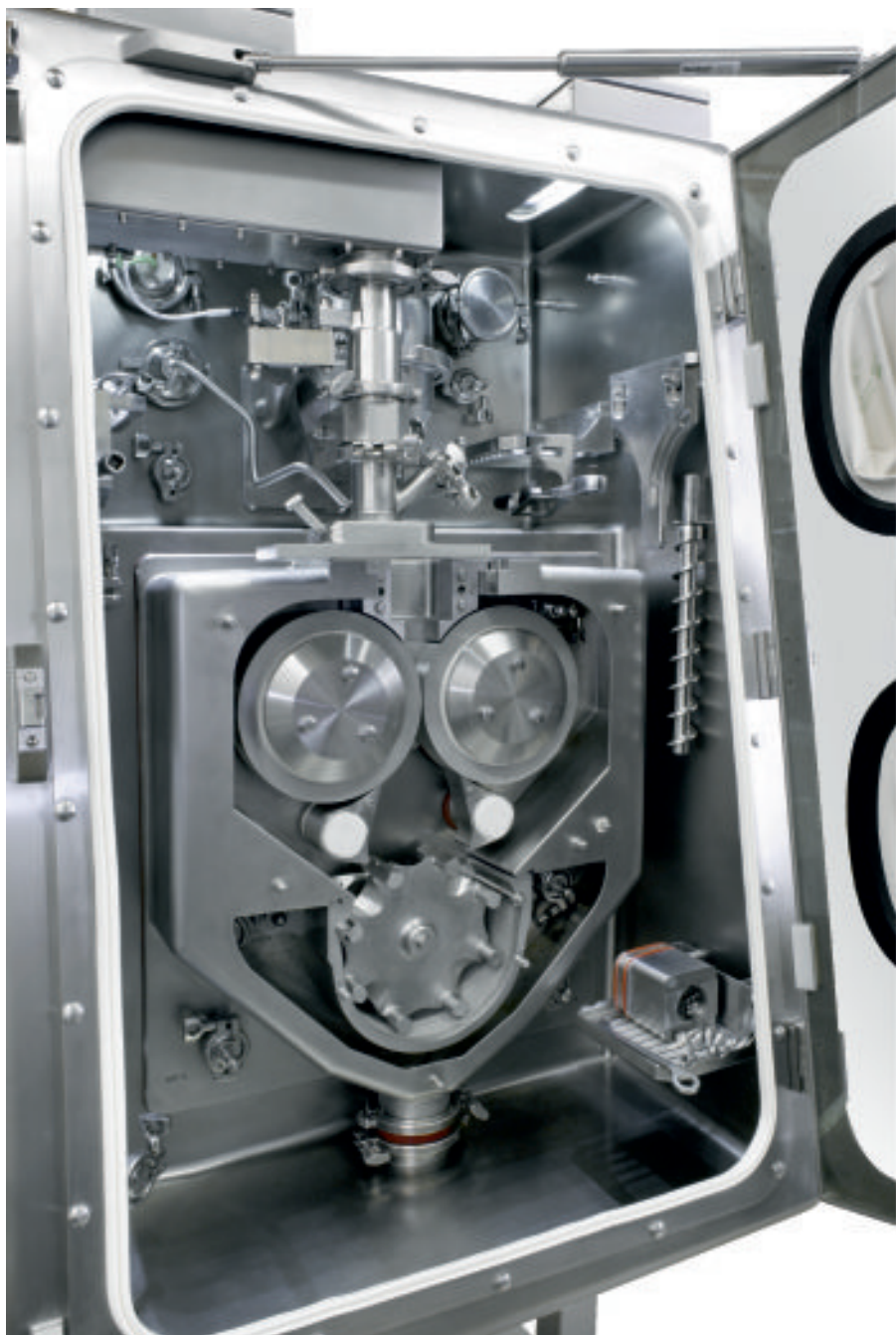
A vacuum de-aeration unit is mounted at the nip area of the rolls in order to achieve a higher efficiency and for reducing the amount of fines. The exhaust air system is equipped with a HEPA-filter.

Cooling

Not only the compacting rolls but also the cheek plates are cooled. The cooling is located near the surfaces and is thus very effective. Supply and discharge of the tempering media are effected in the technical area.

Crushing

The two-step crushing ensures high yields, even with hard flakes. Speed and rotation angle are adjustable. Different rotor types are available. The screen inserts are graduated in a narrow mesh width range.



Data and Features

	APC 250/50	APC 250/75	APC 250/100
Roll diameter	250 mm	250 mm	250 mm
Roll width	50 mm	75 mm	100 mm
Press force	20 kN/cm	20 kN/cm	20 kN/cm
Roll gap adjustment	✓	✓	✓
Direct press force measurement	✓	✓	✓
Automatic press force control	✓	✓	✓
Automatic roll gap control	✓	✓	✓
Cooling system	✓	✓	✓
Dust tight	✓	✓	✓
Gas tight	✓	✓	✓
WIP/CIP	✓	✓	✓
Electric power	400 V, 32 A	400 V, 32 A	400 V, 32 A

The Technical Area

Accessories like drives, electric cabinet, cooling water supply and vacuum pump are covered hygienically and dust-tight and are located in the rear part of the machine.

High Tech Drive Technology

A maintenance-free, up to date drive technology with a wide adjustment range of speeds at constant torque.

Compacting Rolls

Whether corrugated rolls, cross-knurled rolls or profile rolls, we offer the optimum roll surface for your product needs.

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Visualisation

At first glance, you see how the system works.

Press force, roll gap, speeds and torques are displayed clearly.

Nominal values can be adjusted comfortably on the touch screen.

Different password levels control the access possibilities.

The visualisation can be operated directly at the machine, via a separate PC cabinet or from outside the production room. Just state your requests.

Measurement

for Operation and Quality Assurance

- press force
- roll gap
- speeds
- torques
- power consumptions
- negative pressure of the vacuum system
- temperature of the cooling system

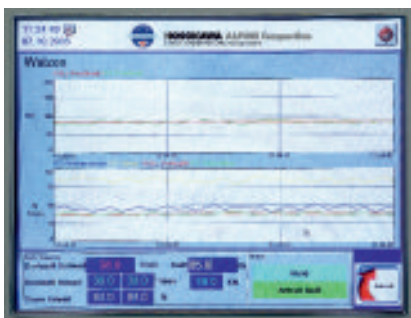
Take the Following for Granted

- GAMP 4

- 21 CFR part 11

You have a superior control and data acquisition production control in your factory?

We take care that your compacting plant is equipped with the correct interfaces (DCS or SCADA, MES) in order to ensure proper data transfer.



Trend Displays

The trend displays are supportive for judging the operation in progress. These trend displays run in real time and point up the correlations between different parameters.



Operating Data

The actual values and the nominal values compared to each other are clearly laid out.

Moreover, the chosen automatic status, f. ex. gap adjustment or press force control can be seen.

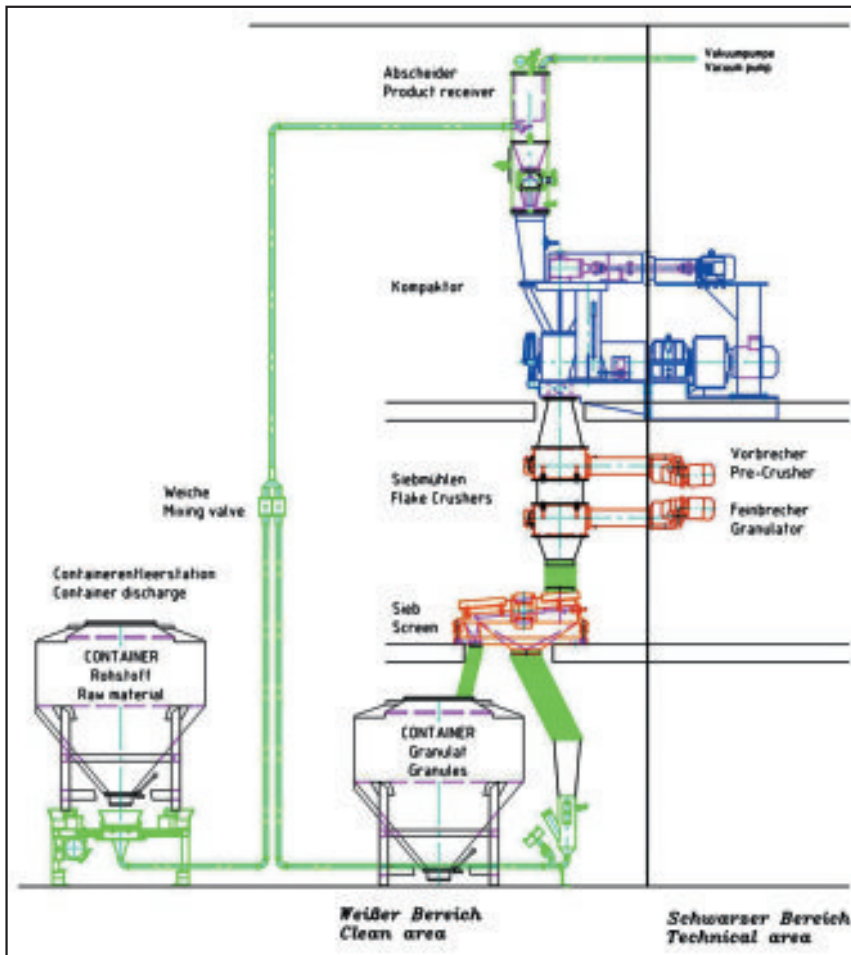


Recipe Control

Here, you verify the present adjustments or define new recipes and save them.

SINGLE UNIT OR COMPLETE SYSTEM

Engineering for the Pharmaceutical Industry



One Source, One Responsibility

Give us the layout plan of your factory or your production room and other application profiles and we will design the complete plant, comprising material handling, electric controls and automation. Of course, we also do the FAT, the assembly and the start-up with SAT for you. Afterwards, we are available with our services like calibrations and updates for the mechanical and electrical components.

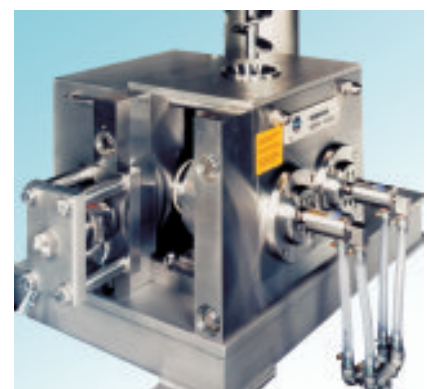


Complete and Mobile

System for dry granulation with vacuum transport, Pharmapaktor, Flake Crusher, screening machine and recycling of the fines back to compaction.

Series K

The classic roller Compactor with mill shaft roller bearings for applications with higher press forces, very high throughput capacities and "round the clock" operation requirements. Here as well, press force measurement, cooling systems and automation features are included.



HOSOKAWA ALPINE

Agglomeration Technology

We bring your powder into shape



HOSOKAWA ALPINE Compaction

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The ALPINE Technologies

Machines and complete plants for

- Compaction
- Briquetting
- Granulation
- Size reduction
- Pelletizing
- Extrusion
- Spheronization

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