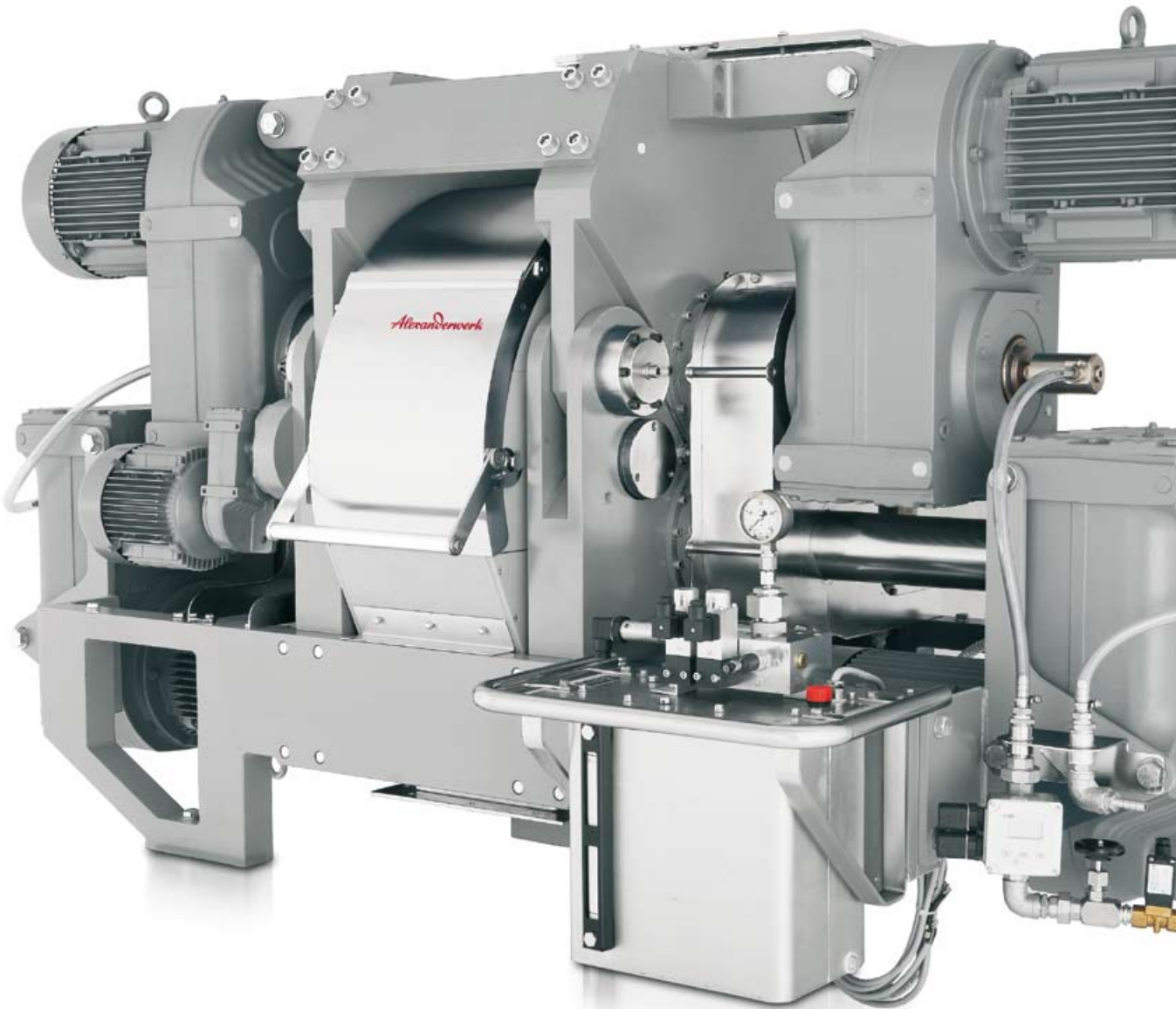


Roller Compactors **PP 250**



PP 250 Roller Compactor

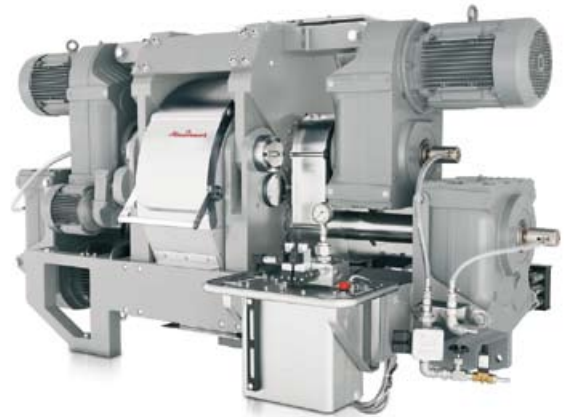
Alexanderwerk's PP 250 is currently the best roller compactor available for the economic compaction of raw materials, with a throughput of up to 4,000 kg/hr.

Alexanderwerk has been developing and producing roller compactors for the chemical and natural resources industries since the 1950s. The PP-Types are a completely new generation of heavy-duty roller compactors developed from our long-standing experience and incorporates the latest process enhancements.

To achieve a high compacting output each of the two rollers inside the compacting unit, mounted between bearings, are driven by two gear motors on either side, left and right. This unique design guarantees high energy and torque input to the rollers allowing the higher circumferential speeds usually generated by larger roller diameters. The required high material flow is fed to the vertical rollers via the Combi-Vent-Feeder® System patented by Alexanderwerk, included as standard. Moreover, the feed unit is enhanced by the included vacuum design that significantly improves the conveying characteristics and resultant increased throughput.

The machine's design and construction meets all the requirements of the chemical and natural resources industries:

- Clamshell design, improved accessibility
- Extensive use of standard components for high machine availability
- Compact design
- Symmetry in parts and weight
- Machine upper section pivotable
- Patented Combi-Vent-Feeder® System as standard
- Feed unit in vacuum design as standard
- Each Roller is driven by two gear motors
- Various roller widths with adjusted number of screws, available
- Optional: Wash in Place (WIP)
- Optional: All stainless steel construction
- Optional: explosion-proof acc. to ATEX
- Optional: Utility cabinet (vacuum pump, water cooling system, air/gas supply, hydraulic)



Its high throughput and very compact size make the PP 250 into a real workhorse.



The feed unit comes in a vacuum design as standard.



The clamshell design facilitates roller change for product or batch changes, and maintenance.

Granulating with roller compactors made by Alexanderwerk

Compaction

The working principle of roller compaction is relatively simple. However, it is only by the use of the latest process technology in conjunction with sophisticated control equipment that the efficient production of high-quality granulates can be achieved.

The quality of the finished granulate is fundamentally determined by the quality of the flake from the roller compaction module. This requires constant mass feed flow, pressure and a constant roll nip. Physical product fluctuations (such as local inhomogeneties) can be compensated for by the process control. As a result, physical input variables and parameters (material throughput, flake density, speed or similar) can be controlled reliably and at high repeatability.

The vertical roller arrangement in roller compactors manufactured by Alexanderwerk guarantees product feed regardless of gravitational forces, and separation of fines so that non-compacted material from slot losses cannot get into the finished product.

Patented Combi-Vent-Feeder® System drives efficiency

The Combi-Vent-Feeder® System, has an additional "feed/vent chamber", alongside the feed hopper, through which the air, that is being displaced from the material during compacting, can escape freely. As a result of this arrangement, the feed material can flow uniformly to the feed screw. There is less back pressure in the screw, venting is faster and more uniform, and the process, as such, is smoother.

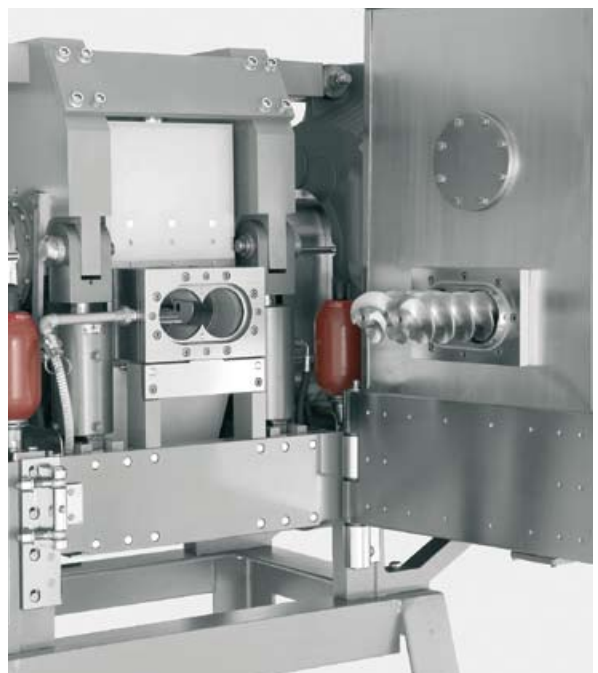
Furthermore, the Combi-Vent-Feeder® System, has additional advantages. Undersize, oversize, fines (e.g. from slot losses) or additives can be continuously and uniformly re-circulated and blended into the process via the additional feed hopper chamber.



Located in the roller nip: the flake breaker.



The design of the PP 250 reflects decades of experience in the construction of roller compactors: all modules are readily accessible. The picture shows how the feeding screws are swivelled and withdrawn (without any special tools).



The Combi-Vent-Feeder® can be fully swung away which enables a direct access.

Control Equipment

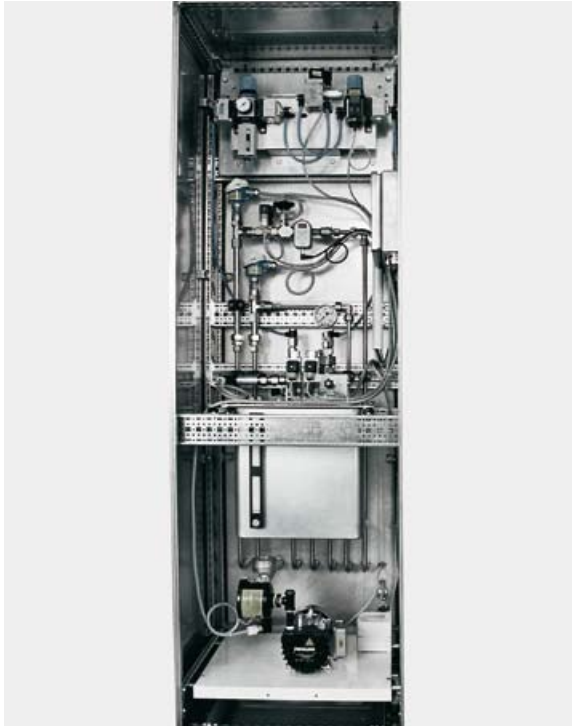
The main units like hydraulics, vacuum, cooling, compressed air can be located in a separate housing.

Granulation

Granules are characterised by defined particle sizes, i.e. the size of the particles varies between fixed lower and upper limits (undersize, oversize). After compression in the compaction unit, the compressed flakes are clearly larger than the upper tolerance of the finished product. It requires defined size reduction in the granulation unit to produce the final material.

Owing to its modular design, the PP 250 can be combined with a rotor fine granulator from the RFG series made by Alexanderwerk. Granulation can be designed as a single-stage or a multi-stage process as required. The rotor fine granulators of the RFG series can be assembled accordingly.

Please ask for our folder Rotor fine granulators.



The rotor fine granulators can be designed as single-stage or multi-stage units as required.



The final granulating step uses a rotor fine granulator from the RFG series (Picture shows the RFG 250 DL, here shown with an optional trolley).

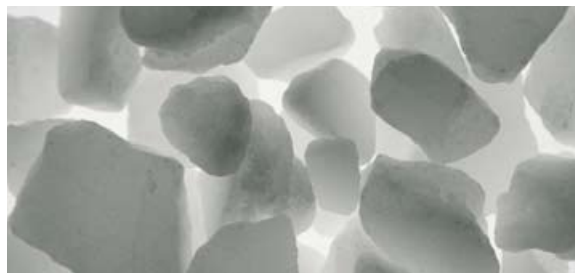
Applications

Roller compactors manufactured by Alexanderwerk have been successfully used for years in the chemical and natural resources industries in the production of organic and anorganic raw materials such as:

- Pigments
- Battery substance
- Salt (de-icing salt, salt for water softening)
- Fertilizers
- Silicid acid (for the further processing of tyres)
- Animal feeds
- Additives (softening agents, for example)



Battery substance



Salts



Silicid acid



Animal feeds



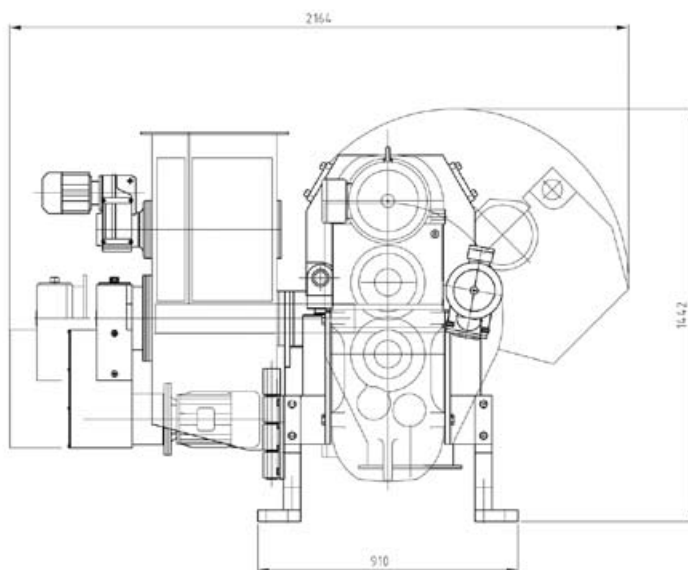
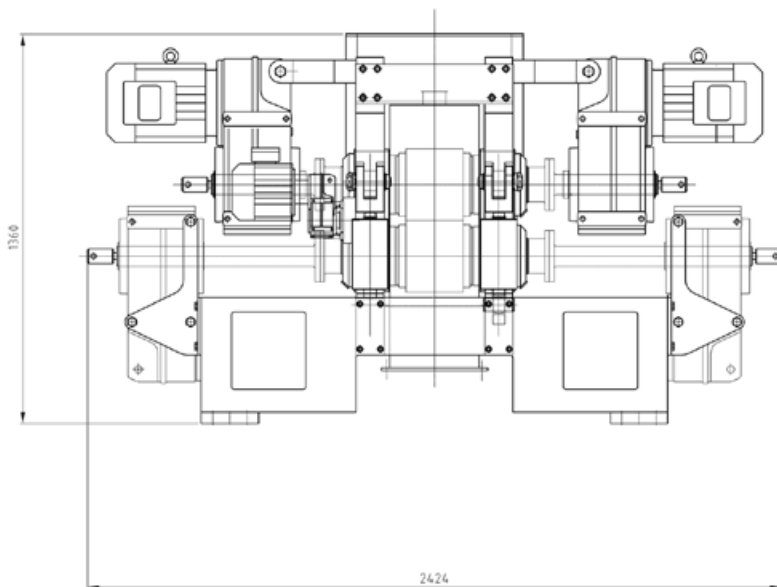
Cat litter



Toner

Technical Data PP 250 x 200

Throughput, continuous operation	≤ 4,000 kg/hr
Granulate size	variable
Maximum compacting force	30 kN/cm roller length
Installed power	approx. 95 kVA
Weight	approx. 4,500 kg (complete)
Product contact material	1.4571
Compacting rollers	1.4122



CAD data show the PP 250.