Roller Compactors

PP350







PP350 Roller Compactor

The PP 350 from Alexanderwerk is the perfect roller compactor available for the economic compaction of raw materials, with a throughput of up to 6,000 kg/hr and more.

Alexanderwerk has been developing and producing roller compactors for the chemical and natural resources industries since the 1950s. The PP-Types from Alexanderwerk are a completely new generation of high-performance roller compactors. The PP 350 from Alexanderwerk complements the series above the 250.

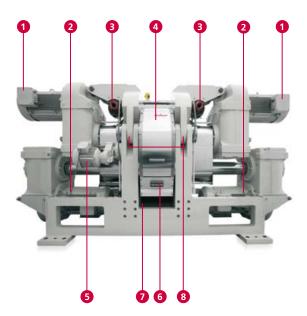
The machine's design and construction meets all the requirements of the chemical and natural resources industries:

- Clamshell design, improved accessability
- Extensive use of standard components for high machine availability
- Compact design
- Patented Combi-Vent-Feeder® System as standard
- Feed unit moveable on rails

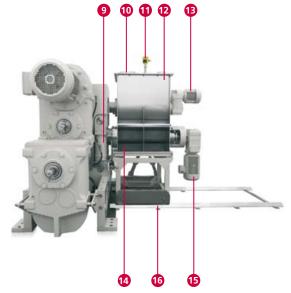


Compared to its high throughput rate of 6,000 kg/hr the PP 350 apears really tiny (the picture shows the comparison with a standard laptop).

- Feed unit in vacuum design as standard
- Each roller is driven by two gear motors
- Various roller widths with adjusted number of screws (1 to 4 screws available)
- optional: Wash in Place (WIP)
- optional: all stainless steel construction
- optional: explosion-proof acc. to ATEX



- Orives for upper roller
- 2 Drives for lower roller
- Accumulator for hydraulics
- 4 Inspection opening for compaction area
- 5 Drive for flake crusher
- 6 Sampling
- Product outlet
- 8 Knuckle for upper clamshell (e.g. roller exchange)



- 9 Hydraulic cylinder to control upper clamshell
- 10 Feed hopper
- 1 Level detection device
- 12 Feed hopper
- B Drive for stirring raw products
- Combi-Vent-Feeder®
- 15 Drive for screw
- Rails for pulling feeding unit

Granulating with roller compactors made by Alexanderwerk

Compaction

The PP 350 adheres to its heritage of roller presses from Alexanderwerk: decades of experience, the latest control equipment refined with the patented Combi-Vent-Feeder® System.

Constant roller gap: the control equipment evens out physical fluctuations in the raw product.

Vertical roller arrangement: the product is fed independently of gravitational forces, so uncompacted side-seal-leakage is avoided.

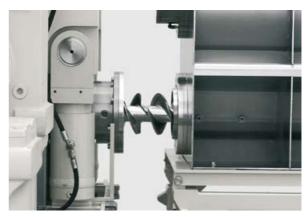
Combi-Vent-Feeder (I): this kind of feeder design – patented by Alexanderwerk – enables air that is displaced from the material during compacting to escape freely. The process becomes smoother and the feed quantity of raw material is higher with no change in power.

Combi-Vent-Feeder (II): 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.

You want to know more about the technology of compacting with roller presses and feeding with the patented Combi-Vent-Feeder® System? Please ask for our brochure "Roller presses for the chemical industry".



Alexanderwerk has decades of expeirence in the design of roller presses, which can be seen in the PP-Types: all modules of the PP 350 can be accessed easily. The picture shows the retraction of the feeding screw (without special tools).



The compacting unit (left) and feeding unit (right) are separate modules which are screwed tightly together while the process runs.



Control equipment and two hydraulic cylinders ensure the roller gap remains constant and with this the quality of the flake.



The feeding unit can be easily pulled away on a rail system after untightening the screws.

Control Equipment

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

Granulating

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 a defined size reduction in the granulation unit to produce the final material.

Owing to its modular design, the PP 350 can be combined with a fine rotor granulator from the RFG series made by Alexanderwerk, e.g. the RFG 250 DDL. Granulation can be designed as a single-stage or a multistage process as required. The fine rotor granulators of the RFG series can be configurated accordingly.

Please ask for our fine rotor granulators brochure.





The final granulating step uses a fine rotor granulator from the RFG series (Picture shows the RFG 250 DDL, here shown with the pulled-out granulating mesh).

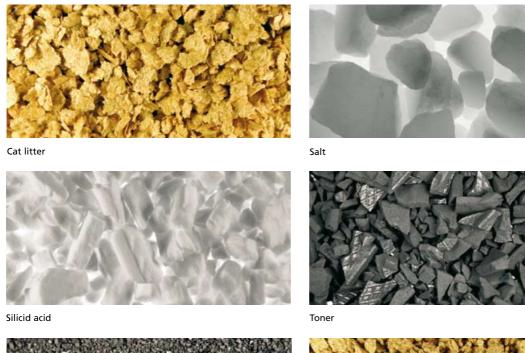


The fine rotor granulators can be designed as single-stage or multi-stage units as required.

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:

- Textile dyes
- Battery substance
- Salt
- Silicid acid
- Animal feeds
- Cat litter
- Toner



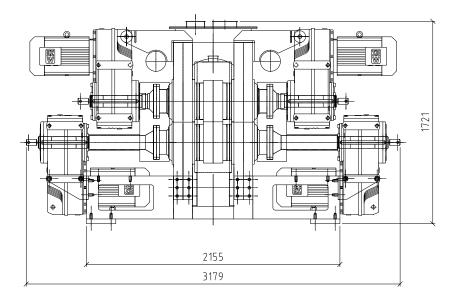


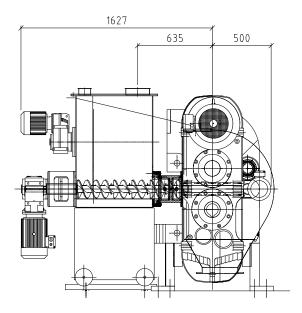


Animal Feeds

Technical Data

Throughput continous operation	up to 6,000 kg/h
Granulate size	variable
Maximum compacting force	63 kN/cm roller length
Installed power	approx. 222 kVA
Weight	approx. 8,000 kg (complete, without control unit)
Metallic materials	1.4571 (come into contact with product)
Compacting rollers	1.4122





CAD data show the PP 350