

Continuous Extrusion of High-Quality Battery Materials

Cathode / Anode Masses

Raw Materials for Cathode & Anode Masses



Active Materials



Binding Agents

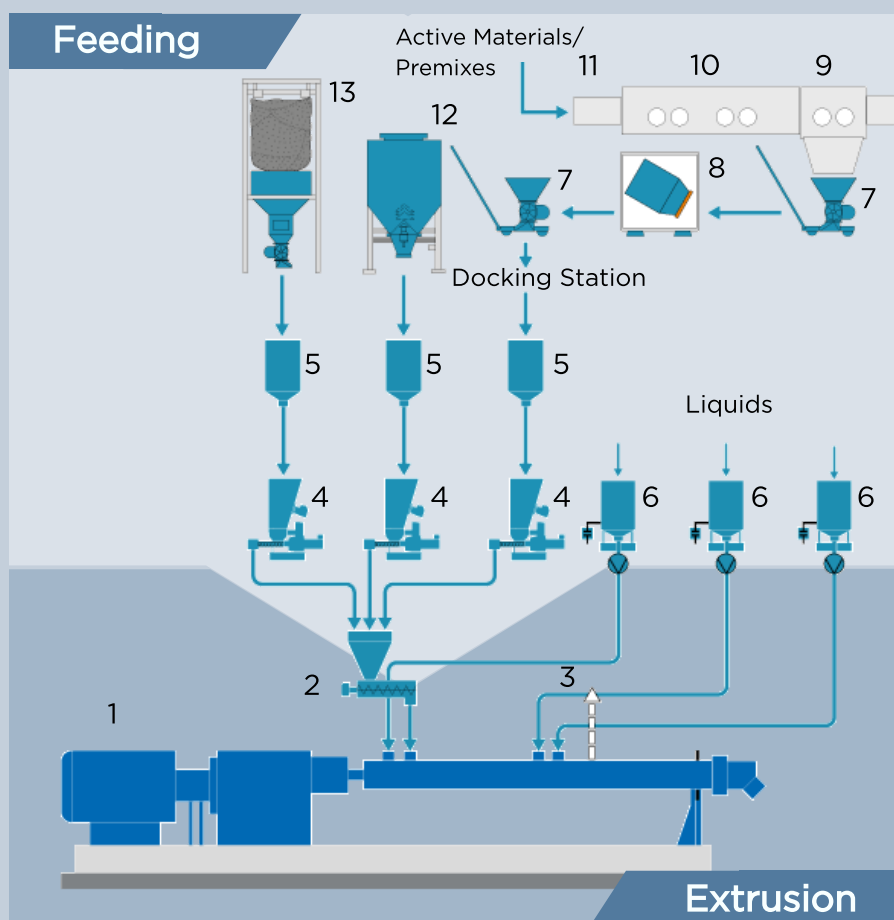


Conductive Carbon Black



Solvents

Typical Set-up of the Extrusion Process Example: Anode Masses



- 1 ZSK 45 Mc¹⁸ extruder
- 2 ZS-B side feeder
- 3 Degassing
- 4 Feeder for solids
- 5 Storage tank
- 6 Feeder for liquids
- 7 Wheeled premix container
- 8 Tumbling mixer
- 9 Multi-Glovebox: Weighing room
- 10 Multi-Glovebox: Storage room
- 11 Multi-Glovebox: Material airlock
- 12 Sack discharge station
- 13 BigBag

System Requirements for Optimal Quality



High accuracy feeders for best possible recipe control



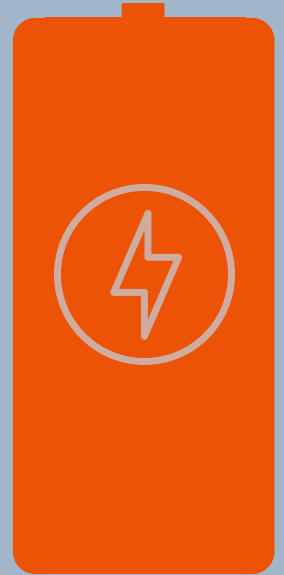
Dust-tight feeding suitable for use with toxic materials



Wear-resistant systems to avoid contamination (e.g. metallic) of the battery masses to ensure long service life



Extrusion system with customized dispersion for a high slurry quality



Advantages of a Continuous Extrusion Process

Continuous extrusion is more cost and material efficient than batch processes

For a resource-conserving and climate-friendly production

Less energy consumption*

- › Reduced solvent recovery
- › Increased drying speed
- › Energy cost savings



Less space

- › Less space required for production facilities

Less fluctuations

- › High reproducibility and less fluctuations in terms of quality

Less material loss

- › Less frequent cleaning cycles thanks to self-cleaning capabilities of the twin screws

* if the recipe allows it

Why Coperion?

Our scope ranges from material handling to feeding and mixing



The feeding, conveying and extrusion systems from Coperion and Coperion K-Tron are a perfect match

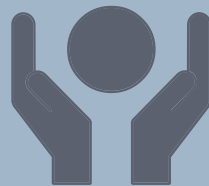
Material Handling

Containment secure material handling with optional Wet-In-Place cleaning



Feeding

Reliable and very accurate feeding technology



Extrusion

Modular extrusion systems for an individual solution



Coperion is the industry and technology leader in extrusion and compounding systems, feeding systems and bulk material handling plants.

For more information please visit www.coperion.com or contact info@coperion.com

Follow us

