

HIBAR Production Line Introduction

Zhejiang Camelion Electric Industrial Co.,Ltd

Camelion[®]

www.camelionbattery.com

Introduction

With the goal of making the best quality of alkaline primary batteries, we have invested in the two newest production lines, the HIBAR production line for the production of AA and AAA Alkaline batteries. The production line has been fully set up by the end of 2018, and has been put into production ever since.

HIBAR Overview

HIBAR Systems is a leading North American manufacturer of high technology automated liquid dispensing and filling systems. With the latest technology and experiences in manufacturing complex high-speed integrated battery assembly lines, HIBAR production line for batteries are now one of the best production line in the world.



Production Line Overview



Manufacture	Hibar Systems Limited, Canada
Speed	650 pcs/min
Advancement	Fully-automatic production and in-situ checkout system
Control Accuracy	Much more higher than domestic production lines
Product Advantages	Higher discharge performance, uniformity construct with excellent anti-leakage and safe performance

Advance components of Hibar Production Line



Cathode material
Pellet Press



Console Assembly

Advance components of Hibar Production Line



Sealant Coating



Separator Winding

Advance components of Hibar Production Line

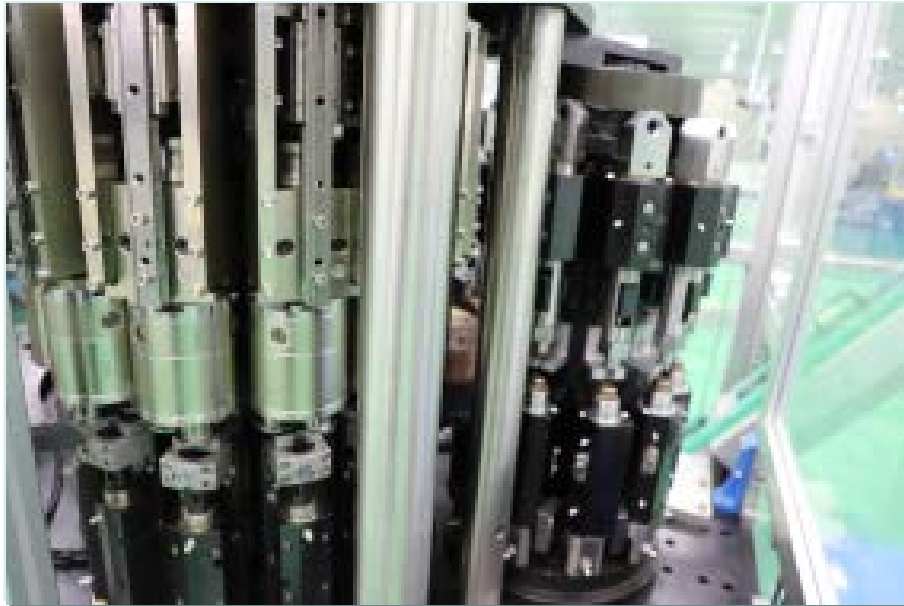


KOH Injection

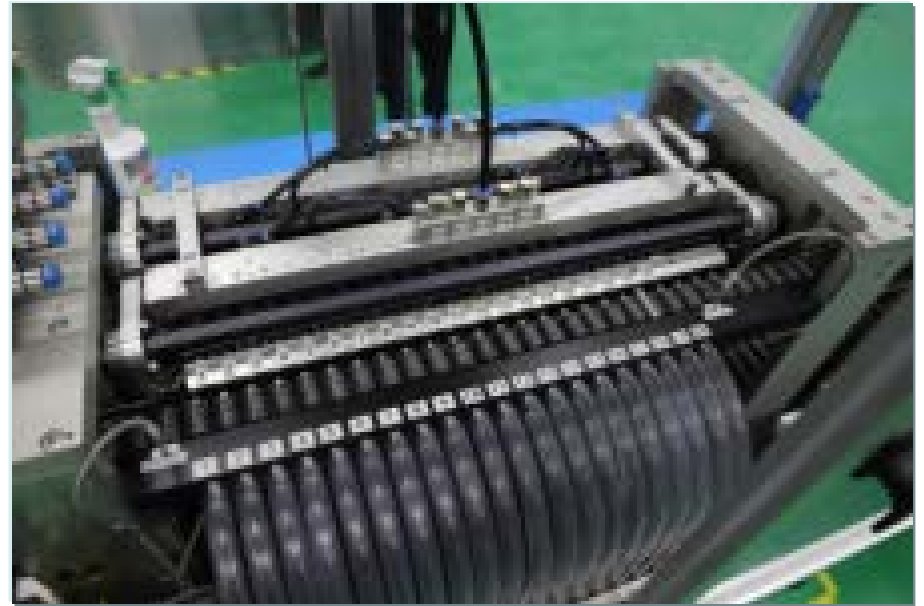


Zinc Gel Dispensing

Advance components of Hibar Production Line

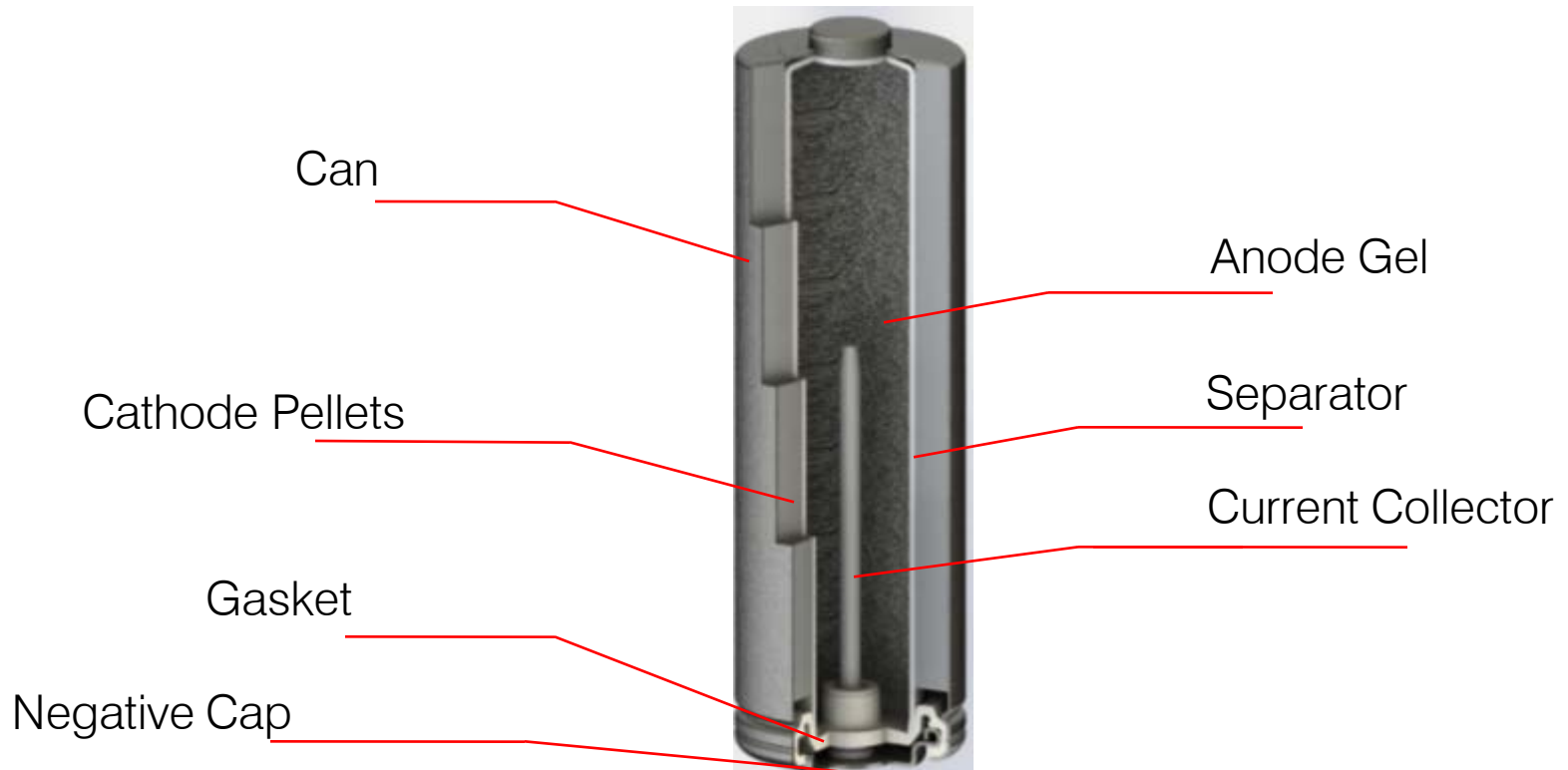


Cell Closing



In-situ checking

Battery Structure



Product Advantages

The diameter of the battery can is enlarged to **14mm** with this new technique of production, allowing more active material to be fed into the battery can, causing the capacity of the battery to increase by **5% to 10%** as compared with the old techniques.



4 Pellets
Structure

Compared to the old technique of 3 pellet structure design, this new production line uses a **4 pellet structure technique**, therefore ensures that **more cathode material** can be pressed easily and achieving **higher capacity** with each battery.

Product Advantages



Nylon PA612



Fan-shaped Safe Valve

- **Longer storage time for the batteries:** The gasket material of the battery have switch to Nylon PA612, the main reason is because of the superior leak-proof characteristics of lower water absorption as compared to the old material PA66.
- **Proven test results:** the batteries can hold up over 140 days without occurrence of leakage when stored under the ambient temperature of 60°C with a 90% humidity, this shows that the batteries lasts 2.5 to 3 times longer than batteries with PA66 seals.
- **Safer and more stable performance** against explosion due to fan-shaped safe valve.

Product Advantages

The design of second beading on the battery can ensure a lower risk of leakage when batteries are exposed to extreme conditions.



Second Beading

Environmentally Friendly Sealant



Instead of using Asphalt as the main ingredient of sealant, the Hibar line uses Resin as the main ingredient of the sealant. The main reason is that Resin has a higher seal performance and it's also an environmental friendly substance.