

» THE PERFECT SOLUTION TO START YOUR BATTERY CELL PRODUCTION «

The combination of unique technical competencies developed throughout decades have led us into eMobility industry with our first trials and pilot machines. Since then, we have entered this industry, which is aiming to decarbonize the world, and developed high volume and industrialized solutions for our

partners. With core Mühlbauer philosophy in our minds, we are creating a new business line MB ATECH with clear goals, becoming a strong turnkey equipment solution partner for the eMobility industry, contributing with highest quality, precision and full commitment. Experience drives innovation!



» FROM LAB TO GIGA! «

Our **Battery Cell Assembly Line** offers customized solutions for the production of battery cells, covering processes from notching, stacking and cell assembly, including X-ray and/or CT quality checks. Its modular concept allows the flexibility

to perfectly adapt to specific cell assembly requirements, e.g. to run as standalone module or as fully automated unit. Our equipment covers pilot production and is scalable up to GIGA capacity solutions.

» *SCALABLE SOLUTION*

» *BEST COST / PERFORMANCE RATIO*

» *HIGHEST QUALITY STANDARD*

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MÜHLBAUER eMobility

LAB AND PILOT ASSEMBLY LINES
FOR PRISMATIC AND POUCH CELLS



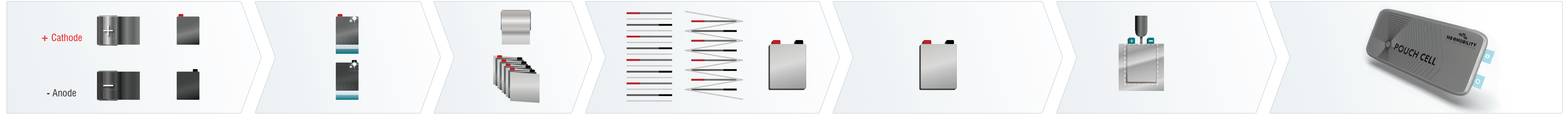
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MOST FLEXIBLE CELL PRODUCTION PROCESSES

POUCH



1 ELECTRODE LASER CUTTING

- Flexible & high-quality laser cutting / punching module
- Singulation from reel, incl. vision control

2 ELECTRODE CLEANING

- Sophisticated cleaning process
- Removal of particles & debris from electrodes

3 SEPARATOR LAMINATION (optional)

- Double-sided lamination of separator onto electrode sheets

4 ELECTRODE STACKING

- High-speed single sheet or Z-fold stacking
- Fully automatic, vision controlled, high precision (+/- 100um)

5 TAB WELDING

- Tab trimming & welding
- Ultrasonic or laser processes

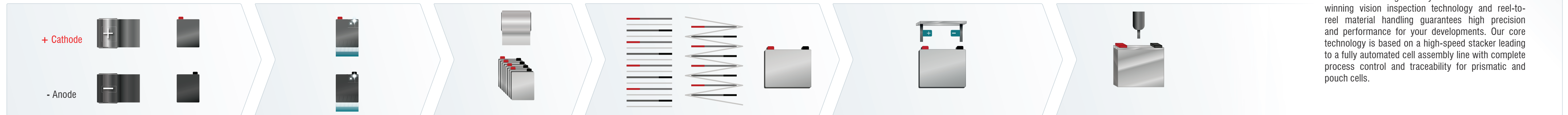
6 POUCH FORMING, FILLING & SEALING

- Deep drawing of pouch cells, electrolyte filling & sealing process

LAB AND PILOT ASSEMBLY LINES FOR PRISMATIC AND POUCH CELL

Designed perfectly for start-up and pilot production of prismatic and pouch cells, with dimensions suitable for eMobility and energy storage applications. Our unique assembly line features a user and eco-friendly solution for you to develop new dimensions for cells and to test with different chemistries with high quality standards and high safety measures. Our award winning vision inspection technology and reel-to-reel material handling guarantees high precision and performance for your developments. Our core technology is based on a high-speed stacker leading to a fully automated cell assembly line with complete process control and traceability for prismatic and pouch cells.

PRISMATIC



1 ELECTRODE LASER CUTTING

- Flexible & high-quality laser cutting / punching module
- Singulation from reel, incl. vision control

2 ELECTRODE CLEANING

- Sophisticated cleaning process
- Removal of particles & debris from electrodes

3 SEPARATOR LAMINATION (optional)

- Double-sided lamination of separator onto electrode sheets

4 ELECTRODE STACKING

- High-speed single sheet or Z-fold stacking
- Fully automatic, vision controlled, high precision (+/- 100um)

5 TAB- & LID WELDING

- Tab trimming & welding (laser or US)
- Lid welding (laser)

6 CELL TO CAN / CAN WELDING

- Can insertion & fully automatic laser can welding

