



## Customer Testimonial

### About Tianjin Lishen

Tianjin Lishen Battery Joint-Stock Co. Ltd. is one of the largest Lithium Ion (LIB) battery manufacturers in China. It is situated in the Tianjin Huayuan Hi-Tech Industry Park covering an area of 85,000m<sup>2</sup>.

Since 2004, its annual production capacity has been over 200 million cells. This has comprised of more than 100 different specifications, ranging from cylindrical LIB to prismatic LIB, laminated LIB and LIP.

Lishen is one of the world's top suppliers of lithium-ion batteries. Their reputation for high product quality has earned them prestigious customers like Apple Computer, Motorola, ESG, Samsung, and other top electronics and automotive firms.



### NDC's Measurement and Control Technologies Help Deliver Quality Lithium Ion Batteries for Lishen

*"Tianjin Lishen are on a rapid growth path and want the best equipment in order to produce high quality products. That's why we chose NDC."*

Mr Qin, President, Tianjin Lishen Battery Company

#### Lishen's Focus on Technology and Quality

Lishen employs advanced technologies to manufacture its battery products and utilizes sophisticated automation equipment in order to help them achieve this objective. Since its founding, Lishen have placed product quality as their top priority through the application science and technology. This approach has helped Lishen to obtain their international ISO9001, 2000, CE, UL and ISO14001 certifications.



Mr. Edward Dong (L) General Manager, NDC, China & Mr Qin (R), President Lishen Battery Company

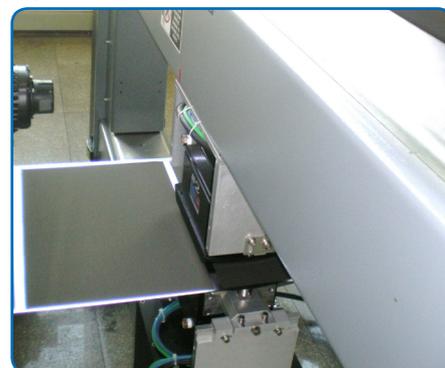
#### NDC's Technologies Rated Superior

In 2007, Lishen sought to improve product quality through the addition of online gauging. They evaluated several local and international suppliers before awarding NDC with a four system order for their lithium-ion coating machines. They were so satisfied with these initial systems that they have since ordered additional gauging systems from NDC.



NDC's lithium ion patch coating system with Gap Exclusion Measurement

NDC's 8000 TDi® system has been designed specifically to measure LIB coating processes. It includes important and unique technologies for measuring patch coatings like those at Lishen. For example, its Spot-On™ software ensures that measurements prior to and following the coating process fall exactly on the same place across the web. This





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## NDC's 8000 TDi Advanced Lithium Ion Battery Coater System Produces Uniform Quality Batteries to the Highest Industry Standards

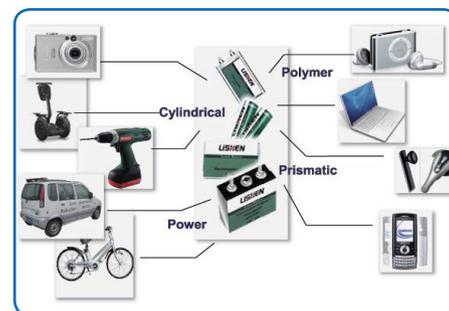
technique provides exact coat weight measurement by eliminating the influence of base foil quality differences from variations in the LIB coating application.

True Net Coat software provides true coat weight measurement, independent of composition or density variation in either the coating mixture applied or the base material. This avoids complex calibrations for multiple scanner and sensor combinations and significantly enhances the system's fundamental measurement accuracy. It also simplifies the long-term maintainability of the system.

Finally, NDC's Gap Exclusion software is able to accurately measure the true lithium ion coat weight by ignoring the uncoated areas of the foil. This technique presents a continuous coat weight picture to the operators and ensures tight coat weight control for superior quality.

Richard Zsu, Tianjin Lishen's Assistant President summed it up when he said *"The conceptual design for our new factory called for state-of-the-art equipment throughout. We chose NDC because of their clear technology leadership position. Add to that, we*

*have enjoyed responsive expert local service from Beijing. With this positive experience from NDC we have since proceeded to order a second system for our LIB coating operations."*



Lishen's Lithium Ion Battery Products and Applications

NDC is represented in over 60 countries worldwide

a **spectris** company



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ISO9001:2008

[www.ndcinfraed.com](http://www.ndcinfraed.com)

**NDC Infrared Engineering Inc**  
5314 North Irwindale Avenue  
Irwindale, CA 91706  
United States of America

Tel: +1 626 960 3300  
Fax: +1 626 939 3870

Email: [info@ndcinfraed.com](mailto:info@ndcinfraed.com)

**NDC Infrared Engineering Ltd**  
Bates Road, Maldon  
Essex, CM9 5FA  
United Kingdom

Tel: +44 1621 852244  
Fax: +44 1621 856180

Email: [sales@ndcinfraed.co.uk](mailto:sales@ndcinfraed.co.uk)

**NDC China**  
Tel: +86 20 8666 2790  
Email: [ndcgz@ndcinfraed.com.cn](mailto:ndcgz@ndcinfraed.com.cn)

**NDC Germany**  
Tel: +49 1801 977112  
Email: [info@ndcinfraed.de](mailto:info@ndcinfraed.de)

**NDC Asia Pacific**  
Tel: +65 9199-4120  
Email: [apacsales@ndc.com](mailto:apacsales@ndc.com)

**NDC France**  
Tel: N° Azur: 0810 600 400  
Email: [info@ndcinfraed.fr](mailto:info@ndcinfraed.fr)

**NDC Japan**  
Tel: +81 3 3255 8157  
Email: [info@ndcinfraed.jp](mailto:info@ndcinfraed.jp)

**NDC Italy**  
Tel: +39 (0331) 454207  
Email: [info@ndcinfraed.uk](mailto:info@ndcinfraed.uk)