



Trusted lithium-ion battery partner
Solution provider for customized application

Shenzhen Hypercell Co., LTD
www.hypercellbattery.com

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- OUR PARTNER



1.ABOUT HYPERCELL

About Hypercell --- Development History >>



2009

Hypercell Dongguan Shipai Factory launched production for lithium polymer battery, continually expanding international market for solutions with industrial equipment and medical devices

2017

Hypercell invested Dongguan Fenggang factory for wide-range-temperature lithium-ion battery production line

2019

Hypercell launched 4.35V graphene lithium polymer battery and reaches 400K mAh/day output

2007

Hypercell was established in Shenzhen

2008

Hypercell passed ISO9001 Quality System Certification

2013

Hypercell gained "National High-tech Enterprises "

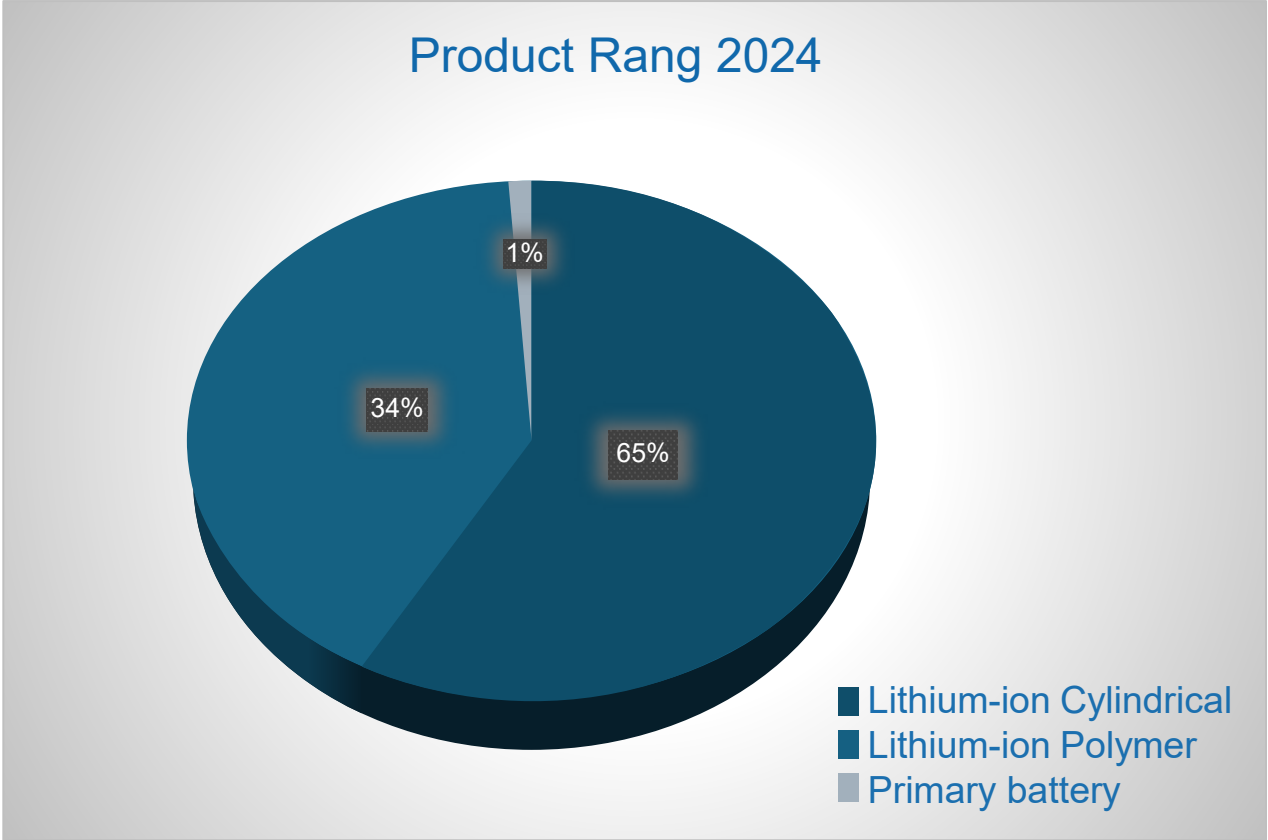
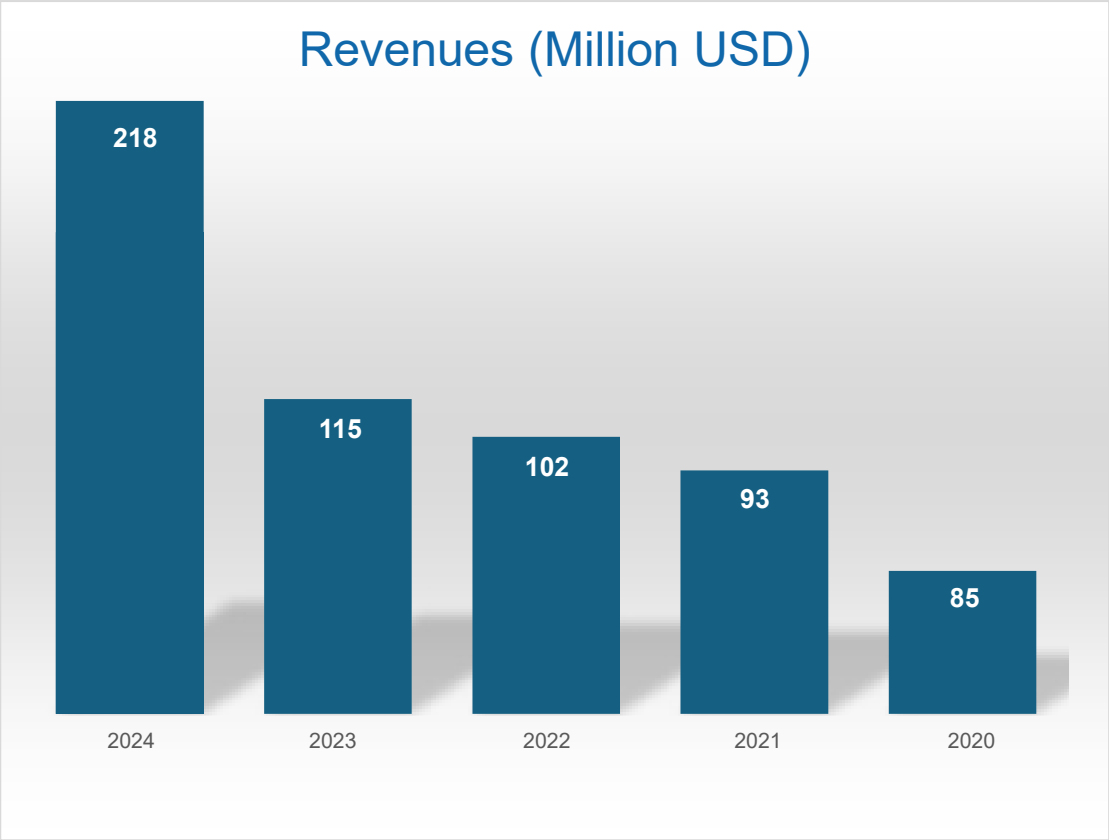
2018

Hypercell signed cooperation agreement with NXP for launching sensor-related devices

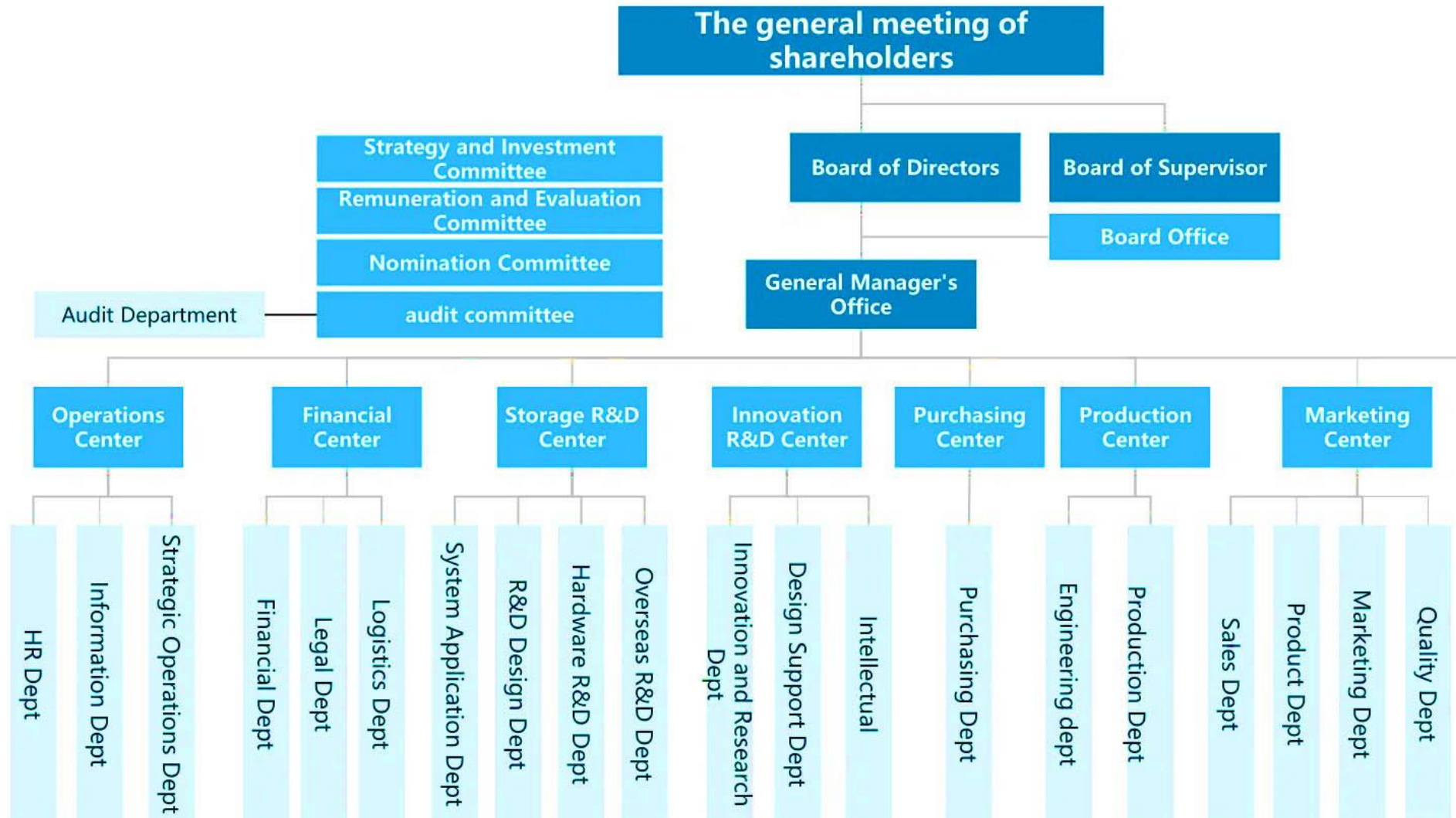
2023

Hypercell made breakthrough with 4.50V front sodium-ion battery and solid-state battery; Achieved 45GWh output in Dec.

About Hypercell ---Capacity >>



About Hypercell --- Organization structure >>



About Hypercell --- Facilities >>



Broad reach auto production equipment and stable mature production process equip our strong production organization



全自动投料、运输系统
Fully Automatic Feeding, transport System



挤压式涂布机
Extrusion Coater



冷热双向辊压机
Hot & Cold Two-way Roller



全自动KAIDO卷绕机
KAIDO Automatic Winding Machine



自动装配线
Automatic Assembly Line



全自动海霸注射液线
Automatic Injection Line



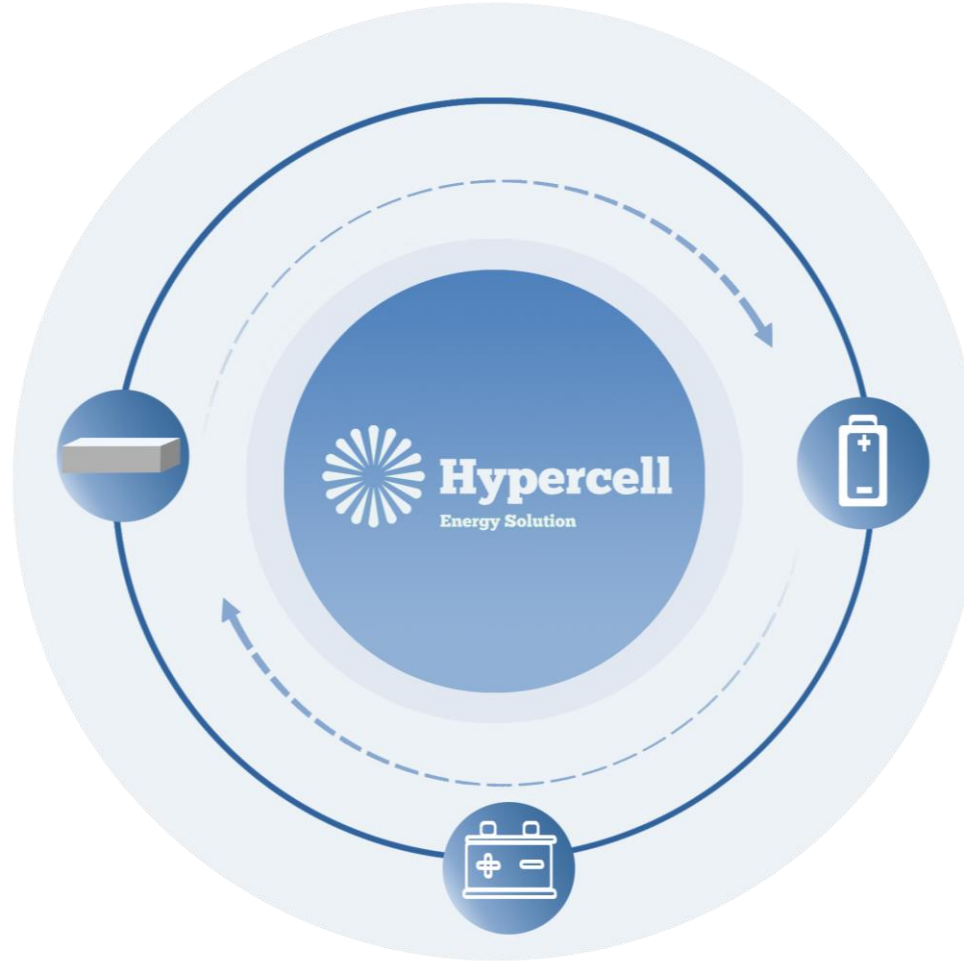
全自动针床式分容柜
Automatic Grading Machine

2.PRODUCT DESCRIPTION

Hypercell Product >>

Lithium-ion Polymer Battery

- * High-Rate battery
- * High voltage battery
- * Low/high-temp. battery
- * Customized shape battery



Lithium-ion Battery

- * Wide-Temp. 18650 battery

Capability Battery Pack Assembly

Lithium-ion Polymer Battery——High Rate

Hypercell high-rate batteries, which been used in vehicles from cars, trucks, airplanes, boats and FPV quads. While being lightweight, our RC batteries have large capacity high discharge rates and are advantageous over conventional turbine and nitro power.



Characteristic

- * Low internal resistance to 1.5mΩ
- * Max. charging rate, 10C
- * Max. discharge rate, 60C (constant)
- * Max. discharge rate, 120C (impluse)
- * Cycle > 500

Advantages

- * 35°C~45°C discharge efficiency > 90%
- * 60°C discharge efficiency > 85%
- * 55°C discharge efficiency > 90%
- * -10°C discharge efficiency > 80%

Application: AUV, drones, underwater robots, CPAP, surfboard, electric model airplanes, medical devices etc.



Lithium-ion Polymer Battery——High Capacity/Voltage



Hypercell High Capacity/Voltage batteries, with good consistency;

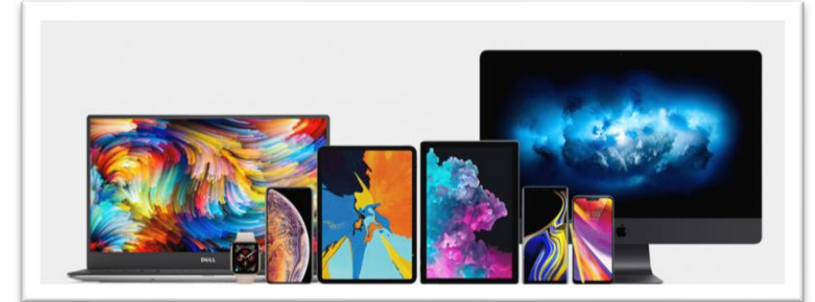
Cell voltage range: 4.2V ~4.5V;

Energy density to 770Wh/L at 0.5C discharge;

Capacity efficiency more than 92% with 1.0C 500 cycles;



Application: IoT terminals, mobile intelligent system, fire alarm, gas equipment etc.



Lithium-ion Polymer Battery——Low/high-temperature



Workable in temperature from -35°C to 85°C Can be stored at 65°C for 7 days. The smaller the size is, the higher temperature-resistance; 80% discharge capacity at 0.2C ; Good stability and low self-discharge rate, good consistency;

Characteristic

- * Normal temperature —— -10°C - 55°C
- * Slightly-high temperature —— -10°C - 70°C
- * High temperature —— -10°C - 85°C
- * Low temperature —— -35°C - 50°C

Advantages,

- * More than 1000 molds
- * Flexible MOQ for trial order

Application: consumer devices, outdoor products, extreme environment used devices etc.



Lithium-ion Polymer Battery——Customized sharp battery

Hypercell custom-shaped batteries are designed to fit into all spaces in a product. To provide the best efficiency, with our special formula and high discharge-rate technology, you can maximize the run time and use of your product.



Special-shaped battery

- * Customized sharp & voltage
- * High-temp. operation & storage
- * Over 1000+ cycles
- * -40°C discharge
- * Fast charge 2°C ~5°C

Ultra-thin battery

- * Thickness to 2.5mm min.
- * Special production process guarantee good battery appearance



Application: consumer electronics, e-learning, UHF FRID card etc.



Lithium-ion battery——Wide range temperature 18650 cell

Hypercell design wide range working & storage temperature 18650 cells from 2017. With special formulation and production process improvement, 2000mAh and 2900mAh version cells achieved MP in 2022; After launched, it hold the leading position of wide-range temperature battery in the industry, and had been verified with good reputation from customers over the world.

Advantage

- *Good rate performance at RT, max. 5C constant discharge current
- *Wide working temperature from -40°C to 85°C
- *Capacity efficiency (0.2C) $> 60\%$ at -40°C
- *Stable voltage and tiny capacity loss after $80^{\circ}\text{C}/4.05\text{V}$ storing for 48 days
- *Support 3.9V/6W discharge at -30°C after $80^{\circ}\text{C}/4.05\text{V}$ storing for 48 days

Available capacity: 2000mAh, 2900mAh

Application: GPS navigation devices, automotive devices, military equipment, high-definition recording devices, vehicle safety and security devices etc.



Battery Pack Assembly

Experienced for battery pack solutions with various internal cells and different protection combination.

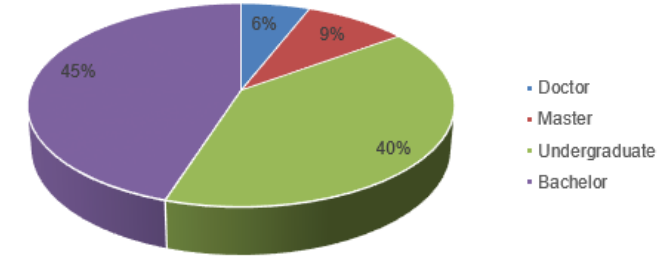
Customization is our characteristic for customers with vast majority of industrial application, from the smallest on up to those used in electric vehicles (EV), wakeboards, specialty ones used in aircraft, UAVs, UGVs, marine application, smart houses, off-grid power systems and in other systems for storing excess electricity generated by power plants.

Our Battery Management Systems (BMS) bring new dimension to economic effectiveness for applications using lithium-based batteries. They ensure high end management of energy storage in battery systems (during charging, as well as discharging and even with very high currents) for various industrial applications, electric aircraft, solar and wind plants, intelligent houses and other electric vehicles (cars, boats, paramotors, etc.). They fully protect cells and significantly extend their lifespan. As our other signature products, they feature a broad range of settings, protection, diagnostics and communication possibilities.



R&D (research and development center) >>

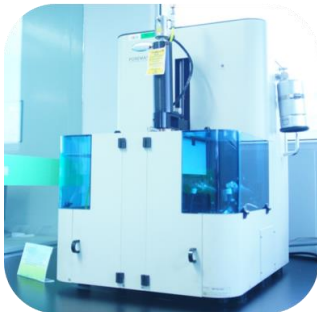
Hypercell R&D center gathered a group of well-known professional technicians, as senior experts, doctors, masters and undergraduate students who have more than 10 years experience in lithium battery development and manufacture. The center aimed at the forefront of world's lithium battery technology, takes supporting production as our main objective. Meanwhile by conducting basic research, with a member of small scales, pilot production line, we can true the experimental results into products at the fastest speed.



Physics & Chemistry Laboratory



Electron scanning microscope



Mercury Injection Apparatus



Specific surface area analyzer

Cell Laboratory



Quadratic detection



Coating -- β ray on-line monitoring



X-ray on-line monitoring

Consistency Guarantee >>

Environmental support system, the dew point of the entire manufacturing process is controlled between -35°C to -30°C ; And the dew point is controlled between -65°C to -60°C in the liquid injection environment.



真空系统 Vacuum System

空压系统 Air Compressor System



冷水机组系统

Chiller system



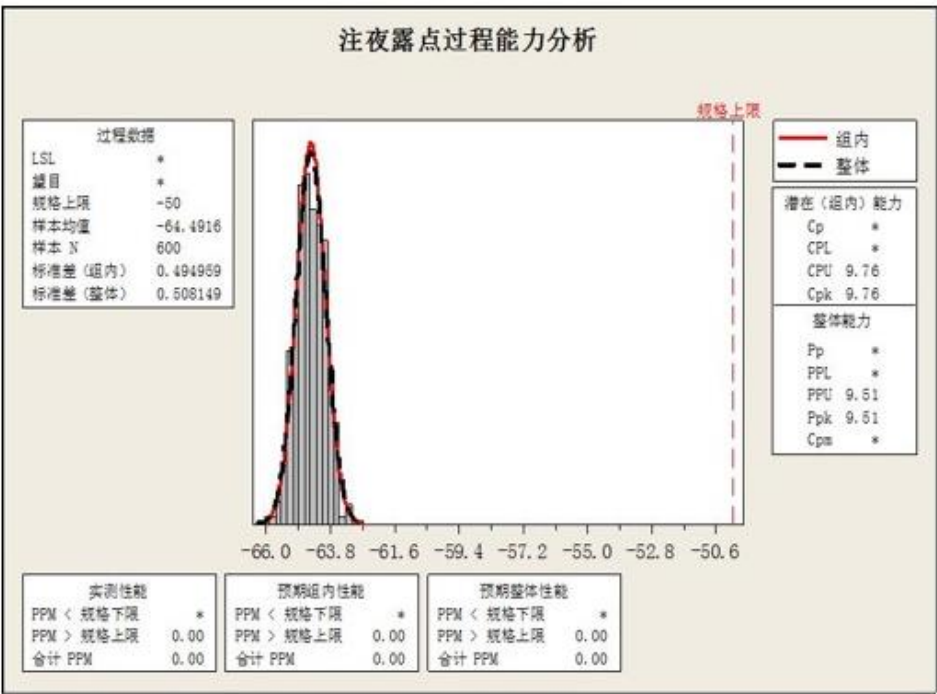
除湿系统

Dehumidification System



冷水塔机组

Chiller Unit



Certifications >>

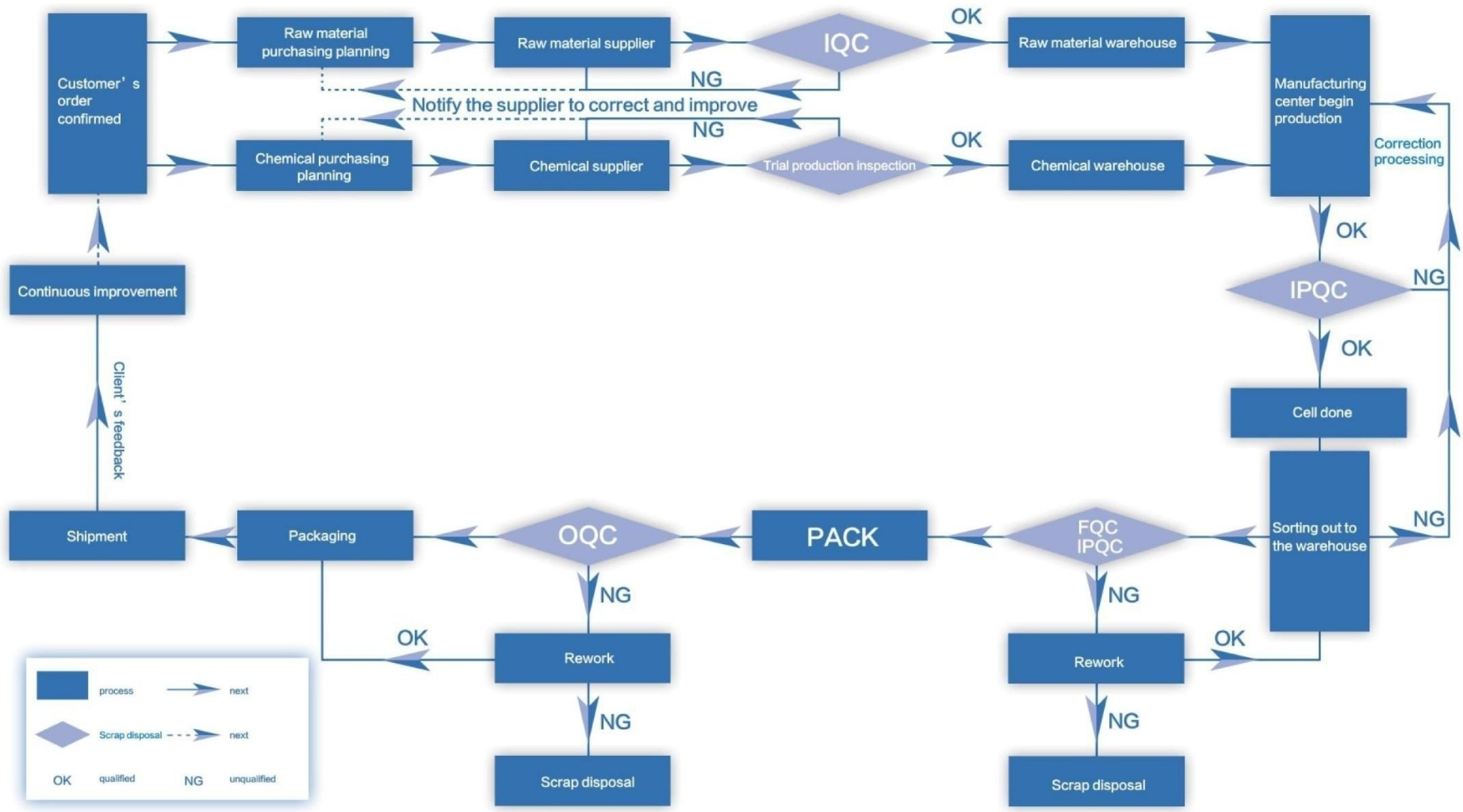


Hypercell operates strictly according to ISO9001 quality management system. We abide by the systematic and scientific operation specification perfectly to ensure good quality and reliable performance from raw material procurement, raw material inspection, production control to finished product shipment. Not only could meet various requirements from customers, also ensure quick-supply business and technical service.

Certification including UL1642, UL2054, UL62133, CQC, CCC, WEEE, KC, CB, CE, PSE, BIS, FCC, UN, RoHS, DG etc.



Quality Control Process >>



SALES NETWORK >>



Our Partner >>

molex

CLEARPATH
ROBOTICS™

NXP

 **Celestica™**


SANMINA®


EBROSET
PRODUCTION

POWERHANDLING
SMARTER. SMALLER. STRONGER.



CUSTOM®

deeper

 **IBS Technology**

vatech

Paramit
A Tecan Group Company.

 **AVNET™**
Abacus

Thank you!

