

DNA
TECHNOLOGIES
POWER WITH TOMORROW IN MIND

INTELLIGENT SOLUTIONS DESIGNED FOR LITHIUM TECHNOLOGY



www.dnatechnologies.co.in

DNA TECHNOLOGIES

IS...

INNOVATIVE

Embracing life-long learning. Staying ahead of the curve. We innovate and simplify.

VALIANT & BOLD

We always support bold business moves with calculated risks.

SOLUTIONS-ORIENTED

Focusing on solutions not problems; keeping the end goal in mind.

PROACTIVE

Anticipating client needs and wants.

ALWAYS IN MISSION MODE

Our team members always remain passionate and in quest of learning

BALANCED

Maintaining a healthy perspective and worklife balance.

CREATIVE & PASSIONATE

Thinking outside the box. We create and build, it's what drives us.

TABLE OF CONTENTS

4	Who We Are & Core Team
5	Core Values, Mission and Vision
6	Customer Service Model
7	Scope of Services
8	Cell Grading/Capacity/Cycler Machine - Cylindrical Cells
9	Cell Grading/Capacity/Cycler Machine - Prismatic Cells
10	Automatic Cell Sorting (OCV & IR) - Cylindrical
11	Automatic Cell Sorting (OCV & IR) - Prismatic
12	Manual Cell IR Tester
13	Insulation Paper Sticking & CCD Machine
14	Lithium Battery Pack Spot Welding Machine
15	Lithium Battery Pack Laser Welding Machine
16	BMS Tester
17	Battery Pack Ageing Machine
18	Battery Comprehensive Testing Machine
19	Battery Pack Balancer & Charge Discharge Tester
20	Offline Equipment & Accessories
21	Conveyor System
22	BOM for Lithium Battery Pack



Doing business Ethically, Legally and with Integrity are the foundation of our Company's culture.



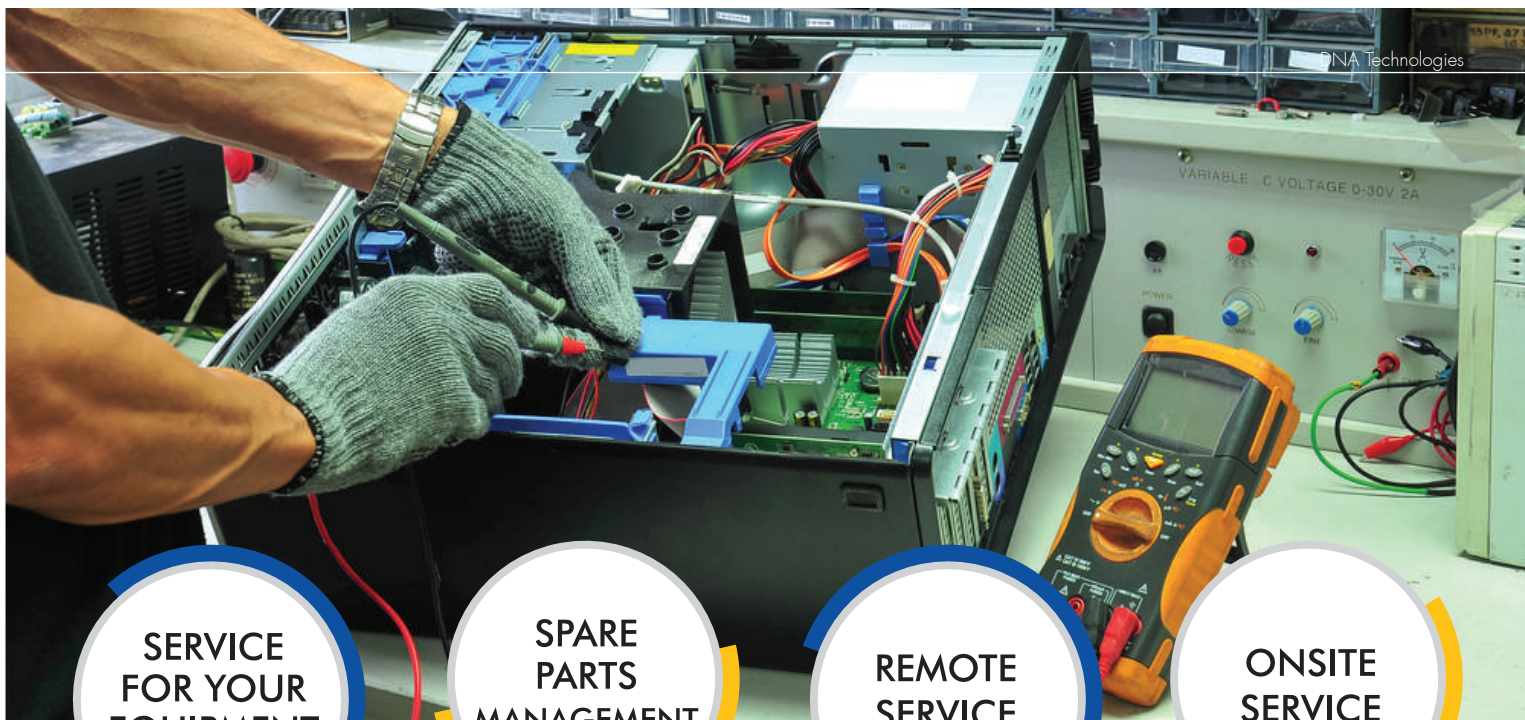
VISION

To accelerate Make in India mission through Sustainable Value Creation.



MISSION

Our goal when we created DNA Technologies, was the same as it is Today:
To accelerate the advent of sustainable energy by bringing Innovative Commercially Viable Technologies to INDIA as soon as possible.



SERVICE FOR YOUR EQUIPMENT

SPARE PARTS MANAGEMENT

REMOTE SERVICE

ONSITE SERVICE

DNA INDIA CUSTOMER SERVICE

Spare Parts Management



Fast

Reduced maintenance times and downtimes



Locally available



OEM Certified

Commissioning, configuration and programming by certified service technicians



Card level Repair

Remote Service

Secure Remote Maintenance



24-hour service

Round-the-clock support by well trained engineers



Reliable

Guaranteed response times



Secure

Full data control and transparency



Cost Optimization

Less costs for customer and full efficacy

Onsite Service

We Troubleshoot And Train Your People



High Yield

Optimized and reliable system productivity



On the Job Trainings

Maximum efficiency from the manpower



Documentation

Comprehensive documentation of corrective & preventive maintenance procedures



Reduced Downtimes

Avoidance of unscheduled system downtime

OUR SCOPE OF SERVICES

DNA Technologies acts as a single window partner for Turnkey solutions of Manufacturing / Assembling Lithium Battery Packs.



CONCEPT TO COMMISSIONING MODEL

with Consultative Approach

01.



PROJECT MANAGEMENT

with Detailed Planning & Scheduling

02.



TECHNOLOGY & EQUIPMENT SELECTION

based on 'Target' Markets and 'Existing' Business Network

03.



LAYOUT DESIGN

Considering Space Available, Materials Movement, Utilities Placement, RM & FG Storage, Manpower Movement, etc.

04.



FACILITIES & UTILITIES

Selection, Supply & Implementation Support

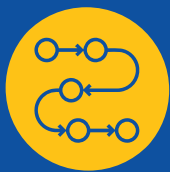
05.



BATTERY PACK DESIGN SUPPORT

Considering target applications & existing business portfolio

06.



BOM SELECTION

Complete Bill Of Material from India and Abroad, as required

07.



MANPOWER SELECTION

and On-Site Training

08.



AMC & AFTER SALES SUPPORT

with Inhouse Spares availability and warranty

09.

CELL GRADING / CAPACITY / CYCLER MACHINE

Cylindrical Cells



COMPATIBLE CELL SIZES:

18650, 21700, 26650,
32700, 32138 & 33140

& 34189

Production Equipment
(For Incoming Cylindrical Cells
Quality Check)

With universal horizontal loading
unloading trays - for Cylindrical
Cells

5V/3A, 5V/6A, 5V/10A/20A
Channels 256 / 512

Channel Quantity	upto 512 Channels
Communication method	RS232, TCP/IP protocol
Input Power	Three phase four wire system AC380V ± 3%, 50Hz
Max. Output Power	8kW, 12.8kW, 16kW
Continuous cycle range	1-1999 times
Sleep time setting range	1-720 minutes
Time measurement resolution	1S
Heat dissipation mode	Cold wind

For all type of Cylindrical Cells **1**

2 Charging (Constant Current Charging and Constant Voltage Charging), Suspending (static, shelving) and Discharging

Adopt the Four-Wire test method **3**

4 Adopt advanced Constant Current source technology, no impact from Constant Current to Constant Voltage switching, especially suitable for charging requirements of Lithium-ion Batteries

Final Test Reports can be exported in excel / text format **5**

CURRENT Measurement Range 0.001A-3A, 6A, 10A, 20A

Measurement Accuracy 0.1%FS+0.1%RD

Control Range 0.05A-3A, 6A, 10A

VOLTAGE Measurement Range 0.01V-5V

Measurement Accuracy 0.1%FS+0.1%RD

Control Range
Constant current charging 0.01V-5V,
Constant Voltage charging 3V-5V,
Discharge 0V-5V

5V/6A, 10A, 12A, 20A Independent Channels

Laboratory & R&D Equipment
(For Incoming Cylindrical Cells Quality Check)

APPLICATIONS: Cylindrical Cells (upto 34189)
Cells

Channel Quantity	8 Independent Channels
Communication method	RS232, TCP/IP protocol
Input Power	Single phase AC220V ± 3%, 50Hz
Max. Output Power	240W
Continuous cycle range	1 - 1999 times
Sleep time setting range	1 - 720 minutes
Time measurement resolution	1S
Heat dissipation mode	Cold wind



CELL GRADING / CAPACITY / CYCLER MACHINE

Prismatic Cells



Device Parameters ~ (5V upto 100A)

CURRENT	Measurement Range 0.001A - upto 100A	VOLTAGE	Measurement Range 0.01V - 5V
	Measurement Accuracy 0.1%FS+0.1%RD		Measurement Accuracy 0.1%FS+0.1%RD
	Control Range 0.05A - upto 100A		Control Range Constant Voltage charging 0.01V-5V, Discharge 0V - 5V

Channel Quantity	upto 96 Channels / Rack
Communication Method	RS232,TCP/IP protocol
Input Power	Three Phase Four Wire System AC380V ± 3%, 50Hz
Max. Output Power	Depends on Current Rating
Continuous Cycle Range	1-1999 Times
Sleep Time Setting Range	1-720 Minutes
Time Measurement Resolution	1S
Heat Dissipation Mode	Cold Wind

- Charge - Discharge Performance Test
- Voltage Testing
- Current Rate Test
- Cycle Life Test
- Charge Retention

Device Parameters ~ (5V upto 500A)

CURRENT	Measurement Range 0.001A - upto 500A	VOLTAGE	Measurement Range 0.01V-5V
	Measurement Accuracy 0.02%FS + 0.1%RD		Measurement Accuracy 0.02%FS + 0.1%RD
	Resolution 0.1mA		Resolution 0.1mV

Channel Quantity	upto 96 Channels / Rack
Communication Method	LAN
Input Power	Three Phase Four Wire System AC380V ± 3%, 50Hz
Response Time / Sampling Rate	< 10ms
Heat Dissipation Mode	Cold Wind

- Special Functions**
- Energy Feedback / Regenerative Type
 - Support Multi-Channel Curve Comparison
 - Support Multi-Channels Parallel Connection

- Charge - Discharge Performance Test
- Voltage Testing
- Current Rate Test
- Cycle Life Test
- Charge Retention
- Temperature Feature Test
- Work Condition Simulation
- Over-charge & Over-discharge Rate Durability
- Pulse Test
- DCIR Test
- SOC Static / Dynamic SOC Test



AUTOMATIC CELL SORTING (OCV & IR) MACHINE

(Cylindrical All Sizes)



HIOKI IR Tester
Japan Make



5 CHANNELS
11 CHANNELS

18650, 21700, 26650, 32700

1

2

Sorting Based on Pneumatic System

3

Comes with Inbuilt PC

WITH BARCODE FUNCTION
(Optional)

5 CHANNELS

1

32135, 32138, 33140

2

Sorting Based on Pneumatic System

3

Comes with Inbuilt PC

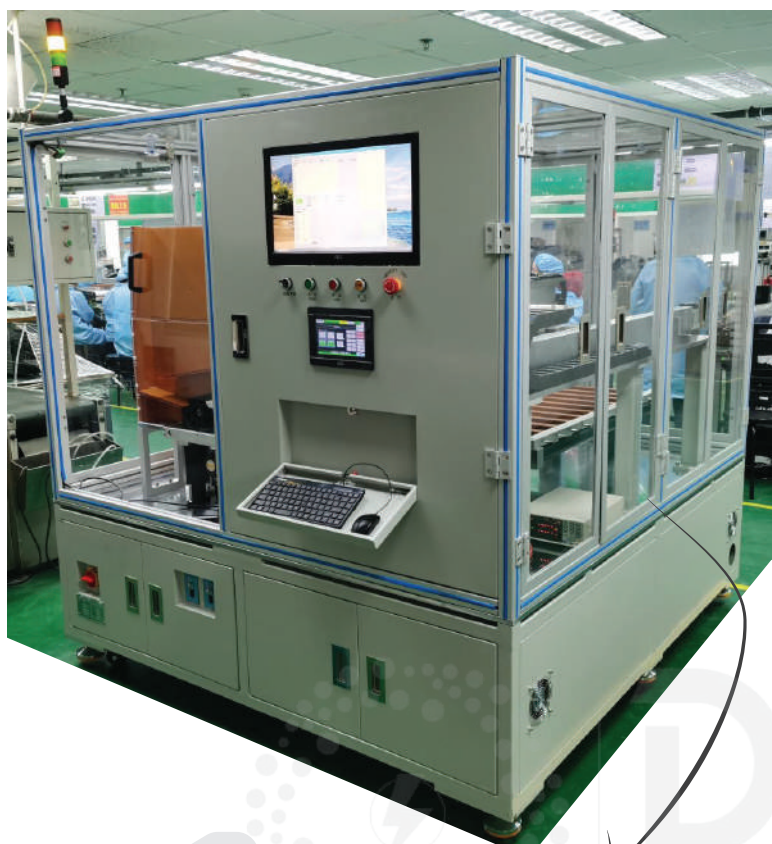
WITH BARCODE FUNCTION
(Optional)

Device Parameters

Sorting Speed	80 ppm (upto 4500 cells / hour)
Equipment Up-Time	more than 95%
IR Test Range & Accuracy	80 mΩ, +/- 0.5% FS, Display Resolution 0.01 mΩ
Voltage Test Range & Accuracy	8V, +/- 0.05% FS, Display Resolution 0.01 MV
Voltage Repeatable Error	< 1 mV
Air Pressure	0.6Mpa
Input Power	AC220V/50HZ 1KW
With HIOKI IR Tester	
IR Test Range & Accuracy	30 mΩ / 300mΩ / 3 / 30/ 300/ 3 k, +/- 0.5% FS, +/- 5 Digits, Display Resolution upto 1 μΩ
Voltage Test Range & Accuracy	6V / 60V, +/- 0.01% FS, +/- 3 Digits, Display Resolution upto 10 μV

AUTOMATIC PRISMATIC CELL SORTING MACHINE

(OCV & IR)



MACHINE FEATURES

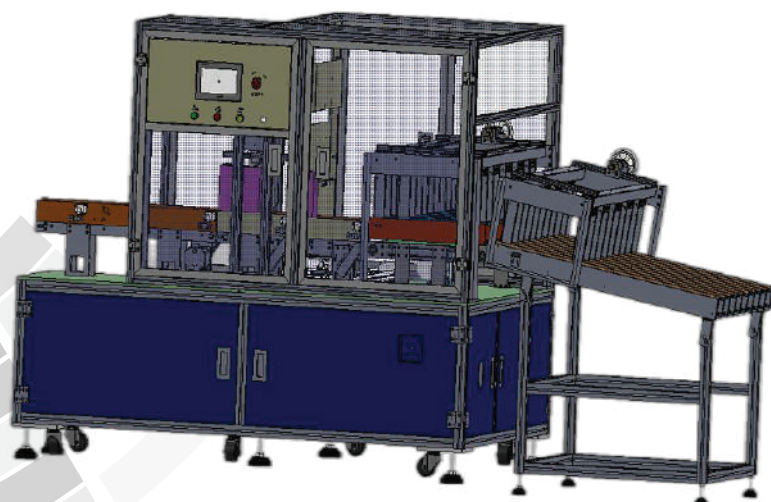
- 1 Capacity: 400-600 Cells / Hour
- 2 Applicable power supply:
AC 220V / 50HZ
- 3 Overall Size: length*width*height =
3300mm*1100mm*1700mm
(reference size)
- 4 Compatible cell specifications:
Length 100-300mm,
Thickness 20-60mm,
Height 100-350mm
- 5 Adaptable air pressure:
0.5~0.8 MPa
- 6 Number of channels:
10 channels,
9 OK gears and 1 NG gear
- 7 Loading and unloading method:
Manual
- 8 Highest Accuracy and Stability
due to HIOKI IR Tester
- Made in Japan



Equipped with original Japanese BT3562
HIOKI OCV & IR tester

Voltage Measurement Ranges:
upto 100 V

Resistance Measurement Ranges:
 $3 \mu\Omega \sim 3k \Omega$



MANUAL CELL IR TESTER

CELL SORTING (OCV & IR) MACHINE (All Sizes)

BT3561 A



Measurement Parameters	OCV & ACIR
Max. Voltage	60V, 100V, 300V, 1000V
Internal Resistance	From 1 $\mu\Omega$ upto 3k Ω , +/- 0.5% FS
Voltage	upto 1000V, +/- 0.01% FS
Interface	LAN, RS232 and Analog
Functions	Contact Check, Average, Memory Storage etc

HK3561



Measurement Parameters	OCV & DCIR
Max. Voltage	upto 60V
Internal Resistance	From 10 $\mu\Omega$ upto 3k Ω , +/- 0.5% FS
Voltage	upto 60V, +/- 0.1% FS
Interface	RS232 / RS485
Functions	Comparator, Contact Check, etc

TG100



Measurement Parameters	OCV & DCIR (only for Cylindrical Cells)
Max. Voltage	upto 50V
Internal Resistance	From 1 Ω upto 100 Ω , +/- 0.5% FS
Voltage	upto 50V, +/- 0.1% FS
Interface	NA
Functions	Open Circuit Voltage & IR

POWER WITH TOMORROW IN MIND

BATTERY IMPEDANCE TESTER BT 4560 HIOKI (Japan Make)

Achieve long service life battery modules by measuring reaction resistance.

Device Parameters

Measurement Parameters	Impedance, Voltage, Temperature
Impedance	upto 100 $\mu\Omega$
Temperature	-10°C to 60°C +/- 0.5°C
Voltage	upto 5V, +/- 0.4% FS
Interface	RS220 / USB, Ext. I/O
Functions	Comparator, Self Calibration, Sample Delay, Contact Check etc



INSULATION PAPER STICKING MACHINE

All in One (with separate moulds)



MACHINE FEATURES

Voltage Supply	Single Phase ~ 220V 50Hz
Rated Power	2kW
Surface Pad Material	Highland barley paper or PVC material
Material specification requirements	The max diameter of barley paper roll material is 350MM, the inner diameter of paper roll core is 72-75MM.
Battery Type	18650/21700/26650/32700 battery cell positive or negative pole is automatically pasted with barley paper mat or PVC material.
Feeding Method	Insert battery cell hopper: 400pcs each time, available for 2 separate inserting units BNX-350 auto pasting.
Pneumatic Pressure	0.4-0.8Mpa barley paper machine
Cushioning Power	Electric or Pneumatic
Control device	7.5 inch touch screen, PLC programmer and servo motor
Barley paper roll width	100mm
Speed	4000-4500PCS/hour, 4PCS per punch
Dimensions & Weight	L1110mm*W710mm*H1580mm, 200Kgs
Knife mould	slow-moving wire processing method, high precision

CCD TESTER / POLARITY DETECTOR

Offline & Inline

INLINE (with belt conveyor)
can be customised

- 1 In Process Quality Control before Spot - Welding.
- 2 Automatic Polarity Detection without manual intervention.
- 3 100% Yield after Spot Welding.
- 4 Can be integrated with existing assembly lines.



STEP 1

Feeding and Positioning of Cells

STEP 2

Positive and Negative pole detection

STEP 3

Positive and Negative solder joint detection (CCD)

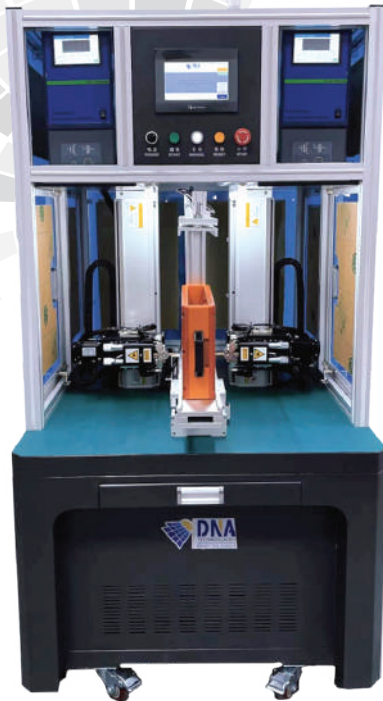
STEP 4

NG Automatic Sorting

STEP 5

OK Automatic Discharging

Lithium Battery Pack SPOT WELDING MACHINE



For Cylindrical Cells
ALL TYPES



1 Transistor Based Power Supply
upto 8000A

Nickel Wire thickness
upto 0.3 mm **2**

3 Water Cooling Feature (Optional)

Servo Controlled Welding Heads **4**

5 Maximum Jig Size:
350mmx450mm (can be customised)

AutoCAD program can be
uploaded through Controller directly **6**

DOUBLE-SIDED AUTOMATIC

Throughput Upto 4000 Cells/hour

DEVICE PARAMETERS

Input Power	220VAC \pm 10%, 50Hz \pm 10%Hz	X-axis Travel	500mm
Max. Output Power	2.5 - 5KW	Y-axis Travel	400mm
Single Hole Spot Welding Times	1-5 Adjustable	Z-axis Travel	80mm (Customizable)
Equipment Utilization Rate	99%	Equipment	Five-axis Servo Control
Welding Time	1.0ms - 20.0ms adjustable, Accuracy 0.1 ms	Working Temperature	10°C - 40°C
Output Maximum Short Circuit Current	upto 8000A	Spot Welding Speed	0.3s/spot, 0.7s-0.8s/spot
Scope of Application : Maximum thickness of Nickel Wire (with & without bump)	0.03mm ~ 0.3mm	Number of file groups that can be stored	99 Groups
Maximum thickness of upper and lower butt welding	0.3mm ~ 1mm	Welding Mode	Transistor
Air Pressure	0.4 ~ 0.8Mpa	Touch Screen	7 inch / LCD Screen
Transfer Method	Servo + Stepping + Imported Precision Linear Guide	Equipment Size	1300*900*1813 (mm)



MANUAL SPOT WELDING MACHINE

Two Models : 5000A (upto 0.2mm Nickel Wire)
8000A (upto 0.3mm Nickel Wire)

1 Single Electrode can weld upto 10000 - 15000
Spot Welds depending on the Current Rating

IGBT Based Technology **2**

3 Height of the Welding Head is adjustable

Pneumatic Controlled Operation **4**

5 Pre-welding and Welding Current can be adjusted,
as per requirement

User Friendly Interface **6**

HEROLASER
铭镭激光

Lithium Battery Pack LASER WELDING MACHINE

(for Prismatic & Pouch Cells)

Automatic Robot Laser Welding Machine

Consists of Fiber Laser, Laser Power Supply, Control System, Laser Indicating Positioning System, WOBBLE Laser Welding Head, Cooling System, etc which has very high stability, flexibility and can be rotated 360 degrees.



CE Certified

Power (Laser Source)	1000W, 1500W, 2000W
Wavelength	1080nm
Material Thickness	SS, Aluminum Alloy ≤3mm
Aiming & Positioning	CCD, Red Light Indicator
Repeat Positioning Accuracy	0.05mm
Cooling	Water Cooling

Busbar Laser Welding Machine

upto 12000W Power

Inline & Offline Operation

Production cycle: 10CPM

Available with
IPG or MAX Laser Source

Bed, cabinet & rack	Herolaser
Accuracy	+/- 0.02mm
Water Chiller	S&A
Galvo Welding Head	OSPRI/WSX
Dust collector	Villo/ Puhua
Laser range Finder	Keyence
Servo Motor (x,y,z)	ANOVANCE
CCD Camera	Keyence
Stabilizer (50kVa)	Nanlin
PLC	Siemens / OMRON
Electrical Control System	Siemens/Mitsubishi/Omron



CE Certified

Handheld Fiber Laser Welding Machine

Wobble Welding Technique + Fiber Laser Source

Adopts the latest generation of fiber laser and is equipped with a self-developed wobble welding head.

Advantages of simple operation, beautiful welds, fast welding speed, and no consumables.

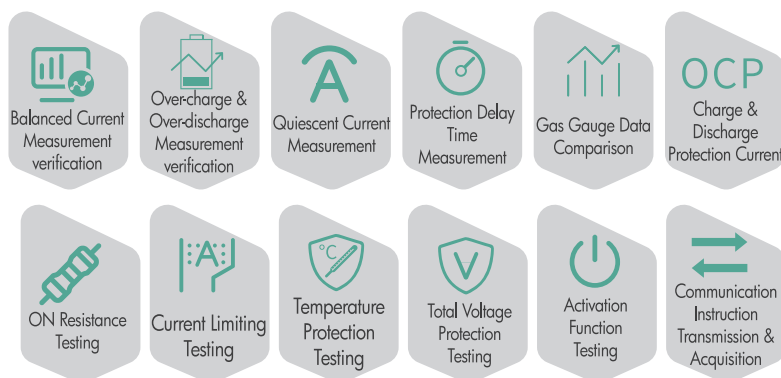


CE Certified

Power (Laser Source)	500W to 3000W
Wavelength	1070nm
Work Way	Continuously modulated
Suggested Welding Thickness	0.5-5mm
Working Voltage	220V/380V 50Hz
Cooling	Industrial thermostatic water tank

PCBA / BMS TESTER upto 300A upto 32 series

Applied in the testing of Power Battery Pac Protection Board System, Testing of PCB Performance and its technical items along with complete report generation.



- Composed by Virtual Battery, Short Circuit free, safety guaranteed.
- Pluggable design of virtual batteries enables it to be expandable.
- The secondary development function enables it to develop testing items as required.
- Support PLC Start-up test, can be used in Automation Production Line.
- Complete and fully function high precision test results.
- Software supports modular settings of test projects, production verification and research and development testing.
- Test functions can be customised as required.
- Highly compatible, supports different types of Protection Board Testing.

Device Parameters ~ (upto 200A)

Number of Series	upto 32 strings (optional)
Overcharge Protection	0 - 5V \pm 1mV
Overcharge Protection Release	0 - 5V \pm 1mV
Overdischarge Protection	0 - 5V \pm 1mV
Overdischarge Protection Release	0 - 5V \pm 1mV
Over-discharge Current Protection Value	upto 200A \pm 0.1A (continuous long-time discharge)
Over-charge Current Protection Value	1A-50A \pm 0.1A
Overcurrent Protection Delay	0-10S \pm 1ms
Short Circuit Protection	400A (maximum duration 10ms)
Short Circuit Protection Delay	0-10000uS \pm 1uS
Temperature Protection	60°C - 90°C \pm 1°C
Equalization function Turn On Voltage	0 - 5V \pm 1mV
Equalization Current	0-1000mA \pm 1mA
Total Self-Power Consumption Test	0-10,000 uA \pm 1uA
Single Cell Self-Power Consumption	0-100uA \pm 0.1uA
Main Circuit Internal Resistance Test	0-200 milliohms \pm 0.1 milliohms
Dimensions	50 * 43.5 * 21CM
Net Weight	15kg



BATTERY PACK AGEING MACHINE

Regenerative Type

MACHINE FEATURES

- 1 Suitable for Cylindrical or Prismatic Battery Pack
- 2 Adopt the four-wire test method
- 3 With anti-reverse connection function, Voltage upper and lower limit protection and maximum Current protection
- 4 Complete Charging and Discharging as per field performance.
- 5 Charging (constant Current charging and constant Voltage charging), Suspending (static, shelving) and Discharging.

DEVICE PARAMETERS

Channel Quantity	Upto 96 Channels (depending on Current Rating)
Communication Method	TCP/IP Protocol
Input Power	Single Phase / Three Phase AC 220/380V \pm 3%, 50Hz
Max. Output Power	Depends on Current Rating and No. of Channels
Output Current Range	Upto 1000A
Output Voltage Range	12V - 1000V \pm 10mV
Data Output Mode	EXCEL, TXT
Working mode of main channel	Constant Current Charging (CC), Constant Voltage Charging(CV), Constant Current & Constant Voltage Charging(CCCV), Discharge mode: Constant Current Discharge(CD)
Equipment Protection Function	Transformer Over-Temperature Protection, Output Short Circuit Protection, Power Module Over-Temperature Protection, Equipment Over-Voltage Protection, Equipment Over-Current Protection, Equipment Battery Reverse Connection Protection, Emergency Shutdown.
Voltage and Current detection sampling	Four Wire Connection
Cooling Mode	Forced Air Cooling
Channel Control Mode	Independent Control
Working Temperature	-10°C - 45°C

TEST ITEMS

- Test Battery Open Circuit Voltage,
- Battery AC Internal Resistance,
- Continuous Charging Current,
- Continuous Charging Voltage,
- Continuous Discharge Current,
- Continuous Discharge Voltage,
- Charging Overcurrent Protection
- Current, Discharge Overcurrent Protection Current,
- And Short Circuit Protection Time. Overcurrent Delay Time, Voltage After Test.

The device use an Infrared Scanning Gun bar code input (SN) to start the test or automatically starts the test when a Voltage is detected.



BATTERY COMPREHENSIVE TESTING MACHINE



SCOPE OF APPLICATION

For Lithium-ion Batteries (CH + P + CH- P-), all series of Power Batteries.

- 3.6V-100V Test Open Circuit Voltage.
- Trial Charging Voltage Test.
- Charging Current Test (0-30A).
- Internal Resistance Test (0-4000 Milliohms).
- Discharge Current Test (0-200A).
- Load Voltage Test.
- Overdischarge Current Test (0-500A) for 3.
- Overcurrent Recovery Voltage Test.
- Setting of Shelf Time.
- Setting of Discharge Time and Current.
- Overcurrent Protection Delay Time Setting.
- Overcurrent Step Current Setting.
- Short Circuit Test (8000A).

MACHINE FEATURES

1 Pre-Dispatch Comprehensive Testing of Battery Pack

Battery Production Test Mode

2

3 Less than 1 minute cycle time / Battery Pack

Calibration Mode

4

5 Can be integrated with Label Printer / Barcode Reader



TEST ITEMS

- Voltage
- Internal Resistance
- Charging Overcurrent Protection Current
- Continuous Charging Current
- Discharge Overcurrent Protection Current
- Continuous Discharge Current
- Short Circuit Protection Time

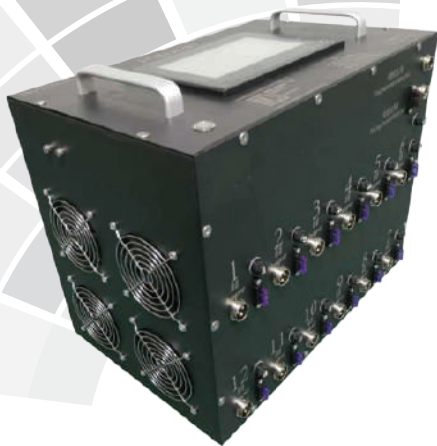
The device has no inrush Current during the working process and will not damage the BMS in the battery pack.

TECHNICAL PARAMETERS

Voltage Range	(0-100V) Can be customized for Higher Voltages
Accuracy	1mV, RD±0.1% + FS±0.1%
Internal Resistance Range	(0-2000 milliohms)
Accuracy	0.001milliohms RD±0.1% + FS±0.1%
Charging Current	(0-30A)
Accuracy	0.001A, RD±0.1% + FS±0.1%
Discharge Current	0-200A (at the highest Voltage) Continuous Discharge Current 200A, RD±0.1% + FS±0.1%
Short-circuit Time	(0-2000uS) Accuracy: 1uS
MAX Power	3000W
The Test Data can be generated in excel format, and the test data can be interfaced with the MES system.	
Note: The test result OK is displayed in green PASS, and the test NG is displayed in red	

BATTERY PACK BALANCER

Maintenance & Repair



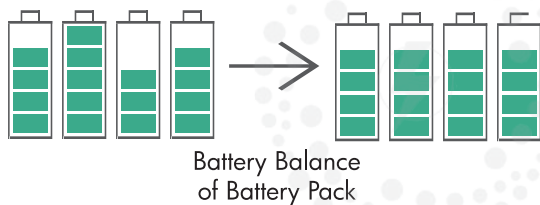
MACHINE FEATURES

Support charge and discharge current	The charging and discharging port supports upto 20A±0.5A
Display functions and touch controls	Display all cell voltages and touch control
Number of battery strings supported	2 to 32 strings of any string number
Support balanced current	1 to 20A current adjustable
Supported battery types	NMC, LFP
Function	Support multi-machine serial use
Temperature Protection Function	The product reaches the internal temperature of 50°C with automatic control function
Equipment working voltage	DC12V
Protection Method	The machine comes with instant protection for wrong connection, super series connection, reverse connection can be protected
Operating Mode	Support charge equalization or discharge equalization, both modes are compatible

Applications

Applied in Battery Pack Balance / Equalize for:

- E-vehicles,
- Solar,
- Energy Storage (BESS)



1 Enlarges Battery Lifetime

Support Charge and Discharge Balance.

2

3 Active Balance and Maintenance.

Modular Design, Hot Pluggable, Strong Expandability, Easy to Maintain.

4

POWER WITH TOMORROW IN MIND

BATTERY PACK CHARGE DISCHARGE TESTER

Maintenance & Repair

9-99V 10A charging 20A Discharging

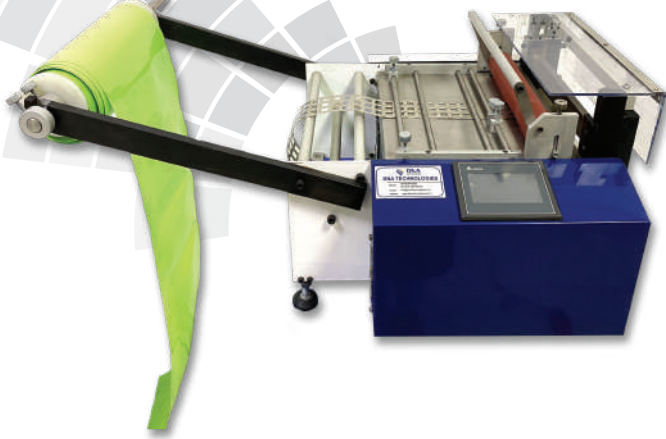
MACHINE FEATURES

Input Voltage	Single-phase ~220V±10% / 50Hz±10%
Charging Method	Constant current & constant voltage
Discharging Method	Constant current
Maximum Power	900W
Charging & Discharging Voltage	9V-99V adjustable
Charging & Discharging Current	0.5-10A adjustable Charging 0.5 - 20A adjustable Discharging
Accuracy	±0.03
Maximum Loop	16 times
Loop Idle Interval	0-20 mins adjustable
Communication Port	LAN
Operating Mode	Panel/Software



- DNA-PT20 is a high-precision capacity charging & discharging equipment.
- Suitable for EV and static battery packs.
- The device can be managed through the computer and a single PC can manage multiple devices simultaneously.

OFFLINE EQUIPMENT & ACCESSORIES



Automatic Nickel Wire Cutting Machine

Cutting Length	upto 9999.9mm
Cutting Width	upto 300mm
Cutting Speed	3000 Cycles / Hour
Dimensions	900 x 450 x 450 mm
Weight	40 Kgs
Power	220V AC, 50Hz, 100W
<i>Stepper Motor Driven, Suitable for cutting PVC & Nickel Wire</i>	

Heat Shrink Machine

Source voltage	AC 380V, 50HZ
Power	8.0 KW
Heating mode	Far infrared ray heat combined with circulating hot air
Tunnel Size	600mm x 400mm x 300mm
Conveyor Type	Mesh with 30Kgs loading capacity
Speed	0.1-6M/min, Infinitely adjustable-speed
Temperature range	RT-180°C, With 2°C accuracy, Closed Loop temperature control
Battery out temperature	<60°C



Single Sided and Double Sided ESD Workstations



Material	Mild Steel / Aluminum (ESD Safe)
Table Top Size	1200 x 600mm (can be customised)
Height	1800mm (can be customised)
Usage	Industrial Workshop / Electronics Assembly / Battery pack Assembly
Storage	As per requirement
Optional	<i>Footrest, Universal Socket with code, Swivel Light, conductive bins, writing board, tool tray, modular system with lock</i>

Material Movement Trolleys

Material	Stainless Steel with ESD Sheet
Load Capacity	50Kgs - 100Kgs
Dimensions	Can be customised
Wheels	Nylon / PU



CONVEYOR SYSTEM Automatic & Manual

Horizontal Type Belt Conveyor



- Standard Range of Modules (can be customised)
- 2 Ply non-mono belting
- Mild Steel / Aluminum Workstations (ESD Safe) Automatic OR Semi - Automatic (as per request)
- Facilitates belt change within 30 minutes.
- Belt Speed: 30 - 100 fpm
- Travel direction can be reversed.
- Can carry load upto 30kgs with speed upto 60 mtrs / minute.

Footrest, Universal Socket with Code, Tubelights, Tool Tray, Soldering Iron with drawer can be customised.

TECHNOLOGIES
POWER WITH TOMORROW IN MIND

Designed for moving and handling heavy loads (upto 100 Kgs)

The use of pallets to move individual products allows non-synchronous movement, so each product can be transported and routed independently.

Because the pallets are precisely machined, they can be accurately positioned and located via sensors, and RFID tags or other data carriers can be attached to each pallet to track and document individual product movements.

Pallets can be diverted and merged for offline operations, and accumulation allows products to be buffered, smoothing the flow of downstream operations.

Pallet Conveyor with Movement Control



BILL OF MATERIAL (BOM) for Lithium Battery Pack



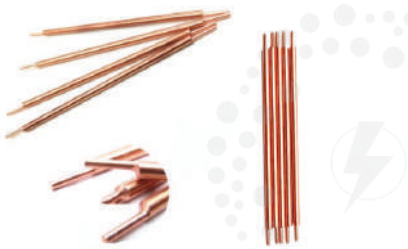
Jigs for Automatic Spot Welding

- For Single Side and Double Side Automatic Welding.
- For all Cylindrical Cell sizes WITH and WITHOUT holders.
- Can be customised according to Welding Machine Fixture.
- Made of Hylam material.



Cylindrical Cell Holders

- For all Cylindrical Cell sizes.
- Can be customised according as per any Series /Parallel configuration.
- Can withstand upto 150 °C



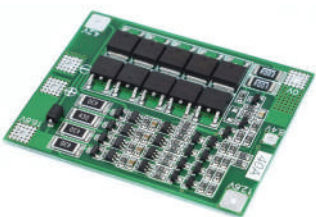
Spot Welding Electrodes

- For Automatic & Manual Spot Welding Equipment.
- Made of Copper and Beryllium Alloy.
- Can be customised according to Welding Machine Fixture.
- Lifespan upto 10,000 to 15,000 Strokes depending on program.



Cell Sorting Pins

- For Automatic Cell Sorting Equipment.
- Comes in standard sizes.



Battery Management System (BMS)

- Can Support upto 20S with RS485 Communication.
- Continuous current upto 80A with CAN Communication.
- Passive balancing function.
- Bluetooth and GPS optional.
- LED Indicator Interface.



Pure Nickel Strip

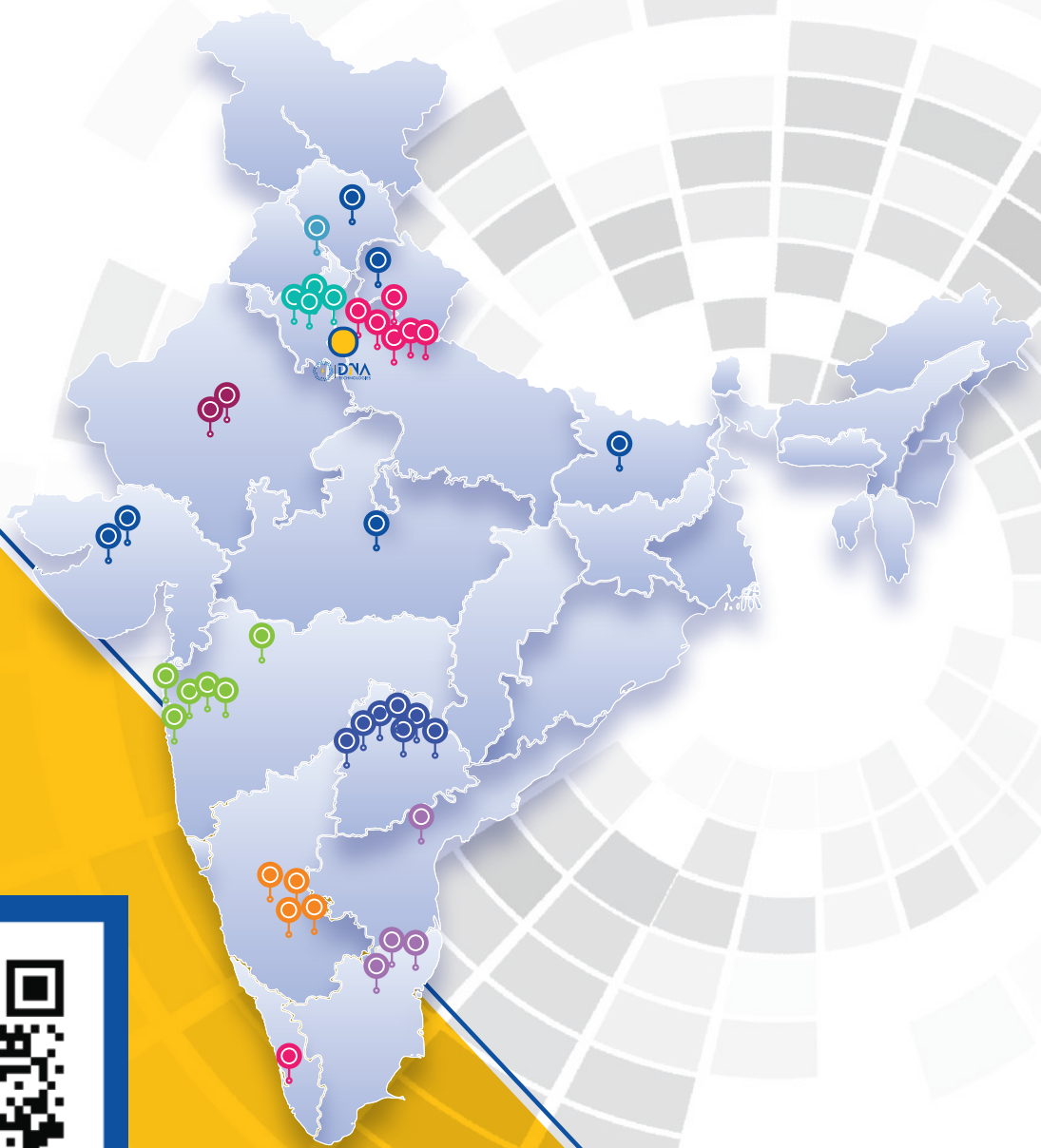
- Nickel 200 N6 99.5 Strip.
- H Type 2P and 3P available.
- 0.15mm - 0.20mm thickness.





DNA
TECHNOLOGIES
POWER WITH TOMORROW IN MIND

PAN INDIA INSTALLATIONS



DNA TECHNOLOGIES



Corporate Address:
A-104, First Floor, Sector - 80,
Noida, 201305, U.P., INDIA



www.dnatechnologies.co.in



info@dnatechnologies.co.in
dnatechnologies2017@gmail.com



+ 91 9818742050, +91 9811250246