

Superior performance for pack manufacture

TL-508B

High speed precision weld heads for battery pack manufacturing

Designed to meet the needs of battery pack manufacturers, the TL-508B Weld Heads are ideal for joining thin tab material to a wide variety of advanced battery cell technologies. These superior pneumatic weld heads were specifically developed to work in high volume production environments where quality, cost per part and set-up and maintenance are critical. The TL-508B Weld Heads are driven by the EZ-AIR® technology which repeatedly triggers the weld with no overforce regardless of speed or electrode stroke. The EZ-Clean function allows easy electrode maintenance and the force indicator light confirms repeatable firing.

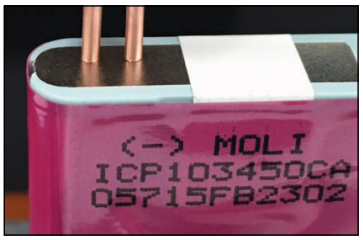
KEY FEATURES

- Easy force adjustment with fine resolution
- Easy set-up and maintenance
- Capable of up to 3 welds per second
- EZ-AIR guarantees repeatability
- 1.5 mm electrode rod for small cell applications
- Fine gap adjustment in a true horizontal plane
- Independent electrode force to adjust for polarity
- Compact design ideal for work on benchtops or automation
- Superior durability for production use
- High speed operation with advanced slide and cylinder design
- Precise downspeed control reduces impact force and eliminates damage to fragile battery cells
- Includes stand and baseplate
- Secure force setting with lock

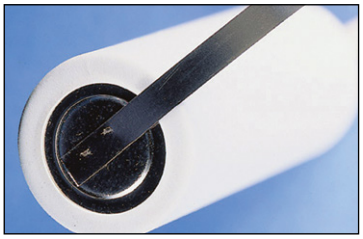
TYPICAL APPLICATIONS



Tab to lithium-ion coin cell

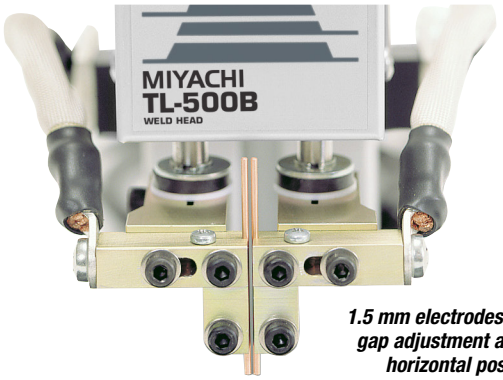


Tab to NiMH prismatic cell

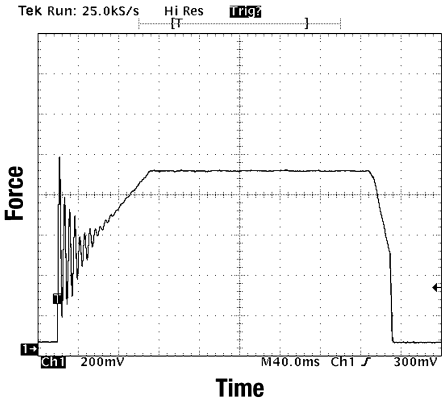


Tab to lithium-ion cell

KEY FEATURES AND CAPABILITY



1.5 mm electrodes with fine gap adjustment and fixed horizontal position



Force profile of TL-508B-2-EZ with EZ-AIR

Cell types	Technology / chemistry	Typical sizes
Coin, prismatic & cylindrical	Lithium-ion, nickel-metal hydride, nickel-cadmium	N – all sizes; AAA (LR03 / R03) – all sizes; AA (LR6 / R6) – all sizes; Sub C – all sizes; C – all sizes; some D

NOTE: 0.005" tab thickness is recommended in either Nickel plated steel or pure Nickel (Nickel 200, 1/4 hard). For thicker tabs use slotted design and projections.

TYPICAL POWER SUPPLY COMBINATIONS



UB-4000A – Linear DC



HF-2500A – High Frequency Inverter



CD-A300A – Capacitor Discharge

TL-508B WELD HEAD SPECIFICATIONS

Model number	TL-508B-2-EZ
Force range	1-7 lb per electrode
Maximum stroke	1.0 in (25 mm) per electrode
Throat depth	4.5 in (114 mm)
Electrode gap adjustment	0.394 in (10 mm) maximum
Electrode diameter	0.059 in (1.5 mm), part number ES0250M, pair
Weld cycle rate	1 weld/sec. (1-2 lbs) – 3 weld/sec. (>2 lbs)
Force repeatability (weld to weld)	±5% (1-2 lbs); ±2.5% (>2 lbs)
Electrical requirements	24 VAC/VDC – EZ-AIR system
Air line requirements	85 – 130 psi
Firing switch	Solid state

WEIGHT & DIMENSIONS

Dimensions (W x D x H)	10 in x 17.25 in x 15.0 in (25.4 mm x 43.82 mm x 38.1 mm)
Weight	21 lb (10 kg)

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06/25