



TSEMODUX

Concrete

Series™

Battery-Powered Concrete Equipment

YEARS OF FULL POWER · ZERO EMISSIONS · ZERO NOISE

Active-Cool

Fast Charging Without
Cycle-Life Loss

64V

Platform — 15Ah & 30Ah
Packs Matched to Each Tool

2,000+

LiFePO4 Cycle Life
5-7 Years Daily Use

TSEMODUX

CQTS — Chongqing Tuosi Power Technology Co., Ltd.
tsemodux.com

Chenglin Jiang, Founder
cqtsca@tsemodux.com

Battery Power Built for Concrete Work

Concrete finishing and compaction work is an ideal fit for battery power. Predictable tool-use patterns, consistent duty cycles, and grid access on virtually every commercial jobsite make the hot-swap battery system the most practical choice for concrete crews.

Why Concrete Work Is Perfect for Battery

Unlike emergency response or remote infrastructure work, concrete finishing follows a predictable rhythm: pour, screed, float, trowel, compact. Each phase uses a specific tool at a known duty cycle. This predictability is exactly what makes battery-electric equipment shine.

- **Grid is almost always available** on commercial construction sites — the charger plugs directly into site power
- **Duty cycles are consistent** — power trowels, screeds, and compactors run at known loads per pass
- **Work happens close to staging areas** — charger stays at the van or site office, packs rotate in and out
- **Indoor finishing is extremely common** — slabs, parking structures, warehouses — all places gas engines are a serious problem

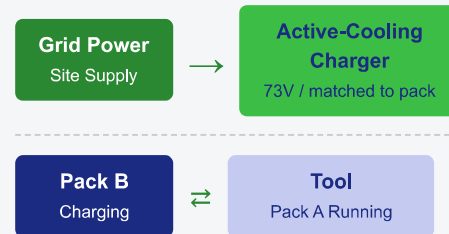
The Simpler System for Grid-Connected Sites

The TSEMODUX Concrete Series is designed for grid-connected jobsites. The setup is as simple as it gets:

- Plug the standalone **active-cooling charger** into site power (grid)
- Run the tool with **Pack A**
- Charge **Pack B** simultaneously
- **Hot-swap** when Pack A depletes — continue without stopping
- Charge Pack A. Repeat.

With 2 packs per tool and 1 charger, a concrete crew achieves **continuous operation throughout the entire shift** — no fuel runs, no engine maintenance, no downtime.

SYSTEM FLOW — GRID-CONNECTED HOT-SWAP



Hot-swap takes seconds. No shutdown. No power interruption to the workflow. Repeat the cycle every 42–150 min depending on tool and pack size.

Simple grid-connected setup. Just the tool, the matched Battery Pack, and the standalone active-cooling charger. Grid power is available on virtually every commercial jobsite — that's all you need for continuous operation, every shift.










Fast Charging That Doesn't Shorten Battery Life

Charging a pack hard and often is what normally wears it out — the heat of fast charging is what eats cycle life. The standalone charger's **active cooling system** pulls that heat out, so every pack can be fast-charged shift after shift, for years, and still deliver full power. Packs run on passively-cooled chargers fade; this one is built so they don't.

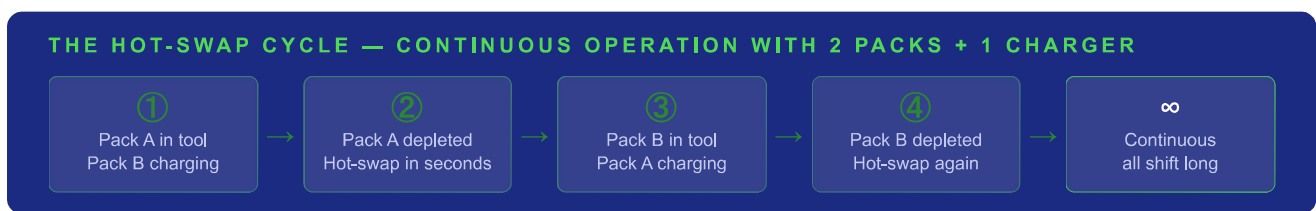
△ Prototype & Certification Status: All TSEMODUX Concrete Series products are currently in prototype testing. North American certifications — UL, CSA, FCC/IC, DOE/NRCAN — are expected **September 2026**. Contact us to discuss your procurement timeline and pre-order program.

Products & Specifications

Each product in the Concrete Series is sold individually. Tools use either the 64V/15Ah or 64V/30Ah Battery Pack, matched to each tool's power requirements. Two matched active-cooling chargers — 73V/25A and 73V/40A — keep each pack size cycling continuously on site.

Product	Specifications	Runtime · Charge
 Power Trowel 24 inch	Rotor Diameter: 24 inches Battery: 1× 64V / 15Ah Pack Application: Residential slabs, small commercial floors, interior finishing work	42 min run 42 min charge
 Power Trowel 36 inch	Rotor Diameter: 36 inches Motor Power: 4kW Battery: 1× 64V / 30Ah Pack Application: Commercial slabs, warehouse floors, parking structures	55 min run 50 min charge
 Concrete Screed (振平尺)	Type: Battery-powered vibrating screed Battery: 1× 64V / 15Ah Pack Application: Initial leveling and consolidation of freshly poured concrete — slabs, floors, flatwork	150 min run 42 min charge
 Jumping Jack Rammer	Operating Weight: 80 kg (176 lb) Motor Power: 2.5kW Battery: 1× 64V / 30Ah Pack Application: Cohesive soils, clay, narrow trench compaction, tight-access areas	~80 min run ~50 min charge
 Plate Compactor	Operating Weight: 90 kg (198 lb) Motor Power: 2.5kW Battery: 1× 64V / 30Ah Pack Application: Granular soil, aggregate base, asphalt patching, slab sub-base preparation	~80 min run ~50 min charge
 Battery Pack 64V / 15Ah	Chemistry: LiFePO4 Voltage: 64V nominal Capacity: 15Ah Energy: ~0.96 kWh Cycle Life: 2,000+ cycles — 5 to 7 years of daily use For: 24" Power Trowel, Concrete Screed	0.96 kWh per Pack
 Battery Pack 64V / 30Ah	Chemistry: LiFePO4 Voltage: 64V nominal Capacity: 30Ah Energy: ~1.92 kWh Cycle Life: 2,000+ cycles — 5 to 7 years of daily use For: 36" Power Trowel, Jumping Jack Rammer, Plate Compactor	1.92 kWh per Pack
 Charger 73V / 25A · Active Cooling	Output: DC 73V / 25A Input: AC grid power Cooling: Active For: 64V/15Ah packs — continuous hot-swap cycling, engineered for repeated charge duty	~42 min per 15Ah Pack
 Charger 73V / 40A · Active Cooling	Output: DC 73V / 40A Input: AC grid power Cooling: Active For: 64V/30Ah packs — continuous hot-swap cycling, engineered for repeated charge duty	~50 min per 30Ah Pack

* Runtime figures are nominal at rated continuous load. Actual runtime varies with operating conditions, concrete hardness, operator technique, and ambient temperature. Compaction tool runtimes are estimates pending final motor calibration. All products are in prototype testing; specifications subject to refinement prior to production.



The Concrete Series Lineup

Four battery-electric tools on one 64V LiFePO4 platform. Each tool hot-swaps its matched Battery Pack and runs from a single active-cooling charger — continuous operation on any grid-connected jobsite.



Concrete Screed

64V / 15Ah Pack · 150 min runtime

Initial leveling and consolidation of freshly poured concrete — slabs, floors and flatwork.



Power Trowel — 24" & 36"

64V / 15Ah & 30Ah Packs · up to 55 min

Floating and finishing concrete surfaces — residential slabs, commercial floors, warehouses and parking structures.



Jumping Jack Rammer

80 kg · 2.5 kW · 64V / 30Ah Pack

Cohesive-soil and narrow-trench compaction in tight-access areas.



Plate Compactor

90 kg · 2.5 kW · 64V / 30Ah Pack

Granular soil, aggregate base and asphalt patching — slab sub-base preparation.

⚙️ **Pre-production prototypes shown.** Units pictured are pre-production prototypes finished in the TSEMODUX platform color scheme — final production trim and labeling may differ. Full specifications and runtimes appear on the previous page.

The Hardware, Up Close

Concrete Series prototypes — built and in active testing. Every tool runs on the same 64V LiFePO4 platform: one universal battery pack, one powerhead architecture, one matched active-cooling charger.



64V LiFePO4 Pack + Active-Cooling Charger

The universal battery pack and its matched charger — together they deliver continuous hot-swap operation on any grid-connected jobsite. 64V platform, 15Ah and 30Ah variants, 2,000+ cycle LiFePO4 chemistry.

- 🔧 **Integrated heat-exchanger structure** — the finned cooling body pulls heat out of the cells under heavy, continuous duty.
- ⚡ **Active air-cooled fast charging** — the multi-bay forced-air charger is built for repeated hot-swap cycles without heat build-up or cycle-life loss.
- 🔗 **Station-compatible** — the same pack drops into the PowerCore Station for parallel charge & discharge.



M30 Powerhead

The universal drive unit behind the Concrete Series. The battery pack docks on top; a keyed output shaft drives the power trowel, jumping jack rammer, and plate compactor. Simple three-button operation — POWER · START · SPEED — with selectable speed settings.

⚠️ **Prototype hardware shown.** Units pictured are pre-production prototypes in active testing. Final production labeling, color, and trim may differ. All specifications follow the 64V LiFePO4 platform standard.

Six Reasons Concrete Crews Choose Battery

Battery-electric concrete equipment is not a compromise — it is a performance upgrade. Here is why leading concrete finishing crews are moving away from gas-powered equipment.



Full Power, Year After Year

The active-cooling charger fast-charges every shift without the heat that wears packs down — so the battery still hits full power years in, not just on day one. 2,000+ LiFePO4 cycles, 5 to 7 years of daily use. Hot-swap a second pack and the crew runs continuously while the grid is live.



Zero Fumes Indoors

Concrete finishing work happens inside — warehouse slabs, parking structures, commercial floors, residential basements. Battery-electric equipment produces zero CO emissions, eliminating ventilation requirements and CO exposure risk for your crew and building occupants.



Quieter on the Slab

Eliminate engine noise for crew comfort and communication. Work in occupied buildings, noise-sensitive residential construction, and early-morning commercial pour schedules without noise ordinance exposure. Battery-electric vibration is tool work — not engine work.



No Engine Maintenance

Focus on the finish, not the machine. LiFePO4 chemistry delivers 2,000+ cycles — 5 to 7 years of daily heavy use — with no oil changes, no spark plugs, no carburetors, no air filters, and no fuel system service. Battery-electric equipment simply works.



Two Packs Cover the Fleet

Just two SKUs cover the entire Concrete Series. The 64V/15Ah pack for the 24" trowel and screed; the 64V/30Ah pack for the 36" trowel, rammer, and compactor. Hot-swap within each size. Simple inventory — no compatibility headaches as your fleet grows.



Individually Sourced

Buy only what your crew needs. A single power trowel. An extra pack for extended pours. An additional charger for a two-trowel crew. There are no mandatory bundles — source the tools and accessories that match your current project scope and add more as your work demands it.

🔗 **Buy only what you need.** The TSEMODUX Concrete Series is designed for flexible individual sourcing. Start with one tool and one charger. Add a second pack for hot-swap capability. Add a second charger for a two-tool operation. Every component is individually available — no mandatory bundles, no matter how your fleet grows.

North American Certifications

TSEMODUX products are designed to meet applicable North American safety, emissions, and radio frequency standards. Current certification planning prioritizes the municipal 64V/30Ah platform; Concrete Series certification scope will be finalized before commercial launch.

SGS North America — NRTL Certification Program

SGS North America is an OSHA-recognized Nationally Recognized Testing Laboratory (NRTL). TSEMODUX Concrete Series products are in prototype evaluation and can be added to the certification program as market demand is confirmed. Upon certification, products will bear the SGS mark and be eligible for regulated job sites governed by OSHA, CARB, and provincial/state safety boards across the United States and Canada.

Power Tools & Equipment

UL/CSA 62841-1 — Safety of Motor-Operated Electric Tools
Covers power trowels, screeds, compactors, and rammers

Battery Packs

UL 2271:2018 — Batteries for Use in Light Electric Vehicle Applications
64V / 30Ah LiFePO4 Pack in current planning; 64V / 15Ah Pack requires added scope

Charger Units

UL 1012 + CSA C22.2 No. 107.1 / 107.2 — Power Units Other Than Class 2
73V/40A charger in current planning; 73V/25A charger requires added scope

Radio Frequency Emissions


FCC Part 15 Subpart B (USA) + ICES-003 Issue 7 (Canada)
Unintentional RF emissions from digital and power electronics

Energy Efficiency — USA

DOE + CEC (California Energy Commission) compliance
Charger efficiency standards and labeling requirements

Energy Efficiency — Canada

NRCan (Natural Resources Canada) — Energy Efficiency Regulations
Charger efficiency and product labeling requirements

 **Current Status:** Concrete Series products are prototype-ready. Commercial launch requires confirming market demand and adding the 64V/15Ah pack, 73V/25A charger, and related tools to the North American certification scope. We welcome early-stage discussions with concrete contractors and finishing crews to align specifications, timing, and pre-order options.

Ready to Take Gas Engines Off the Slab?

Contact us to discuss your specific concrete equipment needs, get a quote for individual tools or a complete crew setup, or learn more about our pre-production program. We work directly with concrete contractors and finishing crews to ensure the right tool and pack configuration for your pour schedule.

CONTACT

Chenglin Jiang, Founder

EMAIL

cqtsca@tsemodux.com

WEBSITE

tsemodux.com

COMPANY

CQTS — Chongqing Tuosi Power Technology Co., Ltd.