

Low Altitude Economy

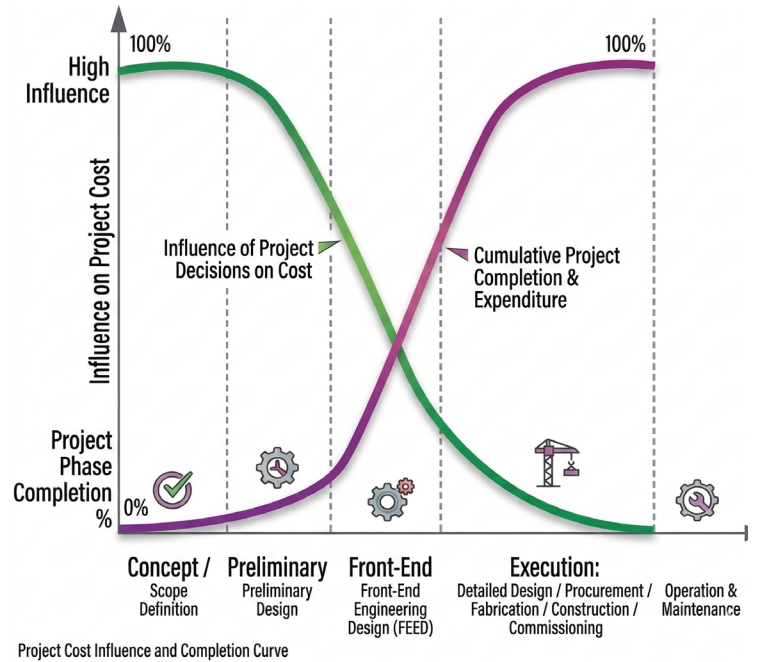
One-Stop Fastening & Connection Solutions



Industry Challenges

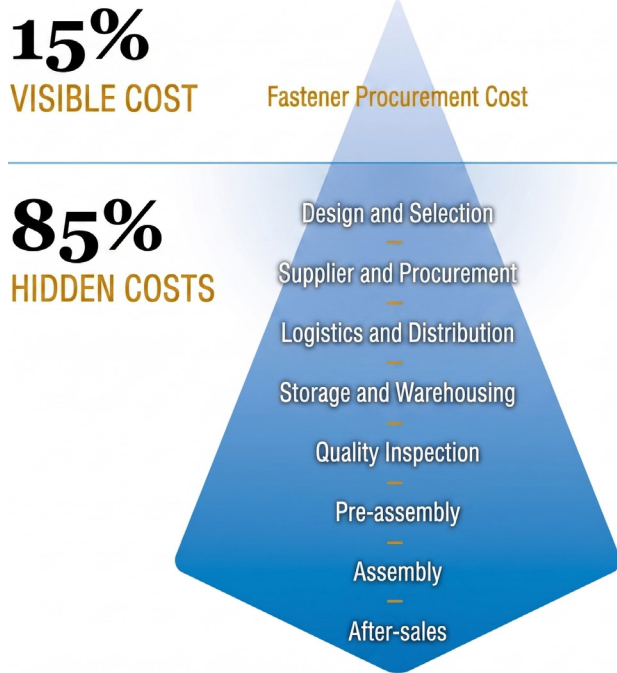
Project Cycle Cost Impact Model

In today's rapidly evolving society, the core challenge facing enterprise R&D lies in this paradox: the early-stage decision-making window is extremely narrow, yet it locks in the majority of costs; while substantial investments are made in the later stages, the cost of correcting mistakes becomes prohibitively high—resulting in a serious mismatch between risks and returns. This requires enterprises to make accurate judgments at the very early stage to address market uncertainty.



The 15-85 Law

Another challenge facing enterprises today is this: excessive focus on explicit procurement costs, while ignoring the implicit costs that account for 85% of the total. Enterprises often lack systematic coordination across design, supply chain, after-sales and other links, leading to high manufacturing costs, rework, quality and after-sales issues caused by early-stage decision-making errors—ultimately driving up the total cost of ownership (TCO) significantly.



Services Offered by ZCJ

Total Cost Optimization Expert from Prototype Design to After-Sales



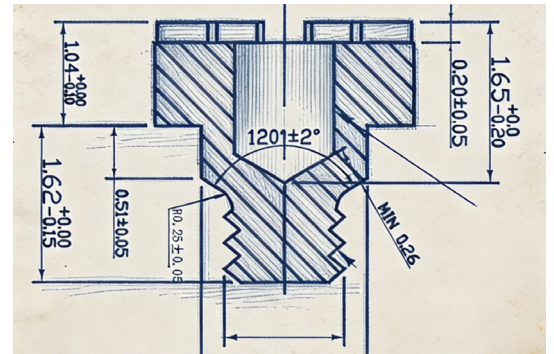
Rapid Prototypes



Professional Training



Professional Testing Services



Professional Design Consulting

CURRENT SCHEME

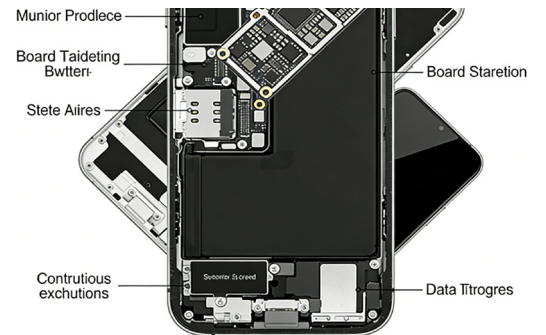
OPTIMIZED SCHEME

OPTIMIZATION PROPOSAL I:
 - CHANGE FROM HOT FORGING TO COLD FORGING PROCESS; FORMING CAVITY INCREASED
 - MATERIAL CHANGED TO 10B21
 - TOOLING COST: 78,000 RMB
 - MOQ: 100,000 UNITS, TOTAL PRODUCTION 500,000 UNITS.

PROPOSAL II:
 1: REMOVE 4 R5.0 CORNERS, MAKE INTO STRAIGHT SIDES.
 2: INCREASE ROOT RADIUS TO R0.8.

IF ABOVE CONDITIONS AND PROCESSES ARE MET, UNIT COST REDUCED BY 0.75 RMB, TOTAL COST SAVINGS: 375,000 RMB

Continuous Process Improvement



Professional Teardown & Analysis



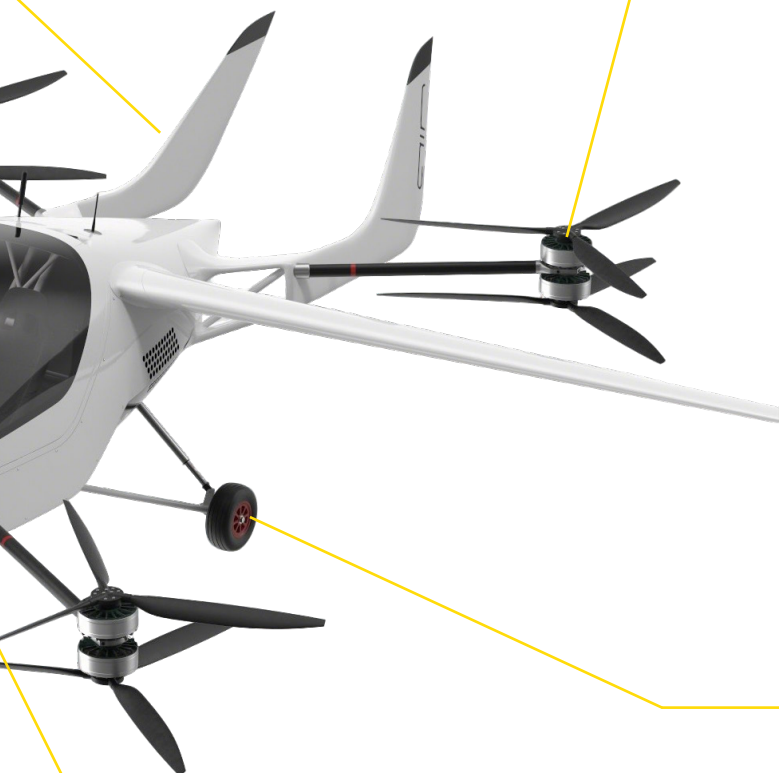
Riveting Products - Blind & Clinching Rivets (Sealed & Non-sealed)



Screws - Locking, Sealing, Captive Screws, etc.



Lock Washers



High Strength Sleeves



Composite Material for Bonding

Composite Material Bonding

Achieving non-destructive, hole-free high-strength joining of composite materials through adhesive bonding.

The bonding plates can be dimensionally designed and lightweight engineered according to the required connection strength.

The joining method between the shank and the plate can be selected based on the desired strength requirements.



Riveting Products

Clinching parts are used for fastening and grounding connections of sheet metal and thin die castings in vehicle bodies, chassis, and three-electric systems. Crimped and connected by clinching riveting equipment.

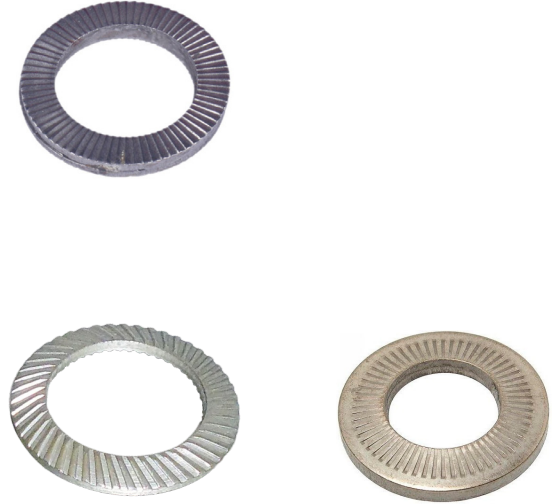
Rivet nuts, rivet bolts and blind rivets are used for mechanical connection of sheet metal in chassis and battery packs.

Pre-applied adhesive on the heads of rivet nuts and blind rivets provides waterproofing and sealing, with a sealing level up to IP68.



Lock Washers

Double-layer locking washers are designed for applications subject to significant transverse vibration loads. They utilize the principle that the wedge angle between the mating surfaces of the two washers is greater than the thread pitch angle, ensuring that the removal torque exceeds the installation torque, thereby achieving effective anti-loosening performance.



Single-sided serrated conical locking washers are used in vibrating conditions with alternating loads. They provide gap compensation and increase friction at the contact surface, delivering reliable anti-loosening functionality.

Locking, Sealing, and Captive Screws

Bolts achieve locking through combination and pre-coated thread locking compound (chemical or physical).

Sealing up to IP68 can also be realized by pre-coating compound on the head or thread, or adding a sealing ring.

Brexit screws (PEM studs) can be removed from the panel without the screw falling off.



YF Zhichengjia Precision Hardware (Shenzhen) Co., Ltd

Address: No.13 Zhongxing Rd., Kengzi Sub-district, Pingshan New District, Shenzhen, China

Landline: 0755-84061349

ZCJ Metal Technology (Xiangyang) Co., Ltd

Address: Sancha Road Economic Development Zone, Chengguan Town, Gucheng County, Xiangyang, Hubei, China

Landline: 0710-7269998

PT Toprecision Fastening Insonesia

Adress: JI,Interchange tol dawuan No.10,CIKAMPEK-41373,Jawabarat, Indonesia

Website: www.zcjtech.com