

ETCS INC

**Engineering Led Stamping Tooling for
On-time Automotive Launches.**

**Reducing launch risk through Accountable
Engineering, Global Tooling, and Local
Execution**

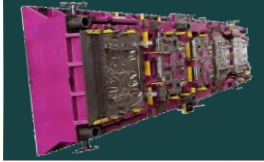
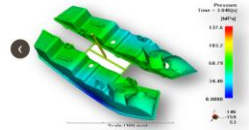
One Stop Ownership Feasibility thru SOP
Feasibility → Design → Build → Tryout → Validation → SOP

Engineering

Tooling

Component

Services



Progressive/Transfer Die upto 2500 T
ETCS Inc. | Detroit + Global | 100+ Dies/Year

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www.etcsinc.com

2021-2022 MMBDC certified

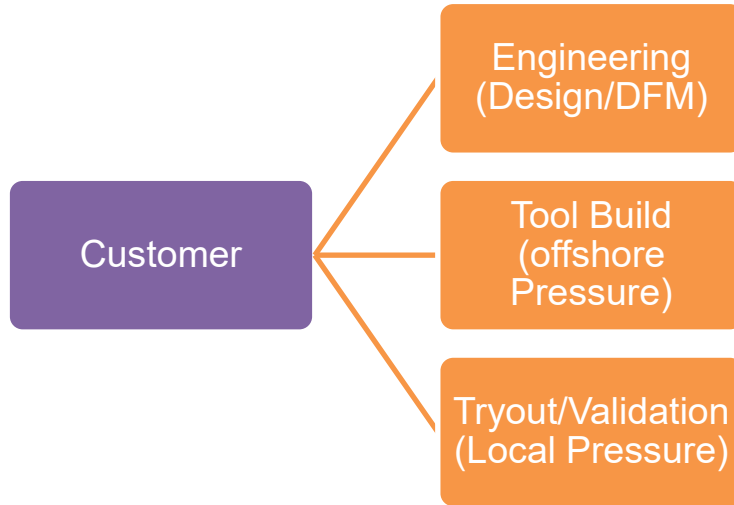


Minority Business Enterprise (MBE)

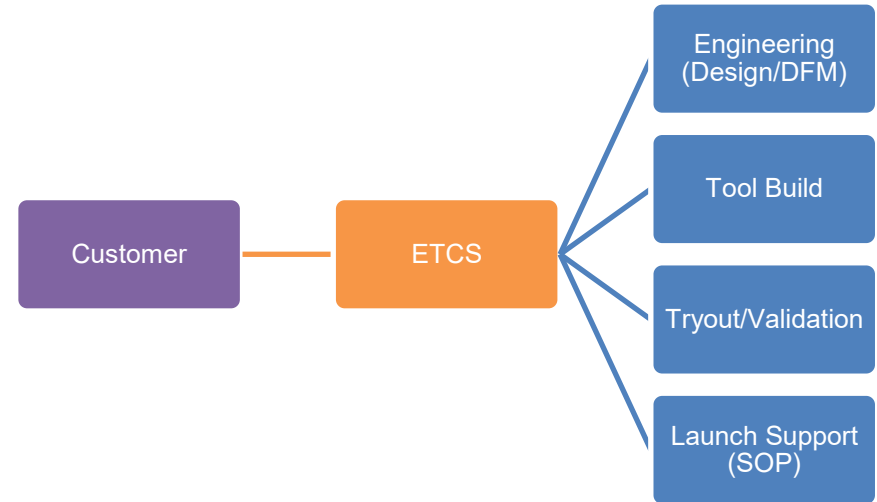


ISO 9001 certified

Traditional – Launch Risk



ETCS Model – One Partner, One Owner, One Launch Plan/ Correct Execution



✓ Single Accountable Owner

- ETCS owns Engineering + Tool build + Tryout
- One escalation path, one cadence, one plan
- Single point of contact for Customer.

🕒 Faster Closure Cycles

- Issues closed locally while global teams execute updates
- Less waiting on Onshore iteration loops

★ Milestones You Can Trust

- Locked gates + weekly reviews
- Accountable through SOP

Why Tooling Programs Miss Launch Targets



Root Cause

- Engineering Disconnected
- Too Many Vendors, No Single owner.
- Onshore Quality Loop.

Impacts

- Late tool delivery
- Onshore rework and quality gaps
- Cost overruns and launch escalation, Overtime, Premium Freights.

Governance gaps

- Milestones not projected/Unclear Escalation.
- No weekly risk register / follow-ups reviews.

Launch slips aren't caused by one big failure—they're caused by several small misses with no owner.

ETCS Solution: ETCS addresses the governance gaps through Single Program Ownership, Coordinated Engineering, Global Build Partnerships, and Local Tryout/Validation infrastructure thru locked milestones and Weekly Gate reviews ensuring accountability through SOP.

ETCS Inc. Customers

Our largest Clients include:

ETCS INC is an Engineering, Tooling, Components systems company headquartered in the Metro-Detroit area that was established in 2003.

ETCS INC was founded to offer tool design, Engineering & Tool build for Stamping Dies & Check Fixtures.



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SODECIA



wico metal products
Industry Leader In Stamped Extrusions and More...



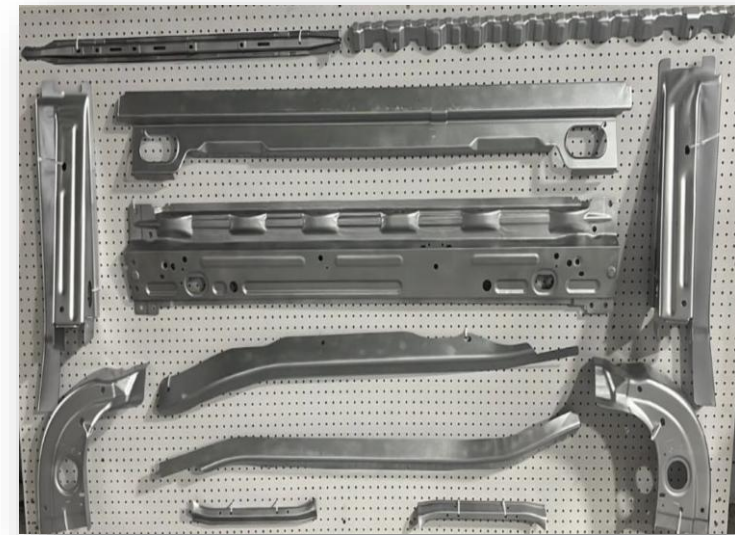
Where ETCS Delivers the Most Value



High-risk, timing-critical programs that need one accountable owner—from feasibility through SOP.

Best Fit (Yes)

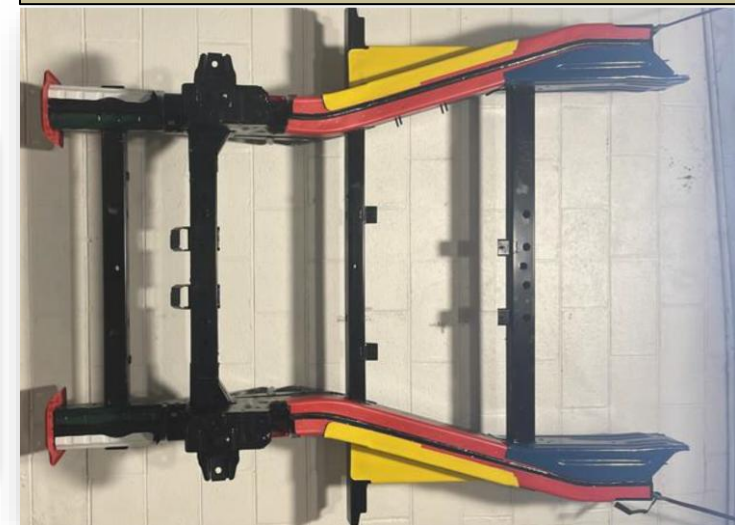
- Timing-critical launch (SOP can't slip)
- Multi-tool packages / complex assemblies
- Complex Materials: Dual Phase/ High Strength /Aluminum
- Onshore tooling risk or recovery needed
- Needs DFM + simulation + execution ownership
- Program team wants weekly gates + one escalation path
- Multi-Tool Programs / Assemblies are preferred over Single Tool Programs where ETCS can add more Value.



Multitool Package – Rivian Program

Not a Fit (Less Opportunity to add Value)

- Quote-only (without program/environment visibility)
- Price-only buying where schedule risk is ignored
- No access to program team / slow decisions



Where **ETCS** creates the most value: **Ownership + Speedy Completion + Predictable milestones.**

Stamping Dies

Progressive & Transfer dies
Die design + build oversight,
Tryout and Launch Support



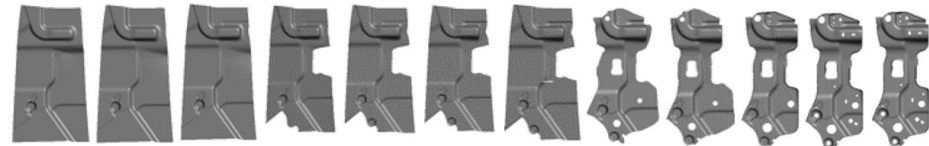
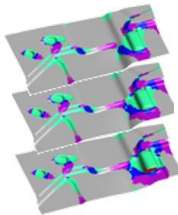
Fixtures & Gauges

Checking fixtures
Assembly fixtures
Weld Fixtures



Engineering Support

- Design for Manufacturability
- Value Add Value Engineering
- Incremental Forming Simulation
- Spring-back Analysis
- Reverse Engineering
- Structured Die Design



What ETCS offers to Customers?



ETCS offers 3 sourcing customized model options to help Customers choose per their tooling strategy and budget.

Completely US-Build Tool

Premium Cost

- Engineering, Design, Simulation & Detailing in USA
- Tool build & machining in USA (Die Sets, Die Steels all from USA)
- US-sourced die steels, heat treat, coatings, and purchased components
- Assembly, spotting, tryouts, buyoff support & validation in USA

Hybrid Tool Build (India + USA)

Best Value

- Die steels manufactured in ETCS owns India shop using high-grade tool steel
- CMM inspection & dimensional validation of Steel in ETCS India before shipment to USA.
- Standard items + die sets / large plates sourced in USA.
- Final assembly, tryouts & validation entirely in USA

China-Built Die

Low Cost

- Complete China tool build & tryout and validation for cost competitiveness
- ETCS engineering oversight & program governance.
- Optional : US-based tryout/validation support depending on program need.
- Best for cost-driven programs with schedule flexibility

Choose your best options and ETCS will get it done

Regardless of multiple tool build options — ETCS owns the outcome

Global manufacturing options with US-based tryout and validation to protect program timing

Engineering as a Force Multiplier



What Engineering Ownership means

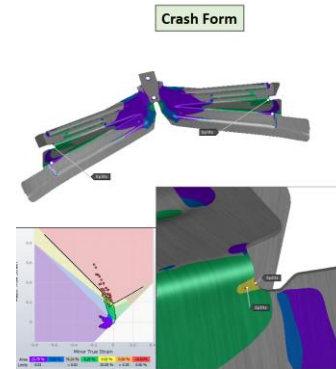
Upfront Engineering / Digital Validation
Especially for Dual Phase/High Strength
Steels Fewer Tryout loops / Launch within
Time and Cost Target

- DFM before steel is cut (risk removed early)
- Design validated for Spring back compensation before steel is cut.
- 24-hour Engineering Support (India + NA)
- Change control + revision discipline
- Weekly risk register + gate reviews

Spring back Final part - +15.28/-2.847mm
Splits observed after crash form process.
Approved Die Process - +8.429/-3.209mm
FLD is green as per approved die process.



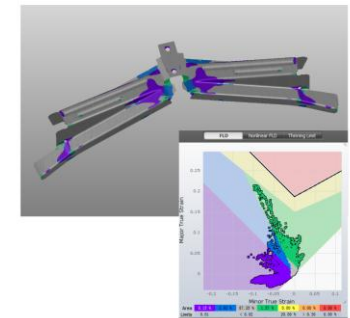
Rivian RPV 500/700 :
DP Material DP High strength
material digital spring back
validation



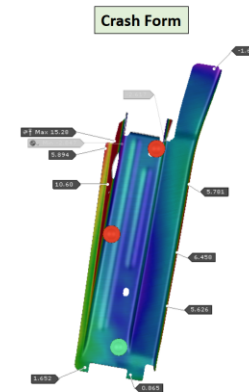
Splits observed after crash form process.

Comparison

Approved Die Process



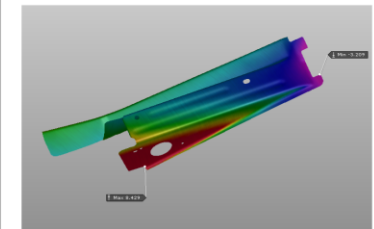
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Comparison

Approved Die Process



Spring back final part - +8.429/-3.209mm

Outcome: Fewer Tryout loops • Fewer Rework • Faster PPAP

Case Study: FCA Aptiv Tunnel Die



End-to-End Tooling Delivery (Engineering → Build → Tryout → Validation)

Challenges → ETCS → Solutions → Results

Challenges

- Aggressive timing to validate product design
- Feasibility risk / complex geometry and quality requirements
- Feasibility risk / complex geometry and quality requirements
- **Other tool-shops did not quote.**

ETCS Solutions

Completed initial simulations and collaborated with the customer on product design updates to make the part feasible and manufacturable

Results

ETCS delivered the tooling on time that is now producing **300,000 parts/year**.

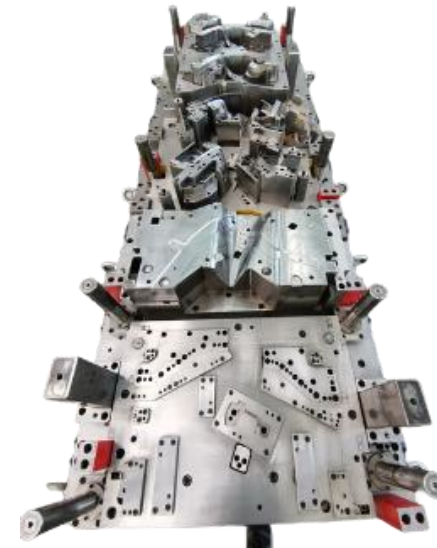
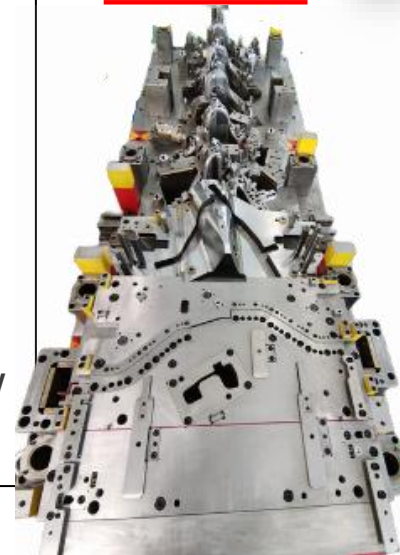
Few of the many examples below



Lower Die



Upper Die



Offer: Challenges / Critical Jobs | Best for timing-critical launches

Case Study: TDM Tie Down Bracket



Product development through Prototype Validation.

Prototype Tool : Generic prototype die sets with custom riser plates available in house to stamp prototype parts in short turnaround time



Weld fixture and Assembly check fixture for tie down brackets



Product Concept → Prototype Build → Prototype Validation → Optimized Product → Full Production Tooling

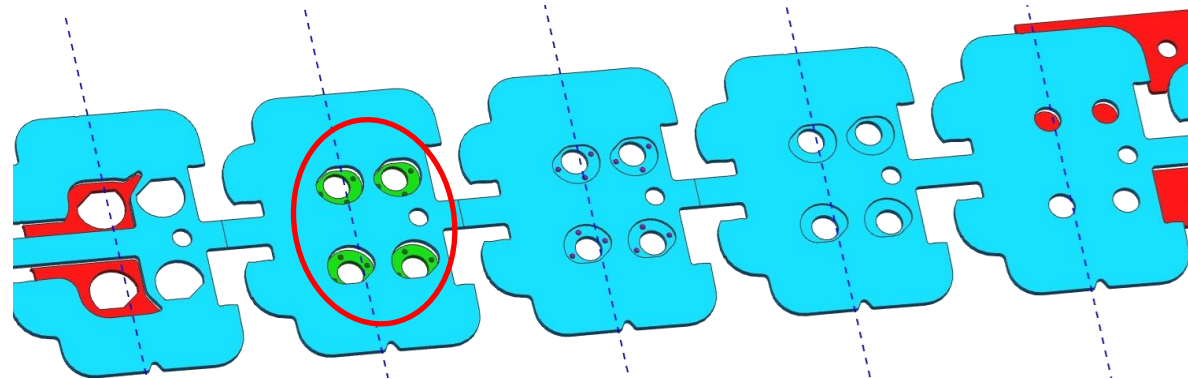
- *Material Savings thru Engineering (Getting Washer out of Scrap shown in picture below)*
- *Close collaboration with customer upstream led to cost savings in Tooling and Saved Piece price.*
- *Lesson Learnt from Prototype tooling applied to Production Tooling*



Prototype Stamped Parts



Production Build Lower Die



We're built for the jobs where failure isn't an option

Case Study: Program Ownership



One owner from feasibility through SOP — Milestones locked, Escalation simplified

Program : Rivian RPV 500/700

Customer: Wico Metal Products

- Total no. of parts awarded to ETCS:- **46**
- Total no. of tools awarded to ETCS:- **29**

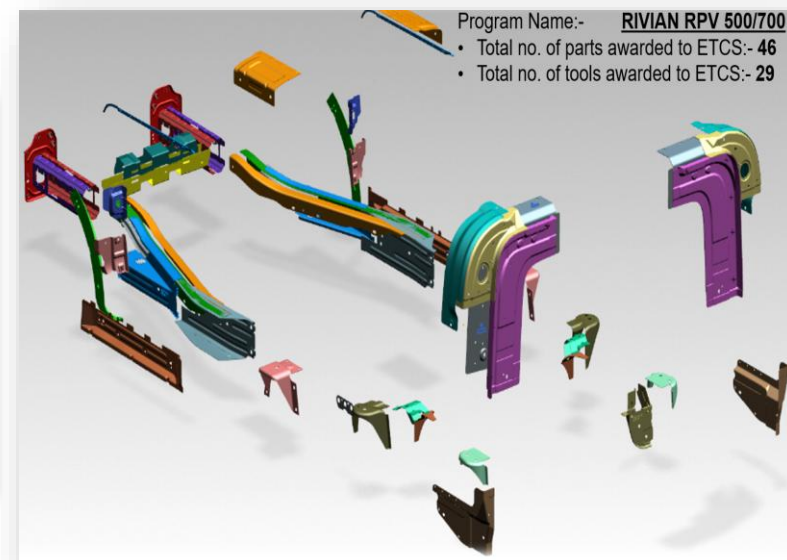
Tooling Capacity: Up to 2500T dies

What ETCS Owned

- Feasibility / DFM
- Design / Global Tool Build Management
- Onshore Tryouts
- Homeline Tool Debug/Tryout
- Launch support – Timely PPAP
- Prototype Tool/Parts Support for Initial DCV Builds.
- **Mix of Aluminum , High Strength DP Parts**

Outcomes

- Milestones held with weekly follow-ups.
- Reduced rework loops thru digital validation and thorough program management support through out the Program.
- Escalations reduced, Timely Tool Deliveries.
- On-time PPAP / buyoff readiness



Tooling Recovery Process



Situation → Actions → Outcome

- **Situation: Onshore Die Delayed, SOP at risk**
- *Escalation – Understanding the timing, Tooling and Quality issues.*
- **Actions: Local tryout + validation loop**
- *Execution Plan – Internal/External Resource management.*
- *Execution – Re-Engineering and procurement of critical sections/standard components needed, ETCS tryout support.*
- **Outcome : Timing recovered launch protected**

When Onshore tooling is late or incomplete — ETCS recovers timing with local execution

If Your Launch Can't Slip, Talk to ETCS



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