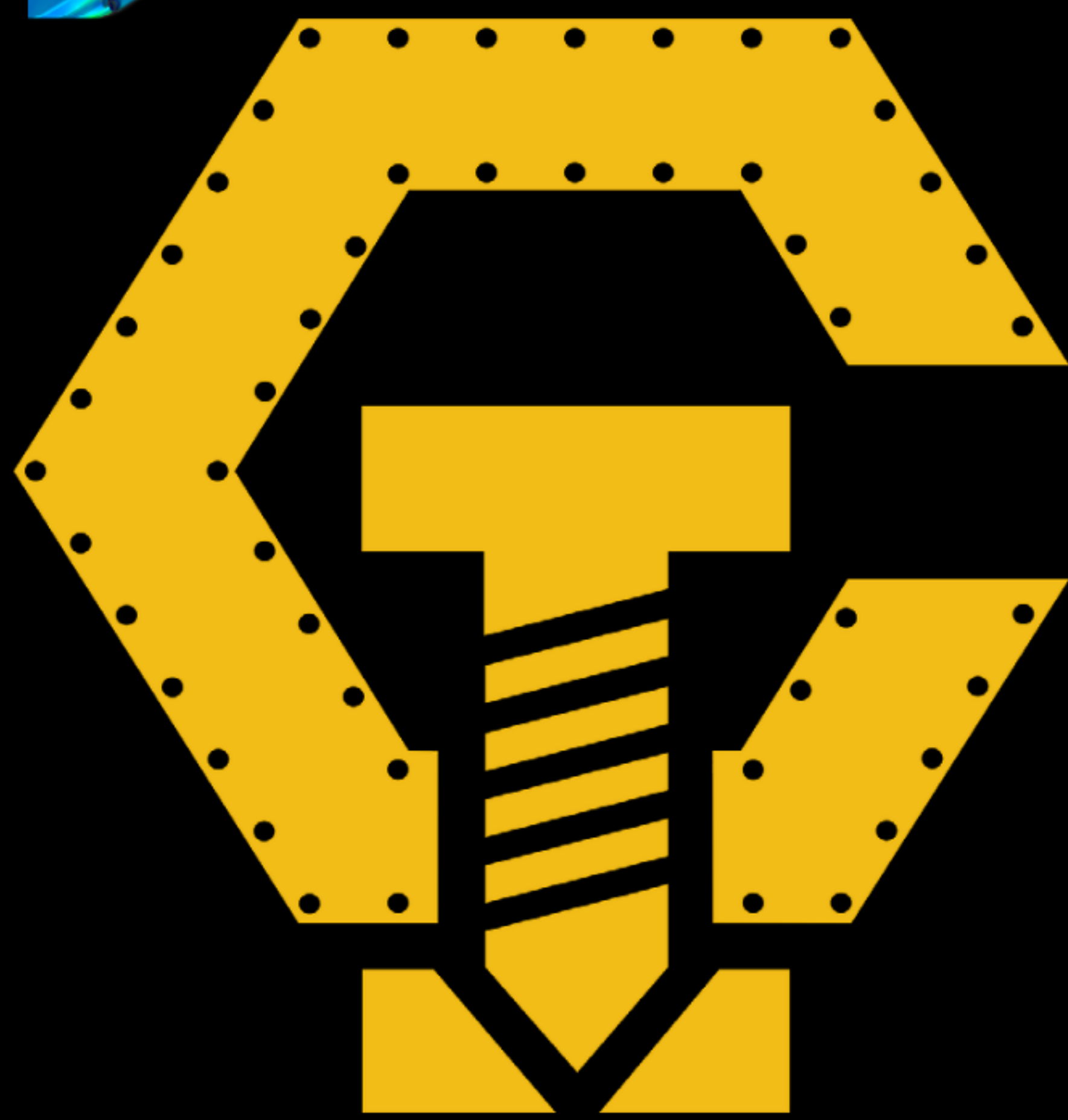
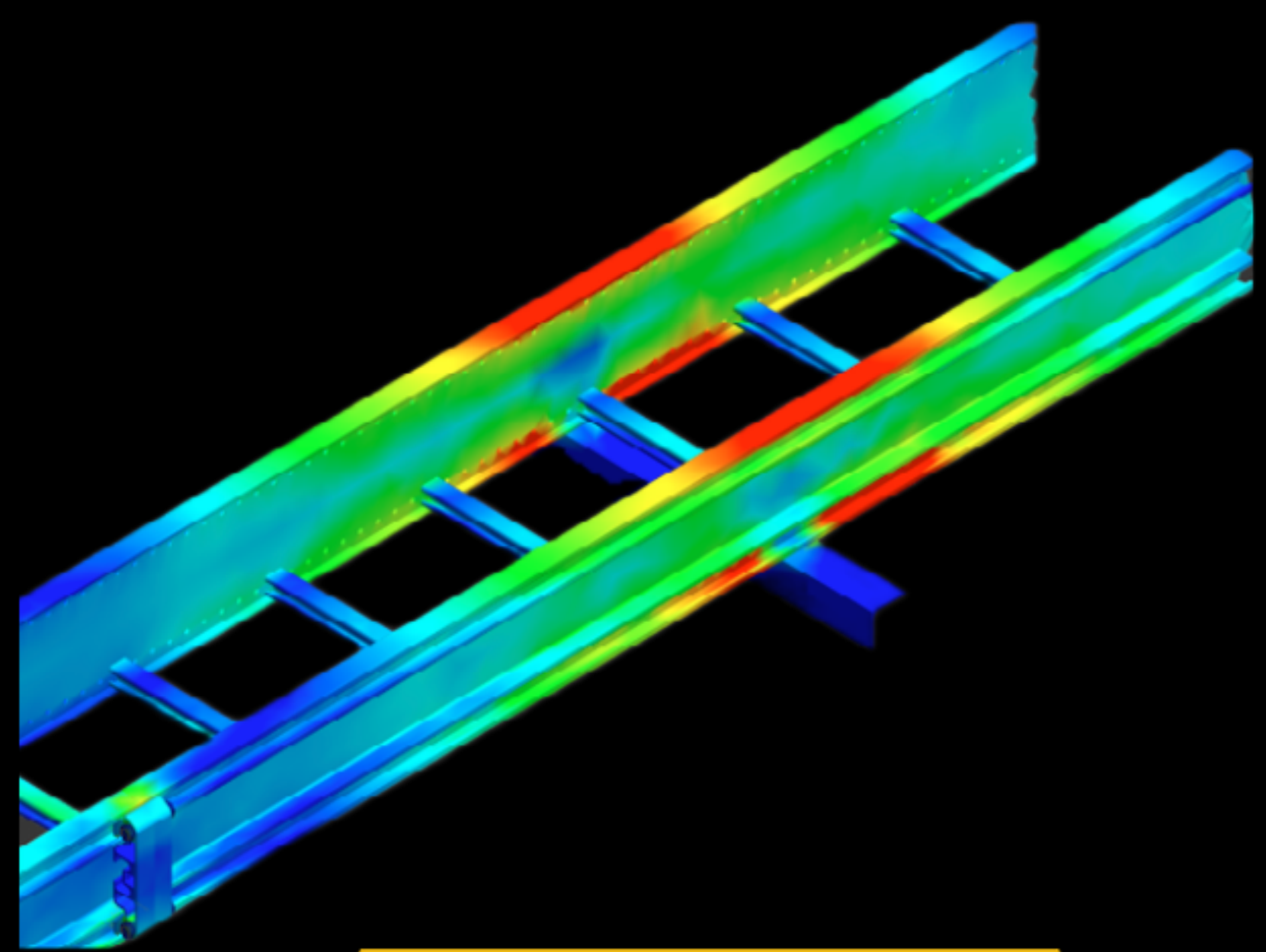
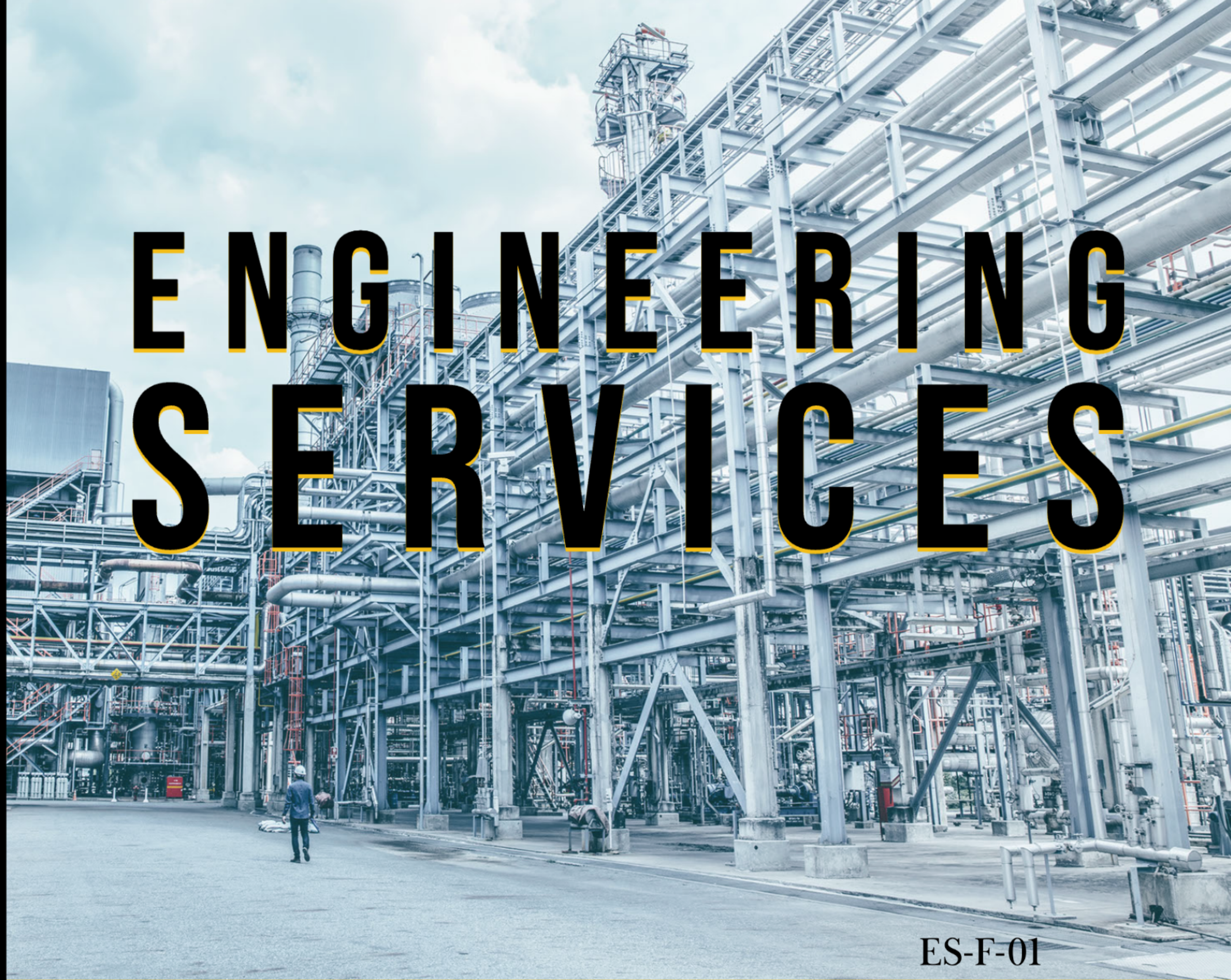


ENG SERVICES

**DESIGN  
FOR SPEED  
TO INSTALL  
WITH EASE**



CT INNOVATIONS



# ENGINEERING SERVICES

ES-F-01

## SUBJECT MATTER EXPERTS



**HIGHLY RESPONSIVE**



**TURN KEY ELECTRICAL DESIGN**



**TURN KEY MECHANICAL DESIGN**



**TURN KEY DYNAMIC DESIGN**



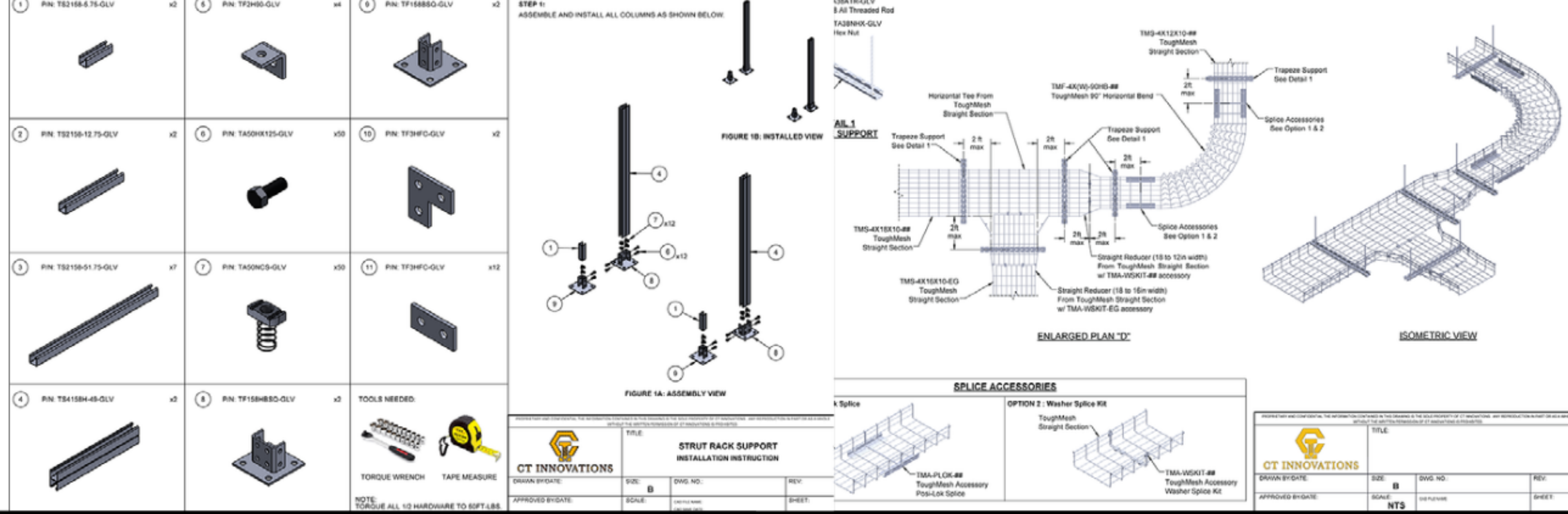
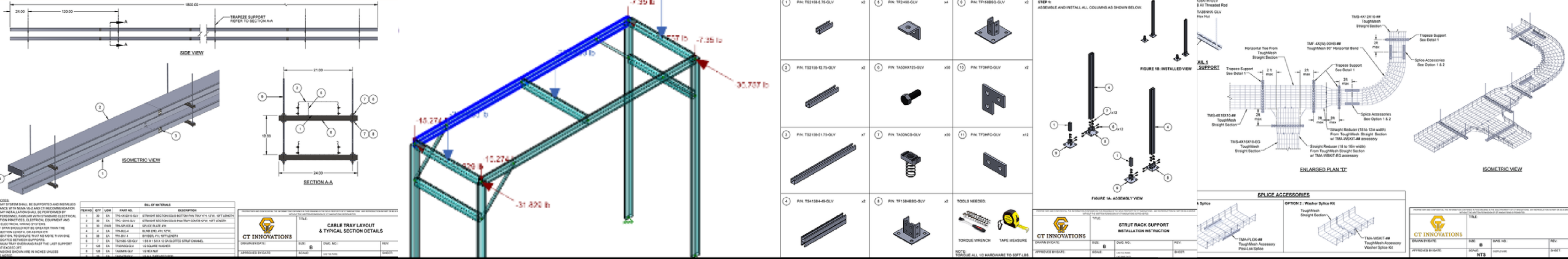
**APPLICATION TESTING**

**INDUSTRIAL | COMMERCIAL | DATA CENTERS**

**WWW.TOUGHINNOVATIONS.COM**

Your Cable Management Solutions





BILL OF MATERIALS				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	UOM
1	TMS-2X08X10-TG	TOUGHMESH STRAIGHT 2X08X10 STEEL, TOUGHGALV	2	EA
2	TMS-2X04X10-TG	TOUGHMESH STRAIGHT 2X04X10 STEEL, TOUGHGALV	4	EA
3	TMF-2X08-90HB-TG	TOUGHMESH FITTING 2X08X10 STEEL, TOUGHGALV	1	EA
4	TMF-2X04-90HB-TG	TOUGHMESH FITTING 2X04X10 STEEL, TOUGHGALV	1	EA
5	TMA-PLOKM-GAC	TOUGHMESH ACCESSORY POSI-LOK SPLICE STEEL, HOT DIP GALVANIZED	5	PAIRS
6	TMA-USC-GAC	TOUGHMESH ACCESSORY HOLD DOWN CLIP STEEL, HOT DIP GALVANIZED	13	EA
7	TMA-GRND	TOUGHMESH ACCESSORY GROUND BOLT	2	EA
8	CONCRETE ANCHOR	CONCRETE ANCHOR	13	EA
9	TMC-04X10-GAC	TOUGHMESH COVER 04X10 STEEL, HOT DIP GALVANIZED	4	EA
10	TMC-08X10-GAC	TOUGHMESH COVER 08X10 STEEL, HOT DIP GALVANIZED	2	EA

# TOUGH

SUPPORT SAVINGS

**ISOMETRIC VIEW**

## Structural - Electrical - Mechanical & Application Services

Dynamic Loads  
 Static Loads  
 Support Optimization  
 Shop Drawings  
 Installation Details  
 BOM Take-Off  
 Plan Drawings

Cable Tray Layout  
 Tray Fill Calculation  
 Project Review  
 Specification Review  
 Site Support  
 PE Stamps  
 BIM

Pipe Rack Design  
 HVAC Rack Design  
 ETO Product Design  
 Application Design  
 Certification Review  
 MEP Rack Design  
 VAVE Design

Factory Acceptance Tests  
 NEMA Load Tests  
 IEC Load Test  
 Pull Load Tests  
 Slip Load Tests  
 Salt Spray Tests  
 Wind / Dynamic Tests



# CT INNOVATIONS

## Do Better. Be Better.



BOM

Resources