

ENGINEERING-AS-A-SERVICE · MOLD & DIE

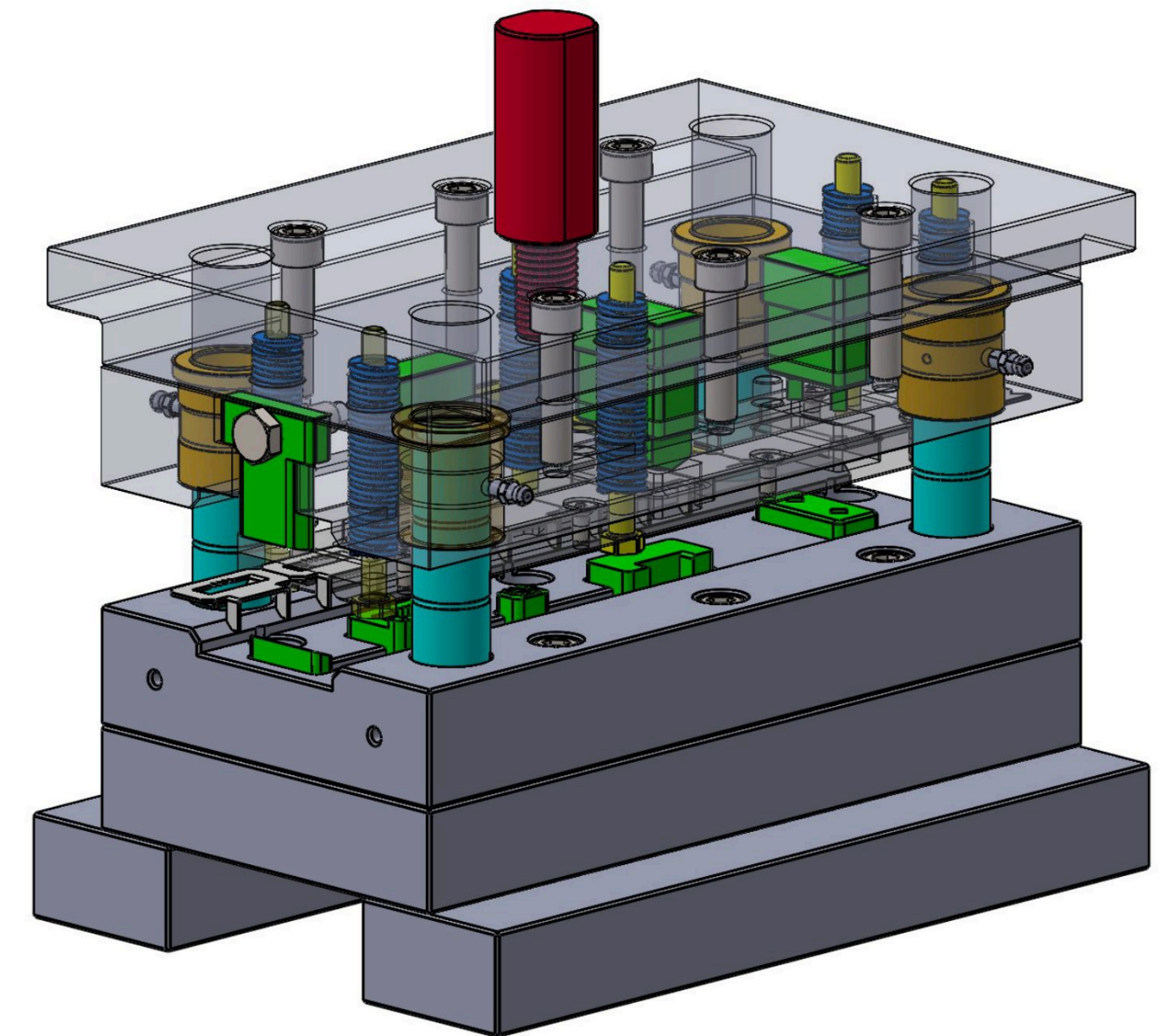
Your overflow design team.

Senior mold & die designers for Michigan tool shops. Working Eastern hours, to your standards, at fixed prices.

PREPARED FOR
MICHIGAN MOLD & DIE SHOPS

RATES VALID
UNTIL APR 30, 2027

ENGINEERING-AS-A-SERVICE FOR MOLD & DIE SHOPS



PROGRESSIVE DIE · 3D ASSEMBLY

SOUND FAMILIAR?

The shop floor has capacity. The design desk doesn't.

**VoidStar adds senior design hours
without adding headcount.**

-
- 01 Quotes stall while the design desk catches up.
 - 02 Good RFQs get turned down because there's no one free to design the tool.
 - 03 One designer out sick and the whole build schedule slips.
 - 04 Hiring and training a senior designer is slow and expensive — and the workload isn't steady.
-

SERVICES

Four ways to plug us into your shop.

01

DFM review

Draft, wall thickness, gate and parting-line analysis, fill/warp simulation and a written report with part-change recommendations.

48-HOUR TURNAROUND

02

Mold design

From 2-plate, 1–2 cavity tools to hot runners, slides, lifters and multi-cavity. 3D assembly, 2D details, BOM and cooling layout.

2–6 WEEKS

03

Progressive die design

Strip layout, forming simulation, 3D die assembly, 2D details and BOM — ready for your toolroom.

3–6 WEEKS

04

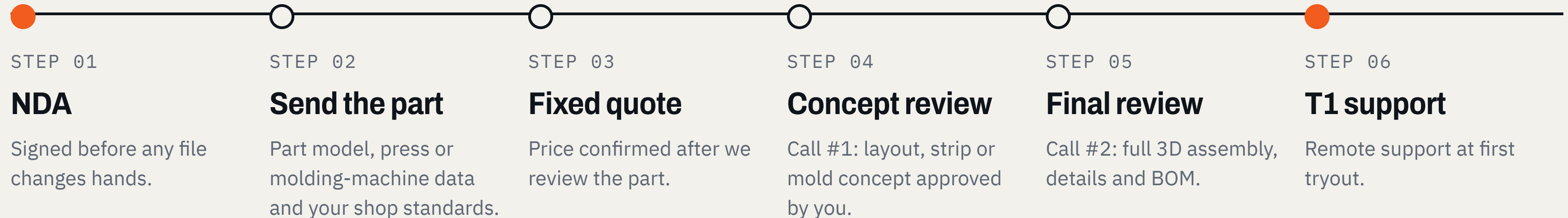
Detailing & updates

2D detail drawings, BOMs, electrode lists and engineering-change updates on your existing designs.

HOURLY • FROM \$48/H

PROCESS

Two review calls. One fixed price. No surprises.



Native CAD + STEP

Parasolid and PDF drawings with every package.

30-day guarantee

Design-caused issues fixed free until 30 days after T1.

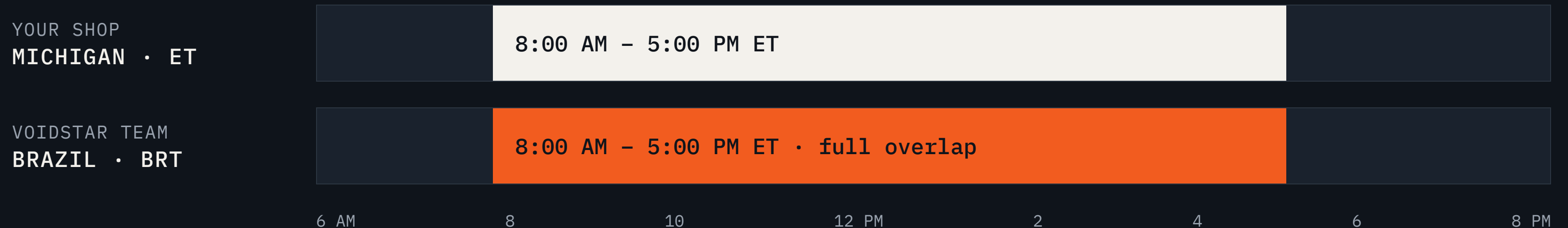
Your standards

Inch or metric, ASME Y14.5, DME / HASCO / PCS components.

NEARSHORE, NOT OFFSHORE

We work your hours. Eastern Time.

Our senior team is based in Brazil, one hour ahead of Michigan in summer and two in winter. We work US Eastern business hours, so questions get answered the same day, on a live call.

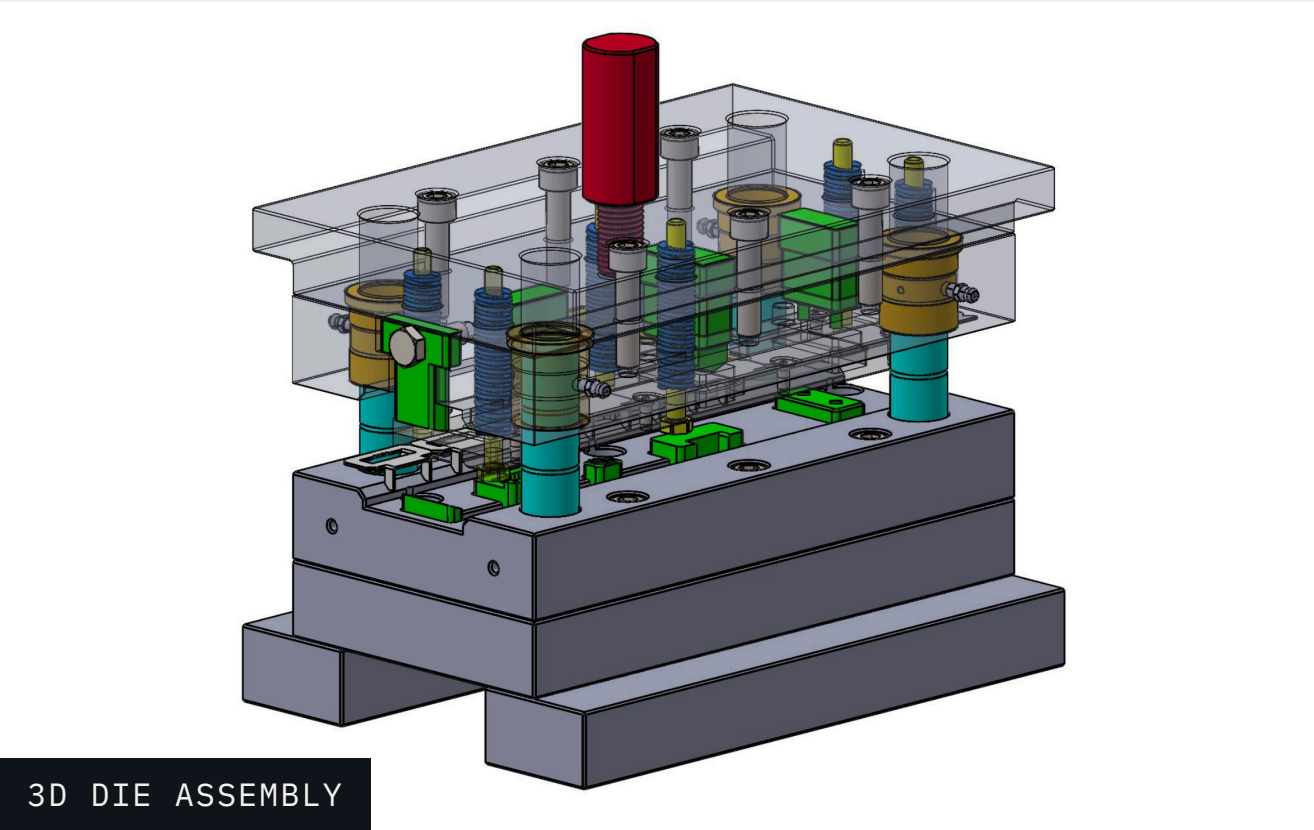


CASE STUDY · STAMPING

Progressive die for a stainless band buckle.

A buckle for the stainless-steel straps that hold fiber-optic cable hardware on utility poles. We designed the complete die, from strip layout to 2D details. It was built, tried out and is running in production.

CLIENT	Nazda — telecom & energy hardware
MATERIAL	Stainless-steel strip
SCOPE	Strip layout · 3D assembly · 2D details · BOM
RESULT	In production. Lot of 10,000 parts shown.



3D DIE ASSEMBLY



BUILT TOOL



STRIP PROGRESSION



FINISHED PARTS



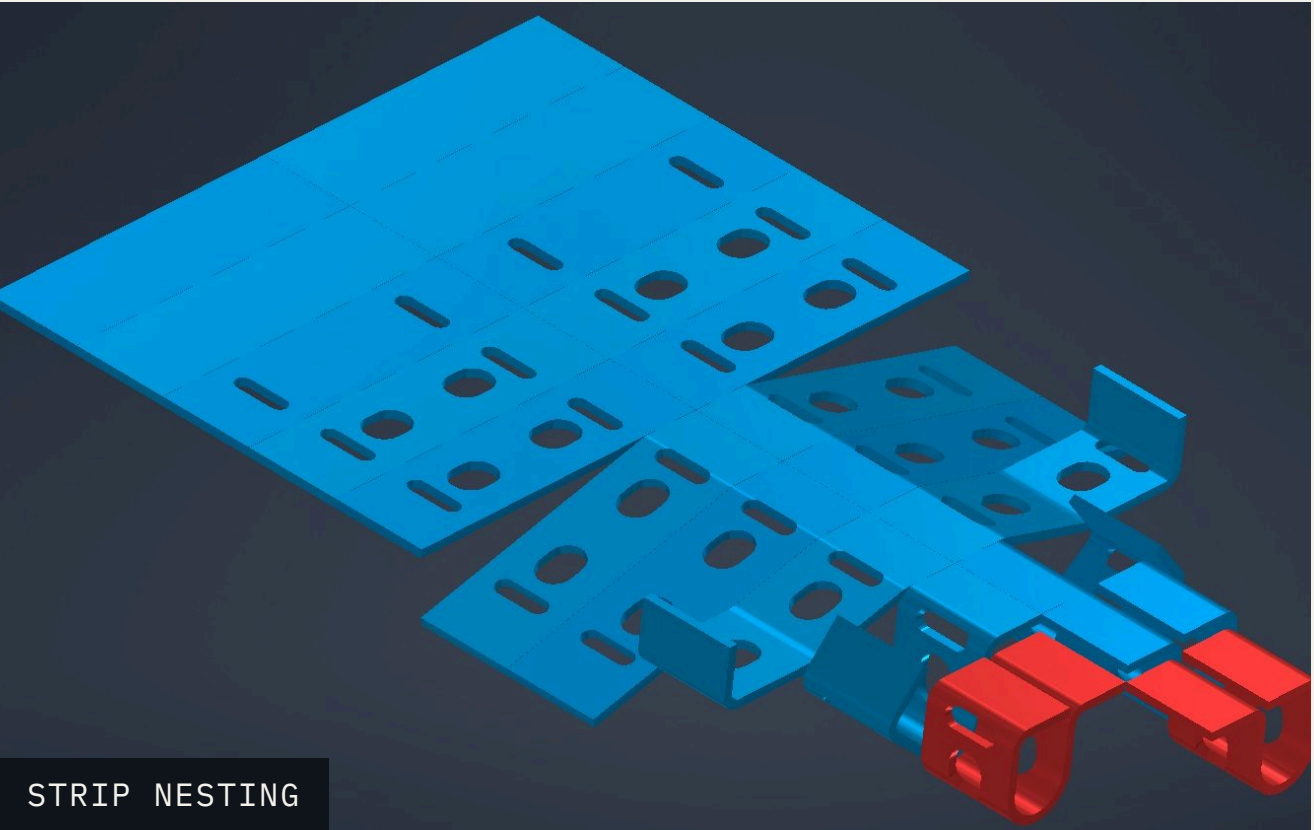
10,000-PC LOT

CASE STUDY · SHEET METAL

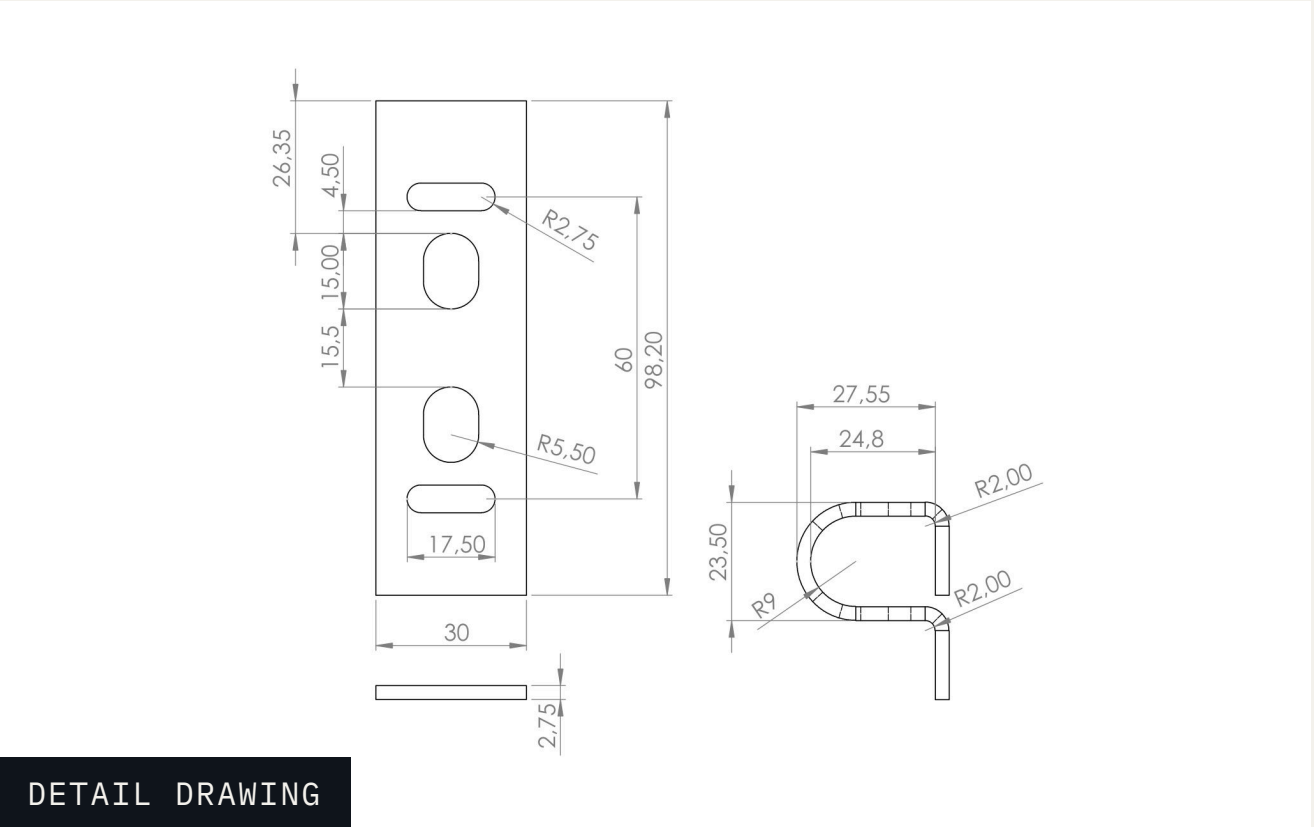
Strip nesting, details and load-tested products.

We designed pole-line hardware from blank to datasheet: strip nesting for material yield, fully dimensioned detail drawings, and load tests signed by a licensed engineer.

CLIENT	Nazda — telecom & energy hardware
DELIVERABLES	Strip nesting · 2D details · product datasheet
VALIDATION	Guide ring: 2.45 kN elastic limit, 3.5 kN break load
SIGN-OFF	Mech. Eng. Jaytt F. Correa (CREA-PR)



STRIP NESTING



DETAIL DRAWING

DATA SHEET

ANEL GUIA AGFE GALVANIZADO 4,5mm LEVE GVS

O Anel Guia Galvanizado GVS (AGFE) é usado para sustentar e ancorar cabos de telecomunicações em postes, especialmente cabos de fibra óptica. Ele é projetado para fornecer uma fixação segura e durável dos cabos, utilizando fita de aço inox e um esticador de cabo. O anel é feito de arame galvanizado a fogo, o que o torna resistente à corrosão.

Além de postes, pode ser usado em diferentes contextos de infraestrutura de redes. Sua instalação é fácil e não requer ferramentas especializadas. O anel está amplamente disponível no mercado através de empresas especializadas em telecomunicações. Em suma, o Anel Guia AGFE é essencial para a gestão de cabos de fibra óptica, oferecendo resistência, durabilidade e facilidade de instalação.

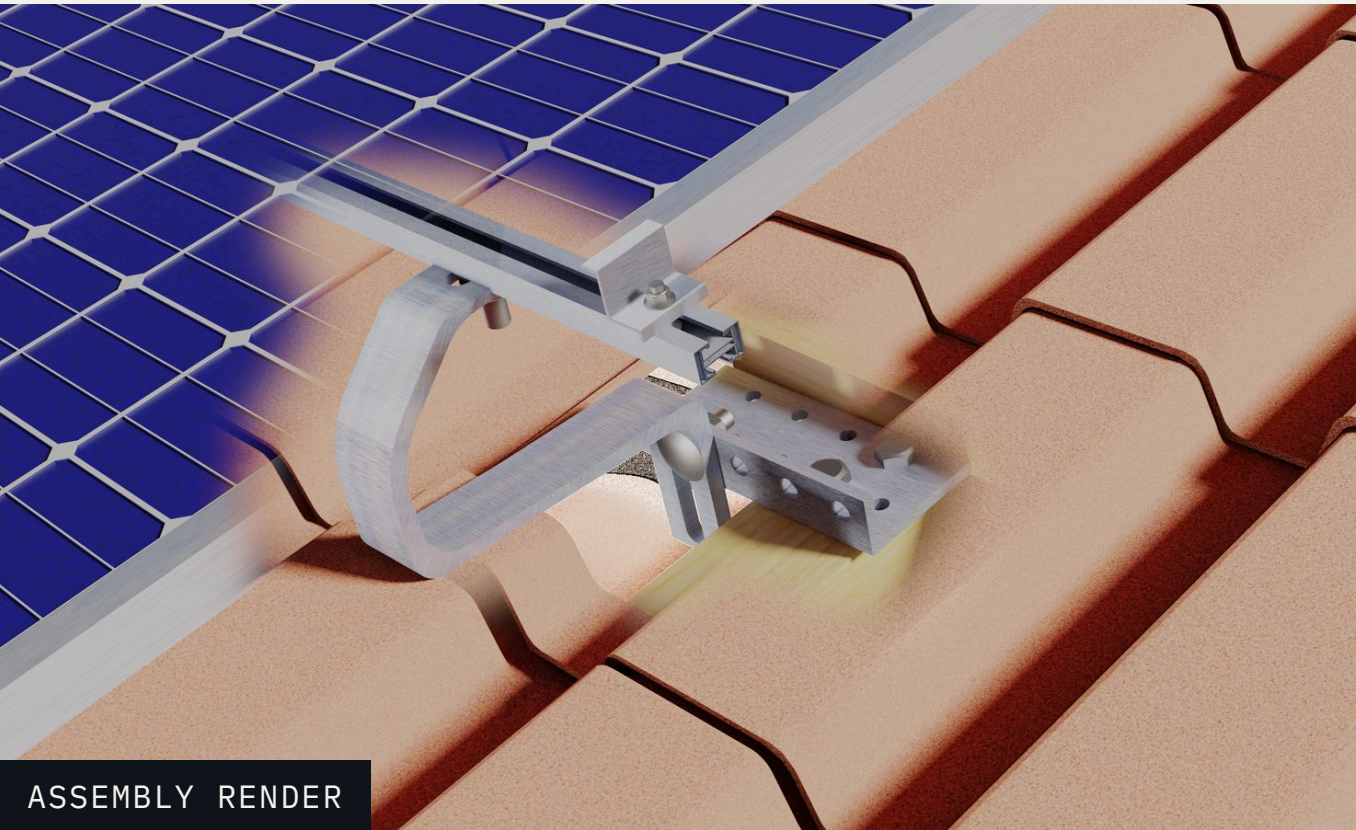
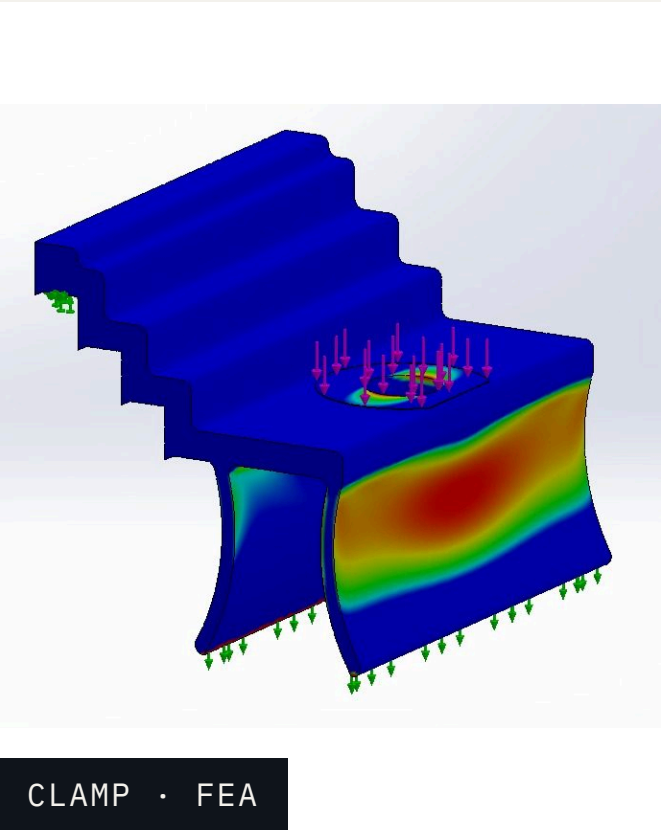
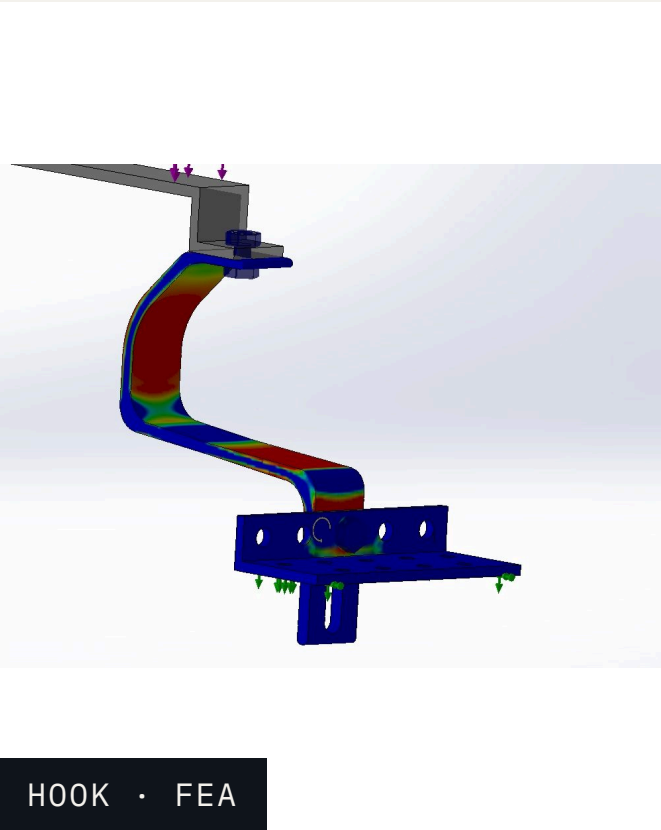
DATASHEET · LOAD TEST

CASE STUDY · ALUMINUM EXTRUSION

Extruded solar roof mounts, simulated first.

We designed custom aluminum profiles for rooftop solar: tile hooks and side clamps. Each one was validated with FEA before the die was cut, then prototyped and installed on real roofs.

CLIENT	Nazda — solar mounting line
SCOPE	Profile design · FEA · assembly · install
TOOLS	SolidWorks · stress simulation
RESULT	Profiles in the product line



CASE STUDY · MEDICAL DEVICES

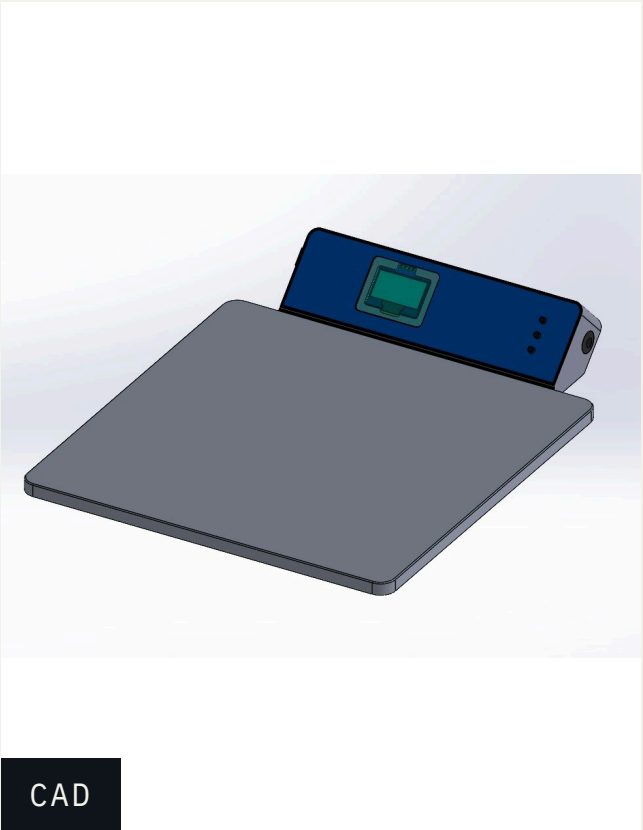
Precision parts for clinical use.

We take products from CAD to the shelf: a heated stage for embryo handling, a sperm-capacitation plate developed through several prototype rounds into a boxed product, and a surgical vacuum ring.

CLIENT	Ingámed — fertility medicine
PRODUCTS	Heated embryo table · BestSperm plate
ALSO	Surgical vacuum ring (Ferrara)
SCOPE	Product design · prototypes · DFM



HEATED EMBRYO TABLE



CAD



VACUUM RING



PROTOTYPE ROUNDS



ON THE SHELF

BEYOND THE TOOL

Machines, fixtures and prototypes.

Mechanical design doesn't stop at the mold base. We also design packaging-line change parts, CNC fixtures and in-house 3D-printed prototypes, so you can prove a concept before cutting steel.

MACHINES

Star wheels · timing screws · special mechanisms

FIXTURES

CNC work-holding · inspection

PROTOTYPING

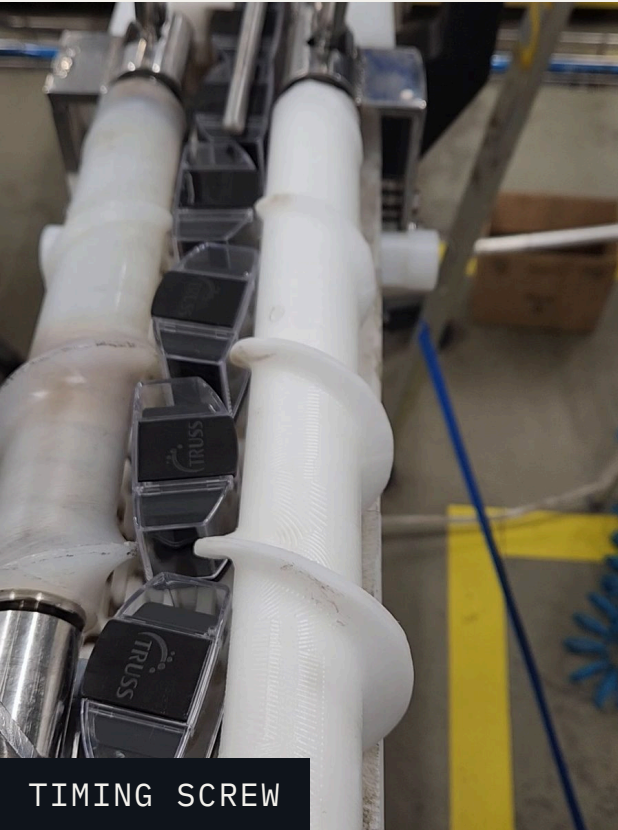
FDM 3D printing for fit & function

SOFTWARE

AnyMetric industrial monitoring (Intersolar 2023)



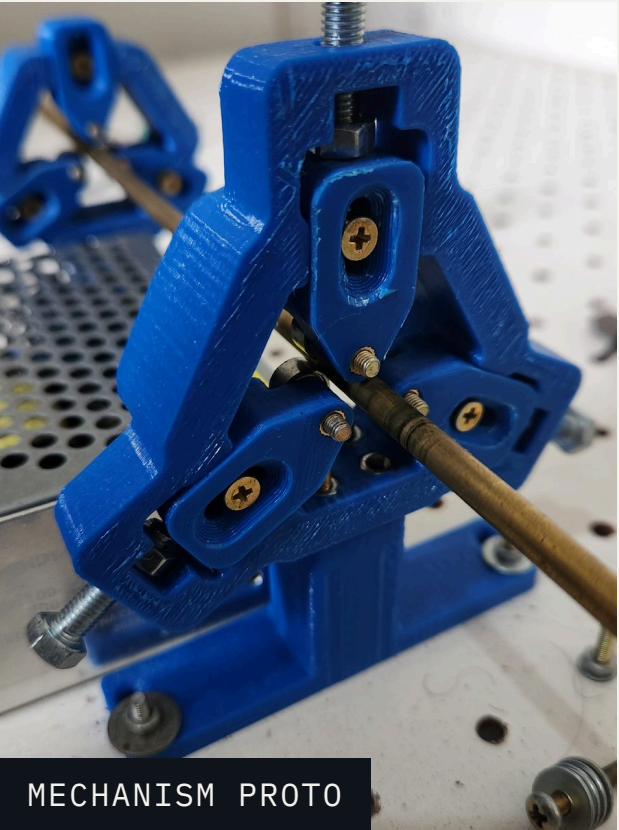
STAR WHEELS



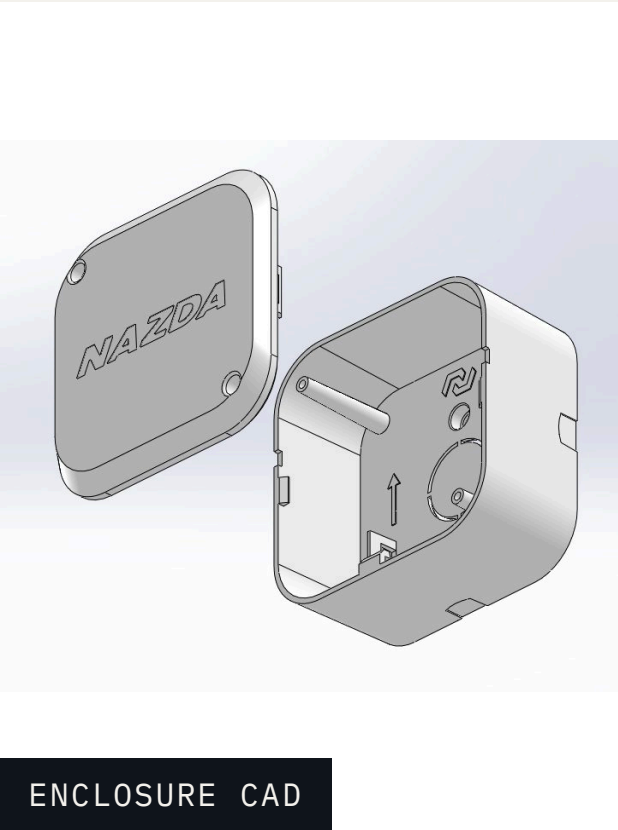
TIMING SCREW



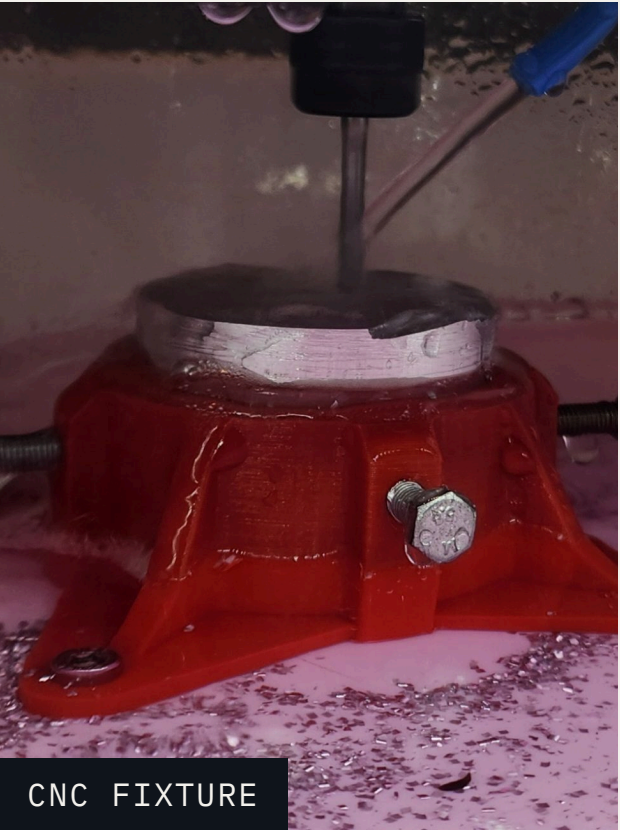
CNC MACHINING



MECHANISM PROTO



ENCLOSURE CAD



CNC FIXTURE

CAPABILITIES & STANDARDS

Drawn to your standards, not ours.

CAD	SolidWorks · Inventor · AutoCAD	SIMULATION & CAM	Mold-flow fill & warp · forming · FEA · PowerMill
UNITS & GD&T	Inch or metric · ASME Y14.5 GD&T	COMPONENTS	DME · HASCO · PCS — or your shop standards
DELIVERABLES	Native CAD · STEP / Parasolid · PDF drawings · BOM	CONFIDENTIALITY	NDA signed before any file exchange
ENGINEERING	Licensed mechanical engineer · CREA-PR 178152/D	HOURS	US Eastern business hours, Monday–Friday

FIXED-PRICE PACKAGES · USD

Know the design cost before you quote.

PACKAGE	INCLUDES	PRICE	TURNAROUND
DFM review	Draft, wall, gate & parting line · fill/warp simulation · written report	\$750 – 1,250	48 hours
Simple mold	2-plate, 1–2 cavities · 3D assembly, 2D details, BOM, cooling	\$3,900 – 6,500	2–3 weeks
Complex mold	Hot runner, slides, lifters, multi-cavity · plus mold-flow validation	\$9,500 – 19,500	4–6 weeks
Progressive die	Strip layout · forming simulation · 3D assembly, 2D details, BOM	\$7,800 – 19,500	3–6 weeks

\$65/h Senior designer — design, simulation, reviews	\$48/h Detailer — 2D details, BOMs, electrode lists	+25% Rush — half the standard turnaround	10 h Minimum order, or one package
--	---	--	--

MONTHLY RETAINER · RESERVED CAPACITY

Priority design hours, every month.

Capacity held for your shop: a primary designer who knows your standards, plus a backup so work never stops.

STANDARD

\$4,800_{/mo}

80 priority hours · \$60/h

DEDICATED

\$8,960_{/mo}

160 priority hours · \$56/h · first in our queue

Up to 20% of unused hours roll over. 3-month minimum, then 30 days' notice.

TERMS

- Under \$5,000: 50% at order, 50% on design approval.
- \$5,000 and up: 30% at order, 40% at concept approval, 30% on design approval.
- Retainers billed monthly in advance.
- Net 30, international wire transfer.
- Changes requested after concept approval are quoted at the hourly rate before work starts.
- Design errors on our side are fixed at no cost.

FIRST-TIME OFFER

**Send us one part.
Get a free DFM
review in 48 hours.**

Up to 8 hours of engineering, free of charge. No
commitment — just see how we work.

CONTACT

Eng. Jaytt F. Correa

EMAIL

diretoria@voidstar-engenharia.com.br

PHONE / WHATSAPP

+55 44 97400-7910

WEB

voidstar-engenharia.com.br