



# ISABEL+ MUELLER

## PROFESSIONAL DIE SOLUTION

PRECISION ENGINEERING - INNOVATIVE TECHNOLOGY - FUTURE-READY SOLUTIONS

昆山伊莎穆勒模具有限公司

Kunshan Isabel Mueller Tooling Co., Ltd.

# New Factory Campus

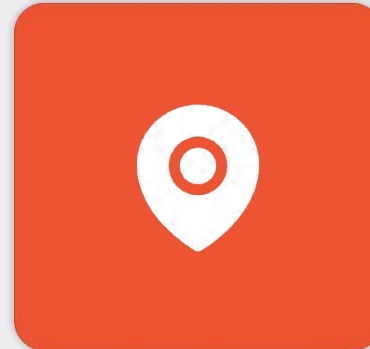


# Company Profile



## Company Info

- Since 2003
- Private Company
- 120+ employees

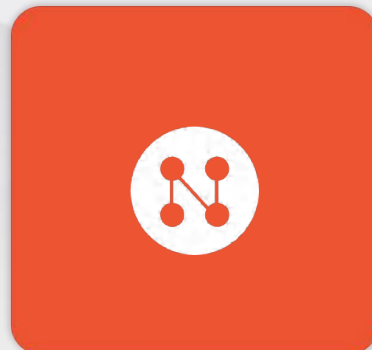


## Scale & Location

- 8600 Square meters
- Kunshan PLAINVIM Preno Park (Near Shanghai)

## Core Business

- Progressive dies
- Transfer dies
- Spare Parts



## Market & Reputation

- Global market
- Trusted by high-end clients
- Reliability Quality

# Basic Certificate



# Basic Organization



**Bill Yang**  
General Manager

Sales Dept.

Production Dept.

Project Dept.

Q.C Dept.

Design Dept.

Assembly Dept.

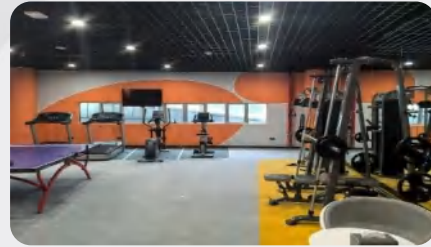
Supply Chain Management

Try-out Dept.

# Recreational Facilities for Employees



**Meeting Room**



**Fitness Club**



**Staff Canteen**



**Outside Garden**



**Library**



**Coffee Shop**

## Employee Care & Welfare

Relocated to a new factory with improved working conditions for employees

# Corporate Culture



## Solemn Commitment

Fulfill customers' demand by building high-quality and low-maintenance tool at a fair price.

## Pursuing Vision

To be the first choice considered by customer after RFQ & Quotation.

## Strict Quality Policy

The quality is the foundation of business survival and takes the highest priority.

## Craftsman's Spirit

Professional dedication, excellence, concentration, perseverance, innovation.

## Positive Personnel Policy Attract

Cultivate, respect and retain the high-level talents.

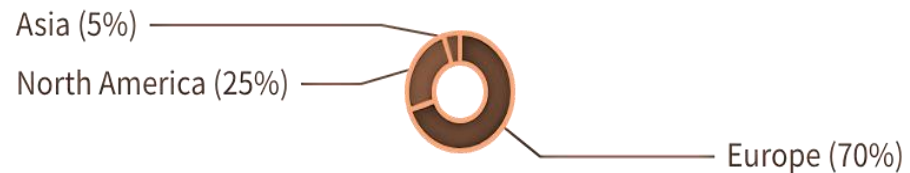
## Customer-oriented Service

Customer's standard and requirement will be well understood, considered and implemented.

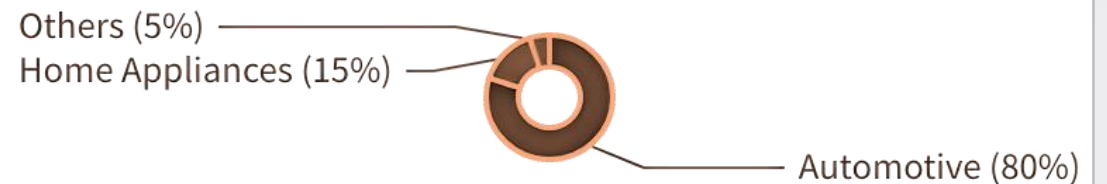
# Clients in Cooperation



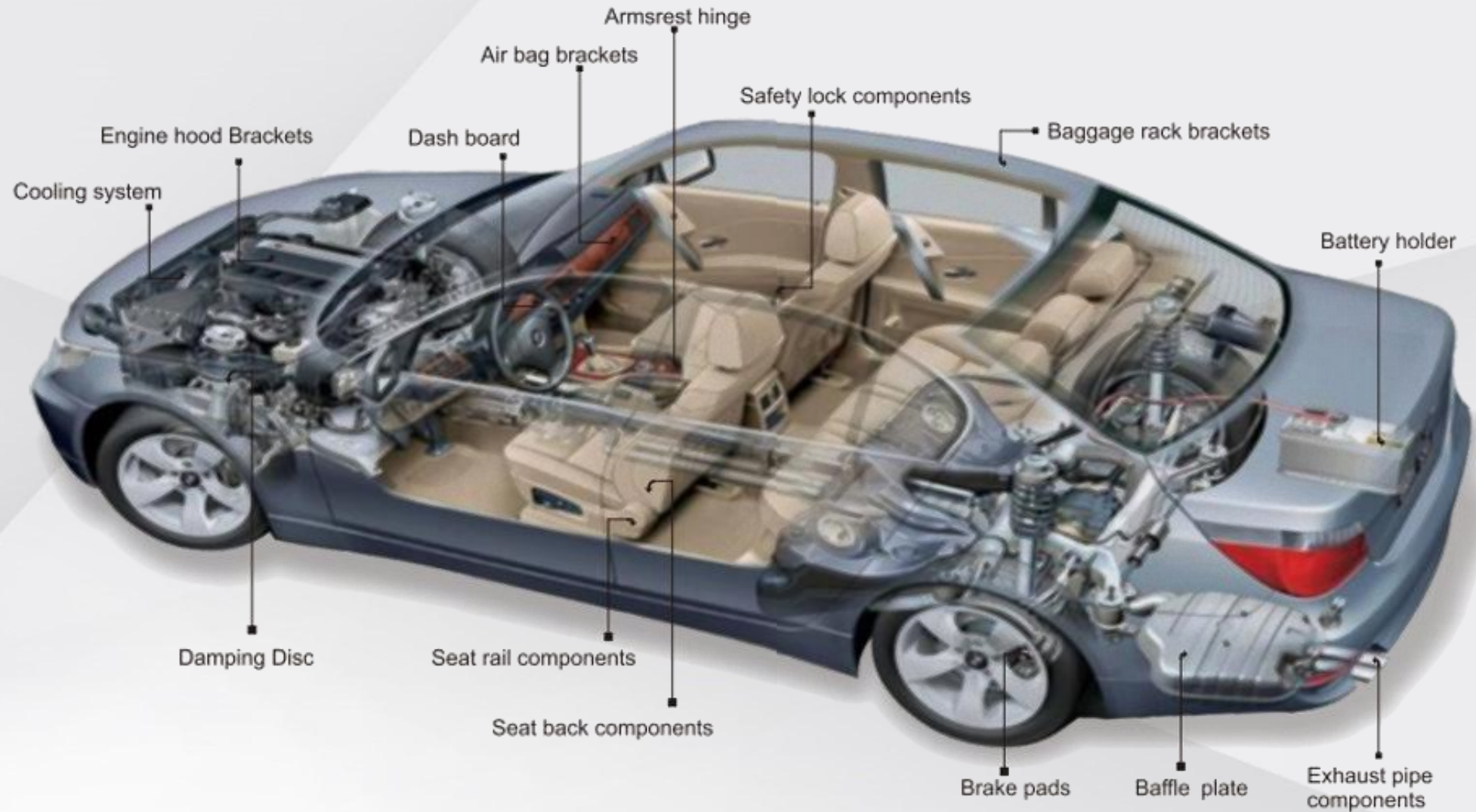
## Tooling Market Distribution



## Business Range



# What we can do for you?



# The parts We can do for review



Stop Assy Load

Hand Grip Protection Headbag

Stricker L/R

Sliding Bar L/R

Button Latch Lever L/R

Windshield Link Front

Cross Car Beam L/R

Tunnel stay L/R

Back Door Ball Joint Support ASS L/R

Back Door Locked Reinf

Closed Part Left Quarter Light Trim L/R

Lug – Locking Hose

Flexible Pipe Support L/R

Bracket Sill Ext

Accoustic Bracket Passenger

Angle Bracket Headlamp L/R

Wheel Speed Sensor Bracket Front L/R

Fuel Pipe Support

Wire Hood Stricker

Assy Bumper Enlarge Support L/R

Bumper

Reinforcement Engine Cradle Support

Upper Plate Fix Front Door Assy

Sensor Protector - ESP double

Intermediate Support

Bracket Sill Ext

Side door's Lower Hinge

Sensor Support - ESP double

ABS Support L/R

Support- Hyd Unit – L/R

Lower Plate Fix Front Door Assy

## Engine System

Engine assembly  
Cylinder head  
Oil filter

## Transmission System

Gearbox  
Clutch  
Propeller shaft  
Engine assembly  
Cylinder head

## Braking System

Brake pads  
Brake disc  
Shock absorber

## Electrical System

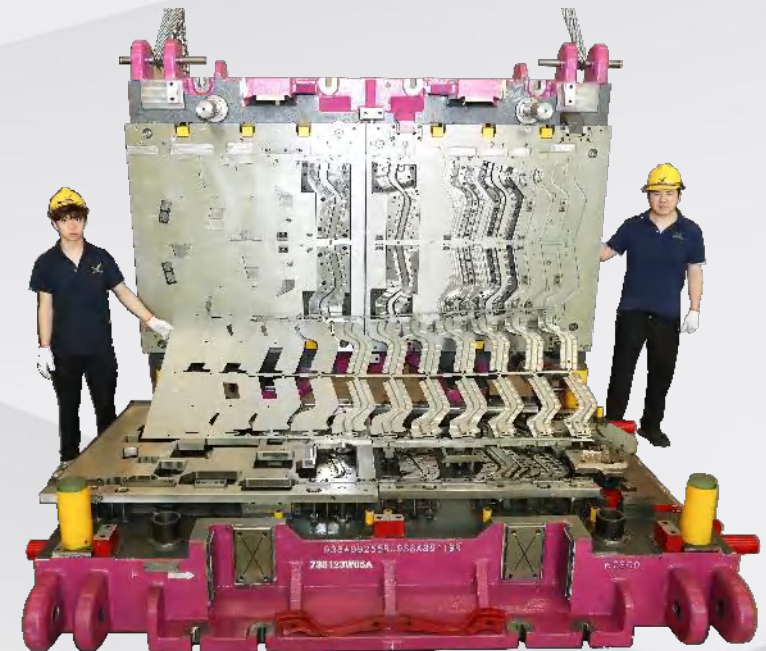
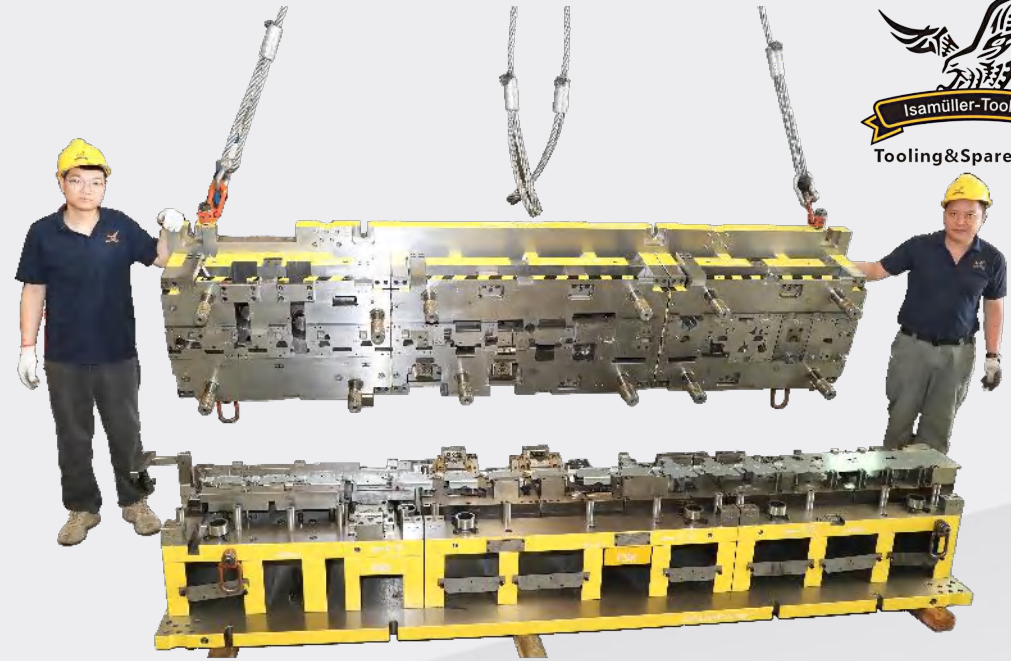
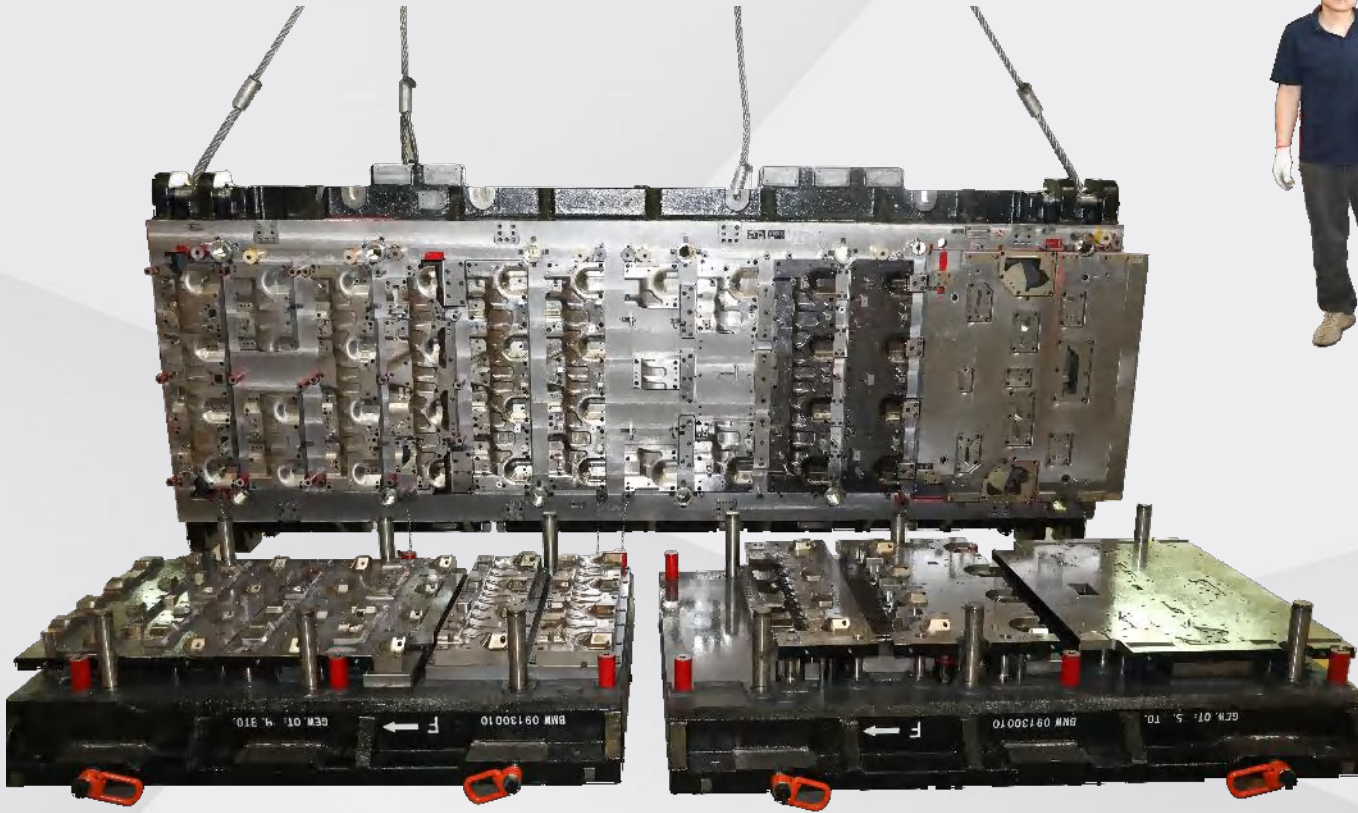
Battery  
Alternator  
Motor Parts

## Body And Interior

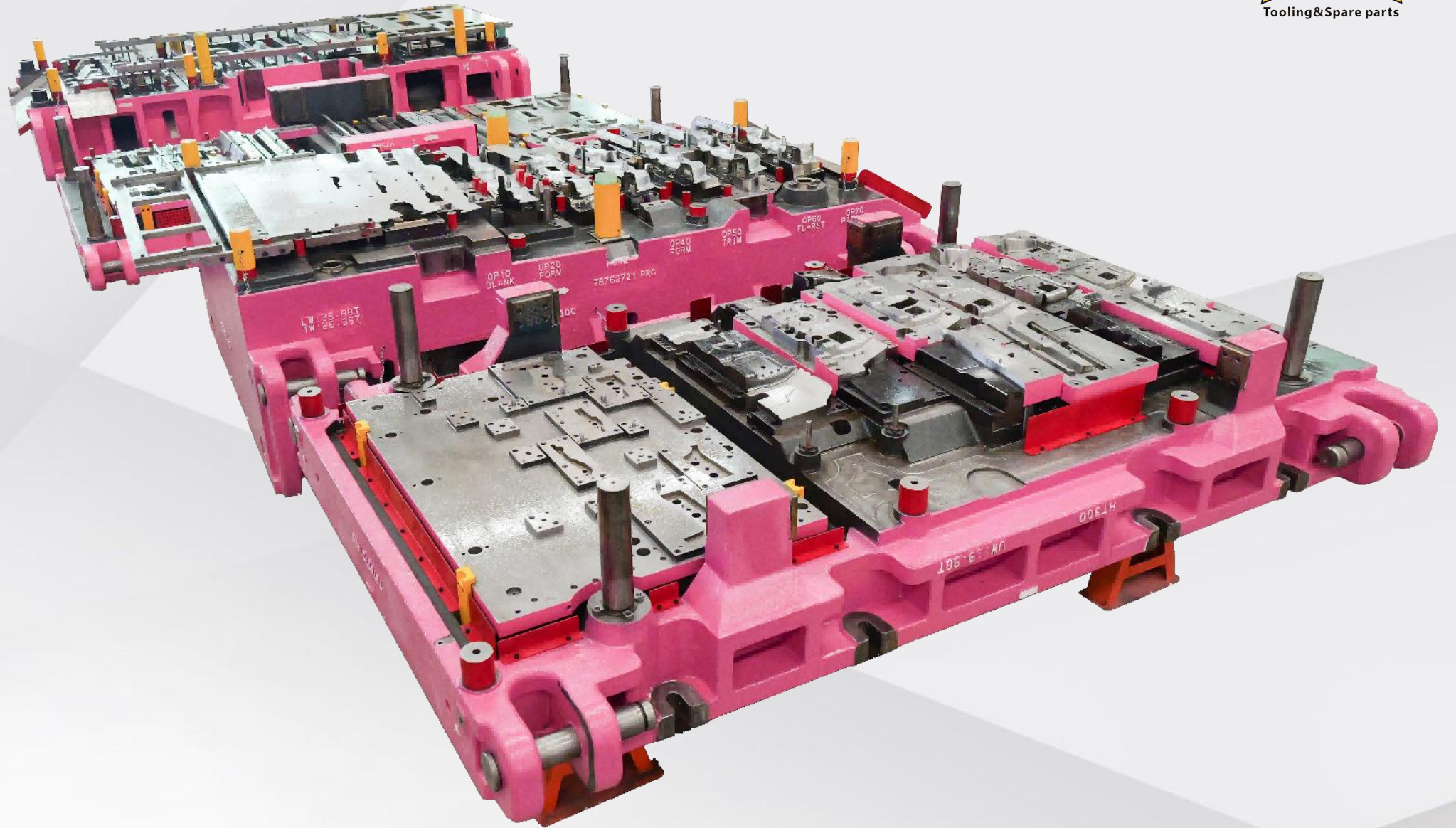
bumper  
Chassis Parts  
door hinges&roof  
windshield wiper  
instrument panel

airbag  
Seating System  
Fuel pump  
cooling System

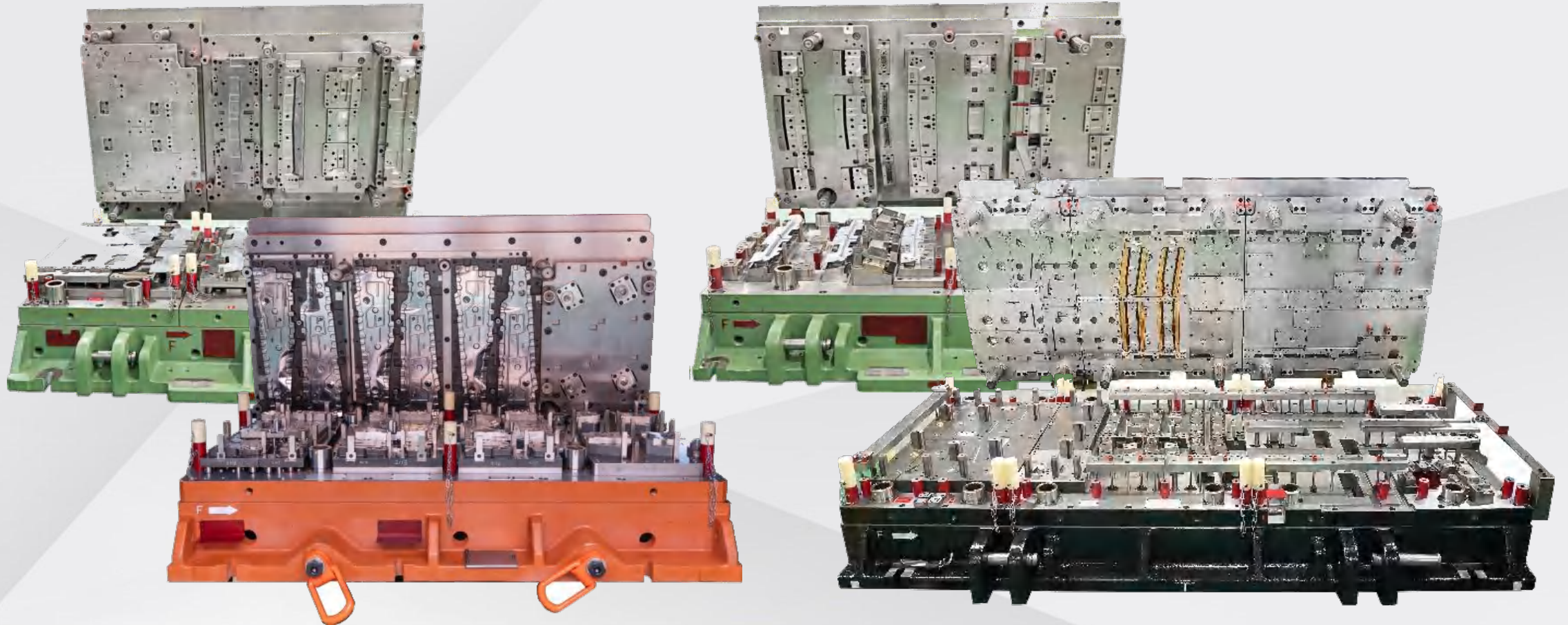
# Tool Display



# Tool Display

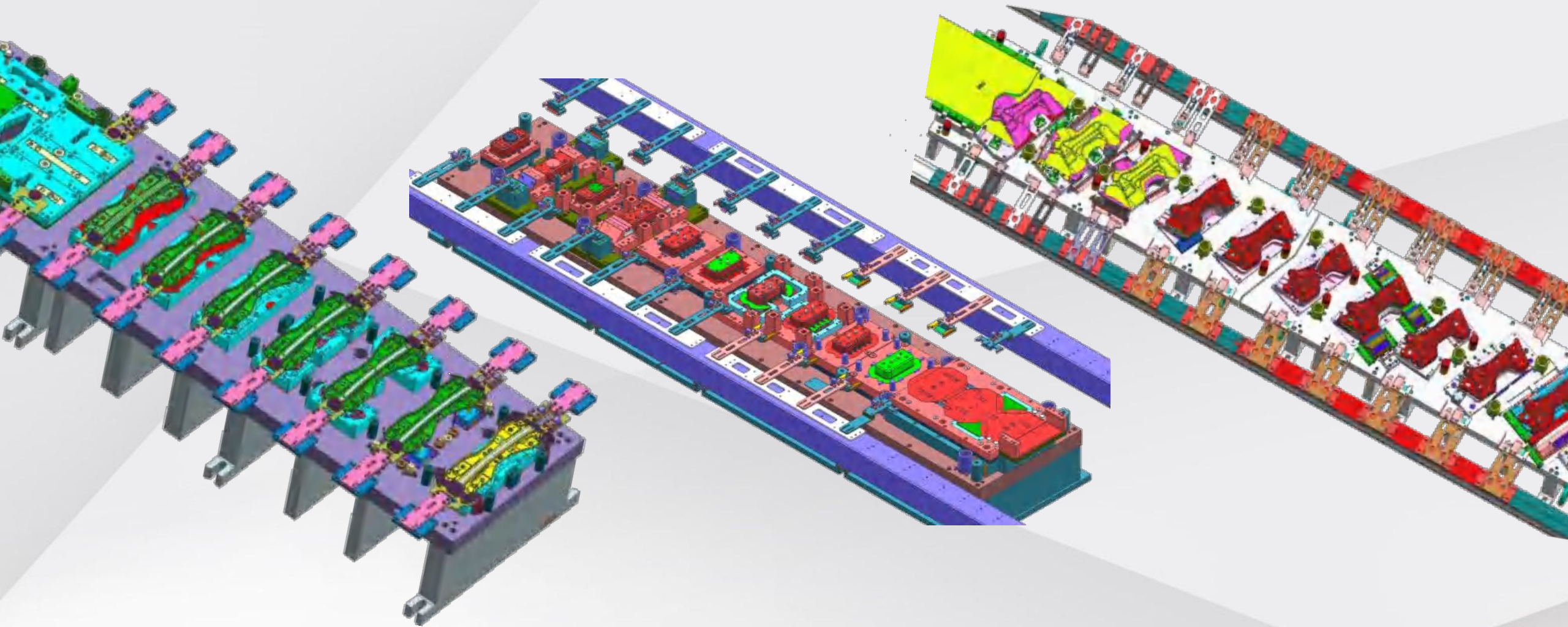


# Tool Display

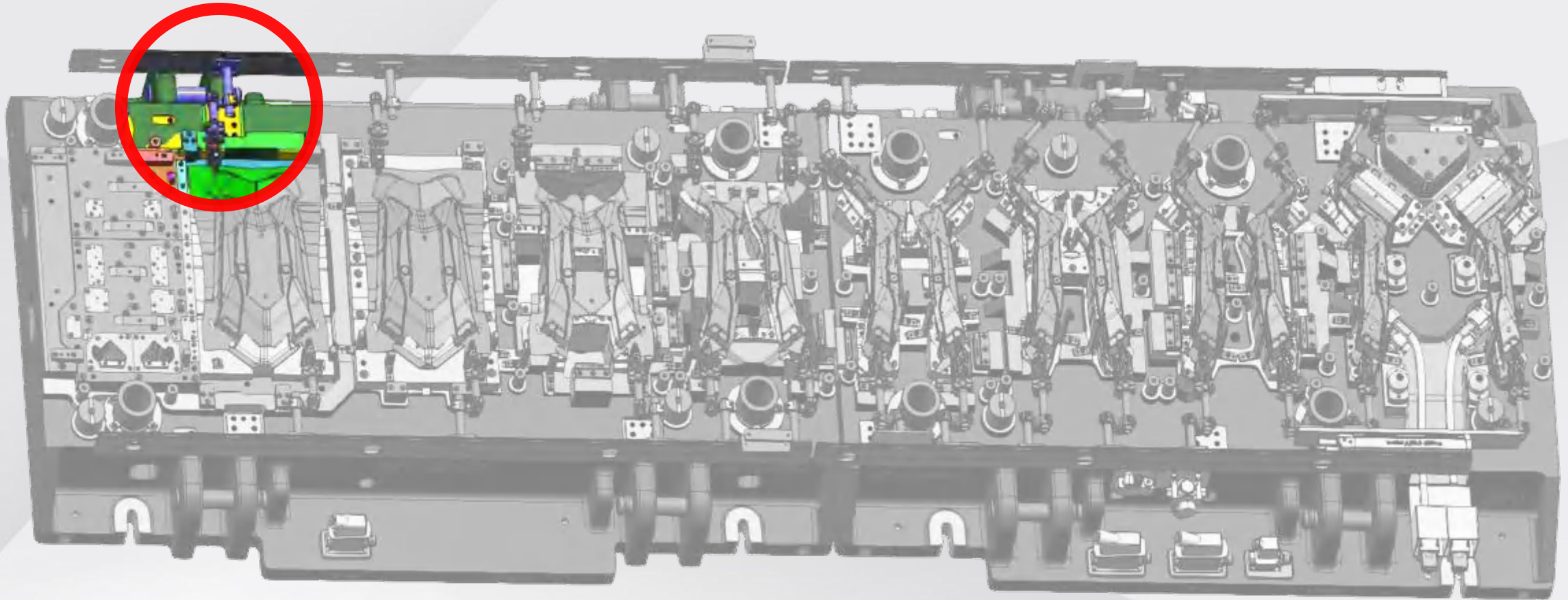


The progressive die and transfer die size we manufactured is up to **5000mm**.

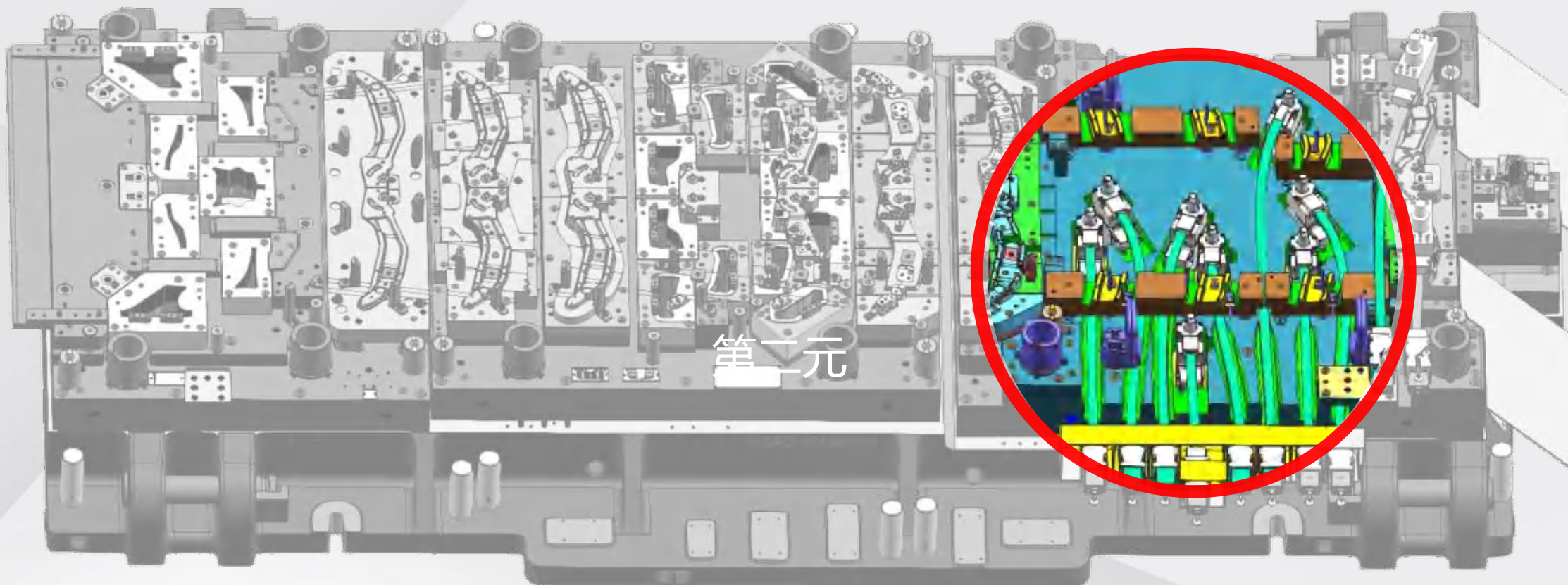
# Transfer System without Gripper Rail



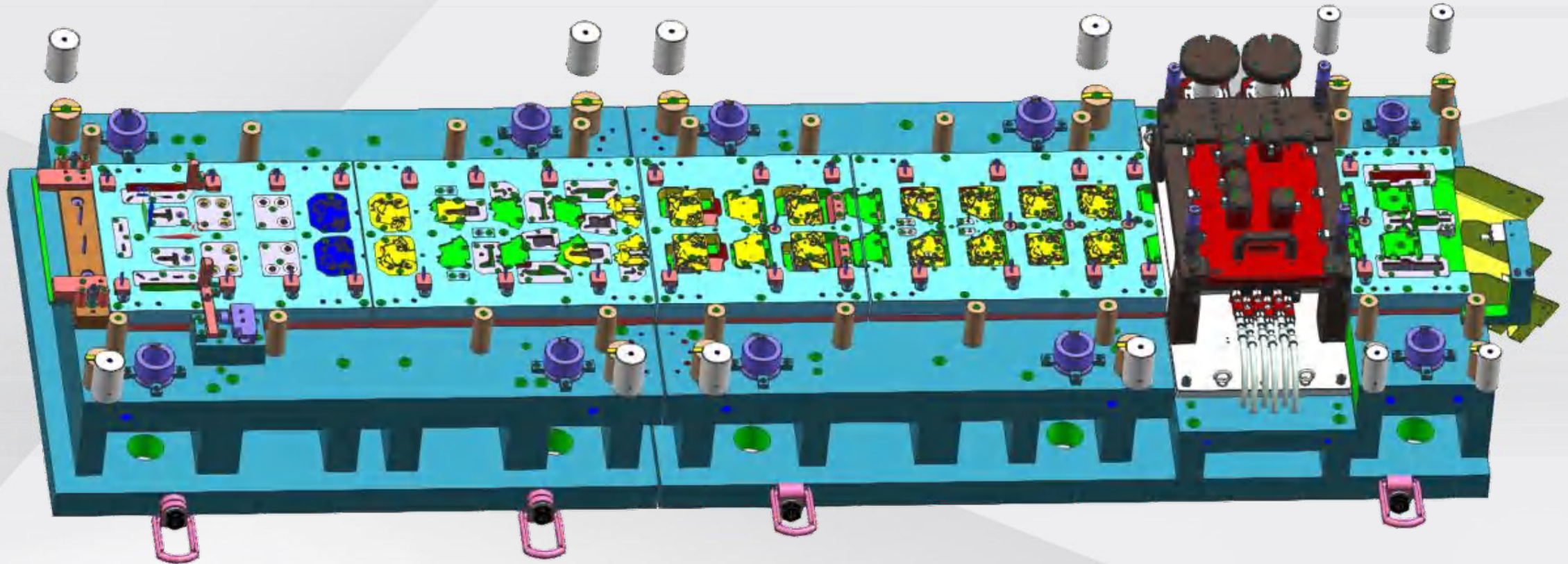
# Transfer Die with Manipulator



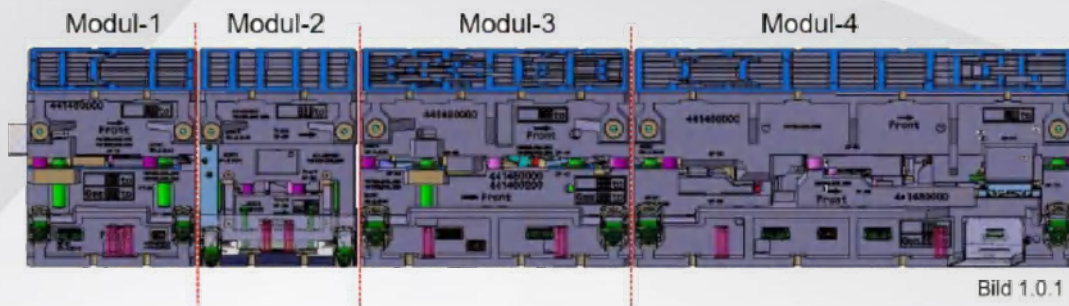
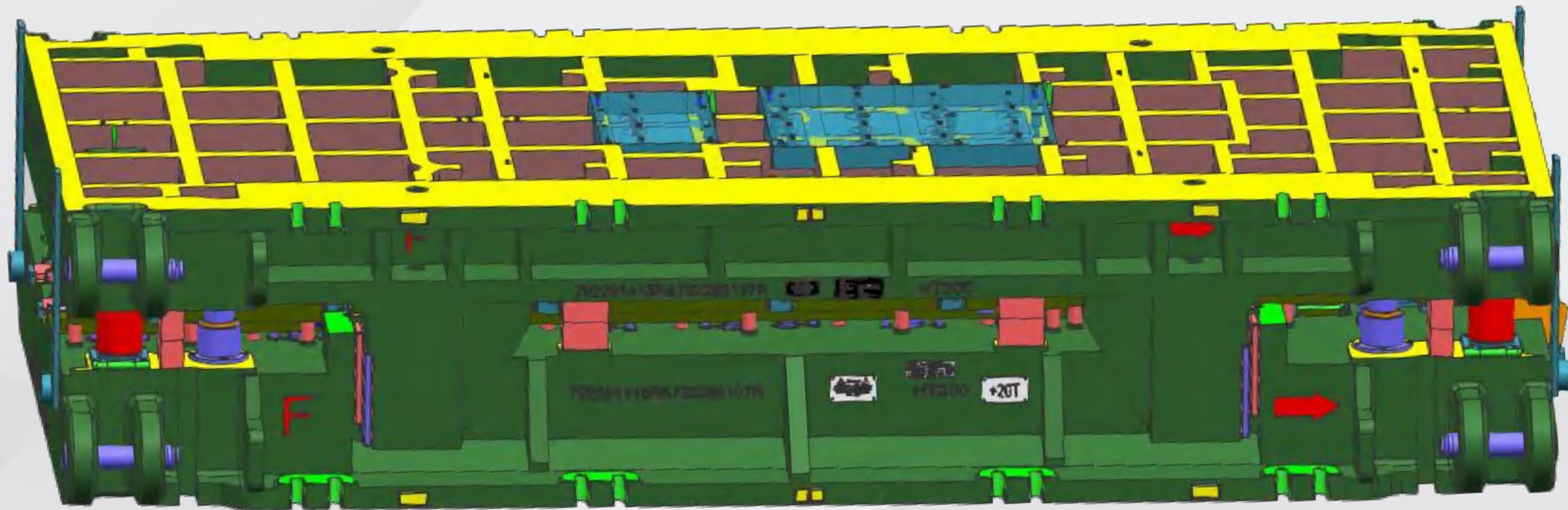
# Riveting Die



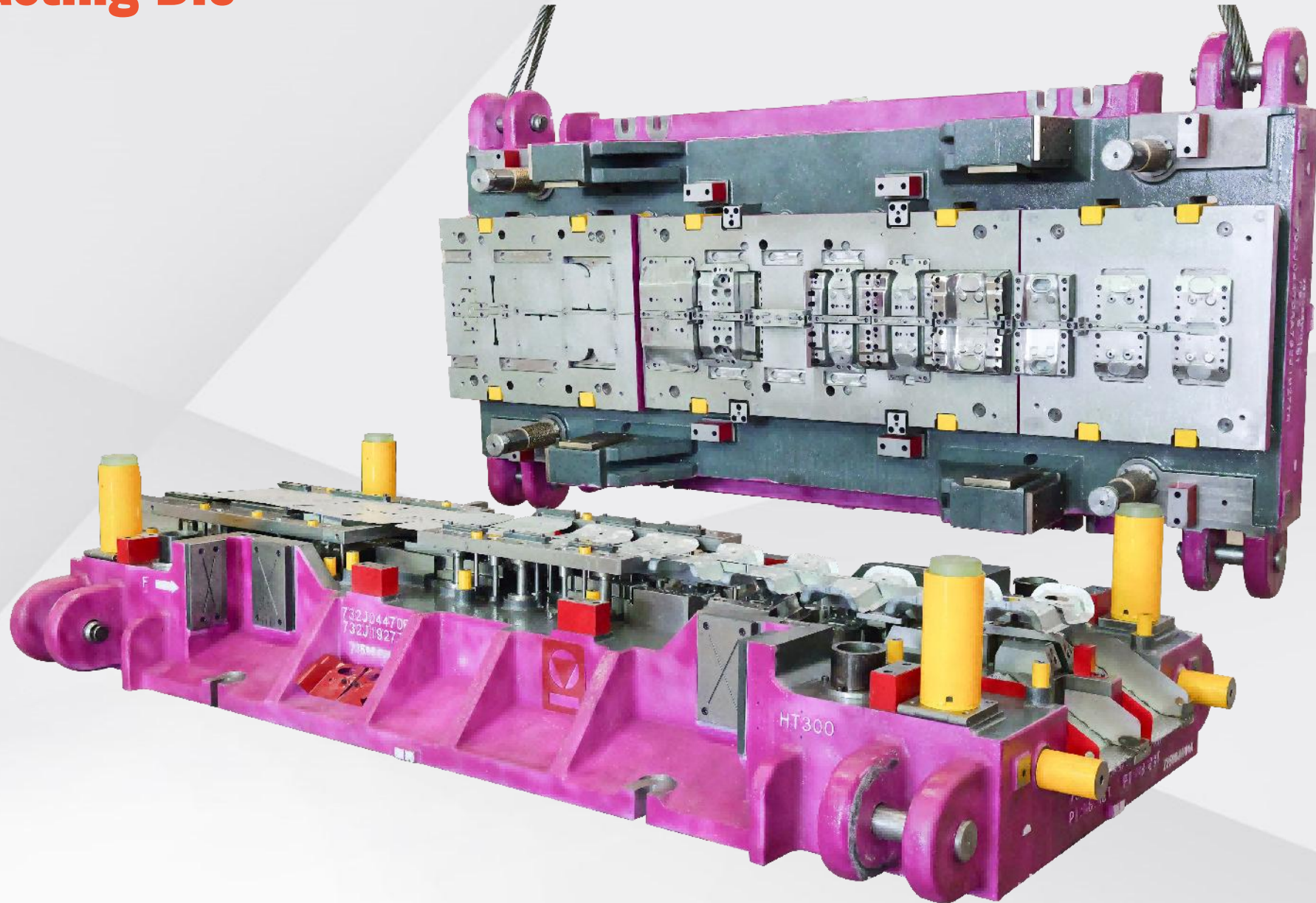
# Progressive Die with Tapping



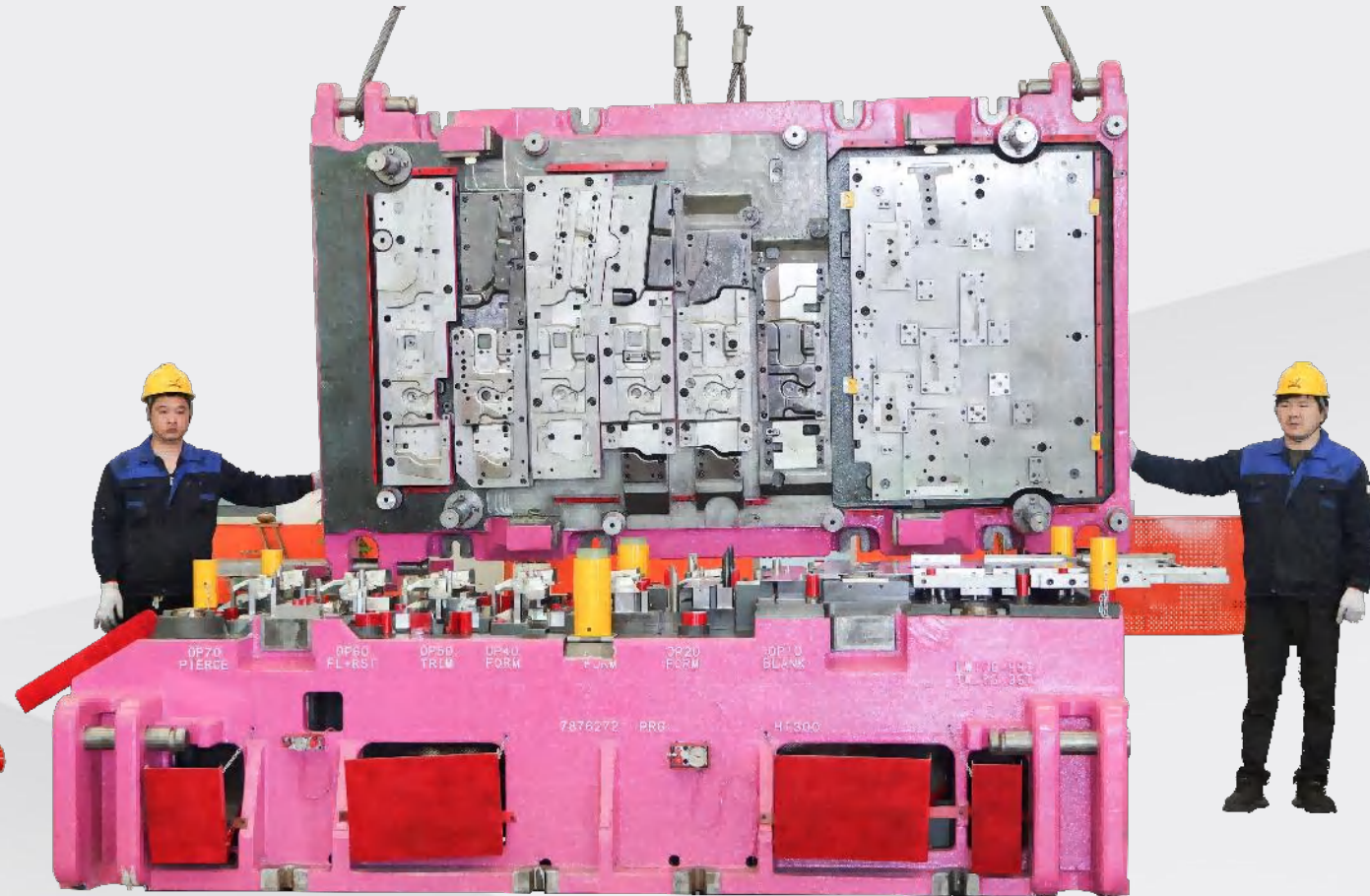
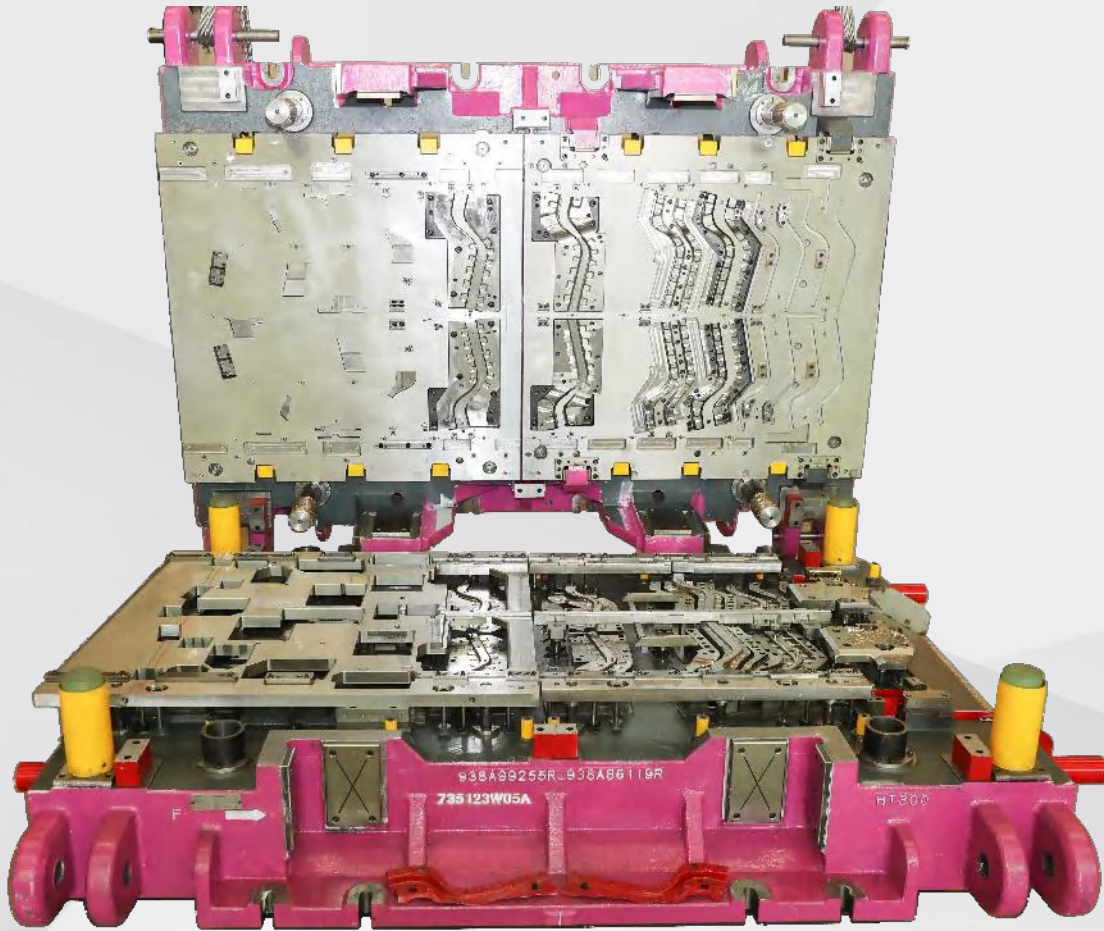
# Casting Die



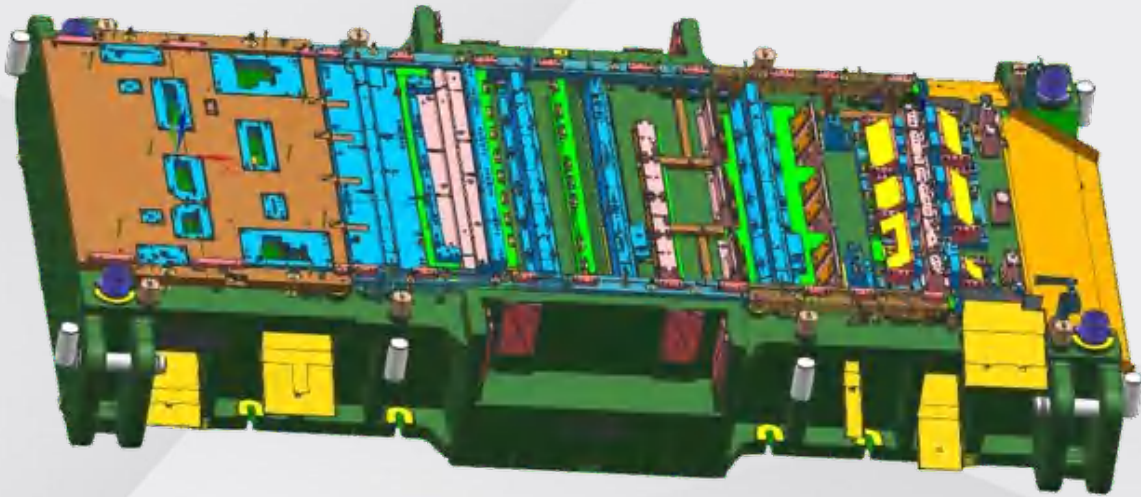
# Casting Die



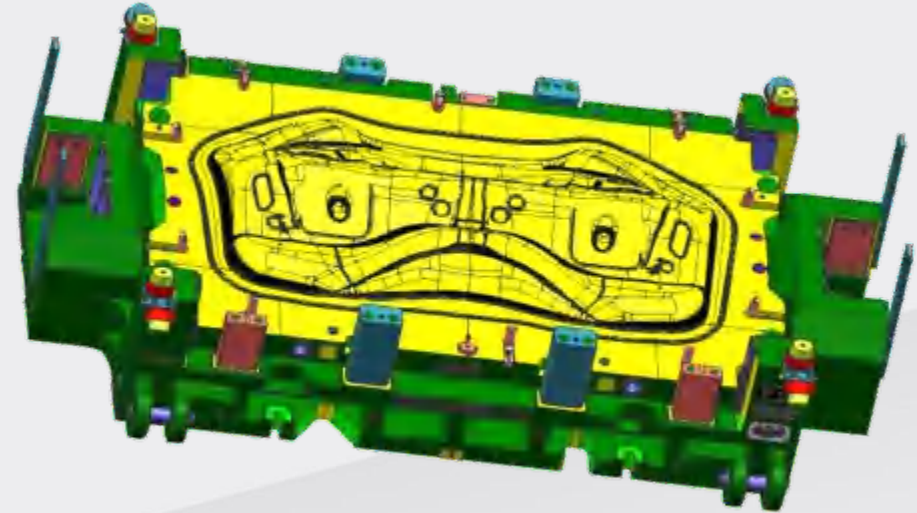
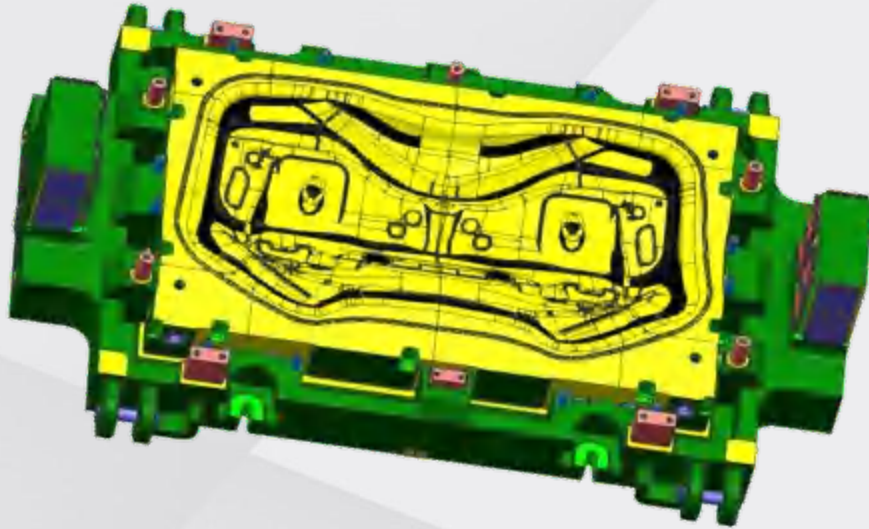
# Casting Die



# Casting Die



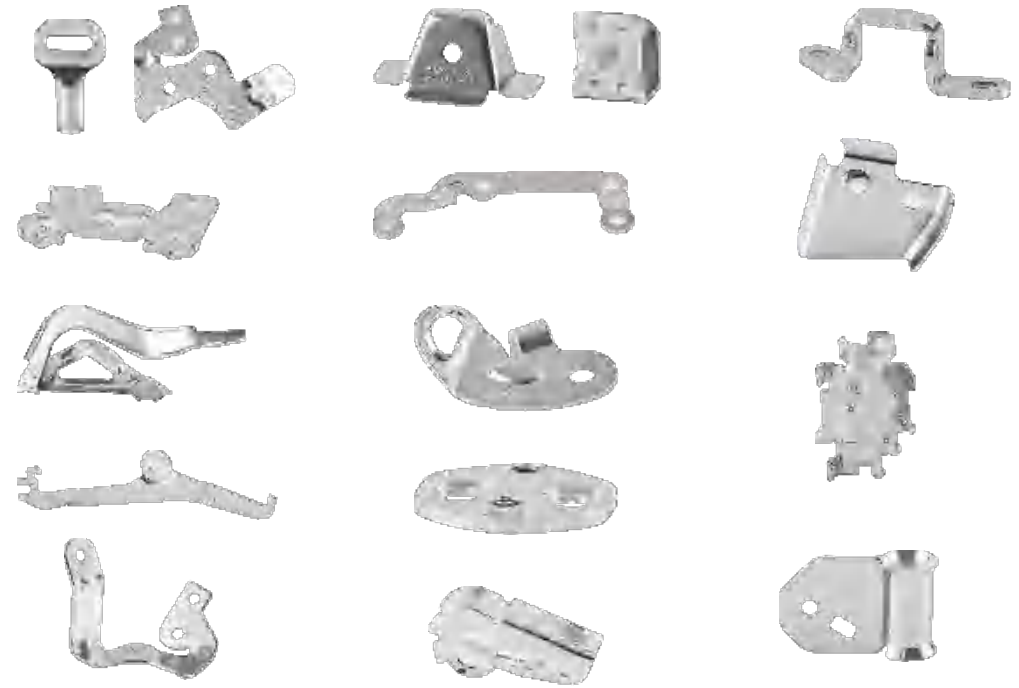
# Casting Die



# Parts Range Brackets and Chassis Components



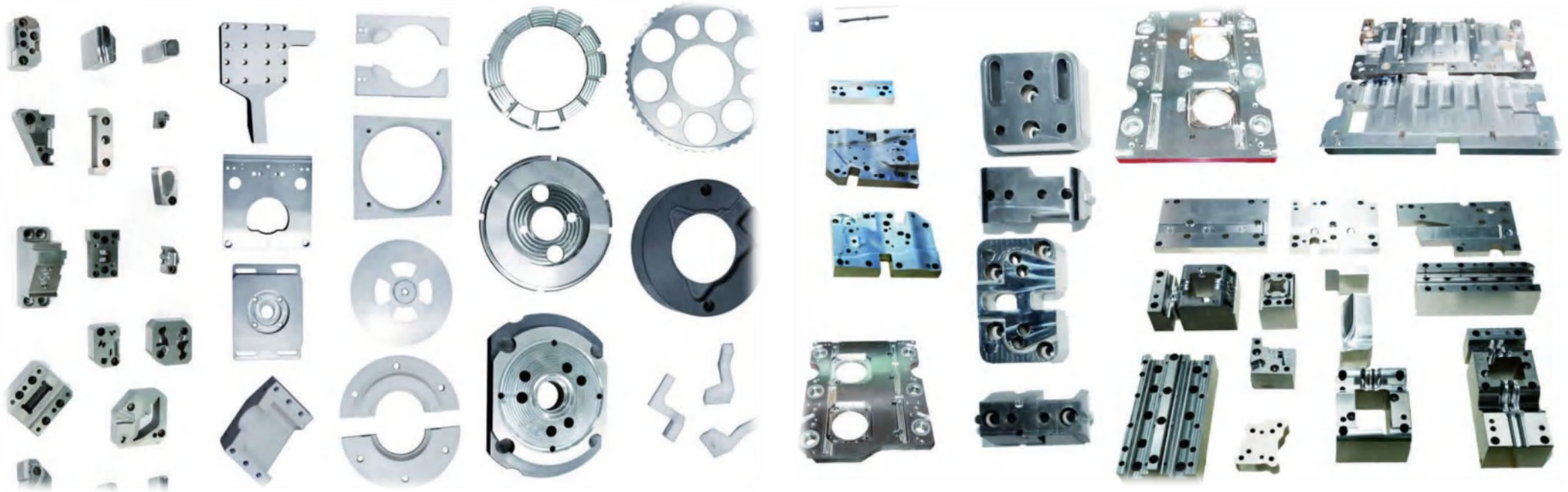
# Stamping Parts



# Stamping Parts



# SPARE PARTS FOR DIE

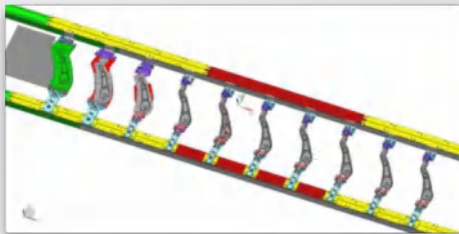


# Tool Design



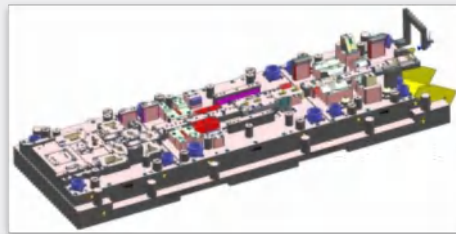
## The software that we use

- For tool design: UG NX 8.5, Catia V5, AutoCAD 2005 Etc.
- For simulation: Auto Form plus R.



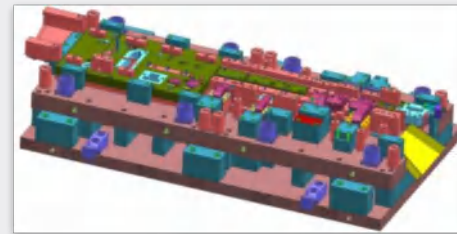
### Major markets served

- Automotive Tier 1 Supplier
- Automotive Tier 2 Supplier
- Electronic Industry



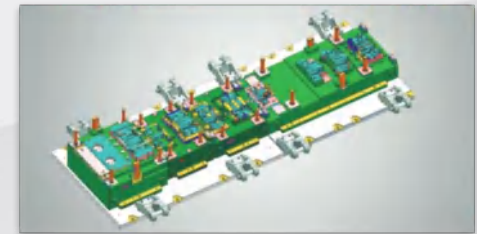
### Type of tool

- Progressive tool
- Transfer tool



### Raw material for tool try-out:

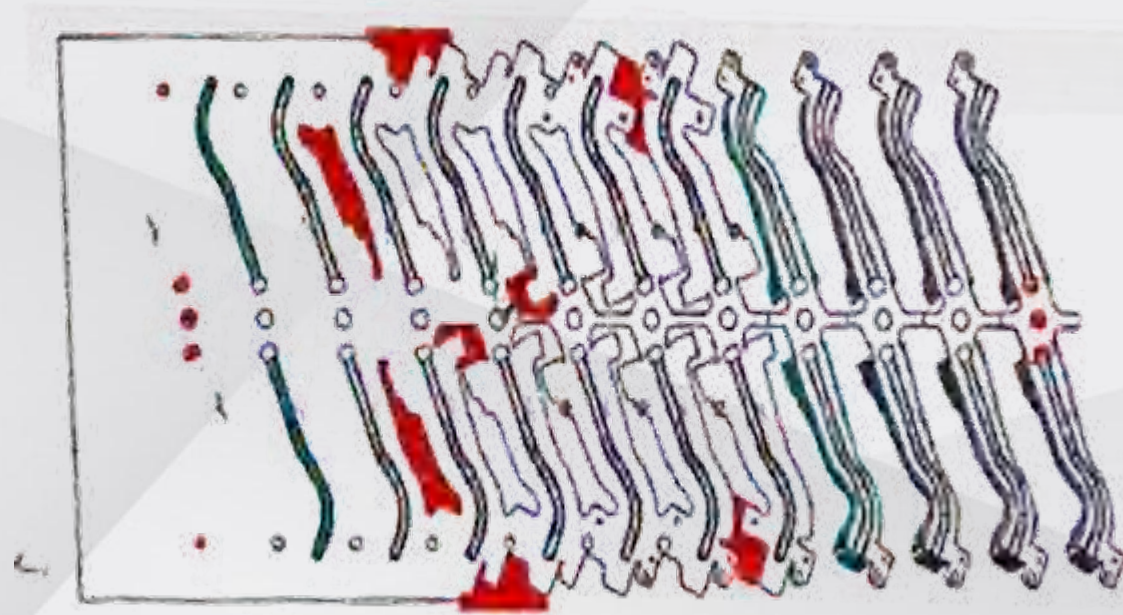
- Common cold/hot rolled steel
  - High strength steel
  - Low alloy steel
  - Stainless steel
  - Aluminum, copper, brass, etc.
- Material thickness vary from 0.3 to 6mm



We can integrate the transfer press data and transfer system provided by customer into the transfer tool design. The transfer tool can fit well with the transfer press and transfer system of our customer.



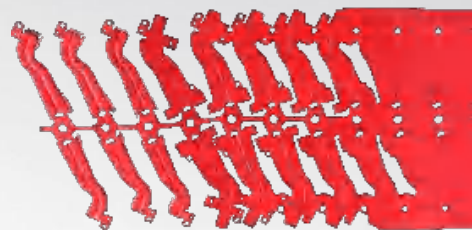
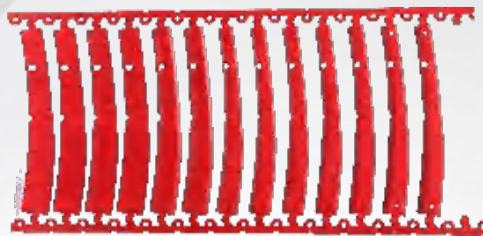
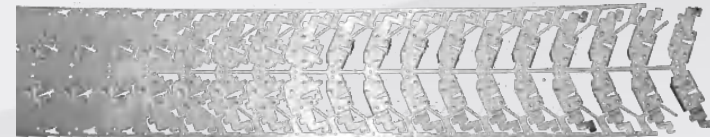
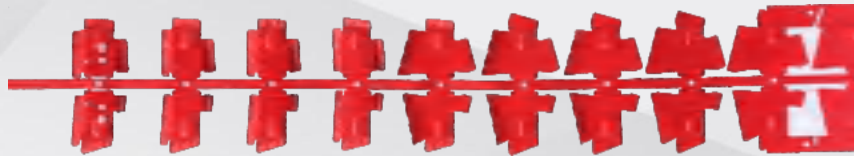
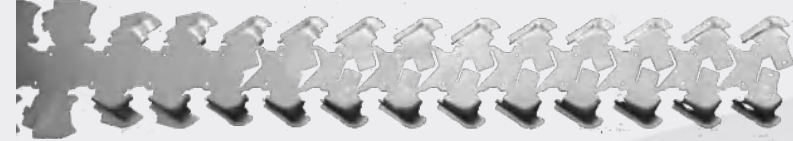
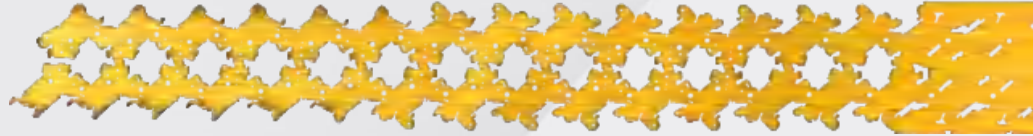
# Strip Layout (2D&3D)



**Strip layout** as a very important stage for tool design. Our engineers will make a best plan to maximize the material utilization and ensure the stability of the tooling quality and running lifetime.

Once finished, the strip layout will be submitted to our customer for review. Only when getting the final approval of the strip layout from our customer, we can proceed with the tool design.

# Strip Layout Display



# Die Material

Guideline values for hardness specifications and coatings:

Position	Material	Hardness scale	Possible coating based on material
Blanking dies and cutting punch	1.2379	58 + 2 HRC	PVD / CVD
Contour cut	1.3343	61/64 HRC	PVD / CVD
Bending punch and drawing punch	1.2379	56 + 2 HRC	PVD / CVD
Cutting punch	CPM-Rex4	60 HRC	PVD / CVD
Embossing and bending inserts	Vanadis 4	60 HRC	PVD / CVD
Punch	1.2379	58 HRC	PVD / CVD
Printing plate	1.2379	56 + 2 HRC	Nitrated/PVD
Stripper plate resp. pad trim plates*	1.2312	(nitrated)	
	1.1730	(nitrated)	
Compression bushing and compression punch	1.2714 WP7V	56 HRC 58-60 HRC	PVD CVD
Blanking dies (laser hardening)	1.2714 Prehardened	58-60 HRC	
Embossing and bending inserts	1.2312	Laser hardening	Nitrated/PVD

# Tool Component & Die Material



## Gas spring

- Kaller (Sweden)
- Dadco / Dayton (USA)
- Fibro (Germany)

## Standard parts

- Punch (Japan)
- Misumi (Japan & UK)
- Danly/ Dayton (USA)
- Fibro (Germany)

## Tool Steel

- DC53 / D2/A2(USA)
- ASSAB-(ASP88/XW-42)
- Japan- SKH-51/SKH-9/SKD11
- ASP-23/ASP-60/CPM-10V/VADIS4
- Germany 1.0570/1.2379/1.2312

# Equipment — Wire Cutting Machine



Machine Name (Wire-Cutting)	Machine Type	Accuracy	Q'ty(pcs)
Japan Sodick Wire Cutting	AQ600LS/AQ360LS	0.002mm	8
SWISS+GF+ Wire Cutting	CUT 550 PRO	0.001mm	1
SWISS +GF+ Wire Cutting	FI 440CC	0.002mm	1
SWISS +GF+ Wire Cutting	FI2050TWO OIL Cut	0.001mm	1
China RUI JUN Wire-cutting	600mm*400mm	0.008mm	15

# Equipment — CNC Milling Machine



Machine Name (CNC Milling)	Machine Type	Accuracy	Q'ty(pcs)
JOMDI CNC Milling Machine	VTC-208/66A/85A/YCM-V65A	0.005mm	35
CHEVALIER CNC Milling Machine	VTC-208/66A/85A/YCM-V65A	0.005mm	2
Japan MAZAKA CNC Milling Machine	MAZAK600	0.005mm	1
Japan MAZAKA CNC Milling Machine	MAZAK600 VC-300	0.005mm	1
Germany Hermle CNC Milling Machine	1200V	0.002mm	1
Germany Hermle CNC Milling Machine	800V	0.002mm	4
Germany DMG CNC Milling Machine	104V LINEAR	0.002mm	1
Germany DMG CNC Milling Machine	63V	0.002mm	1
Germany Roeders High Speed Milling	RP600	0.002mm	2
Germany Roeders High Speed Milling	RXP800	0.002mm	1
Swiss MIKRON High Speed Milling	VCP800	0.002mm	1

# Equipment — Internal and External Cylindrical Grinding Machine



Machine Name	Machine Type	Accuracy	Q'ty(pcs)
Okamoto Grinder Machine	OK-350	0.001mm	1
Kuroda Grinder Machine	GS-450	0.001mm	1
Taiwan ORVMA	618	0.002mm	8
Swiss Studer Grinder	Studer-S36 CNC FANUC	0.001mm	1
America Sunnen Honing Machine	Sunnen-EC3500	0.001mm	1

# Equipment — Surface Grinding Machine



Machine Name	Machine Type	Accuracy	Q'ty
Japan Okamoto Grinding Machine	ACC-63DX	0.002mm	1
Germany Ziersch Grinding Machine	STARLINE-800CNC-QUICK	0.002mm	1
Germany ABA Grinding Machine	Ecoline-1007ES	0.002mm	1
Japan Okamoto Grinding Machine	ACC-63PG	0.002mm	1
Japan Okamoto Grinding Machine	ACC-52DX	0.002mm	1
Japan Okamoto Grinding Machine	ACC-84DX	0.002mm	1
Japan Yuqin CNC Grinding Machine	JD-D 2010	0.005mm	2
Japan Yuqin CNC Grinding Machine	EBDP-D 2010	0.002mm	9
MING JING Surface Grinding Machine	M2-207	0.005mm	1
MING JING Surface Grinding Machine	M1-63	0.005mm	1
SHANG YI Surface Grinder Machine	1224/1632	0.005mm	4
China BEST EDM	ZG7030A	0.002mm	2
China Xuzheng Milling Machine	4E12189A/151503	0.01mm	6
China Zhongjie Drilling Machine	ZJ30	0.02mm	5
China Zhonggu Cutting line machine	ZG7030	0.005mm	3

# Equipment — Try Out Press



Machine Name	Machine Type	Accuracy	Q'ty	Remarks
China EULER Hydraulic Press	Servo Motor Y127 800Ton (4000mm*2000mm)	0.1mm	1	With automation feeder
GOANWIN Mechanical Press	400 Ton (2000mm*1000mm)	0.05mm	1	With automation feeder
GOANWIN Mechanical Press	AGT-600 Ton (3500mm*1500mm)	0.05mm	1	With automation feeder
GOANWIN Mechanical Press	Servo Motor T2N-2000Ton (5000mm*2500mm)	0.1mm	1	With automation feeder

# Equipment — Inspection Device



Machine Name	Machine Type	Accuracy	Q'ty(pcs)
Sweden HEXAGON CMM	EXPLORER 06.08.06	0.017mm	1
Germany ZEISS CMM	SPECTRUM	0.017mm	1
Germany ZEISS CMM	G2-CONTUNA	0.017mm	1
Germany ZEISS CMM	ECLIPES	0.001mm	1
China Bolansi Projector	CPT-3015J	0.001mm	2
Japan Mitoyo 2D Testor	IMI-SI/C3020	0.001mm	2
Japan Mitoyo 3D Testor	IMI-SI/C3021	0.002mm	3
Hardness Tester	HR-150A	1HRC	2
Stress Tester	NK-200	1N	2
Japan Mitoyo 2D Depth	ABSOLUTE 0.001MM	0.001mm	2
Trimos Height Gage	192-630	0.001mm	1
Japan Pin Gauge	0.001mm	0.001mm	1 set

# Equipment Display



**Japan Sodick 400**



**Japan Sodick 600**

# Equipment Display



Swiss Hauser S 50



Swiss Hauser S 40

# Equipment Display



Germany Hermle C 1200 V



Germany Hermle C 800 V

# Equipment Display



Germany Hermle C 600 V



+GF+ CUT P 550 Pro

# Equipment Display



**+GF+ FI 2050 TWO OIL**



**+GF+ MIKRON VCE 800 Pro**

# Equipment Display



Germany DMC 63V



Germany DMC 104 V

# Equipment Display



Germany Roeders RXP 600



Germany Roeders

# Equipment Display



Taiwan Qiaodi SONYU-L5027



Taiwan Qiaodi SONYU-L6027

# Equipment Display



Japan Okamoto



Japan Okamoto

# Equipment Display



**Japan Mazak VTC 300C II**

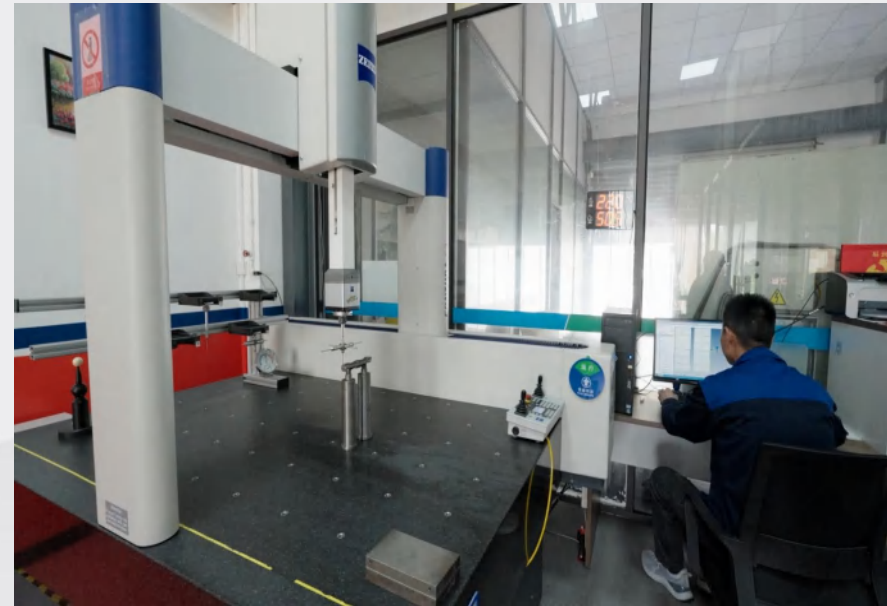


**America SUNNEN EC-3500**

# Equipment Display



**Zeiss SPECTRUM**



**Zeiss CONTURA G2**

# Equipment Display



**Sweden HEXAGON**



**Zeiss ECLIPSE**

# Tryout Press Machine:



## Servo Motor Press 800 T

Table size:  
4000(L) x 2000(W) mm

## Mechanical Press 600T

Table size:  
3500(L) x 1500(W) mm



## Servo Motor Press 2000 T

Table size: 5000mm\*2500mm  
(L) x (W) mm

## Mechanical Press 400 T

Table size: 2000mm\*1200mm  
(L) x (W) mm



**Material Thickness  
from 0.3mm to 6.0mm**

## Raw Material

- ◇ CRS/HRS
- ◇ High Strength Low Alloy Steels
- ◇ Stainless Steel
- ◇ Aluminium, Copper, Brass etc.

# Tryout Press Machines



## Servo Motor Press 2000T

Table size:  
5000(L) x 2500(W) mm

**Material Thickness**  
from 0.3mm to 10.0mm

## Raw Material

- ◇ CRS/HRS
- ◇ High Strength Low Alloy Steels
- ◇ Stainless Steel
- ◇ Aluminium, Copper, Brass etc.

# Tool assembly & tool try-out



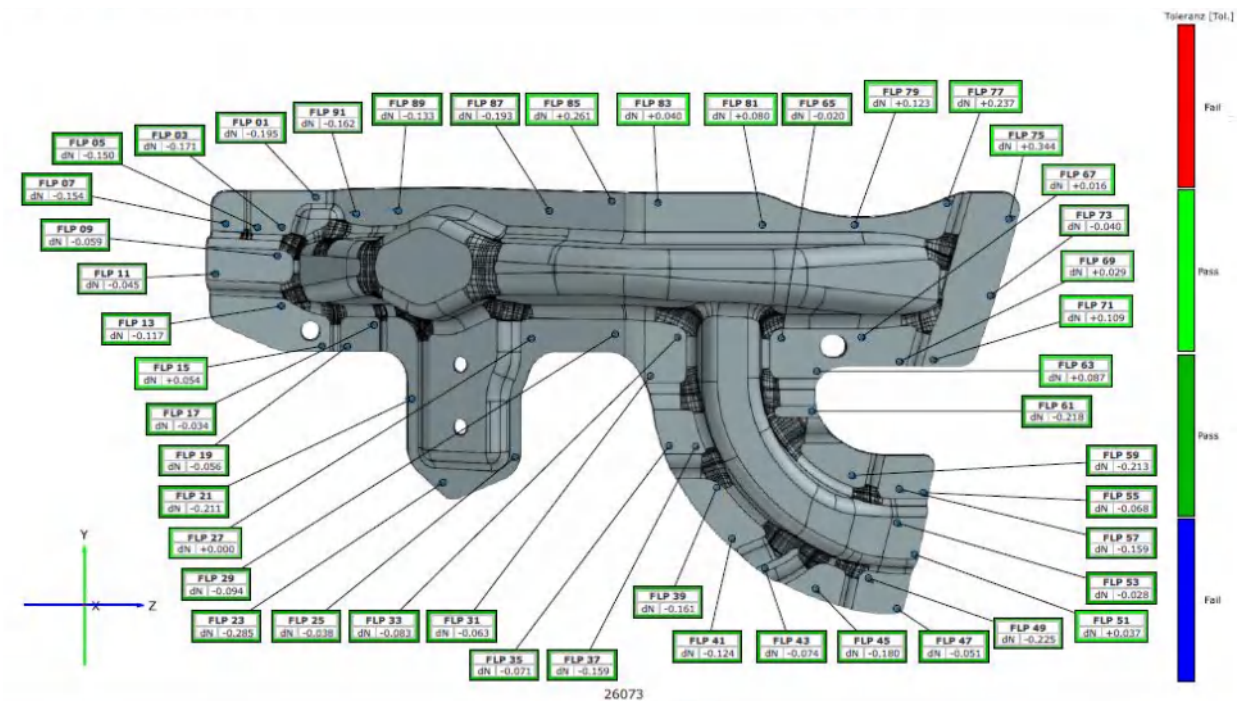
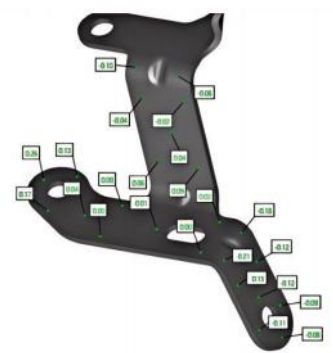
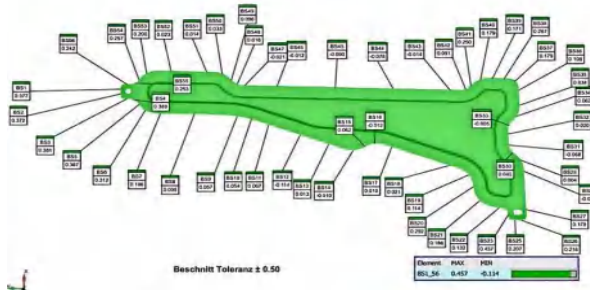
Tool assembly will be carried out by our toolmakers most of whom have over ten years of experience in building the tool.



The tool will be tested in our presses that are equipped with reel, coil straightening device and CNC controlled feed device.

Each tool will be adjusted targetting the nominal specifications in the drawing of the part.

# Q.C Inspection Report - Example



# Quality Inspection Machines



The quality takes the highest priority at Isamueller-Tooling which is certified with the ISO9001 quality system.

In the QC room there are precision 3D measuring machines and various complete sets of inspection instruments, such as ZEISS CMM, HEXAGON CMM, MITUTOYO 2D&3D-VMS, projector, micrometer, height gauge, hardness gauge, pin gauge and so on.



GERMANY ZEISS CMM

# Tooling Buy Off Procedure



1. RFQ

2. Quotation

3. Purchase Order

4. Plan of project

5. Review of strip layout design

6. Approval of strip layout

7. Review of tool design

8. Approval of tool design

9. Completion on tool design

10. Purchase of material

11. Programming

12. Tool machining

13. Tool assembly

14. First try-out

15. QC measurement

16. Tool debugging

17. Second Try-out

18. QC Measurement

19. Shipment of samples (Grade 3)

20. Shipment of samples (Grade 1)

21. QC measurement from customer

22. Samples' approval from customer

23. Tool buy-off at supplier

24. Shipment of tool

25. Tool acceptance at customer side

26. Evaluation from customer

27. Project closure



# To be a Highly Qualified Competitive Reliable Chinese Tooling Supplier

Everything shown above serves our customers  
Isabel Mueller Tooling strive to become your most high-quality reliable supplier