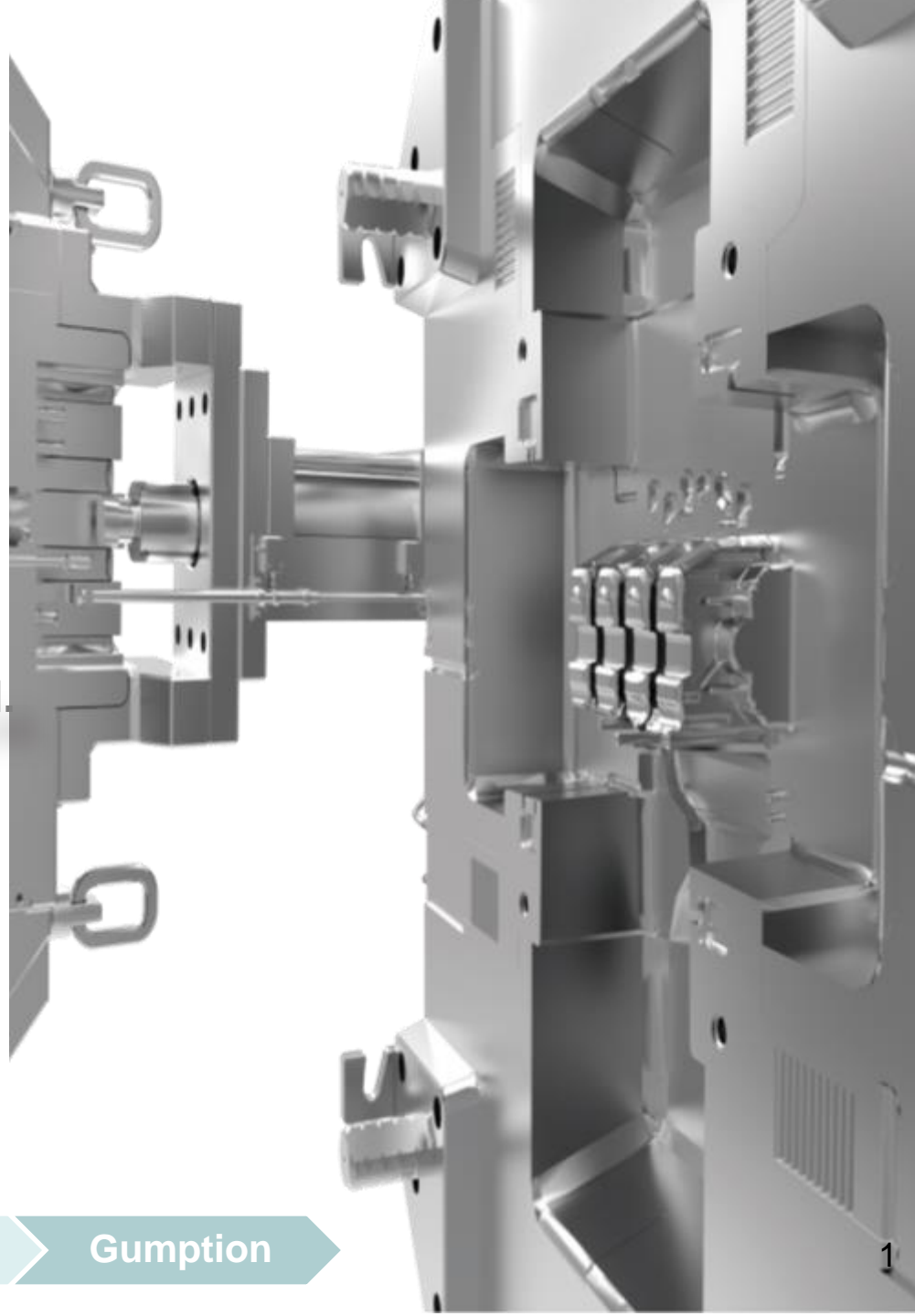


AILITE®

Ningbo Elite Mold Manufacture Co., Ltd.

**Begin with customer's requirement
End with customer's satisfaction**



Innovation

Win-Win

Harmony

Gumption

1



Company Profile

2



R & D Manufacture & Quality Ability

3



Product & Market Development Vision

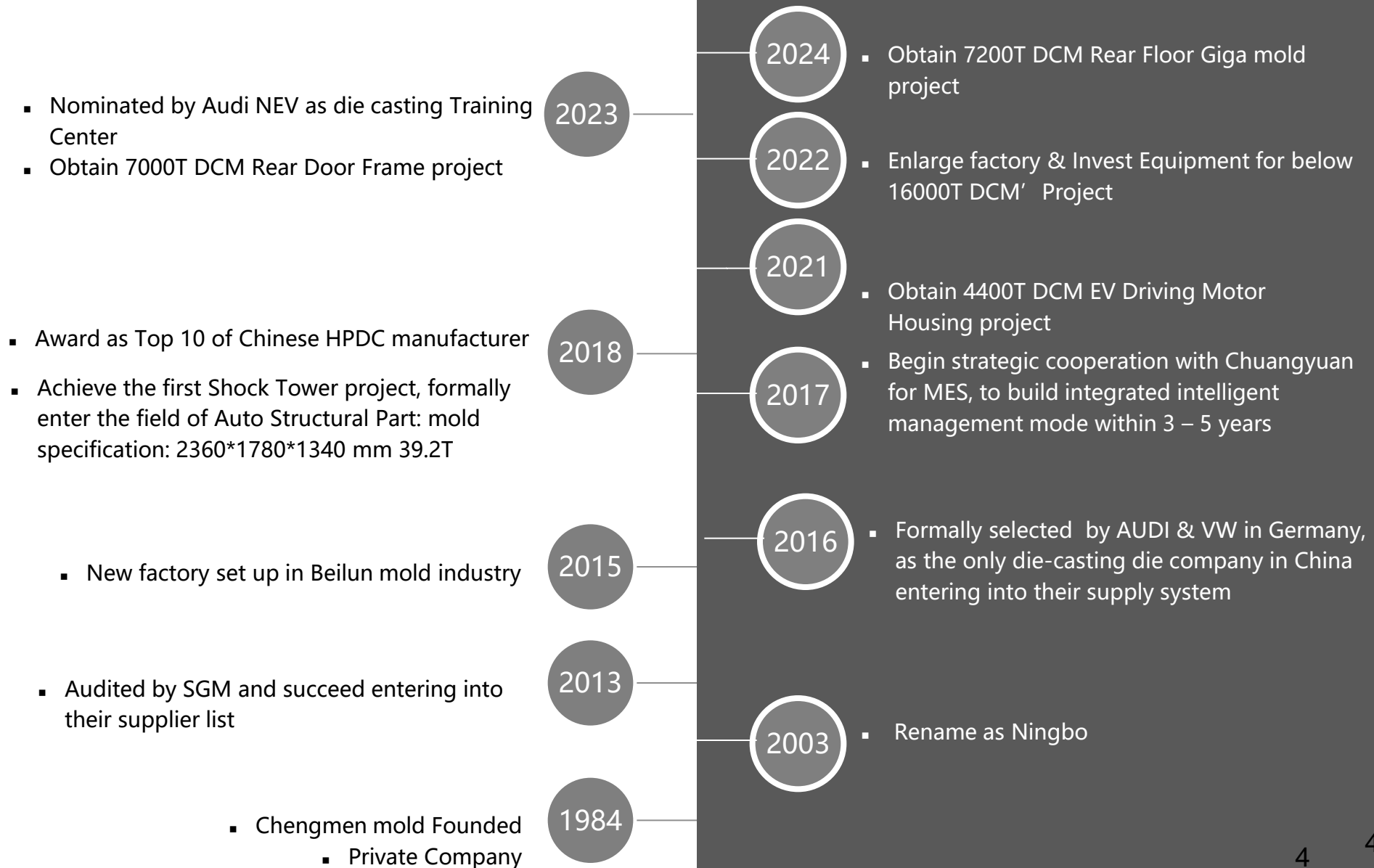
Overall Review



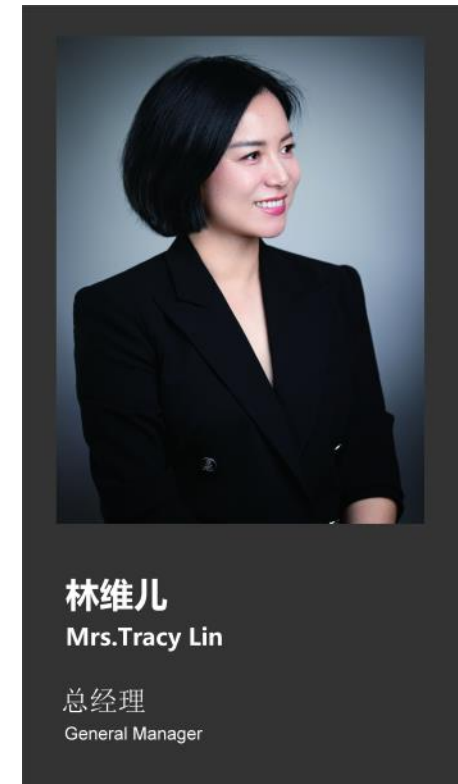
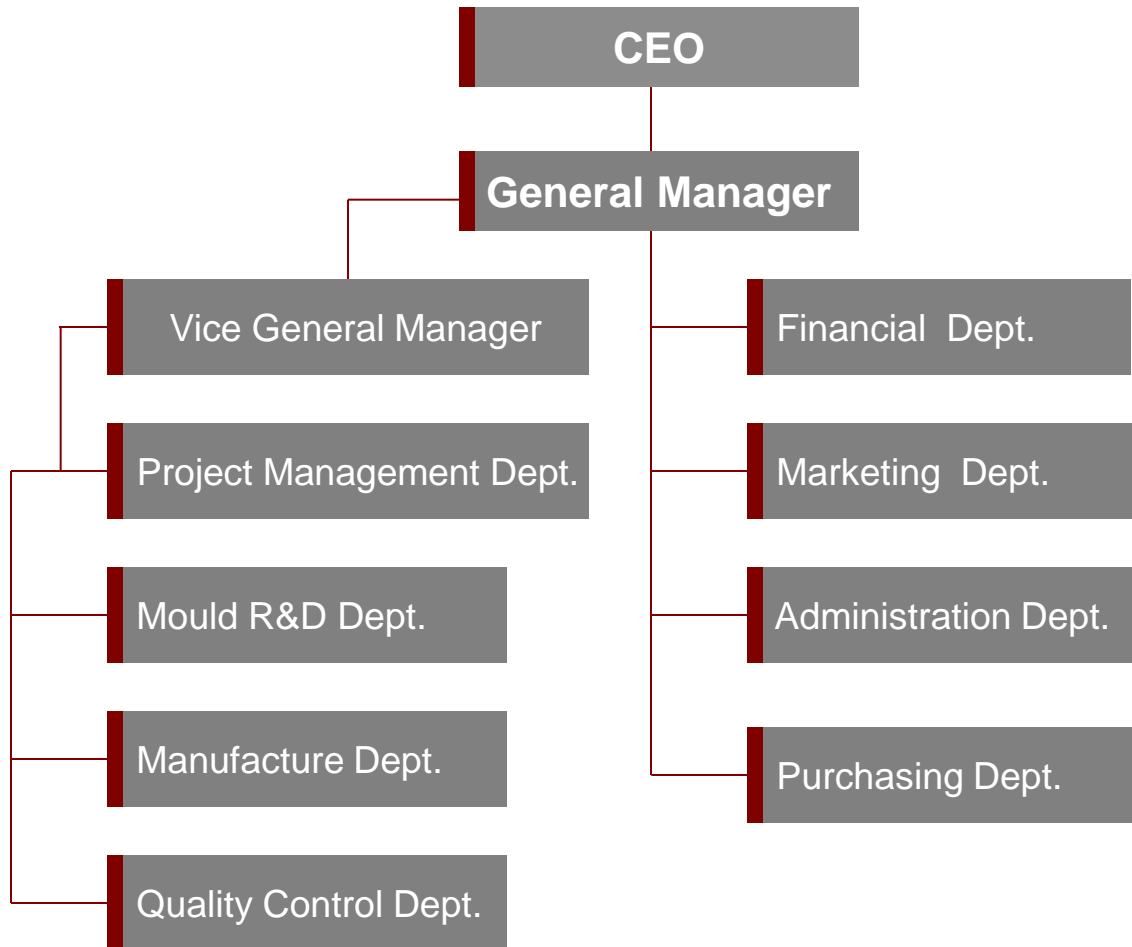
- Family ownership company
- Registered Capital 3.47million USD, Total 10000m²
- Chinese HPDC GB standard constitutor
- Annual mold production ability: 160 pcs
- Lead time: 55-160 days for T1
- Business: Magnesium & aluminum die casting dies, matched Trimming mold, Prototype mold, Hand pattern, 3D printed & Small batch Production
- Casting die: focus on below 16000 Ton dies



Milestone

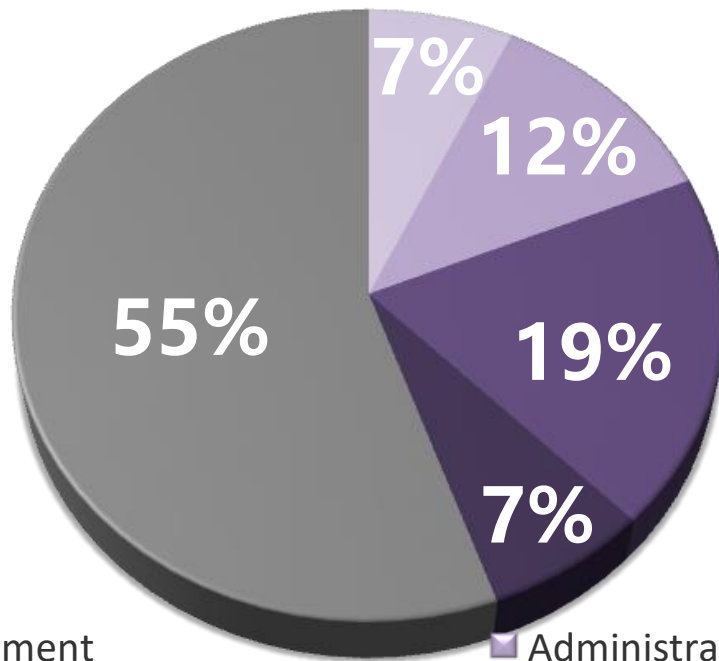


Organization



No. of Employees

Employees 128



Management

Designer

Manufacturer

Administrator/ Market/ Finance

QC



Management 9



QC 9



Administrator/ Market/ Finance 15



Manufacturer 71


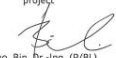



Designer 24

Our Honor



Approval letter from German Audi

On Site Assessment (OSA)		
Supplier:	Ningbo Elite Mold Manufacture Co., Ltd.	
Location:	No.15, Guantanghe Road, Beilun Ningbo, Zhejiang, China 315800	
Referenz Project	AU416/2, AU416/3, AUS11/4 AUDI PPE structural casting part Giga-casting mold of Li-Auto, rear floor	
Date of OSA:	28.03.2025	
AUDI Participants:	Lao, Bin, Dr.-Ing. (P/BL) Genc, Hasan-Murat (P/CQ-41)	
Date of OSA Report:	07.05.2025 (last OSA: 20.04.2023)	
OSA Main Criteria (Details and scope of Management & Technical elements please find in the OSA attachment): <ul style="list-style-type: none"> • Company & project management system • Process management (Development/ Manufacturing) • Mold design process ability • Manufacturing Technology & Equipment • Casting process simulation and risk analysis ability • Quality management system • Sub supplier & external supplier management system • On-site implementation and corresponding 		
OSA Referenz (Project & Part): <ul style="list-style-type: none"> • Project-Nr.: AU416/2, AU416/3, AUS11/4 • Project Part group: AUDI PPE structural casting part • Project Part: HPDC Shock tower / Giga-casting of Li-Auto Rear floor • AUDI Casting supplier: Cosma Automotive (Shanghai) Co.,Ltd Changchun Branch 		
OSA Result: <ul style="list-style-type: none"> • 95% (>90% Meaning: autonomous and reliable series supplier) • AUDI recommendation for current, potential series project and Giga-casting project 		
 Lao, Bin, Dr.-Ing. (P/BL)		 Genc, Hasan-Murat (P/CQ-41)

Audi OSA High Scored 95% Report

1



Company Profile

2



R & D **Manufacture & Quality Ability**

3



Product & Market Development Vision

Technical Team



Technical Team:

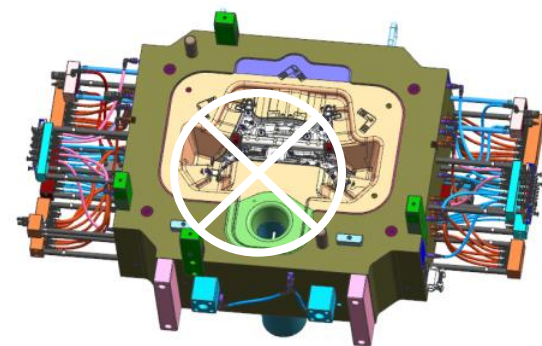
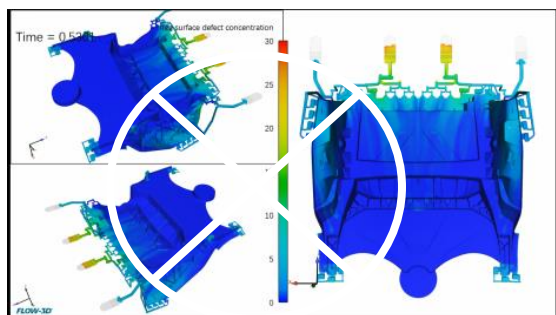
- 6 mold design experts & engineers
- 17 mold design engineer assistants
- 1 mold flow engineer
- 24 engineers until now

Soft-ware Resource:

- CAD/ FEM:UG / Pro-e/ CATIA
- CAE: FLOW 3D
- CAM: Power-mill

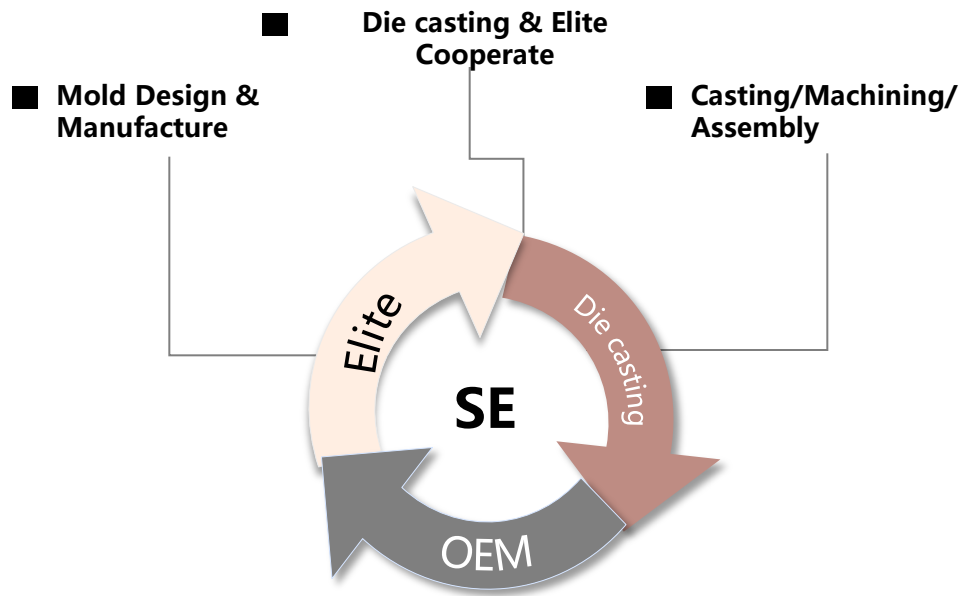
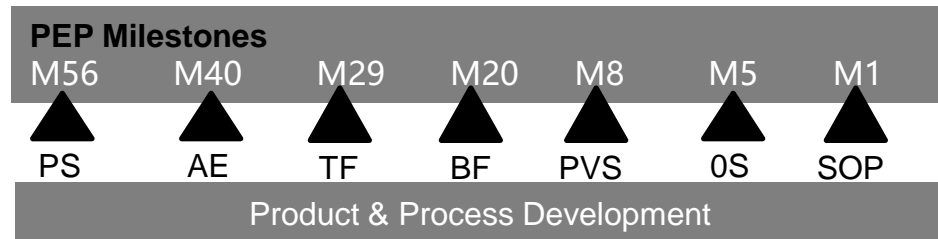
Technical strength:

- Design for manufacture Report (DFM)
- Die concept building and optimizing
- Risk Analysis
- Product & Process Optimization
- Validation
- Increase Robustness
- Cost Reduction
- Serial Production Mold Advise
- Increase Mold life
- Technical support for trial, service after sales



Technical Advantage

SE (Simultaneous Engineering)



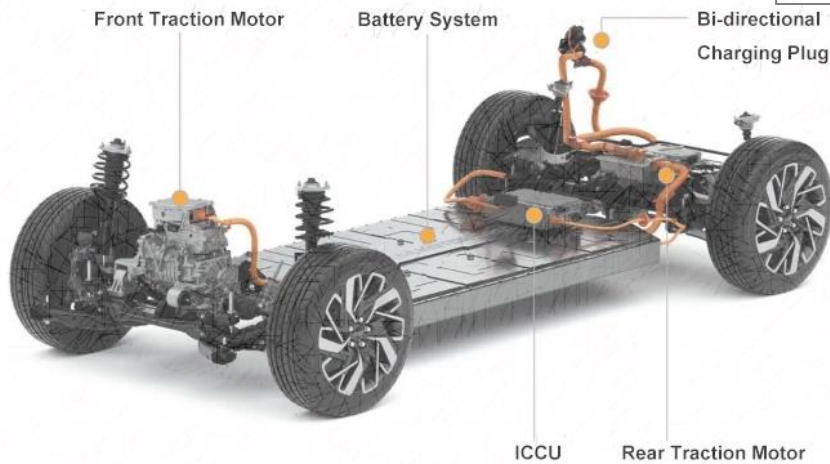
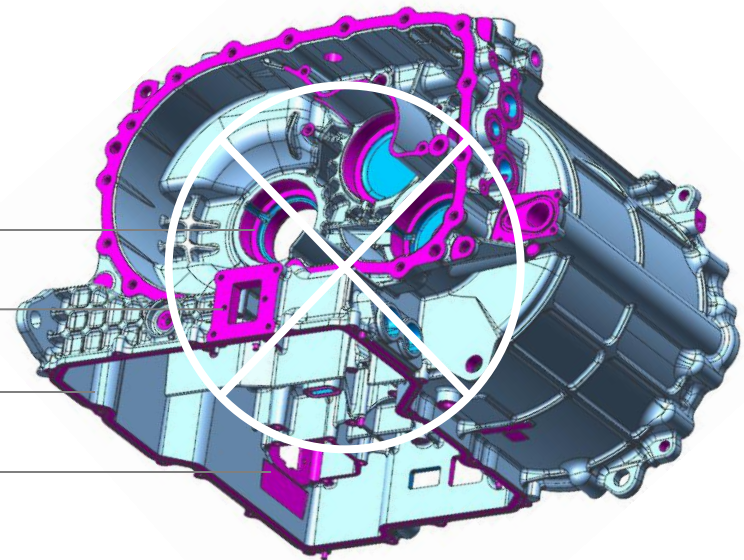
- **Mold development ability and experience**
Mold suppliers assess the DFM of part, and give advise for better casting
- **Part optimization in the early stage**
To avoid part production failures before drawing frozen
- **Reducing part design risks and manufacturing costs.**
Lower the cost and risk in batch production

Technical Advantage

Project SE case

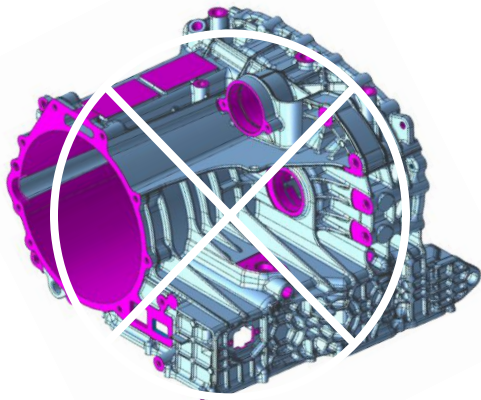
Part Analysis

- Product Functional Analysis
- Product Key Area Identification
- Wall Thickness & Draft Angel Analysis
- Manufacturability



Technical Optimized Case

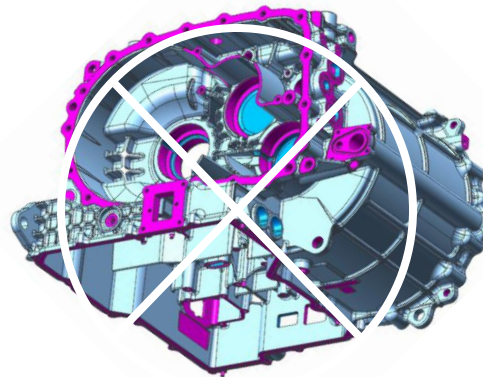
Original



Weight: 18.3kgs

- Wall thickness unevenness
- Hard to meet the pressure testing requirement for local area
- High requirement for porosity
- Long time for post machining

Optimized



Weight: 15.6kgs

- Wall thickness optimized
- Remove non-functional area for post machining

- Weight: 15% ↓
- Manufacturability ↑
- Risk Function ↓
- Cost ↓
- Machining Time ↓

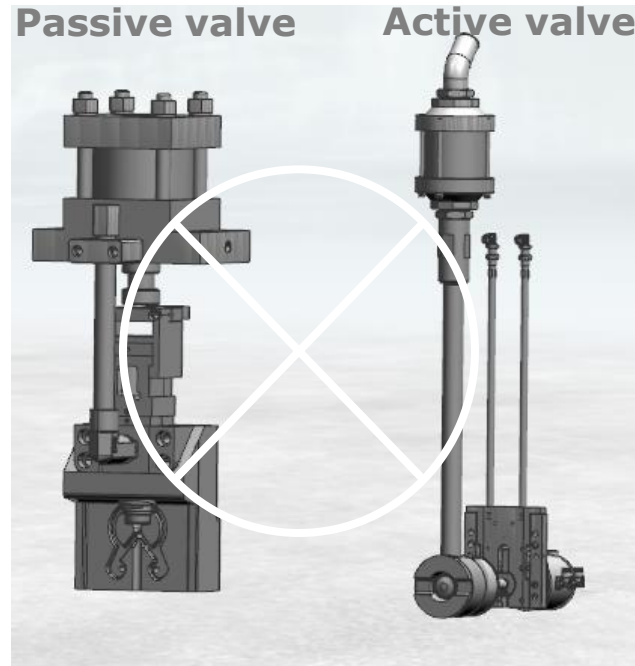
Technical Advantage



3D Print Technique

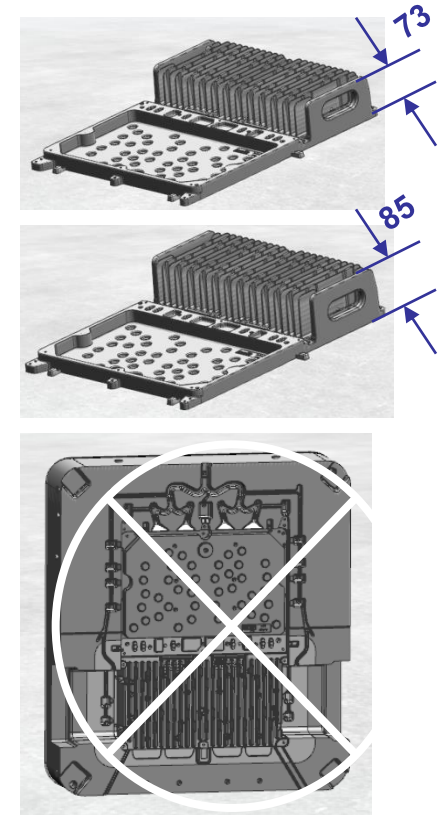
Design and make irregular cooling lines according requirement

- Solve regular cooling line design limited
- Solve burnt stick, shrinkage of local thick wall thickness surface
- Solve shrinkage porosity caused by insufficient cooling



Vacuum Technique

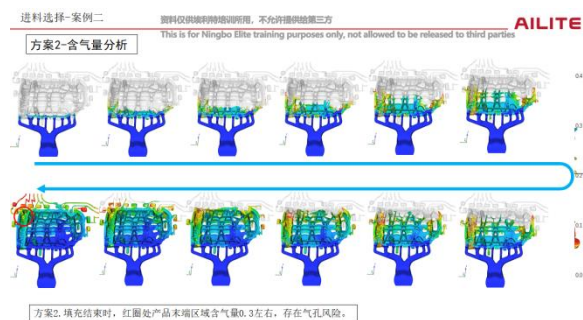
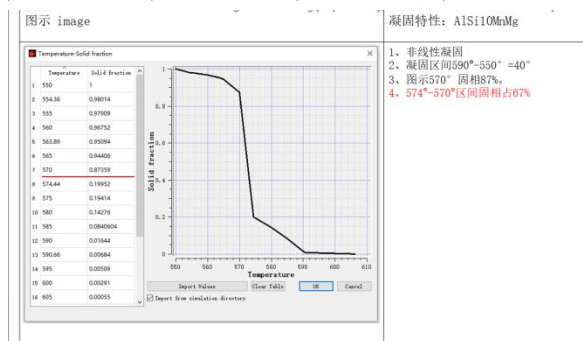
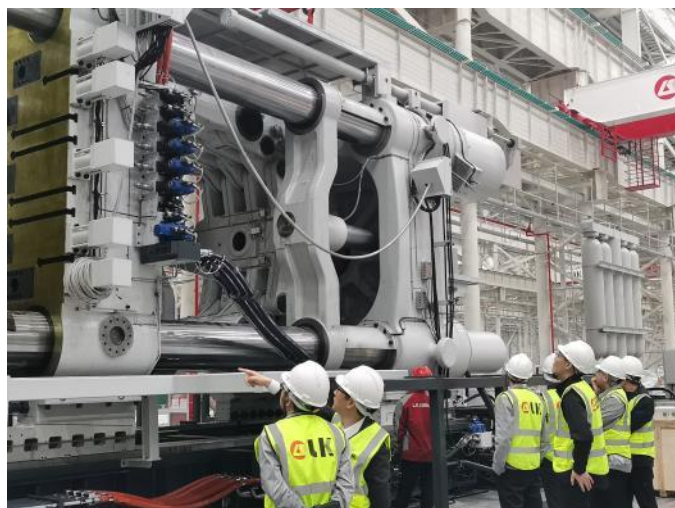
- Optimize scrap rate
- Improve mold lifetime
- Optimize production cycle time
- Optimize producing stability



Mold Frame Share Technique

- Achieve different parts with the same mold frame according to exchange local components

Audi NEV Specific Training Center



- Lecturer team with over 20 years of experience in HPDC
- Fully covering Traditional automotive die-casting parts, new energy vehicle die-casting parts and Mega structural parts
- From metal principles to die-casting processes; From filling foundations to mold design; From die-casting defects to improvement plans
- Provide special training for Audi's NEV team

Equipment

Equipment	Brand+ Size	Qua.
High-speed CNC	DMG-HSC75Linear (GEM.)	1
High-speed CNC	DMG-HSC105Linear	1
High-speed CNC	Makino-V77 (JAP.)	2
High-speed CNC	HaiTian X:3000,Y:2000,Z:1000 Loading 15T	3
High-speed 5 axis CNC	DMGP210 2100*2100*1250	1
Horizontal 4 axis machining center	TOSHIBA BTD-200QH(Japan)	2
CNC	Taiwan TV116B/TV158B	3
CNC	Haitian-HTM-1500G	2
CNC	Taiwan AR-3124/3924	3
CNC	Taiwan AR-6336	1
CNC	Beijing Carver 600G SMA	2
Low speed-EDW	Taiwan 1065S	1
Low speed-EDW	Taiwan HP860SS-HS	1
Low speed-EDW	Taiwan GX640L+	1



Tooling warehouse

Equipment

Equipment	Brand+ Size	Qua.
EDW	Dongqing DK77100/DK7750/DK7780	6
EDW	BaQi X:1500, Y:1000,Z:1000 Loading 7.5T	1
Double Head EDM	Shanghai HanBa X:2000, Y:1200,Z:1200 Loading 12T	1
EDM	DEAHAN 900CNC/700CNC	2
EDM	Shanghai TE100/HE100/HE130	3
EDM	Beilun D7140/GXD7150	3
EDM	Beilun BL7165	1
GRIND	Taiwan KGS-250AH/510AH/715AH	4
GRIND	Guilin M7163*12-GM	1
Radial Drill	Shengyang Z3080*25/Z3050*16/2Q3040*12	5
Sawing Machine	Zhejiang GD4240/65	1
Milling Machine	Guilin GL-800C	1
Large Spot Machine	ShunXing SX1000YC X:4200, Y:3500,Z:4000 Loading 220T	1
Spot Machine	Shunxing 200JM/500JM	2
Lathe	Baoji CS615-013	1
6 Axis Gun Driller	HuanQiu X:2300, Y:1500,Z:1600 Loading 20T	1
Gun Drill	Shenzhen DH-1300-DC (Double Axis)	1
Crane	130T (Max)	1

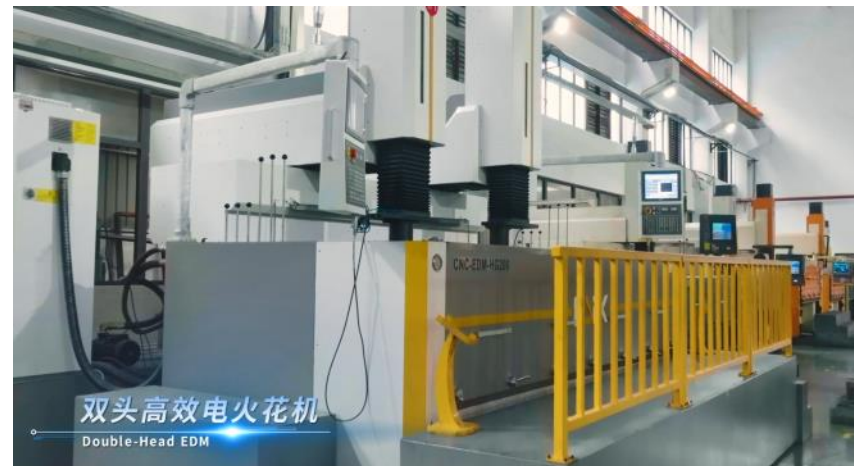


Spotting Machine

Quality-Testing Equipment:

Equipment	Brand	Quant.	Stroke
Large-Scale CMM	ILOT 15.25.15	1	X:2500, Y:2000,Z:1500 Loading 20T
CMM	Hexagon GLOBAL CLASSIC SK9.12.5	1	900*1200*800
CMM	Hexagon Explorer 1021	1	2100*1000*800
Projector	CPJ-3015	1	
3D scanner	Hexagon	1	

Equipment



1



Company Profile

2



R & D Manufacture & Quality Ability

3

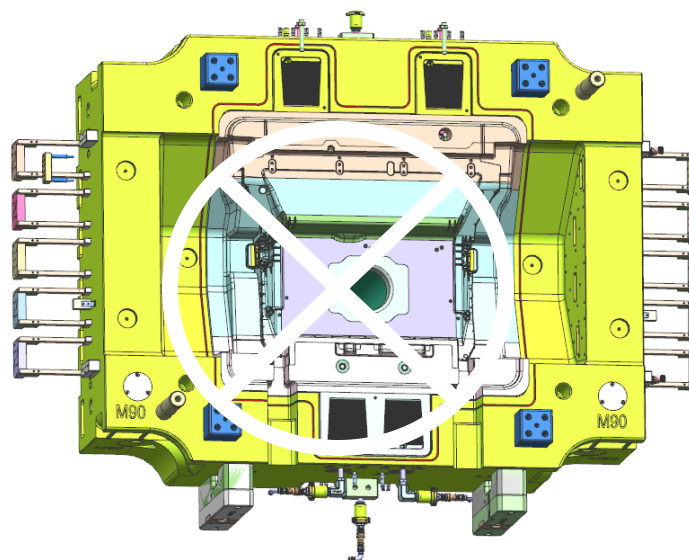
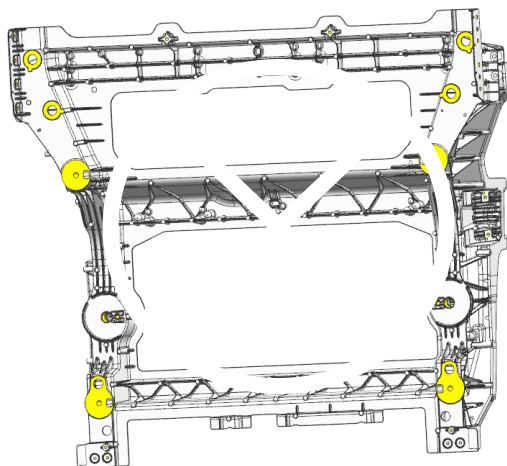


Product & Market Development Vision

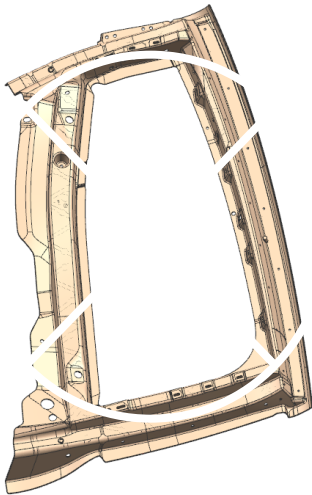
Die Tool Display

Rear Floor Giga Mold

1. Casting machine: 6600T/7200 T
2. Die dimension: 5166*3245*2071mm
3. Die weight: 132000 kg
4. Sample weight: 41.85 kg

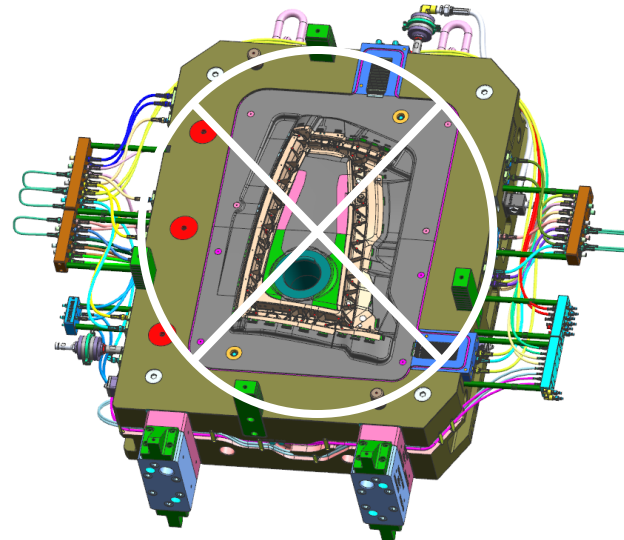


Die Tool Display



Rear Door Frame

1. Casting machine: 7000 T
2. Die dimension: 1720X2190X1610 mm
3. Die weight: 41000 kg
4. Sample weight: 5.5 kg

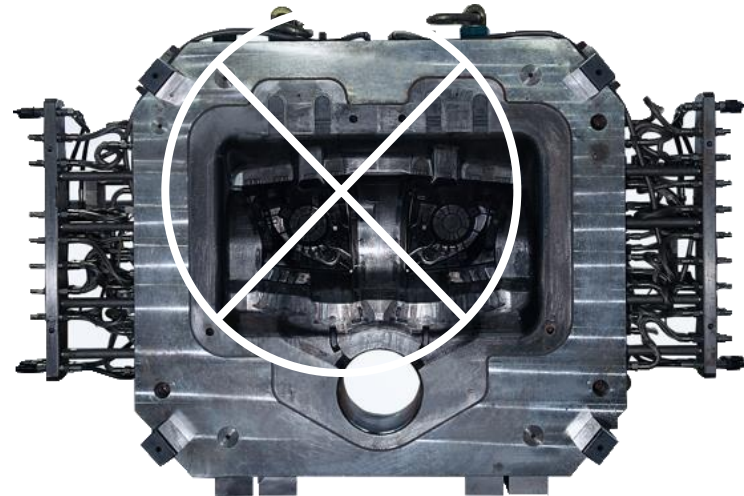
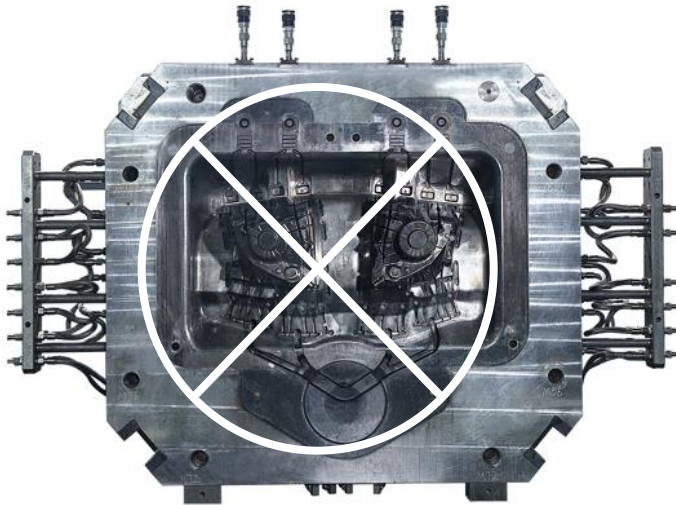


Die Tool Display



Shock Tower

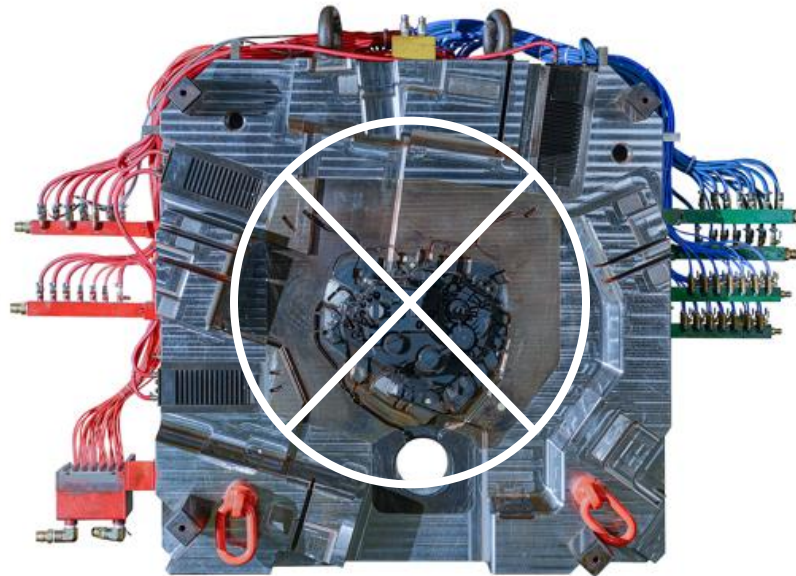
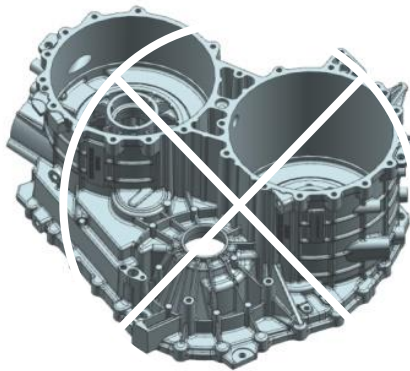
1. Casting machine: 3200T-4200 T
2. Die dimension: 1900X1755X1490 mm
3. Die weight: 36000 kg
4. Sample weight: 4.02 kg



Die Tool Display

Driving Motor Housing

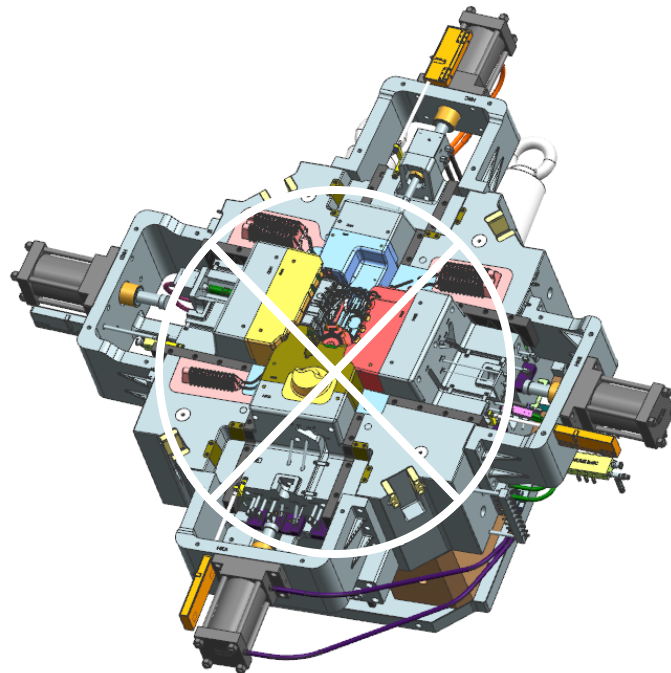
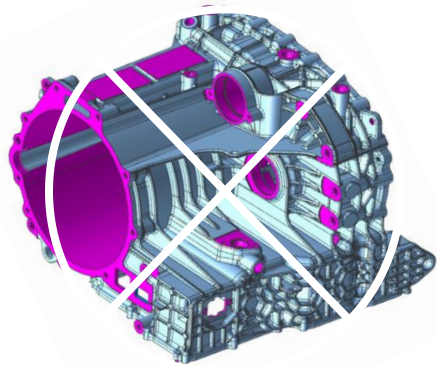
1. Casting machine: 4000 T
2. Die dimension: 1800x1960x1730 mm
3. Die weight: 43700 kg
4. Sample weight: 19.7 kg



Die Tool Display

3 in 1 Front Motor Housing

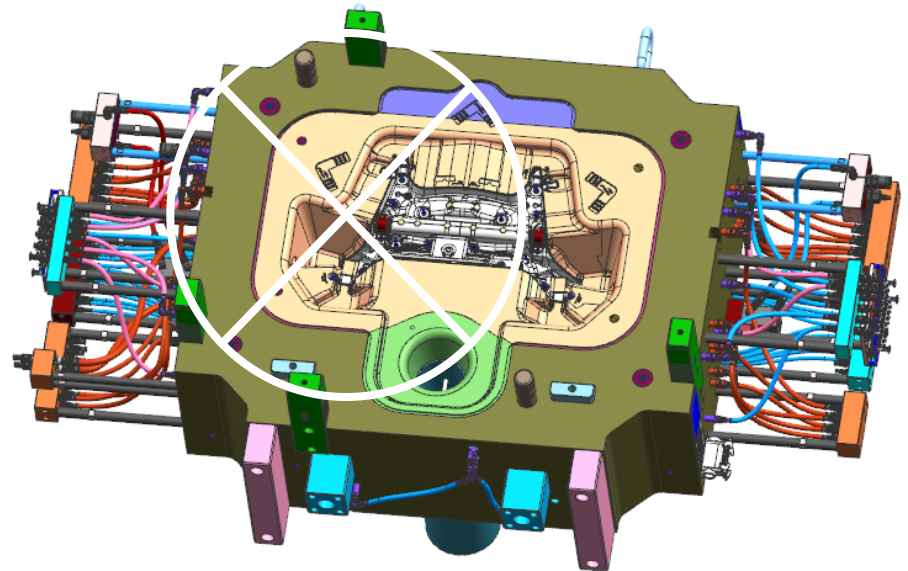
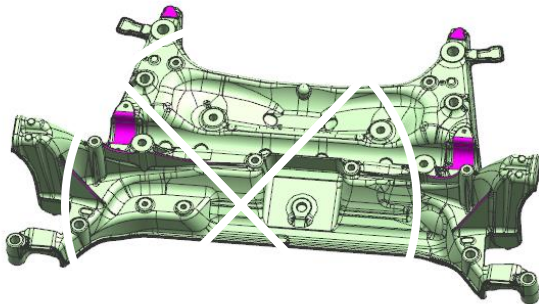
1. Casting machine: 2700/3000 T
2. Die dimension: 1700*1830*1695mm
3. Die weight: 37000 kg
4. Sample weight: 15.6 kg



Die Tool Display

Sub-frame

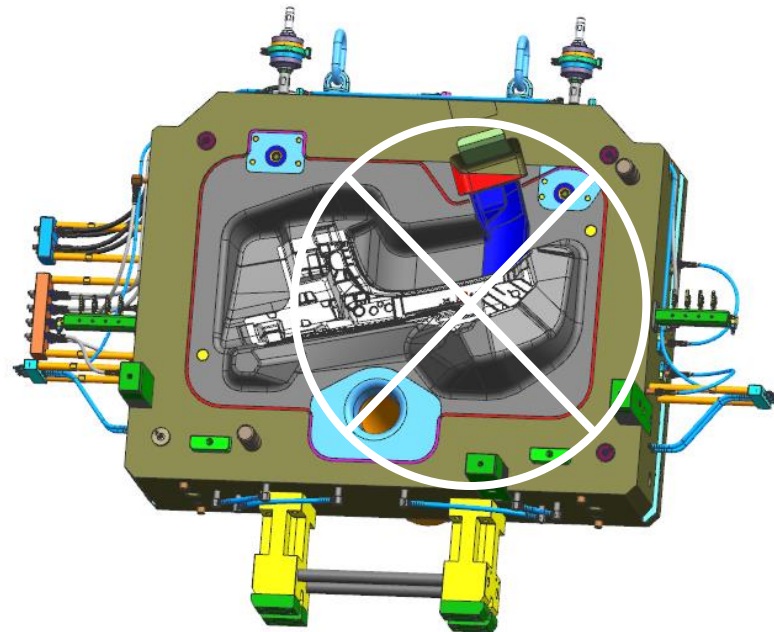
1. Casting machine: 2200 T
2. Die dimension: 1790*1520*1515mm
3. Die weight: 28000 kg
4. Sample weight: 9.2 kg



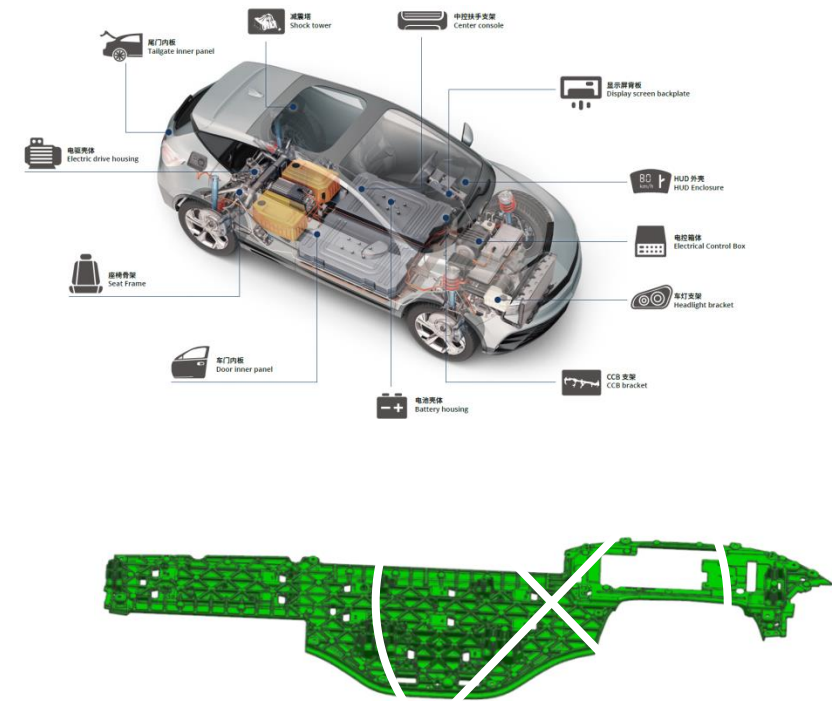
Die Tool Display

D-pillar

1. Casting machine: 2500T
2. Die dimension: 1960*1500*1430mm
3. Die weight: 32000 kg
4. Sample weight: 5.4 kg

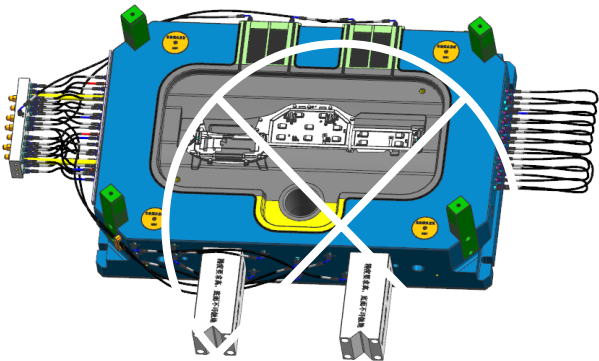


Die Tool Display



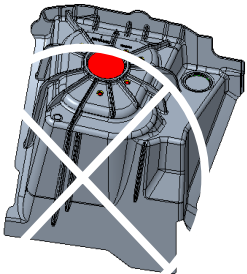
Panel Bracket

- 1. Casting machine: 3000T
- 2. Die dimension: 1980*1290*1073mm
- 3. Die weight: 21000 kg
- 4. Sample weight: 2 kg / AZ91D
- 5. Cost reduction & Weight reduction



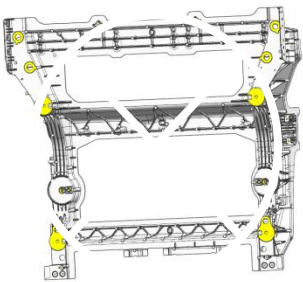
			Mechanical property				Cost	
Alloy	Casting	Code	Tensile strength/Mpa	Yield strength/Mpa	Elongation /%	Mold life	Material density	Reuse rate
Magnesium Aluminium	HPDC	AZ91D	230	160	3	200K	1.7	>60%
		ADC12	228	130	1.4	100K	2.8	≈50%

Structural Parts



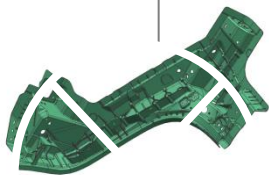
Right front wheel cover

Dimension: 437*324*400
Weight: 3.84 Kg
Material: AlSi10MnMg
Model: E00103725
DCM: Buhler2200T



Rear Floor

Dimension: 1356*1569*548
Model: W01-51010050
DCM: 6600T/7200 T



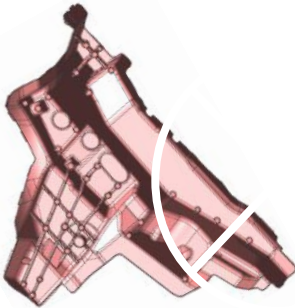
D-pillar

Dimension: 1150*514*470
Weight: 5.4 Kg
Material: C611
Model: 4122536HA1
DCM: Buhler 2500T



Wheel cover

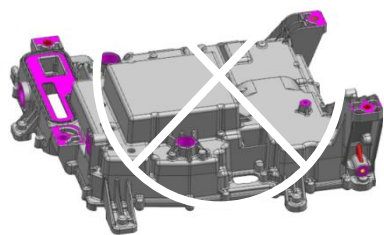
Dimension: 473*412*424
Weight: 4.02 Kg
Material: AlSi7Mg
Model: 84339436
DCM: Idra 3200/ 4200 T



Shock tower

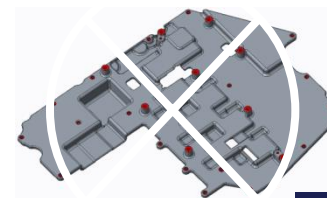
Dimension: 715*560*280
Weight: 2.9 Kg
Material: AlSi10MnMg
Model: A253
DCM: Buhler3800 T

New Energy Automobile Parts



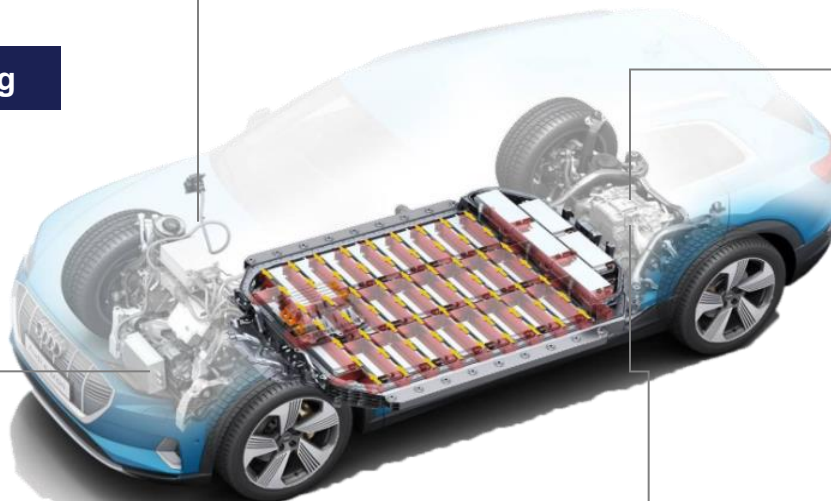
N60 Front Inverter Housing

Dimension: 415X363X138
Weight: 3 kg
Material: AlSi12(Fe)
Model: A5E30034232A
DCM: LK 1000 T/ 1250 T/ 1600 T



N60 PCB Holder

Dimension: 334X255X30
Weight: 0.52 kg
Material: AlSi12(Fe)
Model: A5E30041379A
DCM: YIZUMI 500 T/ 800 T

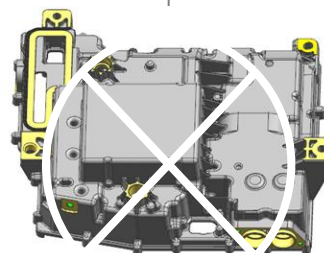


Front Motor Housing

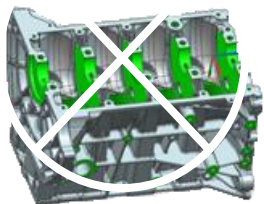
Dimension: 453x432x337
Weight: 15.6 kg
Material: ACD12
Model: 20201569
DCM: 2700/3000T

N60 Rear Inverter Housing

Dimension: 341X389X113
Weight: 2.4 kg
Material: AlSi12(Fe)
Model: A5E30040627A
DCM: LK 1000 T/ 1250 T/ 1600 T

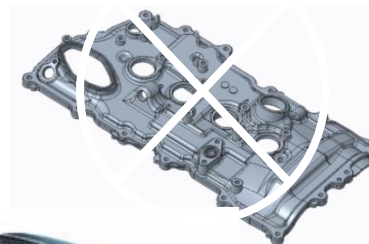


Powertrain Parts



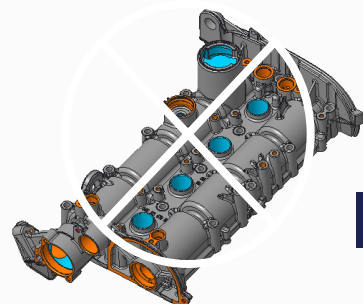
Cylinder block

Dimension: 390*375*234
 Weight: 17.1 Kg (exclude cylinder sleeve)
 Material: ADC12
 Model: P47-2
 DCM: YIZUMI 2500 T



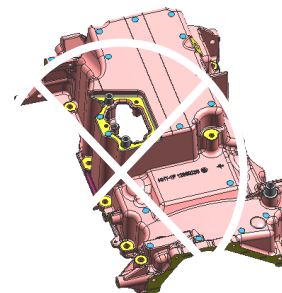
Cylinder head cover

Dimension: 515*270*60
 Weight: 1.62 Kg
 Material: ADC12
 Model: 11211849
 DCM: LK800 T



Cylinder head cover

Dimension: 430*265*155
 Weight: 3.3 Kg
 Material: AlSi9Cu3
 Model: EA211-1.4TSI
 DCM: IDRA 1600 T

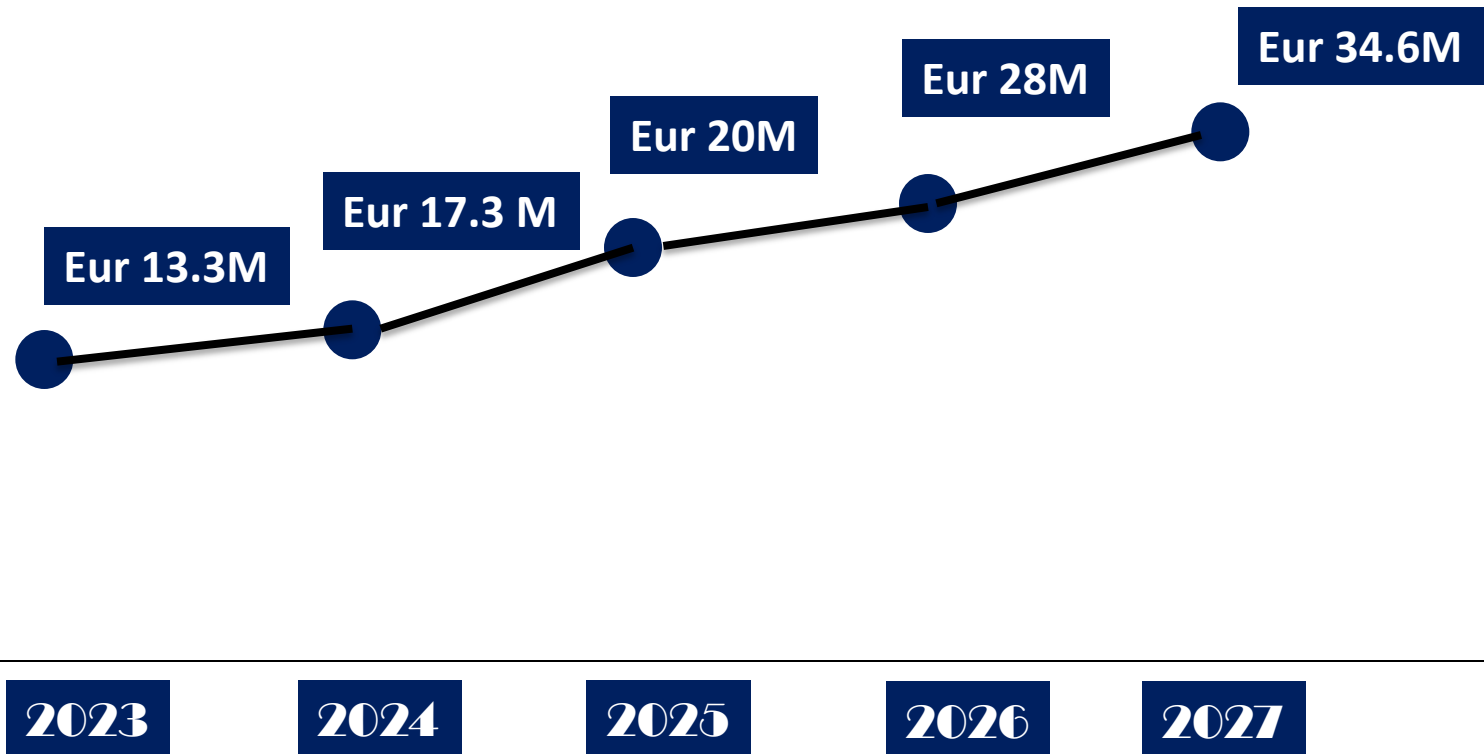


Oil sump

Dimension: 445*330*165
 Weight: 4.5 Kg
 Material: A380
 Model: 12659288
 DCM: LK 1650 T

Sales Turn-over

5 Years Plan



Reliable Suppliers

◆ Die Steel



HITACHI



◆ Die base suppliers



◆ Hydraulic Cylinder



◆ Components



◆ Connectors



STÄUBLI

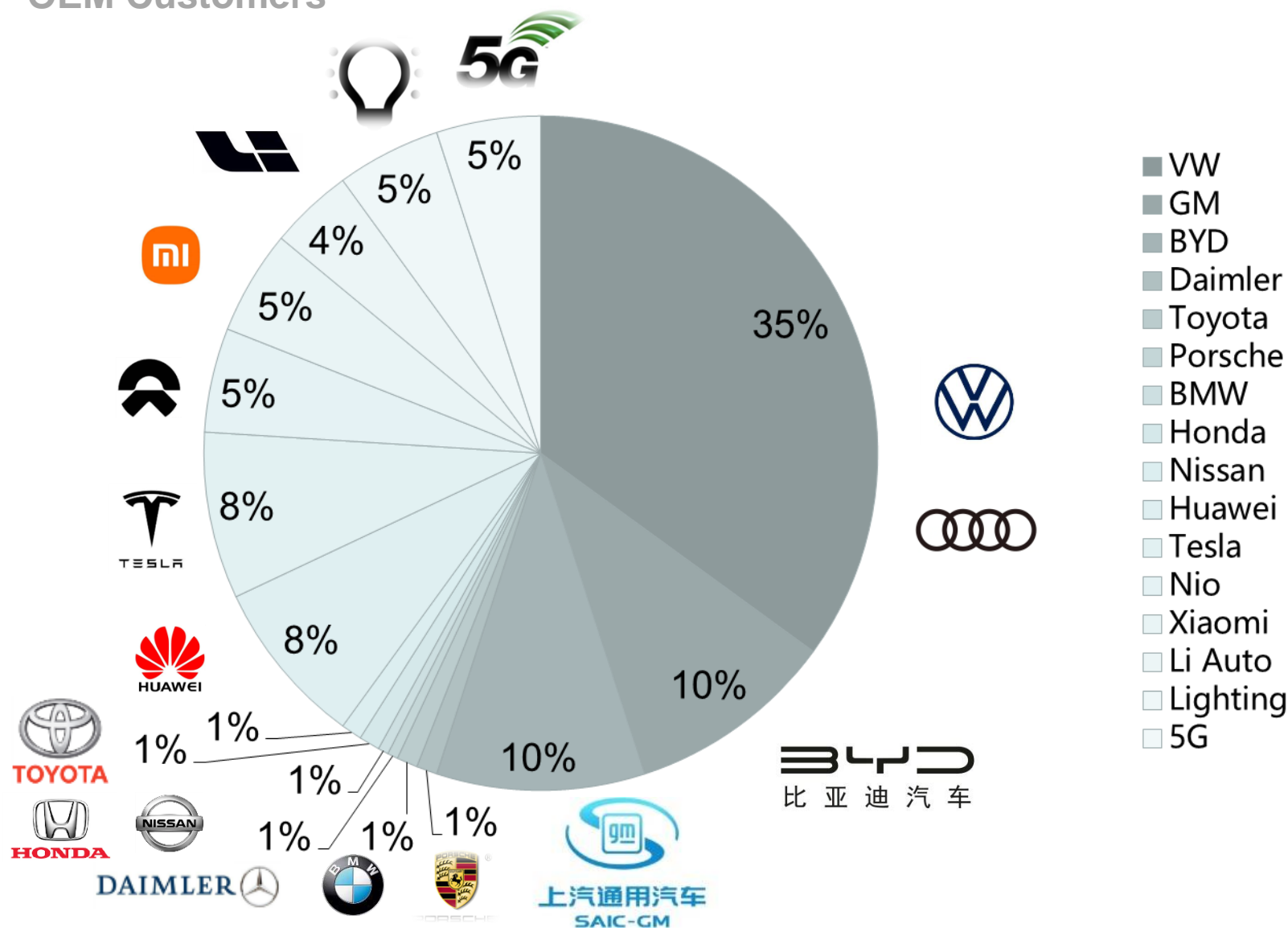
Main Customers

➤ T1 Tier Customers

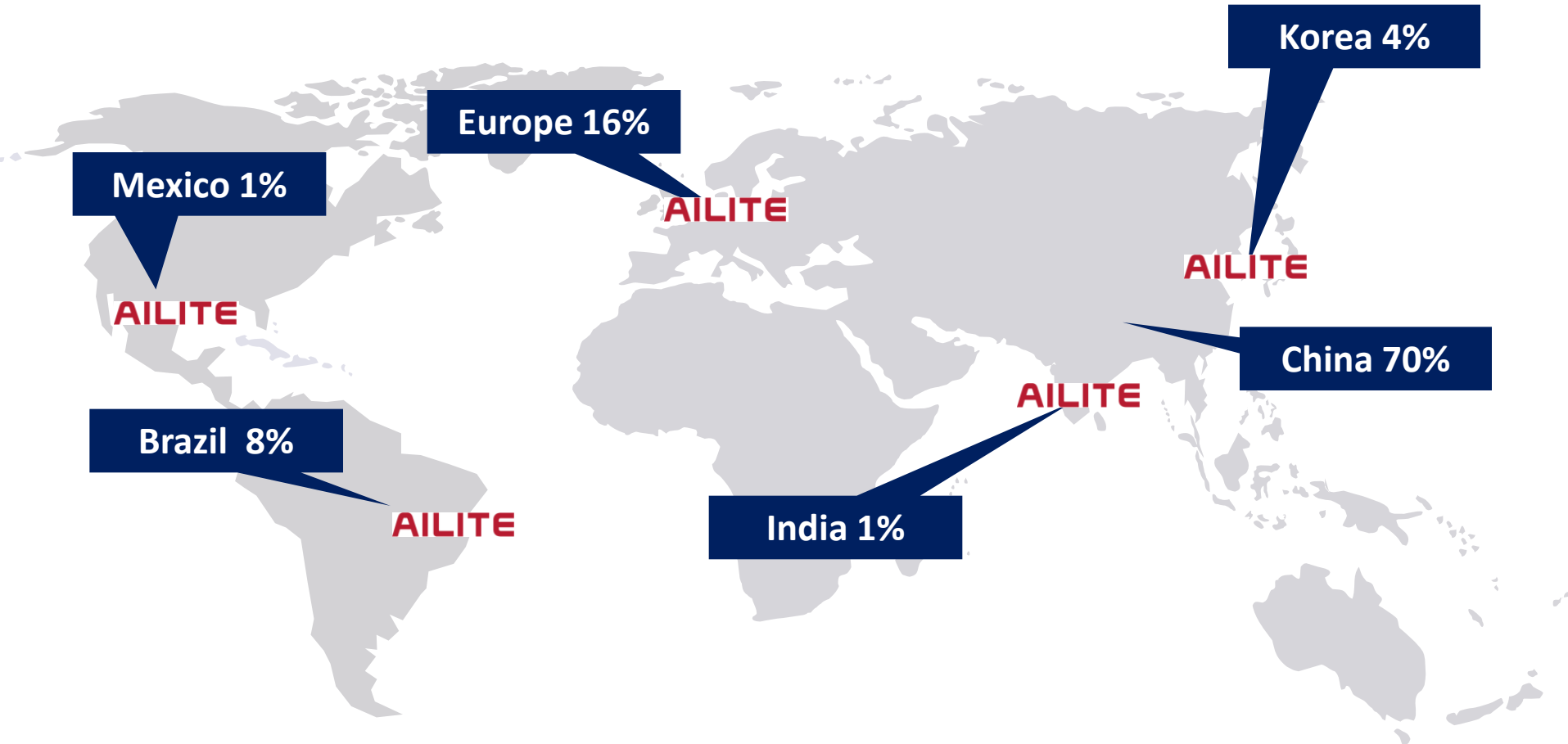


Final Customers

➤ OEM Customers



Worldwide Sales Share



- China 70%
- Oversea 30%

OUR Objective

To be a superior and respectable die-casting mold manufacturer by customers

What we do

Traditional

New energy

Light structure

How we do

Die
casting
Mold

Trimming
mold

Prototype
mold

Hand
pattern

Engage OEM & Tier 1's from
process

Where we are

For now
China, Europe, Korea

For future
USA, Japan

Who we will be

Global

Informationized

Finance
independence

Integrated
solution

Elite Team

AILITE®

Thank you

Ningbo Elite Mold Manufacture Co., Ltd.



0086-574-86122878

FAX

0086-574-86117138



marketdept@diemaker.com.cn



No.15, Guantanghe Road, Beilun, Ningbo, Zhejiang, China

