

# Portfolio

2023



Engineering towards low volume production



Engineering towards volume production

Specialist in Engineering and Industrialization of plastic parts with focus on small volumes production, typically between 50 to 10 000 units/year or project.

**U. PORTO** Spin-off

engineering & tooling ®  
FROM PORTUGAL



**Who we are**



Engineering towards low volume production

# They trust us





# Railway barrier

	Mould	Part
Price	10 000€ a 15 000€	200€ a 250€
Manufacturing time	8 weeks	
Material	Aluminium	Polyurethane 1 100 kg/m3
Dimensional tolerance	0,01 mm	
Size		1 200 x 600 x 70mm
Weight		16kg
Start-up time		6 Weeks
Production		50/ year
Deliveries		single
Finishing		Acrylic Paint
Assembly		
Prototype		3D Print + Paint
Services done		D + P + M + F + A

D - Design  
P - Painted prototype  
M - Mould manufacturing  
F - Part manufacturing  
A - Paint and other  
finishings

# Electric car charger's housing - 1



D - Design  
 P - Painted prototype  
 M - Mould manufacturing  
 F - Part manufacturing  
 A - Paint and other finishings

	Mould	Part
Price	7 500€ a 10 000€	75€ a 100€
Manufacturing time	6 weeks	
Material	Aluminium	Polyurethane 1 100 kg/m3
Dimensional tolerance	0,01 mm	
Size		500 x 200 x 150mm
Weight		2kg
Start-up time		3 weeks
Production		1 000/ year
Deliveries		30/ week
Finishing		Acrylic paint
Assembly		LED's
Prototype		
Services done		D + M + F + A

# Electric car charger's housing - 2



D - Design  
 P - Painted prototype  
 M - Mould manufacturing  
 F - Part manufacturing  
 A - Paint and other finishings

	Mould	Part
Price		100€ a 150€
Manufacturing time		
Material		
Dimensional tolerance	0,01 mm	
Size		1 000 x 200 x 150mm
Weight		6kg
Start-up time		2 weeks
Production		200/ year
Deliveries		5/ week
Finishing		Acrylic paint
Assembly		LED's
Prototype		
Services done		A

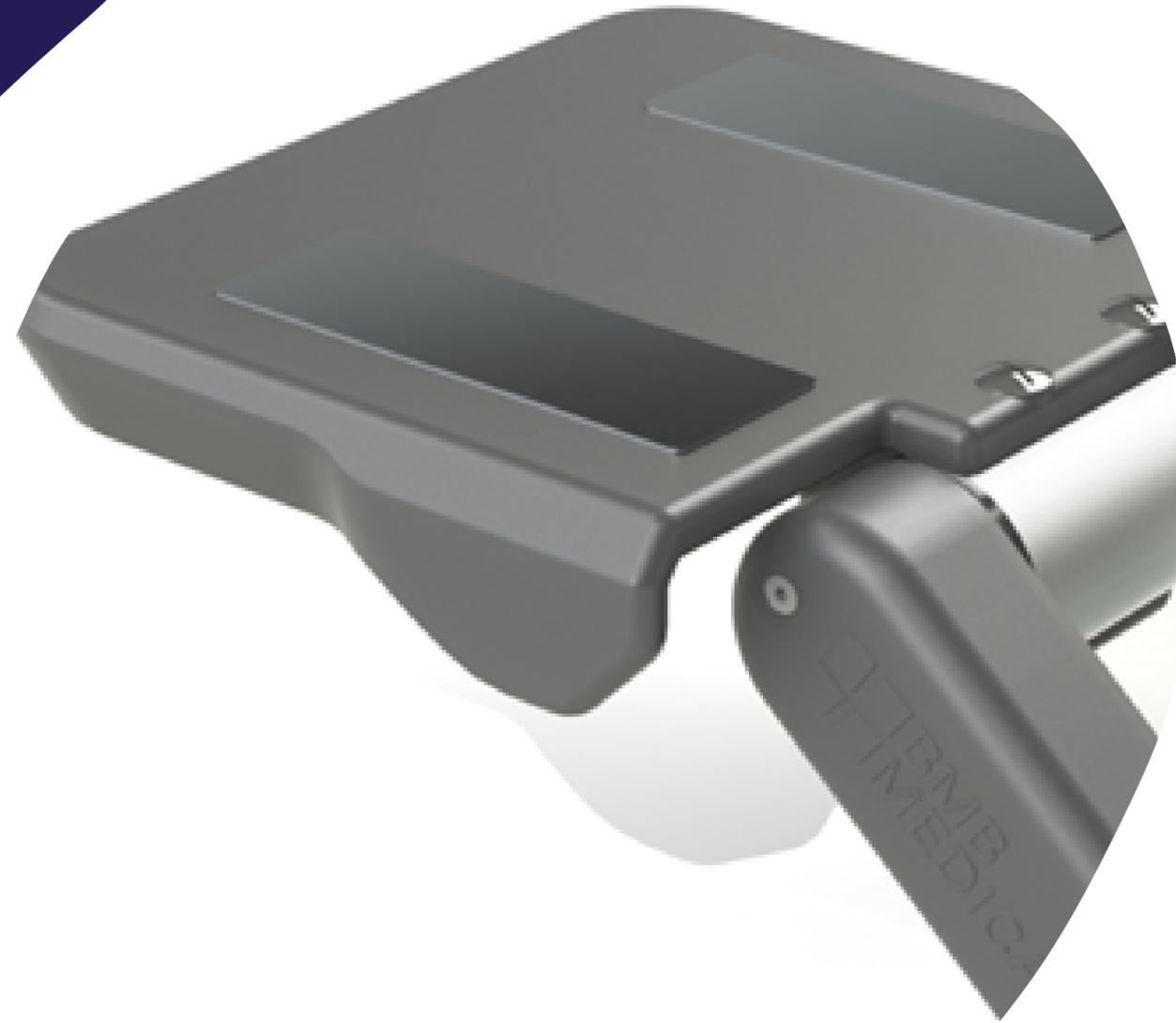
# Dehumidifier's side housing



**D - Design**  
**P - Painted prototype**  
**M - Mould manufacturing**  
**F - Part manufacturing**  
**A - Paint and other finishings**

	Mould	Part
Price	10 000€ a 15 000€	75€ a 100€
Manufacturing time	4 weeks	
Material	Aluminium	Polyurethane 1 100 kg/m3
Dimensional tolerance	0,01 mm	
Size		600 x 400 x 70mm
Weight		4kg
Start-up time		4 weeks
Production		600/ year
Deliveries		200/ delivery
Finishing		Fast acrylic paint
Assembly		
Prototype		3D Print + Paint
Services done		D + P + M + F + A

# Head support for stretcher bed



D - Design  
 P - Painted prototype  
 M - Mould manufacturing  
 F - Part manufacturing  
 A - Paint and other finishings

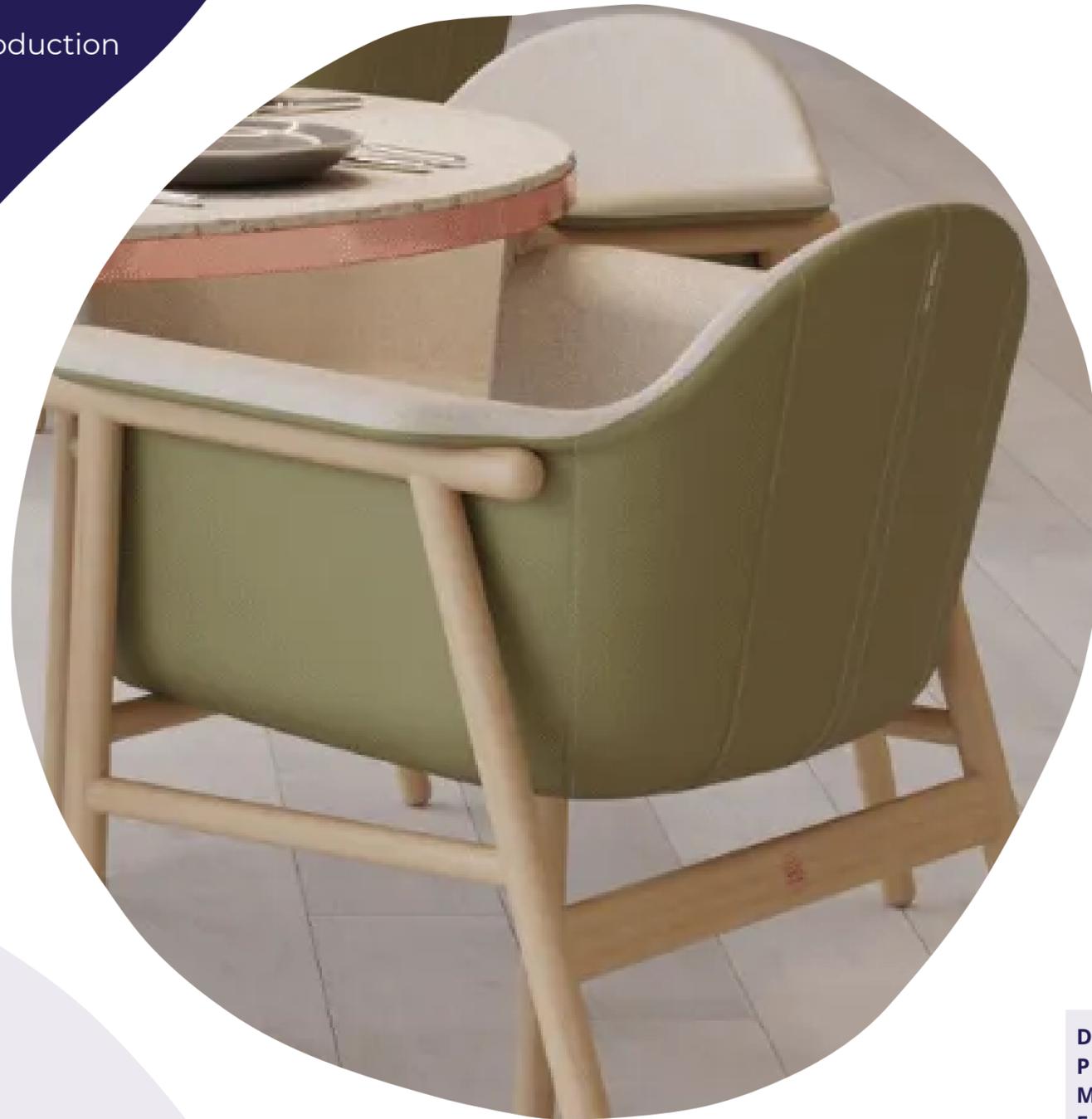
	Mold	Parts
Price	5 000€ a 10 000€	50€ a 75€
Manufacturing time	4 weeks	
Material	Alumium	Polyurethane 1 100 kg/m3
Dimensional tolerance	0,01 mm	
Size		300 x 280 x 60mm
Weight		1,5kg
Start-up time		4 weeks
Production		200/ year
Deliveries		200/ delivery
Finishing		Fast acrylic paint
Assembly		
Prototype		3D Print + Paint
Services done		D + P + M + F + A

# Head support for stretcher bed



D - Design  
 P - Painted prototype  
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	Mold	Parts
Price		25€ a 50€
Manufacturing time		3D Print 4 weeks
Material		ABS
Dimensional tolerance		
Size		170 x 60 x 40mm
Weight		0,2kg
Start-up time		1 week
Production		200/ year
Deliveries		200/ delivery
Finishing		Fast acrylic paint
Assembly		
Prototype		3D Print + Paint
Services done		D + P + M + F + A



# Inner chair's structure

	Mould	Part
Price	2 500€ a 3 000€	40€ a 50€
Manufacturing time	3 weeks	
Material	Glass fiber	Polyurethane 200 kg/m3
Dimensional tolerance	1 mm	
Size		800 x 800 x 400mm
Weight		3kg
Start-up time		2 weeks
Production		20/ year
Deliveries		single
Finishing		no finishing
Assembly		
Prototype		
Services done		D + M + F

D - Design  
 P - Painted prototype  
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# Inner chair's structure

	Mould	Part
Price	1 000€ a 1 500€	200€ a 250€
Manufacturing time	3 weeks	
Material	I3D impression + Glass Fiber	Glass Fiber + wood
Dimensional Tolerance	1 mm	
Size		730 x 730 x 630mm
Weight		6kg
Start-up time		4 weeks
Production		20/ ano
Deliveries		single
Finishing		no finishing
Assembly		
Prototype		
Services Done		D + M + F

D - Design  
 P - Painted prototype  
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# Measurement sensor's housing



D - Design  
 P - Painted prototype  
 M - Mould manufacturing  
 F - Part manufacturing  
 A - Paint and other finishings

	Mould	Part
Price	5 000€ a 10 000€	7,5€ a 10€
Manufacturing time	4 weeks	
Material	Aluminium	Polyurethane 1 100 kg/m3
Dimensional tolerance	0,01 mm	
Size		Ø150x 50mm
Weight		0,15kg
Start-up time		4 weeks
Production		1 500/ year
Deliveries		2 deliveries
Finishing		Pigmentation
Assembly		
Prototype		
Services done		D + M + F

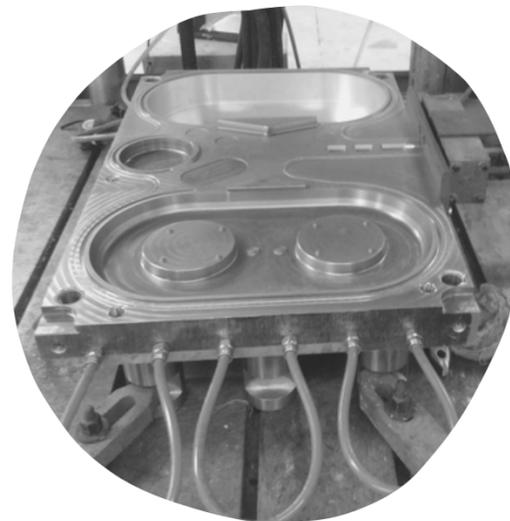


Engineering towards low volume production

One source supplier, from initial idea until part delivery



Engineering



Moulds manufacturing



Plastic parts manufacturing



Finishing and paint



Logistics

How we help



Engineering towards low volume production

- **Carcasses to cover equipment**
- **Structural Carcasses**
- **Design parts (customizable to customer's design)**
- **Annual productions between 100 to 10000**
- **Single or periodic deliveries (monthly, bimonthly, quarterly, according to contract specifications)**
- **Painted**

**How we  
help**



Engineering towards low volume production



**Engineering**

**Manufacturing**



**Finishing and paint**

**Marketing**

**Logistics and Quality**

# Team



**RIM 1 Press**  
**1 x 1 x 1m**



**2units RIM 2 Press**  
**up to 2,5 x x 1,5 x 1m**



**Paint booth**  
**6 x 3 m**



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**Equipaments**

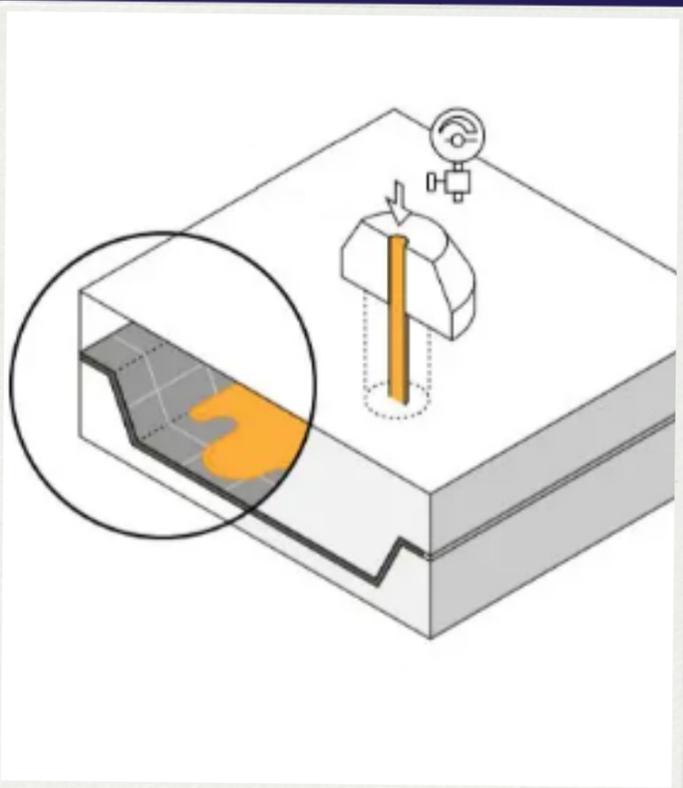
# Capability

## Materials:

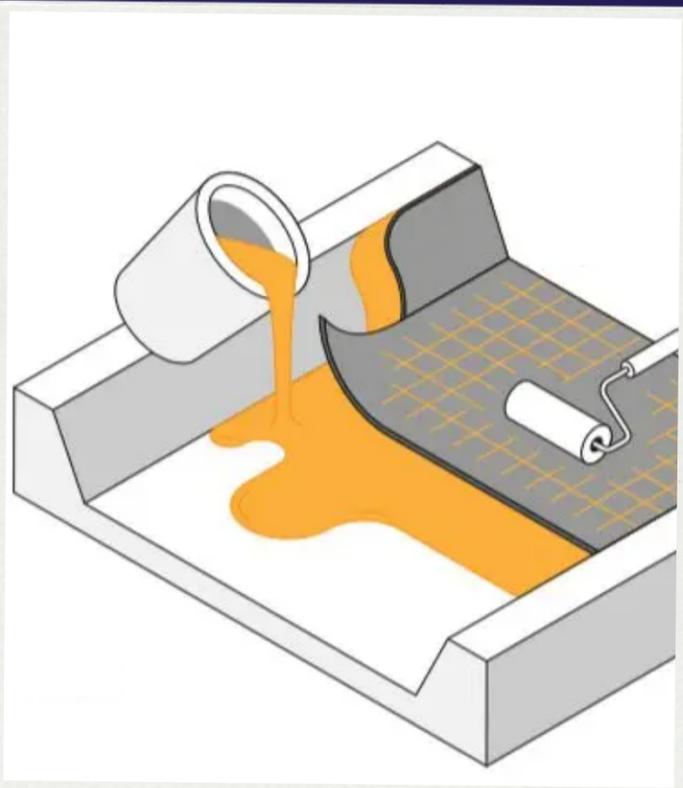
- Rigid polyuretjane with 200 kg/m<sup>3</sup> until 1 100 kg/m<sup>3</sup>
- DCPD
- Natural, glass or carbon fibers

## Parts:

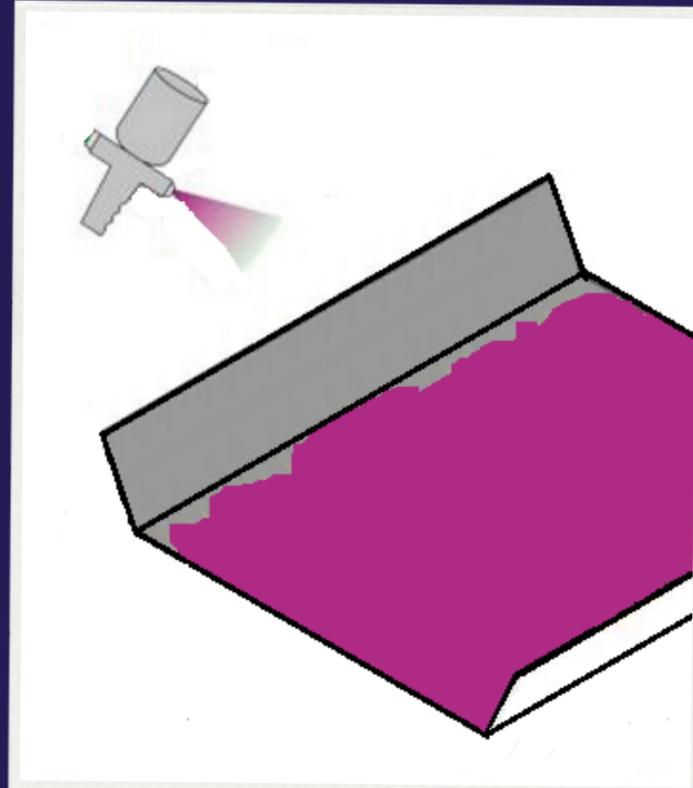
- From 0,1kg up to 40 kg
- From 0,1 x 0,1 x 0,1m up to 2,5 x 1,5 x 1m



**Reaction Injection  
Molding**



**Wet lay up**



**Liquid paint**



Engineering towards low volumes production

**Technology**



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# Thanks



[nuno.gomes@mice-molds.pt](mailto:nuno.gomes@mice-molds.pt)

[geral@mice-molds.pt](mailto:geral@mice-molds.pt)



+351 256 928 506