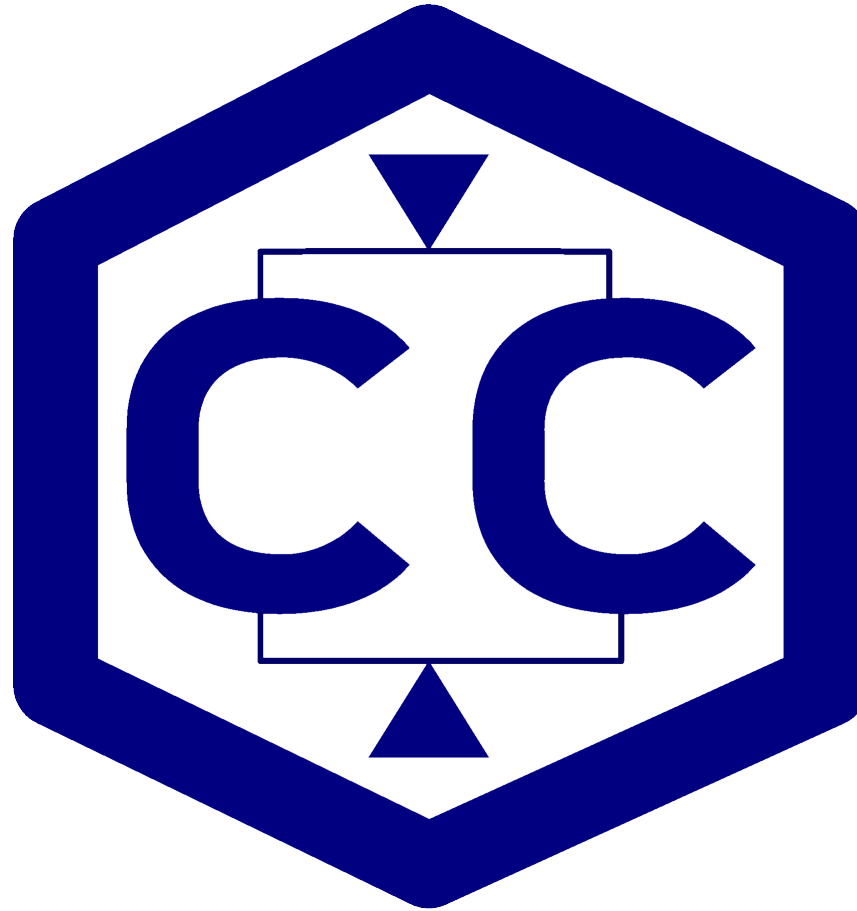




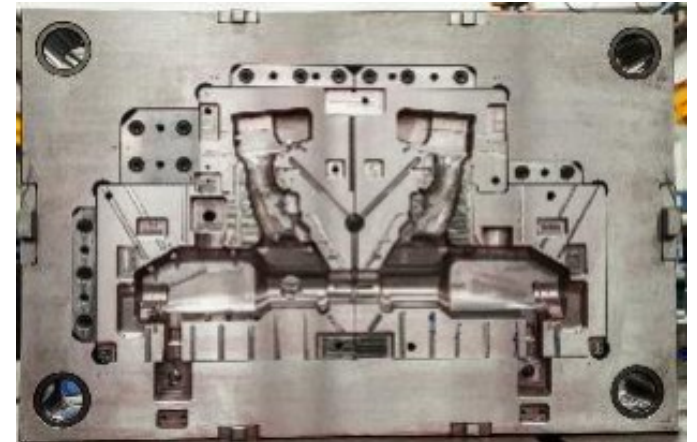
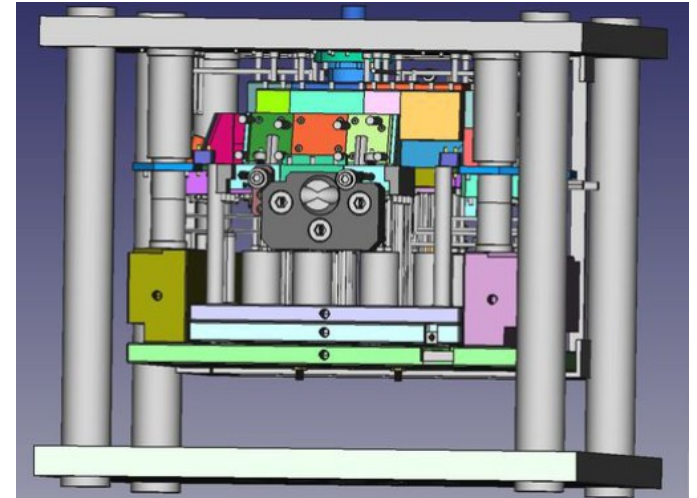
cast concept

Aluminiumdruckguss | Kunststoffspritzguss | Werkzeugbau

- Mouldmaking for the production of moulds according to customer specifications
- Production of components in
 - plastic injection moulding
 - die cast for
 - aluminum
 - zinc
 - magnesium
 - investment casting
- Main industries
 - electric power tools
 - electronics
 - industrial appliances
 - kitchenware

Mould Making

- 16 CAM systems
- 32 spark erosion systems and wire cut systems
- 20 CNC milling centers
- Production capacity of mould making per year:
 - Metal casting: 600 tools
 - Injection molding: 900 tools



Plastic Injection moulding

- Processing of all common and injection-mouldable materials
- Overmoulding of metallic or textile inserts
- Injection molding to connect different materials or colors
- Two-component injection molding
- In-mold assembly (IMA)

Machines in action:

- 229 injection molding machines with clamping forces from 40t - 1,200t
- 32 injection molding machines for 2K injection molding with clamping forces from 140t - 400t

Dimensions at one glance:

	lot size [pcs.]	locking force [kN]	dimensions [mm]	weight [kg]
Injection moulding	500 - 50.000	400 - 12.000	10 * 10 * 10 - 1.200 * 800 * 400	0,002 - 20
2K injection moulding	500 - 50.000	400 - 4.000	20 * 20 * 20 - 800 * 400 * 400	0,005 - 10
Multi-component injection molding	1.000 - 50.000	500 - 4.000	20 * 20 * 20 - 500 * 400 * 250	0,005 - 8
blow-mould	500 - 50.000		100 * 100 * 100 - 2.000 * 1.000 * 400	
thermal deep drawing	500 - 50.000		100 * 50 * 5 - 2.000 * 1.000 * 250	

examples injection moulding



parts for angle grinder
Milwaukee AGVKB24

Finishing

- Laser marking
- Spray painting
- Soft-touch painting
- Pad printing
- screen printing
- Hot foil stamping
- Ultrasonic welding
- Module assembly



Metal die cast

An extensive range of machines is available for the casting process for a wide range of options.

Our mainly used die-cast materials:

- aluminum
- zinc
- magnesium

Depending on the requirements of the component (temperature range, strength, impact strength, etc.), suitable alloys are available for each material group.

Metal die cast

Aluminum

106 cold chamber die casting machines
locking forces from 140t - 1,400t

Zinc

17 hot chamber die casting machines
locking forces from 15 t to 200 t

Magnesium

18 hot chamber die casting machines
locking forces from 200 t to 800 t

Dimensions of components in metal die cast:

Material	process	lot size [pcs.]	locking force [kN]	dimensions [mm]	weight [kg]
Aluminum	cold chamber	500 - 50.000	1.400 - 14.000	15 * 15 * 15 - 1.500 * 400 * 200	0,002 - 40
Zinc	hot chamber	500 - 50.000	150 - 2.000	10 * 10 * 10 - 600 * 400 * 280	0,005 - 10
Magensium	hot chamber	500 - 50.000	2.000 - 8.000	10 * 10 * 10 - 1.000 * 600 * 400	0,005 - 8

Examples metal die cast



Investment casting (lost wax casting)

In the investment casting sector, we process all castable stainless, tool and carbon steels.

This process is used when materials are used that cannot be processed using the die-casting process.

Likewise, if the component geometry is too complex (e.g. too many undercuts) that lost forms have to be used.

The advantages of the investment casting process are the highest load capacities of the components and low tool costs. This also makes this process interesting for small to medium-sized quantities.

Investment casting: component dimensions and examples

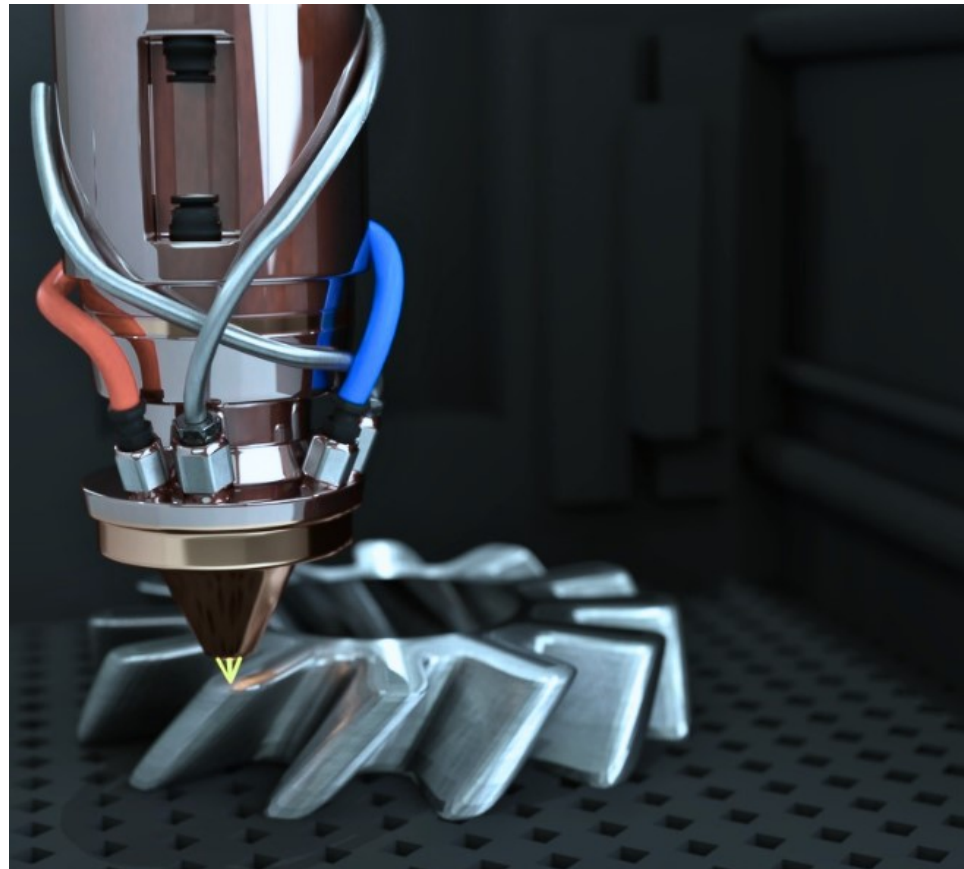
	lot size [pcs.]	dimensions [mm]	weight [kg]
Investment casting	500 - 50.000	10 * 10 * 10 - 1.200 * 650 * 400	0,002 - 80



Additive Moulding: components using sintering or 3D printing

Materials:

Stainless steel
Tool steel
Copper
Aluminium



Finishing of metal parts

Do your components require certain properties such as threads, flat surfaces, fits, evenness, particularly low surface roughness?

Then the final machining takes place on CNC turning centers or on milling centers with 3 to 5 axes.

Hardenable materials are oven-hardened or inductively hardened to the required degree of hardness according to customer specifications.

An optical and / or anti-corrosion surface treatment can be provided on request.



Measuring + Testing

- Optical Emission spectrometry (OES)
- X-ray test (porosity + layer thicknesses)
- Coordinate measurement
- Profile projection
- Hardness test
- Spectrophotometry



Certification

ZERTIFIKAT

DIN EN ISO 9001



Die IMC GmbH bescheinigt, dass das Unternehmen

cast concept

am Standort:

**Marktplatz 5/2
D – 73728 Esslingen**

mit dem Geltungsbereich:

Herstellung von Metallerzeugnissen

ein Managementsystem entsprechend der Norm DIN EN ISO 9001:2015
eingeführt hat und wirksam anwendet.

Im Rahmen des Zertifizierungsverfahrens Nr.: 73728-0838-QM wurde der
Nachweis der regelkonformen Anwendung erbracht.

Die Wirksamkeit dieser Zertifizierung wird regelmäßig überwacht.

Zertifikats-Nr.:	73728-0838-QM
Gültig ab:	11.12.2024
Gültig bis:	10.12.2027

IMC GmbH
Am Kaiserkal 28
20457 Hamburg


Leiter der Zertifizierungsstelle

... And what now?
A new project?

We are always at your disposal for further information
and we are looking forward to your inquiry!

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