

INVESTMENT CASTING



Çevik Teknik Metalürji
INVESTMENT CASTING



about us

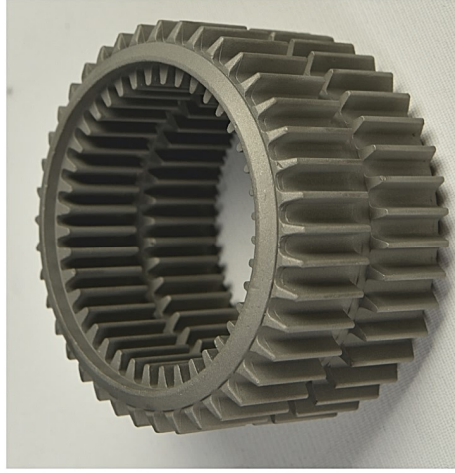
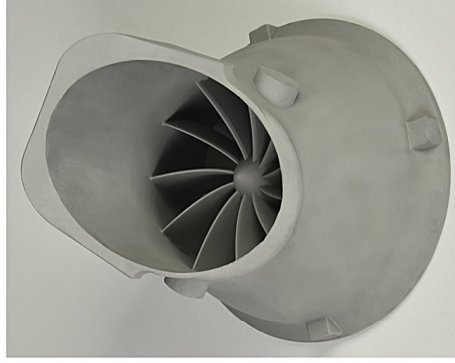
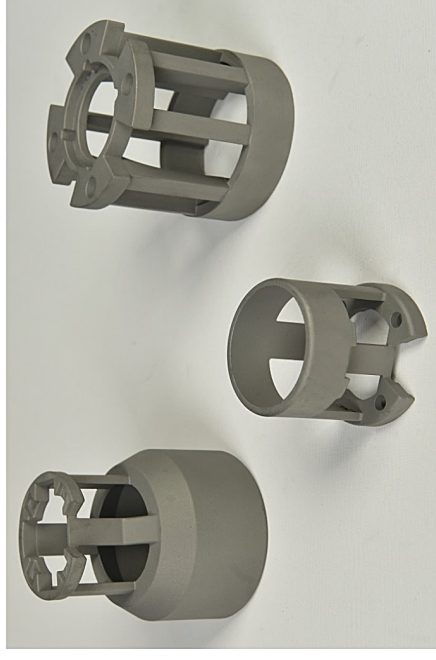
Cevik Technical Metallurgy was founded in 2011 in Tuzla-Istanbul, Turkey.

With 20 years of experience and 1,500 square metres production area -fully equipped with the latest investment casting technology and infrastructure, we are already recognised as one of the main players of Investment Casting Industry in Turkey. Our Ceramic Mould Investment Casting Method (Low Wax Investment Casting) gives completely different advantages comparing to traditional Casting Methods; close linear tolerances, high surface quality, near net shape for complex parts, wide range of alloy selection for better performance. Our mission is not only limited with casting but to be a solution partner for your design and for the selection of the most efficient production method and alloy type.

CONSISTENCY FOR HIGH QUALITY IS OUR ROAD MAP

We believe that Consistent Quality is never an accident; it is always the result of high intention, sincere efforts, intelligent direction and skillful execution. In this sense, we steer our quality control to raw materials and production method parameters rather than the quality control of end product itself. Additionally, we can check end product by means of different destructive and non-destructive testing techniques.





ADVANTAGES OF OUR INVESTMENT CASTING TECHNIQUE

High surface finishes quality (Ra 3.2-6.4)

Close linear tolerances (DIN VDG P690)

Near net shape

Flexibility in Weight; end products from 1gr to 40 kgs

Flexibility in Alloy Selection;

Ferrous alloys: all kinds of stainless steels (low alloy, martensitic, ferritic, austenitic)

Non-ferrous alloys : copper based, aluminium based, nickel based, cobalt based

Flexibility in Design:

Almost any kind of complex geometry which are difficult in traditional casting methods

Thicknesses down to 0,5mm

One part casting, no split lines

Freedom in internal geometries

Flexibility in quantities ; cost effective method even for low quantities

Consistency and Standardisation in High Quality

Best Material Characteristics:

Microstructure with fine grains

High material characteristics due to low porosity, inclusions and segregations

Weight reduction by means of design and best material characteristics.





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GENERAL MACHINE

VALVE and PUMP



AUTOMOTIVE

AGRICULTURE

AVIATION



MEDICAL

DEFENCE

ENERGY



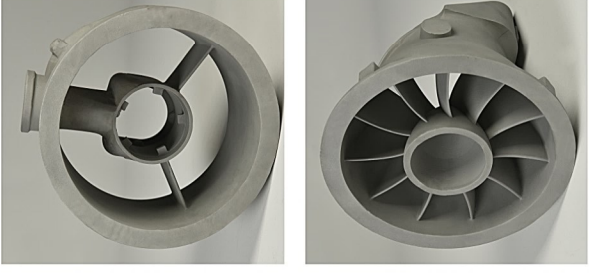
TEXTILE

FOOD



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SURFACE ROUGHNESS

CLA (inch)	RA (mm)	CLA (inch)	RA (mm)
N8	125	3,2	3,2
N9	250	6,3	250
HOLES, BLIND HOLES and CHANNELS			
2-4	~1*d	~0,6*d	
4-6	~2*d	~1*d	
6-10	~3*d	~1,6*d	
+10	~4*d	~2*d	

It is advised to use Standard Linear Tolerances for functional part dimensions.

GENERAL LINEAR TOLERANCES

	STEEL 1	STEEL 2	AL. ALLOYS 1	AL. ALLOYS 2
-6	0,30	0,24	0,30	0,24
6-10	0,36	0,28	0,36	0,28
10-18	0,44	0,34	0,44	0,34
18-30	0,52	0,40	0,52	0,40
30-50	0,80	0,62	0,80	0,62
50-80	0,90	0,74	0,90	0,74
80-120	1,10	0,88	1,10	0,88
120-180	1,60	1,30	1,60	1,30
	2,40	1,90	1,90	1,80
250-315	2,60	2,20	2,60	2,20
315-400	3,60	2,80	2,80	2,40
400-500	4,00	3,20	3,20	2,60
500-630	5,40	4,40	4,40	3,40
630-800	6,20	5,00	5,00	4,00
800-1000	7,20		5,60	4,60
1000-1250			6,60	

General Materials

As **Cevik Technical Metallurgy**, we can pour over hundred alloys for investment casting. Most common alloys for investment casting are ;

Carbon Steels

- Structural Steels
- Nitriding & Carburizing Steels
- Tool Steels
- Others

Stainless Steels

- High Temperature Resisting Steels
- Heat Resisting Steels
- Duplex Steels
- Others

Nickel Base Alloys

Cobalt Base Alloys

Copper Base Alloys

Aluminium Alloys



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