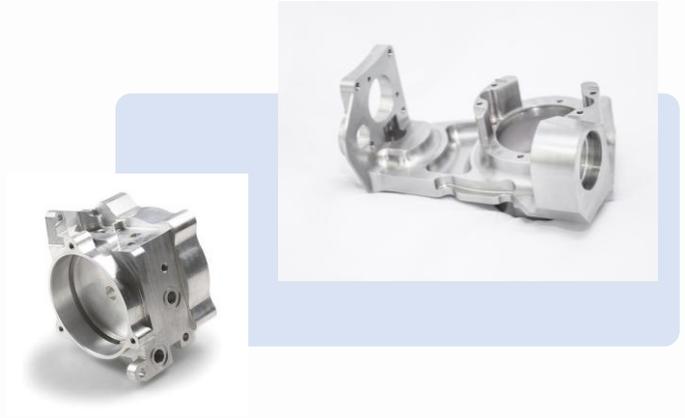


Aluminum 7050

3.4144 | AlZn6CuMgZr

Aluminum 7050 is a high-strength, heat-treatable aluminum alloy, primarily used in aerospace applications due to its exceptional combination of strength, fracture toughness, and resistance to stress corrosion cracking.



Tolerance and Standard



Max. Size

30 * 22 * 10cm

.00

Tolerance

0.125mm



Wall Thickness

0.75mm

Pros and Cons



High strength
Excellent fatigue resistance
High stress corrosion cracking
resistance



More expensive
Reduced toughness
Weldability

Applications

AEROSPACE

AUTOMOTIVE

ROBOTICS

ELECTRONICS

Chemical Composition

Composition	Percentage, %
Aluminum(Al)	87.30-90.30
Zinc(Zn)	0.06
Magnesium(Mg)	1.90-2.60
Copper(Cu)	2.00-2.60
Ferrous(Fe)	0.15
Chromium(Cr)	0.04
Silicon(Si)	0.12
Manganese(Mn)	0.10
Titanium(Ti)	0.06

Physical Properties

Characteristic	Metric
Tensile strength	524 MPa
Yield strength	469 MPa
Shear strength	303 MPa
Elongation at break	11%
Modulus of elasticity	71.7 GPa
Shear modulus	26.9 GPa
Linear thermal expansion coefficient	21.7 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$
Density	2.83 g/cm^3
Melting temperature	488 - 630 $^{\circ}\text{C}$