Aluminum 6082 | 3.2315 | 64430| AlSi1MgMn

Aluminum 6082 combines high strength with good CNC machinability.

Mechanical properties

Ultimate tensile strength	140-280 MPa
Yield strength	85-230 MPa
Young's modulus (modulus of elasticity)	69 - 71 GPa
Elongation at break	8-15 %

Physical properties

Corrosion resistance	Excellent
Magnetism	Non-magnetic
Weldability	High

Thermal properties

Maximum service temperature	130 - 150 °C
Thermal expansion coefficent	23 10^-6/ºC
Thermal conductivity	160-180 W/(m·°C)

Electrical properties

Electrical resistivity	3.9 - 4.1 µΩ*cm

Post treatments

Anodizing compatibility	Responds well

Common applications

Structural frames	
Pylons	

Towers	
Bridges	
General purpose high duty applications	

Aluminum 6082 CNC Machining Applications & Parts

Aluminum 6082 is a versatile medium-strength alloy known for its excellent corrosion resistance and good machinability. It is one of the most commonly used alloys for structural components and architectural applications across Europe.

Typical Parts We Machine from 6082:

- **Structural Frameworks:** Machine frames, support gantries, conveyor system structures, architectural beams
- **Transportation:** Truck chassis parts, railcar components, marine fittings, container hardware
- **General Engineering:** Pistons, hydraulic cylinders, valves, gears, and general fabricated parts

Our Machining Advantage:

We efficiently machine 6082 to produce large, complex structural components with excellent finish quality and dimensional stability, often with faster cycle times due to its good machinability.

Get an Instant Quote for your custom Aluminum 6082 parts today.