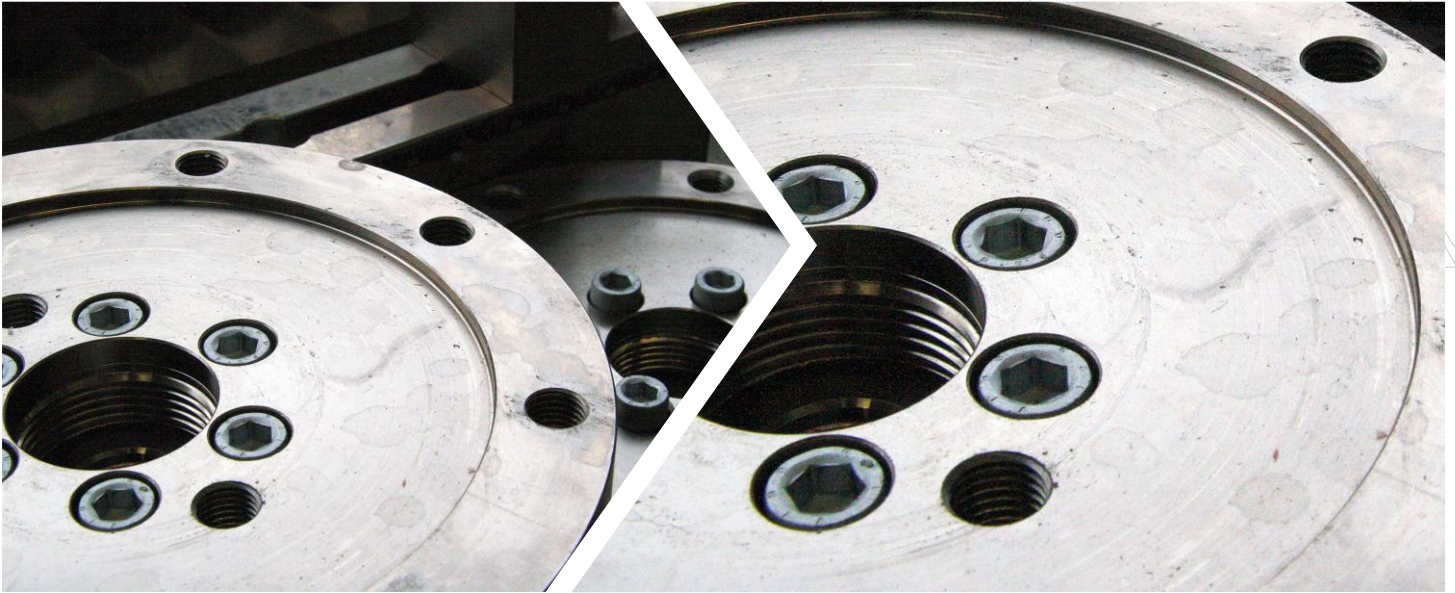


Stainless steel



Generic Data :

Technical Name	Stainless steel
Process	Machining
Accuracy	(+/-)150 µm
Maximum Build Size	400x400x300 mm

Stainless Steel, also known as inox steel or inox is an iron alloy that contains about 10.5% chromium content by mass along with carbon. Unlike carbon steel, stainless steels do not suffer uniform corrosion when exposed to wet environments. Unprotected carbon steel rusts readily when exposed to the combination of air and moisture.

Characteristics

- + Strength and hardness
- + High toughness
- + Ductility
- + Corrosion resistant
- + Higher hot strength
- Non-magnetic unlike other ferrous alloys
- Loses lustre with time
- Dirt prone, impressions fingerprints, etc are left behind

Applications

- ✓ Architecture, locomotion
- ✓ Pulp, Paper and Biomass conversion
- ✓ Chemical Processing, Petrochemical
- ✓ Food and Beverage
- ✓ Medicine, culinary use

Material Properties	Value	Unit	Standard Test Method
Density	8.00	g/cm ³	ASTM DATA
Natural Color	Dark gray	-	-
Mechanical Properties			
Tensile Strength	215	MPa	ASTM DATA
Ultimate Tensile Strength	505	MPa	ASTM DATA
Elongation at Break	70	%	ISO DATA
Charpy notched impact strength	325	J	ISO DATA
Izod Impact notched (23°C)	150	J	ASTM DATA
Hardness, Rockwell B	70	-	-
Thermal Properties			
Thermal Conductivity	16.2	W/m-K	Annealed; ASTM DATA
Melting Temperature	1400	°C	-