



SAE J403 SAE1020 steel work / steel structure / steel machining parts

SAE J403 SAE1020 steel is a general purpose, mild steel with good overall, structural steel properties.

SAE J403 SAE1020 steel work / steel structure / steel machining parts is produced by SAE1020 steel plate ,SAE1020 steel pipe , SAE1020 angle steel etc .

SAE1020 steel structure has high machinability, high strength, high ductility and good weldability. SAE 1020 steel can be largely utilized in all industrial sectors in order to enhance weldability or machinability properties. It is used in a variety of applications due to its cold drawn or turned and polished finish property.

SAE1020 steel structure widely used in the following components: axles, general engineering parts and components, machinery parts ,shafts ,camshafts ,ratchets, light duty gears , worm gears and, spindles and so on .

SAE1020 steel structure Chemical Composition

Element	Content
Carbon, C	0.17 - 0.230 %
Iron, Fe	99.08 - 99.53 %



Manganese, Mn	0.30 - 0.60 %
Phosphorous, P	≤ 0.040 %
Sulfur, S	≤ 0.050 %

SAE1020 steel work Mechanical Properties

Mechanical Properties	Metric	Imperial
Hardness, Brinell	111	111
Hardness, Knoop (Converted from Brinell hardness)	129	129
Hardness, Rockwell B (Converted from Brinell hardness)	64	64
Hardness, Vickers (Converted from Brinell hardness)	115	115
Tensile Strength, Ultimate	394.72 MPa	57249 psi
Tensile Strength, Yield	294.74 MPa	42748 psi
Elongation at Break (in 50 mm)	36.5 %	36.5 %
Reduction of Area	66.0 %	66.0 %
Modulus of Elasticity (Typical for steel)	200 GPa	29000 ksi

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Bulk Modulus (Typical for steel)	140 GPa	20300 ksi
Poissons Ratio	0.290	0.290
Charpy Impact		
@Temperature -30.0 °C/-22.0 °F	16.9 J	12.5 ft-lb
@Temperature -18.0 °C/-0.400 °F	18.0 J	13.3 ft-lb
@Temperature -3.00 °C/26.6 °F	20.0 J	14.8 ft-lb
@Temperature 10.0 °C/50.0 °F	24.0 J	17.7 ft-lb
@Temperature 38.0 °C/100 °F	41.0 J	30.2 ft-lb
@Temperature 65.0 °C/149 °F	54.0 J	39.8 ft-lb
@Temperature 95.0 °C/203 °F	61.0 J	45.0 ft-lb
@Temperature 150 °C/302 °F	68.0 J	50.2 ft-lb
Izod Impact	125 J	92.2 ft-lb
Shear Modulus (Typical for steel)	80.0 GPa	11600 ksi

As a SAE1020 steel structure manufacturer, we have professional SAE1020 steel structure manufacturing equipment and Test instruments. We can provide the drilling, cutting, bending, welding, groove, correction, edge processing, spraying assembly service etc.

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Shanghai Katalor Enterprises

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SEA 1020 steel structure Heat treatment technology

Annealing, quenching, tempering, quenching and tempering

As a SAE1020 steel work manufacturer, we can offer many size of SAE 1020 steel structure based on the customer's drawings and requirement. If you have the demand, please contact with us. We will offer you the good price, fast delivery and best service.

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Shanghai Katalor Enterprises Co., Ltd located in shanghai of china, is specialized in manufacturing and exporting steel and casting product. Based on the domestic rich product resources and professional research on international market, Katalor's service has already spread many countries in Europe , America, Southeast Asia, Middle East, South America, Africa, and so on.

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