

4140 Alloy Steel | 1.7225 | 42CrMo4 | 42CD4 | 2244 | S

CM440 Oil and Gas industry Steel

AISI 4140 Steel is a Alloy Structural Steel belong to ASTM A29/A29M Steel Grade standard. AISI 4140 used in Oil and Gas industry and Large Machinery Strutral. 4140 Steel China Supplier and factory Otai Special Steel Supply 4140 steel in Round bar, Plate, Flat bar, Square, Forging Ring and others any shape. And provide cutting, sawing, milled, machining processing.

Supply Form of 4140 Steel -ASTM A29/A29M Alloy Structural Steel

			
Round	Plate	Sheet	Square

Supply Range of AISI 4140 Alloy Steel

4140 Steel Round Bar: diameter 5mm – 400mm

4140 Steel Plate: thickness 5 –500mm x width 200– 2300mm

4140 Steel Block: 210mm x 500-810mm

Chemical Composition of AISI 4140 Alloy Steel Material

ASTM A29/A29M	C	Si	Mn	P	S	Cr	Mo
4140/G41400	0.35~	0.20~	0.70~	0.025	0.025	0.80~	0.18~
	0.40	0.35	0.90	Max	Max	1.10	0.25
DIN 17220, EN 10083	C	Si	Mn	P	S	Cr	Mo

1.7225/42CrMo4	0.38~ 0.45	≤0.40	0.60~ 0.90	0.035 Max	0.035 Max	0.90~ 1.20	0.15~ 0.30
GB/T 1229	C	Si	Mn	P	S	Cr	Mo
42CrMo	0.38~ 0.45	0.17~ 0.37	0.50~ 0.80	0.030 Max	0.030 Max	0.90~ 1.20	0.15~ 0.25
JIS G4105	C	Si	Mn	P	S	Cr	Mo
SCM440	0.38~ 0.43	0.15~ 0.35	0.60~ 0.85	0.030 Max	0.030 Max	0.90~ 1.20	0.15~ 0.30

4140 alloy Steel Equivalent and Related Speciation

USA	German	Japan	China	ISO
ASTM 29/A29M	DIN 17350	JIS G4404	GB/T 1229	ISO 683/18
4140	1.7225/42CrMo4	SCM440	42CrMo	42CrMo4

ASTM AISI 4140 alloy Steel Material Mechanical Properties

Hardness, Rockwell C: 22 HRC, Density: 7.85kg/m³

Tensile strength: 655 MPa .

Melting point: 1416°C

Thermal expansion: 12.2 μm/m°C (20-100 °C)

Elastic modulus: 190-210 GPa (at 25 °C).

Forged of AISI 4140 Oil and Gas industry Steel material metal

Forged AISI 4140 steel at 1150-1200 °C. no forging when below 850 °C.

Heat Treatment of SAE/AISI 4140 Alloy Steel

● 4140 Steel Annealing

Slowly heat to 800~8500 °C, keep enough time, ensure heat thoroughly. then cooling in furnace to 480 °C, then cool in air. After annealing, the hardness 92 HBS Max.

● AISI 4140 Steel Hardening & Quenching

4140 Steel is usually used at 18-22 HRC, If needs, AISI 4140 alloy steel can be hardened or Quenching by cold work. Quenching medium: oil

● Tempering Of AISI 4140 Alloy Steel

/ °C tempering temperature: 205 ~ 649°C.
After tempering hardness HRC: 18-25 HRC.

Application of Sae AISI 4140 Steel

4140 alloy steel used for Structural products. As below:

Oil and gas sector, like collets, connection rods, conveyor pins, stem assemblies, gears, Bearings

Quality Assured of Sae AISI 4140 Alloy Steel

Quality assured by Our ISO 9001:2008 quality management system. Our all 4140 steel all had by SEP 1921-84 ultrasonic inspection (UT Test). Quality Grade: E/e, D/d, C/c.

If you have any 4140 Alloy steel inquiry and question for Price, Application, hot treatment, please don't hesitate contact us.

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