

34CrNi3Mo Alloy Steel

a high-strength alloy structural steel.

It is a commonly used large-scale steam turbine forging low-pressure rotor steel with good comprehensive mechanical properties and process properties. It has been widely used in the production of engine rotor and turbine impellers.

Features and applications:

34CrNi3Mo is a high-strength alloy structural steel, is widely used in large-scale steam turbine forging low-pressure rotor steel, has good mechanical properties and process performance, has been widely used in engine rotor and steam turbine impeller production.

Steel performance, use and 30Cr2Ni2Mo similar. Material welding performance is poor, prone to cold cracking after welding.

Chemical Composition:

C(%)	Si(%)	Mn(%)	P(%)	S(%)	Cr(%)	Ni(%)	Mo(%)	Cu(%)
0.30~ 0.40	0.17~ 0.37	0.50~ 0.80	≤0.035	≤0.035	0.70~ 1.10	2.75~ 3.25	0.25~ 0.40	≤0.20

Mechanical Properties:

Yield Strength Rp0.2(MPa)	Tensile Strength Rm(MPa)	Elongation δ5 (%)	Reduction of area ψ (%)	Impact energy Akv (J):	Impact toughness value αkv (J/cm2)	Hardness
≥ 785(85)	≥ 900(85)	≥ 12	≥ 40	≥ 58	≥ 55(5)	≥ 248 HB

