

Material: ASTM A990 Grade CK3MCuN

Standard Specification for Castings, Iron-Nickel-Chromium and Nickel Alloys, Specially Controlled for Pressure Retaining Parts for Corrosive Service

Group: Ferrous Stainless Steel Alloys

Sub Group: ASTM A990 / A990M for Castings, Iron-Nickel-Chromium and Nickel Alloys, Specially Controlled for Pressure Retaining Parts for Corrosive Service

Application: Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade

Belongs to the Industry: Casting

Chemical Composition			Heat Treatment															
Carbon	C %	0.025 max.	Solution Annealing															
Silicon	Si %	0.750 max.																
Manganese	Mn %	1.200 max.																
Phosphorus	P %	0.020 max.																
Sulphur	S %	0.010 max.																
Chromium	Cr %	19.500 - 20.500																
Nickel	Ni %	17.500 - 19.500																
Molybdenum	Mo %	6.000 - 7.000																
Copper	Cu %	0.500 - 1.000																
Nitrogen	N %	0.180 - 0.240																
Iron	Fe %	Balance	<table border="1"> <thead> <tr> <th colspan="2">Mechanical Properties</th> </tr> </thead> <tbody> <tr> <td>Tensile Strength in Mpa</td> <td>550 min.</td> </tr> <tr> <td>Yield Strength in Mpa</td> <td>260 min.</td> </tr> <tr> <td>Elongation in %</td> <td>35 min.</td> </tr> <tr> <td>Reduction of Area in %</td> <td>-</td> </tr> <tr> <td>Hardness in BHN</td> <td>-</td> </tr> <tr> <td>Impact in Joule</td> <td>-</td> </tr> </tbody> </table>		Mechanical Properties		Tensile Strength in Mpa	550 min.	Yield Strength in Mpa	260 min.	Elongation in %	35 min.	Reduction of Area in %	-	Hardness in BHN	-	Impact in Joule	-
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A351 CK3MCuN	ASTM	USA	Casting
SA-351 CKMCuN	ASME	USA	Casting
Z 4 CND 19.13 M	AFNOR NF	France	Casting
317 C 12	BS	British	Casting
422940	CSN	Czech Republic	Casting
J92810	UNS	USA	Casting
J93254	UNS	USA	Casting

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