



Astrup MDS AISI 4145

AISI 4145

KVALITET, MANGFOLD OG GODT SAMARBEID

Material Description						Quality					
Round forged bars & premachined condition. Drilled bars machined and ends plugged for protection. Tol bored bars OD +2/ -0 ID-+0,5mm Tol bars OD +2-0mm, Straightness 1:500 or better						AISI 4145 Mod Q+T / 110 KSI ASTM A751					
Chemical Composition											
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	AL
Min	0,45	0,15	0,85				0,90	0,25			0,015
Max	0,48	0,30	1,20	0,025	0,025	0,30	1,20	0,35	0,30	0,05	0,035
Mechanical properties to ASTM 370 method E8, E23 and E10 or E18											
	Deep	Direct	YS 0,2 % ksi	TS ksi	Elong %	Red. of Area %	Impact Joules	Share reported	Lateral exp. reported	Hardness HBW	
<8"	mid rad		120-140	140-165	14,5	45		x	x		
								x	x	286-341	
<8"	1"		120-140	140-165	14,5	45		x	x		
								x	x	286-341	
>8"	mid rad		110-140	135-160	13	40		x	x		
								x	x	286-341	
>8"	1"		120-140	140-160	13	40		x	x		
								x	x	286-341	
Technical requirements						Misc.					
Ultrasonic testing acc to ASTM A388 API 6A PSL3. Hardness min 286-341 HB / 30-36 HRC. ASTM A370. Charpy V 3 x test at +20 C° min 40J. Charpy V 3 x test at -10, -46, -32 C° inf. Attested forged ratio, Heat treatment diagram.						Dia above 12" use properties in >8" at 1" below (mid rad not reported) NS1 test for hardness for size from X to X reported Austenitise: Soak temp time and cooling method reported (Liquid) 1 Hour Temper : Soak temp time and cooling method reported (Air Cool) 1 Hour Hot work ratio :5:1 above 12" report on order confirmation for approval by Astrup.					
Certificate											
Acc to EN 10204/3.1											
Form of supply											
Lengths from 4-6 meter. Drilled bars to be end plugged for rustprotection.											
Marking											
Astrup purchase number, each bar to be hard stamped with carge number, marked with quality and dimension											