

Maraging C300

Maraging steels have very high strength and above average toughness. The cobalt containing grades held by Maher are exclusively double vacuum melted (VIM+VAR) for ultimate performance and high levels of cleanness, easily meeting AMS, MIL and customer specifications.

Maraging steels are essentially iron based with the major alloying additions being nickel, cobalt and molybdenum. However the low carbon content and the additions of aluminium and titanium are equally important. This combination yields very high strength whilst remaining readily weldable.

Maraging steels are supplied in the annealed condition where the

microstructure consists of fine martensite. Aging to achieve final properties is a relatively low temperature procedure giving the required high strength and toughness. This low temperature treatment allows for machining close to final size since distortion is minimal. Maraging steels also retain their strength up to 450oC, can be nitrided and have a corrosion resistance similar to that of standard martensitic stainless steels.

Maraging C300 is the intermediate strength of the maraging steels stocked by Maher. Typical usage is in Formula 1 drive shafts, missile casings, ordnance breech blocks and tooling.

Technical Data

Nominal Composition by Percent

	C	Ni	Co	Mo	Ti	Al	Mn	Si	Fe
Min	-	18.00	8.50	4.60	0.50	0.05	-	-	-
Max	0.03	19.00	8.50	5.20	0.80	0.15	0.10	0.10	Bal

Typical Mechanical Properties (Oil patch)

Solution Annealed & Precipitation Treated(Aged)	KSI	MPa	%
Tensile Strength, min	295	2035	-
Yield Strength (0.2% offset), min	290	2000	-
Elongation on 4D	-	-	12