



## Overview

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. The 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 450°C (840°F), can be nitride and have a corrosion resistance similar to that of standard martensitic stainless steels.

## Typical Applications

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

## Chemical Analysis

Typical analysis:

	<b>C</b>	<b>Ni</b>	<b>Co</b>	<b>Mo</b>	<b>Ti</b>	<b>Al</b>	<b>Mn</b>	<b>Si</b>	<b>Fe</b>	<b>-</b>
Min	-	18.00	8.5	4.6	0.50	0.05	-	-	-	%
Max	0.03	19.00	8.5	5.2	0.80	0.15	0.10	0.10	BAL	%



## Mechanical Properties

Typical properties in the annealed and aged:

Tensile PSI (MPA) min	Yield (0.2% offset), PSI (MPA) Min	Elongation in 2" or 4D min%
295,000 (2035)	290,000 (2000)	12

All material we supply has full traceability with inspection certification in accordance with BS EN 10402 3.1. We can supply material with BS EN 10402 3.2 inspection certification on request.

We have onsite PCN and SNT Level III inspectors who can test material to your requirements.

All information included in this sheet is intended as a guide only and is correct to the best of our knowledge.