

Descriptions of Material Compositions

<p>We like to inform you with the composition of the different steels and other materials used in the manufacturing of jaws to help you choose the most suitable ones for your operations.</p>		
Alloy 1:	<p>It is the most used for general purpose pulverizing (assaying), where the alloying elements of chromium and molybdenum do not affect the analysis. This material is very hard and tough and it is recognized to be the best for applications where abrasion and impact is the norm.</p>	
Alloy 2:	<p>This steel is recommended in applications where molybdenum interferes in the analysis of the material that will be ground as it is the case in some geochemical work. It has the same hardness as alloy 1, 58-62 Rockwell but, because it does not have molybdenum it is somewhat less wear and abrasion resistant; approximately 10-25% upon the media to be ground.</p>	
Carbon steel:	<p>This steel is fully hardened having a .65 - .75 carbon and a .60 - .90 manganese content. Since this steel is produced from ingots originating from mined ore and not from recycled steel, which notoriously has more contaminating elements, it is a highly recommended steel to minimize cross contamination.</p>	
COMPOSITION OF JAWS		
Alloy 2	0.85 % Manganese	
Chrome Steel	1.5 % Carbon 12.0 % Chromium	1.5 % Silicon Remainder Iron
Alloy 1	0.85 % Manganese	
Chrome/Molybdenum Steel	1.2 % Molybdenum 1.5 % Silicon	1.5 % Carbon 12.0 % Chromium Remainder Iron
Carbon Steel Composition		
Element Amount Unless otherwise specified, the amount indicated is in ppm (parts per million)	Au < 0.15 Bi < 11 Cd < 14 Cu < 300 Mg < 500 Mo < 180 Pb < 7 W < 3	Ag < 0.4 C 0.3% Co < 240 Cr < 320 Mn < 9000 Ni < 310 V < 80 Zn < 320
Manganese Steel	0.10 % Nickel Max. 1.20 % Carbon Remainder Iron	0.80 % Silicon 12.5 % Manganese
<p><i>Manganese steel Grade ASTM 8128 is called a work hardening steel, meaning that it hardens as it gets impacted. The maximum hardness that it achieves is approximately 54-55 Rockwell C, and contrary to the other ones it will wear a relatively rough surface.</i></p>		
Tungsten Carbide	12.0 % Cobalt	88.0 % Tungsten