Ameralloy® Tool and Die Steels

Ameralloy® Drill Rods

Stocking All Standard Sizes
And Tolerances!

Ameralloy® Oil
OIL HARDENING
AISI 0-1

Ameralloy Oil is the most widely used grade of drill rod. It is a general purpose tool steel with premium hardening, wear resistance, and toughness.

Typical Analysis

- Carbon .90
- Manganese 1.20
- Silicon .30
- Tungsten .55
- Chromium .65
- Vanadium .30
- Molybdenum .15

Ameralloy®-60
AIR HARDENING
AISI A-6

Ameralloy-60 has a minimum distortion characteristic which makes it particularly well suited for dies and punches in blanking and forming operations. Also recommended for gages or other tools where close size tolerance is required.

Typical Analysis

- Carbon .70
- Molybdenum 1.35
- Manganese 2.10
- Silicon .30
- Chromium 1.00
- Sulfur .09

Ameralloy®-Air
AIR HARDENING
AISI A-2

Ameralloy Air is recommended over Ameralloy Oil when increased wear resistance, safe hardening, and less distortion are required.

Typical Analysis

- Carbon 1.00
- Molybdenum 1.15
- Manganese .60
- Silicon .20
- Chromium 5.75
- Vanadium .25

Ameralloy® D-2
HIGH CARBON/
HIGH CHROME
AISI D-2

Ameralloy D-2 is an air-hardening steel known for maximum wear resistance. It is ideal for use in tools, dies, and used in long production runs.

Typical Analysis

- Carbon 1.55
- Molybdenum 1.00
- Manganese .55
- Silicon .35
- Chromium 12.50
- Vanadium 1.00
Ameralloy® TOOL AND DIE STEELS • AMERALLOY DRILL RODS

Ameralloy® W1 & W2
WATER HARDENING
AISI W1–W2

Ameralloy W1 and W2 are water hardening grades formulated to meet the needs of the machine shop. Well suited for average work where premium grades are not required.

**Typical Analysis**

<table>
<thead>
<tr>
<th></th>
<th>W1</th>
<th>W2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>.60–1.40</td>
<td>.80–1.25</td>
</tr>
<tr>
<td>Manganese</td>
<td>.25</td>
<td>.25</td>
</tr>
<tr>
<td>Silicon</td>
<td>.20</td>
<td>.25</td>
</tr>
<tr>
<td>Vanadium</td>
<td>--</td>
<td>.25</td>
</tr>
</tbody>
</table>

Ameralloy High Speed-2 is the most widely used type of high speed tool steel. It’s higher carbon content and balanced analysis produce properties applicable to all general purpose high speed uses.

**Typical Analysis**

<table>
<thead>
<tr>
<th></th>
<th>High Speed-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>.50</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>1.40</td>
</tr>
<tr>
<td>Manganese</td>
<td>.70</td>
</tr>
<tr>
<td>Silicon</td>
<td>.25</td>
</tr>
<tr>
<td>Chromium</td>
<td>3.25</td>
</tr>
<tr>
<td>Vanadium</td>
<td>1.90</td>
</tr>
</tbody>
</table>

Ameralloy-7
SUPER SHOCK
AISI S-7

Ameralloy-7 is our new, premium quality air hardening drill rod. It’s the toughest, strongest drill rod for many applications that require maximum strength and impact.

**Typical Analysis**

<table>
<thead>
<tr>
<th></th>
<th>Maximum Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>.50</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>1.40</td>
</tr>
<tr>
<td>Manganese</td>
<td>.70</td>
</tr>
<tr>
<td>Silicon</td>
<td>.25</td>
</tr>
<tr>
<td>Chromium</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Ameralloy-13
HOT WORK
AISI H-13

Ameralloy-13 combines good red hardness with abrasion resistance and resists heat checking. Ameralloy-13 is made from vacuum degassed tool steel ingots. This process plus carefully controlled hot work provides optimum uniformity, consistent response to heat treatment, and long service life.

**Typical Analysis**

<table>
<thead>
<tr>
<th></th>
<th>Extended Service Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>.40</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>1.50</td>
</tr>
<tr>
<td>Manganese</td>
<td>.40</td>
</tr>
<tr>
<td>Silicon</td>
<td>1.10</td>
</tr>
<tr>
<td>Chromium</td>
<td>5.25</td>
</tr>
<tr>
<td>Vanadium</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Finish All drill rod rounds are furnished ground and polished.

Lengths Standard stock sizes are 36” long. Also available in 12’ lengths.

Tolerance

- Up to .125” +/- .0003”
- .125” to .499” +/- .0005”
- .500” to 2.000” +/- .001”

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