



Astro Swiss HD: VLV & MV



The Astro Swiss line of cutting oils are designed for use in Citizen, Tornos, Star & Tsugami Swiss style screw machines. The Astro Swiss products are also made to meet the demands of the medical, aerospace and electronic industries.

General Description	High Performance Cutting Oil
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Astro Swiss neat cutting oils are designed for the most demanding Swiss style screw machining applications where speeds and feeds are the most important aspect of the machining operation. The Astro Swiss will reduce bar stock galling and scratching due to the guide bushings clamping. The Astro Swiss will help increase tool life because of the advance extreme pressure additives designed to activate during high energy applied cut-ting operations.

Advantages

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| <ul style="list-style-type: none"> • Very Low Foaming • Excellent Corrosion Inhibition • Exceptional cleanness for visibility • Outstanding Lubricity for Superior Finishes | <ul style="list-style-type: none"> • Enhanced bimetallic corrosion inhibition • Operator Friendly and Clean Running • Compatible for all materials • Recommended for Swiss Screw Machines |
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Applications

For the ultimate lubrication the Astro Swiss will provide that much needed advantage in the highly competitive Swiss precision machining industry. The Astro Swiss oils can be applied to workpieces from 0.125" (3.15mm) to .500" (12.65mm) dia. and for all materials, including titanium, nickel alloys, stainless steel and tool steel. To achieve the maximum benefit of the Astro Swiss please apply the product to the most demanding applications.

Physical Properties	
Astro Swiss HD VLV	Astro Swiss HD MV

Form • Liquid	Form • Liquid
Odor • Bland Pleasant	Odor • Bland Pleasant
Color • Light Amber	Color • Light Amber
Flash Point COC • 240°F	Flash Point COC • <350°F
Chlorine % / wt • >5%	Chlorine % / wt • >8%
Active Sulfur % / wt • 0.0%	Active Sulfur % / wt • 0.0%
Viscosity cSt @ 40C° • 5.5	Viscosity cSt @ 40C° • 24
Viscosity SUS @ 100F° • 35	Viscosity SUS @ 100F° • 110
Vapor Pressure, mm Hg @25° • <0.01	Vapor Pressure, mm Hg @25° • <0.01
Boiling Point °F / °C • >390/199	Boiling Point °F / °C • >390/199