

Hard-Cut® 5618 *Straight Cutting Oil*

GENERAL DESCRIPTION

The Hard-Cut "8" series represents the third generation of performance above the traditional Hard-Cut oils. The "8" signifies a two fold increase of the synthetic fraction in the product. The Hard-Cuts are the first choice by the aerospace, electronic and medical industries, especially in Swiss style screw machines.

The Hard-Cut "8" series is highly recommended for use on stainless steels, hardened steels, high nickel alloys, titanium and aircraft aluminums. The Hard-Cuts are formulated in various viscosities and with various levels of Extreme Pressure (EP) additives. High quality raw materials help provide for both an operator friendly and environmentally compliant product. Reduced smoke, cleaner machines, low odor and non-irritating are just some of the benefits. As with all of Hangsterfer's Hard-Cuts, they are non-toxic and non-corrosive.

APPLICATION

Hard-Cut 5618 is an ultra light viscosity oil that is best used on the machining of small parts. Hard-Cut 5618 is also useful in grinding applications where other light oils have been used, especially applications using a CBN or Diamond wheel.

Hard-Cut 5618 does an excellent job of flushing out chips, while at the same time delivering a copious amount of lubricity and anti-weld properties. It is recommended that machining applications utilize either rotating tooling <5mm diameter or rotating stock of <7mm diameter.

Hard-Cut 5618 is well suited for honing of ferrous and non-ferrous materials. It is non-staining and leaves little residue while providing rust protection. The extreme pressure additives in Hard-Cut provide flushing and pickup protection for the abrasive while allowing free cutting for superior finishes. Honing is a cutting operation with very small chips. Hard-Cut 5618 is suited for use with solid and expanding hones in most type of honing machines. Suitable for use on hone materials but not limited to; diamond, supper abrasives, ceramic and silicone carbide.

MAINTENANCE & CLEANING

Maintenance: The Hard-Cut oils are designed to reject foreign contaminants, such as metal fines. If the performance of the oil begins to deteriorate, remove the oil from the machine and allow to settle in an empty drum or settling tank for 3-7 days. Fines and contaminants will settle to the bottom. After settling, return the top 80% to the clean machine. In order to get the maximum life from your oil, keep the sump free of cleaners, solvents, rust inhibitors, coolants and other contaminants, which may inhibit performance.

Cleaning: All Hard-Cut oils are formulated to minimize cleaning time. They are cleanable in both aqueous and solvent systems. For best results use a Hangsterfer's Ozonic series cleaner or recommended aqueous cleaner. Both style cleaners work best at removing Hard-Cuts when heated to 140°F (60°C).

PRODUCT CHARACTERISTICS:	Hard-Cut 5618
Form	Liquid
Color	Red
Odor	Mild
Specific Gravity	0.85
Viscosity: SUS @ 100°F	44
cSt @ 40°C	5.5
Flash Point, COC, °F/°C	225 / 115
Fire Point, COC, °F/°C	250 / 121
Pour Point, °F/°C	<0 / -18
Solubility in Water	<0.01
Boiling Point, °F/°C	349 / 176
Vapor Pressure, mm Hg @ 25°	<0.01
pH @ 10%	N/A
Chlorine	Yes
Sulfur, Active	None

Shipping Units:

Hard-Cut 5618 is available in 5 gallon, 55 gallon and Intermediate Bulk Containers (275 or 330 gallons).

All products are distributed worldwide.

Disclaimer: All reasonable care has been taken to ensure that the information contained in this publication is true and accurate. No warranty is expressed or implied regarding the accuracy of the data. Also, seller is not liable for any loss, damage or liability resulting from the use of the product in the buyer's manufacturing processes or in combination with other substances. MSDS's are available for all Hangsterfer's products and should be consulted as needed.

Revised 5/7/2010