



eni Aster Line

eni Aster Line represents a new generation of chlorine-free complete line of metal-cutting fluids able to satisfy the most advanced requirements of mechanical industry.

eni Aster Line is formulated with severely solvent-refined mineral base oils and it is available in many grades of viscosity.

CHARACTERISTICS (TYPICAL FIGURES)

eni Aster		L/S	L	MM/E	FP	TA/E	LO	RF
Viscosity at 40°C	mm ² /s	7.5	10	14	12	17	23	18
Flash Point COC	°C	170	145	195	170	200	200	200
Pour Point	°C	-15	-40	-15	-15	-12	-12	-18
Density at 15°C	kg/m ³	851	880	850	885	895	859	860

eni Aster		DE	TA/S	MP	TG	S	M
Viscosity at 40°C	mm ² /s	20	35	30	32	38	175
Flash Point COC	°C	200	220	200	215	200	210
Pour Point	°C	-18	-9	-12	-12	-12	-9
Density at 15°C	kg/m ³	860	870	875	890	895	920

PROPERTIES AND PERFORMANCE

- Excellent corrosion protection of the work-piece and machinery.
- High lubricating properties; the anti-wear and EP additives reduce friction, increase the tool life, enhance the surface finish with a great impact on the productivity.
- High oxidation stability.
- Low tendency to form smoke, mist or bad smells in the working environment.
- Low tendency to foaming.
- The high detergency ensures a good cleaning of the working area and of the pieces.

PRODUCTS LINE

NEAT OILS FOR GRINDING, LAPPING, HONING

eni Aster L/S

Product formulated with severely refined paraffinic mineral oil and with synthetic ester to impart high characteristics of lubricity and detergency.

Recommended for grinding, lapping, honing operations and for automatic machining of small metal parts of ferrous and non-ferrous metals.

eni Aster L

Special fluid recommended for honing, lapping and grinding of ferrous and non-ferrous metals. It ensures a good detergent action on grinding tools and permits rapid settlement of the dust. It is also used for machining of small components of steel, aluminium, copper and their alloys.



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eni Aster MM/E

This grade is especially suitable for grinding operations and for machining of small steel components having a high machinability index.

Recommended for machining of copper and yellow alloys.

eni Aster RF

Recommended for grinding operations even severe (roughing) and light cutting machining on ferrous and non-ferrous metals. It can be used to grinding threads and teeth gears.

MULTIFUNCTIONAL NEAT CUTTING OIL

eni Aster MP

Multifunctional oil for metal cutting and for lubricating machine tools. It is recommended for automatic machining of ferrous and non-ferrous metals of medium machinability and for gear cutting operations. It is especially suitable in the case of the risk of contamination of the cutting fluid by the lubricating oil. As hydraulic fluid it may be used for all applications for which an ISO VG 32 grade is required.

INACTIVE EP NEAT CUTTING OILS

eni Aster TA/E

Recommended for operations of automatic turning, milling, reaming, tapping and threading on stainless steel, steel alloys, aluminum and yellow metals.

It can be used for gear cutting.

eni Aster LO

Product mild-EP especially recommended for machining with brass and copper. It is also suitable for medium-severe cutting operations such as: automatic turning of small metal parts, milling, drilling, threading, on steels with high machinability index and cast iron.

eni Aster DE

EP cutting oil recommended for medium and severe operations such as: turning, milling, boring, gear cutting and threading on stainless steel, steel alloys, titanium and aluminium.

It is also suitable for machining of yellow metals.

eni Aster TA/S

EP cutting oil recommended for medium and severe operations of turning, milling, boring, gear cutting, shaving, threading and slotting on stainless steel, steel alloys, titanium and aluminium. It is suitable for machining of yellow metals.

ACTIVE EP NEAT CUTTING OILS

eni Aster FP

EP cutting oil particularly suitable for deep drilling operations on various types of steel, aluminum alloys and titanium. It is suitable for medium and severe cutting operations like: automatic turning, threading, boring, slotting and vertical broaching.

It may be used for teeth gears grinding.



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eni Aster TG

EP active cutting oil suitable for difficult machining of high-alloy and stainless steels, titanium and its alloys. It is also suitable for severe gear cutting on Fellows and hobbing machines. Not suitable for machining of yellow metals.

eni Aster S

Expressly designed for heavy duty gear cutting and shaving operations when a high degree of finish is required. It may also be used for tapping, threading and vertical broaching.

eni Aster M

Recommended for all slow-speed manual hand and automatic machine tapping operations involving alloy, high-alloy and stainless steels.

It is also suitable for slow-speed horizontal broaching of high-alloy steels.

WARNING

For reasons of incompatibility and performance, it is recommended not to mix the products with cutting-fluids containing chlorine.

In the event of topping up of different product, it is recommended to always perform laboratory compatibility testing.

The **eni** technical assistance service is available for technical support.