



EDMfluid 108 MP-S

Special synthetic Extra, *Multi Purpose* fluid, for electron discharge machining

Description

EDMfluid 108 MP-S is a special *Extra* synthetic fluid, of medium grade viscosity, with an unbeatable distillation range (only 5°), being *Multi Purpose* it can be used for rough machining or for superfine work.

The fluid is formulated with selected paraffin hydrocarbons which have undergone a process of hydrogenation to modify their natural molecular structure, refining them and increasing the stability and the resistance to oxidisation, eliminating almost completely the coal chemicals, reducing the distillation range and the tendency to evaporate at undesirable values.

EDMfluid 108 MP-S is an innovative solution of quality to the ever more pressing need of die manufacturers for a *Multi Purpose* fluid, suitable for both rough machining, that is capable of offering high speed erosion with reduced consumption of the electrodes, while at the same time guaranteeing excellent levels of finishing and precision.

These characteristics are combined in **EDMfluid 108 MP-S**, and thanks to the high level of stability of the viscosity, due to the unusual and reduced distillation range, *they are guaranteed over time*.

Characteristics and advantages

EDMfluid 108 MP-S can boast the following advantages over conventional products for EDM with similar or lower viscosity.

- High and constant dielectric strength, together with a natural capacity for concentration of energy in the Gap area. This, together with the possibility of operating at high frequency ensures:
 - high performance erosion, especially in the rough phase with amperage over 40 amps;
 - constant performance even over lengthy operating periods;
 - no risk of voltaic arcs due to the formation of lacquer on the electrodes, causing pitting if the electrode is in graphite;
 - minimum risk of deformation;
 - reduction of specific consumption of electrodes.
- Medium-low viscosity ensures flow of fluid in the Gap area, even in operations with minimum Gaps. Easier to rinse, easy removal of slug.
- Excellent filtering properties, ensures maximum performance and duration of the filters.
- Exceptional refrigerating qualities, thanks to the medium-low viscosity and the high thermal conduction properties of **EDMfluid 108 MP-S**.
- Drastic reduction of consumption due to evaporation, even at high operating amperages - reductions of up to 5÷6 times the values of conventional fluids with low viscosity and wide distillation range. This is due to the very low distillation range (only 5°C) which marks **EDMfluid 108 MP-S**.
- Absolute transparency and absence of colour; if adequately filtered the fluid guarantees excellent and constant visibility of the working area, even after long operating periods.
- Improved safety due to the high flash point/viscosity ratio and the almost total lack of evaporation.
- Non - toxic thanks to the level of refinement and the hydrogenation processes to which the components of **EDMfluid 108 MP-S** are submitted. Being almost totally free from coal chemicals it does not irritate the skin.
- Chemically inactive on metals, guarantees the duration of machinery.
- Improved stability and resistance to oxidation, due both to the base used and the specific additives present. These factors contribute to the guarantee of constant performance and extended duration of operating capabilities.
- No unpleasant or harmful odours in the work place.



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Applications

EDMfluid 108 MP-S is particularly suitable for CNC machines which meet the requirements of constructors of precision dies, beginning with a rough machining phase at medium-high amperage (over 40 amps) and continuing with a rapid and accurate finishing phase, with geometry of average complexity.

EDMfluid 108 MP-S represents the *most innovative* solution for the thermoplastic sector (automobiles, household goods, domestic appliances, etc.) in terms of performance, hygienic and environmental safety and economy.

Technical Data

EDMfluid 108 MP-S meets and surpasses the requirements of the principal manufacturers of EDM machines: AGIE, CDM, CHARMILLES, CORMAC, ELOTHERM, EROTECH, FANUC, INGERSOLL, Makino, MITSUBISHI, ONA, Sodick as well as those of major filter manufacturers.

Storage and safety

EDMfluid 108 MP-S does not present specific risks under normal operating conditions. Although the emission of fumes is very much reduced it is advisable to install adequate ventilation and aspiration systems. Information on health and environmental safety is available on request. It is advisable to store the product under cover. If the product must be stored in the open place the drums in a horizontal position to avoid infiltration of water, incompatible with the electron discharge process, even minimum quantities would alter the dielectric rigidity of the fluid so polluted. If the product is stored in the open ensure that the temperature is always at least 5°C above the freezing point of the product.

Technical data

EDMfluid			108 MP-S
Characteristics	Test method	Unit	Values
Appearance		kg/l	Limpid, transparent
Density at 15°C	ASTM D4052	cSt	0.767
Kinetic viscosity at 20°C	ASTM D445	°C	3
Flash point	ASTM D93	°C	108
Pour point	ASTM D97	°C	+3
Distillation start	ASTM D86	°C	245
Distillation finish	ASTM D86	°C	250
Colour	ASTM D156		+30
Aromatic hydrocarbon content	UV spectrum		almost nil
Odour			None
Neutralisation number	DIN 51558/1	mg KOH/gr	0.01
Doctor test	DIN 51765		negative

The data above this table are the average production data and it is no to be considered specific.⁽¹⁾

⁽¹⁾ 08-00/Rev1