



Metal Processing Fluid

Description

Quantum® Metal Processing Fluid is a high quality mineral oil based metalworking fluid that when mixed with water forms milky emulsions. It is formulated from highly refined base stocks of paraffinic-naphthenic type and an additive package ensuring very good lubricity and emulsion stability and resistance to bacterial growth, and excellent protection of working tools and machined parts against corrosion and wear. It has the following benefits:

- Ensures optimum cooling and lubrication of the cutting tools
- Better corrosion protection than the conventional mineral cutting fluid
- Ensures long emulsion life by protecting the lubrication system from bacterial and fungi growth
- Forms stable emulsions with wide range of water hardness
- Free from chlorine, nitrites, phenols and secondary amines

Application

Biostable metalworking fluid which is used as 5% oil-in-water emulsion in various ferrous metal removing and forming operations, such as: turning, milling, drilling, grinding, tapping and threading, broaching and gear-cutting. It can also be used for non-ferrous metals machining but at certain conditions.

Performance Level

ISO 6743/7 ISO-L-MAB, BDS 14745 COT/ P-M/ E-2

Typicals

Properties of the Concentrate

- Appearance	Visual	Clear, brown fluid
- Kinematic Viscosity at 40°C, mm ² /s	EN ISO 3104	38
- Density at 20°C, g/ml	EN ISO 3675	0.891

Properties of 5% water emulsion:

- pH	ISO 4316	9.2
- Stability, %	BDS 14843	97
- Foaming, mm/s	BDS 14887	5/0
- Emulsification time, s	BDS 15014	140
- Ferrous metal corrosion	BDS 14912	Pass
- Copper corrosion	BDS 14912	Pass