

CHLORINE- AND ZINC-FREE VERSATILE NEAT CUTTING OIL

MaxPro1 CF Series consists of a range of superior neat cutting oils, suitable for all general machining and most other applications on ferrous and non-ferrous materials. They are used in light to severe machining of copper and copper alloys, medium to hard steels (including stainless steels) and some operations with aluminium alloys.

MaxPro1 CF Series are blends of highly refined mineral oils with a complex package of EP additives and lubricity improvers. With outstanding extreme pressure and lubricity properties, these products offer effective lubrication and cooling effects during operations. They exhibit superior wetting capability and provide good surface finish/tooling performances.

APPLICATIONS & FEATURES

MaxPro1 CF 3200 is basic neat cutting recommended for general and light machining applications such as: precision auto machining of ferrous alloys, sawing, grinding and cutting operations.

MaxPro1 CF 3300 is developed for most medium severity operations such as multi-spindle auto works, threading, milling and drilling.

MaxPro1 CF 3400 is designed for heavy-duty applications on a wide range of materials including aluminium alloys, such as for tapping, threading, form grinding, gear hobbing, shaping and shaving.

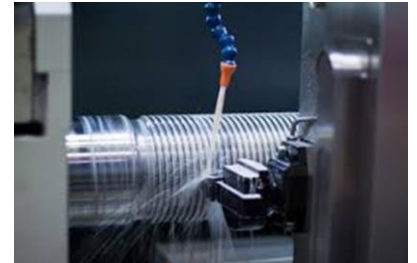
MaxPro1 CF Series products does not contain active sulphur and may be used in metal forming operations of ferrous and non-ferrous metals and alloys containing yellow metals.



CF Series

Neat Cutting Oil

| Features | Benefits |
|---|---|
| A range of products from MaxPro1 Chlorine And Zinc Free Neat Cutting Oil family | Versatile range for wide metalworking applications |
| Chlorine-free and zinc-free formulation | Environmentally friendlier product with low potential of hazardous exposures, and lower disposal cost |
| Outstanding EP properties with low activity against non-ferrous metals | Excellent load carrying capacity that prevents welding and “built-up edge” on cutting tools. Suitable for a wide range of materials |
| Light colour product | Permits easy viewing of the workpiece |
| Good lubricity | Reduces friction and heat between tool and workpiece. Improves surface finish |
| Good cooling properties | Dissipates the heat that is generated on the tool, the chips and the workpiece |



CF Series

Neat Cutting Oil

TYPICAL PHYSICAL CHARACTERISTICS

| Product Name | | | CF 3200 | CF 3300 | CF 3400 |
|-------------------------------|-----------------|------------------|---------------|---------|---------|
| Product Code | | | 6320 | 6321 | 6322 |
| Test | Unit of Measure | Method | Typical Value | | |
| Density @ 15°C | kg/l | ASTM D4052 | 0.87 | 0.874 | 0.893 |
| Colour ASTM | - | ASTM D1500 | 2 | <2.5 | 2.5 |
| Appearance | - | Visual | Amber liquid | | |
| Viscosity 100°C | cSt | ASTM D445 | 5.2 | 5.5 | 3.9 |
| Viscosity 40°C | cSt | ASTM D445 | 30.8 | 34 | 20.5 |
| Viscosity Index | - | ASTM D2270 | 97 | 96 | 68 |
| Pour Point | °C | ASTM D97 | -15 | -15 | -21 |
| Flash Point | °C | ASTM D92 | 210 | 218 | 220 |
| Four-ball test, Welding Load | N | DIN 51350 Part 2 | 2400 | 3300 | 4400 |
| Falex Pin and Vee, Load Value | lb | ASTM D2670 | 3500 | 3750 | 4000 |

The information provided is to our best knowledge, true & accurate, subjected to change without notification due to continual product research and development.

Available Size & Part Number

| Product | 18L | 200L |
|---------|---------|----------|
| CF 3200 | 6320-18 | 6320-200 |
| CF 3300 | 6321-18 | 6321-200 |
| CF 3400 | 6322-18 | 6322-200 |

