



Mobilcut™ Series

Soluble cutting fluids for precision machining



Increase productivity with advanced soluble technology. Mobilcut™ Series water-soluble cutting fluids are designed to help offer long service life, have low maintenance requirements and be suitable for a wide range of materials and operations. Offering the right balance between cooling and lubricity, Mobilcut Series aims to deliver excellent tool life and surface finish, which can help reduce tool regrinding and component rejects. Formulated to meet the latest health and safety guidelines, the products are particularly suitable for modern machine-shop managers aiming to improve productivity and reduce machine downtime.

Low maintenance and easy use help lift machining productivity. Offering a long service life, Mobilcut Series can help minimize waste and enhance machine tool availability — especially at critical times. The products are easy to mix and monitor, offering low maintenance costs and showing outstanding residual corrosion protection without undesirable residues. Low foaming tendencies, even under high-pressure conditions, can help provide trouble-free operation for modern machining operations.

Multipurpose for optimized inventory. Mobilcut Series has been developed to offer superb machining performance in tough operating conditions. Its wide application range means the number of products you need can be reduced, leading to product optimization, easy inventory management and high product turnaround. From boring, milling and tapping on a range of alloy and carbon steels to drilling, reaming and grinding on low carbon and alloy steels and nonferrous metals, Mobilcut Series can be used equally in individual machine tools or in centralized systems.

At a Glance

- Ease of use and maintenance
- Excellent performance even in high pressure systems
- Potential to consolidate products and reduce inventories
- Natural odor enhances the workplace environment

Formulated for equipment in these industries:



Manufacturing & Assembly

Compatibility with other Mobil™ lubricants means greater efficiency. Mobilcut Series water-soluble fluids are designed to be compatible with Mobil Vactra™ Oil Numbered Series slideway oils and Mobil DTE™ Series hydraulic oils, providing a suite of products to help keep your machine tools running at maximum efficiency.

Potential high-performance benefits

Excellent rust and corrosion protection

Aids long-term protection of machine tools and component parts, helping to reduce rejections and rework.

Suitable for multiple applications

Helps reduce inventory and potential product misapplication.

Enhanced machining performance

Helps minimize tooling changes and regrinds while maintaining excellent surface finish.

Chlorine-free

Formulated without chlorine, helping to reduce disposal costs.

Mobilcut™ Series — Summary

Product line

Example	Type	Description
Mobilcut™ 100	Conventional milky emulsion	Conventional milky soluble fluid. Long life combined with good emulsion stability. Multipurpose in application.
Mobilcut™ 140	Long-life milky emulsion	High-performance, milky soluble fluid providing excellent batch life and lubricity. Designed for long service life and a high degree of lubricity for a range of moderate- to heavy-duty applications.
Mobilcut™ 230	Multipurpose micro-emulsion	High-performance, semi-synthetic, multipurpose long-life cutting fluid. Recommended for machining a variety of ferrous and nonferrous metals.
Mobilcut™ 250	Micro-emulsion for aluminum	Versatile, semi-synthetic cutting fluid for machining steels and, in particular, for aluminum and its alloys. Designed to give bright surface finish and low staining.
Mobilcut™ 320	Fully synthetic grinding fluid	Fully synthetic (no oil) fluid. Used for surface and cylindrical grinding. Characterized by low foaming and robust nonsticky residual corrosion protection.
Mobilcut™ 350	Fully synthetic machining and grinding fluid	High-performance, synthetic (no oil) metalworking fluid for operations where high surface finish, cooling and low foam are primary requirements. Highly stable to provide long service life.

Mobilcut recommended concentrations

Mobilcut™ Series products are provided as a concentrate and must be mixed with water before use. Typical concentration ranges are provided in the table below. For additional recommendations, consult the technical help desk or your local ExxonMobil representative.

Product	Low alloy steels/ milling, turning	Carbon/ alloy steels/ difficult machining	Aluminum machining	Cylindrical & surface grinding
Mobilcut™ 100	5–10%	5–10%	5–10%	3–5%
Mobilcut™ 140	4–6%	6–12%	6–15%	
Mobilcut™ 230	4–8%	5–8%	4–8%	4–5%
Mobilcut™ 250	6–8%	6–10%	6–10%	
Mobilcut™ 320				3–5%
Mobilcut™ 350	4–6%	6–8%	6–8%	3–5%

Soluble fluids care and maintenance advice

- Add the concentrate to the water — not water to concentrate. Use freshly mixed product only.
- Monitor and record coolant concentrations and conditions regularly, and take the necessary corrective measures in a timely manner.
- Keep systems clean by avoiding adding contaminants.
- Remove tramp oil frequently.
- Ensure that all leaks of hydraulic oil, gear oils and other machine-tool lubricants are attended to immediately.
- Keep coolant concentration at recommended level allowing for slideway/hydraulic oil contamination.
- Do not use water from infected sources, such as fire hose, borehole, header tank, etc.
- Do not put clean coolant into dirty machines. Use system cleaner and follow the specified cleaning procedure.
- Do not leave machines full of coolant standing idle for long periods, particularly when contaminated with tramp oil.
- Do not prepare products in dirty or galvanized containers.
- Do not top off with water. Always use diluted emulsion.

Mobilcut application guide

Product	General machining					Heavy-duty machining					Grinding				
	CI	S	AS	Cu	Al	CI	S	AS	Cu	Al	CI	S	AS	Cu	Al
Mobilcut™ 100	✓	✓	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
Mobilcut™ 140	⊖	✓	✓	✗	✓	⊖	✓	✓	⊖	✓	✗	⊖	⊖	✗	⊖
Mobilcut™ 230	✓	✓	✓	⊖	⊖	✓	✓	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
Mobilcut™ 250	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	⊖	⊖	⊖	⊖	⊖
Mobilcut™ 320	⊖	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✗	⊖
Mobilcut™ 350	⊖	✓	✓	⊖	⊖	⊖	✓	✓	⊖	⊖	⊖	✓	✓	✗	⊖

✓ Recommended ⊖ Possible ✗ Not recommended

CI Cast iron S Steel AS Alloy steel Cu Copper alloys Al Aluminum alloys

For more information on Mobilcut™ Series and other Mobil™ industrial lubricants and services, please contact your local company representative at 1-800-662-4525 or visit mobilindustrial.com.