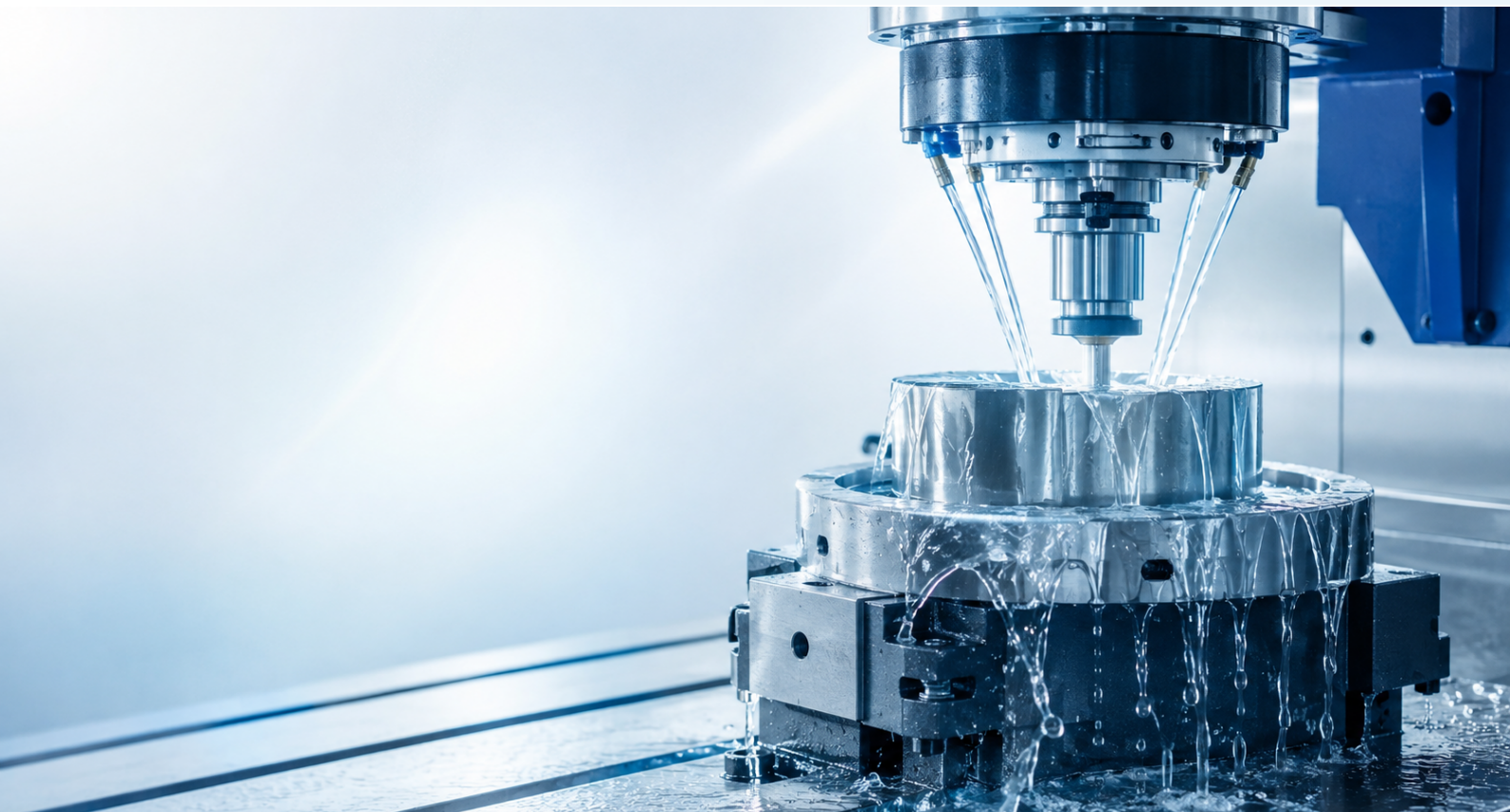




BY250

Metalworking Fluid

Long-Life Rust-Preventive Water-Miscible Fluid



BY250 is a long-life, rust-preventive metalworking fluid for ferrous metals, cast iron and a broad range of steels. It combines cooling, rust inhibition, corrosion protection and lubricity with easy mixing for individual-sump machining operations.

Sump life can exceed 2 years

Performance & Applications



- 01 Stable against biological growth and odor
- 02 Strong rust inhibition
- 03 Balanced cooling, lubricity and corrosion protection
- 04 Easy mixing with no adverse effect on machine-tool paint

Materials

Ferrous metals, cast iron and steels

Operations

Grinding · Turning · Drilling ·
Boring · Reaming · Milling

Technical Data

pH

8.7-9.6

Steel rust test

72 h

Single sheet · 5%

Stacked-sheet test

8 h

Stacked sheets · 5%

Property	Value / Result
Appearance	Water-white transparent liquid
Physical stability	No sediment, separation or crystallization
Density	1.0 ± 0.2 g/cm ³
Viscosity at 40°C	24-26 mPa·s
pH	8.7-9.6
Rust test	45# steel single sheet: 5%, 72 h, no rust Stacked sheets: 5%, 8 h, no rust



Dilution & Use

Working fluid

Refractometer reading

2+

Duty	Working-fluid reading	Mixing ratio Concentrate : water	Daily top-up
Light Duty / Grinding	2+	1:20	Concentrate : water 1:20
Medium Duty	3-6	1:10 - 1:5	Reading 3

Mixing & Start-Up

- 01 Clean the reservoir and piping before charging fresh fluid.
- 02 Prepare the dilution in a clean container at the operating concentration.
- 03 Fill the reservoir, circulate thoroughly and verify the refractometer reading.
- 04 For top-up, add water and the corresponding amount of concentrate.

Maintain the working fluid at a refractometer reading of 2 or above. Insufficient concentration can reduce biological stability and rust protection.



Fluid Change & System Care

01 Drain used fluid

Use a transfer pump or wet vacuum to drain used fluid into a dedicated container.

02 Clean the system

Remove sludge, waste oil and contamination. Rinse or wipe the reservoir where practical.

03 Sanitize

For spoiled or odorous fluid, use a compatible biocide and follow its mixing and dosing instructions.

04 Circulate and recover

Circulate the cleaning fluid through the machine and piping for about 5 minutes, then recover it. Handle recovered fluid according to the biocide instructions.

05 Charge fresh fluid

Prepare fresh fluid at the operating concentration, fill the cleaned reservoir and circulate thoroughly.

06 Maintain fluid quality

Remove chips and floating oil promptly. Control way-lube leakage and prevent foreign contamination.

**BY250**

Formulation & Storage

Composition

Rust inhibitor, lubricant, extreme-pressure additive, high-performance corrosion inhibitor, biocide and deionized water. The formulation contains no nitrite ions, hexavalent chromium, sodium nitrite, chlorine, phosphorus or phenol.



Operating Essentials

Gradual color darkening during storage is normal and does not affect use. Do not mix with other oils.

18 L

Plastic pail

200 L

Steel drum

1 year

Shelf life

Store sealed in a cool, dry, ventilated place. Keep indoors; lay drums horizontally when stored outdoors.

Shutdown & Disposal

For shutdowns over 3 days, transfer the fluid to an operating machine, or dose a compatible biocide as instructed and circulate for 5-10 minutes. Circulate for 1-2 hours every 2-3 days. Collect used fluid separately for disposal by a licensed recycler.