

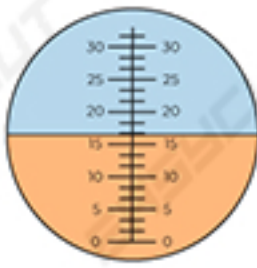


COOLANT BASICS Nº2

HOW TO MEASURE CONCENTRATION?



Make few droplets on refractometer



Check optical readings

Multiply by refractometer factor stated in your product description.



Readings on refractometer: 5%
Refractometer factor: 1.3

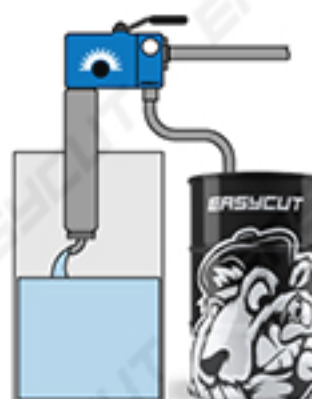
Real concentration
 $5 \times 1.3 = 6.5\%$

HOW TO MIX COOLANT?

Manual mixing



Semi-Automatic mixers



Automation Refill Systems

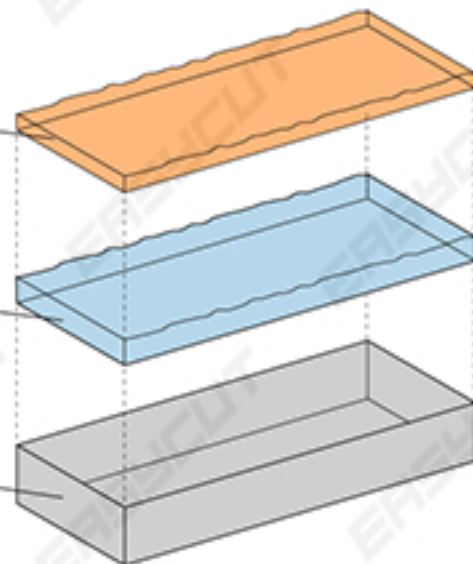


HOW TO CALCULATE CONCENTRATION OF TOP-UP?

TOP-UP coolant
TOP-UP volume needed: 200 L / 777%

Currently in the tank
Remaining volume in the tank: 300 L / 4%

Total tank: 500 L
Desired concentration after TOP-UP: 7%



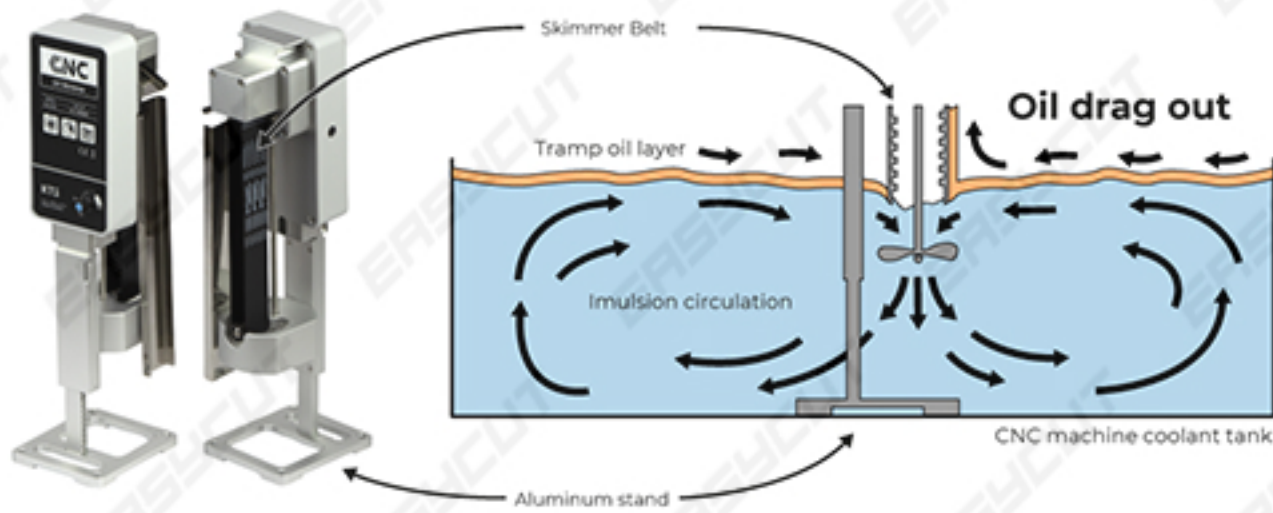
- 1) Find out concentration of remaining emulsion = 4%.
- 2) Calculate volume of concentrate currently in the tank by dividing total remaining emulsion in the tank 300 L by real concentration 4% = $300 \div 0.04 = 12\text{L}$ of concentrate remaining.
- 3) Calculate how much concentrate you need to fill the new full tank of 500L with 7% desired concentration = $500 \div 0.07 = 35\text{L}$ of concentrate.
- 4) 35L of needed concentrate — 12L remaining in the tank (step 2) = 23L of concentrate for top-up + 177L of water (200L top up volume — 23L of concentrate).

Or simply use coolant calculator at CNCmarket.ca/coolant-calculator/

Factor: 1.0		Factor: 1.3	
For TOP-UP	Results:	For TOP-UP	Results:
Desired concentration (read): 7%	4% Concentration in tank (read)	Desired concentration (read): 7%	4% Concentration in tank (read)
Desired concentration (readings): 4%	7% Desired concentration (readings)	Desired concentration (readings): 3.08%	5.5% Desired concentration (readings)
23 Required concentrate, L	23 Required concentrate, L	23 Required concentrate, L	23 Required concentrate, L
200 TOP-UP volume, L	11.5% Concentration in TOP-UP (read)	200 TOP-UP volume, L	11.5% Concentration in TOP-UP (read)
Refractometer factor	11.5% Concentration in TOP-UP (readings)	Refractometer factor	9% Concentration in TOP-UP (readings)
Tank volume, L: 500		Tank volume, L: 500	
Remaining volume in tank, L: 300		Remaining volume in tank, L: 300	

HOW TO REMOVE TRAMP OIL?

Belt type Oil Skimmer with impeller



HOW TO UNDERSTAND HOW HEALTHY IS YOUR COOLANT?

- 1 Rust / Residues on parts / machine
- 2 Appearance
- 3 Smell

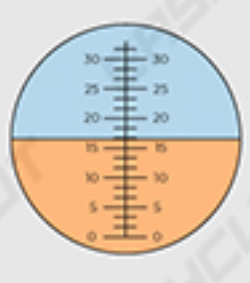


NEVER / ALWAYS RULES TO REMEMBER:

NEVER add water to concentrate (manual mix)



ALWAYS maintain recommended concentration



NEVER forget about refraction factor



ALWAYS keep your CNC machine clean



CNCMARKET.CA TEAM IS ALWAYS HERE TO HELP

Contact Us
info@CNCmarket.ca



Coolant Calculator



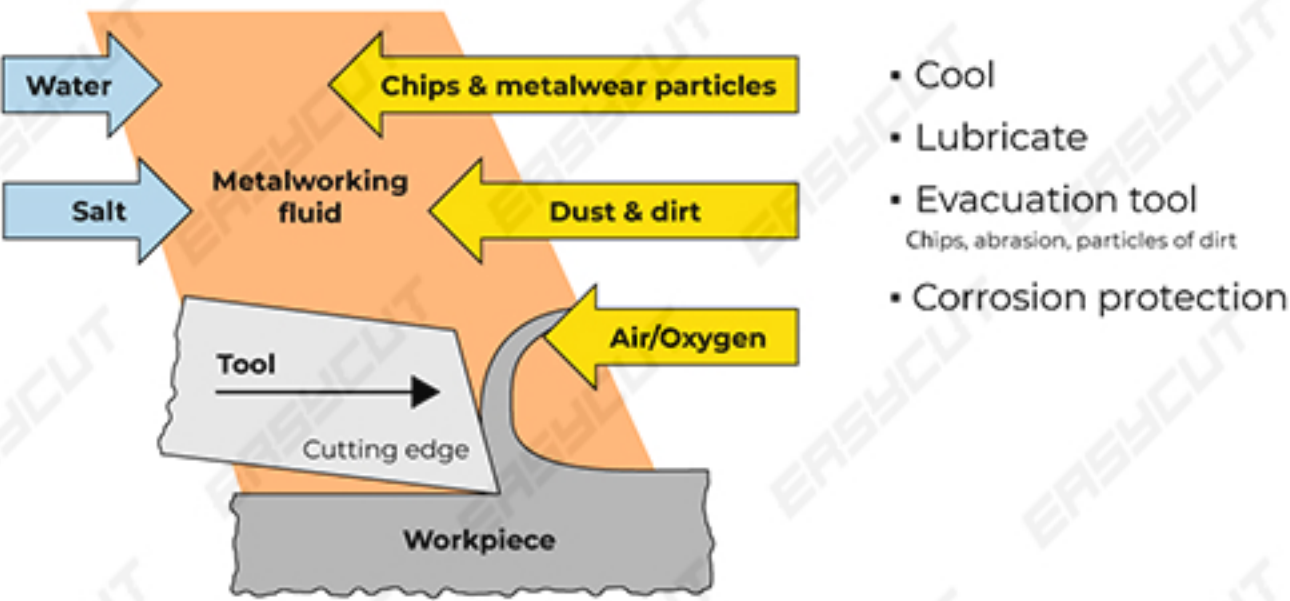
Live Chat





COOLANT BASICS №1

FUNCTIONS OF CNC FLUIDS



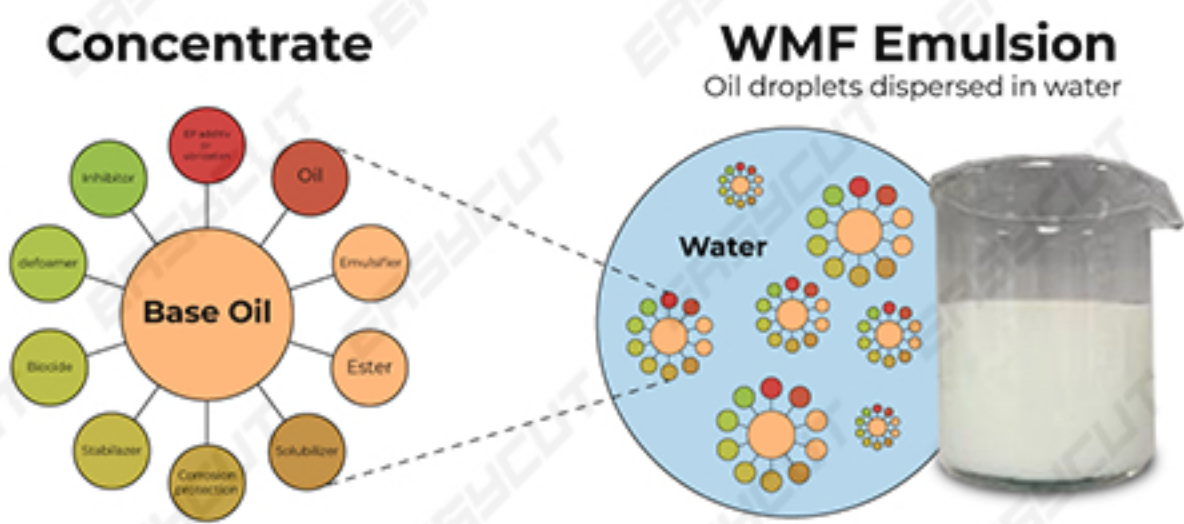
WHY WE MIX FLUID CONCENTRATE WITH WATER?

- 1 Water is much better cooling agent vs oil
- 2 Water is much cheaper than any type of oil

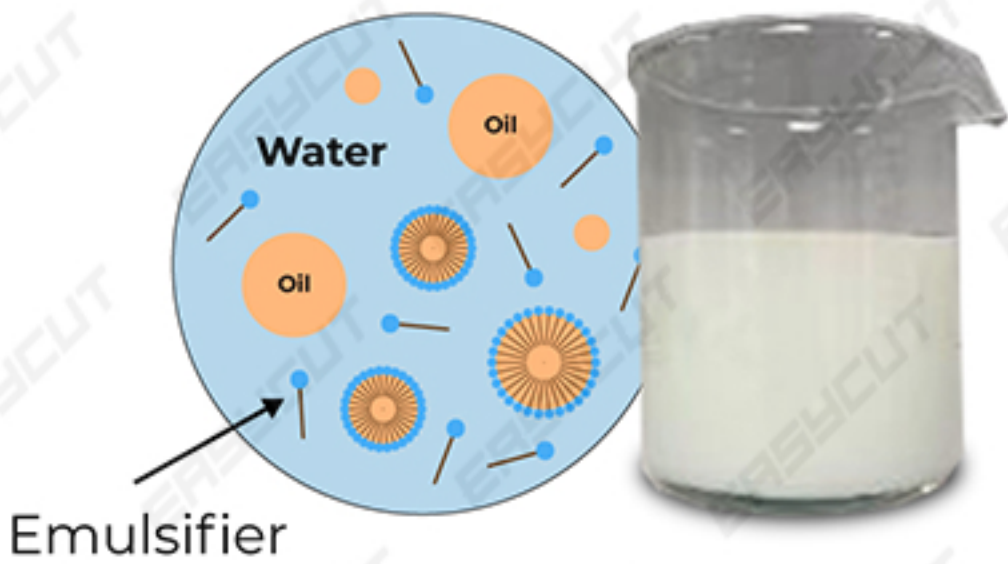
IS WATER QUALITY IMPORTANT?



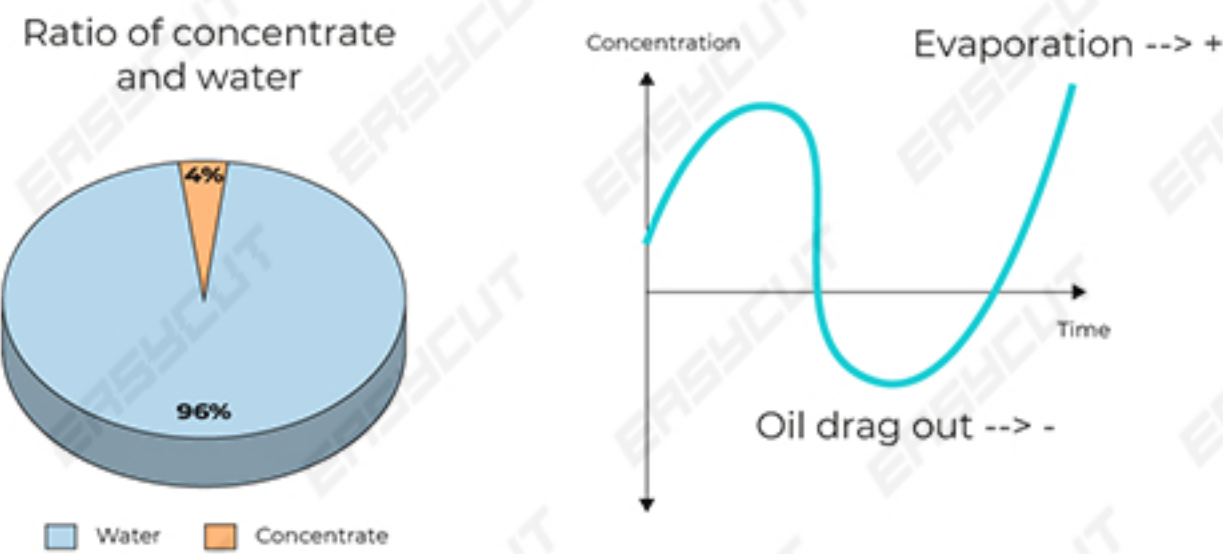
WHAT IS CONCENTRATE? AND WHAT IS EMULSION?



STRUCTURE OF EMULSION AFTER MIXING



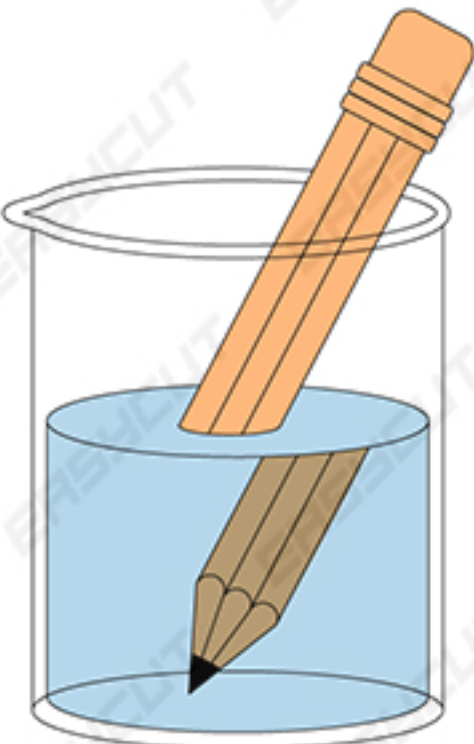
WHAT IS EMULSION CONCENTRATION AND WHY IT IS CHANGING?



WHAT IS REFRACTOMETER FACTOR?

It is important to know refractometer factor when we measure concentration with optical tool to understand real ratio.

Different products have different factor.



WHAT IS TRAMP OIL? AND WHY IT IS BAD?

