



Calculation required to make concentration adjustments

If the glycol concentration needs to be **increased** use the following formula:

$$A = V (D - C) / 100 - C$$

Where:

A= Quantity of concentrate to add.

V= Volume capacity of the system.

D= Desired concentration.

C= Current concentration.

Example: your customer has a 3,000 gallon system with a current concentration of 35% and wants to increase his/her freeze protection to 50% (-34°F). How much concentrate will be needed?

$$A = 3,000 (50 - 35) / 100 - 35$$

$$A = 3,000 (15) / 65$$

$$A = 45,000 / 65$$

A= 692.31 gallons (amount of fluid to drain and the amount of concentrate required to achieve the desired concentration).

If the glycol concentration needs to be **decreased** use the following formula:

$$A = V (C - D) / C$$

Where:

A= Quantity of deionized water to add.

V= Volume capacity of the system.

D= Desired concentration.

C= Current concentration.

Example: your customer has a 3,000 gallon system (propylene glycol) with a current concentration of 50% and wants to decrease his/her freeze protection to 35% (-5°F). How much water will be required?

$$A = 3,000 (50 - 35) / 50$$

$$A = 3,000 (15) / 50$$

$$A = 45,000 / 50$$

A= 900 gallons (amount of fluid to drain and the amount of concentrate required to achieve the desired concentration).