Protein Determination

NOTE:	AOAC method 991.43 suggests that the Kjeldahl method be used for determining protein content. Since a large amount of acid is used in the Kjeldahl digestion process, make sure you use enough base in the Kjeldahl distillation process.

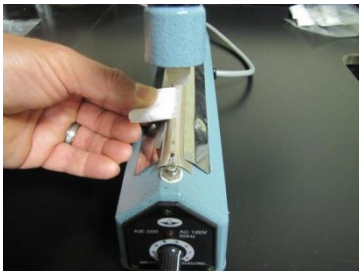
SDF/TDF – Kjeldahl Method

To determine the protein content within SDF or TDF residue, follow the steps below.

1. Cut the filter bag 8 - 10 mm above the filter.


2. Fold the remainder of the filter bag in thirds from side to side.

3. With your Heat Sealer set to "6" (setting may vary depending on heat sealer and power source), place the arm down for 3 to 4 seconds to seal the polypropylene edge of the filter bag. Repeat if necessary.



4. Label the folded, sealed filter.

5. Repeat steps 1 – 4 for all SDF bags that will be used for determining protein content.

6. Run a Kjeldahl procedure on each filter bag using 27 ml of H_2SO_4, 10 g of K_2SO_4, and 300 mg of $CuSO_4 \cdot 5H_2O$ in a system with 250 ml tubes that have a 42 mm diameter. Pellets can be used if an equivalent amount of K_2SO_4 is added. To slow down the rate of foaming during the digestion process, ramp up the temperature slowly.