## **Cycle Cost Breakdown**

# CYCLE COST BREAKDOWN

- 1. Consumption Information
  - a. Water:
    - i. FULL/HIGH LEVEL CYCLE:

345 gallons (1306L) usage with automated rinse cycle 220 gallons (800L) usage without automated rinse cycle

ii. HALF/LOW LEVEL CYCLE:

215 gallons (814L) usage with automated rinse cycle 140 gallons (530L) usage without automated rinse cycle

- b. Energy:
  - i. FULL/HIGH LEVEL CYCLE:

75-89kwh, depending on incoming water temperature

ii. HALF/LOW LEVEL CYCLE:

45-55kwh

- c. Alkali:
  - i. Added based on the weight of the tissue.

#### 2. Cost Inputs

- a. Water:
  - i. Per data from the <u>US Dept of Energy's 2017 report</u>, the national average cost of water in the US is \$3.38 per 1000 gal (\$0.00338/gal).
- b. Energy:
  - i. Per data from the <u>US Energy Information Administration's 2019 report</u>, the national average cost of electricity in the US is 12.70 cents per kwh residential and 10.52 cents per kwh commercial.
- c. Alkali:
  - i. Using the chemical blend most preferred by our customers, and the current average price for dry alkali as of May 2019, this cost breaks down to 10.67 cents per pound.

### 3. Calculations

- a. Cycle Cost Calculation Example:
  - i. 200 lb Full/High Level Cycle:

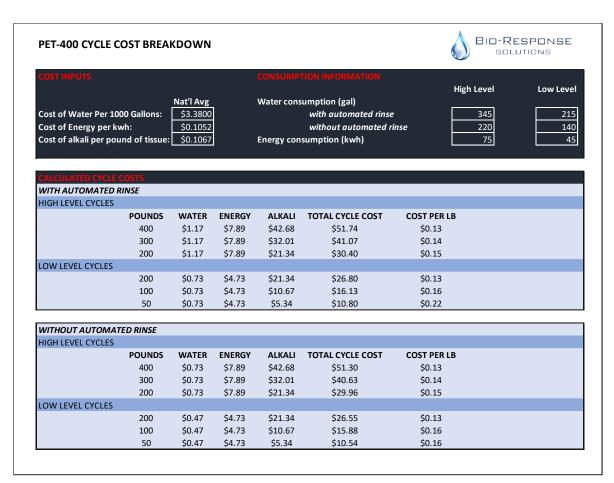
WATER: 345 gal water  $\times$  \$0.00338/gal = \$1.17 (with automated rinse)

ENERGY:  $75kw \times \$0.1052/kw = \$10.52$ ALKALI:  $200 \text{ lb } \times \$0.1067/\text{lb} = \$21.34$ 

TOTAL: \$30.40, or \$0.15/lb

Cycle Cost Calculations for Various Cycles

DOWNLOAD THE CUSTOMIZABLE EXCEL FILE HERE



#### 4. Summary

➤ Full cycles range from \$30-52 for all process costs

➤ Half cycles range from \$10-27 for all process costs

