



Advisory Bulletin

THE COST OF PAPER TOWELS VS. HAND DRYERS

TB-15

Bobrick Hand Dryers:

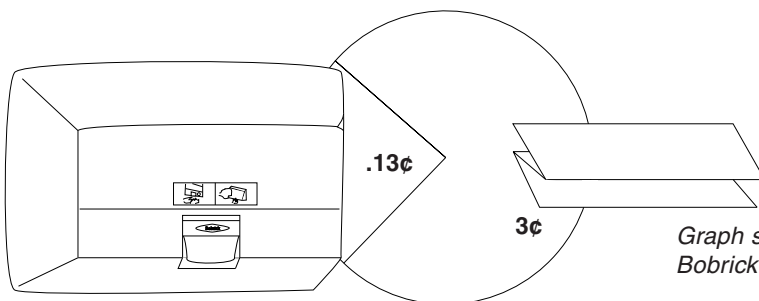
- 1) Bobrick Hand Dryers draw 2300 watts (2.3 kW) of electricity while operating and have a 30-second drying cycle.
- 2) 1 hour of operation = 30 seconds per drying cycle x 120 drying cycles.
- 3) 1 hour x 2.3 kW = 2.3 kWh.
- 4) 2.3 kWh x 7 cents/kWh* = 16 cents.
- 5) 16 cents ÷ 120 drying cycles = **0.13 cents per drying cycle.**

*Source: Los Angeles County Industrial/Commercial Rate A1 (less than 30 kW usage per month) as of February 2000.

Further costs of using paper towels include labor to fill dispenser and empty waste receptacles, storage and insurance for paper supply, costs of hauling away waste paper, and the hazards of fire and of plumbing stoppage.

Multifold Paper Towels:

- 1) Average number of paper towels used per hand dry is 2.5 towels.
- 2) A typical case of 2,400 Multifold paper towels cost an average of \$25.00.
- 3) 2,400 paper towels per case ÷ 2.5 paper towels per hand dry = 960 hand dries per case.
- 4) \$25.00 per case ÷ 960 hand dries per case = **3 cents per hand dry.**



Graph shows relative cost per hand dry between Bobrick dryer and paper towels . . .

To calculate your annual savings realized by using Bobrick hand dryers instead of paper towels:

Use the previous year's towel purchase records, and electricity bill to calculate the following:

1. ___ cases of towels x ___ (count) per case = ___ (total towels) ÷ 2.5 towels per dry = **number of hand dries.**
2. \$ ___ per kWh x 2.3 kWh = \$ ___ per hour ÷ 120 dries per hour = \$ ___ **dryer cost per hand dry.**
3. ___ annual number of hand dries (#1) x \$ ___ dryer cost per hand dry = \$ ___ **annual dryer operating cost.**

When making the comparison, include the cost of paper towel storage as well as the labor required to fill dispensers, empty waste receptacles, dispose of waste, and purchase towels. If precise records are not available, assume that each washroom requires 10 minutes daily to maintain towel supply and use the following formula to make estimate.

4. ___ (count) washrooms x 10 minutes x operating days per year * ÷ 60 minutes per hour x \$ ___ labor costs per hour for maintenance personnel = **direct labor cost.**

* Office buildings or factories normally operate 250 workdays per year; the operating days of schools, theaters, or restaurants may vary.

Add towel cost, direct labor to maintain towels, estimated cost of towel and waste handling, then deduct the annual operating cost of dryers. The difference is your savings every year.

EXAMPLE:

Twenty-four 2,400-count cases of multifold towels @ \$25.00 per case	\$600.00	
Direct labor to service towels: 4 rooms x 10 min. per room		
x 250 days ÷ 60 minutes x \$8.00 per hour.		1,333.00
Ordering, storing, disposing (est.)		100.00
		Towel Cost
		\$2,033.00
24 x 2400 ÷ 2.5 towels per hand dry = 23,040 hand dries		
\$.07 kWh x 2.3 kW = \$.161 ÷ 120 =		
\$.0013 per hand dry		
23,040 x \$.0013		
		Bobrick Dryer Cost
		\$30.00
		Annual Savings
		\$2,003.00