

Advisory Bulletin



TB-93 The Cost of Paper Towels vs. QuietDry™ High Speed Dryer

Bobrick's QuietDry High Speed Hand Dryers:

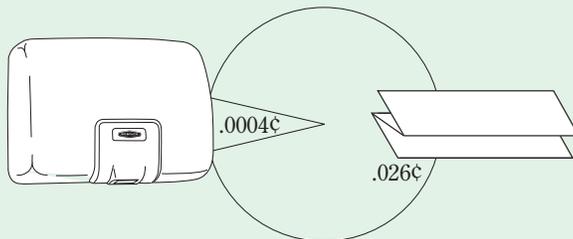
- 1) QuietDry Hand Dryer draws 1380 watts (1.38 kW) of electricity while operating and has about 15-second per drying cycle.
- 2) 15 seconds per drying cycle x 240 drying cycles = 1 hour of operation.
- 3) 1 hour x 1.38 kW = 1.38 kWh.
- 4) 1.38 kWh x .07 cents/kWh* = 0.10 cents.
- 5) 0.10 cents ÷ 240 (drying cycles) = **.0004¢ per drying cycle.**

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

Standard 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 = **.026¢ (per hand dry.)**

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



Graph shows relative cost per hand dry between Bobrick's QuietDry High Speed 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. ____ total number cases of towels per year x ____ (count) per case = ____ (total towels) ÷ 2.5 towels per dry = **annual number of hand dryers.**
2. \$ ____ per kWh x 1.38 kWh = \$ ____ per hour ÷ 240 dries per hour = \$ ____ **dryer cost per hand dry.**
3. ____ annual number of hand dries (#1) x \$ ____ dryer cost per hand dry (#2) = \$ ____ **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
Labor to service: 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
Annual Towel Cost	\$2,033.00
24 x 2400 ÷ 2.5 towels per hand dry = 23,040 hand dries / year	
\$ 0.07 kWh x 1.7 kW = \$.119 ÷ 180 = \$.0007 per hand dry	
23,040 x \$.0004	
Annual Dryer Cost	\$9.27
Annual Savings	\$2,023.73