



"Doctor, Is it Okay that I Like Multifold Paper Towels?"

In the past decade, a number articles promoting the roll towel have been published. By our unscientific sampling, more of this information came from marketing executives and less came from independent research or case studies. A popular new selling device, the savings calculator, also seemed to us to include some assumptions that might be open for discussion.

So, if you're still a fan of the thicker, better embossed, faster drying, nicer-feeling multifold, singlefold or even (heaven forbid) plush C-fold - take heart! There seem to be some pretty good arguments in favor of sheet towels and their in-use economy.

Roll Towels - Are they Always the Best Value?

According to a scan of towel comparison articles on the internet, roll towels from a "controlled dispensing system" are getting great reviews. The dispenser in a controlled system selects the length of the towel cut, which is sometimes adjustable. In some cases the dispenser also controls how long it takes to get another towel. Some dispensers use sensors to dispense when the user waves his or her hands.

Things to think about: "Controlled dispensing" creates the need for more complex dispensers and blades inside every unit. Many roll dispensers now have batteries to power various functions. Roll towel dispensers are fairly large, because in addition to carrying the paper, they carry all the equipment required to perform all of these functions. Some roll dispensers are so large that they can be difficult to mount without impeding access to the sink, depending on your restroom layout.

"Controlled System" Roll Towel Dispensers

Sheet Towels - Multifold, Singlefold, C-Fold Dispensers

An internal blade cuts the towels to a pre-set length, or in some cases one of a few lengths you choose.

These towels are already cut at the factory, hundreds at a time. Nothing but the towels themselves are in the dispenser.

Some roll dispensers control use by making the user wait for the next towel. This is actually the strongest controlling factor we see - making users wait. Hmmm.

The user can get the towels needed when they need them. Modern dispenser designs do a good job of providing a towel at a time, even when the dispenser is very low.

Sensors in some units roll the next towel out to you. This feature solves the problem of a foot or more of toweling hanging, which can be unsightly and perhaps less sanitary.

Folded towels from a modern dispenser offer the user a third of the towel to grab, without exposing the whole towel. Folded towels are generally a little larger than hand-sized, about 9.5" square. So 3.16" of toweling is exposed, rather than about a foot with roll towels. So no automatic mechanism is required.

The automatic dispensing feature requires batteries or a weighted cutting bar, and these devices allow the towels to be touchless. Touchless or touch-free imply the user receives a towel without touching the dispenser or a lever. This is good, because common contact points can spread infection.

Newer multifold and singlefold dispensers provide the towel automatically without any mechanical or electrical systems required. You only touch the towel ready to dispense. When one is pulled, the next one appears. (C-Folds are a little more tricky to grab, and are not really designed to be economical so much as really nice and homelike.)

A second roll mechanism is needed to allow the new roll to be replaced slightly before the old one runs out. In most dispensers, two sheets are provided at one time until used. However, many users probably pull as many times as they are use to even with two layers fed at once.

Folded towels can be topped off at any time, rather than only at the last 10-15% as with a roll towel. Newer multifold dispensers are designed to allow for 700 towels in a small space. They usually extend about 4" from the wall, instead of perhaps three times that for a roll dispenser.

Multifold Towels can be Simple, Elegant and Cost-Effective.

"Universal"
Uses any manufacturer's multifold.

High Capacity
Holds 700 soft, absorbent towels from any manufacturer.

Refill at any time
in seconds – no need to wait for a roll to run down.

Nothing mechanical
or electronic to break.
No batteries necessary.

No cutters needed.
Sheets are cut at the plant.

Narrow Profile
Nothing inside but paper.
Shorter version available for tight spaces.

Single towel
presents automatically with no need for a sensor or waving wet hands.

Touchless
User contacts only the towel required.

Efficient
All towels are used with no stub roll transfer mechanism needed.

Towels come out open and ready.

Bizzy can help you save on the cost of starting "universal paper dispensers" whether you go multifold, roll or center-pull!

The Problem with Complex Systems

There is a story about one of the Russian cosmonauts being asked by an American reporter why he thought the cosmonaut space program had hung in there so long after the collapse of the Soviet Union, and was he surprised the American program could soon be hitching rides into space. His answer had to do with complexity of systems.

"The Americans spent a lot of money and time working out how to get a ball point pen that would write in space. They did an excellent job. We solved the problem by using pencils." (Actually, the Fisher Pen Company privately invented the AG-7 pen that would write in space, but that spoils a good story.)

One of the challenges to consider with roll towel dispensers is that the complexity of mechanics and electronics to perform part of the paper factory functions in the restroom itself creates many "mission critical systems" that can break down, or in the case of batteries, run out. It also makes them less eco-friendly because of all the parts and batteries. Sheet towels don't require anything extra to dispense, and they're already cut to size.

The Expense Question

So, bottom-line, should you feel guilty or fearful of added expense if you actually prefer sheet-style towels instead of roll towels? In general, the more upscale the restroom, the more likely sheet-style towels will be used. There are good reasons for that. Folded, sheet-style towels are generally thicker, better embossed and more absorbent than roll towels. People like them better than most roll towels. The roll process - which is high-speed - requires certain tensile characteristics of the paper that are contrary to their eventual purpose, which is to dry hands.

Here are a few example arguments for roll towels, each of which may require some additional thought:

- *"Roll towels allow for controlled portion dispensing. Folded systems allow users to take more towels than are required."*

Things to think about: We think users for the most part desire the amount of towels it takes to dry their hands. The fact that folded towels are pre-cut and roll towels are cut by the dispenser, does not on its own imply more control. Modern multifold dispensers provide one sheet at a time, so the user chooses how many towels, which is really the same as with roll towels. The generally thicker, more absorbent sheet towels often do more work than a longer cut of roll towel, and the user is probably satisfied with less folded toweling overall. Controlling *how often* a towel is dispensed, however, is in our opinion, the real control offered. However, this comes at a cost, because most users are frustrated by being made to wait.

- *"Hardwound towels provide a lower cost because the entire surface is used for drying."*

Things to think about: We see the real issue as, does the towel approximate the size of your hands? Most users take two sheet-style (folded) towels of around 9.25" by 9.5" according to another unscientific study we have done. (Standing around in bathrooms doing various types of restroom work for decades.) Modern folded towel dispensers provide sheet towels "opened" as they are pulled out - *not still folded*, which the argument is based on.

The feel of two absorbent layers, from two nice sheet towels, facilitates better use than one or two longer sections of roll towel that don't fit your hands well. How often have you seen a long sheet of roll towel laying across a trash can with a few wet areas along an otherwise dry towel?

C-fold sheet towels offer a little different proposition. Often stacked in a basket in upscale restrooms, C-folds are usually designed to be considered plush. That comfort level is associated with restrooms where economy is not the first priority, pleasing users is the long-term economy.

- *"The 'end-of-roll transfer system' eliminates stub-roll waste."*

Things to think about: This is an interesting argument in relation to sheet towels. That is because roll-transfer mechanisms were designed to provide a solution to a problem sheet-folded towels don't have. This device involves a secondary roll delivery mechanism built inside an already large dispenser that a partly used "stub" roll is moved to. It is then fed out at the same time as the new roll. So, simply put, a "roll transfer mechanism" means for a time, two towels are being cut and delivered at once. While the stub toweling is eventually dispensed, users generally continue to pull what they are use to. So the roll-transfer mechanism may not be reducing stub-roll waste that much in the real world. (One of a few reasons savings calculators aren't all that reliable. If your assumptions are skewed, your savings calculated are off, too.) We think stub-roll waste is still 10-15% with roll towels, because people don't take less and many janitors dislike the extra time required and simply toss the stubs anyway.

Sheet towels are loaded on top of the existing stack, something easy to see and easy to do. If you have been involved in training a custodian to load a sheet dispenser versus loading a roll dispenser with a transfer mechanism, you know the difference in effort, time and frustration involved.

- *"Roll towel dispensers are filled less often, saving labor."*

Things to think about: We cannot figure this one out. A common roll towel length is 800' for high capacity and common pre-set cut is 12". The stub roll can be transferred at, let's say for illustration, 150'. So if you visit the restroom to refill before the first 81% of the paper is consumed, you cannot do anything about replenishing paper - you have to come back or make a conscious decision to waste. We think most custodians waste. (They're not bad, they're just like all of us - *busy*.) The "unit of replacement" therefore is the real labor-affecting issue here, not the number of towels.

A modern multifold towel dispenser holds around 700 towels. The unit of replacement, however, is *any amount the custodian needs to refill*. A sleeve is commonly 200 or 250 towels, but they are easily divided to any amount that is needed, based on what has been consumed. So when the custodian is there to fill, the dispenser can be filled - and quickly. That stops waste and creates labor savings. Especially when towels are the critical item that usually determines the restroom refill visit frequency.

Minutes per Refill

One of the studies done for a buying entity still makes what we consider the error of assuming two minutes per refill for each dispenser type - roll, multifold or singlefold. We think a more realistic estimate is 25 seconds per refill of a modern multifold or singlefold dispenser, and up to three minutes for a roll dispenser with a transfer stub-roll and proprietary features inside. Add more time if mission-critical systems are not working right.

Proprietary vs. Universal Dispensers - Perhaps the Most Important Cost Factor

When you buy a printer, the \$50 to \$150 cost of refills is high because you are buying the ink *dispenser* (called a printer in this case) of the consumable (ink in this case) over and over in costs that don't reflect the actual cost of the ink and its container themselves. The cost of ink is so high there is even a secondary market taking a cut by offering to refill cartridges for part of the difference. Most of us have thought of this.

Paper dispensers that only take a specific refill (proprietary) are actually the same, a less thought-of fact. An important difference between roll towels and folded towels is that roll towels can be made proprietary, folded generally cannot. Not all roll towel dispensers are proprietary, though, and those that are not are called "universal." Universal paper is almost always less expensive than proprietary when comparing similar paper.

Proprietary roll towel dispensers are often offered at a subsidized cost, usually on a contract of three years. Generally, industry standards requiring commitments of three cases of paper per dispenser per year and a three-year contract mean you could pay for the dispenser fairly early on - let's say for discussion purposes in as little as a year. That is, if you were consuming at the three cases per dispenser rate, which is a common rule of thumb, but a fairly heavy use rate. After that you would continue to re-buy the equivalent of another "free" or subsidized dispenser in higher paper costs each year for the next two years of the contract and for as long as you have to buy those refills. It depends a lot on your use and the original cost of the dispensers. If the dispenser pays out in higher paper costs in 18 months or 24 months, then use those guidelines in your own illustration.

Here's another important point: Because sheet dispensers are much less expensive to produce than roll dispensers to begin with, the start-up costs can be more quickly realized in lower on-going paper costs. It could be just a few months before you're in the gravy. (A common cost for a good universal multifold dispenser is under \$25 for a heavy-duty plastic model. A moderate featured universal roll towel dispenser might be \$65.)

Packaging Waste

Another stated advantage of roll towels is less packaging waste. Yet sheet toweling completely fills the case it fits into with little room or air pockets. Roll towels have vacant areas in the cores and around the rolls. Therefore, pound for pound, sheet towels would seem to require less packaging.

An Alternative Method of Comparison - Case Weight

We've already discussed that in general, roll towels are less absorbent and thinner than their sheet counterparts. So given equivalent blocks of drying material, sheet material should be priced higher than roll material, because it does more work. Right? However, that is not always how they are priced. Although weight per case is often found near the end of the specifications, it may tell you something important. Here's a single example:

Major distributor, house-named brand, both of kraft (unbleached) towels, before shipping, found on internet:

- Roll towel - 8" x 800', 6 rolls - **20 pounds** - \$39
- Folded towel - 9" x 9.5", 4000 towels - **21 pounds** - \$31 (one pound more for 20% less)

Summary

Information and research in the past few years seems to have heavily favored roll towels for economy in use. Some of this information may be based on cost-savings calculator assumptions that do not apply to your facility's or user circumstances. Improvements in sheet dispensers have allowed for one-at-a-time, touchless, mechanics-free, battery-free, sensor-free, electronics-free, compact and waste-limiting dispensing of towels.

If you desire roll toweling, many "universal" dispenser options are available. While you pay for the dispenser up-front, the return on investment could be considerable after one or two years. Finally, do your own math and know the real labor savings possible first hand, not by assumption.

BizzyRobot is an on-site manager of janitorial supplies, restaurant supplies, and other business consumables in the Northwest Tucson, Marana, Oro Valley and Casas Adobes areas of Arizona. 520-603-7383.