



Installing Retractable Screens

These motorized screens roll up and out of the way with the press of a button

by Clemens Jellema

In any given year, my deck company typically builds four or five screened porches. To screen them, our standard approach is to pair Screeneze's two-piece aluminum-track-and-PVC-cap system with the same company's SuperScreen coated polyester fabric. But over the last couple of years, several clients have asked for retractable screening rather than fixed panels, and after having installed several of them, I understand why.

While the fixed screen panels we use are strong, we're still limited to openings up to 8 feet wide (and closer to 6 feet

in windy locations). In comparison, retractable screens can span clear openings that are as wide as 24 feet and up to 16 feet high, making them a good choice when there are beautiful lake or mountain views. Not only can the screens be completely retracted, but supporting posts every 4 feet to 6 feet on-center—that would otherwise obstruct the view—can also be eliminated. And even if a guardrail is required, the retractable screen in combination with a cable-rail system still does a great job of optimizing the view.

Retractable screens are also well-suited for situations where a porch and deck are connected to each other. If the porch wall facing the deck is equipped with a retractable screen, the screen can be opened up to make the porch more like a pavilion, creating a single spacious area (**Figure 1**).

In this article, I'll describe the installation of the motorized version of Durascreen's Flyaway retractable screen (hand-cranked versions of the system are available for about \$300 less). There are also dual-screen versions of both the manual and automatic models, where



Figure 1. While fixed screen panels would create boundaries between the people using the porch and the adjacent deck, motorized retractable screens can quickly be used to remove those barriers when insects and weather conditions allow. A separate screen door is still required for regular access to the deck from the porch.

two rollers are next to each other, one mounted with a screen and one mounted with vinyl sheeting. This combination is ideal in windy or cooler locations, or if you are trying to heat a three-season porch with a space heater.

Requirements

The only special framing requirement for installing a retractable screen is a beam that is properly sized to support the span. After the opening is trimmed, it's ready for the installation.

Electricity. While there is nothing especially tricky about the electrical connections for the motorized version of the retractable screen, the power supply needs to come from a dedicated circuit (15 amps is sufficient). Otherwise, if you tap into an existing circuit, there can be interference with the radio waves the remote control sends out, causing it to not work properly. One circuit can typically provide power for up to four units.

Decking. A heavy aluminum bar at the bottom of the screen rides in tracks

mounted to the sides of the opening. The bar keeps the screen tight horizontally, but also acts as ballast so that the screen will unroll and slide down the tracks to the flooring. I like to orient the decking so that it is parallel with the screen, so that the flexible rubber seal under the bottom bar comes in full contact with the floor. For a diagonal decking layout or if the decking is perpendicular to the screen, I normally install a border that is in line with the screen. T&G porch boards can be installed so that they are



Figure 2. One major advantage of a retractable screen is that it can be used on an opening as wide as 24 feet, eliminating the intermediate posts that are needed for fixed screens and that would otherwise interrupt the view. It is also less expensive to frame and trim one large opening than several smaller openings.

either parallel or perpendicular to the screen, without the need for a border.

Installation

The screens are priced in 1-foot increments, but are custom-manufactured to fit exact opening dimensions. So after trimming out an opening where a screen will be installed, I carefully measure the width between the finished jambs at the bottom, middle, and top. If the measurements are not the same, I use the shortest distance, keeping in

mind that the Durascreen System has a tolerance of $\frac{1}{2}$ inch. If the difference is greater than that, I adjust the framing and trim as needed so that the trim is plumb and parallel.

I also measure the opening's height from the surface of the deck to the bottom of the trimmed header, taking measurements on both the left and the right sides. Most of the time, no adjustments are needed, as the tolerance for out of level is much higher than for out of plumb.

The units are designed so that the motor can be installed on either side of the opening, but the side must be specified when the unit is ordered. When installing screens next to each other, for example, I like to order both a left-hand and a right-hand unit to simplify the electrical connection (**Figure 2**). The 110-volt motors can either be hard-wired or plugged into an outlet, and have built-in radio receivers with a range of about 65 feet.

Once I place an order, it usually

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Figure 3. A Somfy tubular motor that can be inserted into either end of the rolled-up assembly powers the screen (top). A pin at the other end fits into the mounting bracket, while the bottom of the screen terminates with a heavy aluminum bar with rollers mounted to the ends (middle). A clip locks the assembly to the mounting bracket (bottom).



takes about three weeks for delivery (two weeks for fabrication and another week for shipping), depending on the season. When the screens arrive, I check to make sure that all of the parts are there for the installation, including the remote control.

The screen assembly is supported by a pair of mounting brackets that are lag-screwed either to the header trim or to the inside face of the exterior head casing. Before installing the brackets, I drill a hole for the electrical cable and feed the wiring through the hole. The brackets are then secured with a pair of lag screws, which are supplied with each unit.

After inserting the cylindrical motor into the rolled-up screen assembly, I mount the assembly into the brackets and lock it into place on the motor side with a lock pin (**Figure 3**). On the project shown here, the screen unrolls toward the inside of the porch because of the railing location, but the screen can also unroll toward the exterior.

Once the screen is in place, I unroll it about half-way, then carefully measure and cut to length the aluminum tracks that guide the screen up and down. I've found that cutting them a little short provides clearance for the rolled up screen and allows for a better fit. After the rollers have been inserted into the tracks, the tracks are then screwed to



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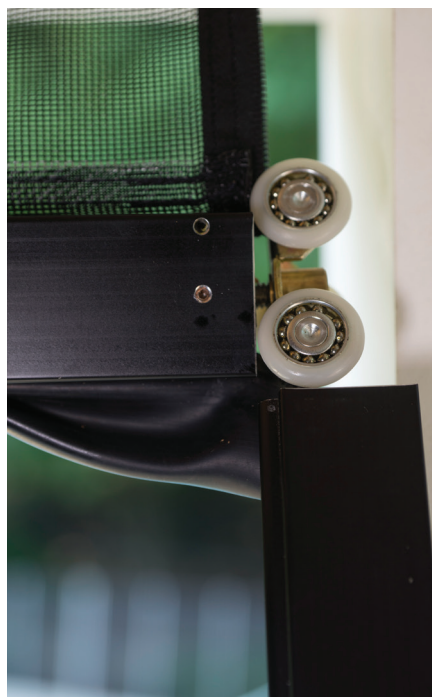


Figure 4. The rollers ride in aluminum tracks screwed to the jambs (left). Set screws at the top of the aluminum tracks (above left) prevent the roller assemblies (left) from jumping the rails as the screens retract. The screens can be oriented so that they unroll toward either the interior (as shown, above) or the exterior of the opening.

the jambs, with a set screw at the top to prevent the rollers from jumping out of the track (**Figure 4**).

After an electrician hooks up the hard-wired electrical line to the motor (or I plug it into a dedicated outlet), the final step is to test and program the remote control. If the project has multiple screens, a single remote can be programmed to control all of them simultaneously, or each one individually.

While I've found that the manufacturer's instructions are pretty easy to follow,

there is a help line, as well as a number of videos online, if you have trouble programming the remote.

Cost

The list price (not including shipping or installation) for an 8-foot-tall by 24-foot-wide motorized retractable screen with remote control is about \$3,600; a 5-foot-by-5-foot unit lists for about \$2,300. Since most of the cost of the unit is in the roller mechanism rather than the screening, we try to use the widest (and fewest)

units that we can on any given design.

That may sound expensive compared with the cost of fixed screen panels, but keep in mind that all of the intermediate posts and trim needed for conventional screening can be eliminated. In fact, for openings that are wider than 16 feet, I think a motorized screen can end up costing less than traditional screening. ♦

Clemens Jellema owns Fine Decks Inc., in Calvert County, Md., and is an authorized FlyAway Durascreen dealer.