

# Spiral Stair Today

The Iron Shop

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## The Iron Shop Appears on HGTV

The Iron Shop was recently featured during a March episode of *Weekend Warriors*, a half-hour home-improvement program that is aired weekly on Home & Garden Television (HGTV). The program takes a personal look at a different do-it-yourselfer who plans, executes and completes a home improvement project in his or her home. A camera crew follows the homeowner throughout each stage of their project until it comes to a successful – or at times - unsuccessful completion.



Nancy and Curtis are pictured above installing the handrail on their metal spiral stair kit.

During the episode, "Surprise Patio Makeover", husband and wife team Nancy Gunn and Curtis Colden renovated their patio. The couple wanted to give the patio in the rear of their home a new look, while connecting it to their guesthouse that is occupied by Curtis' brother Chuck. They also wanted to finish the project quickly so that they could surprise Chuck when he returned from a business trip overseas.

The couple began their renovations by installing a 5'0" diameter UBC Metal Spiral Stair Kit from The Iron Shop, leading from the ground-level patio to the rooftop deck on the guesthouse. Curtis and Nancy worked from early morning to late evening, installing the spiral stair. Because of the long hours they put in, installation was complete in just one day.

After the spiral stair was installed, they completed their project by tiling the patio and installing a serving counter for entertaining. Curtis and Nancy completed the project in two weeks and were pleased with the results. Chuck was surprised to see the major renovations that had taken place while he was away.

Surprise Patio Makeover will re-air on HGTV on Tuesday, June 26. Air times are as follows: Pacific - 7 p.m. and 10 p.m.; Mountain - 8 p.m. and 11 p.m.; Central - 9 p.m. and 12 a.m.; and Eastern - 10 p.m. and 1 a.m. Check your local listings for the correct channel.

For more information regarding HGTV and the programs it airs, logon to [www.HGTV.com](http://www.HGTV.com).

\* Editorial Note: Normal installation time for a Metal Spiral Stair Kit is two days.

## The Iron Shop Adds Second Welding Robot

A second welding robot has been added to The Iron Shop's production line, making the manufacture of its Metal Spiral Stair Kits more efficient. "I am currently working on fixtures for our second welding robot, to weld sleeves and gussets to landings," said Stuart Ostroff, project engineer. "The original robot, which was added to the production line three years ago, welds stair treads to sleeves."

The new robot, which increases productivity and part quality, was purchased from Lincoln Electric in Cleveland, Ohio. "Before a landing can be placed in the fixture, it is first cut out using one of the plasma cutting machines, and is then bent on the new Hurco CNC Brake," explains Ostroff. Each landing has its own program in the brake's touch-screen control panel; the operator simply selects the program for the parts he is processing and the computer sets all the necessary parameters. The two servo-controlled back gauges locate each edge of the part to be bent, and the brake can actually sense variations in material thickness, ensuring perfectly square bends as well as the actual location of each corner. "It is the combination of the plasma cutting and the Hurco CNC Brake that enable the robot to make consistent, durable weld joints.

The welding fixture utilizes pneumatic clamps to

hold a landing in place connected to its sleeve. "The robot has a separate program for each size landing and controls the location of each weld as well as the welding parameters," explained Ostroff. The robot welds the sleeve with a total of six welds, then internally welds the three corners. Once the corners are complete, the robot returns to "home" position and waits for the operator to place the gusset(s) using special location and clamping tools. The operator then presses the start button and the robot welds the gusset(s) using as many as 15 additional welds. "Since December when the robot was delivered, we have been able to build one fixture and have completed programs for both 5'-0" and 4'-0" landings." Next to be set up are the 4'-6" and 3'-6" sizes, and eventually all sizes up to 7'-0". Soon a second fixture will be added to this robot station to further increase productivity. With the second fixture running, the robot "up-time" will be over 80%. The operator will unload and reload one fixture while the robot is welding on the second.



Pictured above is the new robot welding the corners of a landing.

An improvement in productivity has already been realized. "Production time for a 5'0" landing is 7.25 minutes, this includes loading the fixture and sleeve, welding, loading gussets, welding and unloading. The robot can complete 50 to 60 5'0" landings a day. Smaller landings with a single gusset require less time and we expect as many as 70 per day." Manual welding of the landing requires nearly twice the time.

**Spiral Stair Today:** written by Joanna Barley and designed by Michele Lynn Cohen.

Distributed bi-monthly by The Iron Shop for its customers. If there is a topic you would like to see featured in *Spiral Stair Today*, please contact Joanna Barley at 1-800-523-7427 x156 or [joanna@TheIronShop.com](mailto:joanna@TheIronShop.com)

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