

# Real West

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**EVANGELINE**  
KAREN LAM'S *terrifying*  
REVENGE THRILLER

**BATTLE CATS**  
FUR FLIES BEHIND  
THE SCENES

**THE MOUNTIE  
RIDES AGAIN**

**ON SET: WHEN CALLS THE HEART**

**THE AIRWALL**  
Revolutionizing the  
Green Screen Business



# Airwall Raises the Bar

A made-in-BC inflatable revolutionizes the green screen business

Story and photos by  
John Thomson

“We built them out of pure laziness,” laughs Dave McIntosh about his invention, an air-supported green screen called Airwall.

Airwall is a system of inflatable sections that can be arranged to form walls up to 1,000 feet wide by 50 feet tall. Drape them in greens, blacks or blues and you have an instant VFX backdrop. It’s a cheaper and faster alternative to the conventional system of draping fabric over metal frames.

McIntosh jokes about the driving force behind his creation. Lazy? Maybe. But there’s another reason he turned to inflatables. Frustration.

Airwall actually grew out of an earlier design that had nothing to do with

green screens. His original concern was with overhead diffusers. As a key rigging grip with over ten years experience in features, McIntosh was getting frustrated and just a tad nervous about handling overheads in high winds.

“One of our biggest concerns is trying to deal with Mother Nature,” he says. “It gets really dangerous with all the crane work we do.”

Bunched up close together, overheads become almost impossible to control when the wind picks up.

“We actually have to go up and cut the material off and then remove them. We can’t fly again until the winds die,” he says. “So the first start was to do overhead diffusion.”

The game plan was to build a one-piece unit with the frame married to the fabric, light enough to be transportable but strong enough to withstand buffeting.

“We built some prototypes and they worked extremely well. They’re so strong. It’s amazing how stiff they are.”

So far, so good. And then in 2009 while working on *Watchmen* an unbraced VFX wall fell over.

"We've got to figure out another way here," McIntosh said to himself. "What are we doing? All we're doing is putting up a fabric. Do we need metal? Do we need any of that stuff?"

Would his inflatable overhead idea work with walls?

"The opportunity came up and I said 'I'm pretty sure these things will work.'"

His grip buddies Mike Branham, Steve Smith and Michael Kirilenko joined him in building a prototype. They created a company, Aircover Inflatables. They worked on the weekends and in between gigs. They tried doing it with scale models to keep costs down but as McIntosh says, air doesn't scale well and they were forced to go full-size. Disheartening? Sure. But as McIntosh points out the depression didn't last long.

"There's always moments like that but all it does is sit for a month or two and it [the enthusiasm] starts to come back."

Three years later, the prototype was patented. Airwall was ready.

Then *Godzilla* came to town.

"Mike (Kirilenko) and I went up to Seamus (DP Seamus McGarvey) and said 'would you be interested in trying something new?' and he said 'Let's have a look.' And then we went down to talk to Jim Rygiel, the VFX producer on the show and they jumped on it. 'Can you do a test?' 'Yeah, yeah' so we went down to the *Watchmen* backlot and set up a few. Those two guys absolutely loved it and after that there wasn't any question. It wasn't much of a sell."

McIntosh remembers the first day Airwall arrived on set.

"People didn't know what to think

at all. What the heck is this? I've never seen so many people eating burritos looking up. It was like standing around a giant campfire. Everybody was standing around eating their breakfast, looking and touching stuff."

"I have to admit I was skeptical at first," says Visual Effects Supervisor Jim Rygiel. "A blow up green screen? Never. But after setting up almost 600 feet wide by 34 feet high I am now sold. The ease with which we were able to blow it up and take it down was incredible."

It was really windy and the production wanted to change from green to black really quickly.

"So we deflated the wall and everybody ran over and tied on the black and put it up in 12 minutes," says McIntosh.

Airwall figures prominently in *Godzilla*. Watch the aircraft carrier scene. The carrier's bridge is real; everything else is computer-generated. And the Golden Gate bridge? It isn't a bridge at all but an Airwall 400 feet long.

The company makes its product in its North Vancouver shop out of heavy duty vinyl stitched together by industrial sail-making sewing machines. As with his Airwall invention, McIntosh had to break new ground trying to figure out how to do it.

"I basically built train tracks for the sewing machines so they could travel," he says nonchalantly. "We just put the material in and the machines travel back and forth."

The team tried to outsource the job but nobody could do it. So the company perfected the manufacturing process themselves. "Better control," says McIntosh.

They can make the sections in any

size the customer wants but 20 x 24 works well for sets. The walls can withstand winds of up to 70 kilometres an hour and have actually been used as wind blocks.

Green screen needs a tight, seamless surface. How do they get the screen wrinkle-free?

"We do them so tight and sealed up. The only air leakage is through the stitching and so it takes very few fans to keep them up," says McIntosh.

Airwall uses portable carpet fans to keep the structure airborne and although they have their own generators, the crew usually taps into movie power.

"Then we tie what we call an inflation tube," he says. "It goes along the whole top edge of the screen. We inflate that tube at the top and it pushes everything out. It ends up looking like a drum."

Noise isn't a problem because the fans are on the other side of an eight-foot thick vinyl wall.

"On *Godzilla* we did our sound tests and I had the sound guy drive out with the sound van. On the back of the wall you can hear stuff but on the filming side it's quiet, quiet."

Airwall is a third to two-thirds cheaper than using conventional walls because they don't require scaffolding, go up faster and don't require as many people to install.

The company presently has about 1,000 feet of inventory in stock. It intends to expand into other North American production centres, and eventually Europe, by partnering with industry locals. In the meantime, Aircover Inflatables unveiled its latest creation, a mobile version in a 53 foot refrigerator truck, on the *Big Eyes* set last February.

"We just take a reefer trailer," says McIntosh. "one of the big 53's, and

we rip the roof off and put all our inflatable stuff inside. So you just back this thing up and pipes slide out of the sides all the way to the ground, push a couple of buttons and within an hour you have a large blue or green screen."

McIntosh says Airwalls can also be used as inflatable billboards for advertising. It's a market he intends to pursue but admits movie work takes up most of his time.

And he hasn't forgotten about his original design which spurred Airwall in the first place, inflatable overheads. The company has perfected the original design and offers overheads as rain or sun covers in two sizes, 40 x 40 or 40 x 60 feet.

There are four principals in the company, McIntosh and his three grip buddies, and they do everything themselves, sales, manufacturing and assembly. McIntosh says they'll hire a sales agent soon. Orders are piling up and the company is poised on the brink of a major breakthrough.

"I think it's quite clever," says producer Jim Rowe who's seen Airwall grow from a glimmer in McIntosh's eye to where it is today. Rowe provided McIntosh with the industrial space to build his prototype.

"Now that it's built, it's a viable thing," he says. "I'm trying to get one for our next production."

It's an idea whose time has come, says *Godzilla* DP Seamus McGarvey. "I was so impressed when I first saw the designs," he says. "I know they'll become the industry standard."

A simple idea borne of insight and persistence.

"I don't know why nobody's done it before," says McIntosh, a bit pleased but overwhelmed with Airwall's success. "It just makes life so much easier." ■

