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SmartDummy Rescue Manikin

Pros

- + Interactive
- + Realistic
- + Durable
- + Includes VoiceBox

Cons

- Lighter than most victims

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The interactive VoiceBox allows the instructor to record a message specific to the day's training exercise. It can emit sounds in a loop or have the message play by sound activation.

One Smart Dummy

BullEx's SmartDummy Rescue Manikins provide realistic training

By Chad Allison

As is the case for most of us, I was exposed at length to training dummies in the fire academy. Like the turnout gear we wore that was adorned with the worn names of our predecessors, the three training dummies we used were beaten, simple and offered little to the user. The best dummy was constructed of plastic with stiff appendages and loose joints easily spun in their sockets. Its weight was strictly in the torso, and its maneuverability in a search and rescue exercise was awkward at best. Another dummy was little more than canvas-covered gravel with stitched, floppy appendages. As for the last dummy (and I use the term "dummy" here with only the loosest of guidelines), it was nothing more than bundled hose duct-taped into a shape that mimicked the human form.

While any product in our trade certainly has a range in terms of quality, practicality and price, I had assumed that training dummies were simply not meant to score high in quality and practicality because of inherent limitations. But then I was exposed to BullEx's Smart-Dummy Rescue Manikin, an interactive search and rescue dummy built with a heavy-duty canvas material and internal padding.

BullEx has taken a common training tool, added some unique features and created a superior product. The most unique feature is the SmartDummy's interactive VoiceBox, which allows the instructor to record a message specific to the day's training exercise. For example, in a search and rescue exercise, the instructor can have the dummy call out a pre-recorded message to rescuers or make coughing sounds to alert the rescuers of its presence. The VoiceBox can emit sounds in a



PHOTO COURTESY BULLEX

BullEx's SmartDummy Rescue Manikins are built with a heavy-duty canvas material and internal padding. They are 5'10" and come in two weights, 55 lbs. and 110 lbs.

loop or have the message play by sound activation. In one drill where a rapid intervention team was going into a collapsed building to recover a downed firefighter, I recorded a simple message on the VoiceBox that said, "Over here. Help! I'm running out of air." I placed the VoiceBox in the SmartDummy's head and buried the dummy in some drywall. When the rescuers entered the room, the SmartDummy responded to their calls and the sound of their shuffling as they searched.

During another exercise where I wanted the dummy to create a bit of stress for the rescuer, I had it issue a stream of complaints and ailments in a panicked voice. It was irritating, but realistic. Frantic victims have a tendency to kick up the blood pressure, and in this case, the effect on the rescuers was obvious. At one point, one firefighter asked if he could "shut the damn thing up." Haven't there been times when we all wished victims had a "mute" or "calm" button so we could concentrate on the task at hand?

There are two different versions of the SmartDummy: the regular SmartDummy and the Extrication Smart-Dummy. Both are 5'10", which compares to the realistic height of a victim, and come in two weights, 55 lbs. and 110 lbs.

The regular SmartDummy is constructed with weighted padding that makes it more manageable in tight areas. The limbs don't get hung up on objects like



PHOTO COURTESY BULLEX

other dummies I have used. The limbs also have weight in them, giving the dummy a more realistic weight distribution. The dummy also came with a set of coveralls, which are easily changeable and help prevent wear and tear on the body, as well as rubber boots on its feet, which helped when we were dragging it around.

Our crew used this SmartDummy to train in search and rescue, SCBA hot fill and buddy breathing, vertical and low-angle rescue, and vehicle extrication. The SmartDummy performed well in each training exercise. One feature that we discovered while performing search and rescue was that the dummy had a heat signature on the thermal imaging camera in a pitch black room. The SmartDummy can be used in live-fire training but is susceptible to heat. For this type of training, it was recommended that we put it in a set of turnouts and don't directly expose it to the fire or high radiant-heat temperatures.

As for the Extrication SmartDummy, it has all the same features and is constructed in much the same manner as the regular SmartDummy, but it has a few added features specially designed for vehicle extrication. The Extrication SmartDummy has a detachable left arm and leg that are held on with secure latches. It also has a hole through the chest to simulate a puncture wound. We performed a drill scenario where we rolled a vehicle on top of the regular dummy and had the extrication dummy in another vehicle with an iron rod piercing its chest and the seat behind it. That really emptied the truck and got the creative juices flowing! Again, the material used to construct the dummy is great because we were literally able to roll a vehicle on top of it without causing any damage. (Don't forget to remove the VoiceBox prior to such an operation; otherwise, it will be crushed.)

As indicated to me by the BullEx rep and the instruction manual, the SmartDummy cannot be exposed to much water because the materials used in its construction are water-absorbent. I didn't submerge it in water to find out how heavy it gets, but I'm confident that it would become extremely heavy and difficult to dry. During a training exercise that involved the use of charged hoselines, I put the VoiceBox in a Ziploc bag to protect it from leaky couplings and errant nozzle streams. The Ziploc bag didn't inhibit its function. I dialed up the sensitivity and volume setting because I was concerned that the bag would muffle the VoiceBox and restrict the sound activation feature.

As for concerns, I first questioned the dummy's weight (55 lbs. or 110 lbs.). Few of our patients (or firefighters for that matter) who we need to lug around weigh less than 110 lbs., which I brought up with the folks at BullEx, who were nice enough to send me a weighted vest that added an additional 75 lbs. When I threw an SCBA on the 185-lb. SmartDummy, no one complained about it being too light. The only issue with the weighted vest was that it impacted the



PHOTO CHAD ALLISON

While performing search and rescue, we discovered that the dummy had a heat signature on the thermal imaging camera, which provides another training opportunity in a pitch black room.

otherwise flawless weight distribution the dummy had at 110 lbs.

Another issue I ran into while using the SmartDummy happened while removing it from the back of my truck—the seam around the neck tore. The helpful staff at BullEx immediately sent me a replacement dummy and I was informed that the possible flaw was already being corrected. All SmartDummy Rescue Manikins come with a 1-year warranty.

Overall, the SmartDummy is a training tool that I would highly recommend because of its versatility on the training ground and its unique features, such as the VoiceBox. We dropped it off a parking structure (that was an accident), rolled a vehicle on it, put metal rods through it and did our best to run it through the ringer. It withstood all these abuses and is still in good shape. This is a high-quality product produced by a friendly staff. ☺

Chad Allison has been with San Diego Fire-Rescue for 10 years, currently serving as a fire engineer. He has a bachelor's degree in public administration.

| Trends |

Got Apps?

Smartphone apps let firefighters work smarter

By Jane Jerrard

Smartphones are changing the way we work. The number of apps (applications) designed for use by the fire service seems to increase every day, and is beginning to include more and more that put vital information at firefighters' fingertips—literally.

For example, Capt. Keith Klassen, Summit (Ariz.) Fire Department and columnist for FirefighterNation.com, keeps his phone handy while training his engine company. "I got my BlackBerry just over a year ago, and I put the Firefighter's Calculator app on it soon after I got it," he says. "It calculates water supply for fire flow, nozzle flow, nozzle pressure, all sorts of ►