

## Ergonomic Seating Within the Biomedical Research Environment

*Our thanks to Bevco for allowing us to reprint the following article.*



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The Galveston National Laboratory (GNL) - part of the Institute for Human Infections and Immunity at the University of Texas Medical Branch (UTMB), opened their new 186,000 sq. ft. biomedical research facility in November 2008. The laboratory space within the GNL totals 48,000 sq. ft. and features level 1 through 4 biocontainment areas with 12,000 sq. ft. dedicated to a high level BSL4 lab for studying the most dangerous pathogens. Within this state-of-the-art facility, an extraordinary group of scientists are engaged in efforts to translate research ideas into products aimed at controlling emerging infectious diseases and defending our society against bioterrorism.

The types of pathogens that are studied include anthrax, avian influenza, bubonic plague, hemorrhagic fevers (such as Ebola), typhus, West Nile virus, influenza, drug-

resistant tuberculosis among others. The GNL aims to be the pre-eminent resource within the United States for the safe conduct of essential infectious disease research.

Equipping a medical biocontainment laboratory demands some unique requirements when selecting ergonomic seating. Careful evaluation must be made regarding the suitability of any chair that will become a part of the lab and be used in a caustic and potentially hazardous environment. Routine exposure to formaldehyde gas and the capability to be decontaminated must be considered.

Representative seating samples were acquired from several manufacturers and were evaluated by the GNL staff. Each chair was rated for comfort, style, ease and extent of adjustments, durability, resistance to chemicals and the ability to be decontaminated. After careful consideration, the Model 7501D, chair manufactured by Bevco Precision Manufacturing Co., Waukesha, WI, was rated the best. Ultimately, 300 of them were specified and an order was placed.

"The comfort levels were noticeably superior to the other chairs that we tested. We especially liked the softness of the Polyurethane material used for the seats and backs of this chair. It's not too rigid" stated Dr. Andrew McNees, Ph.D. who is the Assistant Director. "Our staff routinely spends long work sessions at bio-cabinets, which by their design considerably limit movement. Researchers remain stationary for extended periods of time wearing a specialized protective suit and headgear that is sealed and connected to a designated airflow system for the researchers safety. The Bevco chair is not slippery. It grips, which enhances good posture and provides the staff with a high comfort level while working at these bio-cabinets. The molded pattern of Bevco's seats and backs allows for effective ventilation which contributes to the comfort of this chair" says Dr. McNees. "We also expect these chairs to hold up well when exposed to formaldehyde gas although this was not tested."

Bevco's Series 7000 Polyurethane chairs are designed for maximum comfort and long lasting service in a laboratory environment. They are incredibly durable with advanced ergonomic features that offer total body

support that contributes to enhanced productivity with less fatigue. The molded self-skinned seats and backs are stain and puncture resistant and feature a ribbed pattern for improved ventilation.



The Galveston National Laboratory (c) Hedrich Blessing Photography 2009.

Additional features of the Bevco 7000 series include; easy-to-use pneumatic height adjustment, ergonomic waterfall seat design, fully adjustable contoured back, 360° swivel and a sturdy five legged molded or tubular base. Each chair also comes with an exclusive full 12 year warranty.

Bevco offers additional options for their 7000 Series chairs. Articulating seat and back tilt for maximum ergonomic benefit, choice of glides or casters, adjustable armrests with polyurethane arm pads, larger 20 inch diameter adjustable footring, Class 10 cleanroom and ESD models and the option of blue, grey or black seat and back colors to name a few.

According to Dr. McNees, the Bevco 7501D's are an important addition to the GNL facility. "The chairs from Bevco are serving our needs well, as expected" he stated.

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