

High-tech chairs that do everything. Except compromise.



High-tech Ergonomic MicroTech[™] Seating Collection

BioFit Engineered Products is very involved in ergonomic comfort. We've developed ways of keeping people comfortable while they sit all day – even in clean room and static control operations. Microtech Seating in this catalog covers all classes of clean rooms, static control operations and combination environments.

Modular construction

Backrests, seats, armrests, bases, cylinders and many kinds of options can be exchanged on virtually every BioFit model.

This means that BioFit chairs can be customized to fit the worker and the task, even months or years after they have been put into service. Easy interchangeability of parts also allows you to upgrade seating as the science of ergonomics is refined.

At a workplace, modification of a seat-height range is the change most often requested. You can easily retrofit the seat-height range in the workplace by changing the pneumatic cylinder and/or chair base. This retains the use of the chair at the job site with only minutes of downtime.

Lumbar support

A standard feature on BioFit chairs is a lumbar support in the backrest. It prevents the spine from flattening into an unhealthy posture.

Chrome plating

Chrome plating is considered the most desirable finish for most hightech environments. BioFit's chrome plating is a point of pride for the company. The chrome plating is diligently inspected and found flawless before it can leave the factory. It will not crack or peel.

Soft Touch pneumatic

A standard feature on most BioFit seating is the Soft Touch pneumatic seat-height adjustment mechanism, warranted for the life of the chair. It provides easy adjustment of seat height from a seated position.

Foam

Molded foam gives BioFit seating superior density and durability. The foam's skin keeps it from breaking down should the upholstery become torn or cut.

Bumper guards

Internal bumper guards on the seat and external bumper guards on the backrest help guard against upholstery wear and tear, which could compromise the chair's performance.

Innovations

We continually refine what we do. Our engineers have invented filters and air exchange systems to keep chairs from contributing to clean room particle counts. We pioneered the use of static dissipative upholstery for clean room use. As our greatest achievement we offer a range of Class 1 seating. We are committed to serving high-tech industries and their people. It's a commitment you can count on.











Preferred Choices in Clean Room Seating.

For companies that specialize in medical devices, semiconductors, biotechnology, pharmaceuticals and other critical technical applications maintaining a contaminant-free manufacturing environment is essential. That's where BioFit for Technology can help. Our clean room chairs feature the right combination of ergonomic and particulate-containment benefits for any task, whether it's urethane-covered chairs for low-level applications, or polypropylene or vinyl upholstered chairs for Class 1 through Class 1,000 environments. Here are just a few of the industries you'll find BioFit for Technology seating at work:

Medical device / Aerospace / Bio-Science / Food processing / Munitions Nanotechnology / Semiconductor assembly / Pharmaceuticals / Electronics packaging

Key Construction Elements of Clean Room Seating

Class 1, Class 10 and Class 100 Upholstered Clean Room Chairs

Backrest is totally encased. Vinyl upholstery covers the front and the back. A polypropylene rear panel on the backrest provides protection so that the vinyl upholstery is not compromised if the chair bumps into a workbench or workstation.



A lip around the molded foam seat serves as a seat edge bumper guard.



Screws that attach the seat and backrest to the frame are put into a metal t-nut assembly with a thread sealant to prevent air leakage.



Seat board and cushion are wrapped with heavy-gauge expanded vinyl and secured with stainless steel staples to fully encase the seat bottom. The edges are sealed with a flexible adhesive.



Five-legged base is either solid, polished cast aluminum or heavy-duty, chrome-plated tubular steel. Chair legs in the tubular base are plugged to keep random particles securely inside.



Self-contained pneumatic seat-height adjustment mechanism cylinder is firmly plugged to keep particles securely inside. The mechanism allows adjustment of seat height with the touch of a finger. There is no discharge of gas or particles into the surroundings.



BioFit Clean Room Seating Features

Class 1 Seating (C1)

Most of our Class 1 styles of seating are constructed like our Class 10 model. They feature our exclusive air exchange system in the seat that allows no air to escape into the clean room surroundings. Assembly, wipe down and packaging of these chairs and stools under a laminar flow clean hood yields a Class 1 chair. The customer does final assembly in a clean setting.

Class 1^{Max} Seating (ASC-C1)

This advanced Class 1 BioFit chair is prepared for assembly like our other Class 1 chairs. In addition, it has an ergonomic seat and backrest tilt. The seat control is covered with a hard plastic pan and sealed with flexible neoprene rubber and double-sided high contact, nonoutgassing tape, covering all areas where particles could be generated.

Class 10 Seating (C10)

Class 10 seating features our exclusive air exchange system in the seat. An integral part of this system is an air reservoir, which is a bag encased in a protective pan attached to the seat. When the worker sits, the air in the seat cushion discharges into the reservoir, not the surroundings. To assure clean room compatibility at the Class 10 level, we assemble, wipe down and package Class 10 chairs under a laminar flow clean hood and the customer does final assembly in a clean staging area.

Budget Clean Room Seating

Hard surfaced chairs and utility stools are useful in clean room environments. They are available in Class 10 (CR10). The BioFit line of budget chairs and utility stools features the Soft Touch pneumatic seat-height adjustment mechanism, five-legged bases of chrome-plated tubular steel or cast aluminum, and chrome-plated finishes. Legs of budget seating are sealed to keep random particles securely inside. Fixed-height stools are also available for the clean room.





BioFit is one of the few chair manufacturers to offer a Class 10 chair in a breathable fabric. Called the N10 chair, it provides nonstick comfort because it is completely covered in a high-tech nylon called NYTEK[®]. NYTEK[®] nylon is laid down in a three-directional axis similar to the natural structure found in leather. It is comfortable to sit on and has superior durability.

Beyond the comfort of leather and the durability of nylon, NYTEK[®] also cleans easily with soap and water, is non-outgassing and nonshedding. NYTEK[®] nylon is backed with filter media that achieve Class 10 performance. Air that escapes to the surroundings is filtered through the media.

To assure clean room compatibility at the Class 10 level, we assemble, wipe down and package Class 10 chairs under a laminar flow clean hood and the customer does final assembly in a clean staging area.



Class 100 Seating (VUV)

BioFit Class 100 seating is constructed much like the Class 10 chairs. However, in Class 100 seating, BioFit uses a filtration system within the seat. The system traps particulates while allowing the seat to conform to body shape. The filter allows unrestricted air flow with a filter permeability of 230 CFM/Ft.2 The polypropylene filter media trap particles 0.1 microns and larger.

Class 1000 Seating (1000)

Class 1000 clean room seating is available for less stringent applications. Featuring plugged tubular chrome-plated or cast aluminum bases and chromeplated metal parts, these chairs are built on the same frame as all other BioFit clean room chairs. There is no seat filter or air exchange system. The vinyl underwrap under the seat matches the vinyl upholstery and covers the baseboard of the seat. The seat and backrest are not sealed, though the same filter material used in Class 100 BioFit chairs covers the exhaust ports in the seat and serves as a rough filter.





Clean Room Seating Options

Performance options enhance the effectiveness of clean room seating. in addition to the choice of cleanliness factor (C1-1000) consider these options:

• If you choose armrests for your chair, upholstered armrests are appropriate to assure cleanliness in a clean room.

• A dual-wheel polyurethane caster (CRC) made of low particle shedding material is appropriate for clean room use.

Ergonomic options should be considered to enhance employee performance. Minimal ergonomic features of lumbar support and a pneumatic seat height adjustment mechanism are standard on BioFit chairs. Other options are detailed with each chair line description.

Here are some options it may be important to consider:

• Various types of ergonomic backrests, seats, and seat controls can enhance employee performance by providing proper support and comfort.

• An adjustable 20" diameter footring (ATF) is another ergonomic option to consider. Footrings can relieve pressure from behind the knee and improve circulation to the lower legs and feet.

Casters/glides Recommendations

Recommended caster choices for clean room chairs include the CRC or the STR caster. The CRC is a dual wheel caster made of polyurethane, a low-shedding material. The STR caster is a conductive caster with a polyurethane wheel. It is appropriate for clean room chairs that also must function as static control chairs. These casters have a hood over the wheel to contain particles within the room exhaust area and are appropriate for hard surface flooring.

Note: Most BioFit Clean Room chairs are part of our Ship Now! program. Easy ordering! Call your local authorized BioFit Dealer or get detailed quotes with Get-A-Quote online. For more details on our Technology seating or other information visit us at **www.biofit.com**.

High-tech Ergonomic MicroTech™ Seating Collection

Technical Data on BioFit Clean Room Chairs

BioFit offers Class 1, Class 1Max, Class 10, Class 100 and Class 1000 chairs and stools for clean room use in industries such as semiconductor, aerospace, bio-science, pharmaceutical, medical equipment, computers, electronics, food processing and munitions. Clean rooms are controlled environments that meet Federal Standard 209E / ISO Standard 14644-1. Though the standard does not apply to equipment and supplies used in the clean room, BioFit has always maintained that seating used in the clean room must meet or exceed particulate cleanliness goals of Federal Standard 209E / ISO Standard 14644-1.

Testing

BioFit seating is tested following a test method jointly developed with an independent testing laboratory. The test is designed to evaluate particulate cleanliness of clean room chairs by means of particle analysis during seat and backrest compression. The testing isolates and counts the particles generated by a clean room chair and emitted from its seat and backrest.

Chairs are first cleaned to remove loose surface debris and then enclosed in ultra clean plastic bags. Clean air is flowed through the bags. Particles are monitored while the seat is compressed by a person sitting on it and simultaneously leaning against the backrest.

During a 30-minute period, the individual rises and sits on the tested chair six different times. Air passing through the bag takes the particles into a sophisticated particle counter. Particulate count samples are drawn from under the test chair seat.

The testing of BioFit clean room chairs verifies the chairs' suitability for the various types of clean rooms.

Combination Seating

Some engineers prefer clean room seating with an ESD option. Some engineers want ESD seating with a clean room option. Seating by either name is what BioFit calls combination seating. BioFit offers the best of its seating lines in combination seating. Examine the clean room and static control seating information, then consult individual chair model information before making your decision.

Static Dissipative Clean Room Upholstery

BioFit pioneers the availability of conductive/static dissipative vinyl upholstery material for any of its clean room chairs. It has lower surface resistivity than other fabrics available for use in clean rooms. There is no exposed carbon in the vinyl.





8

