

► How Mott porous metal can help biotechnology?

High-Purity Products – For Biotechnology

Mott porous metal media provides the best material for a wide range of applications in biotechnology research and production. For decades, Mott porous metal filters, spargers, and other devices have been the fast, reliable, cost-effective choice for filtration, flow restriction, gas/liquid contacting, and a wide range of other uses. Couple the exclusive benefits of Mott porous metal with our engineering expertise and experience in high-purity and semiconductor manufacturing, and you have the best possible source porous media in biotechnology applications.

Filters and Spargers

Mott High Purity Porous Metal Products For Biotechnology Applications

When it comes to characteristics like strength, precision, efficiency, longevity, or clean-ability, no other material performs more reliably than Mott porous metal. That's why Mott media is designed into dozens of applications in the biotechnology and pharmaceutical industries.



Key benefits of Mott porous metal include:

Uniform High-Precision Porosity

Mott produces strictly controlled porosity in media grades 0.1 μ m to 100 μ m. In gas/liquid contacting, Mott's precise pore sizes provide precision control of sparger bubble size allowing for optimal mass transfer rates. Mott spargers are available in all Mott media grades.

Depth Filtration

The compaction and sintering process arranges pores randomly,



creating a labyrinth of irregular pathways which effectively capture particles that enter the media. Particle capture efficiencies down to 0.003 μ m are obtained.

Corrosion Resistance

Mott porous metal products are available in corrosion resistant alloys like 316LSS, Nickel, Hastelloy®, Titanium and other alloys offering long term resistance to corrosive cleaning agents.

Tolerance of High Temperatures and Pressures

Mott porous metal products withstand temperatures up to 1700°F (925°C) in reducing or neutral environments and 1450°F (787°C) in oxidizing atmospheres and differential pressures in excess of 3000 psig (206 bar).

Clean-ability

Mott porous metal products can be cleaned in-situ with blowback (gas) or back pulse (liquids) methods. They can be washed or purged with water, solvents, bleach, caustic or acid solutions. They also can be autoclaved, steam purged or cleaned ultrasonically without degrading...even over years of use.



Mott In-tank Porous Metal Spargers
for efficiency in mass transfer



Porous Metal Filter Cartridges
for Vent, Steam and Gas Filtration

Mott porous metal applications in the biotechnology and pharmaceutical industries include:

- Bioreactor/fermentor process gas spargers
- Vent filters
- Steam filters
- Steam spargers
- Gas line filters

For more information

Click on the images below to download our [single-page Biotechnology Product Sheet](#) or our [Biotech Quick Change Sparger Data Sheet](#). You may also contact our High Purity Sales Department to request information on any of our Biotech and porous metal products. High Purity Sales, Mott Corporation, 84 Spring Lane, Farmington, CT 06032, 1-860-747-6333 or Toll-Free 1-800-BUY-MOTT; E-mail:

High Purity Porous Metal Products for Biotechnology Applications

When it comes to biotechnology, the strength, precision, efficiency, reliability, and durability of the porous metal products are what really count. High purity porous metal products are designed to meet the rigorous demands of applications in the biotechnology and pharmaceutical industries.



Advantages of High Temperature and Pressure
High purity porous metal products withstand temperatures up to 1750°F (950°C), reducing or eliminating the need for stainless steel and Inconel. They are also resistant to caustic cleaning solutions and sterilization processes.

Chemical Compatibility
High purity porous metal products can be dissolved in water and 30% hydrochloric acid. They are also resistant to concentrated acids, alkalis, oxidizing acids, and organic acids. They also can be autoclaved, steam-sterilized, or chemically sterilized.

High purity porous metal applications in the biotechnology and pharmaceutical industries include:

- Bioreactors, fermenters, plasma processing
- Cell Culture
- Oxygenation
- Gas-Liquid Flow



High Purity High Intrinsic Porosity
High purity porous metal products have an intrinsic porosity of 80-90%, providing a large surface area for gas-liquid contact.

Quick Release
High purity porous metal products are designed for quick release. They are chemically resistant to cleaning solutions and can be autoclaved.

Complete Solutions
High purity porous metal products are available in a complete range of sizes and configurations. They are also available in a variety of materials and finishes to meet your specific needs.

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mett corporation
3400 Springdale, Fort Lauderdale, FL 33309, USA
www.mettcorp.com or quest@mettcorp.com
800.343.4276 (Toll Free) or 954.343.4276

Quick Change Sparger System for Bioreactors and Fermenters

Sparging and Mixing Considerations for Gas-Liquid Systems
The design of a gas-liquid sparger system is critical to the success of a bioreactor or fermenter. The design must take into account the gas-liquid interface, the gas-liquid interface, and the gas-liquid interface. The design must also take into account the gas-liquid interface, the gas-liquid interface, and the gas-liquid interface.

Quick Change Sparger Provides Fast and Easy Installation and Validation
The Quick Change Sparger System is designed for fast and easy installation and validation. The design is simple and easy to use, and it provides a high level of performance and reliability.

The Quick Change Sparger System provides the following advantages:

- Fast installation and validation
- Easy operation and maintenance
- High performance and reliability
- Low cost and high value



Quick Release and Validation
The Quick Change Sparger System is designed for quick release and validation. It is easy to install and remove, and it provides a high level of performance and reliability.

Easy Operation and Maintenance
The Quick Change Sparger System is designed for easy operation and maintenance. It is simple to use and provides a high level of performance and reliability.

High Performance and Reliability
The Quick Change Sparger System is designed for high performance and reliability. It provides a high level of performance and reliability.

Low Cost and High Value
The Quick Change Sparger System is designed for low cost and high value. It provides a high level of performance and reliability.

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