

# BIOPROCESS SAMPLING CASE STUDY

## SIMPLIFYING SAMPLING WITH A CLOSED SYSTEM SOLUTION

### NEED

A vaccine manufacturer required a novel process sampling solution for taking multiple conical tube samples at varying time points. In order to provide the highest level of sterility assurance, samples would need to be taken in a closed manner without using a biological safety hood. Test methods required samples to be taken using multiple tube materials and at varying volumes.

### SOLUTION

VWR<sup>®</sup> Single-Use Solutions designed, prototyped, and commercialized a GMP-compliant custom solution that achieved all the benchmark requirements. Our design utilized our proprietary 10-leg, platinum-cured, silicone-molded manifold to act as the spine directing fluid to each of the conical tube collection vessels. Utilizing the latest technology in 3-D design and printing, our engineering and development teams created a new style conical tube cap with ports to allow for fluid inlet and venting. Equally important to the design of the system is the user interface and method of sample collection. Our teams designed a custom holder to protect the tubes and support the manifold to allow for total fluid collection with zero hold-up. The holder was designed using plastics that are washdown acceptable and GMP compliant.

### RESULTS

The customer integrated our custom OmniTop Sample Tubes<sup>®</sup> Manifold into their process work stream, realizing an increase in process efficiency and sterility assurance. This platform sampling solution is capable of sampling at multiple points in their process and with the flexibility designed in to allow for a multitude of sampling options.

VWR designed a GMP-compliant, custom OmniTop Sample Tubes Manifold to meet a customer's closed system sampling requirements.



VWR<sup>®</sup> SINGLE-USE SOLUTIONS  
**IDEA | DESIGN | CUSTOM SOLUTION**

# VWR® SINGLE-USE SOLUTIONS

Enabling biopharmaceutical manufacturers to implement technologies that accelerate scientific innovation.

We provide expertise, product choice, and services to help you navigate fluid handling challenges, component options, and quality and regulatory compliance constraints of the single-use world. At VWR, we help solve unique problems in all areas of a biopharmaceutical manufacturing operation - to keep your production line running.



## EXPERTISE

### A Collaborative Approach to Designing Your Solution

- Single-use experts with fluid connectivity knowledge and expertise
- Complete single-use manufacturing facilities
- Traditional stainless steel-based facilities
- Helping you convert from self-assembled items

## CHOICE

### Access to an Unmatched Product Portfolio

- Open architecture with components sourced from multiple suppliers
- Unbiased integrator with global reach
- 100+ standard products available for many typical bioprocess operations

## SERVICES

### Designed to Keep Your Production Line Running

- Expedited design and approval process
- Drawings in under three days
- Complete validation packs in under three days
- Unmatched global logistics and planning



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