

# BM-EVO respirometer for Avantor Performance Materials in Center Valley – Pennsylvania (US)

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[Avantor Performance Materials, LLC](#) acquires a SURCIS [BM-EVO Multifunction Respirometry System](#) for its Center Valley facility in Pennsylvania (US).



BM-EVO Respirometry system

This operation was made possible thanks to the effective intervention of [Alloway](#), which is a Surcis distributor-partner in the USA. The transaction follows a videoconference presentation-demonstration with the participation of Allway-Avantor-Surcis. It was also influenced by Alloway's active marketing campaign in the U.S., which includes a series of [videos](#) and a demonstration programme.

Avantor is a world-leading global provider of integrated and customised solutions for the life sciences and high-tech industries. In 2017, Avantor acquired VWR, the world's largest independent provider of product, supply chain and service solutions for laboratory and manufacturing customers.



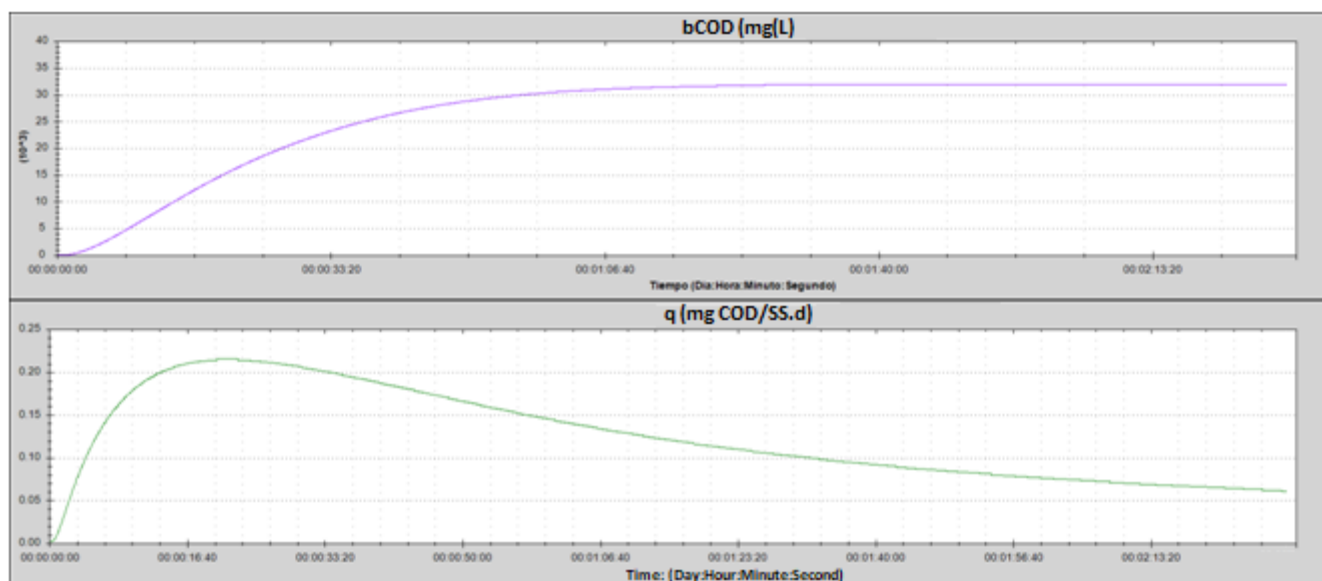
Avantor - Centro de I&D en Center Valley - Pennsylvania

The BM-EVO is part of the Surcis BM Respirometry Systems family and is, together with the BM-Advance, the most widely accepted system. Its main attraction is that it is a compact, easy-to-operate, cost-effective and compact respirometer. It uses the same software of the BM family, in which most of the Respirometry applications can be developed.

One of the applications that Avantor will carry out with the BM-EVO is the one related to the biological treatment capacity approached to the determination of the sample/slug ratio limit that a process can deal before any possible partial toxicity.

In the BM-EVO, the COD removal capacity of the process can be obtained from the kinetic parameter that measures the specific removal rate of the biodegradable COD ( $q$ ) under the current conditions.

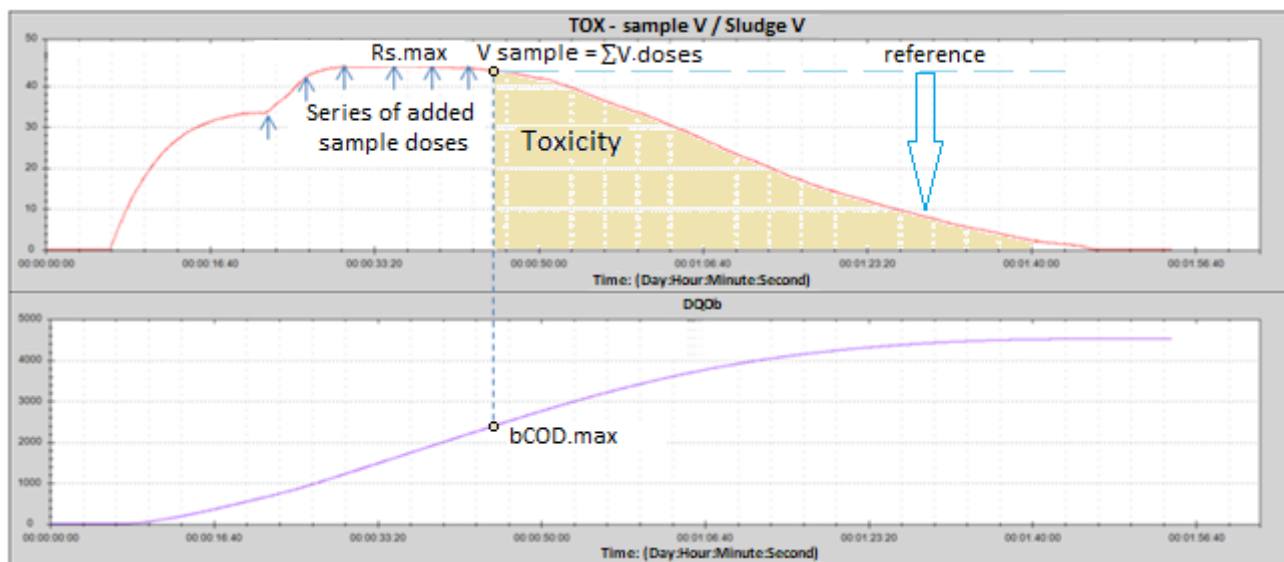
The value of the parameter  $q$  is obtained automatically by the respirometer, simultaneously with the biodegradable COD (bCOD), throughout the respirometry test.



Simultaneous respirograms of bCOD and  $q$

The parameter  $q$  (mg COD/SS.d) can be related to the loading rate of the biodegradable COD. And it can be used to assess the actual treatment capacity of the process.

With regard to the determination of the sample/sludge limit ratio in the presence of partial toxicity, the BM-EVO allows a test to be carried out in which progressive doses of sample are manually added to a standard reference until the dynamic respiration rate ( $R_s$ ) decreases clearly above the maximum  $R_s$ .



With this new respirometer acquired by Avantor, there are now eight multifunction BM respirometry systems installed in the United States.