

Honeywell and ZoneFlow complete steam-reforming pilot project in Belgium

August 9, 2023 | By Mary Bailey

[Honeywell](#) International Inc. (Charlotte, N.C.) and ZoneFlow Reactor Technologies, LLC ([ZFRT](#); Windsor, Conn.) announced that they successfully conducted pilot plant testing of the [ZoneFlow Reactor](#) in ZFRT's large-scale pilot plant at Université Catholique de Louvain in Louvain-la-Neuve, Belgium. The near-commercial-level testing validated increased steam reforming capacity by at least 15% in terms of feed flow compared to conventional state-of-the-art pellets, with no higher methane slip and without increasing the maximum tube skin temperature or pressure drop. This increased production of hydrogen allows for the steam methane reformer to convert hydrocarbon feeds such as natural gas or naphtha and steam into synthesis gas.

In 2021, Honeywell UOP and ZoneFlow Reactor Technologies, LLC signed a joint development agreement to grow and commercialize the ZoneFlow Reactor technology. This technology can provide a significant improvement in the productivity and cost-effectiveness of steam methane reforming for hydrogen and syngas production.

“The combination of Honeywell’s domain expertise and ZoneFlow’s Reactor technology is geared to provide high value creation for both new and existing steam methane reforming units. There are over 800 steam methane reforming units worldwide for hydrogen generation and a similar number employed for ammonia and methanol production. The successful testing can allow for significant capital savings for new steam methane reforming plants and higher productivity for existing plants,” said Ted Faiella, vice president and general manager of

Equipment, Honeywell UOP Process Technologies. “As ZoneFlow’s reactors can increase hydrogen production with existing assets, this ready-now technology can play a major role in the energy transition as refineries look to burn hydrogen instead of natural gas to lower their carbon emissions.”