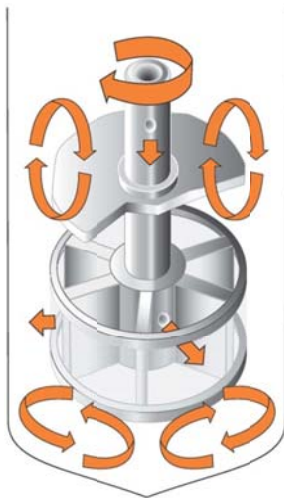


# Press Release

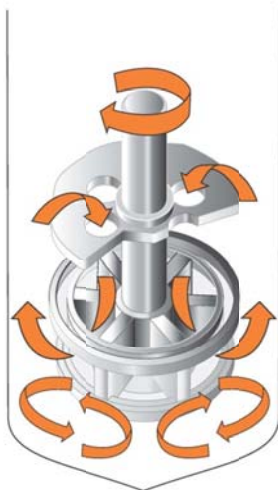
## Autoclave Engineers Division of Snap-tite Inc.

Release date: December 14, 2010



Autoclave Engineers has developed two new types of catalyst baskets. The spinning Dispersimax™ catalyst basket impeller is designed for liquid/gas/solid (LGS) phases where the catalyst cannot be suspended or the researcher wants the catalyst in a basket. If it is for gas/gas/solid (GGS) work or a Fisher-Tropsch (FT) environment, we would then use a GGS-FT basket impeller attached to a solid shaft with no Dispersimax™ features.

The LGS-Dispersimax™ spinning catalyst basket impeller, apart from being a catalyst basket, works exactly as a standard Dispersimax™, allowing gas to be drawn down the hollow shaft and to promote a positive flow through the hole in the impeller for dispersion. This will allow the catalyst contained to have a positive flow of gas over it, or entrained. It also offers the effect of re-circulating the gas again down the shaft. This spinning basket developed for the Mini-reactor, has a mesh size as small as 8 micron and a volume between 15 - 20 ml. However, AE can custom design this to make it available for any reactor that uses a Dispersimax impeller. This feature allows the researcher to screw a new basket into the MagneDrive shaft to replace the existing impeller, very easy and attractive option for any research where a catalyst cannot be suspended or is too fine.



The GGS-FT basket impeller is designed only for single phase applications of gases, is to be used with a solid shaft, and adapts as with the spinning basket directly onto the MagneDrive<sup>®</sup> shank. The profile of the basket has a small annulus or space between the mesh of 1-2mm from either 8 micron up to 20micron or larger mesh sizes. The cover has holes which allow the gases to be drawn into the basket area and force a positive flow over the catalyst area suspended within the annulus. This effective motion realizes activation of the gases by the catalyst and any gas can be re-drawn and entrained due to the flow path and features of the basket impeller.

Autoclave Engineers have been at the forefront of development of reactors and products to support the development of new catalyst and processes through tried and tested systems, catalyst baskets and other associated equipment and approaches to support the researcher's needs. Autoclave Engineers have further developed and introduced new and larger inline MagneDrives™ for reactors such as the Mini-BC HTHP and new spinning catalyst baskets for Liquid/Gas/Solid and Gas/Gas/Solid applications.

For more information, please contact Autoclave Engineers on the web at [www.AutoclavEngineers.com](http://www.AutoclavEngineers.com) or by phone at 814 860-5700.

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