Parker Autoclave Engineers has two catalyst baskets available for their Mini-Reactors, the Dispersimax™-GLS and GGS.

The spinning Dispersimax™ catalyst basket impeller is designed for gas/liquid/solid (GLS) phases where the catalyst cannot be suspended or the researcher wants the catalyst in a basket. If the process is gas/gas/solid (GGS) work, then use the GGS basket impeller attached to a solid shaft with no Dispersimax™ features.

The Dispersimax™-GLS 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 1-1.5 ml. However, Parker Autoclave Engineers 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 Gas/Gas/Solid (GGS) spinning catalyst basket impeller is designed only for single phase applications or gases, is to be used with a solid shaft, and screws directly onto the MagneDrive® shank. The profile of the basket has a small annulus or space between the mesh of 1-2 mm from either 8 micron up to 20 micron 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 is re-drawn and entrained due to the flow path and features of the basket impeller.

Parker Autoclave Engineers has 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.

For more information, please contact Parker Autoclave Engineers on the web at www.AutoclaveEngineers.com or by phone at 814 860-5700.
WARNING

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