

Catalyst Baskets

Catalyst baskets can be provided for holding a supported catalyst so that it will not be destroyed or changed by the stirring action of the impeller. These can be installed in reactors with volumes ranging from 300 to 2000 mL. Two interchangeable styles are available. Special heads, internal cooling coils, thermowells and dip tubes are required to provide clear space in the vessel for these baskets.

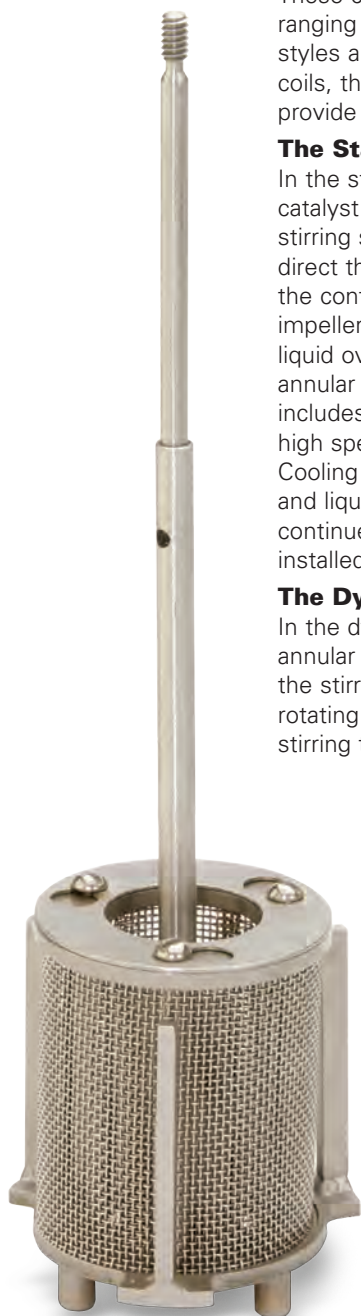
The Static Design

In the static design the mesh basket holding the catalyst remains stationary while impellers on the stirring shaft and baffles outside of the basket direct the flow of reactants over the surface of the contained catalyst. A unique gas entrainment impeller provides a uniform flow of both gas and liquid over the fixed catalyst bed held within the annular basket. The Parr design for these baskets includes a rigid bottom support which permits high speed stirring without excessive vibration. Cooling coils, internal temperature measurements, and liquid and gas sampling operations can be continued as usual without interference from the installed catalyst basket.

The Dynamic Design

In the dynamic design the catalyst is held in an annular shaped, mesh basket which is attached to the stirrer drive in place of the stirring shaft. The rotating basket then serves as an impeller for stirring the reactants. Fixed baffles and coaxial

impellers ensure good circulation over the surface of the contained catalyst. The dynamic baskets are available for reactors with volumes of 1000, 1800, and 2000 mL. Dynamic baskets must be installed in reactors equipped with at least 1/4 hp motors to ensure that sufficient stirrer torque and speeds are available for proper operation. Dynamic baskets are interchangeable with static baskets in 1 liter and larger vessels.



Catalyst Basket Static Design



Catalyst Basket Static Design with Uniflow Stirrer



Catalyst Basket Dynamic Design

