Catalyst Baskets

Optional Fittings

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.

Catalyst Basket Assemblies

Reactor	Volume	Style	Catalyst Volume CC	Basket Catalog No.
4561*	300	Static	40	A2026HC
4562*	450	Static	40	A2026HC2
4563*	600	Static	40	A2026HC3
4566*	300	Static	40	A2026HC4
4567*	450	Static	40	A2026HC5
4568*	600	Static	40	A2026HC6
4521/31	1000	Static	150	A2037HC
4521/31	1000	Dynamic	150	A2038HC
4522/32**	2000	Static	150	A2037HC2
4522/32*	2000	Dynamic	150	A2038HC2
4544*	600	Static	40	A2310HC
4545*	600	Static	40	-
4546*	1200	Static	40	A2310HC2
4547*	1200	Static	40	-
4548*	1200	Static	40	-
4571/73	1000	Static	150	A2039HC
4571/73	1000	Dynamic	150	A2040HC
4572/74*	1800	Static	150	A2039HC2
4572/74*	1800	Dynamic	150	A2040HC2
4575	500	Static	40	A2041HC
*May require special inlet tube and thermowell				

Catalyst Basket Dynamic Design

Catalyst Basket Static Design with Uniflow Stirrer

Catalyst Basket Static Design

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.