BASKETS

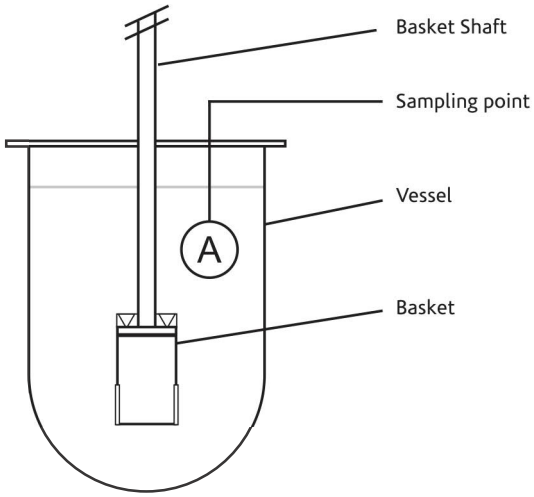
THE BASKET METHOD Apparatus 1

Adopted in 1970, the rotating basket method of dissolution testing was the first official method. It essentially consists of an approximately 1 inch (25.4mm) × 1 3/8 inch (34.925mm) stainless steel, 40 mesh wire basket rotated at a constant speed between 25 and 150rpm. This method is now called Apparatus 1 (or Method 1).

The apparatus consists of a metallic drive shaft connected to the cylindrical basket. The basket is positioned inside a vessel made of glass or other inert, transparent material (see page 20). The vessel contents are kept at a constant temperature by being placed inside a water bath or heating jacket. The solution in the vessel is stirred smoothly by the rotating basket.

The USP Method 1 requires a 40 mesh screen unless otherwise specified in the monograph. Other meshes can be used to solve individual problems.

Baskets and basket shafts should be serialized where possible and the serial number noted for each test. All baskets are supplied with a Certificate of Conformance (COC) stating that they are USP compliant, where applicable, and that they meet the machine manufacturer specifications. A Certificate of Analysis (COA) is available at an additional cost.

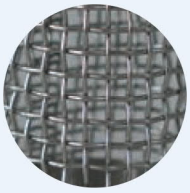


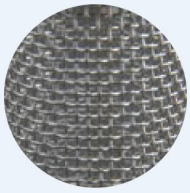
KEY CONSIDERATIONS

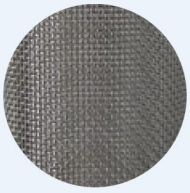
Mesh Openings — One of the biggest problems associated with the basket method involves the clogging of the mesh openings by particles or excipients or the random release of particles through the mesh to the bottom of the vessel. Baskets with a wide variety of mesh openings are available and if the disaggregated particle size is consistent, a variation of mesh size may solve some difficult dissolution problems.

Sintered Mesh — Every QLA stainless steel basket, that conforms to USP, is manufactured using a sintered mesh. Sintering is a strengthening process that compresses and heats the mesh under high pressures and temperatures. This results in welded joints at all the wire overlaps and adds considerable strength and longevity to the basket.

Suppository Baskets — Made from plastic, these baskets have vertical slots instead of mesh to facilitate dissolution. Blocking and/or clogging of the mesh opening is prevented by the use of such a basket, particularly when oil-based suppositories are used.


10 MESH


20 MESH


40 MESH


SUPPOSITORY BASKETS

Note: Other mesh sizes are available on request. For more information, contact your QLA Sales Rep.

CARE & MAINTENANCE

Basket Handling — Since dissolution basket mesh is easily deformed, baskets should only be handled by the upper rim. QLA offers a special tool for installation and removal of baskets from the basket shaft (see page 6).

Basket Cleaning — Care should be exercised to ensure that baskets are clean prior to use. Often the dosage form can clog the mesh which will prevent free media movement into the basket. Careful cleaning is required to ensure there is no contamination between tests.

Basket Storage — Baskets should be stored correctly to extend their life. They can frequently be found rolling around in a lab drawer! Baskets can easily be stored in the supplier's case or using a specially designed basket holder (see page 7).

Note: All baskets are laser marked with a unique serial number and come with COC (where applicable).