

## PADDLES

### The Paddle Method (Apparatus 2)

Apparatus 2, commonly known as the paddle method, has similar physical specifications to those of Apparatus 1 with a paddle substituted for the rotating basket.

Some of the dimensions and tolerances for the paddle are critical if consistent results are to be obtained from vessel to vessel.

The USP specifies that the paddle must rotate smoothly without significant wobble. The arc of the paddle blade creates considerable flow and any wobble will have an exaggerated effect on the flow profile.

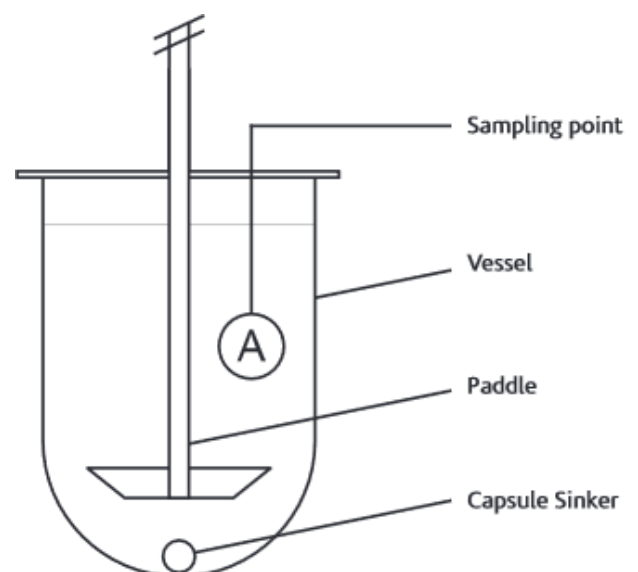
The contours of the paddle blade must not include any sharp edges — at the tips for instance — that could produce turbulent instead of laminar flow patterns.

All RIGGTEK paddles are certified U.S. Pharmacopeia compliant where applicable.

### Key Considerations

#### Type of Paddles:

- **Electropolished 316 Stainless Steel**  
The 316 stainless steel (316 SS) shaft is strong and has a high resistance to bending. It is electropolished for removal of surface impurities and corrosion resistance.
- **PTFE coated**  
The USP suggests that paddles may be coated with an inert coating. Most paddles are accordingly coated with PTFE or another inert coating. If peeling or flaking of the coating is observed then the paddles should be replaced.



- **Solid Fluoropolymer**

This Paddle is available on special request. The single piece molded design features a fluoropolymer blade and single piece stem molded onto an electropolished 316 SS shaft. This innovative design features no paddle-to-shaft joint, thus eliminating potential cross-contamination and removing a probable corrosion path. Wobble is also considerably reduced in the solid fluoropolymer paddle because it is a single piece cast.

## Cleaning and Maintenance

- **Storage of Paddles and Shafts**

Bent or scratched paddles and shafts fail to comply with USP regulations, so it is essential not to store paddles and shafts on a desk or loose in a drawer where damage or corrosion can occur. Proper storage in a shaft/paddle holder (see Shaft Holder) can prevent damage from occurring.


- **Wobble**



A Wobble Meter (WOBMET-MI) is available to monitor paddle, basket and shaft wobble.

Note:

All paddles are laser marked with a unique serial number and come with „Certificate of Conformance“ (COC).

A blue laser-marked serial number Q03026.