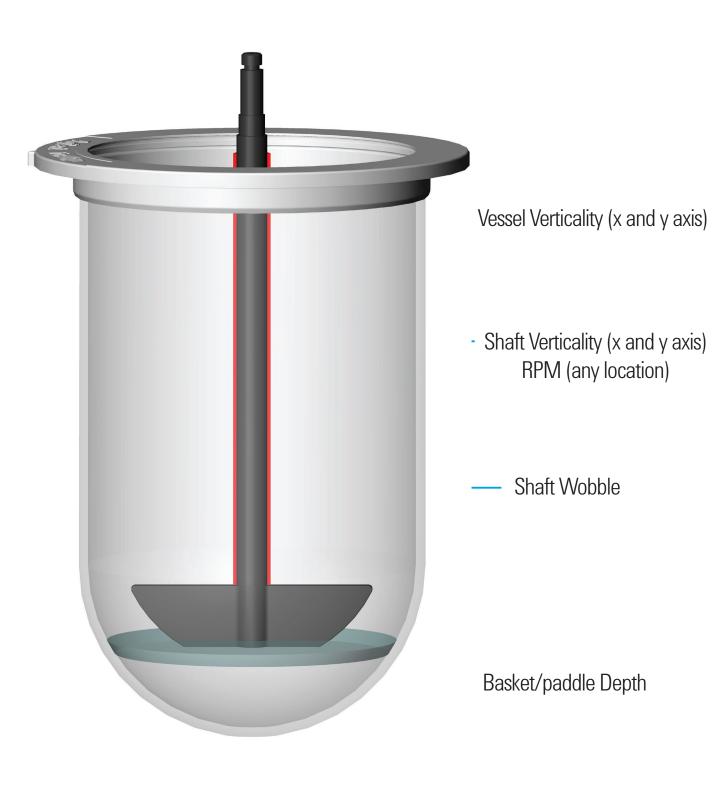
# **Mechanical Qualification Guide**



## **Agilent Technologies**

### **Vessel Measurement**



#### Basket Wobble and Vessel Plate Level Not Shown

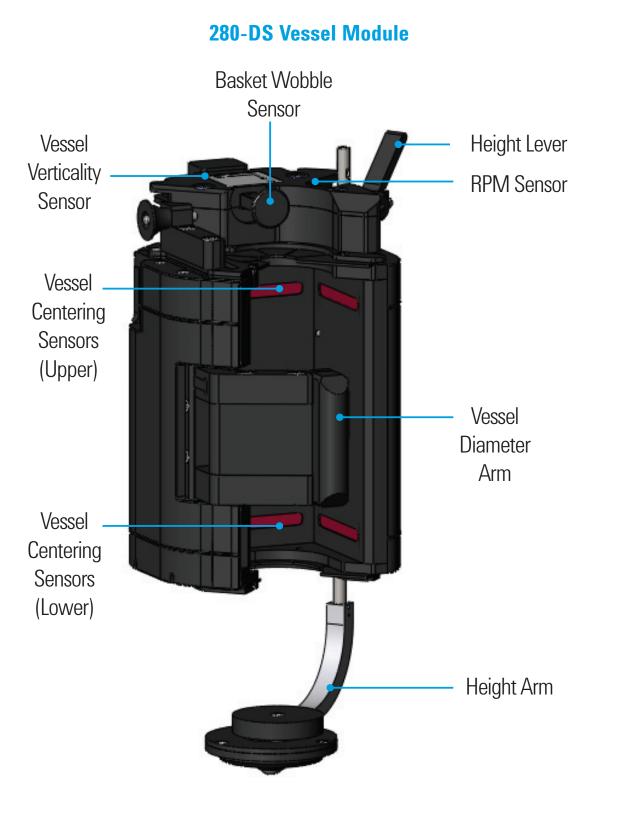
#### **Dissolution Mechanical Qualification Specifications and Tolerances**

Parameter	ICH Harmonized (USP, JP, EP)	FDA DPA-LOP.002	ASTM E2503-07	USP Toolkit Ver 2.0
Basket and paddle depth	25 ± 2 mm	25 ± 2 mm	25 ± 2 mm (or <8%)	23-27 mm
Rotational speed	± 4% of specified rate	± 2 rpm of target	± 2 rpm or within 2% of target (larger)	± 1 rpm of target
Shaft wobble	No significant wobble	$\leq$ 1.0 mm total runout	$\leq$ 1.0 mm total runout	≤ 1.0 mm total wobble
Shaft verticality	Not measured	$\leq$ 0.5° from vertical	Within bubble	Not measured
Basket wobble	±1mm	$\leq$ 1.0 mm total runout	$\leq$ 1.0 mm total runout	$\leq$ 1.0 mm total wobble
Vessel/ shaft centering	NMT 2 mm from center axis	$\leq$ 1.0 mm from center line	$\leq$ 1.0 mm from center line	NMT 2.0 mm difference (4-90°positions)
Vessel verticality	Not measured	≤ 1.0° from vertical (2 - 90° positions)	$\leq 1.0^{\circ}$ from vertical (2 - 90° positions)	NMT 0.5° from vertical
Vessel plate level	Not measured	Not measured	Not measured	NMT 0.5° from horizontal
Performance Verification	USP Prednisone Tablets RS	Not measured	Not measured	USP Prednisone Tablets RS

#### **Measurement Capabilities**



Vessel Centering



#### **Accessory Inspection**

Accessories can change in form with use. Thus, a critical element of MQ is inspecting the integrity of the dissolution instrument and its accessories prior to starting a test.

#### Acceptable Accessory Photos



New stainless paddle

New PTFEcoated paddle New



New stainless steel basket New stainless steel basket shaft

#### **Unacceptable Accessory Photos**

#### **Pre-run Checklist**

- Vessel examination/orientation
- Paddle examination
- Basket/basket shaft examination
- Measurement of initial vessel temperatures
- Evaluation of vibration
- Ensure water bath is clean



Rusted stainless steel

paddle



Slightly worn-PTFE paddle





Bent stainless steel

Basket shaft with bent

#### **Preventive Maintenance Recommendation**

Preventative Maintenance should be performed every 6 months. The appropriate internal components should be lubricated, belts checked for wear, and all electrical connections inspected.

#### **Dissolution Hotline**

Questions? Contact us for complete method development, regulatory guidance and instrument-related support at dissolution.hotline@agilent.com

Badly damaged PTFE-coated paddle

Damaged PTFE- coated paddle

Damaged stainless steel basket seam

O-ring stainless steel basket shaft

#### **Contact Us**

For more information on Agilent Dissolution Systems products and comprehensive service and support options, visit www.agilent.com/lifesciences/dissolution

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