# VESSELS

# THE VESSEL

Good dissolution vessels are critical in obtaining correct and reproducible results and are sometimes overlooked as a key element in the dissolution test.

All vessels meet the physical dimensions of the USP and have a hemispherical bottom which means that they should be perfectly rounded with no obvious defects of the glass on the inside. Wall thicknesses should be even and reproducible.

Although the USP states the dimensions for vessels, the tolerances are actually quite wide, meaning vessels associated with various dissolution baths are not dimensionally the same. Replacing a vessel with one not specifically designed for the instrument could impair vessel centering and paddle height. Also larger or smaller inside diameters can affect vessel hydrodynamics.

**Note:** QLA vessels are acid etched, or laser marked on plastic rim, with a unique serial number and come with a Certificate of Conformance (COC), where applicable.

# IMPROVE YOUR DISSOLUTION RESULTS WITH QLA ULTRACENTER™ PRECISION VESSELS







UltraCenter™ Precision Vessels are available in clear and amber, Glass Rim, Plastic Rim and PEAK versions. QLA's molded PEAK vessels are Patent Pending.

Small variations in vessel dimensions have been shown by the USP and others to contribute to excessive changes in dissolution rates. UltraCenter™ Precision Vessels are produced using a unique molded process which provides a precise and consistent inside diameter and spherical radius resulting in a more reproducible dissolution profile. They are compatible with most dissolution baths and have been adopted as a standard by many major pharmaceutical companies.

When used in conjunction with QLA's AccuBracket<sup>™</sup>, your lab will achieve the highest level of vessel centering accuracy available. See MISC DISSOLUTION ACCESSORIES Section, page 43.

# **QLA Certificates**

### COC

All serialized QLA parts — like baskets, paddles and vessels — come with a Certificate of Conformance (COC) at no extra charge.

### COA

Certificate of Analysis (COA) is available for all QLA serialized parts — like baskets, paddles and vessels — for an additional fee.



# **KEY CONSIDERATIONS**

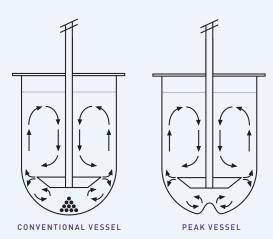
Glass Vessels benefit from good thermal conductivity (it is often necessary to have the temperature of the water bath as much as 2°C higher than the analysis temperature when using plastic vessels). Another advantage of using glass vessels is their high resistance to scratching, which means they have to be replaced less frequently.

**Amber Vessels** can be used if light sensitive compounds are being tested. They are available in glass and plastic.

Plastic Vessels are very reproducible because they are made from a mold rather than hand formed. They also have feet which allows them to stand upright independently. The biggest disadvantage is that plastic is very prone to scratching and cracking, requiring frequent replacement. Plastic vessels have the advantage over glass in that they are very reproducible. The vessel is made from a mold rather than hand-formed. This reduces possible errors in setting the paddle height and centering and can give very reproducible results. Another advantage of plastic vessels is that they have feet so they can stand upright independently.

Plastic Rim Vessels were developed to help minimize glass rim breakage that can occur during normal laboratory use. They are produced by a unique proprietary bonding method using high impact plastic which eliminates rim breakage and safety concerns. All QLA Plastic Rim Vessels are dishwasher safe. Plastic Rim Vessels come in both Standard and UltraCenter™ Precision versions. Serial numbers are laser marked on the plastic rim only.

Peak Vessels are designed to prevent cone formation at the base of the vessel. An undesirable poorly stirred cone shaped region can develop under the paddle during USP Apparatus 2 dissolution tests. Peak vessels have a cone shape molded into the bottom of the vessel that improves the hydrodynamics around the dosage form and leads to more reproducible dissolution rates. The peak effectively displaces the unstirred cone, forcing the material tested into the region of appropriate hydrodynamics, where all surfaces of the dosage are constantly and uniformly exposed to the moving medium. Peak vessels do not comply with USP specifications and cannot be substituted in existing applications.







GLASS VESSEL

AMBER VESSEL



PLASTIC VESSEL



PLASTIC RIM VESSEL



PEAK VESSEL

QLA's UltraCenter™ Precision PEAK vessels are Patent Pending.





# UltraCenter™ Precision Vessels

# Standard Vessels: (Agilent) continued.

Standard Vessets: (Agrient) Continued.					
Part No.	Description	OEM Ref	Part No.	Description	OEM Ref
ASTM900-UN	1000mL Clear UltraCenter Precision	QLA	GLA900-AV	1000mL Amber Glass Vessel, Serialized	12-5010
ASTM900-UNAM	Glass Vessel, Serialized  1000mL Amber UltraCenter Precision	QLA	GLA900-UNP	1000mL Clear Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM900-UNP	Glass Vessel, Serialized  1000mL Clear UltraCenter Precision	QLA	GLA900-AUNP	1000mL Amber Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM900-AUNP	Glass Vessel w/Plastic Rim, Serialized  1000mL Amber UltraCenter Precision	QLA	GLA900-VK	1000mL Clear Glass Vessel for TruCenter, No Collar, Serialized	12-5035
	Glass Vessel w/Plastic Rim, Serialized		GLA900-AVK	1000mL Amber Glass Vessel for	12-5120
ASTM900-VK	1000mL Clear UltraCenter Precision Glass Vessel for TruCenter, No Collar,	QLA		TruCenter, No Collar, Serialized	
	Serialized		GLA900-70XDS	1000mL Clear Glass Vessel w/Plastic Rim for 708/709-DS, Serialized	12-5149
ASTM900-AVK	1000mL Amber UltraCenter Precision Glass Vessel for TruCenter, No Collar, Serialized	QLA	GLA900-A70XDS	1000mL Amber Glass Vessel w/Plastic Rim for 708/709-DS, Serialized	12-5152
ASTM900-70XDS	1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim for	QLA	GLA9PK-01	1000mL Clear Glass PEAK Vessel, Serialized	12-5500
4.5T14000 4.70VD.5	708/709-DS, Serialized		GLA9PK-AV	1000mL Amber Glass PEAK Vessel, Serialized	12-5505
ASIM900-A70XDS	1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim for 708/709-DS, Serialized	QLA	GLA9PK-UNP	1000mL Clear Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA
ASTM9PK-UNP	1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim,	QLA	GLA9PK-AUNP	1000mL Amber Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA
ASTM9PK-AUNP	Serialized  1000mL Amber UltraCenter Precision	QLA	GLA9PK-VK	1000mL Clear Glass PEAK Vessel for TruCenter, No Collar, Serialized	12-5125
	Glass PEAK Vessel w/Plastic Rim, Serialized		GLA9PK-70XDS	1000mL Clear Glass PEAK Vessel w/ Plastic Rim for 708/709-DS, Serialized	12-5153
ASTM9PK-70XDS	1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim for	QLA	GLA9PK-A70XDS	1000mL Amber Glass PEAK Vessel w/ Plastic Rim for 708/709-DS, Serialized	12-5154
	708/709-DS, Serialized		PLA900-01	1000mL Clear Plastic Vessel	12-5200
ASTM9PK-A70XDS	1000mL Amber UltraCenter Precision Glass PEAK Vessel w/Plastic Rim for	QLA	PLA900-AV	1000mL Amber Plastic Vessel	QLA
	708/709-DS, Serialized		GLA02K-01	2000ml Clear Glass Vessel, Serialized	12-5070
Standard Vesse	ılc		ACCUBKT-VK	AccuCenter Bracket for Legacy VanKel and Agilent 708-DS baths	QLA
Part No.	Description	OEM Ref	EZLBKT-01	Vessel Centering Bracket with 6	12-6050
GLA100-VK	100mL Clear Glass Vessel	12-5040		Replaceable Pins for Legacy VanKel baths	
GLA200-VK	200mL Clear Glass Vessel	12-5050	EZLKIT-01	Vessel Centering Bracket Repair Kit (Set/12 Pins)	QLA
GLA200-AV	200mL Amber Glass Vessel	12-5051	EZLPEG-01	Vessel Centering Bracket Peg	12-6065
GLA500-01	500mL Clear Glass Vessel	12-5060	KNOB-708	Vessel Clamp Knob for 708-DS baths	QLA





500mL Amber Glass Vessel

1000mL Clear Glass Vessel, Serialized



QLA UltraCenter™ Precision and Standard Vessels are available in clear and amber, Glass Rim, Plastic Rim and PEAK versions. QLA's molded PEAK vessels are Patent Pending.



GLA500-AV

GLA900-01

QLA

12-5000

# **DISTEK** COMPATIBLE VESSELS

# UltraCenter™ Precision Vessels

Part No.	Description	OEM Ref
ASTM900-UN	1000mL Clear UltraCenter Precision Glass Vessel, Serialized	QLA
ASTM900-UNAM	1000mL Amber UltraCenter Precision Vessel, Serialized	QLA
ASTM900-UNP	1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM900-AUNP	1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM9PK-UNP	1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized	QLA
ASTM9PK-AUNP	1000mL Amber UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized	QLA

# Standard Vessels: (Distek) continued.

Part No.	Description	OEM Ref
ACCUBKT-DK	AccuCenter Bracket for Distek 2100 Series baths	QLA
ACCUBKT-DK2500	AccuCenter Bracket for Distek 2500 Series baths	QLA
ACCUBKT-IKIT2500	AccuCenter Bracket Installation Kit for Distek 2500 baths	QLA
RING01-DK	Acculign Vessel Centering Ring for Distek	3350- 0096
VSCLIP-DK	Vessel Retainer Assembly for Distek 2100 and 6300 baths	2821- 0257

# **Standard Vessels**

Part No.	Description	OEM Ref	
GLA100-DK	100mL Clear Glass Vessel	QLA	
GLA100-AD	100mL Amber Glass Vessel	QLA	
GLA200-DK	200mL Clear Glass Vessel	QLA	
GLA500-DK	500mL Clear Glass Vessel, No Ring	QLA	
GLA500-AD	500mL Amber Glass Vessel, No Ring	QLA	
GLA900-DK	1000mL Clear Glass Vessel, No Ring, Serialized	QLA	
GLA900-DKP	1000mL Clear Premier Glass Vessel, No Ring, Serialized	3010- 0096	
GLA900-AD	1000mL Amber Glass Vessel, No Ring, Serialized	QLA	
GLA9CR-DK	1000mL Clear Glass Vessel w/Acculign Ring, Serialized	3010- 0093	
GLA9CR-AD	1000mL Amber Glass Vessel w/ Acculign Ring, Serialized	3010- 0023	
GLA900-UNP	1000mL Clear Glass Vessel w/Plastic Rim, Serialized	QLA	
GLA900-AUNP	1000mL Amber Glass Vessel w/Plastic Rim, Serialized	QLA	
GLA9PK-DK	1000mL Clear Glass PEAK Vessel w/ Acculign Ring, Serialized	3010- 0550	
GLA9PK-UNP	1000mL Clear Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA	
GLA9PK-AUNP	1000mL Amber Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA	
PLA900-DK	1000mL Clear Plastic Vessel	3350- 0095	
PLA900-AD	1000mL Amber Plastic Vessel	QLA	
GLA02K-DK	2000mL Clear Glass Vessel, No Ring, Serialized	3010- 0285	
GLA02K-AD	2000mL Amber Glass Vessel, No Ring, Serialized	3020- 0327	

# ERWEKA COMPATIBLE VESSELS

# UltraCenter™ Precision Vessels

Must use with QLA Part# RING-UCEW.

Part No.DescriptionOEM RefASTM900-UN1000mL Clear UltraCenter Precision Glass Vessel, SerializedQLAASTM900-UNAM1000mL Amber UltraCenter Precision Vessel, SerializedQLAASTM900-UNP1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim, SerializedQLAASTM900-AUNP1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, SerializedQLAASTM9PK-UNP1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, SerializedQLAASTM9PK-AUNP1000mL Amber UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, SerializedQLA	•		
Glass Vessel, Serialized  ASTM900-UNAM 1000mL Amber UltraCenter Precision QLA Vessel, Serialized  ASTM900-UNP 1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized  ASTM900-AUNP 1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized  ASTM9PK-UNP 1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized  ASTM9PK-AUNP 1000mL Amber UltraCenter Precision QLA	Part No.	Description	OEM Ref
Vessel, Serialized  ASTM900-UNP 1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized  ASTM900-AUNP 1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized  ASTM9PK-UNP 1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized  ASTM9PK-AUNP 1000mL Amber UltraCenter Precision QLA	ASTM900-UN		QLA
Glass Vessel w/Plastic Rim, Serialized  ASTM900-AUNP 1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized  ASTM9PK-UNP 1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized  ASTM9PK-AUNP 1000mL Amber UltraCenter Precision QLA	ASTM900-UNAM		QLA
Glass Vessel w/Plastic Rim, Serialized  ASTM9PK-UNP  1000mL Clear UltraCenter Precision QLA Glass PEAK Vessel w/Plastic Rim, Serialized  ASTM9PK-AUNP  1000mL Amber UltraCenter Precision QLA	ASTM900-UNP	TOTAL CITCO CITCO CONTROL TO CONTROL	QLA
Glass PEAK Vessel w/Plastic Rim, Serialized  ASTM9PK-AUNP 1000mL Amber UltraCenter Precision QLA	ASTM900-AUNP		QLA
	ASTM9PK-UNP	Glass PEAK Vessel w/Plastic Rim,	QLA
	ASTM9PK-AUNP		QLA

# Standard Vessels

Part No.	Description	OEM Ref
GLA900-EW	1000mL Clear Glass Vessel, Serialized	80-000- 1002
GLA900-AEW	1000mL Amber Glass Vessel, Serialized	80-000- 1004
PLA900-EW	1000mL Clear Plastic Vessel	QLA
GLA02K-EW	2000mL Clear Glass Vessel, Serialized	80-000- 2002
RING-UCEW	Vessel Hold Down Ring for UltraCenter Vessels on Erweka DT baths	QLA



# HANSON COMPATIBLE VESSELS

# UltraCenter™ Precision Vessels for SR8-Plus

Part No.	Description	OEM Ref
ASTM900-UN	1000mL Clear UltraCenter Precision Glass Vessel, Serialized	QLA
ASTM900-UNAM	1000mL Amber UltraCenter Precision Glass Vessel, Serialized	QLA
ASTM900-UNP	1000mL Clear UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM900-AUNP	1000mL Amber UltraCenter Precision Glass Vessel w/Plastic Rim, Serialized	QLA
ASTM9PK-UNP	1000mL Clear UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized	QLA
ASTM9PK-AUNP	1000mL Amber UltraCenter Precision Glass PEAK Vessel w/Plastic Rim, Serialized	QLA

# Standard Vessels for SR8-Plus

Part No.	Description	OEM Ref
GLA500-HR	500mL Clear Glass Vessel	QLA
GLA900-HR	1000mL Clear Glass Vessel, Serialized	72-600- 510
GLA900-AH	1000mL Amber Glass Vessel, Serialized	72-600- 556
GLA900-UNP	1000mL Clear Glass Vessel w/Plastic Rim, Serialized	QLA
GLA900-AUNP	1000mL Amber Glass Vessel w/Plastic Rim, Serialized	QLA
GLA9PK-HR	1000mL Clear Glass PEAK Vessel w/ Ring, Serialized	95-590- 047
GLA9PK-AH	1000ml Amber Glass PEAK Vessel w/ Ring, Serialized	95-590- 048
GLA9PK-UNP	1000mL Clear Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA
GLA9PK-AUNP	1000mL Amber Glass PEAK Vessel w/ Plastic Rim, Serialized	QLA
PLA900-HR	1000mL Clear Plastic Vessel	91-030- 003
PLA900-AH	1000mL Amber Plastic Vessel	QLA
GLA02K-HR	2000ml Clear Glass Vessel, Serialized	72-600- 509
ACCUBKT-HR	AccuCenter Bracket for Hanson SR8- Plus baths	73-101- 519

# UltraCenter™ Precision Vessels for Vision

Part No.	Description	OEM Ref
74-104-121	1000mL Clear UltraCenter Precision Glass Easi-Lock Vessel, Serialized	74-104- 121
74-104-122	1000mL Amber UltraCenter Precision Glass Easi-Lock Vessel, Serialized	74-104- 122

# **Standard Vessels for Vision**

Part No.	Description	OEM Ref
74-104-101	1000mL Clear Glass Easi-Lock Vessel, Serialized	74-104- 101
74-104-102	1000mL Amber Glass Easi-Lock Vessel, Serialized	74-104- 102
74-104-131	1000mL Clear Glass PEAK Easi-Lock Vessel, Serialized	74-104- 131
74-104-132	1000mL Amber Glass PEAK Easi-Lock Vessel, Serialized	74-104- 132
74-104-111	2000mL Clear Glass Easi-Lock Vessel, Serialized	74-104- 111
74-104-112	2000mL Amber Glass Easi-Lock Vessel, Serialized	74-104- 112









QLA UltraCenter™ Precision and Standard Vessels are available in clear and amber, Glass Rim, Plastic Rim and PEAK versions. QLA's molded PEAK vessels are Patent Pending.

**UltraCenter™ Precision Vessels:** Contact your Sales Representative.

# Standard Vessels \*Vessels do not fit PTWS310.

Part No.	Description	OEM Ref
GLA900-PT	1000mL Clear Glass Vessel, Serialized	303- 5225
GLA900-APT	1000mL Amber Glass Vessel, Serialized	303- 5425
PLA900-PT	1000mL Clear Plastic Vessel	QLA
PLA900-AP	1000mL Amber Plastic Vessel	QLA



**UltraCenter™ Precision Vessels:** Contact your Sales Representative.

### Standard Vessels

Part No.	Description	OEM Ref
GLA900-ST	1000mL Clear Glass Vessel, Serialized	2503
GLA900-AST	1000mL Amber Glass Vessel, Serialized	2503-2

# **UNIVERSAL VESSEL STANDS**

For the safe transportation and storage of vessels Due to their shape, dissolution vessels are difficult to hold securely. This can often result in scratched, chipped or even smashed vessels.

The noncorrosive rigid ABS plastic stands are available in 6 or 8 vessel capacities and can hold vessels from any dissolution bath manufacturer.

They can also be stacked together to save bench space and enable you to transport many vessels at a time.

Part No.	Description	OEM Ref
VESSTD-06H	6 Position Vessel Stand, Universal	QLA
VESSTD-08H	8 Position Vessel Stand, Universal	QLA





