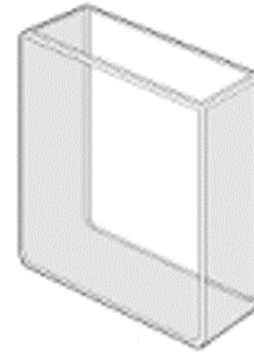
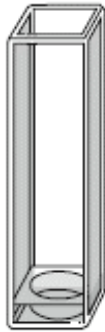


VISTA

Sample Holder Solutions



Revision
11/30/2016

VISTA BASE PLATE RECOMMENDATIONS - MASTER

BASE PLATE:	 D02-1017-192 MULTI-FUNCTION BASE PLATE (Pg. 2 – 6)	 D02-1017-193 SELF-CENTERING BASE PLATE (Pg. 5-8)	 D02-1017-224 PRECISION CELL HOLDER BASE PLATE (pg. 9-13)	
FOR USE WITH:	<ul style="list-style-type: none"> • Cuvettes and Large Cells < 50 mm PL • Large Vials 	<ul style="list-style-type: none"> • Preforms • Films • Flat samples 	<ul style="list-style-type: none"> • Large format cells and Flasks 10 mm to > 50 mm PL 	<ul style="list-style-type: none"> • Round vials and rectangular cells not exceeding 10 mm in width
ADMI	√		√	√
Absorbance	√		√	
APHA/PtCo/Hazen	√		√	√
ASBC	√		√	
ASBC Turbidity	√		√	
ASTM D1500	√		√	
EBC	√		√	
EP	√			
EP B	√			
EP BY	√			
EP GY	√			
EP R	√			
EP Y	√			
Gardner	√		√	√
Haze	√		√	√
JP	√			
NTU Turbidity	√			
Saybolt			√	
USP	√			
WI E313	√		√	√
Y Transmission	√		√	√
YI D1925	√		√	√
YI E313	√		√	√





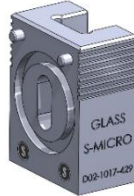
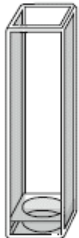

VISTA

Open CUVETTE Sample Holders

For use with

D02-1017-192 MULTI-FUNCTION BASE PLATE



Type:	Macro	Semi-Micro	Semi-Micro	Ultra-Micro
Material:	Plastic/Glass	Plastic	Glass	Plastic
Holder Part Number:	 D02-1017-344	 D02-1017-390	 D02-1017-429	 D02-1017-391
Cell / Sample Type:				
Geometry:	Square	Square	Square	Square
Path Length:	10 mm	10 mm	10 mm	10 mm
Max Sample OD:	12.32 x 12.50 mm (0.484 x 0.492 in.)	12.42 x 12.50mm (0.489 x 0.492 in.)	12.42 x 12.50mm (0.489 x 0.492 in.)	12.50 x 12.50mm (0.492 x 0.492 in.)
Cell Volume Needed:	Min – 2.5mL	Min – 0.6mL	Min – 0.6mL	Min – 0.6mL
Recommended Supplier:	Brand PN# 759081D PN# 759080D Fisher 14-955-126	Brand PN# 759086D PN# 759085D	Hellma PN# 104-10-20 Starna PN# 9-SOG-10	Brand PN# 759200 PN# 759210



VISTA

Large Format Cells

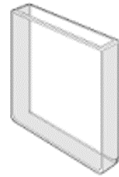
For use with



D02-1017-192 MULTI-FUNCTIONAL BASE PLATE

Type:
Material:
Geometry:
Path Length:

Large Format
 Glass/Plastic
 Rectangular
 10 mm



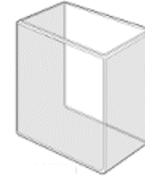
HunterLab PN#
 13-8573-40

Large Format
 Glass/Plastic
 Rectangular
 20 mm



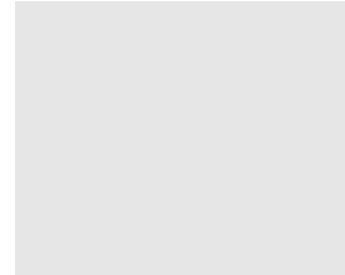
HunterLab PN#
 04-4592-00

Large Format
 Glass/Plastic
 Rectangular
 33 mm

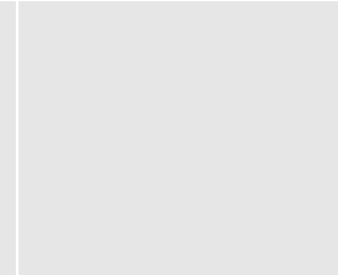


HunterLab PN#
 B04-1003-801

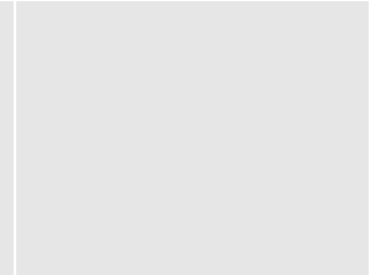
Large Format
 Glass/Plastic
 Rectangular
 50 mm



Flask
 Glass/Plastic
 Rectangular
 20 mm



Flask
 Glass/Plastic
 Rectangular
 20 mm



**Recommended Cell
 (Open Top / GLASS):**

**Recommended Cell
 (Capped):**



HunterLab PN#
 D12-1011-893



HunterLab PN#
 D12-1011-890



HunterLab PN#
 D12-1011-891



HunterLab PN#
 D12-1011-892



08-772-1E BD
 Biosciences
 353018 T-12.5-cm2
 Tissue Culture Flasks

35 x 35 x 25

25 mL



10-126-1B BD
 Biosciences
 353013 T-25-cm2
 Tissue Culture Flasks

70 x 40 x 25

50 mL

Outside Cell Dimensions:

Cell Volume Needed:

55 x 57 x 10

20 mL

55 x 57 x 20

40 mL

55 x 57 x 33

70 mL

55 x 57 x 50

100 mL



VISTA

Misc. Sample Holders

For use with

D02-1017-192 MULTI-FUNCTION BASE PLATE



Holder Type:



Holder Part Number:

L02-1017-471

Geometry

Round

Cell Type:



Large Vial/Preform

Path Length:

Various

Max Cell OD:

38.61 mm
(1.52 in.)

Cell Volume Needed:

Varies based
on sample size

**Recommended
Supplier:**

Customer
Supplied

VISTA

Large Format Cell – Recommended Solutions

For use with

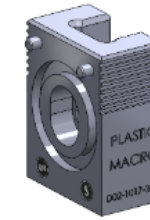
D02-1017-192 MULTI-FUNCTION BASE PLATE



**D02-1017-192
MULTI-FUNCTION BASE PLATE**

Type:	Cuvettes				Vials / Preforms
Material:	Glass/Plastic	Plastic	Glass	Plastic	Glass/Plastic
Path Length:	10mm Macro	10mm Semi-Micro	10mm Semi-Micro	10 mm Ultra-Micro	Various
Absorbance	✓	✓	✓	✓	✓
APHA/PtCo/Hazen	✓	✓	✓	✓	
EP	✓	✓	✓	✓	
EP B	✓	✓	✓	✓	
EP BY	✓	✓	✓	✓	
EP GY	✓	✓	✓	✓	
EP R	✓	✓	✓	✓	
EP Y	✓	✓	✓	✓	
Gardner	✓				
Haze	✓	✓	✓	✓	
JP	✓	✓	✓	✓	
NTU Turbidity	✓				
USP	✓	✓	✓	✓	
WI E313	✓	✓	✓	✓	✓
Y Transmission	✓	✓	✓	✓	✓
YI D1925	✓	✓	✓	✓	✓
YI E313	✓	✓	✓	✓	✓

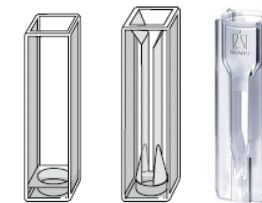
Open Cell Holder



Vial/Preform Holder



Cuvette Type



Vial/Preform



VISTA

Large Format Cell – Recommended Solutions

For use with

D02-1017-192 MULTI-FUNCTION BASE PLATE



**D02-1017-192
MULTI-FUNCTION BASE PLATE**

Type:	Large Format			Flask	
Material:	Glass/Plastic			Glass/Plastic	
Path Length:	10 mm	20 mm	33 mm	20 mm / 25 mL	20 mm / 50 mL
ADMI	✓				
Absorbance	✓	✓	✓	✓	✓
APHA/PtCo/Hazen	✓	✓			
ASBC	✓				
ASBC Turbidity	✓				
ASTM D1500			✓		
EBC	✓				
EP					
EP B					
EP BY					
EP GY					
EP R					
EP Y					
Gardner	✓				
Haze	✓	✓	✓	✓	✓
JP					
NTU Turbidity					
USP					
WI E313	✓	✓	✓	✓	✓
Y Transmission	✓	✓	✓	✓	✓
YI D1925	✓	✓	✓	✓	✓
YI E313	✓	✓	✓	✓	✓

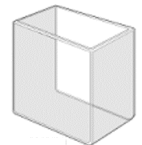
LARGE FORMAT CELLS



10 mm



20 mm



33 mm

FLASK



20 / 50 mm



10 / 20 / 33 / 50 mm



VISTA

Large Format Cells

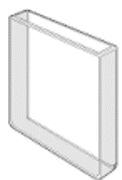
For use with



D02-1017-193 SELF-CENTERING BASE PLATE

Type:
Material:
Geometry:
Path Length:

Large Format
 Glass/Plastic
 Rectangular
 10 mm



HunterLab PN#
 13-8573-40

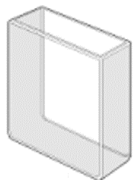


HunterLab PN#
 D12-1011-893

55 x 57 x 10

20 mL

Large Format
 Glass/Plastic
 Rectangular
 20 mm



HunterLab PN#
 04-4592-00

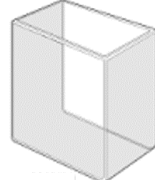


HunterLab PN#
 D12-1011-890

55 x 57 x 20

40 mL

Large Format
 Glass/Plastic
 Rectangular
 33 mm



HunterLab PN#
 B04-1003-801

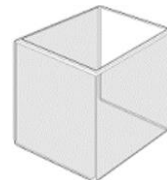


HunterLab PN#
 D12-1011-891

55 x 57 x 33

70 mL

Large Format
 Glass/Plastic
 Rectangular
 50 mm



HunterLab PN#
 13-8573-20

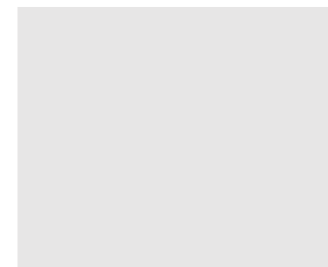


HunterLab PN#
 D12-1011-892

55 x 57 x 50

100 mL

Flask
 Glass/Plastic
 Rectangular
 20 mm

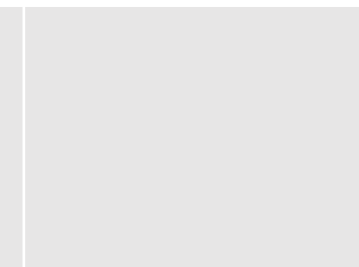


08-772-1E BD
 Biosciences
 353018 T-12.5-cm²
 Tissue Culture Flasks

35 x 35 x 25

25 mL

Flask
 Glass/Plastic
 Rectangular
 20 mm



10-126-1B BD
 Biosciences
 353013 T-25-cm²
 Tissue Culture Flasks

70 x 40 x 25

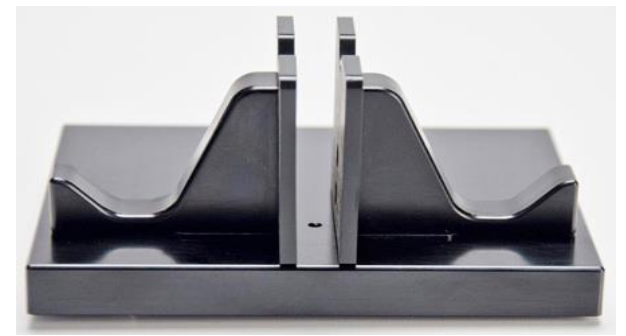
50 mL

VISTA

Large Format Cells - Alternative Measurement Solution

For use with

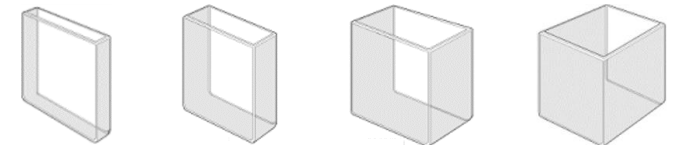
D02-1017-193 SELF-CENTERING BASE PLATE



**D02-1017 -193
SELF-CENTERING BASE PLATE**

Type:	Large Format				Flask	
Material:	Glass/Plastic				Glass/Plastic	
Path Length:	10 mm	20 mm	33 mm	50 mm	20 mm / 25 mL	20 mm / 50 mL
ADMI	✓			✓		
Absorbance	✓	✓	✓	✓	✓	✓
APHA/PtCo/Hazen	✓	✓		✓		
ASBC	✓					
ASBC Turbidity	✓					
ASTM D1500			✓			
EBC	✓					
EP						
EP B						
EP BY						
EP GY						
EP R						
EP Y						
Gardner	✓					
Haze	✓	✓	✓	✓	✓	
JP						
NTU Turbidity						
Saybolt				✓		
USP						
WI E313	✓	✓	✓	✓	✓	✓
Y Transmission	✓	✓	✓	✓	✓	✓
YI D1925	✓	✓	✓	✓	✓	✓
YI E313	✓	✓	✓	✓	✓	✓

LARGE FORMAT CELLS



10 mm

20 mm

33 mm

50 mm

FLASK



20 / 50 mm



10 / 20 / 33 / 50 mm





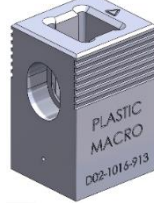

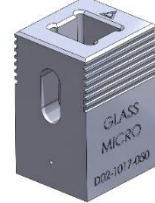



VISTA

Closed CUVETTE Sample Holders

For use with



D02-1017-224 PRECISION CELL HOLDER BASE PLATE

<p>Type:</p> <p>Material:</p> <p>Holder Part Number:</p> <p>Cell / Sample Type:</p> <p>Geometry:</p> <p>Path Length:</p> <p>Max Cell OD:</p> <p>Cell Volume Needed:</p> <p>Recommended Supplier:</p>	<p>Macro Glass</p>  <p>D02-1017-048</p>  <p>Square</p> <p>10 mm</p> <p>12.32 x 12.50 mm (0.484 x 0.492 in.)</p> <p>Min – 2.5mL</p> <p>Brand PN# 759081D PN# 759080D Fisher 14-955-126</p>	<p>Macro Plastic</p>  <p>D02-1016-913</p>  <p>Square</p> <p>10 mm</p> <p>12.42 x 12.50mm (0.489 x 0.492 in.)</p> <p>Min – 2.5mL</p> <p>Brand PN# 759081D PN# 759080D</p>	<p>Semi-Micro Plastic / Glass</p>  <p>D02-1017-050</p>  <p>Square</p> <p>10 mm</p> <p>12.42 x 12.50mm (0.489 x 0.492 in.)</p> <p>Min – 0.6mL</p> <p>Hellma PN# 104-10-20 Starna PN# 9-SOG-10</p>	<p>Ultra-Micro Plastic</p>  <p>D02-1017-051</p>  <p>Square</p> <p>10 mm</p> <p>12.50 x 12.50mm (0.492 x 0.492 in.)</p> <p>Min – 0.6mL</p> <p>Brand PN# 759200 PN# 759210</p>
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VISTA

Non-ISO Vial & Bottle Holders

Bottle Type

Round



Holder Type

Closed



Base Plate

D02-1017-224



Holder Part Number:	Nominal Path Length	Nominal Cell OD	Availability	Recommended Supplier
D02-1017-130	22 mm	22.27 mm (0.87")	January 2017	Customer supplied
D02-1017-576	24 mm	27.75 mm (1.09")	Available	Qorpak GLC-04884 (40mL) Clear Borosilicate Glass w/ Black Phenolic Pulp/Vinyl Lined Cap http://www.qorpak.com/product/6364/clear-screw-thread-vials-with-phenolic-pulp-vinyl-lined-cap
D02-1017-131	26 mm	29.25 mm (1.15")	January 2017	Qorpak GLC-01039 (40 mL)) Clear Borosilicate Glass w/ Green Thermoset F217 & PTFE Lined Cap http://www.qorpak.com/product/6353/clear-screw-thread-vials-with-thermoset-f217-ptfe-lined-cap

IMPORTANT NOTE: Please measure the OD of the vial you will be using to select the proper vial holder, or refer to the recommended vial (if listed) for specific vial holders. **Also note** that the vial holders themselves have ball detents that allow for fine adjustments to accommodate slightly undersized vials.

VISTA ISO Vial Holders

Bottle Type

Round



Holder Type

Closed



Base Plate

D02-1017-224



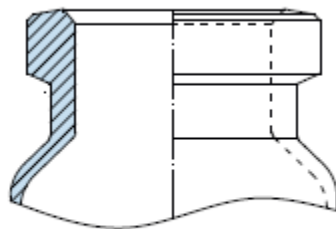
Holder Part Number	Nominal Path length	Max Cell OD	ISO 'R' #	Availability	Recommended Supplier
D02-1017-129	14 mm	16.15 mm	2R / 4R	Available	These HunterLab closed vial holders have been manufactured to ISO vial specifications and validated on Schott ISO vials. Please refer to the Schott ISO Vial sheet on the next page for the appropriate Schott vial part numbers and ordering information
D02-1017-605	20 mm	22.20 mm	6R / 8R	January 2017	
D02-1017-607	22 mm	24.20 mm	10R / 15R	January 2017	
D02-1017-609	28 mm	30.25 mm	20R / 25R / 30R	January 2017	

ISO 8362-4:2011 specifies the shape, dimensions and capacities of glass vials for injectable preparations. It also specifies the material from which such containers are made and the performance requirements for the containers. The 'R' designation specifies the volume capacity in mL.

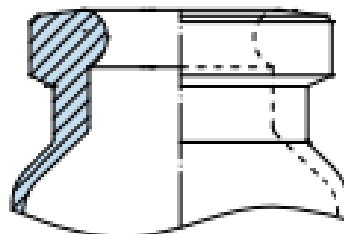
'R' Size Designation	Schott Part Number
2R	
No Blowback	Vial ISO 8362-1 2R-1
European Blowback	Vial ISO 8362-1-EBB-2R-1
4R	
No Blowback	Vial ISO 8362-1 4R-1
European Blowback	Vial ISO 8362-1-EBB-4R-1
6R	
No Blowback	Vial ISO 8362-1 6R-1
European Blowback	Vial ISO 8362-1-EBB-6R-1
8R	
No Blowback	Vial ISO 8362-1 8R-1
European Blowback	Vial ISO 8362-1-EBB-8R-1

'R' Size Designation	Schott Part Number
10R	
No Blowback	Vial ISO 8362-1 10R-1
European Blowback	Vial ISO 8362-1-EBB-10R-1
15R	
No Blowback	Vial ISO 8362-1 15R-1
European Blowback	Vial ISO 8362-1-EBB-15R-1
20R	
No Blowback	Vial ISO 8362-1 20R-1
European Blowback	Vial ISO 8362-1-EBB-20R-1
25R	
No Blowback	Vial ISO 8362-1 25R
European Blowback	Vial ISO 8362-1-EBB-25R

'R' Size Designation	Schott Part Number
30R	
No Blowback	Vial ISO 8362-1 30R-1
European Blowback	Vial ISO 8362-1-EBB-30R
50R	
No Blowback	Vial ISO 8362-1 50R
European Blowback	Vial ISO 8362-1-EBB-50R
100R	
No Blowback	Vial ISO 8362-1 100R
European Blowback	Vial ISO 8362-1-EBB-100R



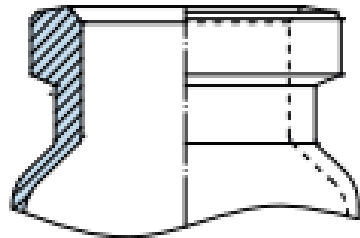
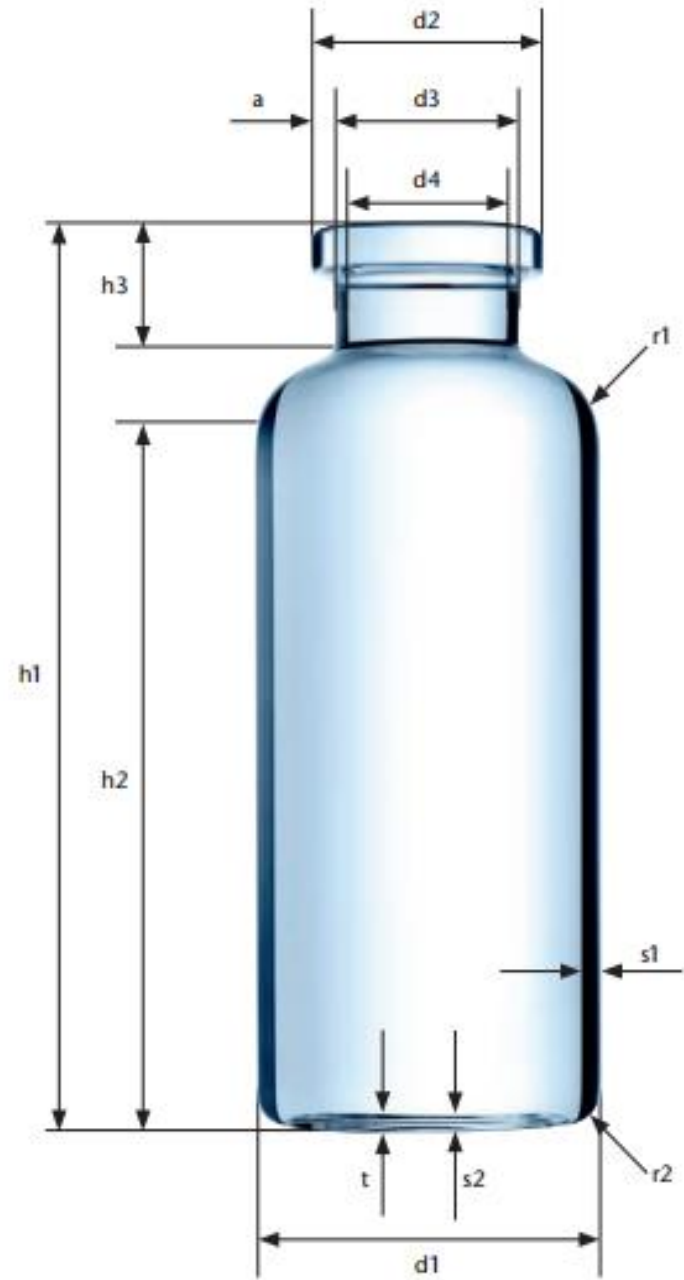
No Blowback



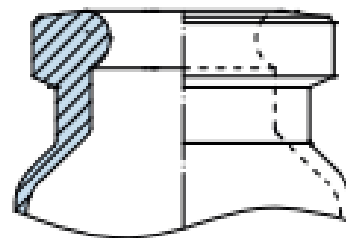
European Blowback

Pharmaceutical Systems
SCHOTT North America, Inc.
 30 Lebanon Valley Parkway
 Lebanon, PA 17042
 Phone: (717) 228-4200
 Fax: (717) 273-4730
spp@us.schott.com
www.us.schott.com/pharmaceutical_systems

Size designation of injection vial	Overflow Capacity		a	d1		d2	d3	d4	h1		h2	h3		r1	r2	s1		s2	t	Mass							
	mL	Tol	mm	mm		mm	mm	mm	mm		mm	mm		mm	mm	mm		mm	mm	9							
				Tol	Tol	+0.2 -0.3	max.	±0.2		Tol	min.		Tol	=	=		Tol	min.	max.	=							
2R	4	±0.5	1	16	±0.15	13	10.5	7	35	±0.5	22	8	±0.5	2.5	1.5	1	±0.04	0.6	0.7	4.4							
4R	6																				45	32	9	4	0.7	5.7	
6R	10																				40	26	8.5	3.5	2	0.7	7.9
8R	11.5																				45	31	9	4	0.7	8.7	
10R	13.5	±1	1.2	24	±0.2	16.5	20	12.6	45	±0.5	30	9	±0.5	3.5	2	1	±0.04	0.7	0.7	9.5							
15R	19																				60	45	9	4	0.7	12.0	
20R	26	±1.5	1.5	30	±0.25	20	17.5	12.6	55	±0.7	35	10	±0.75	5.5	2.5	1.2	±0.05	0.7	1	16.2							
25R	32.5																				65	45	10	2.5	±0.05	1	18.9
30R	37.5																				75	55	10	±0.75	6	4	1.5
50R	62	±4	2.5	40	±0.4	20	17.5	12.6	73	±0.75	49	10	±0.75	6	4	1.5	±0.07	0.9	1.5	34.5							
100R	123	±7	3.5	47	±0.5	20	17.5	12.6	100	±0.75	75	10	±0.75	6.5	4	1.7	±0.07	0.9	1.5	60.0							



No Blowback



European Blowback







VISTA

Misc. Sample Holders

For use with

D02-1017-224 PRECISION CELL HOLDER BASE PLATE



Type:	Large Format	Tubing
Material:	Plastic / Glass	Plastic
Holder Part Number:	 D02-1017-122	 D02-1017-529
Cell / Sample Type:		
Geometry:	Rectangular	Round
Path Length:	10 mm x 50 mm	Various
Max OD:	12.0 x 54.0mm (0.470 x 2.12 in.)	Customer Specified
Cell Volume Needed:	Min – 12.5mL	NA
Recommended Supplier:	Hellma Analytics #6030-50-10	Customer Supplied

VISTA

Closed Sample Holders – Recommended Solutions

For use with

D02-1017-224 PRECISION CELL HOLDER BASE PLATE

Type:	Cuvettes					Rectangular	Round Vials	
Material:	Glass	Plastic	Glass	Plastic	Plastic	Glass	Glass	Glass
Nominal Path Length:	10mm Macro	10mm Macro	10mm Semi-Micro	10 mm Semi-Micro	10 mm Ultra-Micro	50 mm	15 mm	25 mm
ADMI						✓		
Absorbance	✓	✓	✓	✓	✓	✓	✓	✓
APHA/PtCo/Hazen						✓	✓	✓
EP								
EP B								
EP BY								
EP GY								
EP R								
EP Y								
Gardner								✓
Haze								
JP								
NTU Turbidity								
Saybolt						✓		
USP								
WI E313	✓	✓	✓	✓	✓	✓	✓	✓
Y Transmission	✓	✓	✓	✓	✓	✓	✓	✓
YI D1925	✓	✓	✓	✓	✓	✓	✓	✓
YI E313	✓	✓	✓	✓	✓	✓	✓	✓



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PRECISION CELL HOLDER BASE PLATE**

Closed Cell Holders



Cell / Sample Types

