

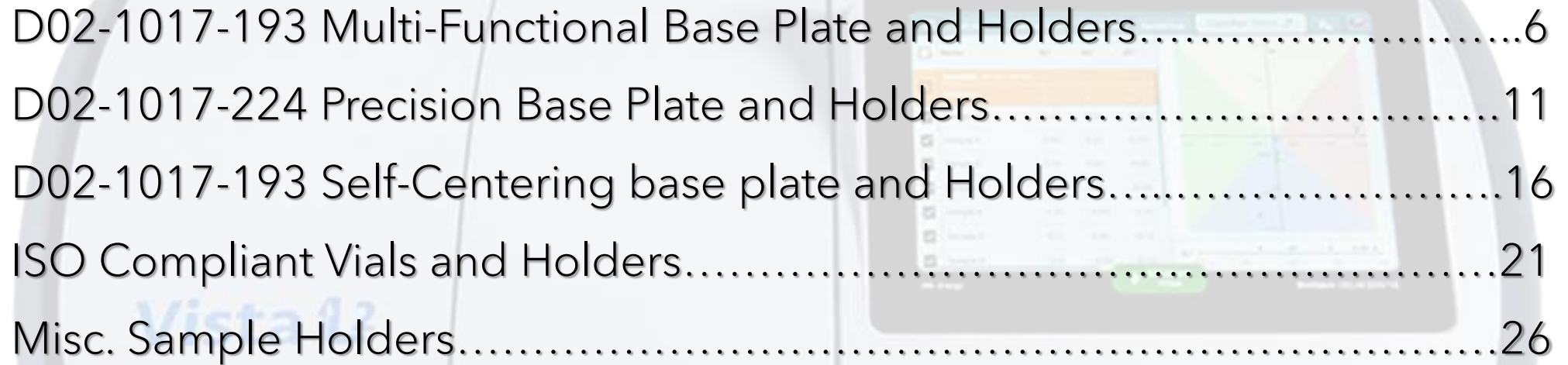


# VISTA L2

## SAMPLE HANDLING SOLUTIONS



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# VISTA L2

## SAMPLE HANDLING SOLUTIONS

These specially designed sample handling devices improve repeatability and accuracy when measuring small volumes of liquids in plastic or glass micro, semi-micro, and ultra-micro cells, as well as various vial sizes, preforms, and films. Each holder is precisely engineered to fit its specific sample type, and the interchangeable design allows users to switch between configurations quickly without tools or removing the base. Locating pins and a magnetic interface ensure consistent positioning for reliable, repeatable measurements.

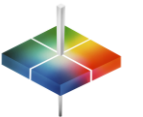
By selecting the appropriate base and matching it with the correct holder, users can easily configure the system for their application, simplifying measurement and improving confidence in results.



## CHOOSING THE RIGHT CONFIGURATION

HunterLab offers several sample handling solutions for measurement of various sample types. Choosing the right configuration by the following order for the customer's application:

Sample → Cell → Holder → Baseplate



# VISTA L2 BASE PLATES

Vista L2

HunterLab

Base plates are the foundation for sample presentation. They are designed to accommodate a wide range of samples and sample holders. Each baseplate is designed for ease of installation and precision alignment. They attach magnetically for precise and repeatable positioning, requiring no screws or fasteners.



D02-1017-192  
Multi-Functional Base Plate



D02-1017-193  
Self Centering Base Plate



D02-1017-224  
Precision Base Plate





D02-1017-192

MULTI-  
FUNCTIONAL  
BASE PLATE



# D02-1017-192

## MULTI-FUNCTIONAL BASE PLATE

This base plate is designed to measure transmittance color, and haze compliant with ASTM D 1003 Procedure B, and other transmission measurements by placing the sample directly against the sphere to ensure precision, accuracy and consistency of sample placement for films, plastics and liquids.

### QUICK REFERENCE: CELL HOLDER COMPATIBILITY:

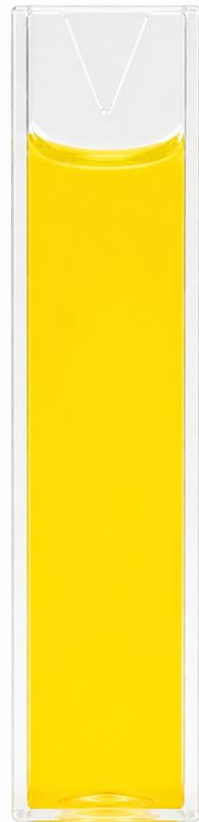
- D02-1020-432
- D02-1017-344
- D02-1017-390
- D02-1017-391
- D02-1022-015
- D02-1018-077
- D02-1020-429
- L02-1017-471
- D02-1020-357



# 10 MM PATHLENGTH CELL TYPE REFERENCES



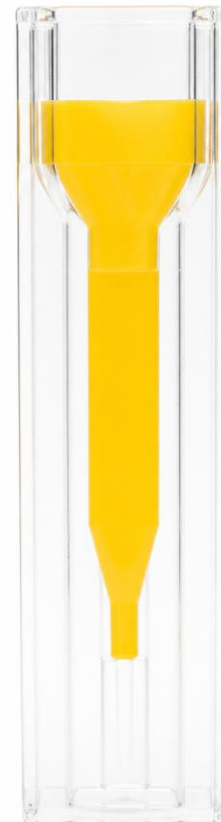
**Type 1**  
Macro  
(Plastic/Glass)



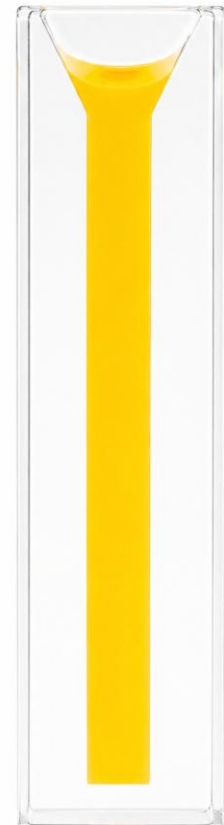
**Type 2**  
Semi-micro  
(Plastic)



**Type 3**  
Ultra-micro  
(Plastic/Glass)



**Type 4**  
Semi-micro  
(Glass)



# 10 MM PATH LENGTH CUVETTE HOLDERS USED WITH D02-1017-192 MULTI-FUNCTIONAL BASE PLATE

PN#	Cell Volumes (Min/Max)	Allowable Cell Outside Dimensions (Maximum)	Tested Cells	Cell Type
D02-1017-344 Macro 10mm Plastic Cells	(Min - 2.5mL) (Max - 4.5mL)	12.32 x 12.50 mm (0.484 x 0.492 inches)	BrandTech (759081D)	1
D02-1017-390 Semi-Micro 10mm Plastic Cells	(Min - 0.6mL) (Max - 1.5mL)	12.42 x 12.50 mm 0.489 x 0.492 inches	BrandTech 759086D or PN 759085D	2
D02-1017-391 Ultra-Micro 10mm Plastic Cells	(Min - 0.6mL) (Max - 0.7mL)	12.50 x 12.50 mm 0.492 x 0.492 inches	BrandTech (759200)	3
D02-1017-429 Semi-Micro 10mm Glass Cells	(Min - 0.6mL) (Max - 1.5mL)	12.47 x 12.50 0.491 x 0.492 inches	Hellma (104-10-20) Starna (9-SOG-10)	4
D02-1022-015 Semi-Micro 10mm Plastic Cells	(Min - 0.4mL) (Max - 1.5mL)	12.47 x 12.50 0.491 x 0.492 inches	BrandTech 759086D or PN 759085D	2
D02-1020-432 2mm to 10 mm PL Plastic/Glass	Various depending on pathlength	12.47 x 12.50 0.491 x 0.492 inches	Customer Sourced	1 9

# ROUND VIAL HOLDERS TRANSMISSION COLOR + HAZE



PN #	Description	Nominal Pathlength (mm)	OD Dimensions
D02-1021-080	For Gardner 12mm OD round Vials	-	12mm
D02-1020-429	For Hach 13mm OD round Vials	11mm	13mm
D02-1018-077	For ISO 2R /4R vials	14mm	16mm





D02-1017-224

PRECISION  
BASE PLATE



# D02-1017-224

## PRECISION BASE PLATE

This cell holder base plate is required for use with the Precision Cell holders for such measurements as ASTM D1500, Saybolt, Gardner, APHA, YI and Transmittance Color. This accessory is not compliant with the measurement of Haze ASTM D1003.

### CELL HOLDER COMPATIBILITY:

- D02-1017-122
- D02-1018-759
- D02-1017-576
- D02-1017-130
- D02-1017-131



# NON-ISO VIAL HOLDERS FOR COLOR ONLY



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



# NON-ISO ROUND VIAL HOLDERS FOR TRANSMISSION COLOR + HAZE MEASUREMENT



PN #	Description	Nominal Pathlength (mm)	OD Dimensions
D02-1018-759	For 24mm round vials	24mm	27.7mm



# CUVETTE HOLDERS FOR TRANSMISSION COLOR

This cell holder is designed to precisely position 10 mm to 50 mm glass cells for accurate positioning and repeatable transmittance color measurements.



Holder Part Number	Recommended Cells	Path Length / OD	Cell Volumes
D02-1017-122 Glass Cell Holder (For cells 10 mm x 10 to 50 mm)	Hellma (6030-20-10)	20 mm	Min - 24 mm Max - 43 mm
	Hellma (6030-30-10)	30 mm	
	Helma (6030-40-10)	40 mm	
	Hellma (6030-50-10)	50 mm	



D02-1017-193

SELF-CENTERING  
BASE PLATE



# D02-1017-193

## SELF-CENTERING BASE PLATE

This self-centering sample holder takes the guess work out of cell placement for total or regular transmittance, ensuring precision and accuracy every time. The simple design ensures proper distance and alignment of the cell, eliminating inconsistencies from cell to cell and user to user.


### QUICK REFERENCE: CELL HOLDER COMPATIBILITY:

- This baseplate is compatible with various large format cell types including open top and screw top culture flasks up to 50mm pathlength.




# LARGE FORMAT TRANSMISSION CELLS OPEN TOP

These large format cells are custom manufactured to HunterLab's specifications. Each cell is made of optical quality glass and is a three-piece construct that is first fused glass-to-glass, then annealed. Solvents will not affect these cells, as the three components are fused together at the edges, not glued. They have two flat windows and a U-shaped spacer that is abraded to minimize internal reflectance. HunterLab Quality Assurance monitors the path length, dimensions, and flatness of these cells.

HunterLab Catalog Number	Path Length (mm)	Approximate Sample Volume Needed (mL)	Cell Outside Dimensions	Compatible Cell Type
13-8573-40 (open top)	10	20	55 x 57 x 10	
04-4592-00 (open top)	20	40	55 x 57 x 20	
B04-1003-801 (open top)	33	70	55 x 57 x 33	
13-8573-20 (open top)	50	100	55 x 57 x 50	


# LARGE FORMAT TRANSMISSION CELLS TISSUE CULTURE FLASKS

Tissue culture flasks made of clear polystyrene with screw-on caps for volatiles can serve as inexpensive transmission cells that are especially useful when measuring samples that are difficult to clean up or handle. These cells are also handy when large numbers of measurements are being made.

HunterLab Catalog Number	Path Length (mm)	Approximate Sample Volume Needed (mL)	Cell Outside Dimensions	Compatible Cell Type
D12-1011-893 (capped)	10	20	55 x 57 x 10	
D12-1011-890 (capped)	20	40	55 x 57 x 20	
D12-1011-891 (capped)	33	70	55 x 57 x 33	
D12-1011-892 (capped)	50	100	55 x 57 x 50	

# LARGE FORMAT TRANSMISSION CELLS DISPOSABLE PLASTIC

Acrylic cells with a 10-mm path length are also available and are sufficiently cost-effective as to be disposable.

Fisher Scientific Catalog Number	Path Length (mm)	Approximate Sample Volume Needed (mL)	OD Dimensions of Measurement Face (WxHxD)	Compatible Cell Type
08-772-1E BD Biosciences 353018 T-12.5-cm <sup>2</sup> Tissue Culture Flasks	20	25	35 x 35 x 25	
10-126-1B BD Biosciences 353013 T-25-cm <sup>2</sup> Tissue Culture Flasks	20	50	70 x 40 x 25	

**Available from:** Fisher Scientific  
<http://www.fishersci.com>

# ISO COMPLIANT VIALS

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.

HunterLab recommends these Schott ISO Vials. The following HunterLab closed vial holders have been manufactured to ISO vial specifications and validated on Schott ISO vials.

To order SCHOTT vials:

**Pharmaceutical Systems**  
Schott North America, Inc.  
30 Lebanon Valley Parkway  
Lebanon, PA 17042 Phone: (717) 228-4200  
Email: [spp@us.schott.com](mailto:spp@us.schott.com)  
[www.us.schott.com/pharmaceutical\\_systems](http://www.us.schott.com/pharmaceutical_systems)

# SCHOTT



# ISO VIAL HOLDERS FOR TRANSMISSION COLOR ONLY



For use with D02-1017-224 Precision Base Plate

Holder Part Number	ISO 'R' #	Nominal Path length	Max Cell OD
D02-1017-129	2R / 4R	14 mm	16.15 mm
D02-1017-605	6R / 8R	20 mm	22.20 mm
D02-1017-607	10R / 15R	22 mm	24.20 mm
D02-1017-609	20R / 25R / 30R	28 mm	30.25 mm

# ISO VIAL HOLDERS FOR TRANSMISSION COLOR + HAZE



Holder Part Number	ISO 'R' #	Nominal Path length	Max Cell OD
D02-1018-077	2R / 4R	14 mm	16.15 mm

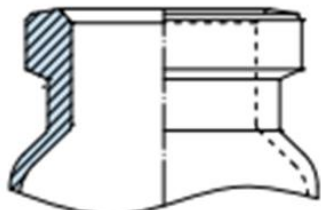
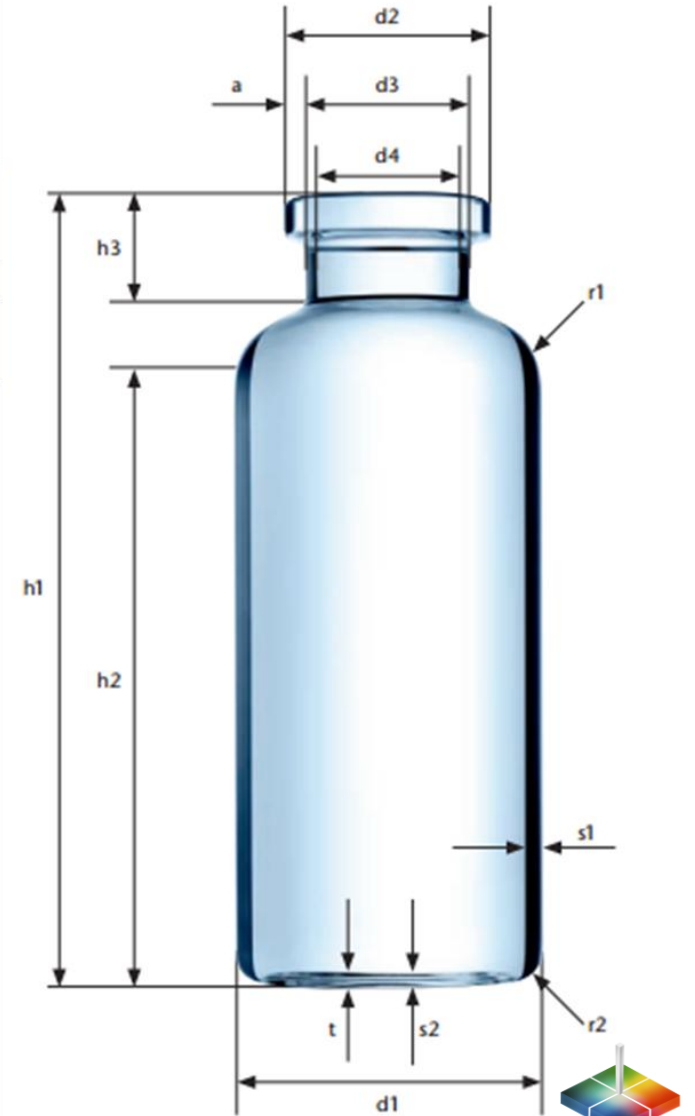
Vial holder for ISO 2R (4 mL) and 4R (6 mL) vials (14 mm nominal path length).

The 2R/4R vial holder for Haze/NTU has a lens inserted which enables simultaneous color and haze measurements of samples in round vials.

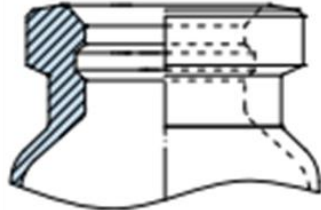


# SCHOTT ISO VIAL SPECIFICATIONS

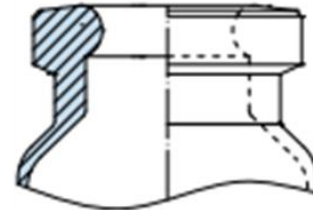
Size designation of injection vial	Overflow Capacity		a	d1		d2	d3	d4	h1		h2	h3	r1	r2	s1		s2	t	Mass	
	mL			mm	mm				mm	mm					mm	mm				mm
		Tol		Tol	+0.2 -0.3	max.	±0.2		Tol	min.		Tol	=	=		Tol	min.	max.	=	
2R	4	±0.5	1	16	±0.15	13	10.5	7	35	±0.5	22	8	2.5	1.5	1	±0.04	0.6	0.7	4.4	
4R	6								45										32	7.9
6R	10								40										26	8.7
8R	11.5								45										31	9.5
10R	13.5	±1	1.2	22	±0.2	16.5	12.6	45	±0.5	30	9	4	2	1	±0.05	0.7	1	12.0		
15R	19							60										45	16.2	
20R	26	±1.5	1.5	30	±0.25	20	17.5	55	±0.7	35	10	±0.75	5.5	2.5	1.2	±0.05	0.9	1.5	18.9	
25R	32.5							65											45	21.9
30R	37.5							75											55	34.5
50R	62	±4	2.5	40	±0.4			73	±0.75	49		6	4	1.5	±0.07	0.9	1.5	34.5		
100R	123	±7	3.5	47	±0.5			100	±0.75	75		6.5	4	1.7	±0.07	0.9	1.5	60.0		



No Blowback



American Blowback



European Blowback



# SCHOTT ISO VIAL PART NUMBERS

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

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

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



# MISC. SAMPLE HOLDERS





## PREFORM / ROUND VIAL HOLDERS

### L02-1017-471 Sample Holder, Preform and Round Vial

This holder securely positions preforms and round vials either vertically or horizontally for accurate transmittance color measurement. It is not intended for Haze measurements of preforms.



### D02-1020-357 Round Vial and Preform Holder, SMALL APERTURE

This small aperture round vial and preform holder is designed for customers upgrading from CQXE and USVIS to VISTA, providing excellent measurement agreement.

*It is not intended for Haze measurements*

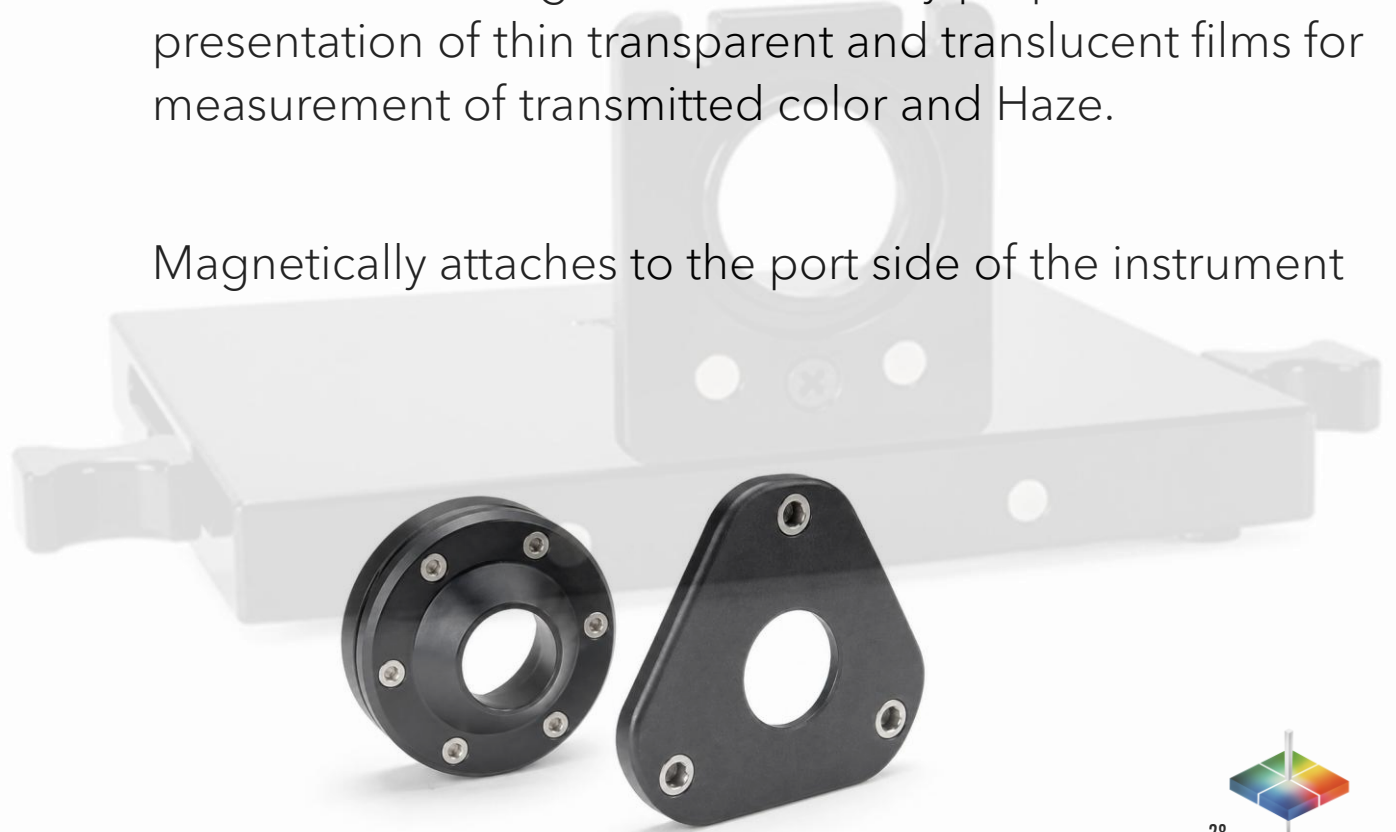
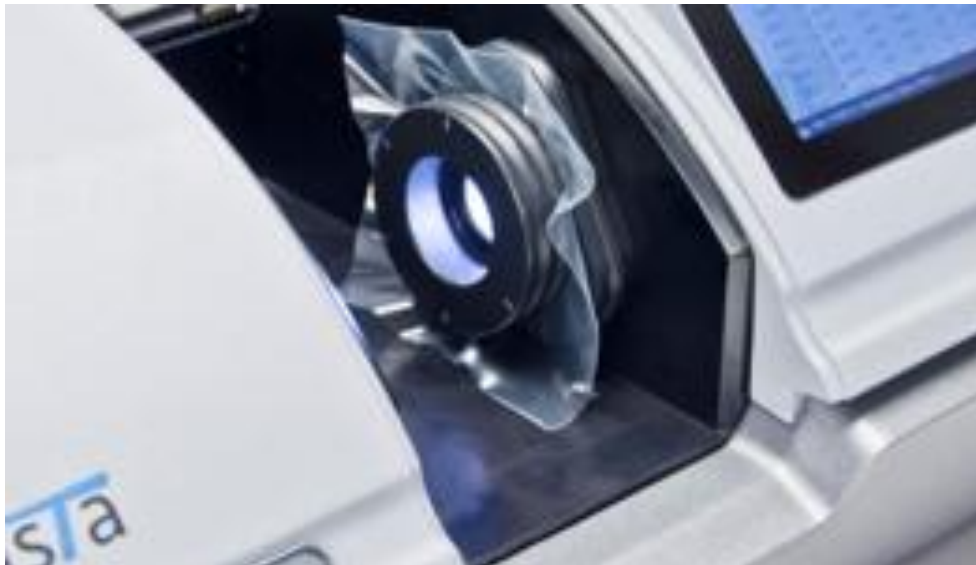


## THIN FILM HOLDER

### L02-1017-749 Sample Holder, Thin Film

This holder is designed to allow easy preparation and presentation of thin transparent and translucent films for measurement of transmitted color and Haze.

Magnetically attaches to the port side of the instrument





# LIQUID FLOW THRU CELL HOLDERS

Simple design holds the flow thru cell  
 Magnetically attaches to Vista transmission compartment wall  
 Includes holder, 5' of tubing, (7/16" OD, 5/16" ID)  
 Three flow chokes ensures proper filling of flow thru cell

PN#	Description
D02-1017-715	Accepts <b>20mm</b> pathlength by 51mm diameter flow through cell. (HunterLab part # C04-1001-959)
12-1018-678	Accepts <b>10mm</b> pathlength by 51mm diameter flow through cell. (HunterLab part # C04-1001-958)

