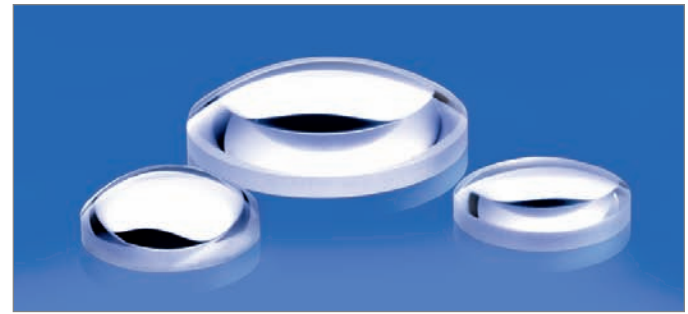


TECHSPEC® PRECISION ASPHERIC LENSES

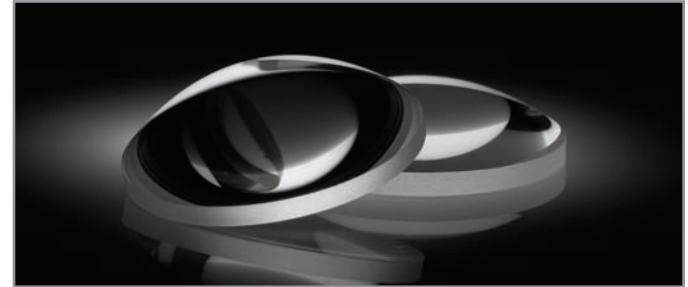
- Designed and Manufactured by Edmund Optics®
- Reduced Spherical Aberration
- Broadband AR Coatings Available
- Full Prescription Data Available

TECHSPEC® Precision Aspheric Lenses offer the benefits of an aspheric element combined with the manufacturing precision of state-of-the-art grinding and polishing equipment. Featuring low f/#s for optimum light gathering and focusing performance, these lenses are computer optimized to eliminate spherical and minimize higher order aberrations. VIS coating option provides <1.5% reflection from 425-675nm, whereas NIR coating provides <1.5% reflection from 600-1050nm.

TECHSPEC® UV-Grade Fused Silica Precision Aspheres provide the same diffraction limited performance as our TECHSPEC® Precision Aspheres with the added benefit of excellent transmission in the UV, which makes them ideal for biomedical applications. UV Coating option provides <1.5% reflection from 250-450nm. Fused Silica features a low coefficient of thermal expansion, a high operating temperature and low auto-fluorescence.



TECHSPEC® Precision Aspheric Lenses



TECHSPEC® UV-Grade Fused Silica Precision Aspheric Lenses

Material:	L-Bal35 (589/611) or UV Fused Silica	Center Thickness Tolerance:	±0.1mm
Design Wavelength:	587.6nm	Surface Accuracy:	0.75 µm RMS
Clear Aperture:	90%	Surface Quality:	60-40
Diameter Tolerance:	+0.0/-0.1mm	Centering:	3-5 arc minutes

TECHSPEC® UV-GRADE FUSED SILICA PRECISION ASPHERES

Dia. (mm)	EFL (mm)	F/#	BFL (mm)	Radius	CT (mm)	Stock No. Uncoated	Stock No. UV Coated	Stock No. VIS Coated	Stock No. NIR Coated
15	15	1.00	10.29	6.88	7.25	#48-534	#49-693	#49-587	#49-591
15	20	1.33	15.89	9.17	6.00	#48-535	#49-694	#49-588	#49-592
25	25	1.00	19.31	11.46	9.75	#48-536	#49-695	#49-589	#49-593
25	30	1.20	24.17	13.75	8.50	#48-537	#49-696	#49-590	#49-594

TECHSPEC® PRECISION ASPHERIC LENSES L-BAL35 (589/611)

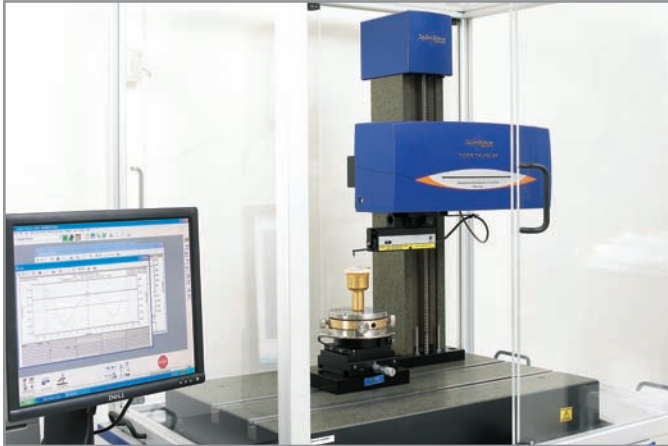
Dia. (mm)	EFL (mm)	F/#	BFL (mm)	Radius (mm)	CT (mm)	Stock No. Uncoated	Stock No. VIS Coated	Stock No. NIR Coated
15.0	11.25	0.75	6.85	6.63	7.0	#47-725	#49-097	#49-109
15.0	15.00	1.00	11.54	8.84	5.5	#47-726	#49-098	#49-110
15.0	18.75	1.25	15.92	11.05	4.5	#47-727	#49-099	#49-111
15.0	22.50	1.50	19.98	13.26	4.0	#47-728	#49-100	#49-112
25.0	18.75	0.75	12.46	11.05	10.0	#47-729	#49-101	#49-113
25.0	25.00	1.00	20.28	14.73	7.5	#47-730	#49-102	#49-114
25.0	31.25	1.25	27.16	18.41	6.5	#47-731	#49-103	#49-115
25.0	37.50	1.50	33.72	22.09	6.0	#47-732	#49-104	#49-116

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ASPHERE MANUFACTURING CAPABILITY

ASPHERE MANUFACTURING CAPABILITY



Taylor Hobson Talysurf PGI 1240 Surface Profilometer



QED Q22-Y MRF



Schneider Generator & Polisher

ASPHERIC LIMITS

	Commercial	Precision	High Precision	Molded
Diameter Range	15mm-120mm	15mm-120mm	15mm-120mm	<30mm
Aspheric Departure	—	—	<50µm	< 200µm
Asphere Figure Error	±5µm	±1µm	±0.25µm	±0.5µm
Vertex Radius (Asphere)	±1%	±0.1%	±0.05%	±0.05%
Radius (spherical)	±0.5%	±0.1%	±0.025%	±0.1%
Power (spherical)	8 Fringes	2 Fringes	0.1 Fringes	4 Fringes
Irregularity (spherical)	2 Fringes	1 Fringe	0.2 Fringes	1 Fringe
Centering (Beam Deviation)	3-5 arcminutes	1-3 arcminutes	0.25-1 arcminutes	1-3 arcminutes
Center Thickness Tolerance	±0.100mm	±0.050mm	±0.010mm	±0.020mm
Diameter Tolerance	+0/-0.050mm	+0/-0.025mm	+0/-0.010mm	+0/-0.025mm
Surface Quality	80/50	60/40	20/10	60/40
Bevels	1.0mm	0.1mm	0.02mm	0.1mm
Typical Volumes	1-1,000	1-500	1-50	500+

EDMUND OPTICS® ASPHERIC EQUIPMENT

Production Equipment

Our Aspheric manufacturing cell features state of the art manufacturing equipment for producing precision aspherical elements. Whether your application requires a few pieces or thousands of pieces, we have the capability, capacity, and know-how to deliver competitively priced components to a delivery schedule that meets your needs. Send us your requirements and our expert staff of optical manufacturing engineers will work closely with you to make sure we deliver a component that meets your system's needs within your budget constraints.

Equipment List:

- Schneider SCG_A 121 Aspheric CNC Surface Generator
- Schneider SCP_A 121 Aspheric CNC Polisher
- Satisloh SPS60 Aspheric CNC Polisher
- QED Q22-Y MRF Machine
- Precision Glass Molding Machine
- Moore Nanotechnology 450 UPL Ultra Precision Lathe and Deterministic Micro Grinder

Metrology Equipment

We stand behind every great asphere we deliver because we have a state-of-the-art asphere metrology cell. Whether the component needs to be quantified through profilometry or stitching interferometry, we can test each and every critical specification of your component. Our metrology engineers are experienced in working with customers and our manufacturing engineering team to push the limits of our equipment to ensure we deliver exactly what you need.

Equipment List:

- Taylor Hobson Talysurf PGI 1240 Surface Profilometer
- Zygo VeriFire™ 1000AT High Resolution Interferometer
- QED SSI-A Subaperture Stitching Interferometer
- Zygo NewView 600S Non-Contact Surface Profiler

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