



# a|Fizeric

The aspherization of  
**Fizeau interferometry**



# a|FizeriC

The world's first aspheric

## 4" Fizeau lens

With the development of the world's first aspheric interferometer lens a|FizeriC, asphericon redefines an established measurement technique and presents small, lightweight Fizeau lenses that allow you to get the most out of your measuring instrument. By using a high-end asphere larger measuring diameters are possible. For the first time this allows a 4" Fizeau lens to cover the measuring range, which previously could only be measured with a 6" lens.

### KEY BENEFITS

- = Innovative Design comprising aspheric surfaces
- = Fizeau lens quality  $\lambda/10$  and  $\lambda/20$
- = High measuring range coverage
- = Well chosen spacing of Fizeau radii
- = High-quality transmitted wavefront
- = High quality coating
- = Optimized for long term clean components
- = 4" Zygo-Bayonet connector
- = Real 4" system input



- 1 LARGEST MEASURING RANGE ON THE MARKET**
- 2 SAFE HANDLING, EASY STORAGE, USER FRIENDLY**
- 3 ULTRA-LIGHT, ULTRA-FAST, ULTRA-PRECISE**

# a|FizeriC

## The aspherization of Fizeau interferometry

### PRECISION FROM THE TECHNOLOGY LEADER

asphericon is the world's top technology leader when it comes to aspheres and aspheric components. With 17 years of experience in research and development comprising the expertise of more than 150 employees, asphericon is now revolutionizing the established Fizeau measuring technique by using state-of-the-art aspheres.

#### asphericon guarantees:

- = Waviness as low as spherical lenses
- = Lithography level aspheres

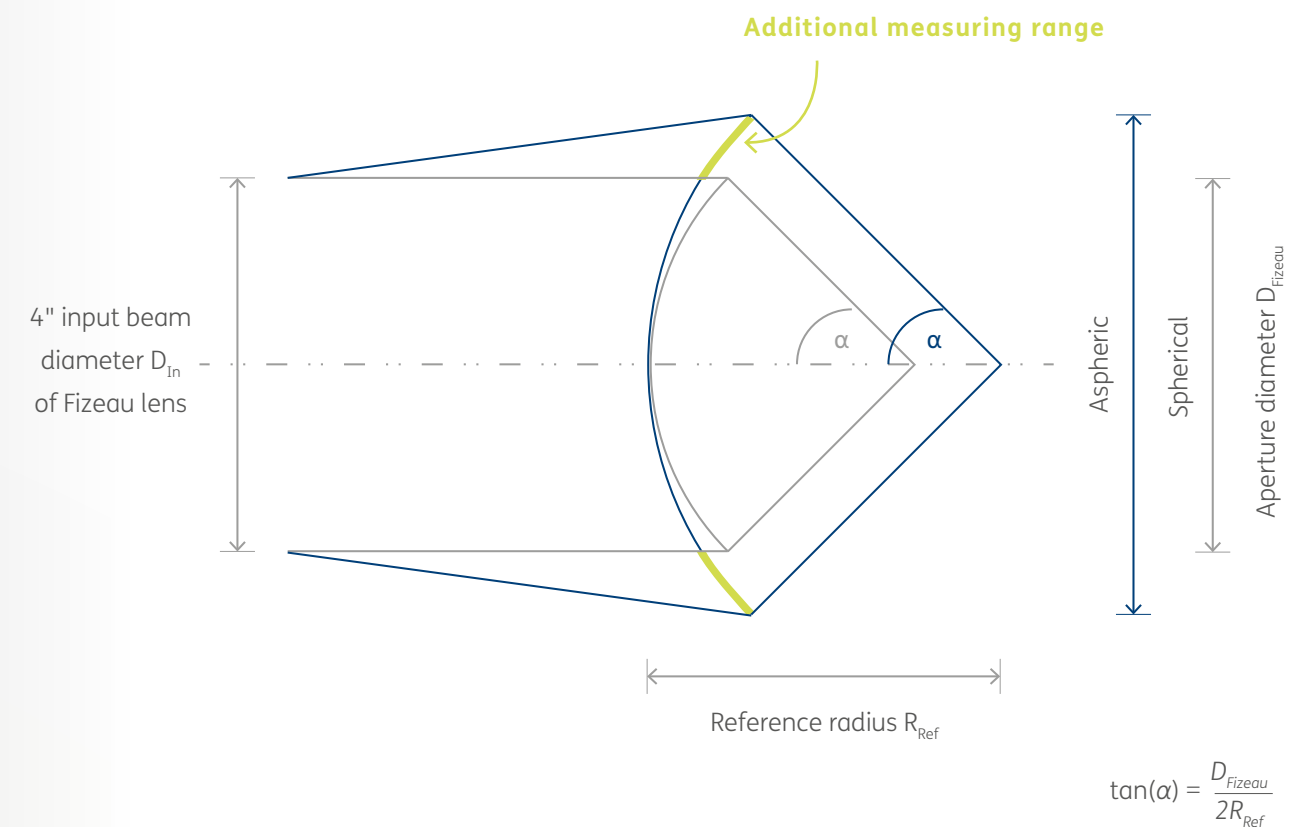


- 1 STATE-OF-THE-ART ASPHERE
- 2 4" ZYGO-BAYONET
- 3 FIZEAU SURFACE
- 4 OPTIMIZED MECHANICAL DESIGN

### COMPARISON – SPHERICAL AND ASPHERIC FIZEAU LENS

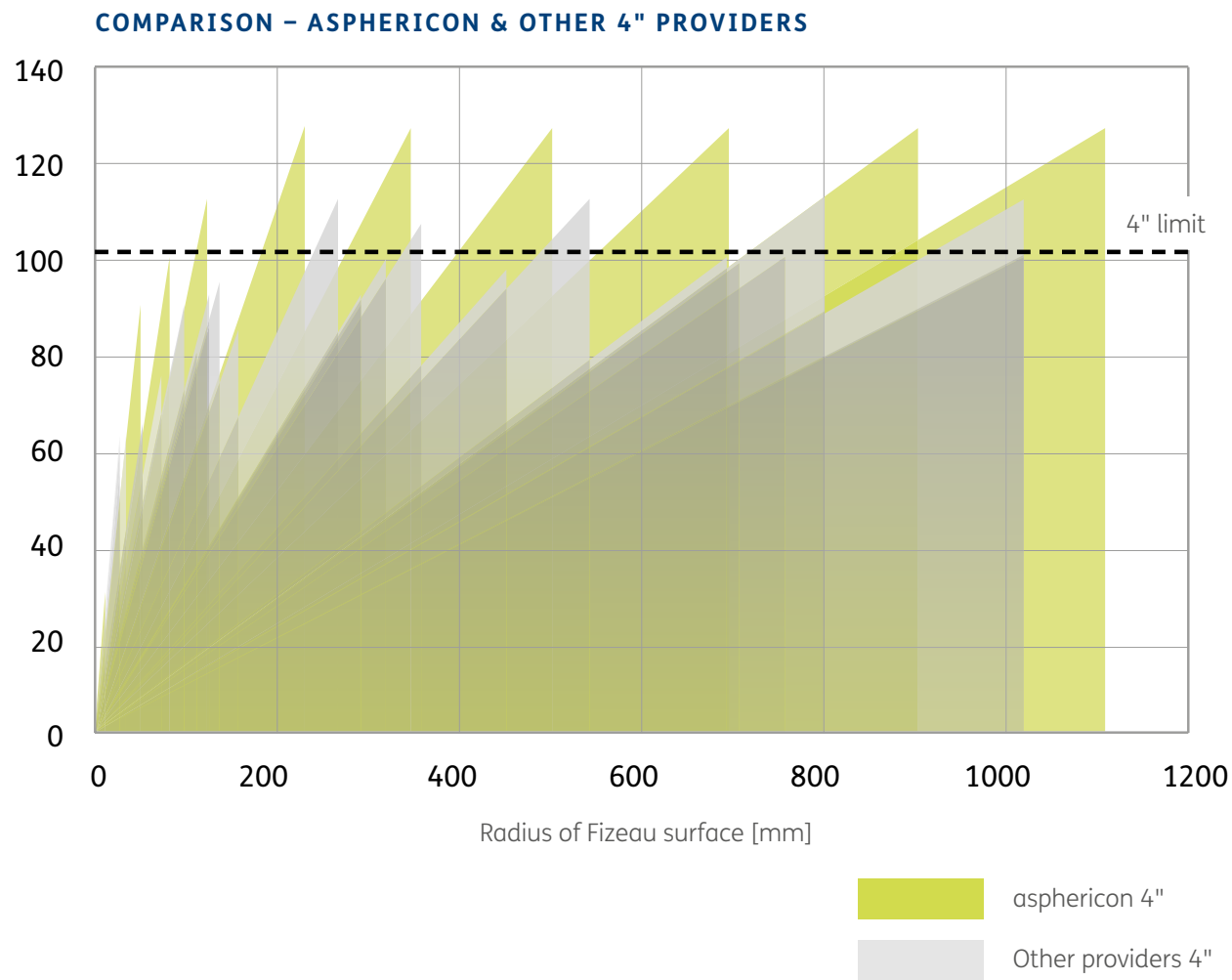
The superiority and extended application range of an aspheric Fizeau lens can be seen in a direct comparison with a spherical lens. Both Fizeau lenses have a 4" input beam diameter,

which leads to a limited measurement range for spherical designs. Whereas the a|FizeriC widens intrinsically and thus, achieves a larger aperture diameter (see additional measuring range).



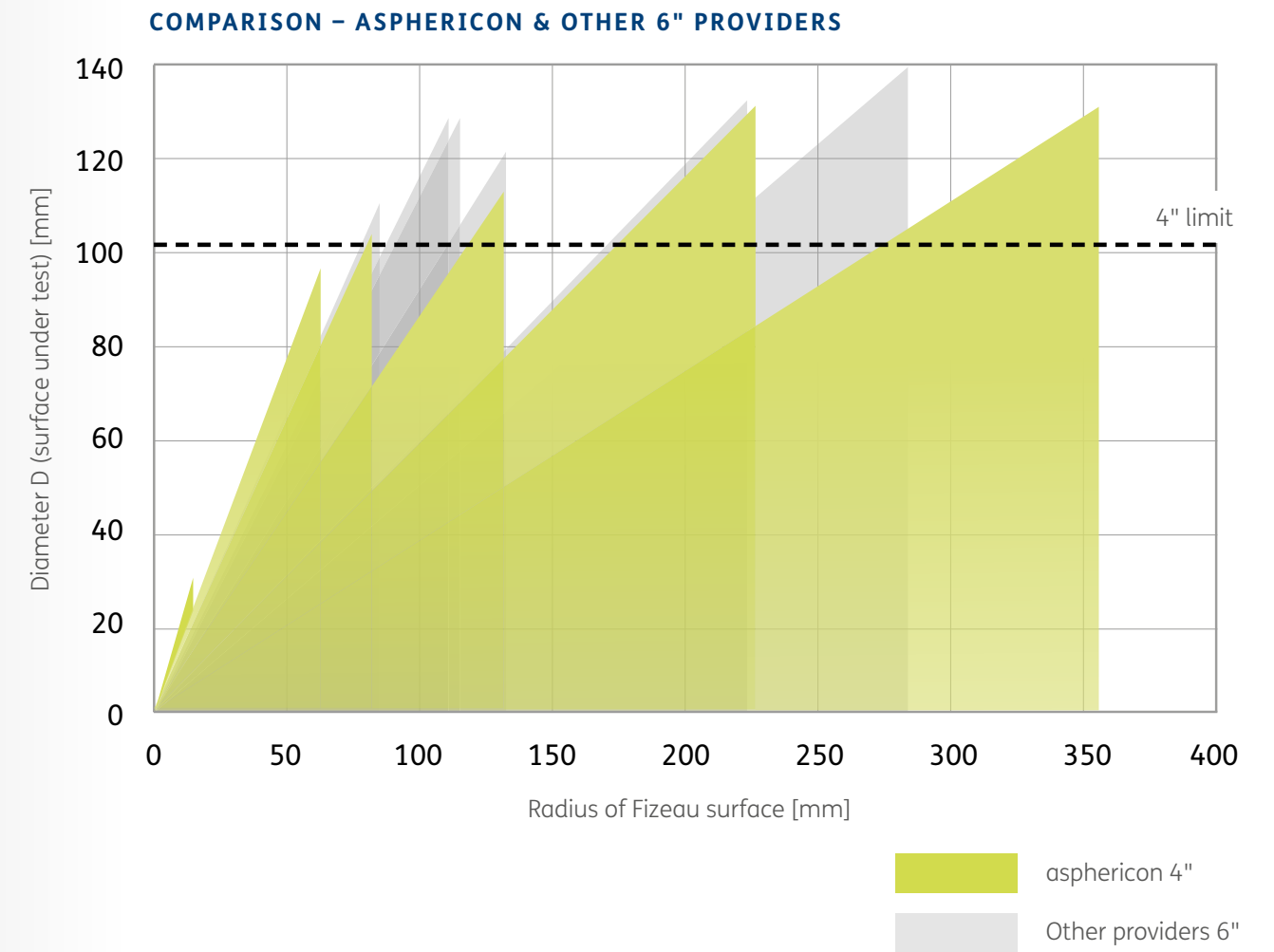
# a|FizeriC

## Largest measuring range through aspherization



Compared to all other Fizeau lenses on the market, the a|FizeriC offers a significantly increased measuring range, which is especially advantageous with small aperture ratios. Above that, the radii of the Fizeau surfaces were selected to close the existing gaps.

No additional adapters or beam expanders are required for using the a|FizeriC enhanced measuring range. Therefore, the a|FizeriC even chases currently available 6" Fizeau lenses.



# a|Fizeric

## Product Family

### 10 INNOVATIVE DESIGNS FOR THE COVERAGE OF A WIDE SPECTRUM

In close cooperation with leading measurement engineers, asphericon has put together a portfolio of ten 4" lenses. A well-chosen spacing of Fizeau radii (19 mm to 1143 mm) and very high R/D coverage (0.55 to 9) provides you with the highest flexibility for any type of measurement task. Additional options are two quality levels of the Fizeau surface ( $\lambda/10$ ,  $\lambda/20$ ). A 4" Zygo-Bayonet connector ensures easy and fast integration into conventional measuring instruments.



R/D	R <sub>Ref</sub> [mm]	D <sub>FIZEAU</sub> [mm]	QUALITY FIZEAU SURFACE	PRODUCT LAUNCH
0.55	19	34.55	$\lambda/10$	2017
0.65	60.05	92	$\lambda/10$ $\lambda/20^*$	2018
0.8	81.28	101.6	$\lambda/10$ $\lambda/20^*$	2017
1.2	132	110	$\lambda/10$ $\lambda/20^*$	2018
1.8	228	127	$\lambda/10$ $\lambda/20^*$	2017
2.8	355.1	127	$\lambda/10$ $\lambda/20^*$	2018
4	508	127	$\lambda/10$ $\lambda/20^*$	2017
5.5	699	127	$\lambda/10$ $\lambda/20^*$	2018
7.1	902	127	$\lambda/10$ $\lambda/20^*$	2017
9	1143	127	$\lambda/10$ $\lambda/20^*$	2018

\*on request



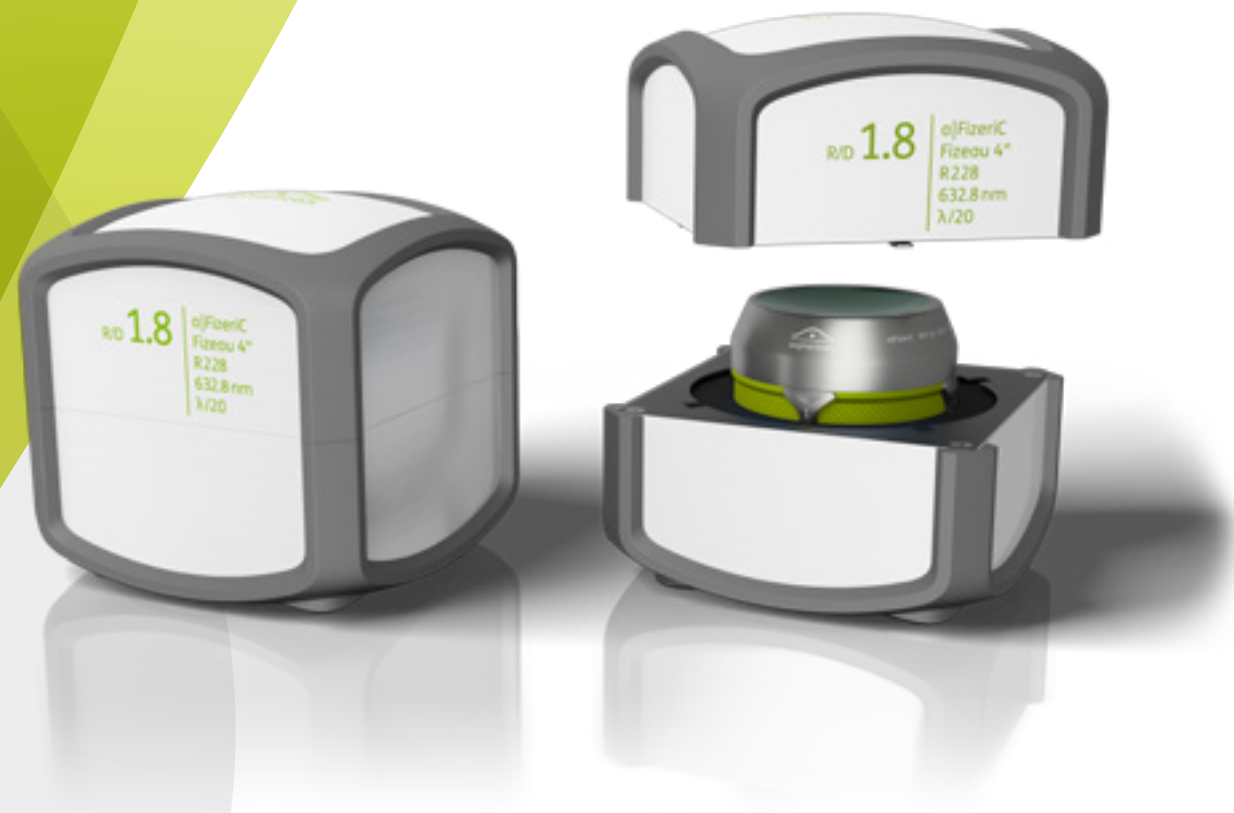
# a|FizeriC

## Handling Concept

### ONE GLANCE. ONE HANDLE.

Timeless design, a form-fit and transport-secure locking system, user-friendly removal and stowing – the a|FizeriC not only sets new technical standards but will also impress you with its ultra-modern packaging system.

After opening the box, a specially developed handle area ensures easy removal and the safe insertion of the lens into the measuring instrument. Stowing the lens is just as easy. Once stored, you can always clearly see which lens is contained in the box.



## Custom

Are you looking for a tailored solution for your application? Feel free to ask us! We'll develop a customized solution for you – of course, with guaranteed quality and precision at the absolute highest level.

### PLEASE CONTACT:



Ms. Janet Mülle

+49 (0) 3641 - 31 00 560

+49 (0) 3641 - 31 00 561

j.mulle@asphericon.com

www.asphericon.com



#### asphericon GmbH



+49 (0) 3641 - 31 00 500



+49 (0) 3641 - 31 00 501



sales@asphericon.com



www.asphericon.com

Stockholmer Straße 9  
07747 Jena  
Deutschland

#### asphericon Inc.



+1 941 564 0890



+1 941 584 4071



sales@asphericon.com



www.asphericon.com

5500 Bee Ridge Road,  
Suite 104  
Sarasota FL, 34233 | USA

