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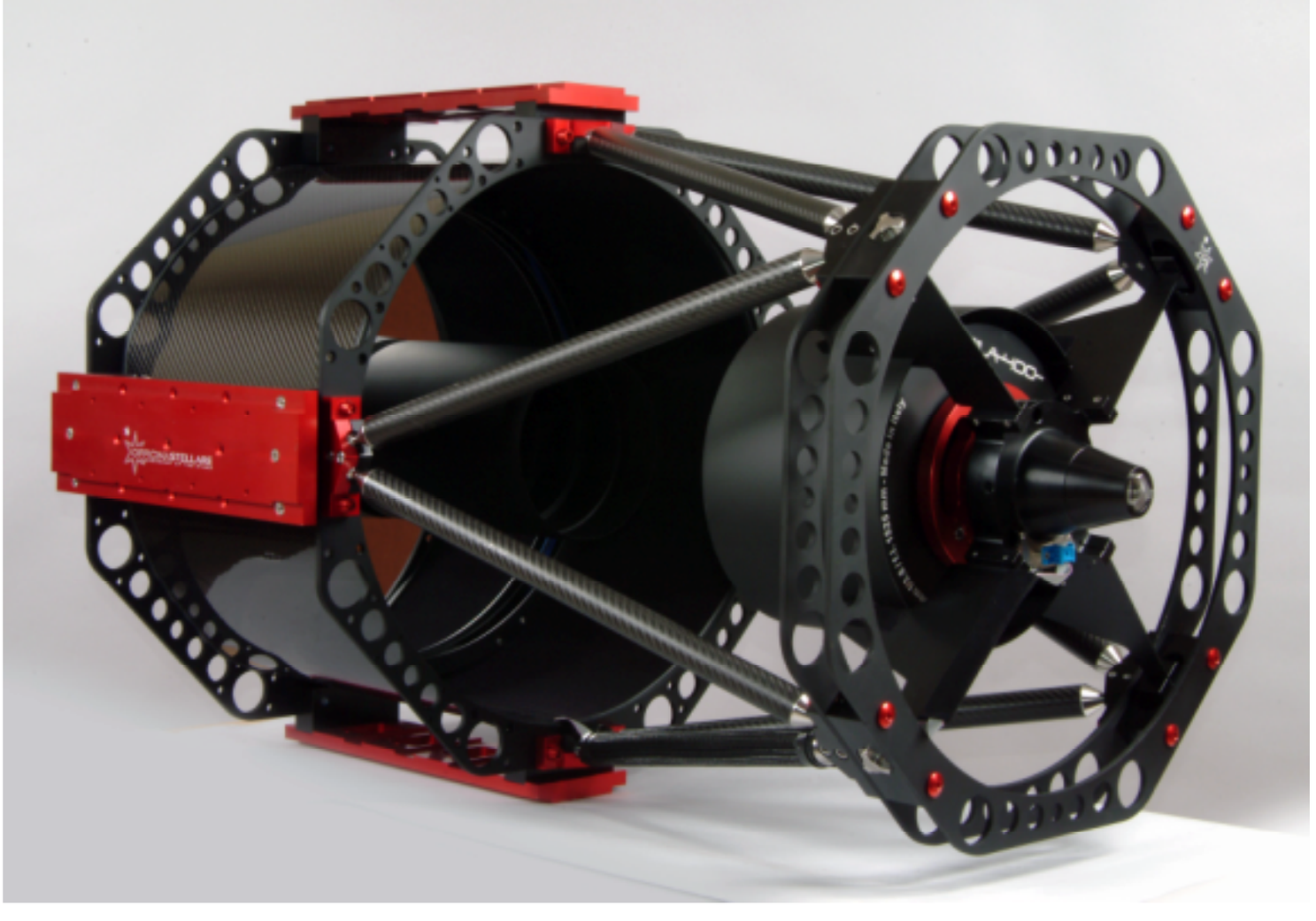
Introducing the RiLA range



Introducing the RiLA range

SLIDE 1: cover

SLIDE 2: scenery and design guiding lines

The scenery is fast changing.
More people are doing astrophotography.
In addiction to the classical Officina Stellare Pro RC, that is still the preferred scope for high resolution, long focal length imaging, we decide to add a new line of astrographs, to answer to the requests of worldwide customers.
The availability of large, inexpensive, CCDs make possible some dreams of the past.
Is now possible to capture the sky realizing large field surveys or take a picture of degrees wide faint nebulas in a single shot.
But this require a very wide corrected field from the optics.
The customers are asking us for “fast” optical schemes, to make shorter the integration time, or to make simpler the guide during long exposure thanks to the short focal length, or to make simpler the use of narrow band filter.
But the customers are also requesting large diameter instruments, to go deeper in the limit magnitude of the picture taken.

Then, on the slide, our design guidelines.

-A new and innovative concept large diameter astrograph! Because we where looking for an new answer to new questions.
-Compact dimensions: because dimensions and weight matter! Because the compactness of the scope make easier (and precise) the work of the mount!
-Fast focal ratio: to realize the dreams of all imagers!
-Large corrected field: to be ready for all future needing for the researchers and astroimagers
-Lower as possible surfaces number: to make lower the price of the scope, to make lower the scattering of the light, to make higher the resolution of the scope.
-Smaller as possible obstruction: because the incoming light quantity is important!
-Simpler as possible surfaces figuring: to make higher the overall quality of the scope.

SLIDE 3: layout

Here the layout of the RiLA range.

We can’t go a lot deep in the description of the optical ideas at the origin of the scope but as all of you can imagine, the design of a modern astrograph is one of the most intriguing challenge.
Our designer, Massimo Riccardi, after long studies and analysis, realize this layout, with some innovative ideas never seen before.
Working on the logical position of the "aperture stop" of the optical scheme, that is the center of symmetry of all optical design, and looking for an aspherical shape for the primary mirror more to realize than the usual hyperbolic, create the RiLA (Riccardi Large Astrogrpah).
Important detail: the secondary mirror is spherical. This make simpler the collimation and alignment of the telescope.
To this special core of mixed mirrors, Massimo added a special corrector on the back. Just before the focus. Where we can have smaller lenses (cheaper) and with a better quality impact on the images. This corrector has also the plus of a long back focal length, allowing the use of the typical complex imaging train required by modern astroimaging.
Mission accomplished!
All requirements are respected!
Top performance, fast focal ratio, low obstruction, compactness... and so on.

SLIDE 4" performance / spot

This is one of the most intersting slide we have. Please note that we are showing you a polychromatic, very wide spectrum range spot size. This is not usual...
Up to the edge of the incredible wide imaging circle (105 mm, in this case), the RMS spot is under 5 microns! More resolution, more light, more limit magnitude.

SLIDE 5: performance / distorsion

This is not usually known as a plus. But RiLA is amazing also from this point of view!
Good for imaging processing, for image alignment, or to do precise astrometry on the images. For this reason RiLA is the choice of a lot of researchers.

SLIDE 6: RiLA range

As you can see we are proposing you both a great range of diameters and a great range of focal ratio.
A RiLA for all needings. A RiLA for all mounts. A RiLA for all budgets!
Special discounted introductory prices! Order now your RiLA!

SLIDE 7" RiLA advantages

Easy to align: thanks to the spherical secondary mirror and thanks to our exclusive mechanical desing solution of the mirrors cells!

Small spot size: allow you to take picture in wide field but with an high resolution too. Zoom deep into the pictures!
Widest corrected field, up to 120 mm: ready for the modern big CCD chip and for the CCD of the future!
Fast F/3.8 focal ratio: make shorter the integration time, make simpler the autoguide, take more photons in your narrow band images!
Diameters up to 32: no limits for your target!
Thermal stability: make simpler to stay infocus during the night!