

Design production and assembly is carried out in our ISO certified company with 20 years of experience in telescope making – Made in Austria.

## ASA AZ800

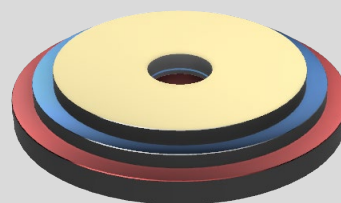
800 mm Ritchey-Chrétien Alt-Az telescope f6.85 f2.5 or f6 f2 with Nasmyth focus



ASA AZ800 in Bern

### ASA Optic

- Main mirror optical size is > 800 mm
- Resolution is inversely proportional to the size of the primary mirror. The larger the diameter of the mirror, the better the theoretical resolution. A larger telescope theoretically can resolve more details than a small telescope at a given wavelength. Therefore the difference in comparison between e.g. 600/700/800 mm mirror size is significant.
- Mirror material: Fused silica (quartz), ultra-low thermal expansion 0.55e-6/°C
- Guaranteed surface quality:  $\lambda/24$  RMS wave front accuracy (>94% Strehl)
- The mirrors are made in our own optics production facility
- Tertiary mirror allows fast switching from 1 to 2, for example eyepiece to camera setup



	Light Gathering Power	Resolving Power
600 mm	100%	0.223"
700 mm	119%	0.191"
800 mm	142%	0.167"

### ASA Direct Drive

- To achieve the given resolution of a telescope system the tracking performance of the mount is a significant factor
- Equipped with high-res absolute encoders no homing is necessary
- Typical pointing accuracy is < 8" RMS with pointing model
- Tracking accuracy < 0,25" RMS within 5 minutes
- Slewing speed is up to 10° per second

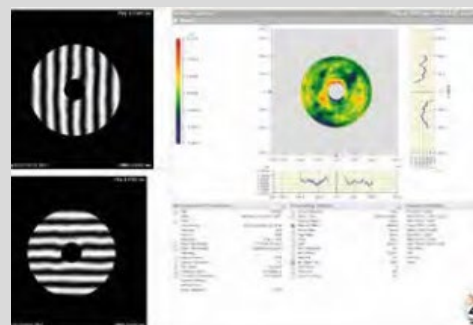
### ASA Software

The TCU (telescope control unit) is an integrated part of the telescope and controls all ASA hardware components. The communication between the TCU and user interface runs on an external, customer owned computer using a TCP/IP interface based on a proprietary ASA protocol.

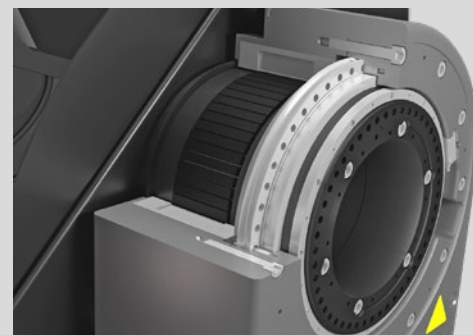
The customer is free to choose on which operating system he wants to install the client user interface. You can choose between Linux (tested on Ubuntu 18.04 LTS), Mac OSX and Windows 10.

In addition to operation via a graphical user interface (GUI), the individual ASA components can also be controlled by a Software Development Kit (SDK)\*. Special add ons like the high precision tracking of satellites (Two Line Elements – TLE and Consolidated Prediction Format – CPF) are available.

\*Additional software add-ons are not included in the basic price



Optic



ASA Direct Drive



ASA AZ800 in Hungary



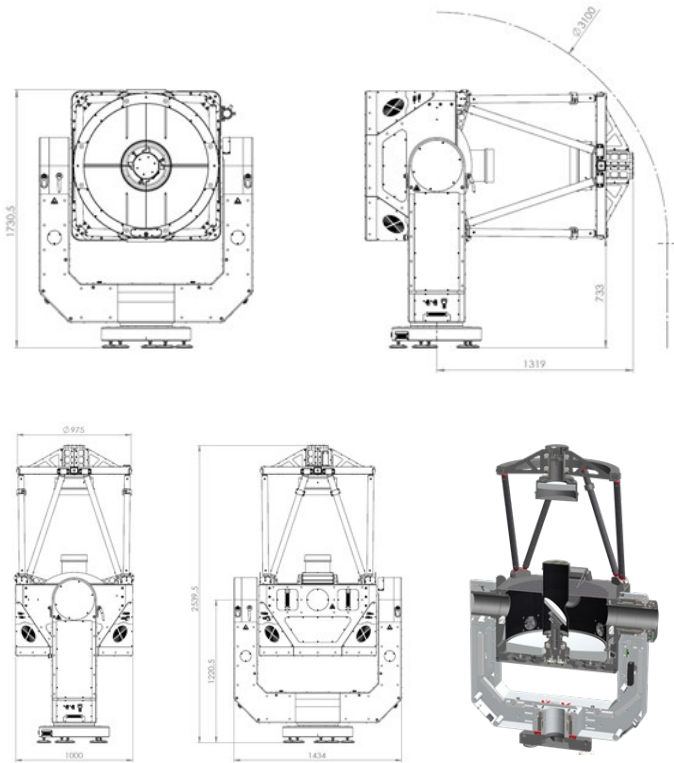
ASA AZ800 in Austria



ASA AZ800 in Turkmenistan



ASA AZ800 in Hungary



### INCLUDED WITH DELIVERY

- Motorized focuser – Absolute encoder
- Laser for optical collimation
- Telescope electronic racks including all power supplies for the telescope
- IP-Remote power switch and ethernet switch
- TCU (telescope control unit), Software, TCP/IP interface

### ASA AZ800 DIMENSIONS

Weight: 900 kg (1990 lbs)

### MATERIALS USED

- Carbon
- High-end aluminum, CNC machined

### OPTIONAL

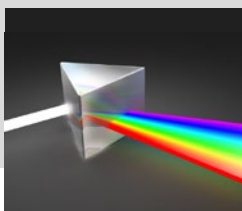
- ADR6 ASA derotator with absolut encoder
- Motorized main mirror covers
- Customer specific camera adapter
- Correctors: Field flattener, reducers
- 3. and 4. Nasmyth position

## ASA AZ800 APPLICATIONS

ASTRONOMY



SPECTROSCOPY



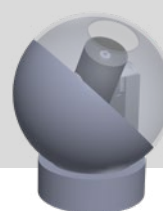
SPACE DEBRIS DETECTION



SATELLITE LASER RANGING



LASER COMMUNICATION



QUANTUM KEY DISTRIBUTION

