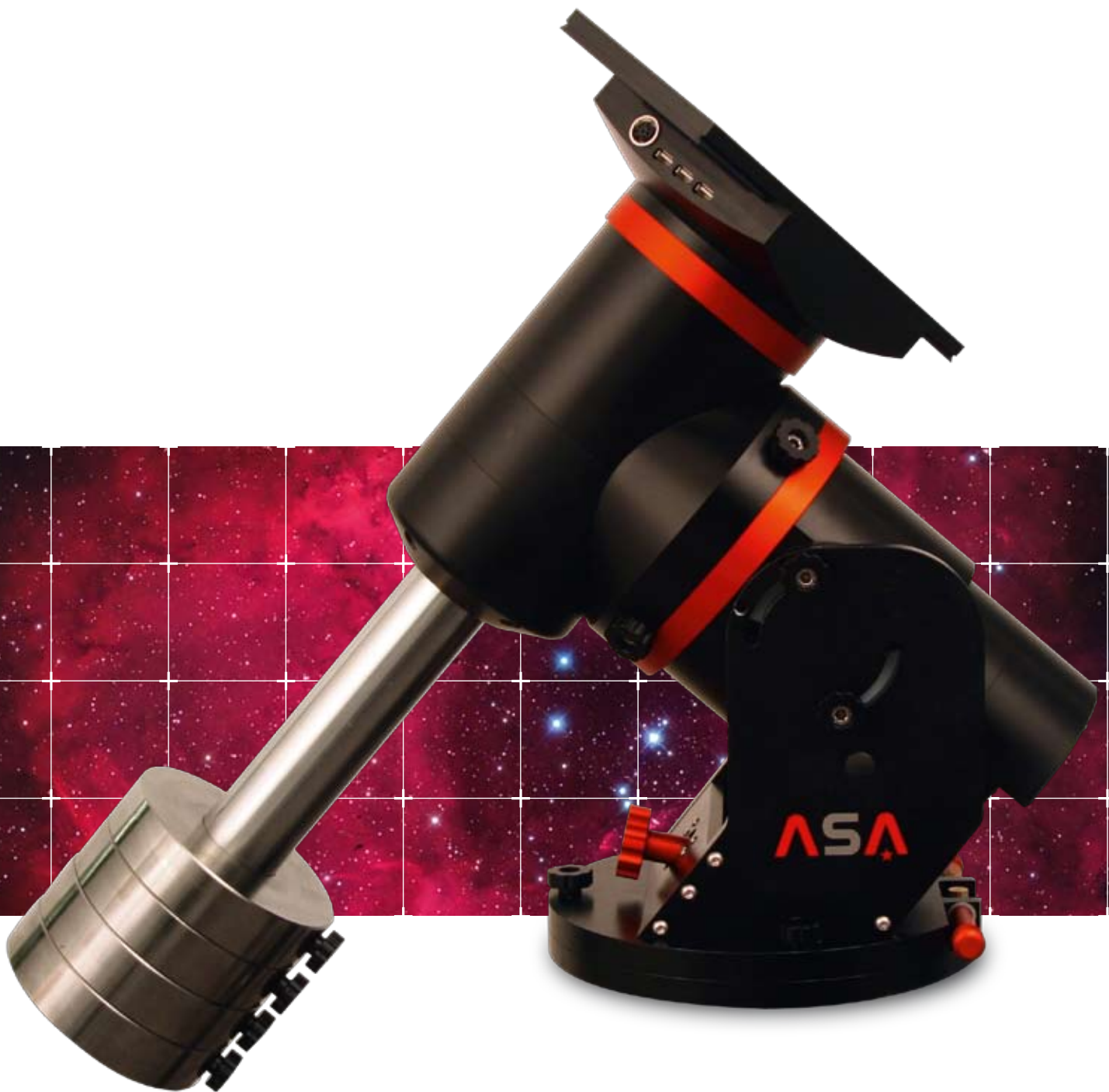


HIGH-TECH MOUNT
One step ahead and into the future



ASA Direct Drive Mount 85 incl. Software★ **AUTOSLEW BY DIPL. PHYS. PHILIPP KELLER**



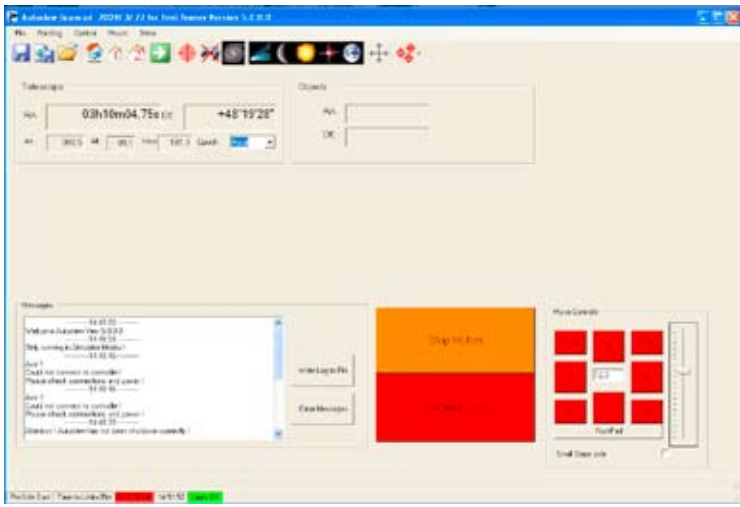
The ASA Direct Drive Mount 85 (ASA DDM85) is a robotic high-end mount, which can be operated without conventional guiding controls, due to its high accuracy. By the use of a gearless drive and high-resolution encoders it can achieve a tracking precision in the range of a tenth of an arc-second.

The software Autoslew, developed by Dipl. Phys. Philipp Keller, compares the target and the actual position of the axes more than 100 times per second. Since the encoders (Brand: Renishaw) are mounted directly on the axes, even wind gusts can be compensated. The elaborated software eliminates all reproducible errors such as collimation, backlash, slippage, refraction, precision, etc. The theoretical resolution of the encoders, which are directly mounted at the axes, is 0.02".

By using appropriate pointing-files a tracking precision of under 0.25" RMS (see figure) can be achieved. Furthermore, GOTO positioning of under 5 arc-seconds accuracy can be achieved by the use of pointing-files. There is no backlash and no periodic error. Most professional observatories are based on this technology. The electronic system and wires are embedded in the mount. The declination axis can be detached for transportation (wires inside the mount can be disconnected by one single

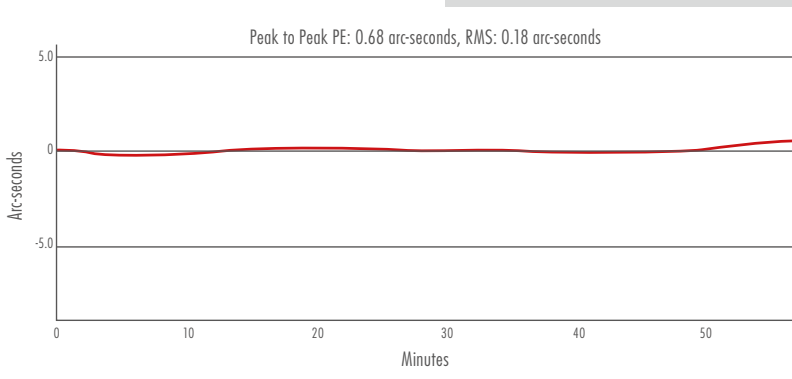
plug). Setting up pointing-files and polar alignment can be done fully automatically by the use of a camera. With the optional software, the mount can be controlled over the internet and thousands of objects are retrievable from a provided database. The software provides an interface to all common astronomy software packages via the ASCOM2 standard, including MaximDL, TheSky, Starry Night Pro, CCD Autopilot, ACP and many more.

AUTOSLEW - THE UNBEATABLE TELESCOPE-SOFTWARE FOR PROFESSIONALS. NOW AVAILABLE FOR AMATEURS!



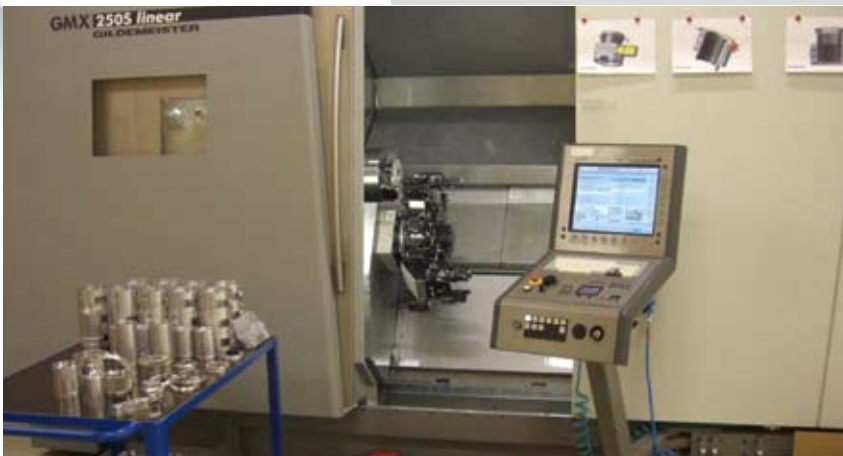
Telescope-Controlsoftware AUTOSLEW
(by Dipl. Phys. Philipp Keller)

- Display of the current telescope position
right ascension, declination, azimuth and altitude
- Hour angle of the telescope
- Refraction caused by the atmosphere
- Equinox which is used for the display of the current telescope position
- If this box is checked the telescope determines its position from the readout values of the Renishaw-Encoders
- Object select menu
- Focusmode
- Different tracking speeds (Stars, Moon, Comets)
- Move-Controls
- Check Limit makes sure that the mount does not move into blocked zones (e.g. below the horizon or against a barrier inside the observatory)
- Window that reports potential failure



Guiding accuracy over one hour without autoguiding.
Peak to Peak: 0.68 arcseconds, 0.18 arcseconds RMS.

Used equipment:
ASA DDM85 with ASA 16N OK3



All components are crafted from high-quality aircraft grade aluminum (7075AlZnMgCu1,5) in our modern CNC production facilities.

UPCOMING MOUNTS IN 2009

ASA DDM60

Smaller mount with similar technology (Encoder, Software, Direct Drive, ...) and a loading capacity of 25 kg.

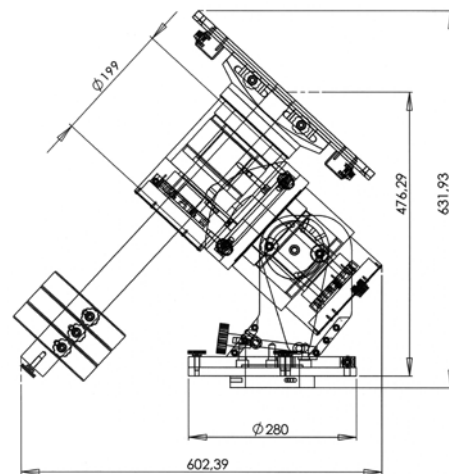
ASA DDM150

Observatory telescope mount with a loading capacity of 250 kg.

INTRODUCTORY PRICE: EUR 11.250,00

for the first 100 deliveries, ex. VAT, without shipping.

ASA DDM85 FACTS. VALUES. SPECS.



TECHNICAL SPECIFICATIONS

Software	Autoslew by Philipp Keller (www.astrooptik.com)
Diameter of the axis	RA/Dec. 85 mm hollow axle
Bearing	Preloaded taper roller bearings 130/85 mm
Weight without counterweight-shaft	Approx. 38 kg
Loading capacity	Approx. 65 kg
Drive	High torque motors in RA and Dec. (Direct Drive without gear)
Operating voltage	12V/<10 A (0,4 - 0,8 A/Tracking)
Pointing	< 5" RMS with pointingfile
Tracking precision	< 0.25" RMS in 5 minutes
Encoder resolution	0,02" on the axis
Altitude range	0 - 90 degrees
Moving speed	15°/sec. (faster on request)
Counterweight-shaft	60 mm high-grade steel hollow axle
Counterweights	High-grade steel 5 kg, 160 mm
Object catalog	Messier, NGC, IC, PGC e.c.

More features

Automatic Meridianflip
USB port and power plug at mounting plate
Parking position, re-positioning after power outage
Satellite- and comet tracking, etc.
Manual specifiable safety limits
Control via PC or Notebook (PC/Notebook not included in the price)
Tested interfaces to Maxim DL, Autofocus, The Sky, CCD-Autopilot, etc.
Different other drivers

Optional Accessoires

WLAN (WIFI), Control via pocket PC (up to 2010)
Control via internet (up to 2010)

For operating the mount, a PC with USB port is required!