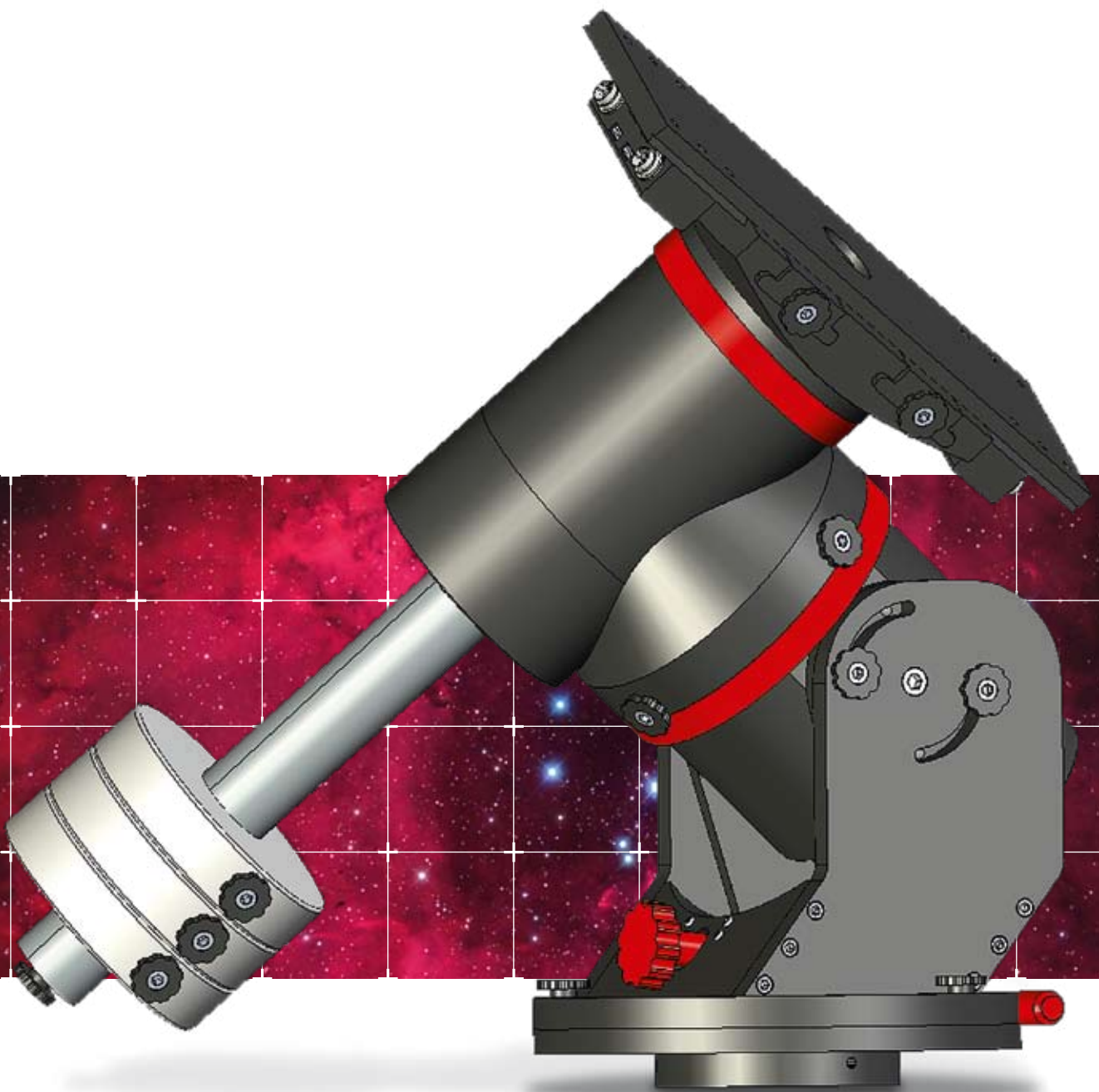


HIGH-TECH MOUNT

One step ahead of the future



ASA Direct Drive Mount 85 incl. Software★

AUTOSLEW BY DIPL. PHY. PHILIPP KELLER

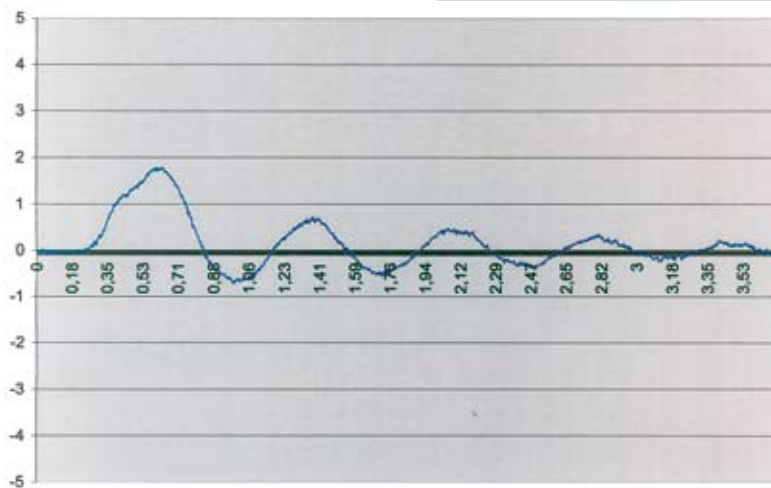


The ASA Direct Drive Mount 85 (ASA DDM85) is a robotic high-end mount, which can be operated without conventional guiding controls, due to its high accuracy. By the use of a gearless drive and high-resolution encoders it can achieve a tracking precision in the range of a tenth of an arc-second.

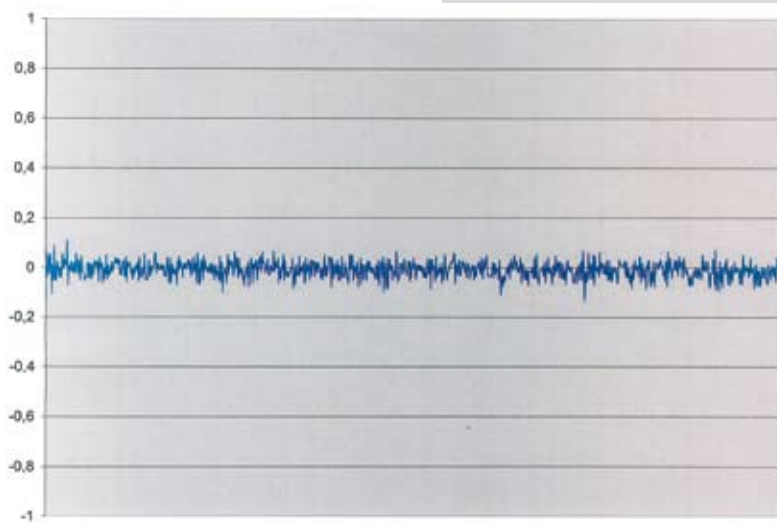
The software Autoslew, developed by Dipl. Phy. Philipp Keller, compares the target and the actual position of the axes more than 100 times per second. Since the encoders (Brand: Renishaw Signum) are mounted directly on the axes, even wind gusts can be compensated. The elaborated software eliminates all 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 0.25" RMS (see figure) for exposure times of up to 5 min. (0.40" RMS for 10-15 min. exposure time) can be achieved. Furthermore, GOTO positioning of 5 to 10 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.



After a gust of wind of 20 km/h, the tracking precision returns to below 1" in under a second. The tracking precision remains below the seeing.



The tracking precision of the drive to the Renishaw Encoder is 0.03" RMS.



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

UPCOMING MOUNTS IN 2009

ASA SM40

This smaller mount with similar technology (Encoder, software,...) and a loading capacity of 20 kg scheduled for the first quarter of 2009.
Expected price: EUR 5000,00 incl. 20% tax

ASA DDM120

Observatory telescope mount with a loading capacity of 150 kg.
Expected price: EUR 19.000,00 incl. 20% tax

INTRODUCTION PRICE: EUR 13.500,00

For the first 100 deliveries, incl. 20% tax, without shipping.

Regular sales price without tripod:
EUR 15.000,00 incl. 20% tax, without shipping

ASA DDM85.

TECHNICAL SPECIFICATIONS

Software	Autoslew by Philipp Keller (www.astrooptik.com)
Diameter of the axis RA/Dec.	85 mm
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.
Operating voltage	48 V (can be operated with 12 V optionally)
Pointing	< 5" RMS with pointing-files
Tracking precision	< 0.25" RMS in 5 minutes
Encoder resolution	0.02"
Altitude range	0° - 90°
Moving speeds	10°/sec., optional 20°/sec.
Counterweight-shaft	50 mm
Counterweights	5 kg, 10 kg and 20 kg (chromed)
Object catalog	Messier, NGC, IC, PGC e.c.

Extras

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, etc.
GPS receiver

Optional accessories

WLAN (WIFI), Control via pocket PC
Control via internet

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

