



**2007 – a small company  
from Kiev / Ukraine  
introduces.....**



# Hartblei Superrotator with Optics by Carl Zeiss

Innovation and Tradition  
A German-Ukrainian Cooperation

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# HARTBLEI

Superrotator  
Optics by Carl Zeiss



# 3 New Highend Lenses for Professionals

- 40 mm Distagon 1:4,0 Superrotator
- 80 mm Planar 1:2,8 Superrotator
- 120 mm MacroPlanar 1:4,0 Superrotator



# New Hartblei-Zeiss Superrotators

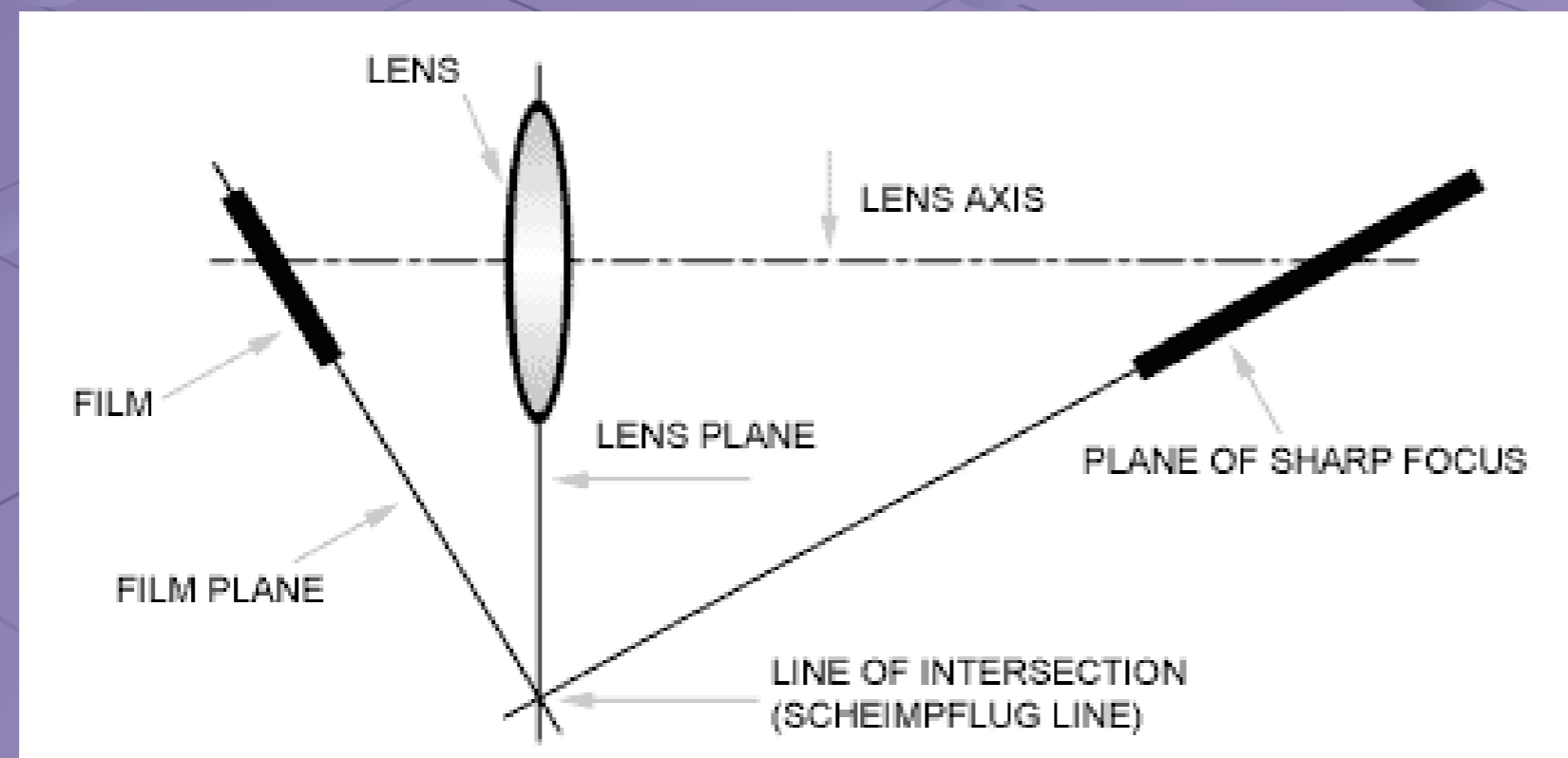
- All 3 have in common:
  - At least 10 mm shift
  - At least 8 degrees Tilt
  - Full 2 x 360 degrees Rotation of both - independently !
  - Manual aperture, no electronic coupling to camera
  - Initially available with Canon, Nikon and Sony Alpha mounts(others on request)

# Samples of possible Lens Movements



# How does it Work ?

The so called Tilt uses the Scheimpflug Effect, which states that as long 3 planes: object, film or sensor and lens main axis will cross in the same point, a resulting picture will be in perfect sharpness. Now if you detune this setup willingly, you can achieve special effects by modifying sharpness, achieving dreamlike or perspective illusion effects (toybox effect)



# Potential Users of Superrotator Lenses

- Professional studio photography with perspective control and sharpness expansion: tabletop, food, catalog, product and packshots.....
- Industry and scientific (enhanced sharpness)
- Stitching: enlarge net. image size by up to 200 % of original sensor capacity
- Outdoors : architecture (toybox effect), landscape (stitched panoramas, blurred foregrounds / backgrounds )
- Fashion & Portrait: (faded or shifted sharpness) dreamlike effect



# Market Analysis

- 35mm DSLR's reaching professional quality
- The market for medium format cameras is shrinking dramatically, only several manufacturers left
- Professional digital backs losing market share to DSLR cameras
- View cameras (4x5" >) are dead, only a few compact models still used for digital backs
- Professional photographers still need shift and tilt

# Perspective and Sharpness Problem with SLR's

- For extended sharpness, quality and enhanced perspective control, photographers used view cameras
- Actual digital lenses do not deliver this functionality, few brands (e.g. Canon with TS Lenses) support shift and tilt
- No full 2 x 360° freedom of movement for the shift and tilt available

# Solution comes from Cooperation of Germany & Ukraine

- Hartblei Superrotator is the world's only view camera substitute for DSLR's
- Rugged design with professional strength for everyday usage
- Space and military technology of former USSR to build unique lens barrels
- Carl Zeiss to supply the best medium format lens kits in the World

# Who is Hartblei ?

Hartblei is a Ukrainian Company located in Kiev. Its origin was about the modification of Kiev medium format cameras and lenses (made by Arsenal, a very large optical factory in Kiev, founded after 2<sup>nd</sup> World War using former Contax machinery). Its founders were former USSR Military personnel from Aircraft and Space technology. There is a close connection between the products of Arsenal and the resulting 'tuneups' supplied by Hartblei.

# Does anybody not know Carl Zeiss ?

Carl Zeiss is THE most traditional German Company in the optical Business. Since its 1846 foundation in Jena, Carl Zeiss has endured 2 World Wars, was parted into West and East German counterparts, reunited and also among else evolved into a hightech enterprise, supplying laser, radiation and chip manufacturing gear. Today the CZ group is one of the largest companies in Germany with a turnaround of 2,22 billion Euros.

# Canon and Nikon Alternatives ?

Both Brands of Lenses also offer Shift and Tilt capabilities, but as a main drawback do not offer full 2x360 Degr. Freedom of Movements against each other like Hartblei does ! Further there is only a 90 mm TS Canon lens, whereas the longer 120mm Superrotator offers the perfect distance for Full Format SLR Cameras plus It's a real Macro Lens with superior Image quality. For Nikon there is only a 85 mm shift and tilt so the 40mm and the 120 mm are really welcome. And last but not least Canon and Nikon lenses are only available for their brands mount, the HB/Zeiss lenses are for all modern Camera mounts : Canon / Nikon / Sony.....(more on request !)







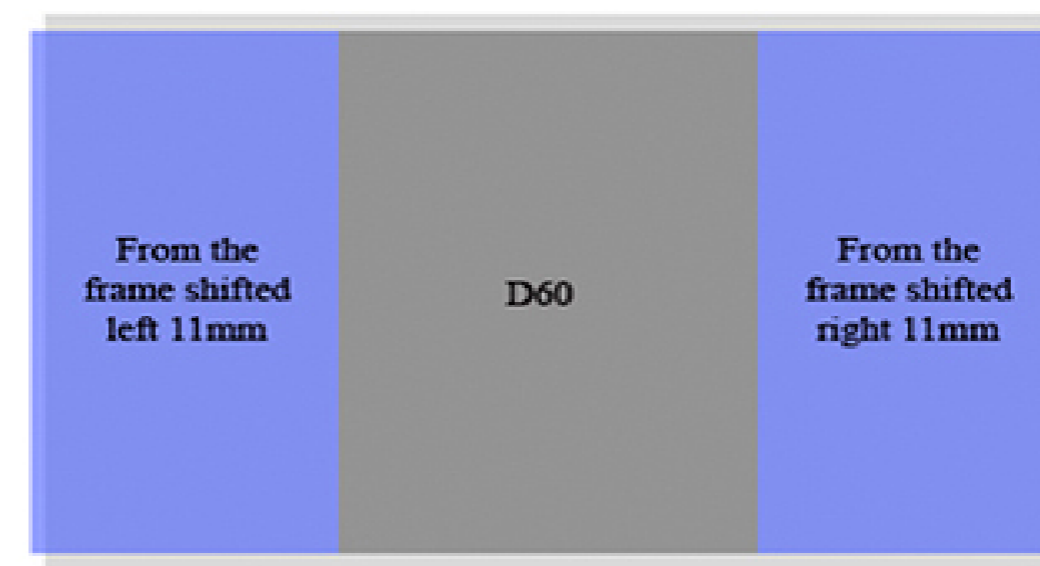
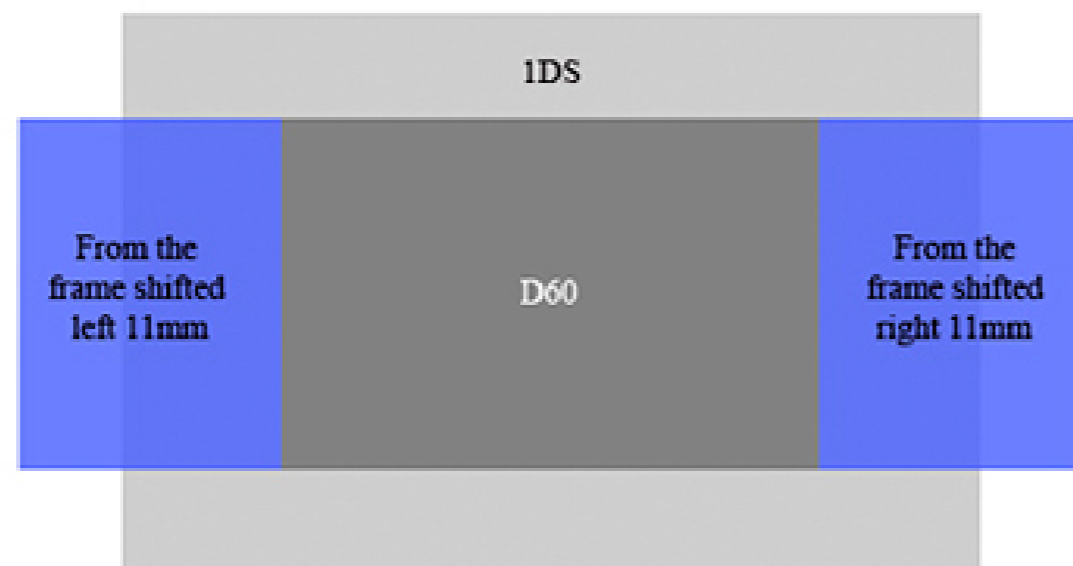
# Superior Lensdetails







# Sample Pictures: Panorama-Landscape (with stitching )







**No Tilt**  
**f-16**

**6 deg**  
**Tilt - f16**













# HARTBLEI



# **HARTBLEI**

www.hartblei.de  
s.steib@hartblei.de

Stefan Steib  
Gabelsbergerstr.48 D  
D - 80333 München

Tel.: +49 (0)89 520 59 305  
Fax: +49 (0)89 520 55 778

mobile de : +49 (0) 171 81 90 488  
mobile ua : +38 0 68 35 84 119