



Beckmann Binoculars

TEM binoculars with good ergonomic properties and high light transmittance

Today nearly every type of scientific research involves the use of transmission electron microscopes (TEMs). With increasing numbers of specialists using them for lengthy periods of time, it is important to manage the microscope ergonomics. Microscope work is straining both to the visual system and the musculoskeletal system. The new binoculars allow operators flexibility in their viewing position while retaining high light transmittance important to the visual system.

In close co-operation with Professor Beckmann and our TEM microscope users, new binoculars were developed that meet an ergonomically favourable position for the user while enhancing properties like high light transmittance and intensity to achieve the high image quality of the current small binoculars.

The Beckmann Binoculars housing has hinge-mounting, so that it can be easily moved sideways if the full view of the viewing glass is needed. The Binoculars can be retrofitted to existing Morgagni™, Tecnai™ and Titan™ family of microscopes installed at our customers, so that all FEI TEM users can obtain the full benefits of these innovatively designed binoculars with their superb ergonomic properties and excellent optical performance.

Key benefits

- Comfortable user-friendly working position reduces overall body strain of operator
- Significantly improved light transmittance and intensity compared to previous generation long binoculars
- Excellent specifications for Resolution, Magnification and field of view for superb images
- As easy to use as the 'small' binoculars and hinge-mounted for safe movement if large viewing glass must be used

Retrofit

This option consists of the following items:

- Beckmann Binoculars
- Hinge-mounting
- Matching viewing glass cover

Comparison table

	Standard 'small' binoculars	Beckmann Binoculars
Ergonomic position	-	+
Numerical Aperture (optical specs)	+	++
Resolution	+	++
Magnification	+	++
Exit Pupil (Optical specs)	+	+
Field of view	+	++
Impact on light transmission	+	++
Ease of use	+	+
Adjustable viewing angle (0-35 degrees)	-	+

New standard for TEM

FEI has used the Beckmann Binoculars in our NanoPorts around the globe to get instant feedback about how users experience the ergonomic binoculars. Based on the positive feedback from our application specialists we have decided to fit Beckmann Binoculars as standard on our entire range of TEMs*.

*except for Titan³, Tecnai Osiris™ and Krios TEMs which do not have binoculars

Ordering details

9432 053 20011 Beckmann Binoculars for Tecnai 120 and 200 kV

9432 053 20031 Beckmann Binoculars for Tecnai 300 kV

9432 053 20051 Beckmann Binoculars for Titan 80-300 kV

9432 053 20071 Beckmann Binoculars for Morgagni



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