

## Checklist for your compound microscope - your requirements

### 1) Which kind of microscope do you need?

- |                          |                           |  |               |
|--------------------------|---------------------------|--|---------------|
| <input type="checkbox"/> | Compound microscope:      | (primarily used for transparent/translucent preparation)                           | (Page: 1 - 3) |
| <input type="checkbox"/> | Stereo microscope         | (surface observation with 3-dimensional optic with slow/medium magnification)      | (Page: 4 - 6) |
| <input type="checkbox"/> | Phase contrast microscope | (Preparations with minimal contrast / very translucent)                            | (Page: 1 - 3) |
| <input type="checkbox"/> | Fluorescence microscope   | (fluorescent structures, which are specific coloured or auto coloured)             | (Page: 1 - 3) |
| <input type="checkbox"/> | Polarisation microscope   | (Preparations with refraction (anisotropic). for example Crystal)                  | (Page: 1 - 3) |
| <input type="checkbox"/> | Metallurgical microscope  | (surface observation of components, materials and minerals)                        | (Page: 1 - 3) |
| <input type="checkbox"/> | Inverted microscope       | (used primarily for culture fessel from cell culture / for very thick preparation) | (Page: 1 - 3) |

State your intended use/  
 Describe your application: \_\_\_\_\_

State your previous model/manufacturer:  
 (if available) \_\_\_\_\_

State your min. and max. magnification: \_\_\_\_\_

### 2) What type of eyepiece tube do you need for your application?

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | Monocular eyepiece tube  | (view with one eye = 1 eyepiece available)                  |
| <input type="checkbox"/> | Binocular eyepiece tube  | (view with both eyes = 2 eyepieces available)               |
| <input type="checkbox"/> | Trinocular eyepiece tube | (view with both eyes + additional option to adapt a camera) |
| <input type="checkbox"/> | Digital eyepiece tube    | (view with both eyes + integrated camera)                   |

Attention: look also at point 20) Do you need a camera?

Additional comments: \_\_\_\_\_

### 3) Which illumination do you need for your application?

- |                          |                                  |  |
|--------------------------|----------------------------------|--|
| <input type="checkbox"/> | Halogen transmitted illumination | (very good illumination/also suitable for dark field and phase contrast)   |
| <input type="checkbox"/> | LED transmitted illumination     | (extremely long life time / no heat generation)  |
| <input type="checkbox"/> | Halogen reflecting illumination  | (additional illumination, e.g. for Polarisation and metallurgical microscopes)   |
| <input type="checkbox"/> | LED incident illumination        | (only for stereo microscopes)  |
| <input type="checkbox"/> | External illumination            | (external illumination could be ordered additionally, for example ring illumination unit, swan neck (cold light source), as Accessories) |

Note:

- ➔ Halogen bulbs are still the standard in light microscopy, because they have a better brightness.
- ➔ The LED illumination have a much longer life time and the advantage that there is no heat generation. For this reason, we use LED illumination in our stereo microscopes as standard illumination.

Additional comments: \_\_\_\_\_

**4) Do you need Köhler illumination?**

- no
- fixed, pre-centred Köhler illumination condenser is centred, can be height-adjusted and focussed, field diaphragm / aperture diaphragm available.
- full Köhler illumination condenser can be fully centred and focussed, field diaphragm / aperture diaphragm available.

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

**5) How many objectives would you like to use?**

- 3 objectives (quadruple objective revolver with 3 objectives)
- 4 objectives (quadruple objective revolver)
- 5 objectives (quintuple objective revolver)

**6) What magnification (objectives) do you need?**

- 4x objective = 40x magnification (when using the 10x magnification eyepiece)
- 20x objective = 200x magnification (when using the 10x magnification eyepiece)
- 40x objective = 400x magnification (when using the 10x magnification eyepiece)
- 60x objective = 600x magnification (when using the 10x magnification eyepiece)
- 100x objective = 1000x magnification (when using the 10x magnification eyepiece)

Note:  
 Magnification formula: objective magnification x eyepiece magnification = Total magnification

State the magnification you require: \_\_\_\_\_

Additional phase contrast objective: \_\_\_\_\_  
 \_\_\_\_\_

**7) What quality do you need for the objective?**

- Achromatic (DIN standard objectives)
- Plan achromatic (DIN standard objectives)
- Infinity E-Plan / Semi Plan (infinitely corrected objectives for professional methods)
- Achromatic Infinity Plan (infinitely corrected objectives for professional methods)

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

**8) What eyepiece diameter (visual field) and what eyepiece magnification do you need?**

10x magnification:

Dioptre adjustment:

- Ø 18 mm
- Ø 18 mm with pointer needle
- Ø 18 mm with 0.1 mm scale
- Ø 20 mm
- Ø 20 mm with 0.1 mm scale

- Yes, on one side
- Yes, on both sides
- No

Further magnifications possible:  
 (State the magnification you require:)

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**9) Do you need a camera to save the documents?**

- yes
- no

Note:  
 With a trinocular microscope, you always have to use a C-mount adapter to adapt a camera!

Additional comments:  
 (Number of mpX:)

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**10) Do you need any further functions?**

- Dark field unit
- Polarisation unit
- Fluorescent unit
- Phase-contrast unit
- Colour filter
- Additional objectives

Additional comments:

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Statement of phase contrast magnification:

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Statement Fluorescence-channel (colour UV/V/B/G):

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**11) Further technical characteristics:**

State your requirements:

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## Attachment 2 / Technical requirements of stereo microscope

### 12) What type of eyepiece tube do you need for your application?

- Binocular eyepiece tube (view with both eyes, two eyepieces)  
 Trinocular eyepiece tube (view with both eyes and additional option to adapt a camera)

Attention: look also at point 20) Do you need a camera?

Additional comments: \_\_\_\_\_

### 13) Please select the required optical system?

- Greenough (beam paths which are completely separate from each other)  
 Parallel /ABBE (beam paths which are completely separate from each other which run parallel)

Additional comments: \_\_\_\_\_

### 14) Which illumination do you need for your application?

- None (stereo microscope without illumination)  
 Incident illumination (incident illumination e.g. LED or halogen)  
 Transmitted illumination (additional illumination for translucent samples)  
 Coaxial illumination (integrated coaxial illumination for selective depth of focus)  
 External illumination (external illumination could be ordered additionally, for example ring illumination unit, swan neck (cold light source), as Accessories)

Additional comments: \_\_\_\_\_

### 15) What type of magnification do you need?

- Rotation objective (changing the magnification by rotating the objective)  
 Zoom (continuous magnification)

Additional comments: \_\_\_\_\_

**16) What magnification do you need?**

Minimum: \_\_\_\_\_  Maximum: \_\_\_\_\_

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

Note:  
 Magnification formula: Eyepiece magnification x objective magnification (zoom) = Total magnification

**17) What eyepiece diameter (visual field) do you need?**

10x magnification: Dioptre adjustment:

- |                                  |   |
|----------------------------------|---|
| <input type="checkbox"/> Ø 20 mm | <input type="checkbox"/> Yes, on one side   |
| <input type="checkbox"/> Ø 22 mm | <input type="checkbox"/> Yes, on both sides |
| <input type="checkbox"/> Ø 23 mm |   |

Further magnifications possible:  
 (State the magnification you require:) \_\_\_\_\_  
 \_\_\_\_\_

**18) What working distance do you need?**

Minimum: \_\_\_\_\_mm  Maximum: \_\_\_\_\_mm

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

Note:  
 The working distance is the distance between the objective and the sample.

**19) What size of field of view do you need?**

Minimum: \_\_\_\_\_mm  Maximum: \_\_\_\_\_mm

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

Note:  
 The field of view is the section which is shown through the magnification. If the magnification (Zoom) is very high, the field of view will be reduced. By magnifying and focussing a specific section, it is not possible to capture the whole sample.

**20) Do you need a camera to save the documents?**

- yes
- no

Note:  
 With a trinocular microscope, you always have to use a C-mount adapter to adapt a camera!

Additional comments: \_\_\_\_\_  
 (Number of mpx:) \_\_\_\_\_

**21) Do you need any further functions?**

- Dark field unit
- Stand inlays (preparation-background) (e.g. glass, opaque glass, black, white)
- Universal stand
- Mechanical bench

Additional comments: \_\_\_\_\_  
 \_\_\_\_\_

**22) Further technical characteristics:**

State your requirements: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**23) Please fill in your contact, that we could make you an offer for a suitable microscope**

Customer number: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Surname, first name: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 Postcode / Area: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Tel.: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_