From Eye to Insight

LIVE ON STAGE PORTFOLIO

Live Cell Microscopy

Environmental Equipment for Widefield and Confocal

Leica Inverted and Upright Microscopes

2021-11-11

!!! Please note: For confocal system please quote 15XXX material no. and for widefield systems consider to quote 11XXX, respectively.

NOTES:

A STAGES

STAGES WITHOUT TEMPERATURE CONTROL (A1-A11)

A1 – Fixed Stage Plate **11522078**
(248 mm x 204 mm) for DMi8 (compatible with DMI- and DMIR-series)

- high-quality aluminum
- ceramic-coated
- extremely scratchproof
- precisely plane-parallel
- three point mounting

guarantee long-term stability regardless of environmental conditions. The Fixed Stage Plate is supplied with a round 88 mm insert with a 10 mm opening (for additional inserts with different openings see "A3 – 88 mm Round Inserts")

Fixed Stage Plate

• Material:	Aluminum, black anodized
• Inserts:	"A3 – 88 mm Round Inserts"
• Options:	attachable object guide
• Dimensions:	(L x W x H) in mm: 248 x 204 x 20
• Includes:	88 mm insert ring with an opening of 10 mm
• Compatible:	"B5 – Object guide for fixed stages" "A3 – 88 mm Round Inserts"
• Weight:	1.45 kg

A1
Fixed Stage Plate (248 mm x 204 mm)
for DMI-Series
Art.-No.: **11522078**

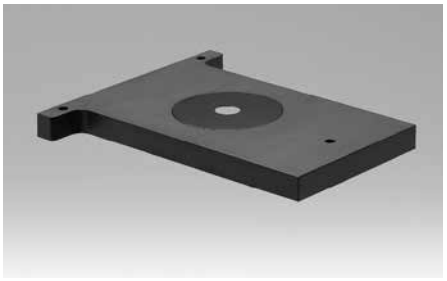
A2 – Slim Fixed Stage Plate **11522015**
(248 mm x 112 mm) for DMi8 (compatible with DMI- and DMIR-series)

- for micromanipulation
- high-quality aluminum
- ceramic-coated
- extremely scratchproof
- precisely plane-parallel
- three point mounting

guarantee long-term stability regardless of environmental conditions. The Slim Fixed Stage Plate is supplied with a round 88 mm insert with a 10 mm opening (for additional inserts with different openings see "A3 – 88 mm Round Inserts").

Slim Fixed Stage Plate

• Material:	Aluminum, black anodized
• Inserts:	"A3 – 88 mm Round Inserts"
• Options:	attachable object guide
• Dimensions:	(L x W x H) in mm: 248 x 112 x 20
• Includes:	88 mm insert ring with an opening of 10 mm
• Compatible:	"B1 – Object guide for slim fixed stages" "A3 – 88 mm Round Inserts"
• Weight:	0.90 kg



A2
Slim Fixed Stage Plate (248 mm x 112 mm)
for DMI-Series
Art.-No.: **11522015**

A3
88 mm Round Inserts with different opening
Art.-No.: **11522083-86**

A4
Manual 3-Plate Stage 127 mm x 83 mm
Art.-No.: **11522076**

A3 – 88 mm Round Inserts
with different openings for fixed stage plates, slim 3-plates stages and 160 x 110 mm plates

Insert with 10 mm opening	11522084
Insert with 20 mm opening	11522085
Insert with 40 mm opening	11522086

88 mm Round Openings

• Material:	Aluminum, black anodized; steel
• Dimensions:	88 mm diameter
• Weight:	0.15 kg
• Compatible:	"A1 – Fixed Stage Plate"
	"A2 – Slim Fixed Stage Plate"
	"A5 – Slim Manual 3-plate-stage 40 mm x 40 mm"
	"A8 – Leica Scanning Stage 127x83"
	"C4 – Metal Plate lowered by 4 mm"
	"C7 – Plane stage insert"

A4 – Manual 3-Plate-Stage 127 mm x 83 mm **11522076**
for DMi8 (compatible with DMI- and DMIR-series)
Fast and accurate access to interesting areas of the sample is achieved by the adaptation of the manual 3-plate-stage onto a Leica DMi8 Microscope. It allows rapid and vibration free scanning even at highest microscope magnifications.

- positioning range 127 mm x 83 mm
- for 160 mm x 110 mm inserts
- high-quality aluminum
- extremely scratchproof
- precisely plane-parallel
- three point mounting

guarantee long-term stability regardless of environmental conditions. The ergonomic operating handle with low position coaxial x/y controls does not interfere with microscope controls or camera ports. The manual 3-plate-stage comes without an insert. Inserts for different vessels and applications (see Chapter: C).

Manual 3-plate-stage

• Material:	Aluminum, black anodized
• Compatible Inserts:	Rectangular 160 x 110 mm (see Chapter: C)
• Positioning range:	127 mm x 83 mm
• Dimensions:	(L x W x H) in mm: 365 x 335 x 27
• Requirements:	Insert
• Weight:	1.90 kg

A5 – Slim Manual 3-plate-stage 40 mm x 40 mm **11522077**
for DMi8 (compatible with DMI- and DMIR-series)
Fast and accurate access to interesting areas of the sample is achieved by the adaptation of the slim manual 3-plate-stage onto a Leica DMi8-Microscope. It allows rapid and vibration free scanning even in combination with micromanipulation.

- positioning range 40 mm x 40 mm
- including an 88 mm round insert (10 mm opening)
- extremely scratchproof
- precisely plane-parallel

guarantee long-term stability regardless of environmental conditions. The ergonomic operating handle with low position coaxial x/y controls does not interfere with microscope controls or camera ports. The slim manual 3-plate-stage is supplied with a round 88 mm insert with a 10 mm opening. Additional inserts with different openings see "A3 – 88 mm Round Inserts".

Slim manual 3-plate-stage

• Material:	Aluminum, black anodized
• Compatible Inserts:	"A3 – 88 mm Round Inserts"
• Positioning range:	40 x 40 mm
• Dimensions:	(L x W x H) in mm: 235 x 325 x 27
• Includes:	88 mm insert ring with an opening of 10 mm
• Weight:	1.40 kg

A5
Slim Manual 3-Plate Stage 40 mm x 40 mm
Art.-No.: **11522077**

A6 – Motorized 3-Plate-Stage 127 mm x 83 mm **11525225**
for DMi8 (not compatible with DMI- and DMIR-series)
Fast and accurate access to interesting areas of the sample is achieved by the adaptation of the regular motorized 3-plate-stage onto a Leica DMi8-Microscope. It allows a predefined vibration free scanning even at highest microscope magnifications.

- positioning range 127 x 83 mm
- for 160 x 110 mm inserts
- extremely scratchproof
- precisely plane-parallel

guarantee long-term stability regardless of environmental conditions. The motorized 3-plate-stage comes without insert. Inserts for different vessels and applications (see Chapter: C).

Motorized 3-plate stage

• Material:	Aluminum, black anodized
• Compatible Inserts:	Rectangular 160 x 110 mm (see Chapter: C)
• Positioning range:	127 x 83 mm
• Resolution:	0,7 µm
• Accuracy:	< 20 µm
• Repeatability:	< 3 µm
• Dimensions:	(L x W x H) in mm: 375 x 330 x 27
• Requirements:	Leica CTR advanced 11525207-11525209 Leica CTR board XY-Basic 11525210 SmartMove 11525115 or STP8000 11525113 Insert
• Weight:	2.90 kg

A6
Motorized 3-Plate Stage 127 mm x 83 mm
Art.-No.: **11525225**

A8
Leica Scanning Stage 127 x 83
Art.-No.: **11522100**

A8 – Leica Scanning Stage 127x83 **11522100**
for DMi8 (compatible with DMI- and DMIR-series)

- positioning range 127 mm x 83 mm
- for 160 x 110 mm inserts
- high-quality aluminum
- extremely scratchproof
- precisely plane-parallel
- three point mounting
- both motors on the bottom

guarantee long-term stability regardless of environmental conditions. A new safety concept ensures no clamping and minimizes the risk of injury. The Leica Scanning stage 127 x 83 is delivered without insert. Inserts for different vessels and applications (see Chapter: C).

Leica Scanning stage 127x83

• Material:	Aluminum, black anodized
• Compatible Inserts:	Rectangular 160 x 110 mm (see Chapter: C)
• Positioning range:	127 x 83 mm
• Max. Travel speed:	60 mm/sec
• Resolution:	0.02 µm
• Accuracy:	+/– 5 µm
• Repeatability	< 1 µm
• Dimensions:	(L x W x H) in mm: 450 x 270 x 20
• Requirements:	Insert (see Chapter: C) Leica CTR advanced 11525207-11525209 Leica CTR board XY-advanced 11525211 SmartMove 11525115 or STP8000 11525113
• Compatible with:	Water Immersion Micro Dispenser 11640019 SuperZ 11640260, all i8 Incubator Series
• Weight:	4.90 kg

A9 – SCAN^{plus} IM 130x85 **11525407**

for DMi8 (compatible with DMI- and DMIR-series)

Scanning stage IM with encoder for inverted microscopes Leica DMI3000-6000 B, Tango 2 Desktop-Control, 2-Axis, 1,25 A, ROHS-conform, including documentation and software, with USB interface.

- positioning range 130 mm x 85 mm
- for 160 x 110 mm inserts
- high-quality aluminum
- extremely scratchproof
- precisely plane-parallel
- three point mounting
- both motors on the bottom
- with USB cable, stage cables, SmartMove-Y-cable

The SCAN^{plus} IM 130x85 is delivered without insert. Inserts for different vessels and applications (see Chapter: C).

SCAN^{plus} IM 130x85

• Material:	Aluminum, black anodized
• Compatible Inserts:	Rectangular 160 x 110 mm (see Chapter: C)
• Spindle lead:	2 mm
• Positioning range:	130 x 85 mm
• Max. Travel speed:	120 mm/sec
• Resolution:	0.05 µm
• Accuracy:	+/– 1 µm
• Repeatability	< 0,5 µm
• Dimensions:	(L x W x H) in mm: 450 x 270 x 20
• Requirements:	Insert (see Chapter: C)
• Compatible with:	Water Immersion Micro Dispenser 11640019 SuperZ 11640260, all i8 Incubator Series
• Weight:	4.90 kg

Tango 2 Desktop-Control
2-Axis, 1,25 A
ROKS-conform, incl. documentation and software with

- USB2.0 interface
- Ergodrive 2
- stage and USB2.0 cables

Note:
Always connect the Tango controller to an completely empty USB-bank.

A9
SCAN^{plus} IM 130x85
Art.-No.: **11525407**

A11
Quantum high precision scanning stage incl. controller
Art.-No.: **11525456**

A11
Hydra controller

A11
Multifunctional hand-wheel

A11 – Quantum high precision scanning stage incl. controller for DMi8 (compatible with DMI- and DMIR-series) **11525456**

- direct positioning in 2 axes with 2 linear motors
- absolute measuring of the position, no referencing necessary
- Hydra controller with Ethernet, RS-232 and USB communication
- positioning range 120 x 80 mm, for 160 x 110 mm inserts
- extremely scratchproof
- precisely plane-parallel, three point mounting
- both motors on the bottom

guarantee long-term stability regardless of environmental conditions. The Quantum linear motor stage combines practical design with high precision and stability. The flat top design facilitates the use of micromanipulators as well as environmental chambers.
It also allows easy, unrestricted access to the specimen. The Quantum high precision scanning stage is delivered without insert. Inserts for different vessels and applications (see Chapter: C).
A unique safety concept ensures no clamping, motor stops, and can be started again without rebooting the system. Unique feature: User can position the stage directly by hand for quicker multi position setup.

ITK LMT200

• Material:	Aluminum, black anodized
• Compatible Inserts:	Rectangular 160 x 110 mm (see Chapter: C) for 11522151: no plane inserts
• Positioning range:	120 x 80 mm
• Max. Travel speed:	500 mm/sec
• Resolution:	5 nm
• Accuracy:	<+/– 1 µm
• Repeatability	< 1 µm
• Dimensions:	(L x W x H) in mm: 492 x 270 x 20
• Includes:	Hydra control unit and hand-wheel
• Requirements:	Insert
• Compatible with:	SuperZ 11640260, all i8 Incubator series
• Weight:	3.50 kg

FAST Z-MOVEMENT – (A41)

High precision and fast z-positioner for widefield systems with inverted microscopes. Objective independent z-movement. 250 microns travel range. 61 nm step size. Includes insert for SuperZ fix. High-speed controlled by Extension board 7000.

A42 – SuperZ widefield **11640260**
for DMi8 (compatible with DMI- and DMIR-series) **for 3 plate- and scanning stage**
Requires Sequenzer Board 11525213

Inserts

A43 – Insert for SuperZ rotatable **11640414**

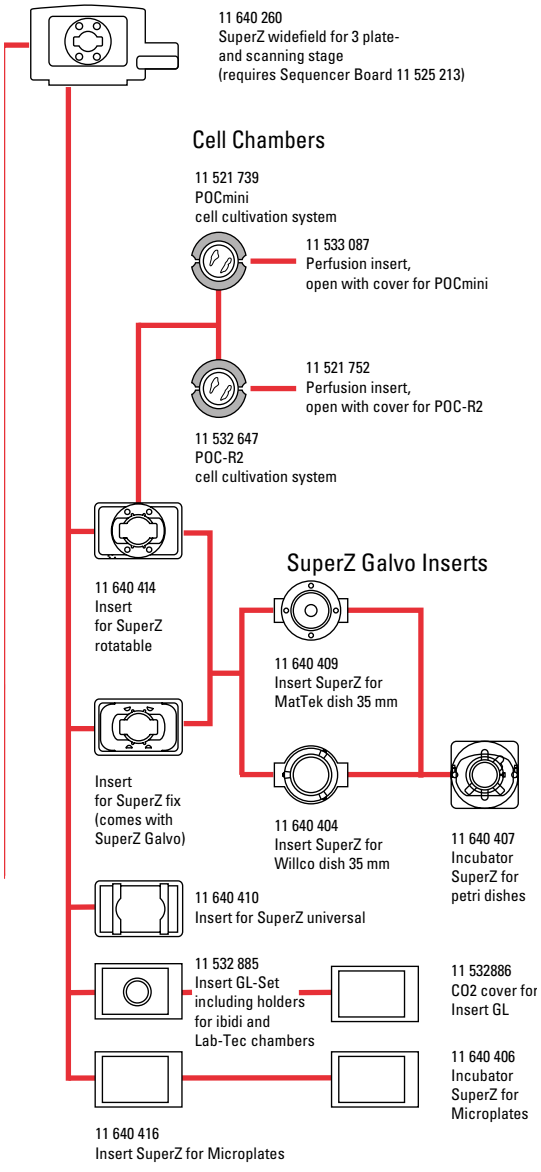
A44 – Insert for SuperZ universal **11640410**

C22 – Insert GL-Set **11532885**
including holders for ibidi and Lab-Tec chambers

A45 – Insert SuperZ for microplates **11640416**

A45
Insert SuperZ for microplates
Art.-No.: **11640416**

A42/A43
SuperZ widefield with insert universal
for Leica DMi8-Series
Art.-No.: **11640260/11640410**



B1
Object guide for Slim Fixed Stages
Art.-No.: **11522018**

B4
Holding frame for glass slides 76 x 26
Art.-No.: **11522044**

OBJECT GUIDES AND HOLDING FRAMES FOR SLIM FIXED STAGES

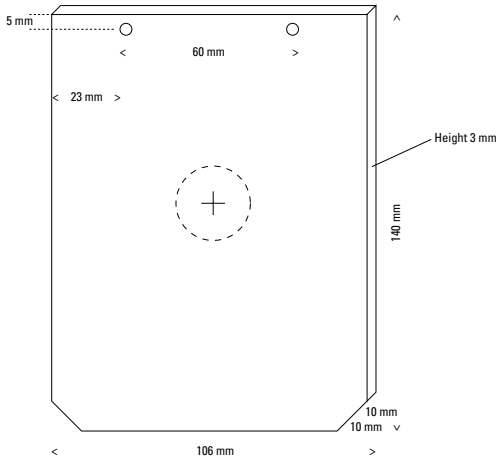
Object guides are an ideal adaptation for fixed, heated or even cooled stages. With only 2 fixing screws the object guide can be easily and securely adapted to the fixed stage for right-handed or in case of regular sized stages even for left-handed use. The ergonomic, low-lying coaxial control drives with universal joint is extremely accurate and sensitive. For precise positioning measurement, different measuring inserts can be fixed onto the objective guide.

B1 – Object guide for slim fixed stages **11522018**
A flexible mechanical device with coaxial drive for x and y for the fixed slim stages to accommodate 3 different inserts (B2-B4) . The ergonomic operating arm is angled forward in low position not interfering with microscope controls or camera ports.

• Material:	Aluminum, black anodized
• Positioning range:	35 x 35 mm.
• Requirements:	"A2 – Slim Fixed Stage Plate" or "A22 – Slim Fixed Heating Stage 248 mm x 112 mm" or "A32 – Slim Fixed Cooling Stage 248 mm x 112 mm"
• Weight:	0.70 kg

B4 – Holding frame for glass slides 76 mm x 26 mm **11522044**
The holding frames for the object guide for slim stages are positioned and held by 2 locking screws.

• Material:	Aluminum, black anodized
• Dimensions.	(L x W x H) in mm: 140 x 106 x 3
• Requirements:	"B1 – Object guide for slim fixed stages"
• Compatible:	"A2 – Slim Fixed Stage Plate" or "A22 – Slim Fixed Heating Stage 248 mm x 112 mm" or "A32 – Slim Fixed Cooling Stage 248 mm x 112 mm"
• Weight:	0.10 kg



OBJECT GUIDES AND HOLDING FRAMES FOR FIXED STAGES

B5 – Object guide for fixed stages **11522014**

A flexible mechanical device with coaxial drive for x and y for the fixed stages to accommodate a variety of different inserts (B6-B6ff). The precise snap-in mechanism for the inserts ensures precise fixing of each of the inserts. The ergonomic operating arm in low position not interfering with microscope controls or camera ports. The object guide for fixed stages is compatible with the “Incubator i8” series.

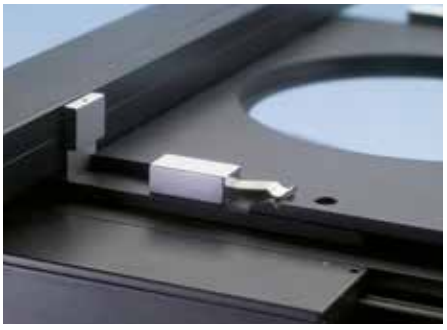
- Material: Aluminum, black anodized
- Positioning range: 127 x 83 mm.
- Requirements: "A1 – Fixed Stage Plate" or "A31 – Fixed Cooling Stage 248 mm x 212 mm"
- Weight: 0.90 kg

B5
Object guide for Fixed Stages
Art.-No.: **11522014**

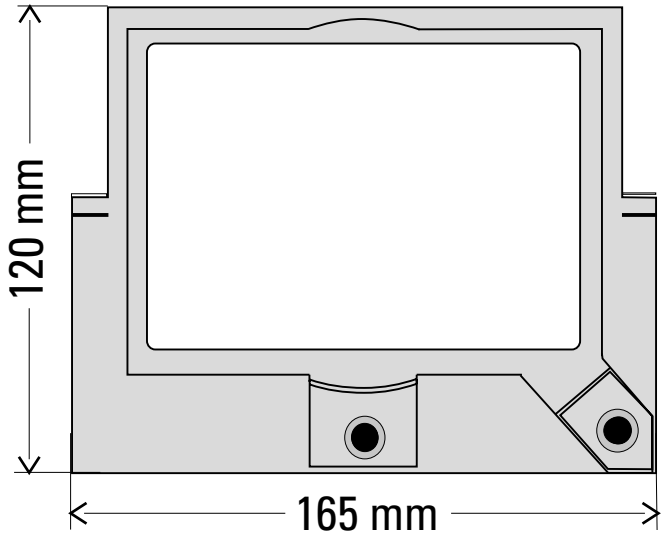
NON HEATED HOLDING FRAMES FOR OBJECT GUIDE FOR REGULAR STAGE

The holding frames for this object guide are fixed with a precise snap-in mechanism. The outer dimensions are: 165 x 100 x 5 mm. There are holders for special vessels available, as well as universal holders with 2 or 4 smooth running moveable brackets with a variable clamping range allowing an easy an quick fixation of different sized dishes or slides. Universal holders are available in heated and non-heated versions.

- Material: Aluminum, black anodized



“Snap-in” mechanism

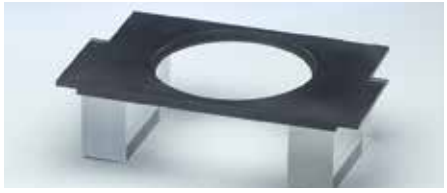


B6 Holder for tissue culture plates(24)
Art.-No.: **11520584**

B7 Holder for Terasaki Plates
Art.-No.: **11520585**

B8 Holder for flasks, bottles, plankton chambers (1)
Art.-No.: **11520586**

B10 Holder for Micro-Titer Trays
Art.-No.: **11520589**



B11a
Holder for Petri dishes 100”
Art.-No.: **11520590**

B6 – Holder for tissue culture plates (e.g. 24 wells) **11520584**

The one-piece holder for culture plates and trays clicks into the object guide.

- For vessel size: 133.5 x 88.5 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.09 kg
- Type of vessels: Trays, culture chambers, flasks

B7 – Holder for Terasaki Plates **11520585**

The one-piece holder for Terasaki 60 well or 72 well plates with a footprint of 82 mm x 56 mm.

- For vessel size: 56 x 82 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.10 kg
- Type of vessels: Terasaki Trays

B8 – Holder for flasks, bottles or plankton chambers Type1 **11520586**

The one-piece holder for different types of flasks, bottles or plankton chambers.

- For vessel size: 125 x 77 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.09 kg
- Type of vessels: Flasks, bottles, plankton chambers

B10 – Holder for Micro-Titer Trays **11520589**

The one-piece insert for 96-well or 120-well Micro-Titer Trays with a common footprint of 127 x 85 mm. X and Y scaling bars are part of the holder and can be fixed onto the object guide. Easy finding of desired well is ensured.

- For vessel size: 127 x 85 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.09 kg
- Type of vessels: Micro-Titer Trays

B11a – Holder for Petri Dish Ø 88 mm **11520590**

The one-piece holder for Petri dishes 100”.

- For vessel size: Ø 88 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.12 kg
- Type of vessels: 100” Petri dishes

B12 – Holder for slides **11520593**

The one-piece holder for glass slides with max. dimension up to 76 x 26 mm.
Two clamps will hold and fix the slides in this frame.

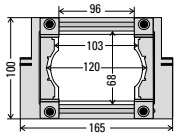
- For vessel size: 76 x 26 mm (3 x 1 inches)
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.13 kg
- Type of vessels: Glass slides

B12
Holder for glass slides
Art.-No.: **11520593**

B13 – Universal Holding frame M **11533041**

Frame to fix different Petri dishes, cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel.

- For vessel size: 24-26 x 76-120 mm or Ø 24–68 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.10 kg
- Type of vessels: Petri dishes “35” & “60”,
  Glass slides,
  POC-R or POCmini cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)

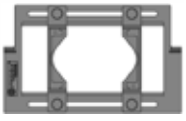


B13
Universal Holding Frame M
Art.-No.: **11533041**

B14 – Universal Holding frame M-Uthermol™ **11532494**

Frame to fix Uthermol™ counting chambers. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the chamber.

- For vessel size: 121 x 43 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.10 kg
- Type of vessels: Uthermol™ counting chambers

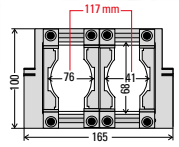


B14
Universal Holding frame
M-Uthermol™
Art.-No.: **11532494**

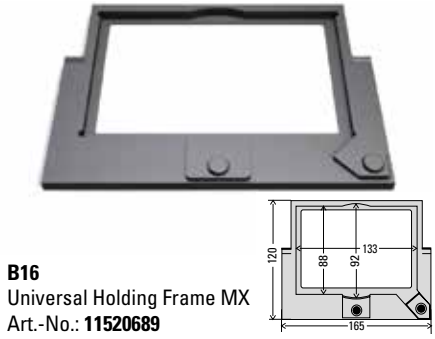
B15 – Universal Holding frame M-Duo **11531798**

Frame to fix 1 or 2 Petri dishes and/or 1 glass slide. This enables the microscopic controlled transfer of selected cells from a Petri dish to a slide.

- For vessel size: 1 vessel: 26 x 90 mm or Ø 24–68 mm
  2 dishes: Ø 24–56 mm
  1 slide 1 dish: 76 x 26 mm / Ø 24–40 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.14 kg
- Type of vessels: Petri dishes “35” & “60”,
  Glass slides,
  POC-R or POCmini cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)



B15
Universal Holding Frame
M-Duo
Art.-No.: **11531798**



B16
Universal Holding Frame MX
Art.-No.: **11520689**

B17
Universal Holding frame M100
Art.-No.: **11533081**

B16 – Universal Holding frame MX **11520689**

Frame to fix large Petri dishes (87-92 mm) and multiwells. Two lateral clamps allow an easy and quick fixation.

- For vessel size: 125-133 x 82–88 mm or Ø 87–92 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.10 kg
- Type of vessels: Multiwell plates, Petri dishes or "D4 – Cooling/Heating Insert X"

B17 – Universal Holding frame M100 **11533081**

Frame to fix different cultivation vessels (e.g. dishes, flasks or slides, also turned by 90°). Specifically designed for large Petri dishes with a max. Ø of 92 mm. Two smooth running, moveable bridges with a variable clamping range allow an easy and quick fixation of the cell cultivation vessel. The Universal Holding Frame M100 is equipped with two spring clips to provide a firm fit of the vessel and keep it in place, especially when using oil or water immersion objectives. The spring clips can be mounted to a higher when bigger cell cultivation vessels (e. g. Petri dishes "100") are used. The spring clips are easy to assemble or disassemble.

- For vessel size: 24-86 x 24-76 mm or Ø 24–92 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.14 kg
- Type of vessels: Petri dishes "35", "60" & "100", Glass slides, POC-R2 or POCmini-2 cell cultivation systems, Chamber Slide Systems (different manufacturer), Chambered Coverglass Systems (different manufacturer), Cell Culture Flasks (25 - 40 ml)

HEATABLE HOLDING FRAMES FOR OBJECT GUIDE FOR FIXED STAGE PLATE

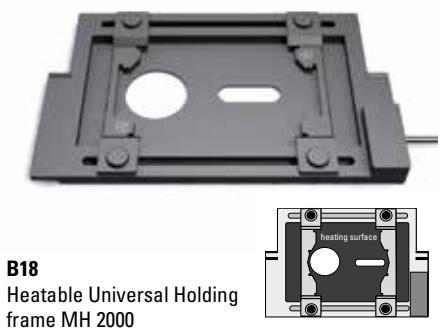
with "B5 – Object guide for fixed stages"

Frame to fix different cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. The aluminum frame has a heated aluminum base plate with laminated printed circuit board. The base plate has a circular and/or a rectangular opening. Temperature control is carried out with the TempController 2000-1 11533018 or TempController 2000-2 11533019. Experiments with CO_2 -incubation the following frames could be used together with "G6 – CO_2-Cover KH" inside the Incubator i8. Non-used opening in the frames must be covered with tape to prevent the loss of CO_2.

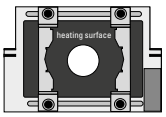
B18 – Heatable Universal Holding frame MH 2000 **11533045**

Frame to fix different Petri dishes, cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. The base plate of the frame has a circular and a rectangular opening. The spring clips can be mounted to a higher when bigger cell cultivation vessels (e. g. Petri dishes “100”) are used. The spring clips are easy to assemble or disassemble.

- For vessel size: 24-26 x 76-120 mm or Ø 24–68 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.2 kg
- Temperature stability: ± 0.1°
- Control range: 3°C above ambient up to 60°C
- Observation Opening: Ø 30 mm and 30 x 10 mm
- Type of vessels: Petri dishes “35” & “60”,
  Glass slides,
  POC-R2 or POCmini-2 cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)
- Requirements: TempController 2000-1 11533018
  TempController 2000-2 11533019
- Compatible: "G6 – CO2-Cover KH"



B18
Heatable Universal Holding frame MH 2000
Art.-No.: **115333045**



B20
Heatable Universal Holding frame MH-R 2000
Art.-No.: **11533047**

B21
Tokaihit, Leica TPX Heating Frame Glass
Art.-No.: **11533257**

B20 – Heatable Universal Holding frame MH-R 2000 **11533047**

Frame to fix different Petri dishes, cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. The base plate of the frame has a circular and a rectangular opening. The spring clips can be mounted to a higher when bigger cell cultivation vessels (e. g. Petri dishes "100") are used. The spring clips are easy to assemble or disassemble.

- For vessel size: Ø 24–68 mm
- Requirements: "B5 – Object guide for fixed stages"
- Weight: 0.2 kg
- Temperature stability: ± 0.1°
- Control range: 3°C above ambient up to 60°C
- Observation Opening: Ø 30 mm
- Type of vessels: Petri dishes "35" & "60", POC-R or POCmini cell cultivation systems
- Requirements: TempController 2000-1 11533018 TempController 2000-2 11533019
- Compatible: "G6 – CO2-Cover KH"

B21 – Tokaihit, Leica TPX Heating Frame Glass Type F **11533257**

Frame with clear glass heater, the hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing.
This plate is designed to be installed on Objective guide for regular stage and it is easy handling of the specimens and easy operation of the manipulator.
This model features a thin are (0.5 mm), which allows its application with Differential Interference Contrast, Modulation Contrast and high magnification objective lenses.
Additional feature of quality control and new temperature regulation of continuous control are included in the system. External sensor and data logging software allows on-site calibration and off-set of plate and/or external sensor.
With calibration and data logging feature allows to keep system performance quality high at end. Continuous current control minimizes focus drift/changing light intensity caused by regular on/off control.
Main uses: Temperature control of the specimen in short-term imaging, cell engineering, neuroscience, and genetic engineering under research use.

- For vessel size: No limitation (within 150 x 100 mm)
- Requirements: Objective guide for regular stage, power supply and external sensor (already included)
- Weight: 0.39 kg (+1.3 kg power supply)
- Temperature stability: ± 0.3°C
- Temperature regulation: Continuous current control
- Control range: 5°C above ambient up to 60°C (Controllable temperature setting is less than 50°C)
- Observation opening: 120 x 73.5 mm, whole glass thickness is 0.5 mm
- Type of vessels: All types
- Compatible: ""

C 160 X 110 MM INSERTS FOR 3-PLATE STAGES AND SCANNING STAGES

The inserts or holders are fixed with a spring snap-in mechanism into the rectangular opening. The outer dimensions of the inserts are: 160 x 110 mm. There are inserts for special vessels available and universal inserts with smooth running moveable brackets with variable clamping ranges, allowing easy and quick fixation of different sized dishes or slides. Alignment screws guarantee plan-parallel adjustment in z-direction.
Material: aluminum, black anodized.
Universal inserts are available in heated and non-heated versions.

NON HEATABLE INSERTS

C1 – Holder for slides **11531433**

The one-piece holder for glass slides with max. dimension up to 76 x 26 mm. Two clamps will hold and fix the slides in this frame.

- For vessel size: 76 x 47 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.18 kg
- Type of vessels: Glass slides (76 x 26 mm or 3 x 1 inches)
- Compatible: No CO_2-Cover

C2 – Holder for Micro-Titer trays **11531434**

The one-piece insert for 96-well or 120-well Micro-Titer Trays with a common footprint of 126 x 85 mm. Firm and secure clamping of the trays is achieved with an integrated clamping device at the right hand side of the insert.

- For vessel size: 127 x 85 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.13 kg
- Type of vessels: Micro-Titer Trays, T75-flasks
- Compatible: No CO_2-Cover

C3a – Holder for Petri Dish Ø 88.5 mm **11531440**

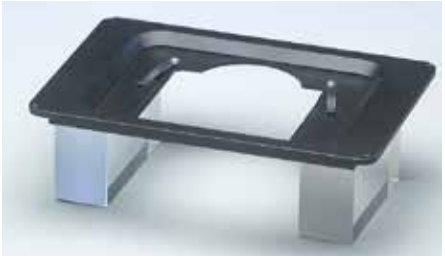
The one-piece holder for different sizes of Petri dishes.

- For vessel size: Ø 88.5 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.11 kg
- Type of vessels: Large Petri dishes
- Compatible: No CO_2-Cover

C3b – Holder for Petri Dish Ø 36 mm **11531437**

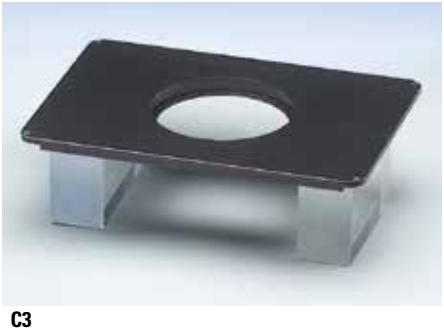
The one-piece holder for different sizes of Petri dishes.

- For vessel size: Ø 36 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.1 kg
- Type of vessels: Large Petri dishes
- Compatible: No CO_2-Cover

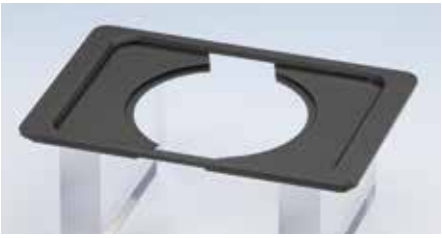


C1
Holder for slides
Art.-No.: **11531433**

C2
Holder for Micro-Titer Tray
Art.-No.: **11531434**



C3
Holder for Petri dish Ø 88.5
Art.-No.: **11531440**



C4
Metal Plate for 88 mm Inserts lowered by 4 mm
Art.-No.: **11600237**

C4 – Metal Plate lowered by 4 mm — 11600237

The one-piece aluminum plate with a round opening for the 88 mm inserts with different holes 5 mm, 10 mm, 20 mm, 40 mm ("A3 – 88 mm Round Inserts"). The plate comes without inserts.

- For vessel size: 20-76 x 20-120 mm or Ø 20–60 mm
- Requirements: 3-plate-stage / Scanning-stage for 160x110 mm inserts "A3 – 88 mm Round Inserts".
- Weight: 0.11 kg
- Type of vessels: No specific, different types
- Compatible: No CO_2-Cover

C5 – Insert for slides, rotatable — 11533265

The one-piece holder for glass slides with max. dimension up to 76 x 26 mm. The slide bracket is rotatable.

- For vessel size: 76 x 47 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.18 kg
- Type of vessels: Glass slides (76 x 26 mm or 3 x 1 inches)
- Compatible: No CO_2-Cover

C6
Glass stage plate
Art.-No.: **11522045**

C6 – Glass stage plate — 11522045

The one-piece glass plate with a round opening (Ø 20 mm) for all sizes of dishes and slides.

- For vessel size: All kind of vessels
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.10 kg
- Type of vessels: No specific, different types
- Compatible: No CO_2-Cover, not for scanning-stages

C7 – Plane stage insert — 11522063

The one-piece holder with a round opening for 88 mm round inserts.

- For vessel size: All kind of vessels
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.10 kg
- Type of vessels: No specific, different types
- Compatible: No CO_2-Cover, not for scanning-stages

C8 – Adjustable Universal Holder — 11531441

Frame to fix different sized Petri dishes or slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel.

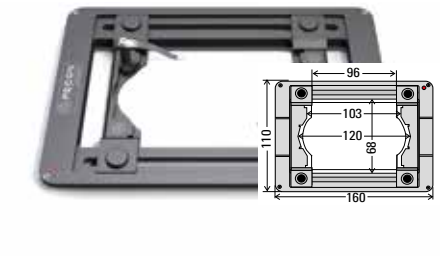
- For vessel size: 26 x 76 mm or Ø 20–68 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.10 kg
- Type of vessels: Petri dishes, glass slides
- Compatible: No CO_2-Cover

C8
Adjustable Universal Holder
Art.-No.: **11531441**

Holding frame KM **15533187**
for Multi-Well Plates, compatible with Click-In System
Equivalent to 11533187

C9 – Universal Holding frame K **11600234**
Equivalent to 15600234
Frame to fix different cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel.
The sides of the frame are depressed for better use in micromanipulation for a flat injection angle.

- For vessel size: 24-26 x 76-120 mm or Ø 24–68 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.10 kg
- Type of vessels: Petri dishes “35” & “60”,
  Glass slides,
  POC-R2 or POCmini-2 cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)
- Compatible: No CO_2-Cover



C9
Universal Holding Frame K
Art.-No.: **11600234**

C11 – Universal Holding frame K-Duo **11532514**
Frame to fix 1 or 2 Petri dishes and/or 1 glass slide. This enables the microscopic controlled transfer of selected cells from a Petri dish to a slide Four smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel.

- For vessel size: 1 vessel: 26 x 90 mm or Ø 24–68 mm
  2 dishes: Ø 24–56 mm
  1 slide 1 dish: 76 x 26 mm / Ø 24–40 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.14 kg
- Type of vessels: Petri dishes “35” & “60”,
  Glass slides,
  POC-R2 or POCmini-2 cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)
- Compatible: No CO_2-Cover

C11
Universal Mounting
Frame K-Duo
Art.-No.: **11532514**

C13
Universal Holding
frame K100
Art.-No.: **11533042**

C13 – Universal Holding frame K100 **11533042**

Frame to fix different cultivation vessels (e.g. dishes, flasks or slides, also turned by 90°). Specifically designed for large Petri dishes with a max. Ø of 92 mm. Two smooth running, moveable bridges with a variable clamping range allow an easy and quick fixation of the cell cultivation vessel. The Universal Holding Frame K100 is equipped with two spring clips to provide a firm fit of the vessel and keep it in place, especially when using oil or water immersion objectives. The spring clips can be mounted to a higher when bigger cell cultivation vessels (e. g. Petri dishes "100") are used. The spring clips are easy to assemble or disassemble.

• For vessel size:	24-86 x 24-76 mm or Ø 24–92 mm
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts
• Weight:	0.14 kg
• Type of vessels:	Petri dishes "35", "60" & "100", Glass slides, POC-R2 or POCmini-2 cell cultivation systems, Chamber Slide Systems (different manufacturer), Chambered Coverglass Systems (different manufacturer), Cell Culture Flasks (25 – 40 ml), Terasaki-Plate, 4-Well Multiplates
• Compatible:	No CO_2-Cover

NON HEATABLE INSERTS SUITED TO CONTROL CO_2-CONCENTRATION

The following frames are especially suited to control CO_2-concentration in combination with the Incubator i8 2000, a CO_2-Cover and the CO_2-Controller-2000.

The inserts or holders are fixed with a spring snap-in mechanism into the rectangular opening. The outer dimensions of the inserts are: 160 x 110 mm. There are inserts for special vessels available and universal inserts with smooth running moveable brackets with variable clamping ranges, allowing easy and quick fixation of different sized dishes or slides. Alignment screws guarantee plan-parallel adjustment in z-direction. Material: aluminum, black anodized.

Universal Holding frame KM see C15 page 26

C16 – Holding frame Slide Holder(quad) **11532983**

The Slide Holder (quad) for the insertion of 4 slides has been especially designed for chambered slides (besides conventional slides). It features horizontal handling of slides when they are filled with a solution. It is not necessary to insert the slides in a tilted way with the danger of spilling some of the liquid. The slides are fixed in the holder and need not to be touched directly during transport, medium exchange, incubation etc.

- For vessel size: 4 x 76 x 26 mm (3 x 1“)
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.18 kg
- Type of vessels: Glass or chambered slides of approx. 76 x 26 mm (3 x 1”), µ-slides (ibidi®), Lab-Tek™ (Nunc™), Chambered slides (BD Falcon™)
- Compatible: "G15 – CO2-Cover Quad"

C16
Mounting Frame Slide Holder (quad)
Art.-No.: **11532983**

C17 – Holding frame 6 Petri dishes **11533039**

Frame to hold 6 small (“35”) Petri dishes which can be fixed with pressure springs. Particularly suitable for Petri dishes with glass bottom and the use of objectives with oil immersion. When working with a CO_2-gassing unused openings in which there are no Petri dishes during the observation, have to be covered, covers (6 pcs.) are included.

- For vessel size: 6 x “35” Petri dishes
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.22 kg
- Type of vessels: 1 to 6 “35” Petri dishes
- Compatible: "G14 – CO2-Cover 6xPetri"

C17
Holding frame 6 Petri dishes
Art.-No.: **11533039**

C18
Universal Holding
Frame KP-Set
(11532635) replaced by 11533187

C21
Top Frame KP-Set
Art.-No.: **11532981**

C19
Universal Holding frame
K100-Set
Art.-No.: **11532998**

C18 – Universal Holding frame KP-Set **replaced by 11533187**

Frame (with 4 bottom covers for Petri dishes, ibidi®-plates and Lab-Tek™ slides) for different cultivation vessels or slides. The set includes the frame and 4 exchangeable not heated bottom plates either for Petri dishes (35,60), Lab-Tek™ Chambers and Slides, ibidi®-Chambers.

C21 – Top Frame KP-Set **11532981**

Top frame for Universal Holding Frame K100 to accomplish perfusion experiments. Easy access for thin cables and perfusion tubes to the interior through silicon sealed openings.

- For vessel size: 24–80 mm length or Ø 24–68 mm, height 20 mm
- Requirements: ""C19 – Universal Holding frame K100-Set"
- Weight: 0.20 kg
- Compatible: "G2 – CO_2-Cover HP"
  "G3 – CO_2-Cover HP-MG"

C19 – Universal Holding frame K100-Set **11532998**

Frame (with 4 bottom covers for Petri dishes, Terasaki Trays, ibidi®-plates and Lab-Tek™-slides and cell culture flasks) to fix different cultivation vessels or slides with special horizontal clamps. The set includes the frame and 4 exchangeable not heated bottom plates either for Petri dishes (35,60), Lab-Tek™-Chambers and Slides, ibidi®-Chambers and flasks.
Optional cover for “100” is available.

- For vessel size: 24–80 mm length or Ø 24–92 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.20 kg
- Observation Opening: Ø 30 mm, Ø 55 mm, 47 x 21 mm, 75 x 50
- Type of vessels: Petri dishes “35”, “60” & “100”,
  Glass slides,
  POC-R2 or POCmini-2 cell cultivation systems,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer),
- Compatible: "G16 – CO2-Cover K100-Set"
  "G2 – CO_2-Cover HP"
  "G3 – CO_2-Cover HP-MG"
  "C21 – Top Frame KP-Set"
  ""

C20 – Baseplate "100" for K100-Set **11533000**
(large Petri dishes)
Optional exchangeable not heated bottom plate for "100" Petri dishes for the Universal Holding frame K100-Set.

- For vessel size: Ø 87-92 mm
- Requirements: "C19 – Universal Holding frame K100-Set"
- Weight: 0.20 kg
- Type of vessels: large Petri dishes (87-92 mm)
- Compatible: Universal Holding Frame K100-Set equipment

C20
Baseplate "100" for K100-Set
Art.-No.: **11533000**

C22 – Insert GL-Set **11532885**
Frame with 5 bottom covers. The set includes the frame and 5 exchangeable not heated baseplates either for Petri dishes ("35", "60"), Lab-Tek™-Chambers slides, ibidi®-Chambers and cell culture flasks

- For vessel size: 24–80 mm length or Ø 24–68 mm
- Requirements: SuperZ widefield (for 3-plate-stage / Scanning-stage for 160 x 110 mm inserts)
- Weight: 0.10 kg
- Observation Opening: Ø 30 mm, Ø 55 mm, 47 x 21 mm, 75 x 50 mm
- Type of vessels: Petri dishes "35" & "60",
  Glass slides,
  Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer),
  Cell Culture Flasks
- Compatible: "G20 – CO_2-Cover GL-A"

C22
Insert GL-Set
Art.-No.: **11532885**

C23 – Insert N for Lab-Tek™ **11533037**
The massive insert N is fixed with a spring snap-in mechanism into the rectangular opening of the stage. Alignment screws guarantee plan-parallel adjustment in z-direction.
Material: aluminum, black anodized. Insert N have been developed to get a temperature inert system. Best solution for work with high magnification, precise positioning, Laser-Scanning-Microscopy applications and live cell imaging. An rectangular observation opening ensure access for objectives.

- For vessel size: 76 x 26 fixed with clip clamping
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.7 kg
- Observation Opening: 46 x 21 mm
- Type of vessels: Nunc™ Lab-Tek™ (II) Chamber Slide System,
  Nunc™ Lab-Tek™ (II) Chambered Coverglass System,
  Glass slides,
  µ-Slides by ibidi®
- Compatible: "G2 – CO_2-Cover HP"
  "G3 – CO_2-Cover HP-MG"

C23
Insert N for Lab-Tek™
Art.-No.: **11533037**

NON HEATABLE CLICK-IN INSERTS SUITED TO CONTROL CO_2-CONCENTRATION

Multifunctional and flexible system for the fixation of cell culture vessels on xy-stages and scanning stages with a cut-out of 160 x 110 mm at inverse microscopes.
The system combines a wide range of application with a simple handling. It provides for a firm fixation and a stable position of the cell culture vessels during the observation under the microscope.
The Universal Mounting Frame KM Click-In serves as base frames into which multiplates and different insert plates can be clicked in.

Advantages:

- Various different types of cell culture vessels can be used.
- A quick change of the cell culture vessels, which can also be inserted and taken out together with the insert plate, is possible.
- A firm position of the cell culture vessel by clamping springs in the frame and in the Z-direction by means of spring clips (easy to assemble or disassemble) is ensured.
- With a CO_2-Cover and a CO_2-Controller, the pH-value in the nutrition medium can be controlled.

- Requirements: Inverse microscope with mechanical stage or scanning stage (opening 160×110 mm)
  Universal Mounting Frame KM Click-In

C15 – Universal Holding frame KM Click-In **11533187**
Frame to fix multi-wells with or without glass bottom. Adjustable spring clips allow an Adaptation to several multiwell sizes. **Equivalent to 15533187**

- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
- Weight: 0.20 kg
- Type of vessels: Click-In
- Compatible: "G11 – CO_2-Cover KM","G1 – CO_2-Cover PM"

C15
Universal Holding frame KM Click-In
Art.-No.: **11533187**

Click-In System Premium

The **Click-In System Premium** consists of a 6 mm thick black anodized aluminium plate. The different cell culture vessels are laterally fixed by clamping springs and can be additionally fixed in Z-direction from above by spring clips.

CLICK-IN P "35" Petri dishes **11533199**
for Petri dishes 30-40 mm

CLICK-IN P "60" Petri dishes **11533200**
for Petri dishes 47-56 mm

CLICK-IN P 2x "35" Petri dishes **11533201**
for Petri dishes 2x30-40 mm

CLICK-IN P 1x "35",1x "60" Petri dish **11533202**
for Petri dishes 1x30-40 mm + 1x 47-56 mm

CLICK-IN P POC-R2 cell cultivation **11533203**
for POC-R cultivation chambers by LaCon

CLICK-IN P all Chambered systems **11533204**
for all glass slides and chamber systems of different manufactures

CLICK-IN P "100" Petri dishes **11533205**
for Petri dishes 78-90 mm

CLICK-IN P "35" Petri dishes
Art.-No.: **11533199**

CLICK-IN P "60" Petri dishes
Art.-No.: **11533200**

CLICK-IN P 2x "35" Petri dishes
Art.-No.: **11533201**

CLICK-IN P 1x "35",1x "60" Petri dish
Art.-No.: **11533202**

CLICK-IN P POC-R2 cell cultivation
Art.-No.: **11533203**

CLICK-IN P all Chambered systems
Art.-No.: **11533204**

CLICK-IN P "100" Petri dishes
Art.-No.: **11533205**

HEATABLE INSERTS SUITED TO CONTROL CO_2-CONCENTRATION

The following frames are especially suited to control CO_2-concentration in combination with the Incubator i8, a CO_2-Cover and the CO_2-Controller-2000.
The inserts or holders are fixed with a spring snap-in mechanism into the rectangular opening of the stage. The outer dimensions of the inserts are: 160 x 110 mm. There are inserts for special vessels available and universal inserts with smooth running moveable brackets with variable clamping ranges, allowing easy and quick fixation of different sized dishes or slides.
Alignment screws guarantee plan-parallel adjustment in z-direction.
Material: aluminum, black anodized.

C31
Heatable Univ. Holding Frame KH 2000
Art.-No.: **11533048**

C31 – Heatable Universal Holding frame KH 2000 **11533048**
Frame to fix different Petri dishes, cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. The base plate of the frame has a circular and a rectangular opening.

• For vessel size:	24-26 x 76-120 mm or Ø 24–68 mm
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts TempController 2000-1 11533018 or TempController 2000-2 11533019
• Weight:	0.2 kg
• Temperature stability:	± 0.1°C
• Control range:	3°C above ambient up to 60°C
• Observation Opening:	Ø 30 mm and 30 x 10 mm
• Type of vessels:	Petri dishes “35” & “60”, Glass slides, POC-R2 or POCmini-2 cell cultivation systems, Chamber Slide Systems (different manufacturer), Chambered Coverglass Systems (different manufacturer)
• Compatible:	"G6 – CO_2-Cover KH" "G8 – CO_2-Cover MM K"

C33 – Heatable Universal Holding frame KH-R 2000 **11533050**

Frame to fix different Petri dishes, cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. The base plate of the frame has a circular opening.

- For vessel size: Ø 24–68 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts TempController 2000-1 11533018 / TempController 2000-2 11533019
- Weight: 0.2 kg
- Temperature stability: ± 0.1°C
- Control range: 3°C above ambient up to 60°C
- Observation Opening: Ø 30 mm
- Type of vessels: Petri dishes “35” & “60”, POC-R2 or POCmini-2 cell cultivation systems,
- Compatible: "G6 – CO_2-Cover KH" "G8 – CO_2-Cover MM K"

C33
Heatable Univ. Holding Frame KH-R 2000
Art.-No.: **11533050**

C34 – Tokaihit, Leica TPX Type HF Heating Frame, Glass **11533258**

Frame with clear glass heater, the hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing.
When Leica TPX is installed to the microscope stage, the heating plate becomes flush with the stage surface to ensure the easy handling of the specimens and easy operation of the manipulator.
The Glass Heater thickness is 0.5 mm, which allows its application with Differential Interference Contrast, Modulation Contrast and high magnification objective lenses. Additional feature of quality control and new temperature regulation of continuous control are included in the system. External sensor and data logging software allows on-site calibration and off-set of plate and/or external sensor.
With calibration and data logging feature allows to keep system performance quality high at end. Continuous current control minimizes focus drift/changing light intensity caused by regular on/off control.
Main uses: Temperature control of the specimen in short-term imaging, cell engineering, neuroscience, and genetic engineering under research use.

- Including: Power Supply, External Sensor, Data logging installation CD
- For vessel size: no limitation (within 150 x 100 mm)
- Requirements: "A4 – Manual 3-Plate-Stage 127 mm x 83 mm" "A6 – Motorized 3-Plate-Stage 127 mm x 83 mm"
- Weight: 0.33 kg (+ 1.3 kg Power supply)
- Temperature stability: ± 0.3°C
- Temperature regulation: Continues current control
- Control range: 5°C above ambient up to 60°C
- Observation Opening: 122 x 84 mm, whole glass thickness 0.5 mm
- Type of vessels: all types
- Compatible: ""

C34
Leica TPX Type HF
Art.-No.: **11533258**

C36
Tokaihit, Leica TPX Type NF Heating Frame 26, Metal
Art.-No.: **11533256**

C37
Tokaihit, Leica TPX Type I2 Heating Frame 26, Metal
Art.-No.: **11533255**

C36 – Tokaihit, Leica TPX Type NF Heating Frame 26, Metal **11533256**

Metal heating frame. When TPX is installed to microscope stage, the heating plate becomes flush with the stage surface to ensure the easy handling of the specimens and easy operation of manipulator. This model features a round 25 mm opening in the plate center.
Additional feature of quality control and new temperature regulation of continuous control are included in the system. External sensor and data logging software allows on-site calibration and off-set of plate and/or external sensor. With calibration and data logging feature allows to keep system performance quality high at end. Continuous current control minimizes focus drift/changing light intensity caused by regular on/off control.
Main uses: Temperature control of the specimen in short-term imaging, cell engineering, neuroscience, and genetic engineering under research use.

- Including: Power Supply, External Sensor, Data logging installation CD
- For vessel size: no limitation (within 150 x 100 mm)
- Requirements: "A4 – Manual 3-Plate-Stage 127 mm x 83 mm" "A6 – Motorized 3-Plate-Stage 127 mm x 83 mm", only
- Weight: 0.7 kg (+ 1.3 kg Power supply)
- Temperature stability: ± 0.3°C
- Temperature regulation: Continuous current control
- Control range: 5°C above ambient up to 60°C
- Observation Opening: Ø 25 mm
- Type of vessels: all types
- Compatible: ""

C37 – Tokaihit, Leica TPX Type I2 Heating Frame 26, Metal **11533255**

Frame with clear glass heater and metal heater. The hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing. The metal heater features a round 25 mm opening in the plate center for short working distance or immersion objective use.
The heating plate becomes flush with the stage surface to ensure the easy handling of the specimens and easy operation of manipulator. The Glass Heater thickness is 0.5 mm, which allows its application with Differential Interference Contrast, Modulation Contrast and high magnification objective lenses. Additional feature of quality control and new temperature regulation of continuous control are included in the system. External sensor and data logging software allows on-site calibration and off-set of plate and/or external sensor. With calibration and data logging feature allows to keep system performance quality high at end. Continuous current control minimizes focus drift/changing light intensity caused by regular on/off control.
Main uses: Temperature control of the specimen in short-term imaging, cell engineering, neuroscience, and genetic engineering under research use.

- Including: Power Supply, External Sensor, Data logging installation CD
- For vessel size: no limitation (within 150 x 100 mm)
- Requirements: "A4 – Manual 3-Plate-Stage 127 mm x 83 mm" "A6 – Motorized 3-Plate-Stage 127 mm x 83 mm", only
- Weight: 0.75 kg (+ 3.0 kg Power supply)
- Temperature stability: ± 0.3°C
- Temperature regulation: Continuous current control
- Control range: 5°C above ambient up to 60°C
- Observation Opening: 54 x 82 mm, whole glass thickness 0.5 mm or Ø 25 mm
- Type of vessels: all types
- Compatible: ""

C41 – Heating Insert P 2000 **11533027**
C42 – Heating Insert P Lab-Tek™ 2000 **11533080**

The solid heating element is made of one piece of aluminum with uniform heat distribution and a high thermal conductivity. Best solution for work with high magnification, precise positioning, Laser-Scanning-Microscopy applications and live cell imaging. An oval observation opening ensure both access for objectives and maximum heat transfer. Lateral ducts on the left and right side through the inserts permit the installation of perfusion tubes, for example with the POCmini or POC-R cambers "C41 – Heating Insert P 2000", or with Lab-Tek™ or chambered Slides "C42 – Heating Insert P Lab-Tek™ 2000".

Heating Insert P 2000 11533027

- For vessel size: Ø 35 mm type fixed with an annular insert
Ø 60 mm type fixed with clip clamping
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
TempController 2000-1 11533018 or
TempController 2000-2 11533019
- Weight: 0.8 kg
- Temperature stability: ± 0.1°C
- Control range: 3°C above ambient up to 60°C
- Observation Opening: oval 32 x 30 mm
- Type of vessels: Petri dishes “35” & “60”,
POC-R2 or POCmini-2 cell cultivation systems
- Compatible: "G1 – CO_2-Cover PM"
"G4 – CO_2-Cover HP-MG-L"
"G31 – Incubator PM 2000 RBT"

Heating Insert P Lab-Tek™ 2000 11533080

- For vessel size: 76 x 26 mm fixed with clip clamping
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
TempController 2000-1 11533018 or
TempController 2000-2 11533019
- Weight: 0.8 kg
- Temperature stability: ± 0.1°C
- Control range: 3°C above ambient up to 60°C
- Observation Opening: 46x21 mm
- Type of vessels: Nunc™ Lab-Tek™ (II) Chamber Slide System,
Nunc™ Lab-Tek™ (II) Chambered Coverglass System,
Glass slides
- Compatible: "G1 – CO_2-Cover PM"
"G4 – CO_2-Cover HP-MG-L"
"G31 – Incubator PM 2000 RBT"

C41
Heating Insert P 2000
Art.-No.: **11533027**

C42
Heating Insert P Lab-Tek™ 2000
Art.-No.: **11533080**

C43
Heating Insert M06 2000 EC
Art.-No.: **11533272**

C44
Heating Insert M12 2000 EC
Art.-No.: **11533273**

C45
Heating Insert M24 2000 EC
Art.-No.: **11533274**

C46
Heating Insert M96 2000 EC
Art.-No.: **11533275**

C43 – Heating Insert M06 2000 EC **11533272**
C44 – Heating Insert M12 2000 EC **11533273**
C45 – Heating Insert M24 2000 EC **11533274**
C46 – Heating Insert M96 2000 EC **11533275**

The heating inserts in combination with the Incubator PM 2000 or CO_2-Cover PM and Incubator i8 Series are used for simultaneous monitoring, imaging or capturing time-lapse sequences. Due to the high precision of scanning stages the configuration is ideal for computer controlled observation using multi-well dishes. The heating inserts are positioned into the 160 x 110 mm rectangular opening of the stages where they are held by a special clamping device.
Solid aluminum frame with an aluminum base plate with laminated printed circuit board with circular openings of defined diameter. Optimized thermal contact between the heated aluminum plate and the multiwell plate, therefore only compatible to specific multiwell dishes. A large lateral PA-screw allows the fixation of the multiwell dish.
CO_2 control is possible with the "G31 – Incubator PM 2000 RBT" or with the "Incubator i8" in combination with the "G1 – CO_2-Cover PM". Temperature control is carried out with the TempController 2000-1 11533018 or TempController 2000-2 11533019.

• For vessel size:	Insert M06: e.g. BD Falcon™ 06-well multiplate Insert M12: e.g. BD Falcon™ 12-well multiplate Insert M24: e.g. BD Falcon™ 24-well multiplate Insert M96: e.g. BD Falcon™ 96-well multiplate
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts TempController 2000-1 11533018 or TempController 2000-2 11533019
• Weight:	0.4 kg
• Temperature stability:	± 0.1°C
• Control range:	3°C above ambient up to 60°C
• Observation Opening:	M06: = 22.0 mm, M12: = 22.0 mm M24: = 15.5 mm, M96: = 6.0 mm
• Type of vessels:	Multiwell plates by Corning™ & Falcon™ with flat polysterene bottom, POC-R or POCmini cell cultivation systems
• Compatible:	"G1 – CO_2-Cover PM" "G31 – Incubator PM 2000 RBT" "G4 – CO_2-Cover HP-MG-L"

C50 – Heatable Incubation Insert P-Set 2000 **11533035**

The incubation insert is supplied with 4 exchangeable baseplates with different observation openings. According to the mounted baseplate, Petri dishes and POC-Systems, Lab-Tek™ chambers, object slides, chamber slides, CultureSlides, ibidi® chambers as well as Imaging Chambers can be observed. The incubation insert is equipped with two spring clips. This provides for a firm fit of the cell cultivation vessel and keeps it in place. The slidable cover enables a direct access to the cell cultivation system without removing the cover. The Heatable Incubation Insert P-Set 2000 is also applicable with large incubators.

Because of its design, the incubation insert has a high temperature constancy and thermal conductivity. Therefore, it is also suited for laser scanning microscopy. The heating is achieved by transistor stray power without disturbing switching pulses. Thereby, the incubation insert without the cover can be used for electrophysiological experiments. If necessary, it is also possible to control the temperature of the cover and body separately.

Temperature control is carried out with the TempController 2000-2 11533019.

• For vessel size:	24-50 x 40-80 mm or Ø 24–68 mm
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts TempController 2000-2 11533019
• Weight:	0.6 kg
• Temperature stability:	± 0.1°C
• Control range:	3°C above ambient up to 60°C
• Observation Opening:	Ø 30 mm, Ø 55 mm, 47 x 21 mm, 75 x 50
• Type of vessels:	Petri dishes “35” & “60”, Glass slides, Chamber Slide Systems (different manufacturer), Chambered Coverglass Systems (different manufacturer), POC-R or POCmini cell cultivation systems,Lab-Tek™ (Nunc™), Chambered slides (BD Falcon™)
• Compatible:	CO_2-Controller 2000 11533021 CO_2-O_2-Controller 2000 11533022

C50
Heatable Incubation Insert P-Set 2000
Art.-No.: **11533035**

C51 – Tokaihit, Leica TPX Type H Heating Frame **11533338**

Frame with clear glass heater, the hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing.

Heating Insert, TPX H, 160x110x5mm, for DMi8 Series, glass thickness 0.5mm, including control unit, sunk in (no flat surface)

• Including:	Power Supply, External Sensor, Data logging installation CD
• For vessel size:	no limitation (within 150 x 100 mm)
• Requirements:	"A4 – Manual 3-Plate-Stage 127 mm x 83 mm" "A6 – Motorized 3-Plate-Stage 127 mm x 83 mm", only

C51
Tokaihit, Leica TPX Type H Heating Frame
Art.-No.: **11533338**

C52 – Tokaihit, Leica TPX Type J Heating Frame **11533394**

Frame with clear glass heater, the hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing. It will be flush with the stage surface. Heating Insert, TPX J, for 88mm diameter opening, glass thickness 0.5mm.

• Including:	Power Supply, External Sensor, Data logging installation CD
• For vessel size:	no limitation (within 50mm)
• Requirements:	"A1 – Fixed Stage Plate" "A2 – Slim Fixed Stage Plate", only

C52
Tokaihit, Leica TPX Type J Heating Frame
Art.-No.: **11533394**

COOLING AND HEATING INSERTS SUITED TO CONTROL CO_2-CONCENTRATION

The inserts or holders are fixed with a spring snap-in mechanism into the rectangular opening. The outer dimensions of the inserts are: 160 x 110 mm. There are inserts for special vessels available and universal inserts with smooth running moveable brackets with variable clamping ranges, allowing easy and quick fixation of different sized dishes or slides. Alignment screws guarantee plan-parallel adjustment in z-direction. The solid cooling/heating element is made of one piece of aluminium with uniform heat distribution and a high thermal conductivity. Tubes (1 m and 2 m) can be connected with self sealing couplings. Experiments with CO_2 -incubation the frames could be used together with different small incubators or CO_2-Covers inside the Incubator i8. The following frames are especially suited to control CO_2-concentration in combination with the Incubator i8, a CO_2-Cover and the CO_2-Controller.

D1
Cooling/Heating Insert P
Art.-No.: **11533083**

D2
Cooling/Heating Insert P Lab-Tek™ type
Art.-No.: **11533033**

D1 – Cooling/Heating Insert P **11533083**
D2 – Cooling/Heating Insert P Lab-Tek™ **11533033**

The solid temperable element is made of one piece of aluminum with uniform temperature distribution and a high thermal conductivity. Best solution for work with high magnification, precise positioning, Laser-Scanning-Microscopy applications and live cell imaging. Specimens are firmly seated in the Cooling Insert P Lab-Tek™. An oval or rectangular observation opening ensures both access for objectives and maximum temperature transfer. Ideal for electrophysiological experiments, because no disturbing switching pulses are emitted. Compatible to many different cell cultivation vessels or chambered slides. A cover with a glass insert ensures full DIC compatibility. Temperature control is carried out with circulating water or other liquids and is regulated at the circulator, cooling thermostat (e.g. Lauda RE 106).

11533083

• For vessel size:	Ø 35 mm type fixed with an annular insert Ø 60 mm type fixed with clip clamping
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts Thermostat or pump as liquid circulator
• Weight:	0.8 kg
• Control range:	Liquid, temperature control by Thermostat
• Observation Opening:	Oval 32 x 30 mm
• Type of vessels:	Petri dishes “35” & “60”, POC-R2 or POCmini-2 cell cultivation systems
• Compatible:	"G2 – CO_2-Cover HP" "G3 – CO_2-Cover HP-MG" "G30 – Incubator P 2000"

11533033

• For vessel size:	76 x 26 mm fixed with clip clamping
• Requirements:	3-plate-stage / Scanning-stage for 160 x 110 mm inserts Thermostat or pump as liquid circulator
• Weight:	0.8 kg
• Control range:	Liquid, temperature control by Thermostat
• Observation Opening:	46 x 21 mm
• Type of vessels:	Nunc™ Lab-Tek™ (II) Chamber Slide System, Nunc™ Lab-Tek™ (II) Chambered Coverglass System, Glass slides
• Requirements:	Thermostat
• Compatible:	"G2 – CO_2-Cover HP" "G3 – CO_2-Cover HP-MG" "G30 – Incubator P 2000"

D3 – Cooling/Heating Incubation Insert P-Set 2000 **11533036**

The incubation insert is supplied with 4 exchangeable baseplates with different observation openings. According to the mounted baseplate, Petri dishes and POC-Systems, Lab-Tek™ chambers, object slides, chamber slides, CultureSlides, ibidi® chambers as well as Imaging Chambers can be observed. The incubation insert is equipped with two spring clips. This provides for a firm fit of the cell cultivation vessel and keeps it in place. The slidable cover enables a direct access to the cell cultivation system without removing the cover. The temperable Incubation Insert P-Set 2000 is also applicable with large incubators. Because of its design, the incubation insert has a high temperature constancy and thermal conductivity. Therefore, it is also suited for laser scanning microscopy. The temperature is achieved by liquid fluid. Thereby, the incubation insert without the cover can be used for electrophysiological experiments. Temperature control is carried out with circulating water or other liquids and is regulated at the circulator, cooling thermostat (e.g. Lauda RE 106).

- For vessel size: 24-50 x 40-80 mm or Ø 24–68 mm
- Requirements: 3-plate-stage / Scanning-stage for 160 x 110 mm inserts
  Thermostat or pump as liquid circulator and
  TempController 2000-1 11533018
  TempController 2000-2 11533019
- Weight: 0.6 kg
- Control range: Liquid, temperature control by Thermostat
- Observation Opening: Ø 30 mm, Ø 55 mm, 47 x 21 mm, 75 x 50
- Type of vessels: Petri dishes “35” & “60”, Glass slides, Chamber Slide Systems (different manufacturer),
  Chambered Coverglass Systems (different manufacturer)
- Compatible: CO_2-Controller 2000 11533021 / CO_2-O_2-Controller 2000 11533022

D3
Cooling/Heating Incubation Insert P-Set 2000
Art.-No.: **11533036**

D4 – Cooling/Heating Insert X **11532510**

The solid cooling (resp. temperable) element is made of one piece of aluminum with uniform temperature distribution and a high thermal conductivity. Because of its low mass it allows a rapid temperature change. A circular observation opening (Ø 8 mm) ensures both access for objectives and maximum temperature transfer. The outer dimensions are like a multi-plate. Due to its low profile it is especially suited for micromanipulation with a flat angle. Recommended for electrophysiological experiments, because no disturbing switching pulses are emitted.

- For vessel size: Ø 35 mm or 76 x 26 mm
- Outer dimension: 127 x 86 mm
- Requirements: "B16 – Universal Holding frame MX" or "C15 – Universal Holding frame KM Click-In", Thermostat or pump as liquid circulator and
  TempController 2000-1 11533018
  TempController 2000-2 11533019
- Weight: 0.2 kg
- Control range: Liquid, temperature control by Thermostat
- Observation Opening: Ø 8 mm
- Type of vessels: 35” Petri dishes, glass slides,
  Lab-Tek™ (Nunc™),
  Chambered slides (BD Falcon™)
- Compatible: No CO_2-Cover

D4
Cooling Insert X
Art.-No.: **11532510**

D5 – Cooling Thermostat

For the precise control of the cooling for temperable stages or temperable inserts we recommend Cooling thermostats from Lauda or Julabo.
Several models are available, see www.lauda.de or www.julabo.com.
You will get the latest information, specifications and curves.

E HOLDING FRAMES AND INSERTS 160 X 116 MM FOR UPRIGHT MICROSCOPES (DM4-6 B)

E1
Universal Holding frame AK
Art.-No.: **11501270**

E2
Universal Holding frame A
Art.-No.: **11501268**

E4
Universal Holding frame AK-Set
Art.-No.: **11533044**

E10
Tokaihit, Leica TPX Type D Heating Frame
Art.-No.: **11533380**

E1 – Universal Holding frame AK **11501270**

Flexible device with easy installation for the fixation of different objects on the Scanning Stage 100x100 at upright microscopes.

- For vessel size: 24-26 x 76-120 mm or Ø 24–68 mm
- Requirements: Scanning Stage for 160 x 116 mm inserts
- Weight: 0.15 kg
- Type of vessels: Petri dishes “35” & “60”, POC-R2 or POCmini-2 cell cultivation systems, Glass slides
- Compatible: No CO_2-Cover

E2 – Universal Holding frame A **11501268**

Frame to fix different cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel.

- For vessel size: 24-26 x 76-120 mm or Ø 24–68 mm
- Requirements: Mechanical stage (11501257 or 11501233)
- Weight: 0.10 kg
- Type of vessels: Petri dishes “35” & “60”, POC-R2 or POCmini-2 cell cultivation systems, Glass slides
- Compatible: No CO_2-Cover

E4 – Universal Holding frame AK-Set **11533044**

Frame (with 3 baseplates for Petri dishes, POC-R2, POCmini-2 and glass slides) for different cultivation vessels or slides. The set includes the frame and 3 exchangeable not heated bottom plates either for Petri dishes (“35”, “60”), POC-R2 or POCmini-2 cell cultivation systems, glass slides.

- For vessel size: 24–80 mm length or Ø 24–68 mm
- Requirements: Scanning Stage for 160 x 116 mm inserts
- Weight: 0.20 kg
- Observation Opening: Ø 30 mm, Ø 55 mm, 47 x 21 mm, 75 x 50 mm
- Type of vessels: Petri dishes “35” & “60”, POC-R2 or POCmini-2 cell cultivation systems, Glass slides
- Compatible: "G22 – CO_2-Cover AK-Set"

E10 – Tokaihit, Leica TPX Type D Heating Frame **11533380**

Frame with clear glass heater, the hard glass is applied to glassware to prevent glass breakage caused by objective interference, dish/plate dropping, etc. The plate comes with 10 years warranty for free glass breakage repairing. It will be installed on the stage surface. It is designed for general upright XY stages.

- Including: Power Supply, External Sensor, Data logging installation CD
- For vessel size: No limitation (within 128x95mm)
- Requirements: General upright mechanical stage
- Automatic thermo control system for XY stages
- From 5°C above ambient temperature up to 60°C
- Temperature accuracy +/- 0.3°C
- Digital temperature display with steps 0.1°C
- Power supply 100 - 240 V
- Indoor use only

DM6 – Uni. sample holder spindle stage upright **158004171**
Universal sample holder, suitable for scanning stage with upright microscopes. Not suitable for use with SuperZ. **Equivalent to 11501270**

Specimen holder upright f.1 Slide **158004172**
Specimen holder for motorized stages upright (opening 160 x 116 mm) for 1 slide 76 x 26 mm, dimensions: 160 x 116 x 7 mm. With mounting plate for microscope slides.

Stage Insert Universal upr. Microscopes **158004173**
Accommodates Petri dishes 35 to Ø 80 mm and slides 75 x 26 or 76 x 52 mm Dimension: 160 x 116 x 7 mm

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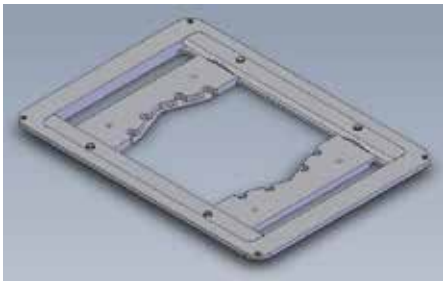
Specimen holder upright f.1 Slide
Art.-No.: **158004172**



Stage Insert Universal upr. Microscopes
Art.-No.: **158004173**

https://okolab4microsystems.com/

Confocal

Line items with 15 prefix

Widefield

Line items with 11 prefix

STAGE TOP INCUBATOR

01
Okolab BOLD LINE Temp Controller
Art.-No.: **11533432**

01a
Smart Box Data Logger
Art.-No.: **158006097**

01 – Okolab BOLD LINE Temp Controller **11533432**
Compatible with digital gas controllers
Temperature Controller for Okolab electrically heated Stage Top Chambers. Touch Screen Interface with smart calibration routines. Feedback to the controller can be provided either by sample or by chamber temperature.
Incudes a tiny thermocouple used as Sample Temperature Probe and a Thermistor used to monitor Room Temperature.
Compatible with all Okolab electrically heated Stage Top Chambers and objective heaters. Integrated in LAS X.

01a - Smart Box Data Logger **158006097**
Including: Data Logger Web Server Video Streaming Server Remote Assistant

Data Logger Acquisition and storage of status data from the controllers in a local not volatile memory. Storage of: set point temperature, specimen temperature, base, cover and humidifying module temperature, CO_2 / O_2 concentration and set point, gas flow rate, temp max, deviation of gas concentration within certain time interval. Recall of data via web application (internet connection of Smart Box or direct ethernet connection of Smart Box to PC).
Web Server Connection to the internet via WiFi USB key or via ethernet. Remote control of the current status and integrated control units Remote control and modification of set points.
Video Streaming Server Connection of a standard web cam Streaming of images taken with the web cam for online support or to monitor the lab remotely.
Remote assistant Online Video Assistance by Okolab support (access of the integrated controller units for maintenance or trouble shooting).

Compatible with the following gas and humidity controllers:
11533435 – Digital CO_2 Controller with Active Humidity Controller (humidification power 95%)
11533443 – Digital CO_2 and O_2 Controller for Hypoxia applications with Active Humidity Controller (humidification power 95%)
Compatible with the following heated stage top chambers:
11533433 – Electrically heated stage top chamber for stages with 160x110 mm (k-frame) opening
11xxxxxx – (currently not provided) Electrically heated chamber for Leica Super Z Galvo Stage
11533434 – Electrically heated MINI chamber
Compatible with heated objective collars 11533445, 11533446 and 11533447

- T Accuracy: ± 0.1°C in sample feedback mode and ± 0.3°C in chamber feed- back mode, if room temperature is stable within ±1°C
- Resolution: 0.1 °C
- Temperature Range: from 3°C above ambient temperature to 60°C
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 105 W max.
- Dimensions: Controller 200 x 200 x 54 mm; Touch screen interface 131 x 121 x 60 mm

O2 – Okolab Digital Gas Mixer, stage top **11533435**
Compatible with 11533432

Includes a Digital CO_2 Controller, an Air Pump and an Active Humidity Module.
The digital gas controller mixes CO_2 and Air to the desired concentration in the range 0-18%. Connects to Okolab temperature controller and is operated through its touch screen interface. The air pump connects to the digital gas controller and is a convenient solution for air inlet without the need of employing air tanks/compressed air lines. The Active Humidity Module is a humidity controller equipped with a humidity sensor, which regulates water temperature in order to achieve the desired relative humidity in the chamber. Dry gas is humidified by flowing over warm water. A heated tube delivers the humid gas to the stage top chamber preventing moisture condensation. Integrated in LAS X.

- CO_2 accuracy: ±0.1% - CO_2 range 0-18%
- CO_2 sensor: Non Dispersive InfraRed (NDIR) dual wave length detector - 10 years lifetime
- Humidity range: @ 25°C 85-95%; @ 37°C 51-95%; @ 50°C 26-95%
- Humidity resolution: 1% (with feedback from humidity sensor)
- Flow rate range: 0.1 up to 0.4 l/min, maximum outlet pressure: 300 mbar (4.3 psi)
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 100 W max.

O2
Okolab Digital Gas Mixer, stage top
Art.-No.: **11533435**

O3 – Okolab CO_2-O_2 Gas mixer, stage top **11533443**
Compatible with 11533432

Includes a Digital CO_2-O_2 Controller for hypoxia conditions, an Air Pump and an Active Humidity Module.
The digital gas controller mixes CO_2, Air and N_2 to the desired concentration in the CO_2 range 0-10% and O_2 range 1-18%. If operated without N_2, mixes CO_2 and Air to the desired CO_2 concentration in the range 0-10%. Connects to Okolab temperature controller and is operated through its touch interface. The air pump connects to the digital gas controller and is a convenient solution for air inlet without the need of employing air tanks/compressed air lines. The Active Humidity Module is a humidity controller equipped with a humidity sensor, which regulates water temperature in order to achieve the desired relative humidity in the chamber. Dry gas is humidified by flowing over warm water. A heated tube delivers the humid gas to the stage top chamber preventing moisture condensation. Integrated in LAS X.

- CO_2 accuracy: ±0.1% - CO_2 range 0-10%
- O_2 accuracy: ±0.1% - O_2 range 1-18%
- CO_2 sensor: Non Dispersive InfraRed (NDIR) dual wave length detector - 10 years lifetime
- O_2 sensor: Optical sensor – 5 years lifetime
- Gas requirements: 100% CO_2, 100% N_2, background AIR
- Humidity range: @ 25°C 85-95%; @ 37°C 51-95%; @ 50°C 26-95%
- Humidity resolution: 1% (with feedback from humidity sensor)
- Flow rate range: 0.1 up to 0.4 l/min, maximum outlet pressure: 300 mbar (4.3 psi)
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 100 W max.
- Dimensions: Controller 200 x 200 x 129 mm; Air Pump 107 x 180 x 99 mm; Humidifier: diameter 110 mm, height 216 mm

O3
Okolab CO_2-O_2 Gas mixer, stage top
Art.-No.: **11533443**

04
Okolab Uno Premixed Controller
Art.-No.: **11533436**

04 – Okolab Uno Premixed Controller **11533436**

All in one temperature and humidity controller with gas flow regulation for Okolab electrically heated Stage Top Chambers.
Includes the temperature controller and a humidity controller accepting pre-mixed Air/CO_2 gas. Dry gas is humidified by flowing over warm water. A heated tube delivers the humid gas to the stage top chamber preventing moisture condensation. The humidity controller features a calibrated output orifice allows to set the desired gas flow rate by regulating the pressure at the inlet with a pressure gauge regulator (included). Feedback to the temperature controller can be provided either by sample or by chamber temperature. Includes a fine gauge thermocouple to be used as Sample Temperature Probe and a Touch Screen Interface with smart calibration routines. Compatible with all Okolab electrically heated Stage Top Chambers and objective heaters. Integrated in LAS X.
Suggested when premixed Air/CO_2 gas is available.

Compatible with the following heated stage top chambers:
11533433 – Electrically heated stage top chamber for stages with 160x110 mm (k-frame) opening
11xxxxxx – (currently not provided) Electrically heated chamber for Leica Super Z Galvo Stage
11533434 – Electrically heated MINI chamber

Compatible with heated objective collars 11533445, 11533446 and 11533447

- T accuracy: ± 0.1°C in sample feedback mode and ± 0.3°C in chamber feed-back mode, if room temperature is stable within ± 1°C
- Control Range: 3°C above ambient temperature up to 60°C
- Humidification power: 85% relative humidity
- Flow rate range: 0.1 up to 0.4 l/min
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 100 W max.
- Dimensions Controller: 131 x 121 x 60 mm; Humidifier: diameter 72 mm, height 190 mm

05 – Okolab Uno CO_2 Controller **11533437**

All in one manual temperature and humidity controller with CO_2/AIR mixer compatible with any Okolab electrically heated Stage Top Chamber. Includes the temperature controller, the humidity controller, a manual gas mixer accepting 100% CO_2 and air, and an air pump. The manual mixer mixes 100% CO_2 and background air to the desired concentration in the range 0-15% with an accuracy of ±1%. Dry gas is humidified by flowing over warm water. A heated tube delivers the humid gas to the stage top chamber preventing moisture condensation. Flow rate is regulated through the manual gas mixer. Feedback to the temperature controller can be provided either by sample or by chamber temperature. Includes a fine gauge thermocouple to be used as Sample Temperature Probe and a Touch Screen Interface with smart calibration routines. Compatible with all Okolab electrically heated Stage Top Chambers and objective heaters. Integrated in LAS X.
Suggested when feedback on CO_2 concentration and humidity is not required.

Compatible with the following heated stage top chambers:

11533433 – Electrically heated stage top chamber for stages with 160x110 mm (k-frame) opening
11xxxxxx – (currently not provided) Electrically heated chamber for Leica Super Z Galvo Stage
11533434 – Electrically heated MINI chamber

Compatible with heated objective collars 11533445, 11533446 and 11533447

- T accuracy: ± 0.1°C in sample feedback mode and ± 0.3°C in chamber feed-back mode, if room temperature is stable within ± 1°C
- Control Range: 3°C above ambient temperature up to 60°C
- Humidification power: 85% relative humidity
- CO_2 Supply: 100% CO_2 at 1-2 bar (15-29 psi)
- AIR Supply: Air Pump (included), maximum outlet pressure: 300 mbar (4.3 psi)
- CO_2 Accuracy: ±1% - CO_2 range: 0 - 15 Vol-%
- Flow rate range: 0.6 - 0,8 l/min @5% CO_2
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 110 W max.
- Dimensions Controller: 131 x 121 x 60 mm; Gas Mixer: 27 x 234 x 178 mm; Air Pump: 107 x 202 x 101 mm; Humidifier: diameter 72 mm, height 190 mm

05
Okolab Uno CO_2 Controller
Art.-No.: **11533437**

O6
Okolab Obj. Collar 19-24
Art.-No.: **11533445**

O7
Okolab Obj. Collar 25-32
Art.-No.: **11533446**

O8
Okolab Obj. Collar 33-42
Art.-No.: **11533447**

O8a
Okolab Objective heater set
Art.-No.: **158006098**

O6 – Okolab Obj. Collar 19-24 **11533445**
To be used when working with immersion or dipping objectives.
Automatic calibration routine to precisely compensate heat sink due to contact with immersion and dipping objectives
Fits objectives with diameter from 19 to 24 mm
Connects to 11533432, 11533436 and 11533437

O7 – Okolab Obj. Collar 25-32 **11533446**
To be used when working with immersion or dipping objectives.
Automatic calibration routine to precisely compensate heat sink due to contact with immersion and dipping objectives
Fits objectives with diameter from 25 to 32 mm
Connects to 11533432, 11533436 and 11533437

O8 – Okolab Obj. Collar 33-42 **11533447**
To be used when working with immersion or dipping objectives.
Automatic calibration routine to precisely compensate heat sink due to contact with immersion and dipping objectives
Fits objectives with diameter from 33 to 42 mm
Connects to 11533432, 11533436 and 11533437

O8a – Okolab Objective heater set **158006098**
Automatic calibration routine to precisely compensate heat sink due to contact with immersion and dipping objectives. The set includes 3 rubber band collars to fit objectives with diameter from 19 to 24mm, from 25 to 32mm and from 33 to 42mm, respectively. Objective heaters are controlled via OKO Touch and are compatible with Inverted and upright microscopes

O9 – Okolab stage top incubator H301 **11533433**
for stages with 160x110 mm (k-frame) opening
Heated Glass Lid to prevent condensation. Sliding lid for easy pipetting included.
Optional lids for Koehler illumination or injection.
Removable riser to fit standard multiwell plates or to perform perfusion (#12 in riser for 2.5 mm O.D. tubing)
Magnets allow easy interchange of sample holders to host Petri dishes, slides and multiwell Plates.
Minimum condenser working distance: from 22.7 mm (with Koehler lid without riser) to 33.6 mm (with sliding lid and riser)
Connects to 11533432, 11533436 and 11533437

O10 – KOEHLER Lid **11533449**
for stages with 160x110 mm (k-frame) opening
KOEHLER Lid - required for Koehler illumination
Temperature controlled conductive glass lid that reduces the height of the chamber and allows to work under Koehler illumination. Minimum condenser working distance (without chamber riser): 22 mm
Compatible with 11533433

O11 – 6-well plates holder **11533295**
Fits in 11533433

O12 – 12-well plates holder **11533381**
Fits in 11533433

O13 – 24-well plates holder **11533382**
Fits in 11533433

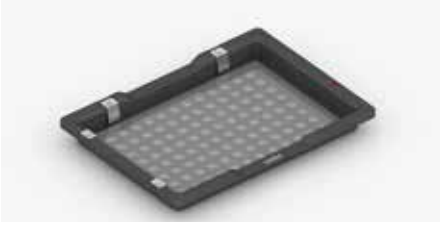
O13a – 96-well plate holder **11533532**
Holder to accommodate 96 well plates in chamber H301-K-FRAME, to be selected when working with LD objectives
Fits in 11533433

O9
Okolab stage top incubator H301
Art.-No.: **11533433**

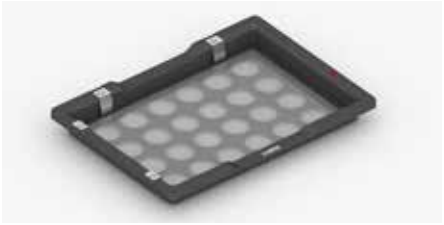
O10
KOEHLER Lid
Art.-No.: **11533449**

O11
6-well plates holder
Art.-No.: **11533295**

O12
12-well plates holder
Art.-No.: **11533381**

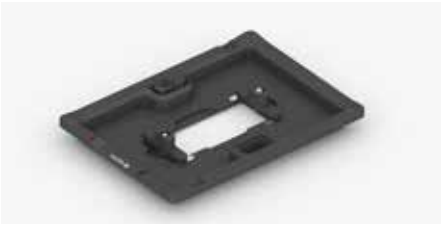


O13a
Okolab 96-well plate holder
Art.-No.: **11533532**



O13
24-well plates holder
Art.-No.: **11533382**

O14
35 mm Petri dish holder
Art.-No.: **11533424**



O15
1”x3” chamber slide holder
Art.-No.: **11533422**

O16
50/60 mm Petri dish holder
Art.-No.: **11533423**

O17
2xLABTEK 1”x2”chambered cover glass holder
Art.-No.: **11533421**

O18
2xLABTEK-II
Art.-No.: **11533420**

O19
Okolab 1x slide, 2x 35mm
Art.-No.: **11533419**

O14 – 35 mm Petri dish holder **11533424**
Fits in 11533433 and 11533431

O15 – 1”x3” chamber slide holder **11533422**
Fits in 11533433 and 11533431

O16 – 50/60 mm Petri dish holder **11533423**
Fits in 11533433 and 11533431

O17 – 2xLABTEK 1”x2”chambered cover glass holder **11533421**
Fits in 11533433 and 11533431

O18 – 2xLABTEK-II **11533420**
Fits in 11533433 and 11533431

O19 – 1x slide, 2x 35mm **11533419**
Fits in 11533433 and 11533431

O20 – Okolab stage top incubator **11533518**
for Leica Super Z Galvo Stage
Heated Glass Lid to prevent condensation.
Magnets allow easy interchange of sample holders to host Petri dishes, slides
Minimum condenser working distance: 20 mm
Total weight: 130 g
12 perfusion holes for 2.5 mm O.D. perfusion tubing
Connects to 11533432, 11533436 and 11533437

O21 – 35 mm Petri dish holder **11533519**
Fits in 11533518

O22 – 1"x3" chamber slide holder **11533520**
Fits in 11533518

O23 – Lab-Tek 1"x2" chambered cover glass holder **11533521**
Fits in 11533518

O24 – Lab-Tek 1"x2" II chambered cover glass holder **11533522**
Fits in 11533518

O25 – 50/60 mm Petri dish holder **11533523**
Fits in 11533518

O20
Okolab stage top incubator for Leica Super Z Galvo Stage
Art.-No.: **11533518**

O21
35 mm Petri dish holder
Art.-No.: **11533519**

O22
1"x3" chamber slide holder
Art.-No.: **11533520**

O23
Lab-Tek 1"x2" chambered cover glass holder
Art.-No.: **11533521**

O24
Lab-Tek 1"x2" II chambered cover glass holder
Art.-No.: **11533522**

O25
50/60 mm Petri dish holder
Art.-No.: **11533523**

O26
Okolab stage top incubator-MINI
Art.-No.: **11533434**

O27
35 mm Petri dish holder
Art.-No.: **11533418**

O28
1"x3" chamber slide holders
Art.-No.: **11533417**

O29
Lab-Tek 1"x2"chambered cover glass holder
Art.-No.: **11533427**

O30
Lab-Tek 1"x2" II chambered cover glass holder
Art.-No.: **11533426**

O31a
50/60 mm Petri dish holder
Art.-No.: **11533416**

O26 – Okolab stage top incubator-MINI **11533434**
Hosts 1 Petri Dish or one Slide. Fits in any multiwell plate holder.
Heated Glass Lid to prevent condensation.
Magnets allow easy interchange of sample holders to host Petri dishes, slides and multiwell Plates.
12 perfusion holes for 2.5 mm O.D. perfusion tubing
Connects to 11533432, 11533436 and 11533437

O27 – 35 mm Petri dish holder **11533418**
Fits in 11533434 and 11533428

O28 – 1"x3" chamber slide holders **11533417**
Fits in 11533434 and 11533428

O29 – Lab-Tek 1"x2"chambered cover glass holder **11533427**
Fits in 11533434 and 11533428

O30 – Lab-Tek 1"x2" II chambered cover glass holder **11533426**
Fits in 11533434 and 11533428

O31a – 50/60 mm Petri dish holder **11533416**
Fits in 11533434 and 11533428

O31b – Okolab Cryo Temp Controller **11533470**

Okolab package consisting of Bold Line Heating/Cooling unit (H101-CRYO) and Oko-Touch Display. Heating / Cooling unit - Bold Line. It comprises the Temperature Controller and the Cryostatic Water Bath. Temperature is controlled in the range +5°C to 60°C by circulating water in the water jacket chamber. It allows to work in chamber or in specimen feedback mode and to continuously monitor room temperature. Specimen Temperature accuracy: ± 0.1°C in specimen feedback mode, ± 0.3°C in chamber feedback mode, if room temperature remains within ± 1°C. Automatic self-calibration routines. It is operated by the user friendly touch screen OKO-TOUCH. Compatible with any Okolab Water Jacket Chamber, with objective heater / cooler OKO-MOC-(UP) and with Smart Box. Touch Screen Display. User friendly device to operate the Bold Line Controllers.

- T accuracy: ± 0.1°C
- Control Range: from 10°C - 15°C below room temperature to 60°C
- Voltage/Power: 110-220 V AC, 50-60 Hz

O31b
Okolab Cryo Temp Controller
Art.-No.: **11533470**

O31c – Okolab Water Jacket Lens Collar **11533471**

Okolab Objective Heating/Cooling Collar (OKO-MOC), for use with water jacket incubation chambers. Water-jacket Lens collar. It uses the water flow coming from the incubating chamber to keep the objective at the same temperature as the chamber.

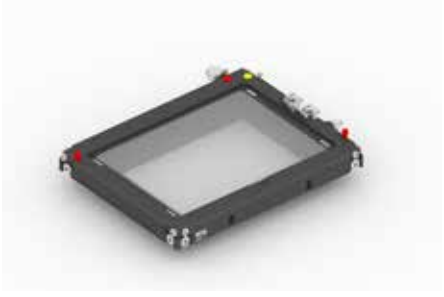
O31d – Okolab Dig. Gas mixer, Cryo **11533472**

Okolab package consisting of CO_2 Controller - Bold Line (CO2 UNIT BL), Air pump - Bold Line (OKO-AIR-PUMP-BL), Humidity Module (H101-HM). CO_2 Controller - Bold Line. CO_2 is digitally regulated in the range 0-18% and actively controlled by a drift-free Non Dispersive InfraRed (NDIR) dual wave length CO2 sensor. Expected sensor lifetime: 10 years. Accuracy: ± 0.1%. Output flow rate range: 0.1-0.8 l/min (0.1-0.4 l/min in combination with OKO-AIR-PUMP-BL). Compatible with Smart Box for data-logging, remote operation and remote support. It is operated by the user friendly touch screen OKO-TOUCH (not included). Air pump - Bold Line. Plug and play solution for Air inlet. Convenient alternative to 100% Air tanks/compressed Air lines. It connects to the Air input of Okolab Bold Line gas controllers and it is operated by OKO-TOUCH. Maximum outlet pressure 300 mbar Humidity module. It comprises a gas preheating system and a bubbling column.

O31d
Okolab Dig. Gas mixer, Cryo
Art.-No.: **11533472**

O31e – Okolab stage top, Water Jacket **11533473**

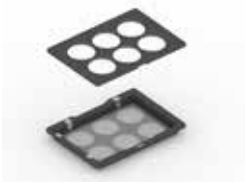
Water Jacket Chamber for stages with k-frame insert (160x110mm) - magnetic. (H101-K-FRAME) Minimum condenser working distance: 27mm. The chamber is uniformly heated by means of water circulation in water tight channels present in the main body and in the lid. Magnets allow easy interchange of specimen holders. The chamber features a removable riser required to fit standard multiwell plates or to perform perfusion (12 channels for 2.5mm O.D. tubings available in chamber riser). Requires at least one specimen holder.



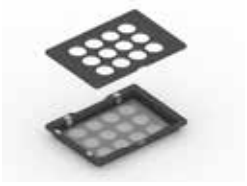
O31e
Okolab stage top, Water Jacket
Art.-No.: **11533473**

O32f
Okolab insert 2x35mm, water jacket
Art.-No.: **11533474**

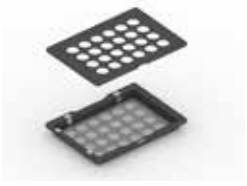
O32g
Okolab 1x slide holder, water jacket
Art.-No.: **11533475**



O32h
Okolab 6well holder, water jacket
Art.-No.: **11533476**



O32i
Okolab 12well holder, water jacket
Art.-No.: **11533477**



O32j
Okolab 24well holder, water jacket
Art.-No.: **11533478**

O32f – Okolab insert 2x35mm, water jacket **11533474**
Fits in 11533473

O32g – Okolab 1x slide holder, water jacket **11533475**
Fits in 11533473

O32h – Okolab 6well holder, water jacket **11533476**
Fits in 11533473

O32i – Okolab 12well holder, water jacket **11533477**
Fits in 11533473

O32j – Okolab 24well holder, water jacket **11533478**
Fits in 11533473

O32k – Okolab 96well holder, water jacket **11533479**
Fits in 11533473

O32l – Okolab Sensor Lid, 35mm **11533480**
Fits in 11533473

O32m – Okolab 4x35-M magnetic **11533524**
H101 4x 35 mm Petri-dish holder - magnetic
Fits in 11533473

O32m
Okolab 4x35-M magnetic
Art.-No.: **11533524**

CAGE INCUBATOR CONFOCAL

Okolab Transparent Box Incubator DMi8 **158206046**
Okolab Black Box Incubator DMi8 **158206048**
Transparent / black* heating microscope incubator made of transparent / black* polycarbonate panels for DMi8 with STELLARIS. Smart Box Data Logger 158006097 is optional.

- Air heating included
- Temperature range: from 3°C above ambient to 40°C
- Temperature accuracy on sample: ± 0.1°C
- Feedback from sample or from internal air temperature
- Sliding doors on front and side panels
- Removable front panel
- Internal LED light with foot pedal and dimmer
- Touch Screen operated

*not laser safe

Okolab Transparent Box Incubator DMi8
Art.-No.: **158206046**

Okolab Black Box Incubator DMi8
Art.-No.: **158206048**

Okolab Transp.heat+cool Incubator Box DMi8 **158206047**
Transparent heating and cooling microscope incubator for DMi8 with STELLARIS Made of transparent isolating polycarbonate panels with increased material thickness

- Air heating and cooling operation included
- Temperature operating range: 40°C to 14°C with room temperature 24°C and a maximum power generation inside the enclosure of 100 W
- Temperature accuracy on sample: ± 0.1°C
- Feedback from sample or from internal air temperature
- Sliding doors on front and side panels
- Removable front panel
- Internal LED light with foot pedal and dimmer
- Touch Screen operated

Art.-No.: **158206047**

Laser Safety Box CFS 4TUNE **158206044**
Combine optionally with line item 158206043 to add Temperature controller and User interface and optional Smart Box Data Logger 158006097

- The enclosure is lined with a laser resistant material
- Automated laser safety switch on all openable parts
- Temperature range: from 3°C above ambient to 40°C
- Temperature accuracy on sample: ± 0.1°C
- Feedback from sample or from internal air temperature
- Sliding doors on front and side panels
- Removable front panel
- Internal LED light with foot pedal and dimmer
- Laser safety interlock
- Touch Screen operated.

Laser Safety Box CFS 4TUNE
Art.-No.: **158206044**

Laser Safety Box DMi8 4TUNE
Art.-No.: **158206045**

Okolab Temp. Ctrl Laser Safety Box
Art.-No.: **158206043**

Smart Box Data Logger
Art.-No.: **158006097**

Laser Safety Box DMi8 4TUNE **158206045**

Laser safety box for mulitphoton microscopy. Combine optionally with line item 158206043 to add temperature controller and user interface and optional Smart Box Data Logger 158006097

- The enclosure is lined with a laser resistant material
- Automated laser safety switch on all openable parts
- Temperature range: from 3°C above ambient to 40°C
- Temperature accuracy on sample: ± 0.1°C
- Feedback from sample or from internal air temperature
- Sliding doors on front and side panels
- Removable front panel
- Internal LED light with foot pedal and dimmer
- Laser safety interlock
- Touch Screen operated.

Okolab Temp. Ctrl Laser Safety Box **158206043**

- Digital air heater with touchscreen interface
- Temperature range: from 3°C above ambient to 40°C
- Temperature accuracy on sample: ± 0.1°C
- Feedback from sample or from internal air temperature

Okolab Smart Box data logger (optional) **158006097**

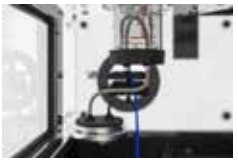
- Data Logging
- Remote Operation of the incubator via Internets, Tablet or SmartPhone
- Video Streaming server
- Remote assistant

OKOLAB CO_2, HUMIDITY PASSIVE FOR CAGE INCUBATORS

Okolab CO_2, Humidity Passive **158206039**

Requires Temperature Controller, OKO-TOUCH and gas micro-environmental chamber

- CO_2 Range: 0-18%
- Accuracy: ± 0.1%
- Set Point Resolution: 0.1%; Repeatability: < 0.1%
- Total flow rate: 0.05-0.4 l/min
- Outlet pressure: ambient
- Humidification capacity: 85% ca.
- Mixes CO_2 with air. Needs an input of 100% CO2 at 1 bar
- CO_2 sensor: 10 year-life Non-Dispersive InfraRed (NDIR) dual wave length detector
- Filtering device: PTFE membrane with 0.2 µm pores
- Gas controller operated by OKO-TOUCH
- Sensor calibration with external meter or calibration gas via OKO-TOUCH
- Cable-less connection to other units and to Smart Box
- HM-FV employs a semi-permeable membrane. Humidification occurs without bubbling to ensure vibration-free operation
- OkoLab Smart Box Data Logger (optional, Line Item 158006097)

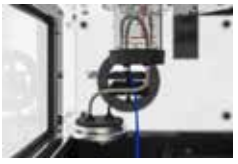


Okolab CO_2, Humidity Passive
Art.-No.: **158206039**

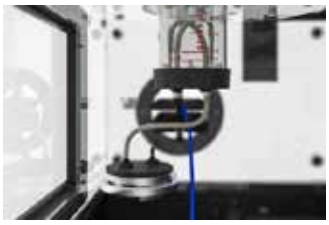
Okolab CO_2, Hypoxia, Humidity Passive **158206040**

Requires Temperature Controller, OKO-TOUCH and gas micro-environmental chamber

- CO_2 range: 0-10%, O2 range: 0-21%
- CO_2 accuracy: ± 0.1%; O2 accuracy 0.1%
- CO_2 Set Point Resolution: 0.1%;
- O_2 Set Point Resolution: 0.1% (in the range 1-18%)
- Total flow rate: 0.2-0.4 l/min
- Outlet pressure: ambient
- Humidification capacity: 85% ca.
- Mixes CO_2 and N_2 with air. Needs input of 100% CO_2 and 100% N_2 at 1 bar
- CO_2 sensor: 10 year-life Non Dispersive InfraRed (NDIR) dual wave length detector
- O_2 sensor: 10 year-life zirconium oxide sensor
- Sensor calibration with external meter or calibration gas via OKO-TOUCH
- Filtering device: PTFE membrane with 0.2 µm pores
- Gas controller and Humidity module operated by OKO-TOUCH
- HM-FV employs a semi-permeable membrane. Humidification occurs without bubbling to ensure vibration-free operation
- OkoLab Smart Box Data Logger (optional, Line Item 158006097)



Okolab CO_2, Hypoxia, Humidity Passive
Art.-No.: **158206040**



Okolab CO_2, Hypo-Hyperoxia Humidity pass
Art.-No.: **158206041**

Okolab CO_2, Hypo-Hyperoxia Humidity pass **158206041**

Requires Temperature Controller, OKO-TOUCH and gas micro-environmental chamber, Air pump is not needed

- CO_2 range: 0-20%; O2 range: 1-95%
- CO_2 accuracy: ± 0.2 % at 5% CO_2 and 5% O_2
- O_2 accuracy: ± 0.3% at 5% CO_2 and 5% CO_2
- Set Point Resolution: 0.1%
- Total flow rate: 0.2, 0.3 or 0.4 l/min, depending on O_2 set point
- Outlet pressure: ambient
- Humidification capacity: 85% ca.
- Mixes CO_2, O_2 and N_2 – Needs Input of 100% CO_2, 100% O_2 and 100% N_2 at 1 bar
- CO_2 consumption (at 5% of CO_2): 0.0175 Nl/min
- O_2 consumption (at 5% of O_2): 0.0175 Nl/min
- N_2 consumption (at 5% of CO_2 and at 5% of O_2): 0.315 Nl/min
- Digital Flow Meters: CMOS Sensors
- Filtering device: PTFE membrane with 0.2 µm pores
- HM-FV employs a semi-permeable membrane. Humidification occurs without bubbling to ensure vibration-free operation
- Gas controller is operated byOKO-TOUCH
- Okolab Smart Box Data Logger (optional, Line Item 158006097)

GAS MICRO-ENVIRONMENTAL CHAMBERS (SAMPLE CHAMBERS)

Sample Chamber Inv SuperZ **158206037**
- The set includes the chamber for SuperZ Galvo and an insert for 2x35 Petri and 2x 1''-3'' Chamber Slide

Optional:
Okolab holder f. 3 slides 1“x3“ SuperZ **158206030**

Optional:
Okolab Insert multi well plate SuperZ **158206031**

Sample Chamber Inv Z-Piezo **158206036**
- The set includes the chamber for Z-Piezo and an insert for 2x35 Petri and 1x 1''-3'' Chamber Slide

Sample Chamber inv K-Frame **158206038**
The set includes the chamber for K-Frame with Koehler lid (H201-KF-KOEHLER) and one insert for 2x35 Petri & 1x 1''-3'' Chamber Slide (GS35-M) and one insert for multiwell plates (H201-MW-Holder).
Equivalent to 11533599

Sample Chamber inv DLS **158206034**
The set includes the chamber for DLS and one insert for #1 35mm Petri-dish holder and one insert for Insert for #1 60mm Petri-dish holder

Sample chamber inv DLS should be combined with the **active** humidity controller, included in the following line items.
- 158006094 Okolab CO_2 Humidity Active
- 158006095 Okolab CO_2 Hypoxia Humidity Active
- 158006096 Okolab CO_2 Hypo-Hyperoxia Humidity Active

Sample Chamber inv DLS
Art.-No.: **158206034**

Sample Chamber Inv SuperZ
Art.-No.: **158206037**

Okolab holder f. 3 slides 1“x3“ SuperZ
Art.-No.: **158206030**

Okolab Insert multi well plate SuperZ
Art.-No.: **158206031**

Sample Chamber Inv Z-Piezo
Art.-No.: **158206036**

Sample Chamber inv K-Frame
Art.-No.: **158206038 or 11533599**

OKOLAB BOLD LINE TOP STAGE INCUBATOR CONFOCAL PACKAGES




On Stage Incubator Inv Super Z
Art.-No.: **158006091**




On Stage Incubator Inv Z-Piezo
Art.-No.: **15826035**

Electrically heated Stage on Top Incubation Chamber
Different Chambers available for xy stages with and without Super Z, Z-Piezo, DLS

- Heated glass cover lid
- Removable chamber riser to allow focusing the condenser for Köhler illumination
- Interchangeable sample holders
- Perfusion holes for inlet and outlet of tubes
- One incubation chamber is included in every version of Okolab On Stage Incubator:
- 158006091 Okolab On Stage Incubator Inv Super Z
- 158206035 Okolab On Stage Incubator Inv Z-Piezo
- 158006092 Okolab On Stage Incubator Inv K-Frame
- 158006093 Okolab On Stage Incubator Upr Super Z
- 158006099 Okolab DLS On Stage Incubation

On Stage Incubator Inv Super Z **158006091**
The set includes the

- Temperature controller and OKO-TOUCH
- chamber for Inv SuperZ
- Insert for 35 mm petri dish
- Insert for 1”-3” chamber slide

On Stage Incubator Inv Z-Piezo **158206035**
The set includes the

- Temperature controller and OKO-TOUCH
- chamber for Inv Z-Piezo
- Insert for 1”-3” chamber slide and two 35mm petri dishes

On Stage Incubator Inv K – Frame **158006092**
The set includes the

- Temperature controller and OKO-TOUCH
- chamber for Inv K-Frame with Koehler lid
- Insert for one 1”-3” chamber slide and two 35mm petri dishes
- Insert for multi well plates for use with oil / water objectives





On Stage Incubator Inv K – Frame
Art.-No.: **158006092**

On Stage Incubator Upr SuperZ **158006093**

The set includes the

- Temperature controller and OKO-TOUCH
- chamber for Upr SuperZ
- Insert for one 35mm petri dishes

DLS On Stage Incubaton **158006099**

The set includes the

- Temperature controller and OKO-TOUCH
- the chamber for DLS and one insert for #1 35mm Petri-dish holder and
- one insert for Insert for #1 60mm Petri-dish holder




On Stage Incubator Upr SuperZ
Art.-No.: **158006093**





DLS On Stage Incubaton
Art.-No.: **158006099**

Optional for all stage on top incubators:

Okolab Smart Box data logger **158006097**

Data Logging

- Remote Operation of the incubator via Internets, Tablet or SmartPhone
- Video Streaming server
- Remote assistant

Objective heater Kit **158006098**

Automatic calibration routine to precisely compensate heat sink due to contact with immersion and dipping objectives. The set includes 3 rubber band collars to fit objectives with diameter from 19 to 24mm, from 25 to 32mm and from 33 to 42mm, respectively. Objective heaters are controlled via OKO Touch and are compatible with Inverted and Upright Microscopes

Smart Box Data Logger
Art.-No.: **158006097**

Objective heater Kit
Art.-No.: **158006098**

DIGITAL GAS CONTROLLERS FOR STAGE ON TOP INCUBATORS CONFOCAL PACKAGES

CO_2, CO_2-O_2 Hypoxia, CO_2-O_2 Hypoxia and Hyperoxia modules with active humidity control

- 158006094 Okolab CO_2 Humidity Active
- 158006095 Okolab CO_2 Hypoxia Humidity Active
- 158006096 Okolab CO_2 Hypo-Hyperoxia Humidity Active

Each of the three options are including the active humidity controller which controls relative humidity inside the chamber in the range between 50% and 95%

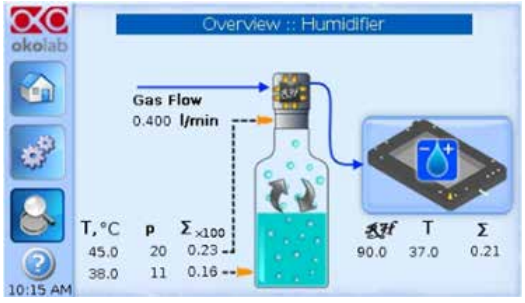
- Humidity Sensor provides active feedback
- Humidity Sensor resolution 1%
- Connects to any Okolab Digital Gas Controller
- Operated with the user interface OKO-Touch

Those two gas controllers are equipped with an air pump as alternative to 100% air tanks / compressed air sources

Okolab CO_2 Humidity Active **158006094**
Okolab CO_2 Hypoxia Humidity Active **158006095**

Humidifier bottle

Humidifier bottle with control unit rear side



Screenshot touch panel

Okolab CO_2 Humidity Active **158006094**

Mixes CO_2 with air. Needs an input of 100% CO_2 at 1 bar

The set contains

- CO2 Unit
- Active humidity controller
- Air pump

Technical data

- CO_2 Range: 0-18%
- Accuracy: ± 0.1%
- Set Point Resolution: 0.1%; Repeatability: < 0.1%
- Total flow rate: 0.05-0.4 l/min
- Outlet pressure: ambient
- Humidity Range: 50 to 95%
- Humidity Sensor resolution 1%

Okolab CO_2 Hypoxia Humidity Active
Art.-No.: **158006095**

Okolab CO_2 Hypoxia Humidity Active **158006095**

Mixes CO_2 and N_2 with air. Needs input of 100% CO_2 and 100% N_2 at 1 bar

- The set contains
- CO_2 Hypoxia Unit
- Active humidity controller
- Air pump

Technical data

- CO_2 range: 0-10%, O_2 range: 0-21%
- CO_2 accuracy: ± 0.1%; O_2 accuracy 0.1%
- CO_2 Set Point Resolution: 0.1%;
- O_2 Set Point Resolution: 0.1% (in the range 1-18%)
- Total flow rate: 0.2-0.4 l/min
- Outlet pressure: ambient
- Humidity Range: 50 to 95%
- Humidity Sensor resolution 1%

Okolab CO_2/O_2 Hypo-Hyperoxia Humidity Active
Art.-No.: **158006096**

Okolab CO_2/O_2 Hypo-Hyperoxia Humidity Active **158006096**

Mixes CO_2, O_2 and N_2. Needs input of 100% CO_2 and 100% O_2 and 100% N2 at 1 bar. Air pump is not needed.

The set contains

- CO_2 Hypo-Hyperoxia Unit
- Active humidity controller
- Air pump

Technical data

- CO_2 range: 0-20%; O_2 range: 1-95%
- CO_2 accuracy: ± 0.2 % at 5% CO_2 and 5% O_2
- O_2 accuracy: ± 0.3% at 5% CO_2 and 5% CO_2
- Set Point Resolution: 0.1%
- Total flow rate: 0.2, 0.3 or 0.4 l/min, depending on O_2 set point
- Outlet pressure: ambient
- Humidity range 50 to 95%
- Humidity Sensor resolution 1%

OKOLAB UNO STAGE TOP INCUBATOR PREMIXED – SET – ALL IN ONE

Each system comprises
- Control Unit (1)
- Humidifier with heated tube (2)
- Premixed Gas Flow Regulator (3)
- Incubation chamber (select according to XY stage) (4)

Optional: Objective Heater

Oko UNO Stage Inc Set Premix Inv SuperZ **158006101**

Each system comprises
- Control Unit
- Humidifier with heated tube
- Premixed Gas Flow Regulator
- Chamber for Inv SuperZ
- Insert for 35 mm petri dish
- Insert for 1"x3" chamber slide

Oko UNO Stage Inc Set Premix Inv SuperZ
Art.-No.: **158006101**

Oko UNO Stage Inc Set Premix Inv Z-Piezo **158206032**

Each system comprises
- Control Unit
- Humidifier with heated tube
- Premixed Gas Flow Regulator
- Chamber for Inv Z-Piezo
- Insert for 35 mm petri dish
- Insert for 2x35 Petri and 1x 1''-3'' Chamber Slide

Oko UNO Stage Inc Set Premix Inv Z-Piezo
Art.-No.: **158206032**

Oko UNO Stage Inc Set Premix Inv K-Frame **158006102**

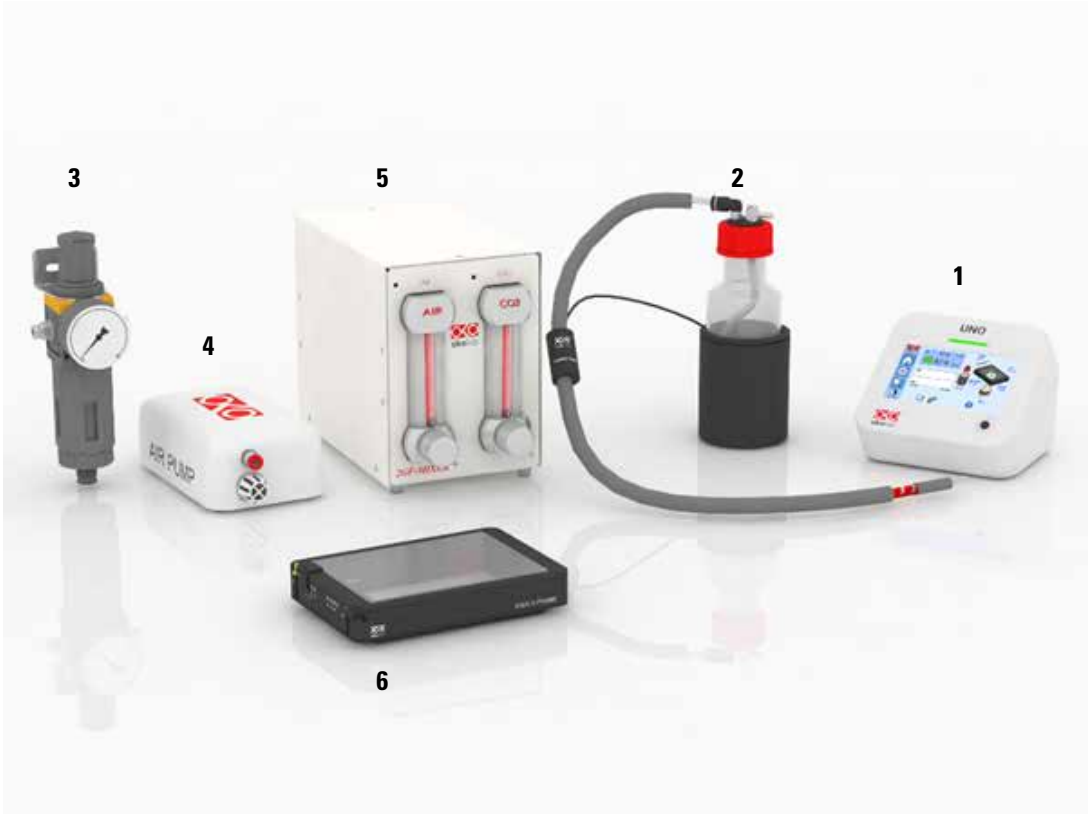
Each system comprises
- Control Unit
- Humidifier with heated tube
- Premixed Gas Flow Regulator
- Chamber for Inv K – Frame with Koehler lid
- Insert for 2x35 mm petri dish and 1x 1''-3'' Chamber Slide
- Insert for Multiwell plates for use with Oil/Water objectives

Oko UNO Stage Inc Set Premix Inv K-Frame
Art.-No.: **158006102**

OKOLAB UNO STAGE TOP INCUBATOR
CO_2 MIXER – SET – ALL IN ONE

Each system comprises
- Control Unit (1)
- Humidifier with heated tube (2)
- Gas manual mixer (3)
- Air pump (4)
- Pressure Regulator (5)
- Incubation chamber (select according to XY stage) (6)

Optional: Objective Heater



Oko UNO Stage Inc Set CO_2 Inv SuperZ **158006103**

Each system comprises
- Control Unit
- Humidifier with heated tube
- Gas manual mixer
- Air pump
- Pressure Regulator
- Chamber for Inv Super Z
- Insert for 35 mm petri dish
- Insert for 1”-3” chamber slide

Oko UNO Stage Inc Set CO_2 Inv Z Piezo **158206033**

Each system comprises
- Control Unit
- Humidifier with heated tube
- Gas manual mixer
- Air pump
- Pressure Regulator
- Chamber for Inv Z-Piezo
- Insert for 2x35 MM Petri and 1x 1''-3'' Chamber Slide

Oko UNO Stage Inc Set CO_2 Inv K-Frame **158006104**

Each system comprises
- Control Unit
- Humidifier with heated tube
- Gas manual mixer
- Air pump
- Pressure Regulator
- Chamber for Inv K – Frame with Koehler lid
- Insert for 2x35 mm petri dish and 1x 1''-3'' Chamber Slide
- Insert for Multiwell plates for use with Oil/Water objectives

CAGE INCUBATOR

O32a – OKOLAB CAGE INCUB., BLACK **11533499**

Black enclosure for DMi8. For light sensitive applications. Consists of black lexan microscope enclosure (H201-ENCLOSURE-DMi8- BLACK), Temperature Unit with temperature controller and air heater (H201-T-UNIT-BL), and touch screen display (OKO-TOUCH). It creates dark large volume around the microscope in which temperature is controlled by recirculating warm air at controlled temperature and flow rate. Feedback to the temperature unit can be provided either by specimen temperature or by the temperature of the air inside the enclosure. Double air inlets and outlets and the constant flow rate recirculation of air ensures stable operation of the system and excellent temperature uniformity throughout the enclosure. Turn to open hinges allow an easy and fast removal of the front and top panels. Sliding doors allow easy access to the microscope and to the specimen. Gaskets and sealed openings allow to introduce tubes and cables inside the enclosure. A pedal activated LED light positioned inside the enclosure allows to view the sample through a transparent window.
Feedback to the controller can be provided either by sample temperature or by air temperature inside the enclosure.
Integrated in LAS X.

Compatible with the following gas chambers:
O38 – 11533431 – Gas chamber for stages with 160x110 mm (k-frame) opening
O47 – 11533329 – Gas chamber for Leica Super Z Galvo Stage
O50 – 11533331 – Gas MINI chamber

- T accuracy: ± 0.1°C
- Control Range: 3°C above ambient temperature up to 45C
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 900 W max.
- Dimensions: Controller 200 x 200 x 54 mm; Fan Heater: 294 x 233 x 236; Touch screen interface 131 x 121 x 60 mm.

O32b – OKOLAB CAGE INCUB., LASER SAFE BLACK **11533500**

Like O32a but with laser safety for DMi8.

O32c – OKOLAB CAGE INCUB. TRANSPARENT **11533501**

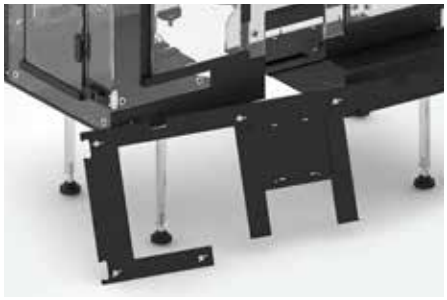
Like O32a but transparent for DMi8.

O32a
Okolab Cage Incub., black
Art.-No.: **11533499**

O32b
Okolab Cage Incub., laser safe black
Art.-No.: **11533500**

O32c
Okolab Cage Incub. Transparent
Art.-No.: **11533501**

032d
Okolab Cage Incubator
Art.-No.: **11533387**



033
BLACK PANELS
Art.-No.: **11533385**

034
Okolab 5% Pre-mixed Gas controller
Art.-No.: **11533429**

035
MANUAL CO2 / HUMIDITY CONTROLLER
2GF-MIXER OKO-AP HM-VF
Art.-No.: **11533430**

O32d – Okolab Cage Incubator **11533387**

Large Volume Incubator. Includes transparent enclosure, temperature controller, fan heater and touch screen interface. Fits any configuration. Microscope configuration must be specified in order.
Temperature is controlled by recirculating warm air at controlled temperature and flow rate. The fan heater is equipped with a temperature and a flow rate sensor in order to obtain a stable energy input inside the enclosure. Double air inlets and outlets ensure stable operation of the system and excellent temperature uniformity throughout the enclosure.
Turn to open hinges allow easy and fast removal of both the front and the top panel. Sliding doors allow easy access to the microscope and to the sample. Dimmable LED light operated via foot pedal
Feedback to the controller can be provided either by sample temperature or by air temperature inside the enclosure.
Integrated in LAS X.

Compatible with the following gas chambers:
O38 – 11533431 – Gas chamber for stages with 160x110 mm (k-frame) opening
O47 – 11533329 – Gas chamber for Leica Super Z Galvo Stage
O50 – 11533331 – Gas MINI chamber

- T accuracy: ± 0.1°C
- Control Range: 3°C above ambient temperature up to 45C
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 900 W max.
- Dimensions: Controller 200 x 200 x 54 mm; Fan Heater: 294 x 233 x 236; Touch screen interface 131 x 121 x 60 mm.

O33 – BLACK PANELS **11533385**

Obscuring panels to make the enclosure dark. **Compatible with 11533387**
Black panels attach to the enclosure with butterfly screws creating a dark environment for light sensitive applications.

O34 – Okolab 5% Pre-mixed Gas controller **11533429**

Compatible with 11533387, 11533499, 11533500, 11533501
For premixed gas. Includes a floating ball gas Flow Regulator and a Vibration Free Humidifier.
The Vibration Free Humidifying Module employs a water semi-permeable membrane immersed in water to humidify gas.
Gas reaches the relative humidity of 85% ca. at 37°C.
Flow rate range 0.04-0.4 l/min.

O35 – Okolab Manual Gas Mixer, CO_2 + air **11533430**

Compatible with 11533387, 11533499, 11533500, 11533501
Includes a manual CO_2 – Air Mixer, an Air Pump and a Vibration Free Humidifier.
The manual gas mixer mixes CO_2 and air to the desired concentration in the CO_2 range 1-15%. Air and CO_2 flows are regulated by two floating ball flow meters.
The air pump is a convenient solution for air inlet without the need of employing air tanks/compressed air lines. The Vibration Free Humidifying Module employs a water semi-permeable membrane immersed in water to humidify gas.
Gas reaches the relative humidity of 85% ca. at 37°C.
Humidification power: 85%.
Flow rate range 0.6-08 l/min @5% CO_2

- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 10 W max.
- Dimensions: Controller: Gas Mixer: 27 x 234 x 178 mm; Air Pump: 107 x 202 x 101 mm

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O36 – Okolab Digital Gas Mixer, CO_2 + air **11533389**

Compatible with 11533387, 11533499, 11533500, 11533501

Includes a Digital CO_2 Controller, an Air Pump and a Vibration Free Humidity Module.

The digital gas controller mixes CO_2 and Air to the desired concentration in the range 0-18%. Connects to Okolab temperature controller and is operated through its touch screen interface. The air pump connects to the digital gas controller and is a convenient solution for air inlet without the need of employing air tanks/ compressed air lines. The Vibration Free Humidity Module employs a water semi-permeable membrane immersed in water to humidify gas. Integrated in LAS X.

- CO_2 accuracy: ±0.1% - CO_2 range 0-18%
- CO2 sensor: Non Dispersive InfraRed (NDIR) dual wave length detector - 10 years lifetime
- Humidification power: 85%
- Flow rate range: 0.1 up to 0.4 l/min, maximum outlet pressure: 300 mbar (4.3 psi)
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 50 W max.
- Dimensions: Controller 200 x 200 x 129 mm; Air Pump 107 x 180 x 99 mm

O36
Okolab Digital Gas Mixer, CO_2 + air
Art.-No.: **11533389**

O37 – Okolab Digital Gas Mixer, CO_2 + O_2 **11533444**

Compatible with 11533387, 11533499, 11533500, 11533501

Includes a Digital CO_2-O_2 Controller for hypoxia conditions, an Air Pump and a Vibration Free Humidity Module.

The digital gas controller mixes CO_2, Air and N_2 to the desired concentration in the CO_2 range 0-10% and O_2 range 1-18%. If operated without N_2, mixes CO_2 and Air to the desired CO_2 concentration in the range 0-10%. Connects to Okolab temperature controller and is operated through its touch interface. The air pump connects to the digital gas controller and is a convenient solution for air inlet without the need of employing air tanks/compressed air lines. The Vibration Free Humidity Module employs a water semi-permeable membrane immersed in water to humidify gas. Integrated in LAS X.

- CO_2 accuracy: ±0.1% - CO_2 range 0-10%
- O_2 accuracy: ±0.1% - O_2 range 1-18%
- CO_2 sensor: Non Dispersive InfraRed (NDIR) dual wave length detector - 10 years lifetime
- O_2 sensor: Optical sensor – 5 years lifetime
- Gas requirements: 100% CO_2, 100% N_2, background AIR
- Humidification power: 85%
- Flow rate range: 0.1 up to 0.4 l/min, maximum outlet pressure: 300 mbar (4.3 psi)
- Voltage/Power: 110-220 V AC, 50-60 Hz
- Power consumption: 50 W max.
- Dimensions: Controller 200 x 200 x 129 mm; Air Pump 107 x 180 x 99 mm

O37
Okolab Digital Gas Mixer, CO_2 + O_2
Art.-No.: **11533444**

038
Okolab Gas Chamb.f.K Frame H201
Art.-No.: **115533431**

039
KOEHLER Lid
Art.-No.: **11533448**

040
Multiwell plates holder
Art.-No.: **11533425**

041
35 mm Petri dish holder
Art.-No.: **11533424**

042
1"x3" chamber slide holder
Art.-No.: **11533422**

043
50/60 mm Petri dish holder
Art.-No.: **11533423**

038 – Okolab Gas Chamb.f.K Frame H201 **11533431**
for stages with 160x110 mm (k-frame) opening
compatible with 115533387

Sliding lid for easy pipetting included. Optional lids for Koehler illumination or injection.
Removable riser to fit standard multiwell plates or to perform perfusion (#12 in riser for 2.5 mm O.D. tubing)
Magnets allow easy interchange of sample holders to host Petri dishes, slides and multiwell Plates.
Minimum condenser working distance: from 22.7 mm (with Koehler lid without riser) to 33.6 mm (with sliding lid and riser)

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039 – KOEHLER Lid **11533448**
required for Koehler illumination
compatible with 11533431

Glass lid that reduces the height of the chamber and allows to work under Koehler illumination. Minimum condenser working distance (without chamber riser): 22 mm

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040 – Multiwell plates holder **11533425**

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041 – 35 mm Petri dish holder **11533424**
Fits in 11533433 and 11533431

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042 – 1"x3" chamber slide holder **11533422**
Fits in 11533433 and 11533431

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043 – 50/60 mm Petri dish holder **11533423**
Fits in 11533433 and 11533431

O44 – 2xLABTEK 1"x2"chambered cover glass holder **11533421**
Fits in 11533433 and 11533431

O45 – 2xLABTEK-II K-FRAME **11533420**
Fits in 11533433 and 11533431

O46 – 1x slide, 2x 35mm K-FRAME **11533419**
Fits in 11533433 and 11533431

O47 – Gas chamber for Leica Super Z Galvo Stage **11533329**
Magnets allow easy interchange of sample holders to host Petri, slides and MW plates
Minimum condenser working distance: 20 mm
Total weight: 80g
12 perfusion holes for 2.5 mm O.D. perfusion tubing
Compatible with 115533387

O48 – Multiwell plates holder **11533330**
Fits in 11533329

O49 – 2x 1"x3" chamber slides and 2x 35mm Petri-dish holder **11533386**
Fits in 11533329

O44
2xLABTEK 1"x2"chambered cover glass holder
Art.-No.: **11533421**

O45
2xLABTEK-II K-FRAME
Art.-No.: **11533420**

O46
1x slide, 2x 35mm K-FRAME
Art.-No.: **11533419**

O47
Gas chamber for Leica Super Z Galvo Stage
Art.-No.: **11533329**

O48
Multiwell plates holder
Art.-No.: **11533330**

O49
2x 1"x3" chamber slides and 2x 35mm Petri-dish holder
Art.-No.: **11533386**

050
4x 35 mm Petri-dish holder
Art.-No.: **11533331**

051
Mini Gas chamber H201-MINI
Art.-No.: **11533428**

052
35 mm Petri-dish holder
Art.-No.: **11533418**

053
1"x3" chamber slide holders
Art.-No.: **11533417**

054
Lab-Tek II 1"x2" chambered cover glass holder
Art.-No.: **11533427**

055
Lab-Tek 1"x2" chambered cover glass holder
Art.-No.: **11533426**

056
50/60 mm Petri-dish holder
Art.-No.: **11533416**

050 – 4x 35 mm Petri-dish holder **11533331**
Fits in 11533329

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051 – Mini Gas chamber H201-MINI **11533428**
Hosts 1 Petri Dish or one Slide. Fits in any multiwell plate holder.
Magnets allow easy interchange of sample holders to host Petri dishes and slides.
12 perfusion holes for 2.5 mm O.D. perfusion tubing
Compatible with 115533387

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052 – 35 mm Petri-dish holder **11533418**
Fits in 11533434 and 11533428

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053 – 1"x3" chamber slide holders **11533417**
Fits in 11533434 and 11533428

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054 – Lab-Tek 1"x2" chambered cover glass holder **11533427**
Fits in 11533434 and 11533428

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055 – Lab-Tek II 1"x2" chambered cover glass holder **11533426**
Fits in 11533434 and 11533428

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056 – 50/60 mm Petri-dish holder **11533416**
Fits in 11533434 and 11533428

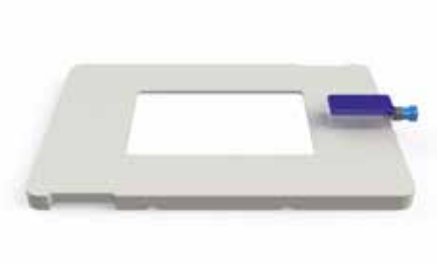
COVERS FOR STAGE INSERTS (INVERTED MICROSCOPES)

G1
CO_2 Cover PM with Heating Insert M06
Art.-No.: **11533061**

G1 – CO_2-Cover PM **11533061**

This CO_2-Cover PM fits onto different inserts and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass. Holes at the bottom side distribute the CO_2-gas-mixture uniformly in the incubation room. The cover provides a relative humidity of approx. 90%.

• For Inserts:	"C41 – Heating Insert P 2000" "C42 – Heating Insert P Lab-Tek™ 2000" "C43 – Heating Insert M06 2000 EC" "C44 – Heating Insert M12 2000 EC" "C45 – Heating Insert M24 2000 EC" "C46 – Heating Insert M96 2000 EC"
• Requirements:	CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
• Observation Opening:	115 x 80 mm
• Applicable:	for DIC in Incubator i8 series
• Provided humidity:	90%
• Weight:	0.15 kg



G2
CO_2 Cover HP with Heating Insert P
Art.-No.: **11533054**

G2 – CO_2-Cover HP **11533054**

This CO_2-Cover HP fits onto different inserts and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of opaque acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

• For Inserts:	"C23 – Insert N for Lab-Tek™" "D1 – Cooling/Heating Insert P" "D2 – Cooling/Heating Insert P Lab-Tek™" "C19 – Universal Holding frame K100-Set" + "C21 – Top Frame KP-Set"
• Requirements:	CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
• Applicable:	for DIC in Incubator i8 series
• Provided humidity:	90%
• Weight:	0.15 kg

G3 – CO_2-Cover HP-MG **11532982**

This CO_2-Cover HP-MG fits onto different inserts and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of opaque acrylic glass with a glass insert to permit DIC.
The slidable glass insert permits an easy access to the cell cultivation vessel. Cover with 2 openings with silicone seals for the tubes (for perfusion applications).The cover provides a relative humidity of approx. 90%.

• For Inserts:	"C23 – Insert N for Lab-Tek™" "D1 – Cooling/Heating Insert P" "D2 – Cooling/Heating Insert P Lab-Tek™" "C19 – Universal Holding frame K100-Set" + "C21 – Top Frame KP-Set"
• Requirements:	CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
• Observation Opening:	78 x 100 mm
• Applicable:	for DIC in Incubator i8 series
• Provided humidity:	90%
• Weight:	0.15 kg

G3
CO_2 Cover HP-MG
Art.-No.: **11532982**

G4 – CO_2-Cover HP-MG-L **11533082**

This CO_2-Cover HP-MG-L fits onto different inserts and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of opaque acrylic glass with a glass insert to permit DIC.
The slidable glass insert permits an easy access to the cell cultivation vessel. The cover provides a relative humidity of approx. 90%.

• For Inserts:	"C41 – Heating Insert P 2000" "C42 – Heating Insert P Lab-Tek™ 2000" "C43 – Heating Insert M06 2000 EC" "C44 – Heating Insert M12 2000 EC" "C45 – Heating Insert M24 2000 EC" "C46 – Heating Insert M96 2000 EC"
• Requirements:	^CO_2-Controller 2000 or O_2-Controller 2000 11533021 or "CO_2-O_2-Controller 2000" 11533022
• Observation Opening:	78 x 100 mm
• Applicable:	for DIC in Incubator i8 series
• Provided humidity:	90%
• Weight:	0.15 kg

G4
CO_2 Cover HP-MG-L
Art.-No.: **11533082**

G6
CO_2-Cover KH
Art.-No.: **11533057**

G6 – CO_2-Cover KH 11533057

The CO_2-Cover KH fits on the Universal Mounting Frames KH 2000, KH-L 2000 and KH-R 2000 and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

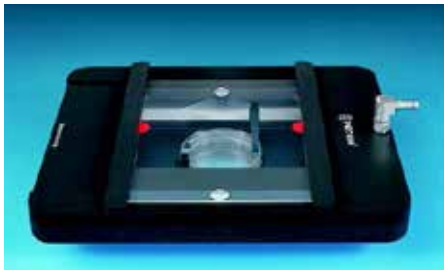
- For Inserts: "C31 – Heatable Universal Holding frame KH 2000"
  ""
  "C33 – Heatable Universal Holding frame KH-R 2000"
- Requirements: CO_2-Controller 2000 11533021" or
  CO_2-O_2-Controller 2000 11533022
- Observation Opening: 62 x 92 mm
- Applicable: for DIC
  in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.1 kg

G11
CO_2-Cover KM
Art.-No.: **11532971**

G11 – CO_2-Cover KM 11532971

The CO_2-Cover KM fits on the Universal Mounting Frames KM and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

- For Inserts: "C15 – Universal Holding frame KM Click-In"
- Requirements: CO_2-Controller 2000 11533021 or
  CO_2-O_2-Controller 2000 11533022
- Observation Opening: 120 x 90 mm
- Applicable: for DIC in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.2 kg



G12
CO_2-Cover KM-Set
Art.-No.: **11533391**

G12 – CO_2-Cover KM-Set 11533391

CO_2 -Cover with two sliding inserts for the cultivation & micromanipulation of cells in combination with Universal Mounting Frame KM.

- For Inserts: "C15 – Universal Holding frame KM Click-In"
- Requirements: CO_2-Controller 2000 11533021" or
  CO_2-O_2-Controller 2000 11533022
- Observation Opening: for Click-in inserts
- Applicable: for DIC in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.2 kg

G13
CO_2-Cover GL
Art.-No.: **11532886**

G13 – CO_2-Cover GL 11532886

The CO_2-Cover GL fits on the Insert GL-Set and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

- For Inserts: "C22 – Insert GL-Set"
- Requirements: CO_2-Controller 2000 11533021" or
  CO_2-O_2-Controller 2000 11533022
- Observation Opening: 75 x 50 mm
- Applicable: for DIC
  in Incubator i8 series
- Provided humidity: 90%
- Weight: < 0.1 kg

G14 – CO_2-Cover 6xPetri **11533065**

The CO_2-Cover 6xPetri fits on the Holding Frame for 6 Petri dishes and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

- For Inserts: "C17 – Holding frame 6 Petri dishes"
- Requirements: CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
- Observation Opening: for 6 x 35 mm Petri dishes
- Applicable: for DIC in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.1 kg

G14
CO_2-Cover 6xPetri
Art.-No.: **11533065**

G15 – CO_2-Cover Quad **11533067**

The CO_2-Cover quad fits on the Holding Frame Slide Holder (Quad) and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

- For Inserts: "C16 – Holding frame Slide Holder(quad)"
- Requirements: CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
- Observation Opening: for 4 x slides
- Applicable: for DIC in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.1 kg

G15
CO_2-Cover Quad
Art.-No.: **11533067**

G16 – CO_2-Cover K100-Set **11532999**

The CO_2-Cover K100-Set fits on the Universal Mounting Frame K100-Set and permits local CO_2-control in a completely closed environment in the large Incubator i8. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover provides a relative humidity of approx. 90%.

- For Inserts: "C19 – Universal Holding frame K100-Set"
- Requirements: CO_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
- Observation Opening: for 4 x slides
- Applicable: for DIC in Incubator i8 series
- Provided humidity: 90%
- Weight: 0.1 kg

G16
CO_2-Cover K100-Set
Art.-No.: **11532999**

COVERS FOR STAGE INSERTS (UPRIGHT MICROSCOPES)

G21
CO_2-Cover AKH
Art.-No.: **11533063**

G21 – CO_2-Cover AKH **11533063**

The CO_2-Cover AKH fits on the Universal Mounting Frame AK and on the 3 different Heatable Universal Mounting Frames AKH 2000 and permits local CO_2-control in a completely closed environment in the Incubator 2000 f. DM4-6 B/LMD. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover has an opening with a silicone seal for different objectives. The cover provides a relative humidity of approx. 90%.

• For Inserts:	"E5 – Heatable Universal Holding frame AKH 2000" "E6 – Heatable Universal Holding frame AKH-L 2000" "E7 – Heatable Universal Holding frame AKH-R 2000"
• Requirements:	CO_2-Controller 2000 11533021 or O_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
• Applicable:	for DIC in Incubator 2000 f. DM4-6 B/LMD
• Provided humidity:	90%
• Weight:	0.2 kg

G22
CO_2-Cover AK-set
Art.-No.: **11533064**

G22 – CO_2-Cover AK-Set **11533064**

The CO_2-Cover AK fits on the Universal Mounting Frame AK-set and permits local CO2-control in a completely closed environment in the Incubator 2000 f. DM4-6 B/LMD. The cover is made out of transparent acrylic glass with a glass insert to permit DIC. The cover has an opening with a silicone seal for different objectives. The cover provides a relative humidity of approx. 90%.

• For Inserts:	"E4 – Universal Holding frame AK-Set"
• Requirements:	CO_2-Controller 2000 11533021 or O_2-Controller 2000 11533021 or CO_2-O_2-Controller 2000 11533022
• Applicable:	for DIC in Incubator 2000 f. DM4-6 B/LMD
• Provided humidity:	90%
• Weight:	0.2 kg

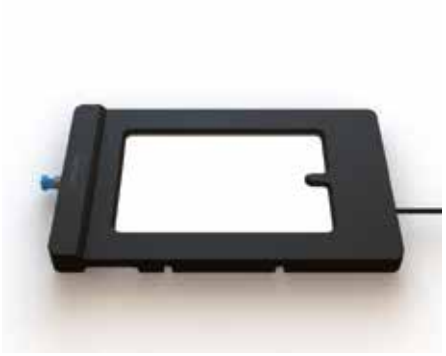
SMALL INCUBATORS

G30 – Incubator P 2000 **11533007**

The small size Incubator P 2000 with low-volume for warm air incubation and/or CO_2-control mounted on top of the Cooling/Heating Insert is used for the stabilization of In vitro conditions for cell and tissue culture. This incubator is designed for homogenous heat, CO_2 and O_2 distribution.

The heatable glass warms up the incubation chamber from the top. This avoids the condensation of water on the cover of the cell cultivation vessel. The heatable glass of the incubator is translucent to about 90% in the visible light range. The incubator is DIC Compatible. The incubator is compatible to the condensers S23, S28, S50 and S70. For CO_2-control the CO_2-Controller 2000 11533021 and for O_2-control the CO_2-O_2-Controller 2000 11533022 are mandatory. Temperature control is carried out with the TempController 2000-2 11532019.

• Material:	Aluminum, black anodized; heated glass
• Operating voltage:	DC 24V protective low voltage
• Power consumption:	max . 0.5 A
• Heating range::	3°C above ambient up to 40°C
• Output:	24V DC from TempController 2000-2
• Compatible Inserts:	"D1 – Cooling/Heating Insert P" "D2 – Cooling/Heating Insert P Lab-Tek™"
• Observation area:	120 x 77 mm
• Height of observation area:	> 21 mm
• Dimensions:	189 x 115 x 14 mm (L x W x H)
• Requirements:	CO_2-Controller 2000 11533021" or CO_2-O_2-Controller 2000 11533022 TempController 2000-1 11532018 or TempController 2000-2 11532019
• Weight:	0.30 kg



G30
Incubator P 2000
Art.-No.: **11533007**

G31 – Incubator PM 2000 RBT **11533139**

Small incubator for warm air incubation, CO_2- and O_2-control in combination with a Heating Insert.

- Small incubator for the stabilization of in vitro conditions for cell- and tissue cultures during microscopic examination. The abbreviation RBT stands for Rapid Balanced Temperature. Incubator PM 2000 RBT replaces Incubator PM 2000.
- The heated glass of the incubator is permeable to 90% of light in the visible wavelength range.
- The heated glass warms up the incubation chamber from the top. This avoids the condensation of water on the cover of the cell cultivation vessel.
- The incubator is suitable for high-resolution microscopy. It is designed for the LD-condensors S23, S28, S40 and S70.

The incubator is DIC Compatible. For CO_2-control the CO_2-Controller 2000 11533021 and for O_2-control the CO_2-O_2-Controller 2000 11533022 are mandatory. Temperature control is carried out with the TempController 2000-2 11532019.

• Material:	Aluminum, black anodized; heated glass
• Operating voltage:	DC 24 V protective low voltage
• Power consumption:	max . 0.5 A
• Heating range::	3°C above ambient up to 40°C
• Output:	24 V DC from TempController 2000-2
• Compatible Inserts:	"C41 – Heating Insert P 2000" "C42 – Heating Insert P Lab-Tek™ 2000" "C43 – Heating Insert M06 2000 EC" "C44 – Heating Insert M12 2000 EC" "C45 – Heating Insert M24 2000 EC" "C46 – Heating Insert M96 2000 EC"
• Observation area:	120 x 77 mm
• Height of observation area:	> 21 mm
• Dimensions:	205 x 132 x 18 mm (L x W x H)
• Requirements:	CO_2-Controller 2000 11533021" or CO_2-O_2-Controller 2000 11533022 TempController 2000-1 11532018 or TempController 2000-2 11532019
• Weight:	0.30 kg

G31
Incubator PM 2000
Art.-No.: **11533139**

INCUBATOR FOR UPRIGHT MICROSCOPES (DM4-6 B/LMD6-7)

G43 – Incubator 2000 f. DM4-6 B/LMD **11533015**

The large incubator for Leica DM4-6 B microscopes (including Leica LMD6/7) for the stabilization of temperature and CO_2-concentration.

The incubator

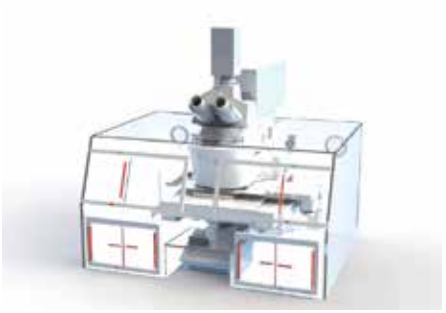
- has two large sliding doors in the front panel on the left and right hand side, below there are two smaller openings with sliding doors.
- heats both the cell cultivation vessel (prevention of condensation) and the objectives.
- is easy to install by just one person. No tools are required.
- will not filled-up with CO_2. A local CO_2-incubation is possible with specific Heating Inserts and non-heatable CO_2-Covers in combination with the CO_2-Controller 2000

A temperature sensor to adapt to different setups can be freely positioned inside the incubator.

For operation, the use of further heated components (e.g. Heating Inserts) are recommend.

Temperature control is carried out with the TempController 2000-2 11533019. One channel of this controller is used for Heating Insert, the second channel is directly connected to the Heating Unit 2000 11533020

• For microscope:	Leica DM4-6 B, LMD6-7
• Material:	Acrylic glass, optically clear
• Openings:	150 x 150 mm, 90 x 115 mm
• Control range:	3°C above ambient up to 50°C
• Dimension:	680 x 530 x 360 mm (WxDxH)
• Requirements:	Heating Unit 2000 11533020 TempController 2000-2 11532019
• Weight:	6.0 kg



G43
Incubator 2000 f. DM4-6 B/LMD
Art.-Nr.: **11533015**

H EVAPORATION REDUCTION

The relative humidity within an incubator depends on the temperature – the higher the temperature, the greater the volume of water that is absorbed. A problem when heating up air inside an incubation system is that it can take up more water. This results in a decrease of relative humidity, which subsequently will cause an increase of evaporation from the media, mainly because most of the lids of multi-well plates have a small gap to let CO_2 pass. For the experiment this means that as the temperature rises, more and more water is extracted from the nutrients in the cell cultures, which results in an increased ion concentration. Measurements have shown that with cells only 5–10 % water loss in the nutrient medium is tolerated. Less water respectively higher ion concentration will influence cell biological processes and finally leads to cell death. For the reduction of evaporation 2 different principles or a combination of both can be used: increasing the humidity of the surrounding environment or a reduction of the lost water from the cultivation vessel. Depending on the volume of liquid and the size of the surface, a Humidifying System (see F7-F9) and/or FoilCovers should be used when observing culture vessels. Both solutions are recommended for incubation periods of longer than 6 hours.

FOILCOVERS

In the case of long-term experiments of more than 12 hours in open cultivation the use of a FoilCover is recommended as protection against evaporation of water. The FoilCover consists of a stretching ring or rectangular frame and a base ring or rectangular frame, both made of stainless steel. Gas permeable CultFoil is fixed between the two rings.

CultFoil:

- For: FoilCover Rings and FoilCover Frames
- Material: Optically clear foil (CultFoil 25 µm), only permeable for gases

FoilCovers:

- Material: Stainless steel, V2A
- Preparation: Sterilizable with foil by autoclaving (121°C) or by dry heating (165–170°C)
- Weight: 0.1 kg

H03/H13
FoilCover Ring

Circular FoilCovers are available in different sizes:

H03 – FoilCover ring frame Ø 35 mm for "35" Petri dishes **11521743**
The FoilCover comes with Base Ring and stretching Ring as well as with a mounting plate and 20 pieces of CultFoil (FEP: fluor-ethylene-propylene). The Foil is not DIC compatible.

H13 – CultFoil 25 µm, 20 pieces for "35" Petri dishes **11521744**
Spare for FoilCover ring frame Ø 35 mm for "35" Petri dishes

H14 – CultFoil 25 µm, 20 pieces for "60" Petri dishes **11521746**
Spare for FoilCover ring frame Ø 56 mm for "60" Petri dishes

I CELL CULTIVATION SYSTEMS

In order to meet the combined demands of live cell imaging and the use of all state-of-the-art contrasting techniques of the Leica microscope, versatile cell cultivation systems have been developed which allow both open and closed cultivation and open or closed perfusion.

Perfusion Open and Closed Systems

The POC Chamber System meets the demands of different microscopic methods in the observation and analysis of living cells. It is available with a round baseplate and an observation area of Ø 29-32 mm (POC-R2) and as miniature version (POC mini-2) for a smaller quantity of cell and tissue culture and an observation opening of Ø 17-22 mm.

- The POC-R2 Chamber System and POCmini-2 are systems for all microscope techniques.
- Suitable for short- and long-term cultivation.
- Open and closed cultivation as well as open and closed perfusion are possible.
- In the case of open cultivation, the chamber can be protected from evaporation by a FoilCover.
- In all POC-applications, the cells can be cultivated on glass.
- A pre-cultivation of cells on cover glasses in Petri dishes is possible. The assembling of the sterile POC Chamber occurs in a laminar air flow.
- All parts of the POC Chamber can be sterilized by autoclaving (121°C) or by dry heating (165-170°C).

For longer observations of cell and tissue cultures under the inverted microscope, the POC Chambers should be placed into the Heating Frame 2000 or the Heating Insert P 2000.

I1 – POCmini-2 Set Cell Cultivation System **11521739**
I2 – Open Perfusion Insert for POCmini **11533087**
I3 – Closed Perfusion Insert for POCmini with 4 in/out **11533088**
I4 – Closed Perfusion Insert for POCmini with 2 in/out **11533409**

The POCmini chamber system is used for all microscope techniques, as the cells are cultivated on 0.17 mm thickness (Ø 30 mm) coverslips. The inserts for open or closed cultivation or for perfusion are fixed onto a base plate. This system has been designed for short- and long-term cultivation especially for experiments with low quantities of cells or test substances. Open and closed cultivation as well as perfusion are possible. The open POCmini Chamber system allows e.g. rapid entrance to the cells and easy medium exchange. If used in the "open"-mode the chamber can be protected against evaporation of water by a special FoilCover (see H).
For cell observation the POCmini Chamber is inserted into a Heating Insert P, a Temperable Insert P, a Heatable Universal Mounting Frame (H-UMF), or positioned onto a Heating or Temperable Stage. By autoclaving (121°C) or dry heating (165-170°C) the whole POCmini system can be sterilized.

• For objectives:	Heating Inserts or Heatable Universal Mounting Frames (see C, D and I)
• Material:	Glass, silicone, stainless steel and Teflon® (all non toxic) Aluminum black anodized base plate with high thermal conductivity
• Outer dimension:	Ø 58 m (6.5 mm in height)
• Cultivation area:	Cover Slip = 0.17 mm thickness
• Observation Area:	Ø 17 – 22 mm
• Volume:	Closed = 0.34 ml–0.8 ml; Open = up to 1.2 ml
• Weight:	0.1 kg

Open cultivation

Closed cultivation

Closed perfusion with insert with 2 input/output canals

I1
POCmini-2 Set Cell Cultivation System
Art.-Nr.: **11521739**

Open perfusion

I2
Open Perfusion Insert for POCmini
Art.-Nr.: **11533087**

Perfusion adapter with 4 input/output canals

I3
Closed Perfusion Insert for POCmini with 4 in/out canals
Art.-Nr.: **11533088**

Open cultivation

Closed cultivation

Closed perfusion with insert with 2 input/output canals

I5
POC-R2 Set Cell Cultivation System
Art.-Nr.: **11532647**

Open perfusion (flat version)

I6
Open Perfusion Insert for POC-R2 and POC-R
Art.-Nr.: **11521752**

I7
Perfusion set for Petri dishes
Art.-Nr.: **11533095**

I5 – POC-R2 Set Cell Cultivation System **11532647**
I6 – Open Perfusion Insert for POC-R2 and POC-R **11521752**

The POC-R2 has been designed for short- and long-term cultivation with a larger volume for cultivation media and easier access to the cells, which are cultivated on 0.17 mm thickness (Ø 42 mm) coverslips.

• For objectives:	Heating Inserts or Heatable Universal Mounting Frames (see C, D and I)
• Material:	Glass, silicone, stainless steel and Teflon® (all non toxic) Aluminum black anodized base plate with high thermal conductivity
• Outer dimension:	Ø 58 m (6.5 mm in height)
• Cultivation area:	Cover Slip = 0.17 mm thickness
• Observation Area:	Ø 29 – 32 mm
• Volume:	Closed = 0.9 ml–1.8 ml; Open = up to 3.0 ml
• Weight:	0.1 kg

I7 – Perfusion set for 35 mm Petri dishes **11533095**

The cover is made of stainless steel with a glass insert. The observation area has a diameter of 25 mm. The height of the whole system (from the inside of the Petri dish to the top of the glass insert) is 17.5 mm. Sterilizable at 165°C in dry heat or at 121°C in the autoclave.

K OBJECTIVE HEATING/COOLING

OBJECTIVE HEATING

- Especially with the use of oil immersion objectives, the direct contact between the cell cultivation vessel and the colder objective leads to a significant cooling in the area of the observed cells. The Objective Heater 2000 is designed for the stable heating of microscope objectives in order to improve temperature conditions in the observation area.
- The versions with an oil discharge channel have a circular duct around the objective that takes in abundant immersion oil and leads it through a flexible tube into a collecting vessel. The inserted O-ring provides for a better sealing.
- A slow and homogeneous heating of parts of the objective prevents adverse effects on the optical resolution.
- A built-in temperature sensor reliably monitors the objective temperature.
- For power supply and the control of temperature, the Objective Heater has to be connected to the TempController 2000-1 or 2000-2.
- D1 = diameter at the front area of the objective where to place the heater.
- D2 = maximum diameter of the objective (e.g. at the Corr-Ring or at threat area).

Heaters in several versions are available D1: 17.0 - 33,1 mm; D2: 27,5 - 38,0 mm.
The diameter D1 of the relevant objectives are documented in the internet:
http://www.leica-microsystems.com/products/objectives/
Following Objective Heaters are already provided with Leica order numbers.

K1 – Objective Heater 2000 Ø 33.1 mm **11533071**

• For objectives:	All objectives with a diameter D1: max 33,1 mm
• Material:	black anodized aluminum
• Control range:	3°C above ambient up to 40°C
• Requirements:	TempController 2000-1 11532018 or TempController 2000-2 11532019
• Weight:	0.2 kg

K2 – Objective Heater 2000 Ø 29.0 mm **11533072**

• For objectives:	All objectives with a diameter D1: max 29,0 mm
• Material:	black anodized aluminum
• Control range:	3°C above ambient up to 40°C
• Requirements:	TempController 2000-1 11532018 or TempController 2000-2 11532019
• Weight:	0.2 kg

K3 – Objective Heater 2000 Ø 30.5 mm **11533073**

• For objectives:	All objectives with a diameter D1: max 30,5 mm
• Material:	black anodized aluminum
• Control range:	3°C above ambient up to 40°C
• Requirements:	TempController 2000-1 11532018 or TempController 2000-2 11532019
• Weight:	0.2 kg

K2
Objective Heater Ø 29.0 mm
Art.-No.: **11533072**

K3
Objective Heater Ø 30,5 mm
Art.-No.: **11533073**

OBJECTIVE COOLING

- Especially with the use of oil immersion objectives, the direct contact between the cell cultivation vessel and the colder objective leads to a significant cooling in the area of the observed cells. The Cooling/Heating Objective Ring is designed for the stable cooling or heating of microscope objectives in order to improve the temperature conditions in the observation area (better homogeneity).
- To supply the Cooling/Heating Objective Ring with cooling or heating liquids, it has to be connected to a circulator.
- D1 = diameter at the front area of the objective where to place the heater.
- D2 = maximum diameter of the objective (e.g. at the Corr-Ring or at threat area).

Cooling Rings in several versions are available on request.

The diameter D1 of the relevant objectives are documented in the internet:
http://www.leica-microsystems.com/products/objectives/
Following Objective Cooling Rings are already provided with Leica order numbers.

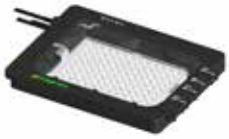
K11 – Cooling/Heating Objective Ring Ø 22.5 mm **11533075**

- For objectives: All objectives with a diameter D1: max 22,5 mm
- Material: black anodized aluminum
- Control range: liquid, temperature control by Thermostat
- Requirements: Thermostat or pump as liquid circulator
- Weight: 0.1 kg

T TOKAI HIT “STANDARD” STX SERIES STAGE TOP INCUBATOR

Click for installation movie

Chamber & Lens heater



Chamber
With multiple heaters

Universal Lens heater
Applicable up to ∅40mm

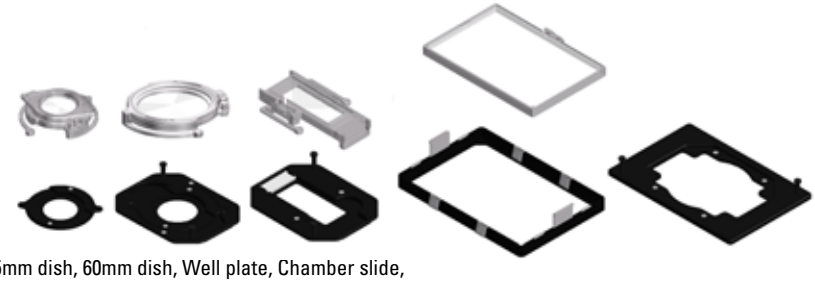
Temp. controller with CO_2

Depending on the gas cylinder, 2 options are available & compatible to work with LAS X.

The system offers precision temperature (30-40°C), high-humidity, CO_2 control for short / long term cell culture with the following features:

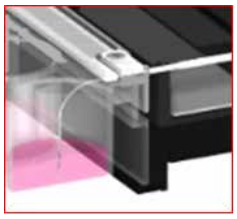
- Continuous current regulation to prevent focus drift by thermal regulation at minimum and great to work with High-magnification/super resolution application, highly sensitive camera and HyD Detector.
- Clear Glass Heater on Lid to prevent condensation

Dish holders and lids



35mm dish, 60mm dish, Well plate, Chamber slide, Chambered cover glass, slide glass

STX-FB (Feedback)



External Sensor for real-time sample reading & regulation. (incl. auto-clavable Sensor)

STX-APP (Software)

Intuitive operation via GUI, data logging, Timer function.

SELECTION CHART

Simply select Stage and Gas to find suitable Incubator .

Stage	Gas type	Standard package	Cost-effective package
3-plate stages 11522076 11522100 11525225 11525407 11525456 15522076 158004141 158004144 158004146 158204147	Premixed Passive gas	STXF-WSKMX-SET 158006122 or 11533574	STXF-WSKMX-E 158006125
	100%CO_2 gas	STXG-WSKMX-SET 158006123 or 11533601	STXG-WSKMX-E 158006126
	Hypoxia (100%CO_2 & 100%N_2)	STXF-WSKMX-CO2O2 158006124	
3-plate stages with Bat-cave (11889065) 11522076 11522100 11525225 11525407 11525456	Premixed Passive gas	STXF-DMIWX-SET 11533608	STXF-DMIWX-E 11533609
	100%CO_2 gas	STXG-DMIWX-SET 11533610	STXG-DMIWX-E 11533611
	Hypoxia (100%CO_2 & 100%N_2)	STXF-DMIWX-CO2O2 (contact Tokai Hit)	
Super Z Galvo 11640260 158004421	Premixed Passive gas	STXF-GSI2X-SET 158006120 or 11533606	STXF-GSI2X-E 158006117
	100%CO_2 gas	STXG-GSI2X-SET 158006121 or 11533605	STXG-GSI2X-E 158006118
	Hypoxia (100%CO_2 & 100%N_2)	STXF-GSI2X-CO2O2 158006119	
Z-Piezo 158204121	Premixed Passive gas	STXF-SCANPZX-SET 158206127	STXF-SCANPZX-E 158206130
	100%CO_2 gas	STXG-SCANPZX-SET 158206128	STXG-SCANPZX-E 158206131
	Hypoxia (100%CO_2 & 100%N_2)	STXF-SCANPZX-CO2O2 158206129	

FOR REGULAR 3-PLATE STAGE AND XY MOTORIZED STAGES

Wellplate incubator general XY stage with 110x160mm opening. Includes Dish Holder to support Wellplate, 35mm, 60mm, chamber slide, slide glass and chambered coverglass.
Compatible with Leica stage # 11522076, 11522100, 11525225, 11525407, 11525456, 15522076, 158004141, 158004144, 158204147

T3 – TokaiHit Incubation Standard w/o SuperZ **158006122 / 11533574**

The system comprise:
- Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

T3
TokaiHit Incubation Standard w/o SuperZ
Art.-No.: **158006122 / 11533574**

TokaiHit Incubation Extended w/o SuperZ **158006123 / 11533601**

The system comprise:
- Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Extended w/o SuperZ
Art.-No.: **158006123 / 11533601**

TokaiHit Incubation Hypoxia w/o SuperZ **158006124**

The system comprise:
- Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2 and 100%N_2
- O_2 range: 0.1 - ambient (0.1% accuracy)
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 150 - 200ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Hypoxia w/o SuperZ
Art.-No.: **158006124**

FOR REGULAR 3-PLATE STAGE AND XY MOTORIZED STAGES WITH BAT-CAVE

Wellplate incubator general XY stage with 110x160mm opening. Includes Dish Holder to support Wellplate, 35mm, 60mm, chamber slide, slide glass and chambered coverglass.
Compatible with Leica stage # 11522076, 11522100, 11525225, 11525407, 11525456, 15522076, 158004141, 158004144

TokaiHit Incubation Standard w/o SuperZ (with BAT-CAVE)
Art.-No.: **11533608**

TokaiHit Incubation Standard w/o SuperZ (with BAT-CAVE) **11533608**

The system comprise:

- Bat-Cave (11889065) Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Extended w/o SuperZ (with BAT-CAVE)
Art.-No.: **11533610**

TokaiHit Incubation Extended w/o SuperZ (with BAT-CAVE) **11533610**

The system comprise:

- Ba-Cave (Leica # 11889065) Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Hypoxia w/o SuperZ

TokaiHit Incubation Hypoxia w/o SuperZ **Contact Tokai Hit**

- Bat-Cave (Leica # 11889065)Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2 and 100%N_2
- O_2 range: 0.1 - ambient (0.1% accuracy)
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 150 - 200ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

FOR SUPER Z GALVO STAGE

Total weight of chamber unit is less than 140g. The light-weight chamber unit allows to take full advantage of Super Z Galvo stage features. Includes Dish Holder to support 35mm, 60mm, chamber slide, slide glass and chambered coverglass.
Compatible with Leica Super Z Galvo Stage # 11640260, 158004421

TokaiHit Incubation Standard SuperZ **158006120 / 11533606**

The system comprise:

- Incubation chamber for Super Z Galvo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Standard SuperZ
Art.-No.: **158006120 / 11533606**

TokaiHit Incubation Extended SuperZ **158006121 / 11533605**

The system comprise:

- Incubation chamber for Super Z Galvo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Extended SuperZ
Art.-No.: **158006121 / 11533605**

TokaiHit Incubation Hypoxia SuperZ **158006119**

The system comprise:

- Incubation chamber for Super Z Galvo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2 and 100%N_2
- O_2 range: 0.1 - ambient (0.1% accuracy)
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 150 - 200ml/min
- Internal Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Hypoxia SuperZ
Art.-No.: **158006119**

FOR LEICA Z-PIEZO

Wellplate incubator for Leica new piezo stage for Stellaris (Leica # 158204121)
Includes Dish Holder to support Wellplate, 35mm, 60mm, chamber slide, slide glass and chambered coverglass.

TokaiHit Incubation Standard Leica Z-Piezo
Art.-No.: **158206127**

TokaiHit Incubation Standard Leica Z-Piezo **158206127**

The system comprise:

- Incubation chamber for Leica Z-Piezo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- External Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Extended Leica Z-Piezo
Art.-No.: **158206128**

TokaiHit Incubation Extended Leica Z-Piezo **158206128**

The system comprise:

- Incubation chamber for Leica Z-Piezo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- External Humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

TokaiHit Incubation Hypoxia Leica Z-Piezo
Art.-No.: **158206129**

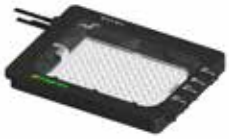
TokaiHit Incubation Hypoxia Leica Z-Piezo **158206129**

The system comprise:

- Incubation chamber for Leica Z-Piezo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 30 - 40°C
- Sample Feedback regulation is included.
- Accuracy: ±0.1 (FB mode) ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2 and 100%N_2
- O_2 range: 0.1 - ambient (0.1% accuracy)
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 150 - 200ml/min
- External humidifier applied
- Objective Heater
- Compatible to work with LAS-X
- Software included for Data-logging, timer setting

T1 TOKAI HIT “COST-EFFECTIVE” STX SERIES STAGE TOP INCUBATOR

Chamber & Lens heater



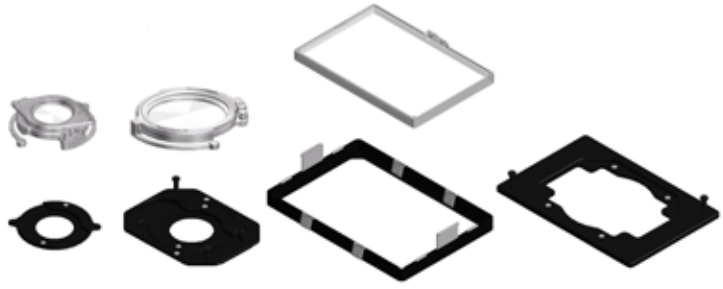
Chamber
With multiple heaters

Universal Lens heater
Applicable up to ∅40mm

Temp. controller with CO_2

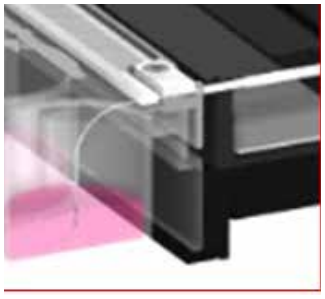
Depending on the gas cylinder, 2 options are available & compatible to work with LAS-X.

Dish holders and lids



35mm dish, 60mm dish, Well plate

STX-FB (Feedback) Optional



External Sensor for real-time sample reading & regulation.

STX-CSG Optional

Holder for Chamber slide, Chambered cover glass, slide glass.

STX-APP (Software) Optional

FOR REGULAR 3-PLATE STAGE AND XY MOTORIZED STAGES

Wellplate incubator general XY stage with 110x160mm opening. Includes Dish Holder to support Wellplate, 35mm, 60mm.
Compatible with Leica stage # 11522076, 11522100, 11525225, 11525407, 11525456, 15522076, 158004141, 158004144, 158204147

TokaiHit Incubation Standard Cost-effective package w/o SuperZ
Art.-No.: **158006125**

TokaiHit Incubation Standard Cost-effective package w/o SuperZ **158006125**

The system comprise:

- Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy:±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Extended Cost-effective package w/o SuperZ
Art.-No.: **158006126**

TokaiHit Incubation Extended Cost-effective package w/o SuperZ **158006126**

The system comprise:

- Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

The Cost-effective package (STX-E) series are upgraded free to add following functions.

STX-FB
Add-on Real-time Sample Feedback regulation function.
It allows to measure the actual medium to regulate sample temp. possible (Accuracy: ±0.1)

STX-APP
Tokai Hit GUI software, data logging software, timer setting and communication port to work with LAS-X.

STX-CSG
Magnetic holder and Lid package to support chamber slide, slide glass or chambered coverglass.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

FOR REGULAR 3-PLATE STAGE AND XY MOTORIZED STAGES WITH BAT-CAVE

Wellplate incubator general XY stage with 110x160mm opening. Includes Dish Holder to support Wellplate, 35mm, 60mm.
Compatible with Leica stage # 11522076, 11522100, 11525225, 11525407, 11525456, 15522076, 158004141, 158004144

TokaiHit Incubation Standard Cost-effective w/o SuperZ (with BAT-CAVE) 11533609
The system comprise:

- Bat-Cave (11889065) Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy:±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Standard Cost-effective w/o SuperZ (with BAT-CAVE)
Art.-No.: **11533609**

TokaiHit Incubation Extended Cost-effective w/o SuperZ (with BAT-CAVE) 11533611
The system comprise:

- Bat-Cave (11889065) Incubation chamber for 110x160mm aperture stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Extended Cost-effective w/o SuperZ (with BAT-CAVE)
Art.-No.: **11533611**

STX-FB
Add-on Real-time Sample Feedback regulation function.
It allows to measure the actual medium to regulate sample temp. possible (Accuracy: ±0.1)

STX-APP
Tokai Hit GUI software, data logging software, timer setting and communication port to work with LAS-X.

STX-CSG
Magnetic holder and Lid package to support chamber slide, slide glass or chambered coverglass.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

FOR SUPER Z GALVO STAGE

Total weight of chamber unit is less than 140g. The light-weight chamber unit allows to take full advantage of Super Z Galvo stage features. Includes Dish Holder to support 35mm, 60mm.
Compatible with Leica Super Z Galvo Stage # 11640260, 158004421

TokaiHit Incubation Standard Cost-effective package SuperZ
Art.-No.: **158006117**

TokaiHit Incubation Standard Cost-effective package SuperZ **158006117**

The system comprise:

- Incubation chamber for Super Z Galvo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Extended Cost-effective package SuperZ
Art.-No.: **158006118**

TokaiHit Incubation Extended Cost-effective package SuperZ **158006118**

The system comprise:

- Incubation chamber for Super Z Galvo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- Internal Humidifier applied
- Objective Heater
- External Sensor for manual calibration

STX-FB
Add-on Real-time Sample Feedback regulation function.
It allows to measure the actual medium to regulate sample temp. possible (Accuracy: ±0.1)

STX-APP
Tokai Hit GUI software, data logging software, timer setting and communication port to work with LAS-X.

STX-CSG
Magnetic holder and Lid package to support chamber slide, slide glass or chambered coverglass.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

FOR LEICA Z-PIEZO

Wellplate incubator for Leica new piezo stage for Stellaris (Leica # 158204121)
Includes Dish Holder to support Wellplate, 35mm and 60mm.

TokaiHit Incubation Standard Cost-effective package Leica Z-Piezo **158206130**

The system comprise:

- Incubation chamber for Leica Z-Piezo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for passive/premixed gas
- Flowrate: 75 ~ 250ml/min
- External Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Standard Cost-effective package Leica Z-Piezo
Art.-No.: **158206130**

TokaiHit Incubation Extended Cost-effective package Leica Z-Piezo **158206131**

The system comprise:

- Incubation chamber for Leica Z-Piezo stage
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37.0°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- External Humidifier applied
- Objective Heater
- External Sensor for manual calibration

TokaiHit Incubation Extended Cost-effective package Leica Z-Piezo
Art.-No.: **158206131**

STX-FB
Add-on Real-time Sample Feedback regulation function.
It allows to measure the actual medium to regulate sample temp. possible (Accuracy: ±0.1)

STX-APP
Tokai Hit GUI software, data logging software, timer setting and communication port to work with LAS-X.

STX-CSG
Magnetic holder and Lid package to support chamber slide, slide glass or chambered coverglass.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

FOR 127X85MM INCUBATOR FOR ALL STAGES

The foot-print of chamber unit is same as wellplate and can be installed on those stage where can accommodate wellplate. Includes Dish Holder to support 35mm and 60mm.

TokaiHit Incubation Extended Cost-effective package (universal)
Art.-No.: **11533603**

TokaiHit Incubation Extended Cost-effective package (universal) **11533603**

The system comprise:

- Incubation chamber (dimension 127x85mm)
- OD3.0mm tube access x 5pc
- Temperature Controller
- Sample setting range: 37°C
- Accuracy: ±0.3 (Normal mode)
- Gas Controller CO_2 for 100%CO_2
- CO_2 range: 5.0 - 20.0% (0.1% accuracy)
- Flowrate: 160ml/min
- External Humidifier applied
- Objective Heater
- External Sensor for manual calibration

The Cost-effective package (STX-E) series are upgraded free to add following functions.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

STX-FB
Add-on Real-time Sample Feedback regulation function.
It allows to measure the actual medium to regulate sample temp. possible (Accuracy: ±0.1)

STX-APP
Tokai Hit GUI software, data logging software, timer setting and communication port to work with LAS-X.

STX-CSG
Magnetic holder and Lid package to support chamber slide, slide glass or chambered coverglass.

Please contact Tokai Hit for above upgrade items (solution@tokaihit.com).

NOTES:

CONNECT
WITH US!

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