

Příloha č. 1 - příloha č. 1 obsahuje tyto části - oddíly:

(oddíl Technické podmínky – technická specifikace stanovená zadavatelem)

(oddíl Technická specifikace nabízeného plnění – technická specifikace nabízená uchazečem)

Součástí přílohy č. 1 příslušného návrhu smlouvy je i oficiální technická a obrazová dokumentace zboží tj. oficiální technický list výrobce, pokud nebylo možné oficiální technický list výrobce z objektivních důvodů zajistit, je doložena podrobná kompletní technická specifikaci nabízeného přístroje.

Technické podmínky a Technická specifikace nabízeného plnění

Příloha č. 1 Kupní smlouvy

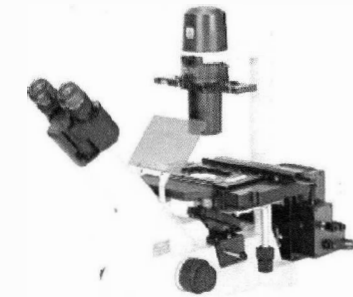
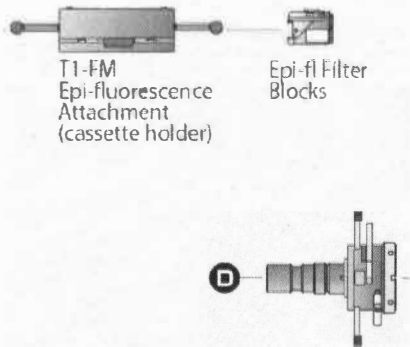
Mikroskopy pro LF MU 2017
část č. 6 VZ. Fluorescence ke stávajícímu invertovanému mikroskopu

TECHNICKÉ PODMÍNKY technická specifikace stanovená zadavatelem		TECHNICKÁ SPECIFIKACE NABÍZENÉHO PLNĚNÍ technická specifikace nabízená účastníkem	
<p>Popis parametru</p> <p>Nabídka (částník) musí splňovat všechny údaje uvedené požadavky a parametry specifikace. U parametrů výměrných informací nebo alternativních úrovní nebo rozdílných hodnot musí nabídka technické vyhovět alespoň stejně jako požadovanému úrovní.</p>	<p>Zadavatelem požadovaná hodnota</p>	<p>Podání požadavků je technická specifikace, proto je nutné, aby požadovaný parametr splnil jak číselně, tak i kvalitně všechny údaje specifikace. Pokud je požadován parametr, který není uveden v specifikaci, je to v rozporu s podmínkami této specifikace. Všechny údaje musí být v souladu s požadovanými údaji a specifikací (částník musí splňovat všechny údaje specifikace).</p> <p>Částník uváděný účastníkem musí být stejný, jako je uveden v specifikaci. Pokud je nabízená hodnota nižší než požadovaná, včetně uvedení příloh, musí být uvedena specifikace a musí být uvedena kopie této specifikace, případně k tomu musí být přiložen technický list, vyřezaný z celku.</p>	
<p>Fluorescence ke stávajícímu invertovanému mikroskopu</p>		<p>Model - typové/výrobní označení</p>	<p>Vyrobc</p>
<p>Počet kusů: 1 ks</p>		<p>Účastníkem nabízená hodnota</p>	
<p>požadovaná fluorescence musí být plně kompatibilní ke stávajícímu mikroskopu Nikon Eclipse TS 100</p>	<p>ANO</p>	<p>ANU EPI-epill. zařízení, viz příložený prospekt</p>	<p>ANO</p>
<p>zdroj světla LED pro excitaci fluorescenční FITC, GFP, TRITC, RFP, PI</p>	<p>ANO</p>	<p>ANO COILED pE300, viz příložený prospekt</p>	<p>ANO</p>
<p>komponenty nezbytné pro epifluoresenci</p>	<p>zajištěna: clona, držák filtrů, tepelně ochranný filtr, samičko</p>	<p>ANO EPI-epill. zařízení, viz příložený prospekt</p>	<p>ANO</p>
<p>kompletní sada emisních filtrů s dichroickým zrcadlem pro pozorování fluorescenční FITC, GFP</p>	<p>ANO</p>	<p>ANO fluorescenční kostka</p>	<p>ANO</p>
<p>kompletní sada emisních filtrů s dichroickým zrcadlem pro pozorování fluorescenční TRITC, RFP, PI</p>	<p>ANO</p>	<p>ANO fluorescenční kostka</p>	<p>ANO</p>
<p>takto označené buňky vyplň uchažov v rámci zpracování své nabídky</p>			

Technická specifikace příslušenství pro fluorescenci k mikroskopu Nikon TS100

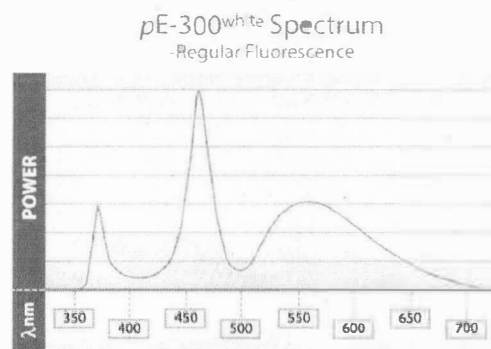
1) komponenty nezbytné pro epifluorescenci

- a. T1-FM – držák filtrbloků
- b. filtrbloky
- c. optická osvětlovací soustava s držákem filtrů, tepelným filtrem a clonou



Configuration for epi-fluorescence observation

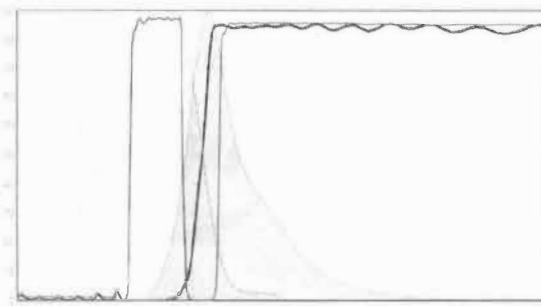
2) zdroj světla LED pro excitaci fluorochromů FITC, GFP, TRITC, RFP, PI – CoolLED pE300



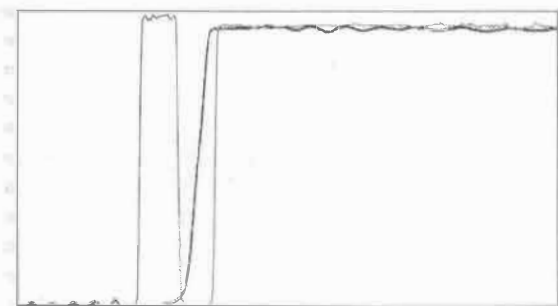
3) Sada filtrů pro FITC/GFP a TRITC/RFP/PI



Typ 19002 - AT - GFP/FITC Longpass – spektrum



Typ 19004 - AT - TRITC/Cy3 Longpass - spektrum



Specifications

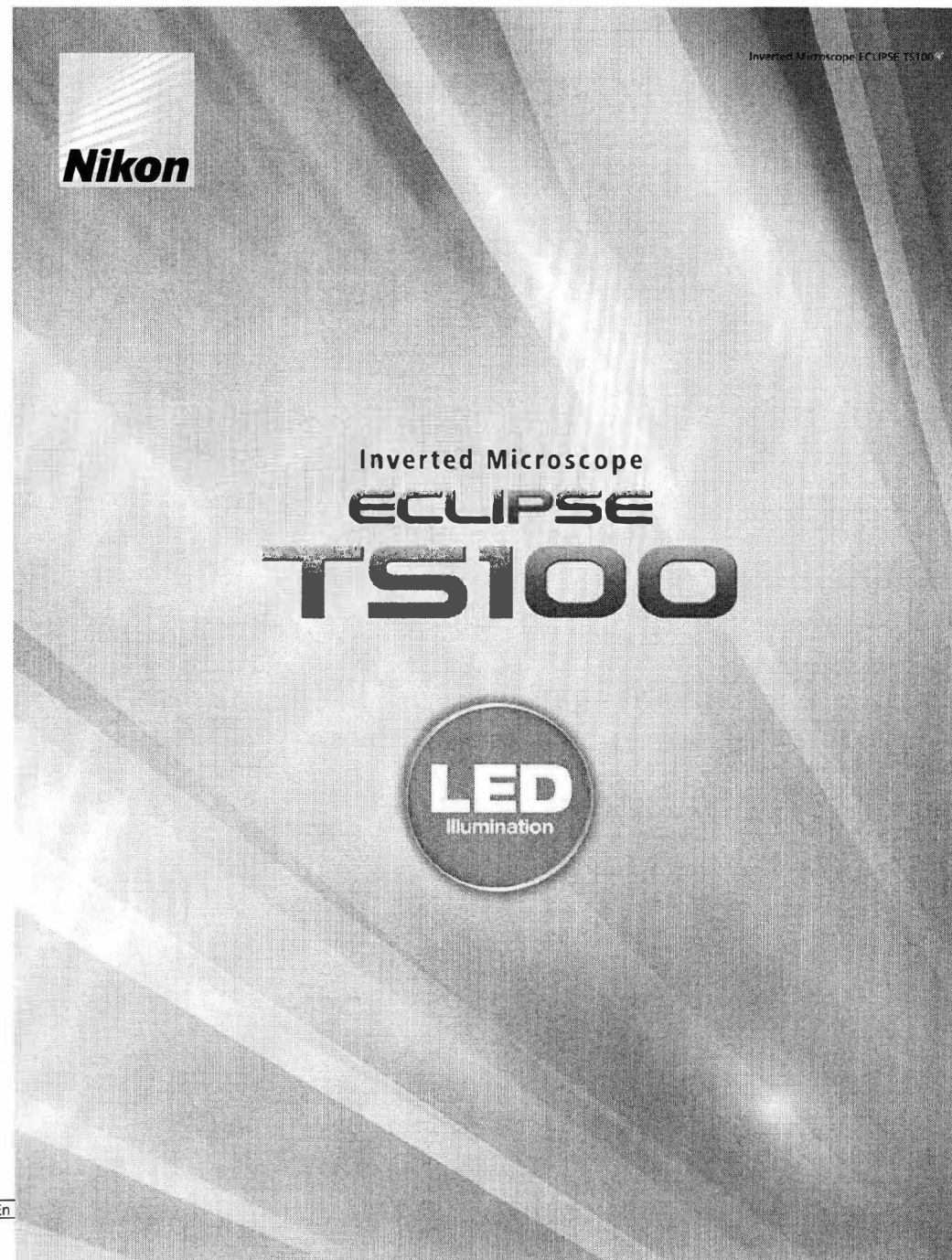
	TS100	TS100-F
Main body		
Optical system	CFI60 Infinity Optical System	
Illumination	<ul style="list-style-type: none"> High luminescent white LED illuminator (Eco-illumination) 6V30W halogen lamp, Built-in heat absorbing filter and diffuser, 2 filters (45-mm NCB11, NDB, GIF) mountable with filter frame, Compliant multi-voltage (100 V-240 V) 	
Eyepieces (F.O.V.)	<ul style="list-style-type: none"> C-W 10x (22 mm) C-W 15x (16 mm) 	
Focusing	Vertical objective movement, Coaxial coarse/fine focusing, Focusing stroke: 27 mm, Coarse: 37.7 mm/rotation, Fine: 0.2 mm/rotation, Coarse motion torque adjustable	
Tubes	Binocular tube (within main body)	Trinocular tube (within main body), Eyepiece/Port: 100/0, 0/100
Nosepieces	Quintuple nosepiece (within main body), Backward-facing type	
Stages	<ul style="list-style-type: none"> Plane stage (within main body), Stage size: 170 (X) x 225 (Y) mm, Stage height: 195 mm from table, Auxiliary stage attachable Mechanical stage (optional), Stage movement: 126 (X) x 80 (Y) mm, Accepts several types of micro-testplate holders 	
Holders	<ul style="list-style-type: none"> ø35-mm Petri Dish Holder, Universal Holder, Terasaki Holder (accepts ø65-mm petri dish), Slide Glass Holder (accepts ø54-mm petri dish), Hemacytometer Holder 	
Condensers*	<ul style="list-style-type: none"> ELWD Condenser: N.A. 0.3 (W.D. 75 mm) NAMC Condenser: N.A. 0.4 (W.D. 44 mm) 	
Sliders	<ul style="list-style-type: none"> T1-SNCP Non-centerable Phase Slider (Ph1, Ph1, 1 empty position), T1-SCP Centerable Phase Slider (Ph1, Ph1, 1 empty position), T1-SPH2 Phase Ring Ph2 (optional) NAMC Slider (NAMC1, NAMC2, NAMC3) 	
Epi-fluorescence attachment	T1-FM Epi-fluorescence Attachment, with field diaphragm, Fluorescence filter block holder (2 filter blocks mountable, 1 empty position), Heat absorbing filter, Lamphouse for 50 W mercury lamp, Light shielding plate, UV-cut filter (detachable)	
Power consumption (max.)	Normal value: 3 W (TS100/TS100-F LED model), 41 W (TS100/TS100-F halogen model)	
Weight (approx.)	6.5 kg (TS100/TS100-F standard set)	

* The condenser can be removed to provide 190 mm of working distance above the stage.

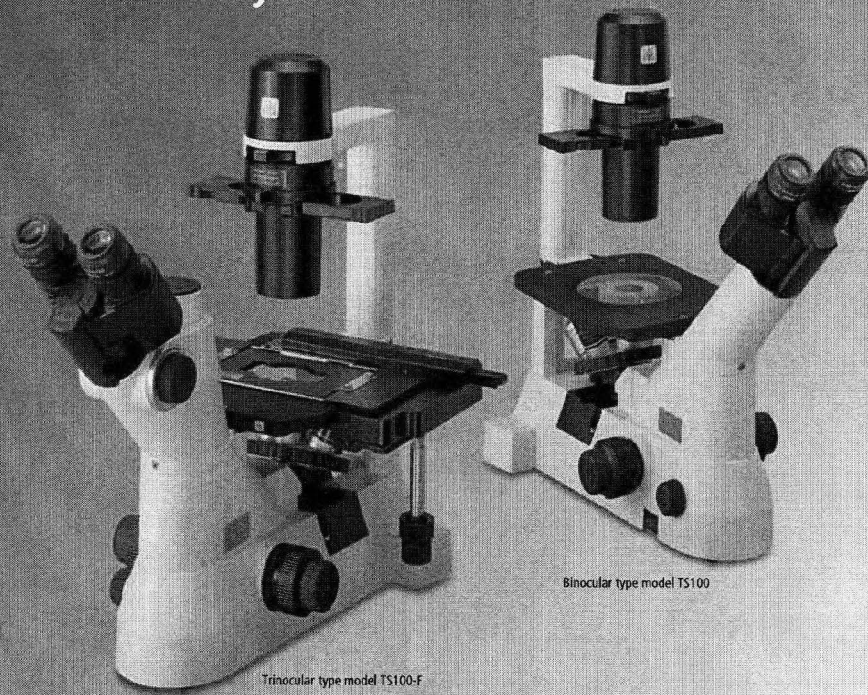
Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. January 2013 © 1999-13 NIKON CORPORATION

WARNING TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

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*Products: Hardware and its technical information (including software)



A new standard for inverted microscopes defined by bright high-resolution images and unrivaled usability



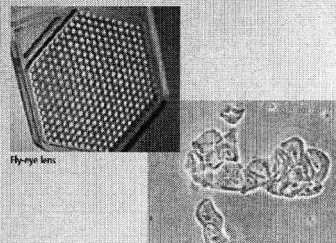
Binocular type model TS100

Trinocular type model TS100-F

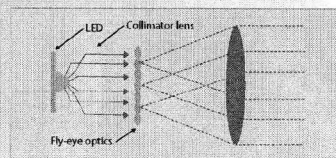
The compact high-performance inverted microscopes ECLIPSE TS100 and TS100-F use Eco-illumination, a newly developed LED illumination. Eco-illumination provides enough brightness for phase contrast and NAMC observations. With a fly-eye lens, uniform brightness is provided in the entire field of view. LEDs are an environmentally friendly low-power-consumption light source. Eco-illumination provides a long lifetime of 60,000 hours and reduces the frequency of lamp replacement. A halogen illumination model is also available.

Nikon's highly acclaimed CFI60 optical system is used, providing flat, sharp and clear images, while achieving longer working distances and higher numerical apertures.

The space-saving body is robust and vibration-resistant, enabling safe specimen observations. The microscope controls are designed for ease of use. The ECLIPSE TS100-F comes with a photo port and is compatible with a variety of cameras. The ECLIPSE TS100 and TS100-F ensure high-quality observations for various areas, such as cell culture, inspections and research.



Fly-eye lens



Operation is simpler, quicker, more precise, because there is less strain on the user

Coarse/fine focus knob

The coaxial coarse/fine focus knob, located in front of and close to the operator, makes operation at high magnifications more efficient and convenient than ever before.

Efficient, user-friendly stage

The stage features a low-profile design that is 195 mm high, making it the ideal size for a lab bench or safety hood. Even cell cultures on the bottom of a tall flask or stacking chamber vessel can be viewed, because there is 190 mm of space above the stage when the condenser is removed.

Transparent stage ring

Two types of acrylic stage rings come with the main body. Because these stage rings are transparent, confirming which objective is being used is easy. The ring with the semicircular hole facilitates observation of the specimen in a chamber since it prevents the objective lens from striking the ring during magnification changes. A glass stage ring that minimizes the possibility of thermal deformation is also available as an option.

Acrylic stage ring set

Easy-to-rotate nosepiece

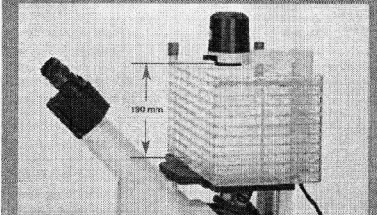
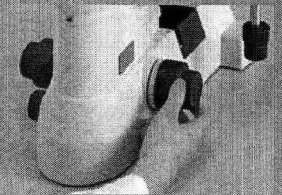
The quintuple (5-position) backward-facing nosepiece offers plenty of clearance to allow the operator to rotate it from either side. Because there is ample space around the nosepiece, handling the nosepiece is easy, even for an operator with large or gloved hands.

Eyeiece tube

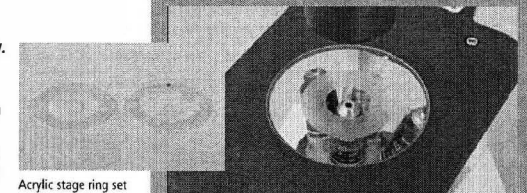
The Siedentopf-type eyepiece tube is inclined 45° and the eyepoint height is 400 mm for easy, comfortable viewing in the sitting or standing position.

Eyeieces

Featuring a 22-mm field of view, the widest in this class of microscope, the TS100 and TS100-F ensure clear images up to the periphery of the field of view even when using higher magnification objectives.



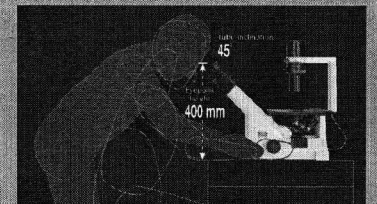
Ample space above the stage



Objective in use is easily identified through the transparent stage ring.



Plenty of clearance around the nosepiece



Comfortable operation

Observation methods that provide the most information from your specimens

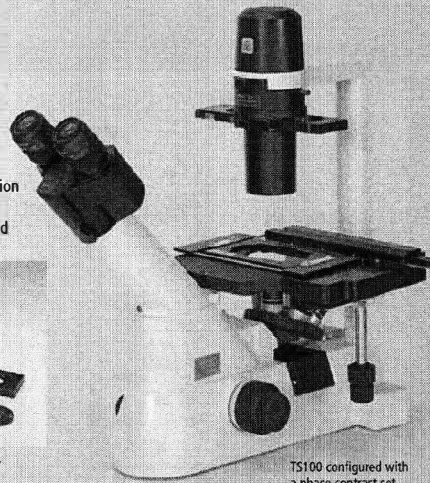
Phase contrast method

Nikon has developed the breakthrough "Apodized" method, which has led to remarkable improvements in the quality of phase contrast images.

Nikon has successfully reduced image halos by using a process called "Apodization" to improve the phase ring of the objective. This improves vision during phase contrast microscopy by removing unwanted halos to make it possible to more clearly observe cell division activities within a specimen and view finer details within a thick specimen.



ELWD Condenser and phase sliders

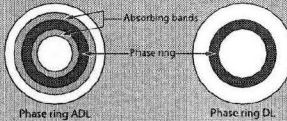


TS100 configured with a phase contrast set

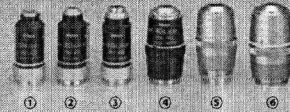
The Principle of Apodized Phase Contrast Microscopy

In the conventional phase contrast method, direct light* that has been weakened by passing through a phase ring is made to interfere with diffracted light**, causing a phase shift and increasing image contrast.

The Apodized method utilizes the property of diffracted light in which a decrease in specimen size results in a greater angle of diffraction. Two absorbing bands with different transmittance have been added either side of the conventional phase ring DL to reduce halos and increase contrast in the minute structure of the specimen.



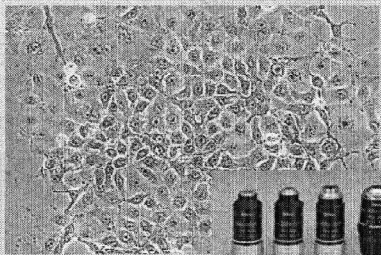
*Light that travels retaining the original incident angle
**Light that has been diffracted by the specimen



ADL ADM objectives

- ① CFI Achromat ADL10X (N.A. 0.25, W.D. 6.2 mm) Ph1
- ② CFI Achromat LWD ADL20XC (N.A. 0.4, W.D. 3.1 mm) Ph1
- ③ CFI Achromat LWD ADL40XC (N.A. 0.55, W.D. 2.1 mm) Ph1
- ④ CFI Achromat LWD ADL40XC (N.A. 0.55, W.D. 2.7-1.7 mm) Ph2
- ⑤ CFI S Plan Fluor ELWD ADM20XC (N.A. 0.45, W.D. 8.2-6.9 mm) Ph1
- ⑥ CFI S Plan Fluor ELWD ADM40XC (N.A. 0.60, W.D. 3.6-2.8 mm) Ph2

Apodized phase contrast

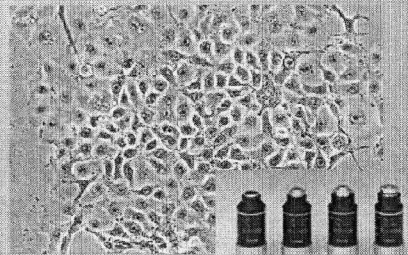


Monkey kidney: CFI LWD ADL20XF



ADL objectives for Apodized phase contrast

Phase contrast

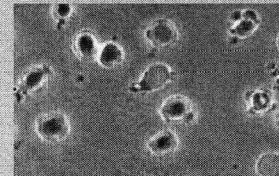


Monkey kidney: CFI LWD DL20XF

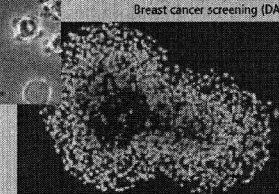


DL objectives for phase contrast

Epi-fluorescence method



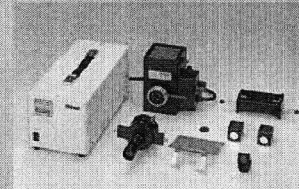
T lymphocyte cell (GFP)



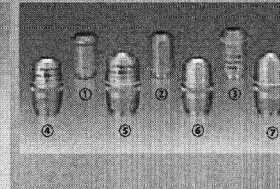
Breast cancer screening (DAPI)

This method is ideal for identifying fluorescently tagged substances within a cell, green fluorescent protein (GFP), and a myriad of other clinical and research applications.

Epi-fluorescence observation utilizing UV-range light is also possible.

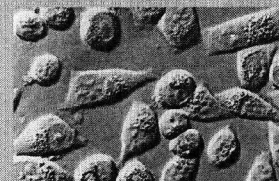


Epi-Fl attachment

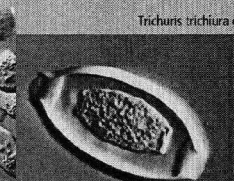


- ① CFI Plan Fluor DL4X (N.A. 0.13, W.D. 16.4 mm) Ph1
- ② CFI Plan Fluor DL10X (N.A. 0.3, W.D. 15.2 mm) Ph1
- ③ CFI Plan Fluor 10X (N.A. 0.3, W.D. 16.0 mm)
- ④ CFI S Plan Fluor ELWD20XC (N.A. 0.45, W.D. 8.2-6.5 mm)
- ⑤ CFI S Plan Fluor ELWD40XC (N.A. 0.60, W.D. 3.6-2.8 mm)
- ⑥ CFI S Plan Fluor ELWD ADM20XC (N.A. 0.45, W.D. 8.2-6.9 mm)
- ⑦ CFI S Plan Fluor ELWD ADM40XC (N.A. 0.60, W.D. 3.6-2.8 mm)

Nikon Advanced Modulation Contrast method



HeLa cells in tissue culture vessel

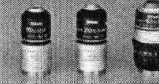


Trichuris trichiura egg

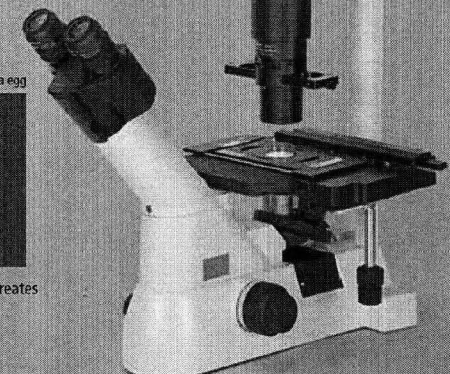
This method is now possible even with a microscope of this class. NAMC creates vivid, 3-dimensional-like images of living, transparent specimens, allowing observation in plastic petri dishes—something that DIC does not do well.



NAMC Condenser



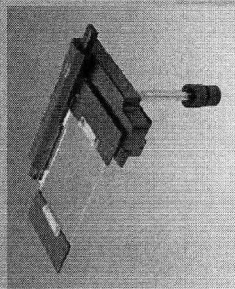
- ① CFI Achromat NAMC 10X (N.A. 0.25, W.D. 8.2 mm)
- ② CFI Achromat LWD NAMC 20XF (N.A. 0.4, W.D. 3.1 mm)
- ③ CFI Achromat LWD NAMC 40XC (N.A. 0.55, W.D. 2.7-1.7 mm)



TS100 configured with NAMC set

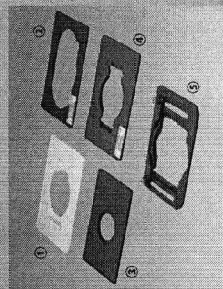
Accessories to expand your capabilities

System diagram/Dimensions



Mechanical stage

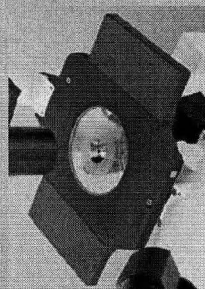
By attaching appropriate holders, various specimen slides and micro testplates can be mounted on this stage.



Specimen plate holders

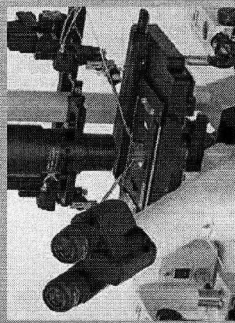
These specimen holders are available for use with the mechanical stage.

- ① Hexaprecimeter holder
- ② Periscope holder (accepts 25x75-mm petri dish)
- ③ 2x25-mm Petri Dish Holder
- ④ Slide Glass holder (accepts 65x4-mm petri dish)
- ⑤ Inverted holder



Auxiliary stages

For large specimens, you can widen the space on your plain stage by attaching a pair of auxiliary stages.



Micromanipulators

The ECLIPSE TS100 and TS100-F can be configured with Nikon/Tarshige micromanipulators and microinjectors for a variety of applications, including injections, aspiration, and incisions of cell tissues during cyroengineering, developmental and genetic engineering, electrophysiology, pharmacology, reproductive medicine, and neurochemistry.

Digital Sight series camera system

The TS100-F comes with a photo port that accepts digital camera systems such as the DS-F12-L3, a stand-alone type digital camera with which you can capture and save images without the need for a PC. Imaging can be easily controlled using the touch panel on the control unit.



TS100-F configured with Digital Camera DS-F12-L3

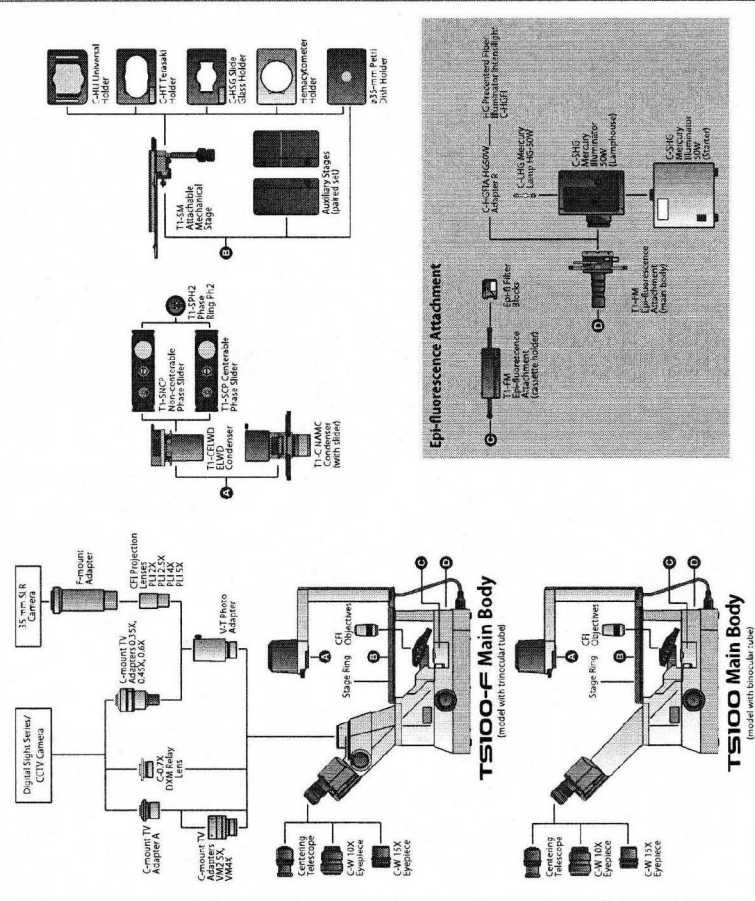
CCTV adapters

These CCTV adapters are available as options.

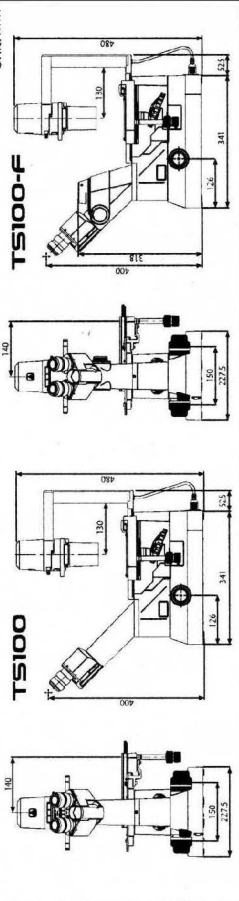
- ① C-mount TV Adapter 0.65X—recommended for 2/3" CCD camera*
- ② C-mount TV Adapter 0.45X—recommended for 1/2" CCD camera*
- ③ C-mount TV Adapter 0.35X—recommended for 1/3" CCD camera*
- ④ C-mount TV Adapter VMX**
- ⑤ C-mount TV Adapter VM0.5X**
- ⑥ C-mount TV Adapter A
- ⑦ V-T Photo Adapter

*V-T Photo Adapter is necessary
**C-mount TV Adapter A is necessary

System diagram



Dimensions



Both LED illumination and halogen illumination models are available

Unit: mm

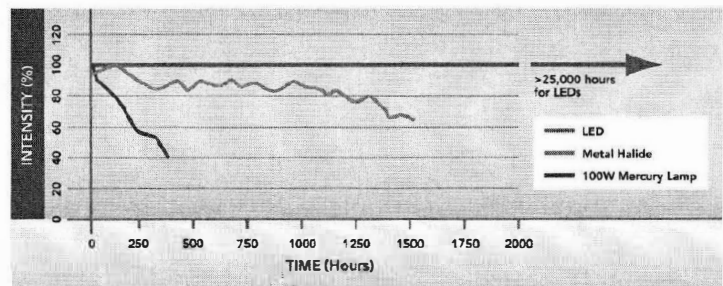
pE-300 Series

Microscopy Illumination

A range of LED Illumination systems for Fluorescence, Optogenetics, Electrophysiology and other high speed applications.

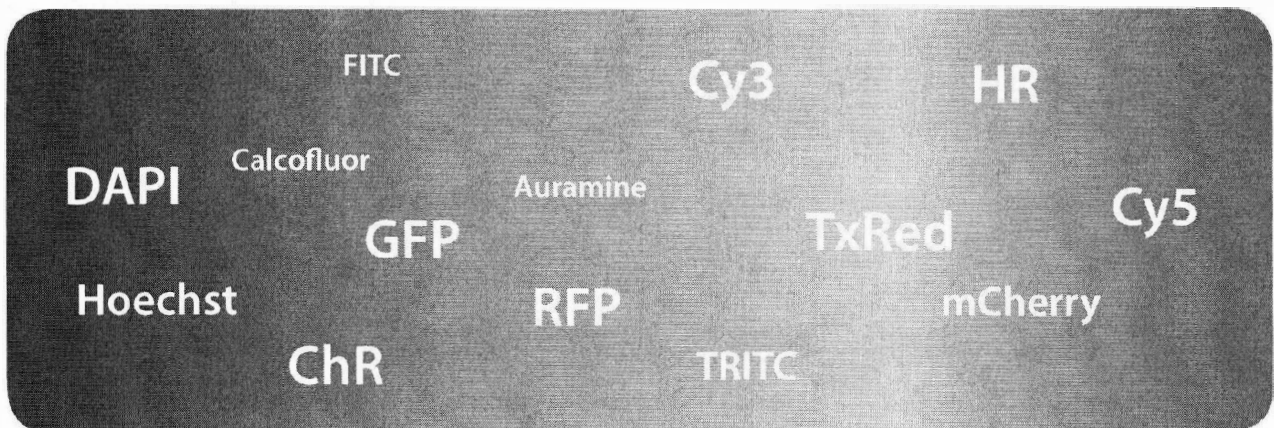
LEDs last longer

Intensity from a conventional lamp decreases through its life, which means that illumination varies dramatically over time. The lifetime of LEDs far exceeds that of these older lamps, and intensity remains broadly constant throughout its life providing a stable, repeatable light source.



pE-300 Series for Fluorescence

Some of the many fluorophores excited by the pE-300 Series



pE-300^{lite} - Simple White Light

Designed to fit most microscopes, the pE-300^{lite} is a compact system at a cost which makes it accessible to all.

Simple to buy: Configured for your everyday fluorophores such as DAPI, FITC, TRITC & Cy5 and affordable through your lab consumables budget.

Simple to fit: Direct fit means the pE-300^{lite} just attaches straight onto your microscope's epi-fluorescence port in seconds with a once-only simple adjustment that optimises the light output for your microscope.

Simple to use: Instant On/Off with the ability to optimise intensity and minimise sample damage via the simple desktop Control Pod.

The pE-300^{lite}: Simple White Light – simple to buy, fit and use.