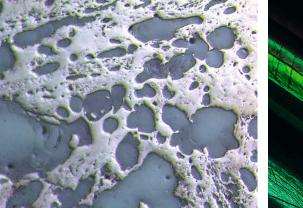


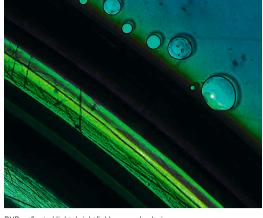
# SHINE A NEW LIGHT ON INDUSTRIAL SAMPLES

The DM750 M

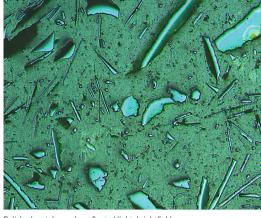




Polished light metal, reflected light, brightfield-oblique contrast



DVD, reflected light, brightfield, crossed polarizer

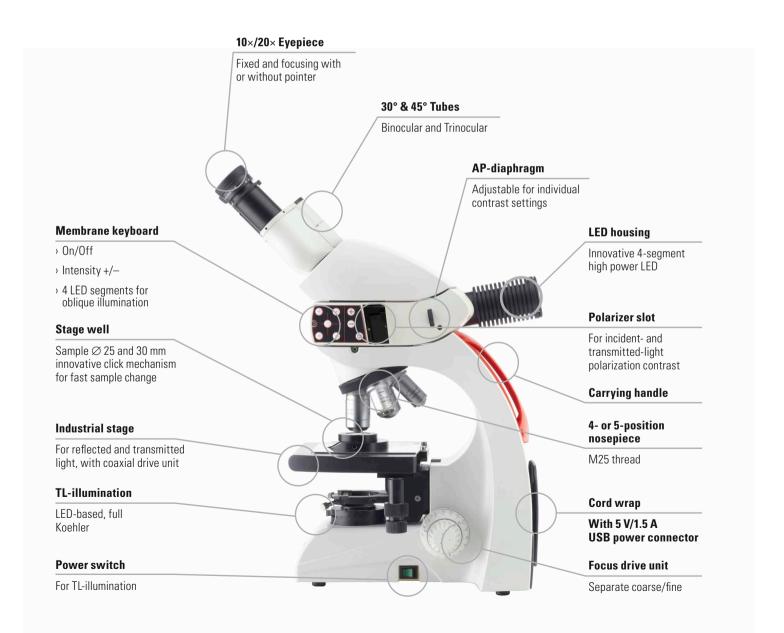


Polished metal sample, reflected light, brightfield



# SIMPLY MICROSCOPY FOR ROUTINE TASKS IN MATERIALS QC AND TEACHING

An easy-to-use microscope makes a laboratory function more efficiently. The user can concentrate on the task at hand rather than on complex microscope functions. The Leica DM750 M is an entry-level materials microscope for brightfield, oblique, and polarized light. It is specifically designed to serve the needs of routine quality control and materials analysis in industry as well as the general educational needs in universities, and technical colleges.

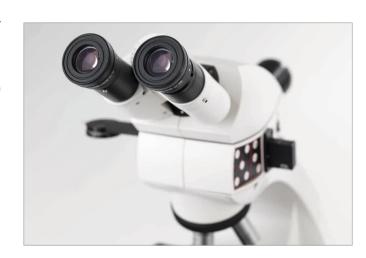


# PERFORMANCE RELOADED

The Leica DM750 M combines numerous innovative features to create a unique solution for routine applications in metallography and general materials microscopy.

# REFLECTED LIGHT ILLUMINATOR WITH CUTTING-EDGE LED ILLUMINATION

- Built-in adjustable aperture diaphragm, produces bright and crisp lighting for all samples
- Ergonomically-positioned membrane-keyboard for easy, intuitive operation of all reflected light settings
- Innovative 4-segment LED provides bright and homogeneous
   BF and oblique illumination (quarter / half, direction selectable)
- > Intuitive control for LED-light intensity
- Power on/off switch distinctly separated from other keys to avoid operating errors
- Reflected light illuminator incorporates two slots that allows the use of a polarizer and analyzer for polarized light applications
- Power to the LED reflected light illuminator is provided via a USB cable from the 5 V/1.5 A USB power connector on the rear of the Leica DM750 M stand. This saves the cost of an external power supply plus reduces the complexity at the workstation.



#### **ILLUMINATION OPTIONS**

- LED illumination is used for reflected and transmitted light. It provides cool, white light with a lifetime of over 20 years, thus saving the time and money spent to exchange halogen bulbs on conventional microscopes
- Transmitted light Koehler field diaphragm for optimum illumination and contrast
- > Optional condensor available
- Patented time delay shutoff saves energy by automatically turning off the illumination after two hours of no use (TL only).









## UP TO 1,000×

- High precision 4- or 5-position objective nosepiece with M25 thread
- Large selection of high performance objectives starting with HI PLAN EPI series
- $\rightarrow$  Standard magnification range between 50× and 500× as required by most industrial standards
- > Even higher magnifications, e.g. 1,000×, are possible

### **EASY SAMPLE HANDLING**

- Universal stage with coaxial drive for reflected and transmitted light applications allows observation of polished and/or etched samples with heights of up to 30 mm
- Special sample holders with a 25 mm or 30 mm sample diameters
- Object guide for precise X/Y positioning of the sample

### EASY AND ERGONOMIC OPERATION

- > 4- or 5-position nosepiece with rubber covered knurled ring for fast and easy change of objective magnification. The highly accurate machining of the nosepieces ensures parcentration of all objectives in use.
- 4 different tubes to fit the ergonomic needs of different users:
   45° angle binocular or trinocular tube or, 30° angle binocular or trinocular tube
- All tubes have adjustable interpupillary distance and locking mechanisms for the eyepieces, avoiding loss / theft of equipment.
- The eyepieces with magnification factor 10 and FOV 20 are available as fixed and focusable to compensate different vision requirements for defective eyesight.

# BRILLIANT VIEWS WITH HD IMAGING

The ability to capture, analyze, archive, and share micro-images has always been an important task in the materials laboratory. Leica Microsystems offers an extensive range of advanced digital imaging solutions to exactly match camera and software performance to the needs of your specific application.

#### LEICA MICROSYSTEMS IMAGING

- A large variety of Leica microscope cameras including full HD live image. Leica cameras provide high resolution pictures and fast live images.
- Leica software is the modular platform for easy camera control, image capture, annotation, measurement, and documentation.
- Customize your own imaging solution using a wide selection of optional software modules.
- > Store and recall: for instantly perfect results for all samples

- > Expert modules for easy-to-use grainsizing and phase analysis according to international norms and standards.
- The modular design of the system allows easy upgrades and service.
- Trinocular viewing tubes and C-mount adapters provide the versatility to use stand-alone cameras, which opens the door to unlimited imaging possibilities.



Copper-zinc deformation line



Grain sizing reticle overlay



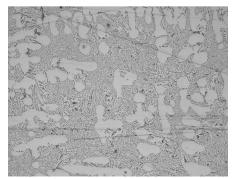
Polished section of rock



Weld structure, brightfield



Brass sample, brightfield



Aluminum-silicon, brightfield







## **SPECIFICATIONS**

STAND

Shape of the stand protects controls

Stand construction – die-cast aluminum

Adjustable Koehler field diaphragm (TL)

Centerable and focusable condenser mount

External fuses

Knurled nosepieces

5 V/1.5 A USB power supply

REFLECTED LIGHT AXIS

4-segment LED illumination for:

Incident light brightfield

Oblique contrast

Polarization contrast

Built-in adjustable aperture diaphragm

Removable beam splitter to avoid false pleochroism

MEMBRANE KEYBOARD CONTROL

3 LED segment control for selection and rotation of illumination direction

LED-light intensity

Power on/off switch

POLARIZER/ANALYZER SLOT FOR POLARIZED LIGHT

TRANSMITTED LIGHT

Built-in LED illumination – 25.000 hours service lifetime

Full Koehler field diaphragm (with condensor)

Optional Abbe condensor (NA 0.9)

Continuous intensity adjustment

2 hours auto off (can be disabled or enabled)

**EYEPIECES** 

High eyepoint

10×/20 (20 mm field of view)

Crosshair eyepiece with 45° marks, scale, and orientation feature

Available fixed or focusing

Focusing eyepieces with reticule holder for 24.5 mm reticule

Foldable eyeguards

30 mm mounting diameter

Other eyepiece magnification factors also available

STAGE

Integrated coaxial drive for X/Y movement

Stage surface 185 mm (150 mm front) × 140 mm (W × D)

Stages prepared to take special sample holders (stage wells)

Rounded stage edges

Non-extending rack

Vernier for X/Y coordinates

Wear-resistant stage surface

SPECIAL SAMPLE HOLDERS FOR EMBEDDED METALLOGRAPHIC SALES (STAGE WELLS)

Stage well for one inch samples

Stage well for maximum sample height = 30 mm

**OBJECTIVES** 

Infinity platform

HI PLAN or N PLAN series

Objective labeling laser engraved

M25 nosepiece thread

**FOCUS** 

Low position focus controls

Self-adjusting focus mechanism

300 microns per fine focus rotation

Calibrated in 3 micron increments

Weighted focus knobs

IMAGING

Trinocular tubes available (50% / 50% light split)

C-mount adapters with standard Leica Microsystems mount

Leica cameras

EZSTORE™

Vertical handle

Undercut in front of stand

Cord wrap

Vertical cord attachment to stand

AGTREAT™

Anti-microbial surfaces

CERTIFICATIONS

cULus, CE, RoHS

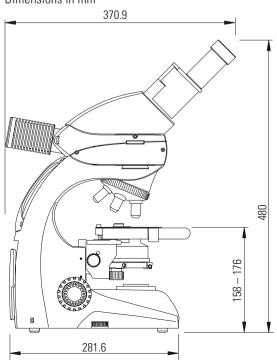
# RECOMMENDED OUTFITS

# Leica DM750 M with 4-position nosepiece for reflected & oblique light including industrial stage & stage wells

•		
STAND		Quantity
13 613 115	Leica DM750 M with 4-position nosepiece	1
TUBES		
13 613 521	30° binocular tube	1
EYEPIECES	3	
13 613 532	10×/20 focusing eyepiece with eyeguard	1
13 613 530	10×/20 eyepiece with eyeguard	1
ILLUMINA	TION	
13 613 171	Incident light axis with LED illumination	1
STAGE WE	LL PLATES	
13 613 167	Stage well for small diameter samples	1
13 613 168	Stage well for large diameter samples	1
OBJECTIV	ES	
11 566 071	Objective HI PLAN EPI 5×/0.12	1
11 566 069	Objective HI PLAN EPI 10×/0.25	1
11 566 070	Objective HI PLAN EPI 20×/0.40	1
11 566 072	Objective N PLAN EPI 50×/0.75	1
POWER CO	IRD NOT INCLUDED: Must be ordered separately	1

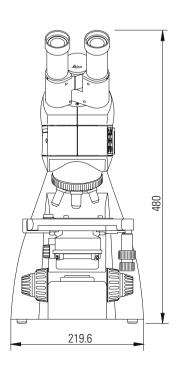
# **DIMENSIONS**

## Dimensions in mm

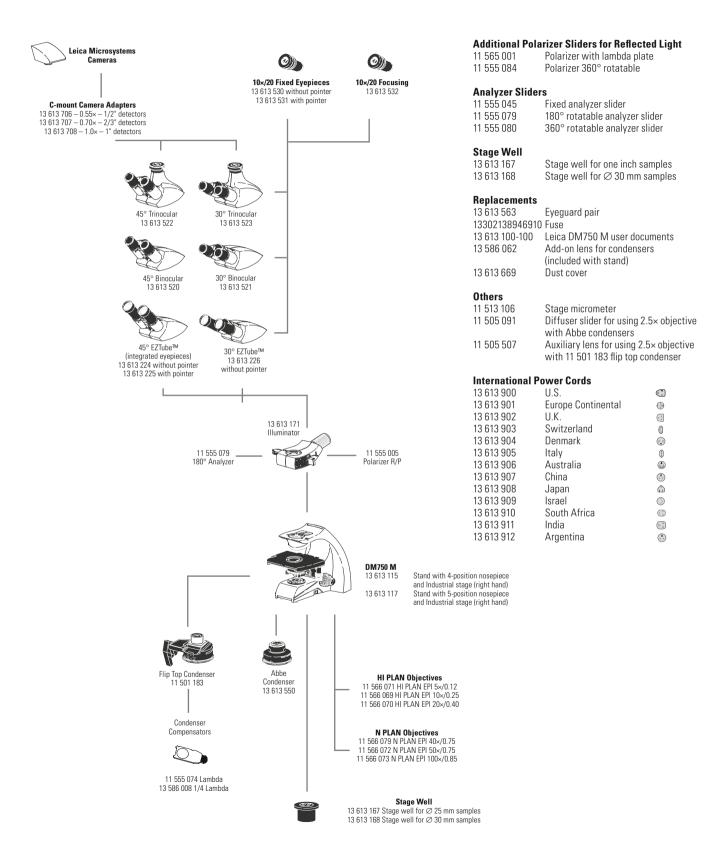


# Leica DM750 M with 5-position nosepiece for RL, TL, oblique & polarized light including industrial stage & stage wells, Leica DMC2900

13 613 117 Leica DM750 M with 5-position nosepiece & industrial stage (right hand)  TUBES / MOUNT / CAMERA  13 613 523 30° Trinocular tube 1 13 613 706 C-mount 0.55× 1 12 730 466 Leica DMC2900 camera 1  EYEPIECES  13 613 532 10×/20 focusing eyepiece with eyeguard 1 13 613 530 10×/20 eyepiece with eyeguard 1  ILLUMINATION  13 613 172 Reflected light illuminator kit LED 1 (RL-Axis, polarizer & analyzer)  STAGE WELL PLATES  13 613 167 Stage well for small diameter samples 1 13 613 168 Stage well for large diameter samples 1 13 613 550 Abbe condensor 1  OBJECTIVES  11 566 071 Objective HI PLAN EPI 5×/0.12 1 11 566 070 Objective HI PLAN EPI 10×/0.25 1 11 566 070 Objective HI PLAN EPI 20×/0.40 1 11 566 072 Objective N PLAN EPI 50×/0.75 1	STAND		Quantity
TUBES / MOUNT / CAMERA           13 613 523         30° Trinocular tube         1           13 613 706         C-mount 0.55×         1           12 730 466         Leica DMC2900 camera         1           EYEPIECES           13 613 532         10×/20 focusing eyepiece with eyeguard         1           13 613 530         10×/20 eyepiece with eyeguard         1           ILLUMINATION           13 613 172         Reflected light illuminator kit LED         1           (RL-Axis, polarizer & analyzer)         1           STAGE WELL PLATES           13 613 167         Stage well for small diameter samples         1           13 613 168         Stage well for large diameter samples         1           13 613 550         Abbe condensor         1           OBJECTIVES           11 566 071         Objective HI PLAN EPI 5×/0.12         1           11 566 070         Objective HI PLAN EPI 10×/0.25         1           11 566 072         Objective N PLAN EPI 50×/0.75         1	13 613 117	Leica DM750 M with 5-position nosepiece &	1
13 613 523       30° Trinocular tube       1         13 613 706       C-mount 0.55×       1         12 730 466       Leica DMC2900 camera       1         EYEPIECES         13 613 532       10×/20 focusing eyepiece with eyeguard       1         13 613 530       10×/20 eyepiece with eyeguard       1         ILLUMINATION         13 613 172       Reflected light illuminator kit LED       1         (RL-Axis, polarizer & analyzer)       1         STAGE WELL PLATES         13 613 167       Stage well for small diameter samples       1         13 613 168       Stage well for large diameter samples       1         13 613 550       Abbe condensor       1         OBJECTIVES         11 566 071       Objective HI PLAN EPI 5×/0.12       1         11 566 069       Objective HI PLAN EPI 10×/0.25       1         11 566 070       Objective HI PLAN EPI 20×/0.40       1         11 566 072       Objective N PLAN EPI 50×/0.75       1		industrial stage (right hand)	
13 613 706       C-mount 0.55×       1         12 730 466       Leica DMC2900 camera       1         EYEPIECES         13 613 532       10×/20 focusing eyepiece with eyeguard       1         13 613 530       10×/20 eyepiece with eyeguard       1         ILLUMINATION         13 613 172       Reflected light illuminator kit LED (RL-Axis, polarizer & analyzer)       1         STAGE WELL PLATES         13 613 167       Stage well for small diameter samples       1         13 613 168       Stage well for large diameter samples       1         13 613 550       Abbe condensor       1         OBJECTIVES         11 566 071       Objective HI PLAN EPI 5×/0.12       1         11 566 070       Objective HI PLAN EPI 10×/0.25       1         11 566 070       Objective HI PLAN EPI 20×/0.40       1         11 566 072       Objective N PLAN EPI 50×/0.75       1	TUBES / M	OUNT / CAMERA	
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EYEPIECES         13 613 532       10×/20 focusing eyepiece with eyeguard       1         13 613 530       10×/20 eyepiece with eyeguard       1         ILLUMINATION         13 613 172       Reflected light illuminator kit LED (RL-Axis, polarizer & analyzer)       1         STAGE WELL PLATES         13 613 167       Stage well for small diameter samples       1         13 613 168       Stage well for large diameter samples       1         13 613 550       Abbe condensor       1         OBJECTIVES         11 566 071       Objective HI PLAN EPI 5×/0.12       1         11 566 069       Objective HI PLAN EPI 10×/0.25       1         11 566 070       Objective HI PLAN EPI 20×/0.40       1         11 566 072       Objective N PLAN EPI 50×/0.75       1	13 613 706	C-mount 0.55×	1
13 613 532 10×/20 focusing eyepiece with eyeguard 1 13 613 530 10×/20 eyepiece with eyeguard 1  ILLUMINATION  13 613 172 Reflected light illuminator kit LED 1 (RL-Axis, polarizer & analyzer)  STAGE WELL PLATES  13 613 167 Stage well for small diameter samples 1 13 613 168 Stage well for large diameter samples 1 13 613 550 Abbe condensor 1  OBJECTIVES  11 566 071 Objective HI PLAN EPI 5×/0.12 1 11 566 069 Objective HI PLAN EPI 10×/0.25 1 11 566 070 Objective HI PLAN EPI 20×/0.40 1 11 566 072 Objective N PLAN EPI 50×/0.75 1	12 730 466	Leica DMC2900 camera	1
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13 613 172 Reflected light illuminator kit LED (RL-Axis, polarizer & analyzer)  STAGE WELL PLATES  13 613 167 Stage well for small diameter samples 1 13 613 168 Stage well for large diameter samples 1 13 613 550 Abbe condensor 1  OBJECTIVES  11 566 071 Objective HI PLAN EPI 5×/0.12 1 11 566 069 Objective HI PLAN EPI 10×/0.25 1 11 566 070 Objective HI PLAN EPI 20×/0.40 1 11 566 072 Objective N PLAN EPI 50×/0.75 1	13 613 530	10×/20 eyepiece with eyeguard	1
(RL-Axis, polarizer & analyzer)  STAGE WELL PLATES  13 613 167 Stage well for small diameter samples 1 13 613 168 Stage well for large diameter samples 1 13 613 550 Abbe condensor 1  OBJECTIVES  11 566 071 Objective HI PLAN EPI 5×/0.12 1 11 566 069 Objective HI PLAN EPI 10×/0.25 1 11 566 070 Objective HI PLAN EPI 20×/0.40 1 11 566 072 Objective N PLAN EPI 50×/0.75 1	ILLUMINA	TION	
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11 566 073 Objective N PLAN EPI 100×/0.75 1	11 566 072	Objective N PLAN EPI 50×/0.75	1
	11 566 073	Objective N PLAN EPI 100×/0.75	1
	POWER CO	IRD NOT INCLUDED: Must be ordered separately	1



## SYSTEM DIAGRAM



## **CLEAN AND GREEN**



# WE ACTIVELY IMPLEMENT WAYS TO MAKE OUR ENVIRONMENT CLEANER AND SAFER FOR THIS GENERATION AND THE NEXT

- > No lead content in any of the glass components.
- Constantly optimizing our logistics chain keeps the CO<sub>2</sub> footprint as low as possible.
- › AgTreat™ helps prevent the spread of disease via microscope surfaces and leads to a healthier laboratory environment.
- All products have been tested by independent safety laboratories and carry the cULus and CE mark to indicate their design for safety.
- All products are RoHs compliant, which means all electrical components meet restrictions on the use of hazardous substances.

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