

SIMPLY SEE *of work* BETTER



EYE
STRAIN?

INSPECTION MISTAKES?

REJECT?

Wir haben die richtigen Lupenlampen
um Ihre Prüfqualität zu verbessern.

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We have the right magnifiers
to improve your vision and the
right tools to make you work better.



LICO

www.eurolupe.com

Simply See Better!

*& work
better*



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Inspect simply BETTER, see things you might not have seen before.

Our Customers using LICO Magnifiers achieve individually - the best possible inspection yield resulting in the highest possible reject of insufficient parts - or end up in a simply better and faster assembling work by improved eye sight vision.

Our point of view: „To see better means to work better“

This Definition* reflects mostly in the business success of our customers. Better inspection results mean less inadequate or faulty parts are going to the next production step or even to their customers. (*own definition) Such reduces cost and it helps to sort out insufficient parts qualitatively better and faster to come as close as to a requested 100% inspection yield. And 100% product quality of our customers results in higher customer satisfaction of their customers which very often assures the ongoing and often additionally new business.

Fatigue-free Inspection*

by our ingenious combination of Lens and Light** *)** a best possible fatigue-free use it is made available for users of LICO Magnifiers. Simply just a little reduction of light quality and or lens quality would immediately result in a reduced inspection success and it results also in considerably higher stress of eyes (and brains, because inspection is like watching permanently HD-movies, such can be very tiring for eyes and brains).

Due to that circumstances we offer to our understanding the best possible lens on the market and the best possible light on the market provide the best possible relief to to eyes of the user. From this we derive a higher user motivation which we assume certainly results in less hours of doctor's visits and less absence due to sickness leave.

Durability

Many users of LICO magnifiers are inspecting or repairing or manufacturing products with LICO Magnifiers 8 hours a day and 40, 80 or 120 hours a week and also many LICO magnifiers are found at transport systems, conveyors, handling and other mechanical equipment and machines.

Excellent Magnification

Choice of 3, 4 or 5 diopters, and on BIG EYE2 with a additional 10 Diopter swing away lens

True Long-Life product

You receive a true long life product preserved in a sturdy re-useable packaging.

LICO BIG EYE Magnifier have no build in expiry date.

Lowest Energy consumption

at highest light production. Our Design leaves the power supply and the light source simply cool.

Due to the perfect design of all parameters there is extremely little energy loss by heat radiation.

The energy is used for producing light and not wasted for avoidable heat.

The Overall Performance

regarding: to be able to see better, the overall performance sums up of inspection yield, quality of illumination, durability, user motivation and eye protection, also resulting in a very short return-of-investment and extraordinary high life expectancy of the LICO magnifier. Plus the user satisfaction with our optical instruments is very very high which in return comes back positively to the company..

Sustainability

We build magnifiers since 1988. We build them in Europe and repair and up-grade even the oldest LICO BIG EYES. Typical up-grades are:

- Change from magnetic ballast to electronic ballast
- Implementation of a dimmer
- Modernize from fluorescent bulbs to LED bulbs

We stock all parts, even for the oldest LICO Magnifiers parts are available or being made to order, therefore we can bring even the oldest LICO magnifiers to state-of-the-art.

We do not use plastic parts or thin press-formed sheet metals parts in the structure of arm or joints. Therefore LICO Magnifiers are a prime investment into more than only a very long life expectancy.

Quality and Size of our lenses

Our BIG EYE and BIG EYE2 lenses are extra large and made from optical crown-white glass. The lens is grinded and polished. BIG EYE2 3 Diopter lenses are within the viewing angle fully distortion free and allow a very convenient perspective with both eyes at the same time. Only such lenses assure the possibility for a fatigue-free all day use. And yes, to our knowledge our optical glass lenses are the biggest on the market.

The Light, excellent illumination of the object

Absolute homogenous and true daylight by proprietary LED-technology, shadow-free, without remarkable heat radiation. The light intensity is fully dimmable. We assure true colors. There is no change of the color of the object, regardless if the built in LED-light-illumination is on or off.

The Arm

is a massive, quite versatile and well balanced full-metal construction, therefore the use is easy and life expectancy is has no build-in expiry date.

ESD -Antistatic

our full-metal-construction is conductive in itself by nature of the construction. Additionally the head itself is also grounded directly. There are no plastic arms or plastic joints which tend to receive and or store static charges. The blue paint additionally contains conductive metal oxides. The electrical connection by an appropriate ESD grounding box is highly recommended.

The Product & Visual Performance We welcome user feedback and suggestions for improvements to create an even better use for the individual user.



Made in

We develop and manufacture since 1988 in Europe which assures fast action, close service and always the requested state-of-the-art.

Why LICO Magnifiers?

We know, using LICO Magnifiers in many different technical areas our customers own an additional key for Quality improvement and extremely high yields of sorting-out-inspections at 100% controls. The staff of our customers simply can work better and inspect better which results in improved product quality and less internal and external returns which saves very much money day by day.

NEW:
STATE-OF-THE-ART
TRUE DAYLIGHT LEDS!



BIG EYE

- # 62400 EU-CE
- # 62500 EU-CE
- # 62500 EU-CE-LED-W-P
- # 62500 EU-CE-LED-UV-P



Specification:

- 190 mm Lens diameter
- Lens size approx. 300 cm²
- 4 Diopters, Optical Glass
- Focal length approx 27 cm (4Di)
- Electronic HF power supply
- Dimmable illumination
- 34 W Flickerfree and glare-free Illumination
- 2-pole illuminated Main switch
- Massive Arm construction
- Standard-Table clamp
- ESD-safe

Options:

- Color in Ivory
- 5 diopter lens
- Protection cover
- Wall mount
- Table clamp
- Heavy Duty Table Clamp
- 17 kg Base Plate

Spare parts:

- Bulb: 13362 Glarefree (1985-2011, „old, thick“ Version)
- Bulb: 13363 Glarefree (from 2012, „new, slim“ Version)

Switchable Version: Series 62400

Dimmable Version: Series 62500



BIG EYE 2

- # 72400 EU-CE
- # 72400 EU-CE-4Di
- # 72400 EU-CE-AR
- # 72400 EU-CE-UV
- # 72400 EU-CE-LED-W-P
- # 72400 EU-CE-LED-UV-P



Specification:

- 300cm² optical glass lens A5-format
- Lens size approx. 195 x 155 mm,
- 3 Diopters, Optical Glass
- Focal length approx 34 cm
- Electronic HF power supply
- Dimmable illumination
- 34 W flickerfree and glare-free Illumination or < 20W LED
- 2-pole illuminated Main switch
- Standard-Table clamp
- ESD-safe

Options:

- Color in Ivory
- Protection cover
- Finger protection
- Antireflective lens
- 10 Diopter Swing-away-lens
- 4 Diopter lens (ask for availability)
- Wall mount
- Table clamp
- Heavy Duty Table Clamp
- 17 kg Base Plate
- LED-Light, 5000K, white or UV

Spare parts:

- FS-Bulb: #13392 glarefree 5500K
- FS-Bulb: #13393 Ultraviolet
- Yellow-light on request



All our magnifiers are  certified and marked

The *BIG EYE 2-EU-CE* blue

LICO

Part number 72400-EU-CE

Our standard for industrial inspection

Extreme eye-protecting even when used all day long !

Very convenient viewing area

Perfect for all day use!

Allows enormous working depth

Focus: ~ 34 cm

BIG EYE 2: XL 200 x 150 mm lens

3 Diopter
Reach of arm: 1 m

Complete with electronic Dimmer,
2-pole power switch
and table clamp

ESD-safe



Specification:

- Extra large optical glass lens approx 195 x 155 mm = ~ 300cm² / A5-format
- real DISTORTIONFREE
- ground
- polished
- Crown-white
- Light quality = Daylight, 5500K
- Dimmer included:
- Adjust light step-free
- sturdy longlife metal construction
- proven many thousand times for many decades.

Options:

- The ultimate perfect LICO-LED-illumination
- UV-Lightsource, Fluorescent or UV-LED,
- Anti reflective coated lens, removes about 2/3 of reflecting light
- 10x Swing-away-lens

References:

Commerce & Industry
Automotive
Electronics
Hybrids
Components
PCBs
Air- & Space industry
Police & Military
Safety industry
Fine mechanics
Bearings & Gears
Engine parts
Marine
and many more.

BIG EYE II
The ideal magnifier for production and QS



*Part number 72400-EU-CE***BIG EYE 2:
XL 200 x 150 mm lens**

3 Diopter

Reach of arm: 1 m

Complete with electronic Dimmer,
2-pole power switch
and table clamp

ESD-safe

**Our standard for industrial inspection****Specification:**

- Extra large optical glass lens
approx 195 x 155 mm = ~ 300cm² / A5-format
- real DISTORTIONFREE
- ground
- polished
- Crown-white
- Light quality = Daylight, 5500K
- Dimmer included:
- Adjust light step-free
- Sturdy longlife metal construction
- Proven many thousand times
for many decades.

Options:

- The ultimate perfect LICO-LED-illumination
- Anti reflective coated lens,
removes about 2/3 of reflecting light
ask for availability!
- 10x Swing-away-lens



Part number 72400-EU-CE-LED

How to order:

The LICO-LED-light:

- Extra many daylight white or UV-Spezial-LEDs
- Selected and better than Premium-quality-LEDs
- Daylight white illumination
- Spot-free due to a very big light emitting area
- Operation in low energy mode results in:
Very homogenous and evenly illumination
- Free of cast shadows
- Free of blue shadows
- Almost reflexion free illumination

72400-EU-CE-LED-W-P *)

72400-EU-CE-LED-UV-P

72400-EU-CE-LED-W-P-4Di

72400-EU-CE-LED-UV-P-4Di

-P stands for plastic cover,
treated antistatic

-W stands for daylight white light

-UV stands for UV-light

***) = Standard**



Specification:

- Extra large optical glass lens approx 195 x 155 mm = ~ 300cm² / A5-format
- real DISTORTIONFREE view
- ground
- polished
- Crown-white
- Light quality = Daylight, 5000K
- Dimmer included
- sturdy longlife metal construction
- proven many thousand times, for many decades.
- LED-Light:
- After many years of R&D the LICO LED-BIG EYE2 now offers the perfect solution in illumination. Especially convenient for all day use, wearer of glasses and mostly suitable with visual impairment.

Retrofit-offer:
We retrofit any BIG EYE into a
State-of-the-Art BIG EYE-LED.
Ask for a quote!

BIG EYE 2:

XL 200 x 150 mm lens

3 Diopter

Reach of arm: 1 m

Complete with electronic Dimmer
2-pole power switch
and table clamp

ESD-safe



Options, ask for availability:

- AR, antireflective coated lens
- 4 Dio, 4 Diopter lens
- 10x Swing-away-lens

Part number 62500-EU-CE

BIG EYE: 190 mm XL-lens

4 or 5 Diopter lens

Reach of arm: 1 m

Complete with electronic Dimmer,
2-pole power switch
and table clamp

ESD-safe



Specification:

- 34W high power illumination
- X-Large optical glass lens,
190 mm Diameter, ~ 300 cm²
ground
polished
Crown-white
- Light quality = Daylight, 5500K
- Dimmer included
- Adjust light step-free
- Sturdy longlife metal construction
- Proven many thousand times
for many decades.
- ESD-safe

The BIG EYE-EU-CE

LICO

Part number 62500-EU-CE

BIG EYE: 190 mm XL-lens

4 or 5 Diopter lens

Reach of arm: 1 m

34 W circular and shadowfree illumination
in daylight quality
or LED-daylight or UV-bulb

Complete with electronic Dimmer,
2-pole power switch
and table clamp

ESD-safe

**BIG EYE Series is going LED:
BIG EYE LED: 62500-EU-CE-LED-W-P
BIG EYE UV LED: 62500-EU-CE-LED-UV-P**



Specification:

- 34W high power illumination
- X-Large optical glass lens,
190 mm Diameter, ~ 300 cm²
- ground
- polished
- Crown-white
- Light quality = Daylight, 5500K
- Dimmer included:
- Adjust light stepless
- Sturdy longlife metal construction
- Proven many thousand times
for many decades.
- ESD-safe

Option: 62400-4-EU-CE, as above,
without Dimmer function, LED-light

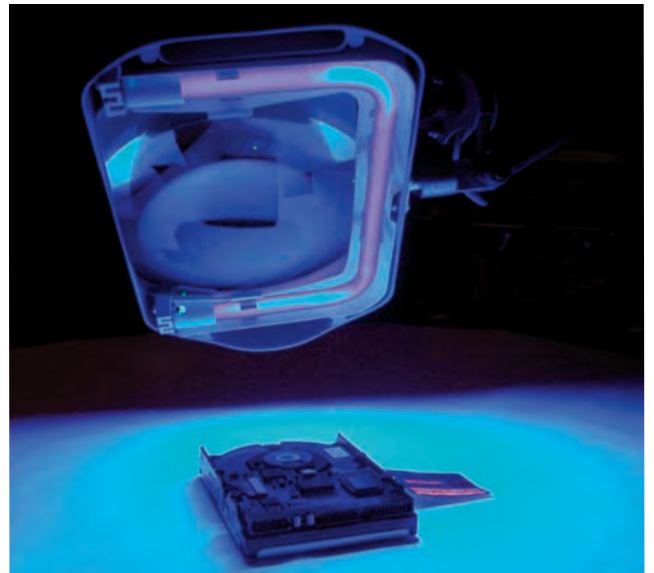
Part number 72400-EU-CE-UV

The **BIG EYE2** with high density UV-bulb
UV - spare bulb: part number: 13393

BIG EYE series now available with UV-LED,
BIG EYE2, p/n: 72400-EU-CE-UV-P
BIG EYE, p/n: 62500-EU-CE-UV-P



wave length of the lamps: □□UV bulb version: approx. 350 - 410 nm □□UV LED: approx. 400 - 410 nm □□



New head-joint & things to know

LICO

for the BIG EYE and the BIG EYE2

- Simple to use
- Easy to use
- Improved flexibility
- Attractive design
- Improved construction
- Full metal mechanics



available product-wise
from winter 2012



Optical glass lens: Diopters & Magnification:

Data of our optical lenses:

3 Diopter lens:	Magnification approx. 1,75X,	Focus approx. 34 cm
4 Diopter lens:	Magnification approx. 2,00X,	Focus approx. 27 cm
5 Diopter lens:	Magnification approx. 2,25X,	Focus approx. 17 cm



Grounding & ESD:



Our magnifiers are grounded full metal constructions and shall be connected to an appropriate ESD- or grounding box to comply with the given company internal ESD-workplace regulations. Details can be found in the Owner's manual.

Operation, Maintenance & Care:



Our magnifier are built for very long life. Advise for operation, maintenance and care is found in the Owner's manual or at LICO. Corresponding care will assure a troublefree operation for many years.

Painting in Custom COLOURS:

Please send your inquiry!



11461 Table Edge Clamp,

This clamp is supplied as a standard fixture with all our magnifiers.

Color: blue, ivory or black



11463 Screw Down Fixture, Heavy Duty

Color: blue, ivory or black



11464 Table Clamp, Heavy Duty (only as long as stock lasts)

Double, with two fixtures

Color: blue, ivory or black



11462 Wall Mount

Color: blue, ivory or black

Attention: The ivory picture is only an illustration. The wall mount **mandatory** has to be **mounted** and used as shown on the blue picture: **flat side up !!** Otherwise break, injury and damage may occur!



11458 Heavy Base Plate

Weight 17,5 kg

Use instead of other fixtures

Color: ivory or black

Attention: Despite of the high weight it is possible to capsize the lamp

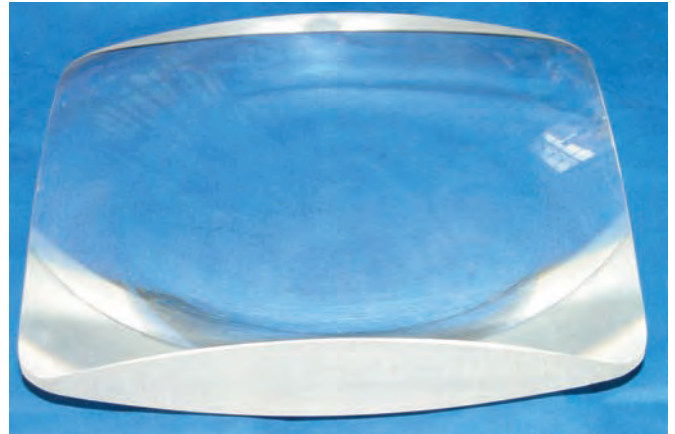
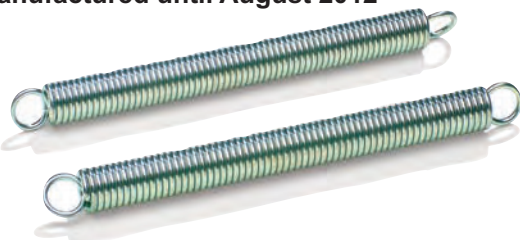
**Spare lenses:**

13157
4 Dio lens BIG EYE , round

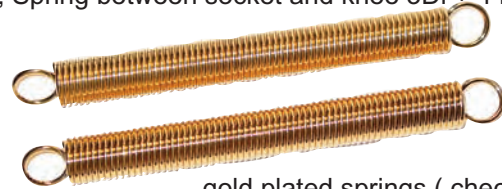
13160
3 Dio lens BIG EYE 2

13161
4 Dio lens BIG EYE 2 (check availability)

13160-AR
3 Dio lens-AR, BIG EYE 2, (check availability)

**Spare springs für 72400 :
manufactured until August 2012**

Art.Nr. 10241, Upper arm spring 3Di-lens
Art.Nr. 10249, Upper arm spring 4Di-lens
Art.Nr. 10245, Spring between socket and knee 3Di + 4 Di-lens



Optional:
gold plated springs (check availability)

**Swing away lens**

Part number: 13167
10 Diopter-additional lens,
Magnification: 3,5X

Part number: 13167P
Mounting plate

USE swing away lenses ONLY
between object and BIG EYE lens

**11501 Dust cover -
Sun protection,**
Linnen bag with elastic band,
Color: blue or ivory

NEW 2014: Micro-fibre dust cover
p/n **11501-MF** (blue only)

11502-MF : Special Cleaning cloth for lenses,
especially suitable for AR-lenses

**Service is our success:**

We are a certified Master Operation and we supply long-life products. Our magnifiers are no throw-away products, by all means a life of 10, 20 years or even longer is no curiosity. Therefore we proudly service all our magnifiers on our own in Europe.



13367 Finger protection for 72400 BIG EYE 2 fluorescent bulbs

transparent cover with mounting clips.
Simply clip the cover onto the installed bulb.

Ideal for mechanical works under the lens to protect the bulb or when using the magnifier as a reading lamp.

Spare bulb for the BIG EYE 2

p/n 13392,
34 W Special bulb, glare free, daylight

p/n 13393,
34 W special bulb, Ultraviolet



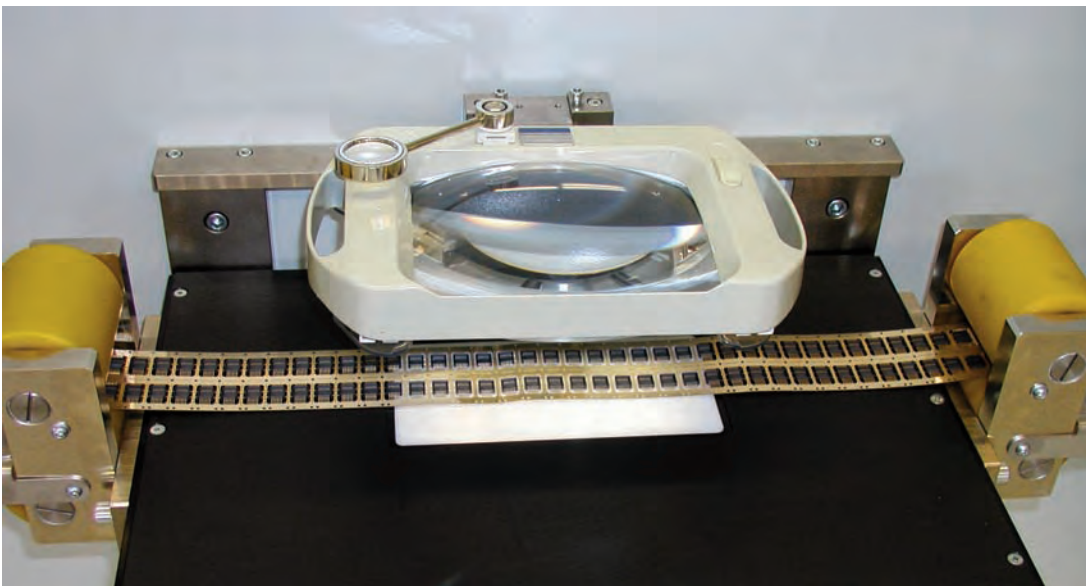
Spare bulb for the BIG EYE



p/n 13362,
34 W Special bulb, glare free, daylight
(1985-2011, "old, thick" Version)

p/n 13363,
34 W Special bulb, glare free, daylight
(2011- "new, thin" Version)

Application example: Illuminated Machine magnifier



Example: use as a
Split-unit:

The power supply is mounted inside the machine control box, the lens-head is mounted appropriate onto the machine.

This Industrial Standard with innovative Design and energy-saving and newest LED-technology.

Ideal for Labor and R&D



**178 x 133 mm
LED-Magnifier**

**82400-4-EU-CE
in Perlblue-Metallic**



**178 x 133 mm
LED-Magnifier**

**82400-4-EU-CE
in shadow-white**



**150 mm
LED-Magnifier**

**42400-4-EU-CE
in Crystal-Perlred**



**190 mm
LED-Magnifier**

**62400-4-EU-CE
in Anthrazit-Metallic**

Max. Power consumption: energysaving 8W only at max. 7.500 LUX Illuminance

Big round Magnifiers are also available with 5 Diopter lenses. Electronic Dimmer and Section Control is Standard.
Supply incl Table Clamp, Options: Different Colours, Screw Down fixture, Wall Mount, Dust Cover.

Extra-Large Designer-Magnifier, 150mm, 190 mm Lens

Ultralow Power Consumption: max. 8W
only

Newest LED Technique

Very bright, dimmable Light

Sections switchable

4 or 5 Diopter lens

Dimmer

Timer



Proven, solid Construction

Robust and long-life
Metal Arm, Joints
and Head

Reach: ~ 1m

Extra-Large Magnifier with White & UV-light, with 4 Diopter 178x133 mm Lens

Ultralow Power 8W Consumption:
30VDC external Power supply

Newest LED Technique
Both visible light & UV-light
or White Light only.

Very bright dimmable Light

Switchable Functions:
White or UV or
both together

Dimmer

Timer

82400-4-EU-CE
82400-4-UV-EU-CE



Viewing Sample:



Proven, solid
Construction

Robust and long-life
Metal Arm, Joints
and Head

Reach: ~ 1m

FL-3000**The ColdLight source**

Fan-cooled 150W
High-Power-Halide lamp,
Dimmable light

enormous light output,
depending on focussing more
than 10.000 Lux

Attention: This light source is for industrial use only, The light can be extremely bright. Never look directly into the light, permanent eye damage may occur.

**FL-3000-D**

FL-3000 with double goose neck

**FL-3000-A**

FL-3000 with glass fibre ring light

**AS3739 glassfibre ring light****EG2823 double goose neck**

ML 759-2 Lens set

The perfect table top Microscope

☀ portable, precise, easy to use

- ▶ Magnification from 20 X to 300 X
- ▶ Modular - extendable



Part number	2034-20	2034-40	2034-60	2034-100	2034-150	3024-200	2034-300
Magnification	20 X	40 X	60 X	100 X	150 X	200 X	300X
Working distance	36,0 mm	18,7 mm	10,8 mm	5,7 mm	9,2 mm	6,7 mm	4 mm
Adj. Focus	Yes	Yes	Yes	Yes	Yes	Yes	Yes
scale in focus	Yes	Yes	Yes	Yes	Yes	Yes	Yes
View area	7,2 mm	3,6 mm	2,4 mm	1,45 mm	0,96 mm	0,72 mm	0,48 mm
Measuring length	6 mm	3 mm	2,0 mm	1,2 mm	0,9 mm	0,6 mm	0,4 mm
Skale resolution	0,1 mm	0,05 mm	0,02 mm	0,01 mm	0,005 mm	0,002 mm	0,001 mm
Numeric Aperture	0,06	0,12	0,15	0,19	0,24	0,35	0,4
Focus	35,0 mm	22,0 mm	16,5 mm	10,7 mm	7,3 mm	5,7 mm	3,9 mm
Eyepiece	10-fach	10-fach	10-fach	10-fach	10-fach	10-fach	10-fach
Aux. lens	2-fach	4-fach	6-fach	10-fach	15-fach	20-fach	30-fach

Weight	241 Grams
Carryingbox	included
Maße	63 x 172 mm
standard scale	included
view	mirrored

Supplied as shown in a carrying box, the measuring scale and lamp is included



Das Standardmikroskop Serie 2034 besteht durch sein unkompliziertes Handling. Einfach das Mikroskop auf das Mess-feld aufsetzen, fokussieren - fertig. Dank des klar-transparenten Acryl-fußes ist die zu prüfende Fläche von allen Seiten einsehbar. So lässt sich auch die Messstelle leicht auffinden.

Die Fokussierung erfolgt durch das koaxiale Verdrehen des Tubus. Die Darstellung des Objektes erfolgt durch den kurzen Strahlengang im Mikroskop spiegelbildlich.

Das optische System besteht aus einem Okular und einem Objektiv samt einer Augenmuschel. Da alle Linsen beschichtet sind, können scharfe und kontrastreiche Bilder erzielt werden. Es sind sieben Arten von Objektiven erhältlich: 2x, 4x, 6x, 10x, 15x, 20x und 30x. Das Okular verfügt über eine 10fache Vergrößerung und die Brennebene ist mit einer Skala ausgestattet.

Dank der Bauweise nach Huygens mit der Brennebene im Linsensystem, ist die Staubverschmutzung der Skala ausgeschlossen.

Die Linse, die dem Auge im Okular am nächsten ist, kann durch Drehen des Einstellrings bewegt werden, so dass die Skala je nach den Dioptrien des Betrachters eingestellt werden kann. Die zur jeweiligen Vergrößerung (Objektiv) zugehörigen Okulare mit integrierten Messskalen lassen sich einfach durch Herausziehen auswechseln. Sollen zusätzliche Objektive nur zur visuellen Kontrolle eingesetzt werden, benötigen Sie keine weiteren Okulare.

Zukauf von Wechselobjektiven: Sollten Sie beispielsweise ein Mikroskop mit 100-facher Vergrößerung mit der 0,01 mm Skala nutzen, ist nach dem Einsetzen eines anderen Objektivs das Messergebnis falsch. Deshalb soll das zusätzliche Objektiv, mit dem Sie messen wollen, mit dem dazugehörigen Okular bestellt werden.

Die seitliche Beleuchtung ermöglicht Messungen auf dunklen Oberflächen oder in abgedunkelten Räumen. Für den Betrieb sind zwei 1,5-Volt-Mignon-Batterien erforderlich. Geliefert wird das Mikroskop in einer gepolsterten Transportbox. Sie bietet für weitere vier Objektive, die als Zubehör lieferbar sind, sicheren Transportraum.

Der Teile- und Zubehörkatalog ist auf www.eurolupe.com erhältlich.

www.bonkote.eu

Flux-Pens „BONPEN“

BON102



BR102



BR102, Spare Tips, cone shape short, L 14mm, W 4,3mm, fine nylon-brush

BON102S



BR102S



BR102S, Spare Tips, cone shape short, ultrafine, L 10mm, W 2,5mm, very fine nylon-brush

NEW !

BON102T



BR102T



BR102T, Spare Tips, cone shape long, L 18 mm, W 5,2mm, fine nylon-brush

BON102D



BR102D



BR102D, Spare Tips, flat-chisel shape, L 17 mm, W 6,2 mm, fine nylon-brush

BON102B



BR102B



BR102B, Spare Tips, cone shape short, L 9,5 mm, W 4,5 mm, Fine felt

BON102F



BR102F



BR102F, Spare Tips, flat-chisel shape, L 10 mm, W 4,5 mm, Fine felt

BON102K



BR102K



BR102K, Spare Tips, angled flat-chisel shape, L 12,5 mm, W 4,5 mm, Fine felt

CA102

Replacement Cartridge2, 7ccm



BON102 = BR102 + CA102

Over all Length: BON102 approx. 170 mm
the Printed Version scale is a bit smaller than 1:1

www.bonkote.eu



BONPEN,

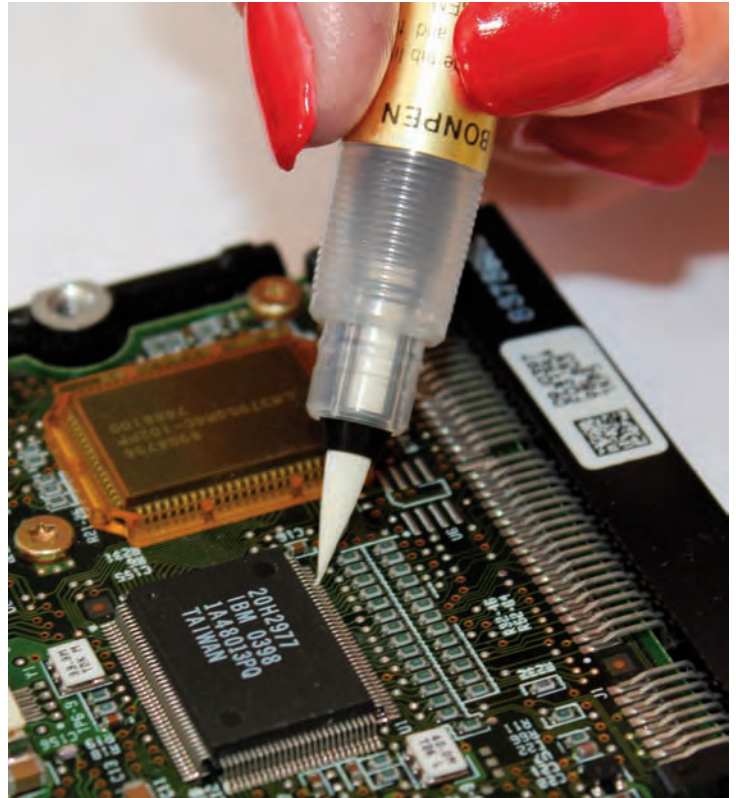
These handy Bon Pens allow for very accurate flux dispensing on the work area, while eliminating dripping and flooding, making it irreplaceable for every SMD-workplace

BONPEN-Materials: PP, PE, Nylon.

BONPEN is **Suitable for:** Fluxes, Alcohol, Fluoric Lube, Primers, Flux inhibitors, Water

BON-102A, 6-pcs-Set consisting of 1pc of all BON-102 PENS (excluding BON102S)

BON-102AS, 7-pcs-Set consisting of 1pc of all BON-102 PENS (including BON102S)



The LICO-Superscope, only available as well checked & refurbished pre-owned.

This is one of the smartest purchase you can make, * supply as long as stock lasts.

Microscope with 14" Display

Using this unique solution the operator can stop leaning over objects. Neck and backpain is a thing of the past!

The Super Scope offers a distortion-free Zoom-range of 4X - 40X (with optional Aux-lens can be reached 8X - 80X, as far as lens is available. A big working distance lens to object allows a convenient working depth on the objekt.

Including a LED light source with dimmer. The brightness can be regulated step-free. Optionally other light sources are available.

A large 14" high-resolution display from SONY Medical allows a very convenient inspection and work under the microscope.

A PAL-Video-output for Framegrabbers available on the PC-market rounds up the universal use of the versatile Microscope. Sliding arm and heavy stand-base is included.



Flux-Pens

The Packaging:



BON-102A - Set consists of 1 each: BON-102, BON-102T, BON-102D, BON-102B, BON-102F, BON-102K

BONPEN & BR-Spare Tips: Packages of 5 pcs

BON-102AS - Set consists of 1 each: BON-102, BON-102T, BON-102D, BON-102B, BON-102F, BON-102K, BON-102S

The Bonkote Fine Cleaner

Are you using wet sponges or metal sponges to clean your soldering tips?

It is proven that such temperature shocks slowly but surely crack the coating surface of soldering tips. The temperature drop can be even 50 - 100°C. And such circumstance can lead into instable soldering temperature. And finally such temperature shocks reduces the life expectancy of soldering tips remarkably.

Metal sponges scratch the fine surface of soldering tips which also reduces the life expectancy.

Bonkote round stainless steel bars and the smooth high temperature rubber **can save considerably** on your soldering tip life by avoiding scratches and high temperature drops.



The Fine-Cleaner consists out of a High temperature rubber part and a Magnet



This Magnet can be fixed at the bottom of the Cleaner



Strong residues can be pre-cleaned or cleaned at the rounded stainlessbars.



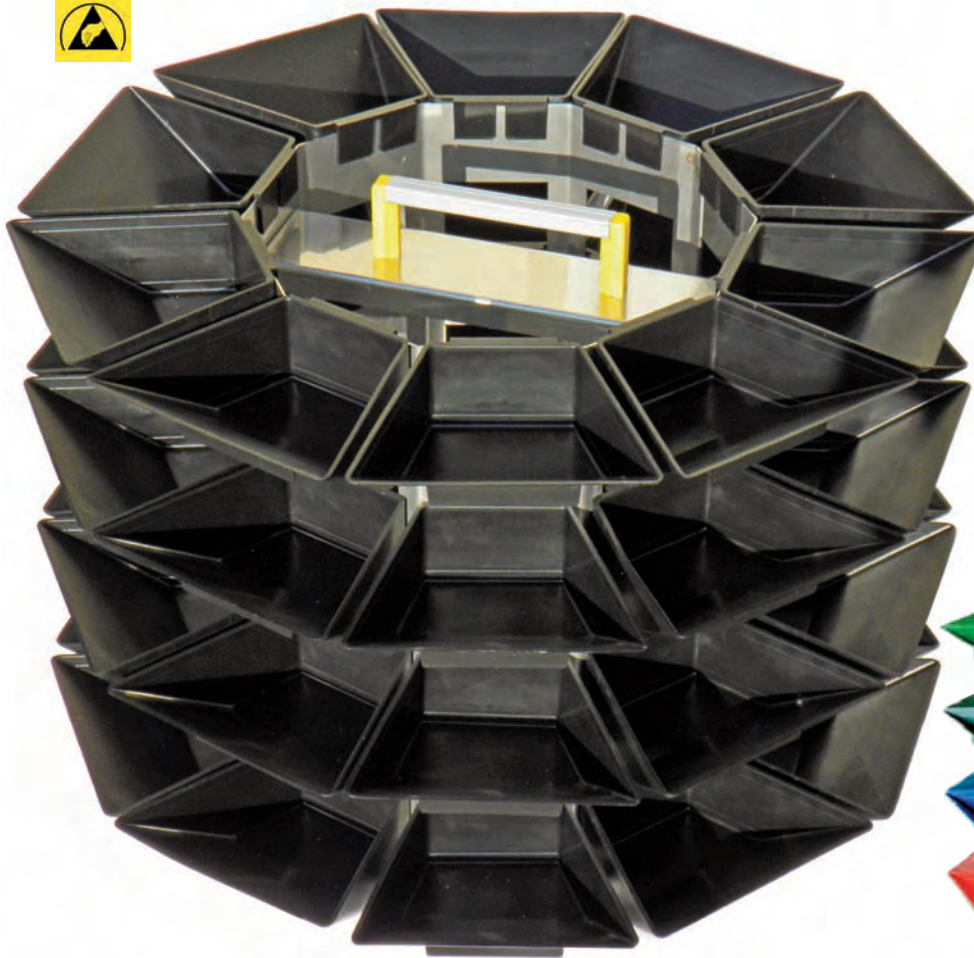
Simple residues can be cleaned off the tip at the rubber lip

Types:

Model	Inner Diameter	Outer Diameter	Weight
B-250	25 mm	50x22 mm	65 g
B-500	50 mm	87x30 mm	185 g

Materialies: Magnetic plate, High temperature-rubber, rounded stainless steel bars

The Types:

CARO 01 - ESD

A very versatile and easy to rotate helper for all day use.

Solid mechanical construction ensures a very long life.

Comfortable handle to change from one to another workstation.

Solid base for a stable stand.

2 Version: colored tool-version or in ESD, static conductive for sensible Antistatic workplaces.

CARO 02**CARO 01 - ESD****Description:**

- Metal frame Stainless Optics, ESD
- 4 Levels
- 40 bins, conductive Thermoplast color: black
- Handle for carrying
- base-stand
- zink plated grounding Connection
- Weight: 4,8 kg

Dimensions:

Carousell:
Width (with bins): 460 mm, Height 400 mm

Bin dimensions:
Height 40 mm
length 106 mm
width 70 – 130 mm

CARO 02

- Metal frame white painted
- 4 Levels
- 40 bins, Thermoplast in 4 colors green, blue, grey, red
- Handle for carrying
- base stand
- Weight: 4,8 kg

Carousell:
Width (with bins): 460 mm, Height 400 mm

Bin dimensions:
Height 40 mm
length 106 mm
width 70 – 130 mm

Die Lötsauglitze® 3S-Wick® The Original

3S-Wick® patented vacuumization technology is preferred by leading organizations worldwide. Vacuumization yields a high-speed response wick for quickest and safest desoldering. A simultaneous comparison dip-test (MIL-STD-202 E Method 208 C) with competitive wicks will show the differences.

3S-Wick® flux is based on mildest non-corrosive, non-hygroscopic, non-conductive rosins of 'no-clean' quality.

3S-Wick® conforms to the most stringent soldering standards set worldwide i.e. DIN-8516, DIN-8527, DIN-8511-F-SW32 (German), BS-441, DTD-599A (British), JIS-C-2519, JIS-C-2512 (Japanese), ASTM-B284, NASA Publications MIL-F-14256D type W and A, NPC-200-4 Quality Publication, NASA-SP5002 Soldering Electrical Connections, NASA-NHB-5300 Reliability and Quality Assurance Publications, and others.

3S-Wick® is used and has been used for the most demanding desoldering operations in spacecraft and military electronics. 'No-clean' residues can be left safely on the desoldered area.

IMPORTANT:

The minimal residues left on the soldered area do also act as a solderability conservation for that area, should the resoldering not be done immediately there.

The technical term 'no-clean' Wick found in desolder braid descriptions and specs usually refers to a wick whose desoldering operation only leaves a minor amount of flux on the desoldered area and which do use a flux composition whose residues can be left safely on the desoldered area.

A fluxless wick as often proposed does not exist and can not function by metallurgical reasons.

LOTSAGLITZE® is a German word created about 36 years ago by Spirig and is registered as a trademark for Spirig. The commercial wicking technology to remove solder was established in Europe by Spirig.

Entlötlitze is also a recently created German word expression for desoldering braid and the use of Entlötlitze is free for the public use to describe this desoldering technology/products.

Why is it advantageous to remove solder using 3S-Wick®?



Wicking avoids damaging and life reducing heat shocks to components, printed circuit boards copper tracks (peel off danger if overheated) and surrounding components. Wicking also protects these parts against excessive temperatures of idling mechanical solder suckers.

3S-Wick® is made from high heat conductive copper and presents sufficient thermal mass per length to dampen heat shocks. Compare this to competing low thermal mass wicks!

The cold 3S-Wick® end is pressed with the hot soldering iron tip on solder to be absorbed. The cold wick and cold solder increase now gradually in temperature.

There is no sudden temperature increase with large temperature gradients causing extreme thermal stress to the solder area. As wick and solder reach the melting temperature range of the solder, the solder liquefies and is almost instantaneously drawn by capillary forces into the wick, like ink into a blotter. Wick and tip should now be lifted simultaneously. The wick end with the absorbed solder is now cut off preparing a fresh wick end for the next de-solder operation.

3S-Wick® is made from high heat conductive copper with sufficient thermal mass and protects therefore against those "deadly" hot idling iron tip temperatures. The thermal mass of 3S-Wick® naturally cools the solder tip.

A too small solder tip compared to the 3S-Wick® size causes the tip temperature to considerably drop. The resulting temperature of the wick end, solder and tip might even fall under the melting point of the solder. Such a situation will not give a satisfactory desoldering operation.

If the temperature drops below the melting temperature then the temperature will rise only slowly by the heating power of the iron. The desoldering operates slowly, looks like freezing.

The size of tip therefore should be large enough to be able to store sufficient heat energy in its mass to bring upon contact the temperature of the wick and solder safely above the melting point of the solder. Correct wicking uses the stored heat in the tip for a speedy desoldering operation.

De-soldering by wicking means actually soldering the wick with the unwanted (to be removed) solder. The solderability of the wick is therefore a direct quality indicator for the wick itself.

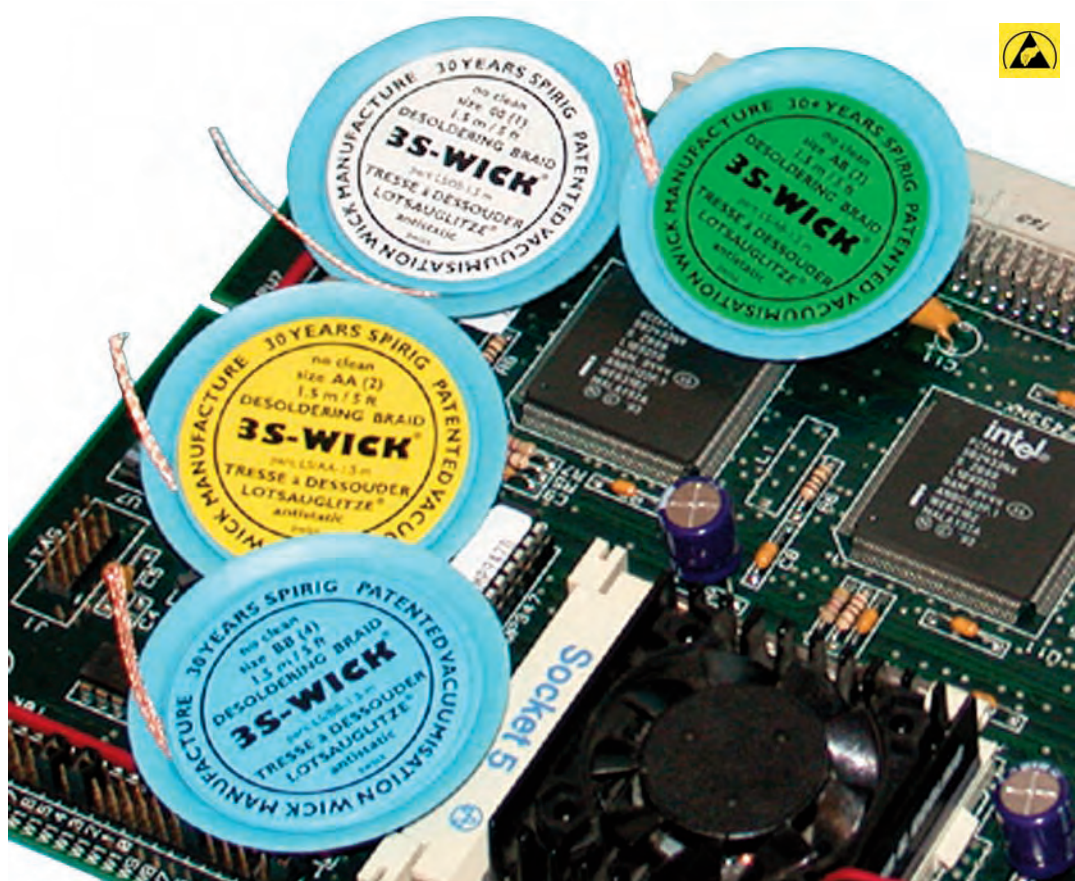
Spirig's patented vacuumisation production process dries the wet flux coated braid structure under vacuum and without heating. Therefore eliminating rise of chemical activity and interactions of the coating with the copper surface. The solvents in the vacuum pump exhaust are recycled.

Ozone depleting substances do not escape into nature.

Minimal loss of expensive solvents is one of the reason for economic wick production costs.

Spirig's patented powder flux deposit production process does not use solvents at all. Costly solvents and recycling is avoided completely. This is the ultimate economic approach to braid processing. Ozone depleting substances do not exist at all in this patented flux coating process.





Type	Colorcode	Width ca.	Length on spool	Part number.	Application	Recommended Heat Power
0	white	0,80 mm	1.5 m	LS/00-1.5m	very fine joints	from 20 Watt
			25 m	LS/00-25m		
AA	yellow	1,50 mm	1.5 m	LS/AA-1.5m	fine joints	from 30 Watt
			25 m	LS/AA-25m		
AB	green	2,20 mm	1.5 m	LS/AB-1.5m	medium joints	from 50 Watt
			20 m	LS/AB-20m		
BB	blue	2,70 mm	1.5 m	LS/BB-1.5m	large joints	from 80 Watt
			15 m	LS/BB-15m		

The blue spools are in Antistatic material

For best results, use a screw driver type soldering tip, the width of the tip shall fit to the width of the Desolder braid.

No-clean Flux complies DIN EN 29 454 1.1.3

1.5m-Solder wicks are packed in boxes of 10 pieces.

Dispenser Pumps & Bottles

The pumps:



**Dish-pump
One-Touch**

This pump automatically allows the flow back of the media into the bottle, which prevents unnecessary evaporation of the liquid.



**Dish-pump, lockable,
One Touch Take along**



**„Mushroom“-pump
Pure Touch**

This pump prevents the flow-back into the bottle to avoid any pollution of the original content.



**„Mushroom“-pump, lock
Pure Touch Take along**



Bottle volumes

2 oz =60 mL, 4oz=120 mL, 6oz=180mL, 8oz=240 mL

*) some bottles are available only in 1 or 2 sizes

Bottle Materials:



HDPE white (High density Polyethylen)

Metal

Conductive: black

Durastatic static dissipative: yellow, blue, orange, green

Glas: clear amber, various frosted colors

Ceramics: ask for our Beauty Special-catalog

Imprint:

Acetone, IPA, Flux Remover, Isopropanol, DI Water
(as far as available individually)

**Combinations and
availability:**

ask for quote of specific quantity and availability,

Special editions:

e.g. goldplated pumps are custom-made



Info: The locking mechanism is ideal for transport of the Menda pump in service bags and for increased work place safety to avoid unwanted spilling.



**Mushroom-pump,
Bottle HDPE white, 180 mL
Part number 35508**

**Dish-pump,
Bottle HDPE white, 180 mL
Part number 3316 or 35509**

**Dish-pump, locking
Bottle HDPE white, 180 mL
Part number 35703**

**Mushroom-pump, locking
Bottle HDPE white, 180 mL
Part number 35805**



**Mushroom-pump,
Bottle Durastatic yellow, 120 mL
Part number 35559**

**Dish-pump, locking
Bottle Durastatic yellow, 120 mL
Part number 35360-L**

**Dish-pump,
Bottle Durastatic yellow, 120 mL
Part number 35360**



**Dish-pump, locking
Bottle Durastatic blue, 180 mL
Part number 35559**

**Dish-pump,
Bottle Durastatic blue, 180 mL
Part number 35283**

**Mushroom-pump,
Bottle Durastatic blue, 180 mL
Part number 35285**



**Dish-pump, locking
Bottle Durastatic yellow, 180 mL
Part number 35276-L**

**Dish-pump,
Bottle Durastatic yellow, 180 mL
Part number 35276**

**Mushroom-pump,
Bottle Durastatic yellow, 180 mL
Part number 35276-P**



**Mushroom-pump,
Bottle Metal, 120 mL
Part number 35335-P**

**Mushroom-pump,
locking
Bottle Metal, 120 mL
Part number 35255**

**Dish-pump, locking
Bottle Metal, 120 mL
Part number 35256**

**Dish-pump,
Bottle Metal, 120 mL
Part number 35335**

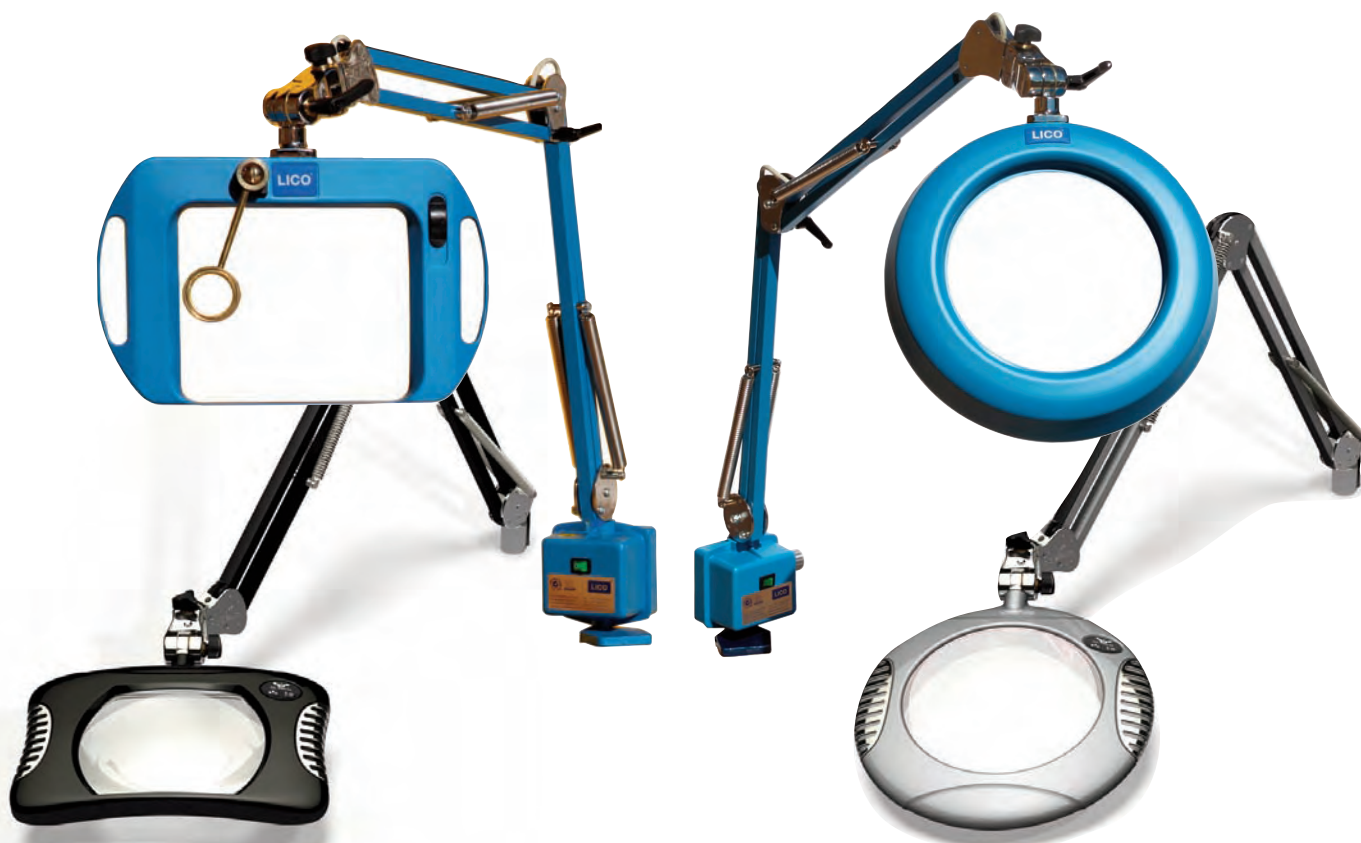


Limited Editions
always as long as stock lasts, e.g.

**Dish-pump gold plated,
frosted blue glass,
180 mL
Part number 35339**

**Ask for your very individual
Menda Dispenser Pump & Bottle !**

INSPECT SIMPLY BETTER



THE END OF EYESTRAIN & REJECT

We have the right magnifier to improve your inspection yield.

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LICO Hungaria Kft, H-2030 Erd
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+43 1 706 43 00 office@lico.at



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