



**WILLRICH PRECISION
INSTRUMENT**
THINK MEASUREMENT... THINK WILLRICH
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Vision
ENGINEERING



Industrial Illuminated Magnifiers

- ✓ Designed for industrial applications with perfectly balanced arms
- ✓ Large, high quality optics for comfortable and effective viewing
- ✓ Powerful illumination with excellent controllable light output
- ✓ Energy efficient with the latest LED technology
- ✓ ESD & UV variants available for specialised industry requirements
- ✓ 5 year warranty as standard



Wave LED / LED ESD / LED UV

Industrial rectangular lens LED bench magnifier

No knobs to tighten, nothing to adjust. The WAVE LED / LED ESD / LED UV have a flexible, self-balancing shade and hands-free neck assembly which allows the lamp head to be secured in any position. The fully-enclosed neck design is ideal for mechanical, electronics, dental, jewellery and other precision applications.

Wave LED / LED ESD / LED UV offers shadow-free magnification and 3D illumination with selectable left/right light control. Wave LED ESD has been designed for industrial applications where electrostatic discharges can damage electronic components.

Technical details

Light source: 2 x 6W dimmable LED modules. Brightness 4600 lux at 11" (279mm) focal length. 4000°K correlated colour temperature (CCT). 80 colour rendering index (CRI).

Body material & colour: WAVE LED steel arm, aluminium head, white or light grey. WAVE LED ESD steel arm, aluminium head, black only.

Mounting: Edge clamp as standard. Weighted base and other clamps and mounts available.

Optics: 3.5 (1.88x) or 5 (2.25x) diopter, 6.7" x 4.4" (171mm x 114mm) rectangular crown glass lens.

Secondary lenses: For additional magnifications a secondary 4-, 6- or 10-diopter STAYS lens can be attached to the primary lens.

Arm technology & movement: Heavy duty internal-spring 20" (508mm) parallel, three-pivot K-arm.

Timer and dimming: Step dimming 0-50-100%. Selectable left / right illumination. Auto shut-off function.



Wave LED / LED ESD / LED UV Magnification

Primary lens diopter	Secondary lens diopter	Total magnification	Focal length
3.5		1.88x	11" (285mm)
3.5	4.0	2.88x	5" (130mm)
3.5	6.0	3.38x	4" (105mm)
3.5	10.0	4.38x	3" (75mm)
5.0		2.25x	8" (200mm)
5.0	4.0	3.25x	4.3" (110mm)
5.0	6.0	3.75x	3.5" (90mm)
5.0	10.0	4.75x	2" (50mm)



Circus LED / Circus

Large diameter round bench magnifier

No knobs to tighten, nothing to adjust. Circus LED / Circus is specially designed to withstand the rigours of everyday use in industrial and manufacturing applications where foreign object debris (FOD) is a concern. Circus LED / Circus has a highly flexible, self-balancing head allowing it to be positioned vertically, horizontally and laterally. The fully-enclosed neck and internal spring-balanced arm make the Circus LED / Circus ideal for environments where cleanliness is sought.

Technical details

Light source: Circus LED, 10W total energy consumption. Brightness 3830 lux at 11" (279mm) focal length. 4000°K correlated colour temperature (CCT). 90 colour rendition index (CRI).

Circus, 22W T-5C fluorescent. Brightness 3500 lux at 11" (279mm) focal length. 4100°K correlated colour temperature (CCT). 82 colour rendering index (CRI).

Body material & colour: Steel arm with aluminium head. Fully-enclosed neck design. White with black accents.

Mounting: Edge clamp as standard. Weighted base and other clamps and mounts available.

Optics: 3.5 (1.88x) or 5 (2.25x) diopter, 6.5" (165mm) diameter crown glass lens.

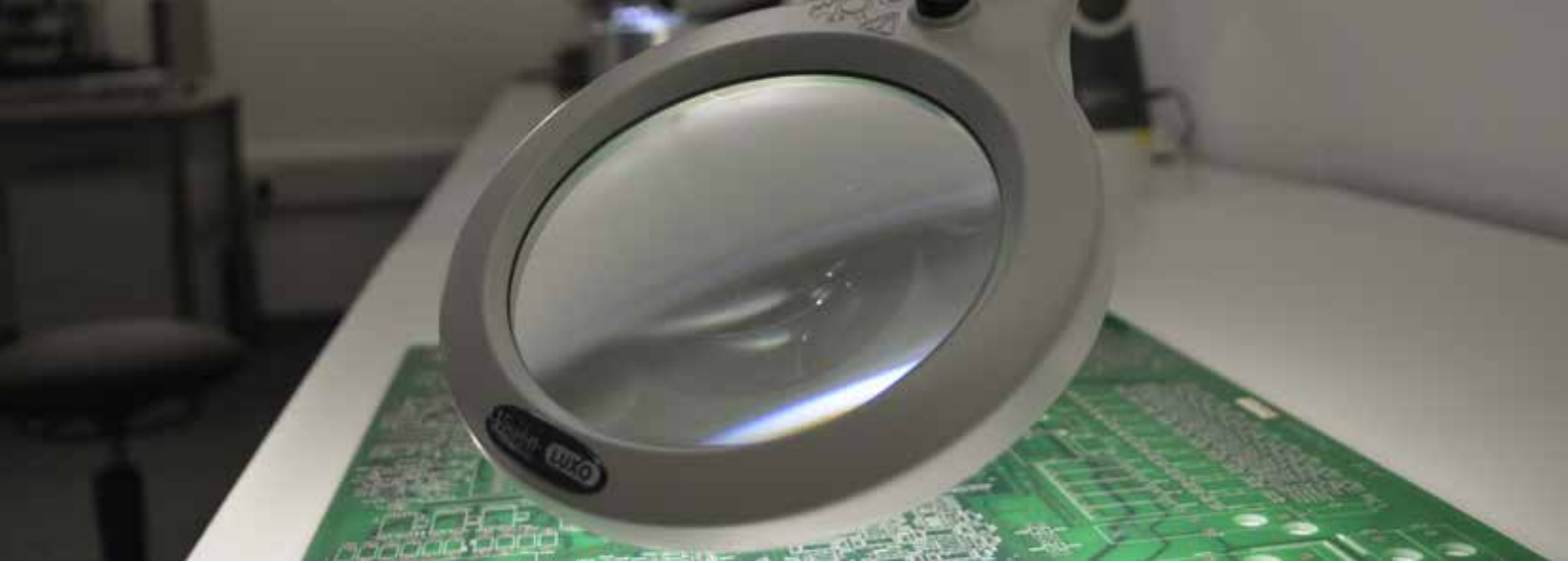
Secondary lenses: For additional magnifications a secondary 4-, 6- or 10-diopter STAYS lens can be attached to the primary lens.

Arm technology & movement: Heavy duty internal-spring 45" (1143mm) parallel, three-pivot arm with 0.75" (19mm) steel tubing. Shade built-in handles for positioning of lamp head. Removable tinted hinged lens cover (Circus only).

Timer and dimming: Circus LED dimming 10-100%. Auto shut-off function.

Circus LED / Circus Magnification

Primary lens diopter	Secondary lens diopter	Total magnification	Focal length
3.5		1.88x	11" (285mm)
3.5	4.0	2.88x	5." (130mm)
3.5	6.0	3.38x	4" (105mm)
3.5	10.0	4.38x	3" (75mm)
5.0		2.25x	8" (200mm)
5.0	4.0	3.25x	4.3" (110mm)
5.0	6.0	3.75x	3.5" (90mm)
5.0	10.0	4.75x	2" (50mm)



LFM LED G2

Lightweight illuminated bench magnifier

LFM LED G2 is a lightweight magnifier with an all-metal construction, LED light source and a flexible internal spring-balanced arm. It is suitable for professional and industrial applications where precise magnification is in demand.

LFM LED G2 is supplied with an 5" (127mm) 3 or 5 diopter glass lens. This professional bench magnifier is equipped with a full circle flicker-free illumination allowing for virtually shadow-free viewing.

Technical details

Light source: 9W dimmable LED modules. 4000°K correlated colour temperature (CCT). 80 colour rendition index (CRI).

Body material & colour: Die-cast aluminium housing. Available in light grey.

Mounting: Edge clamp as standard. Other clamps and mounts available.

Optics: 3 (1.75x) or 5 (2.25x) dioptre, 5" (127mm) diameter lens.

Secondary lenses: For additional magnifications a secondary 4-, 6- or 10-dioptre STAYS lens can be attached to the primary lens.

Arm technology & movement: Heavy-duty internal spring 41" parallel, three-pivot K-arm.

Timer and dimming: Step dimming 0-50-100%. Auto shut-off function.

LFM LED G2 Magnification

Primary lens dioptre	Secondary lens dioptre	Total magnification	Focal length
3.0		1.75x	13.0" (330mm)
3.0	4.0	2.75x	5.5" (140mm)
3.0	6.0	3.25x	4.3" (110mm)
3.0	10.0	4.25x	2.8" (70mm)
5.0		2.25x	8" (200mm)
5.0	4.0	3.25x	4.3" (110mm)
5.0	6.0	3.75x	3.5" (90mm)
5.0	10.0	4.75x	2" (50mm)



KFM LED / KFM LED ESD

Multi-purpose industrial bench magnifier

KFM LED / KFM LED ESD has a robust all-metal construction with sleek design, a flexible arm and excellent light output. It is suitable for all industrial and professional applications.

The flexibility of the joint between the head and the arm makes exact positioning very easy. The quality of the LED illumination allows for virtually shadow-free magnification and excellent colour rendering.

KFM LED ESD is designed to drain away static charges, as they occur, in a controlled manner.

Technical details

Light source: 2 x semi-circular 9W LED modules. Brightness 3000 lux at 13" (330mm) focal length. 4000°K correlated colour temperature (CCT). 80 colour rendition index (CRI).

Body material & colour: KFM LED steel arm, aluminium head, light grey only. KFM LED ESD steel arm, aluminium head, black only.

Mounting: Edge clamp as standard. Weighted base and other clamps and mounts available.

Optics: 3 (1.75x) or 5 (2.25x) diopter, 5" (127mm) white crown glass lens.

Secondary lenses: For additional magnifications a secondary 4-, 6- or 10-diopter STAYS lens can be attached to the primary lens.

Arm technology & movement: Heavy duty internal-spring 30" (762mm) parallel, three-pivot K-arm.

Timer and dimming: The LED light modules are dimmable 1-100%. Auto shut-off function.



KFM LED Magnification			
Primary lens diopter	Secondary lens diopter	Total magnification	Focal length
3.0		1.75x	12" (300mm)
3.0	4.0	2.75x	5.5" (140mm)
3.0	6.0	3.25x	4.3" (110mm)
3.0	10.0	4.25x	2.8" (70mm)
5.0		2.25x	8" (200mm)
5.0	4.0	3.25x	4.3" (110mm)
5.0	6.0	3.75x	3.5" (90mm)
5.0	10.0	4.75x	2" (50mm)



IFM Magnifier

Round lens fluorescent bench magnifier

IFM is a round lens bench magnifier ideal for low-power inspection. A 22W circular fluorescent lamp provides 360° shadow-free illumination and a lamp diffuser cover protects the bulb from damage. The IFM is a smart and economical choice for tight budgets.



Technical details

Light source: 22W circular fluorescent. Built-in starter switch.

Body material & colour: Stamped steel head. White or light grey.

Mounting: Edge clamp as standard. Weighted base and other clamps and mounts available.

Optics: 3 (1.75x) or 5 (2.25x) diopter, 5" (127mm) diameter lens.

Secondary lenses: For additional magnifications a secondary 4-, 6- or 10-diopter STAYS lens can be attached to the primary lens.

Arm technology & movement: External-spring 45" or 30" (1143mm or 762mm) L-arm.

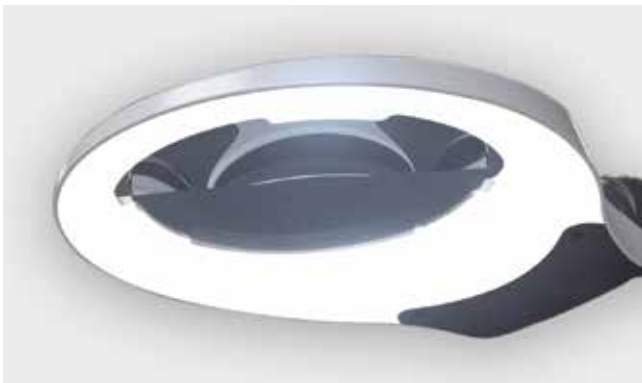
Power supply: Electromagnetic ballast 3-conductor single outlet receptacle at the base of the arm for models 16345WT and 16346WT.

IFM Magnification			
Primary lens diopter	Secondary lens diopter	Total magnification	Focal length
3.0		1.75x	12" (300mm)
3.0	4.0	2.75x	5.5" (140mm)
3.0	6.0	3.25x	4.3" (110mm)
3.0	10.0	4.25x	2.8" (70mm)
5.0		2.25x	8" (200mm)
5.0	4.0	3.25x	4.3" (110mm)
5.0	6.0	3.75x	3.5" (90mm)
5.0	10.0	4.75x	2" (50mm)

Designed for industrial applications

Maximum flexibility & perfect balance

Our bench magnifiers are specially designed for maximum flexibility. They offer a combination of the three all-important head movements; horizontal side-to-side movement (**yaw**), up and down movement (**tilt**) and rotation around a horizontal axis (**roll**). The arms are perfectly balanced by quality spring systems which ensure smooth and easy positioning.



Ergonomic & energy efficient

Our modern magnifiers are designed to provide the best possible ergonomics, while saving energy using LED technology. All LED magnifiers have a life expectancy of up to 50,000 hours, around 25 years of normal use.

Accessories

Brackets



A-Edge Mount Bracket



KFM LED Handles



AH Mount Bracket



Floor Stand (Trolley)
With Extra Weight



TE Table Bushing

STAYS Lenses



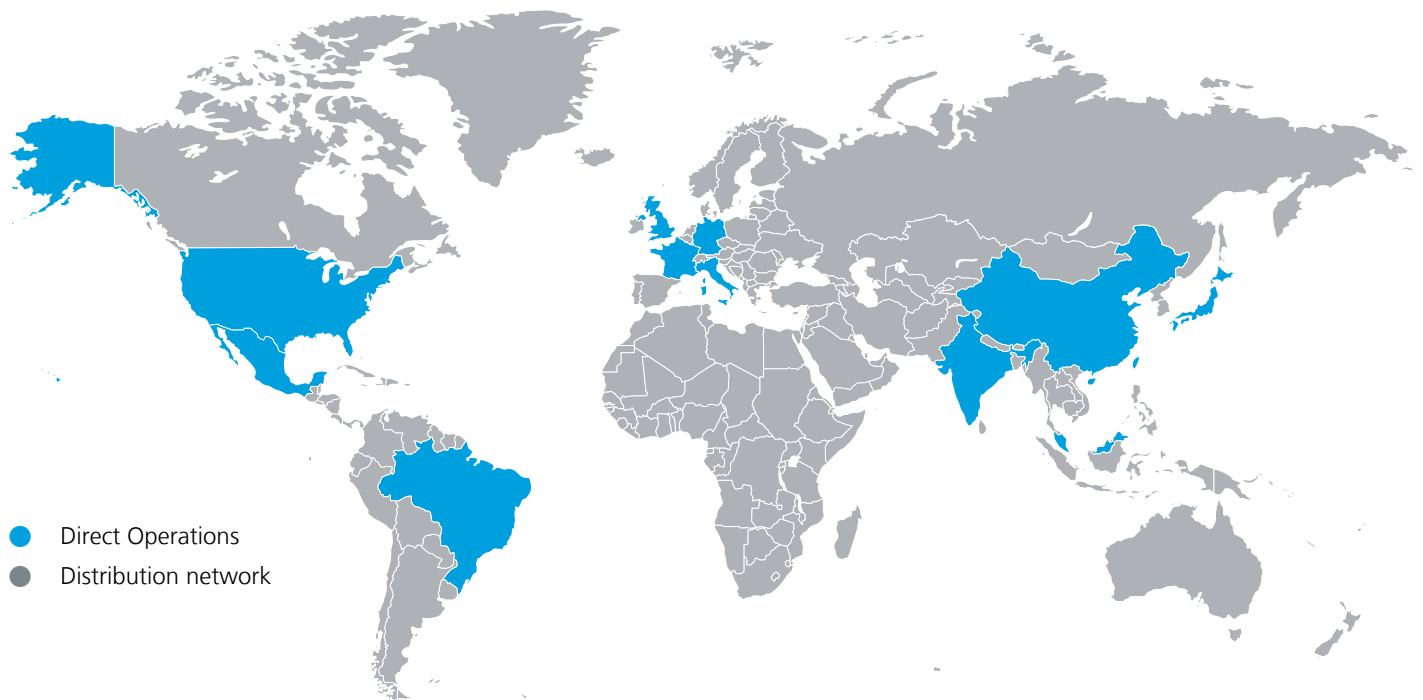
Self-Traction Accessory Yield System (STAYS)

STAYS lenses are for use with KFM LED, KFM, WAVE LED, LFM LED, IFM, Circus and Circus LED Magnifiers.

Lens diameter 2" (51mm).

Lens diameter including silicon gasket frame 2.4" (63mm).

Vision Engineering is a global manufacturer of ergonomic stereo microscopes, digital spection systems, and optical and video measuring systems.



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