

**BRIGHT
SOLUTIONS**
LIGHT WELL
SYSTEMS
FROM MEA

THE RIGHT SOLUTION FOR EVERY PROJECT

LIGHT WELL SYSTEMS MADE OF GRP AND CONCRETE, INSULATION PANELS AND ACCESSORIES

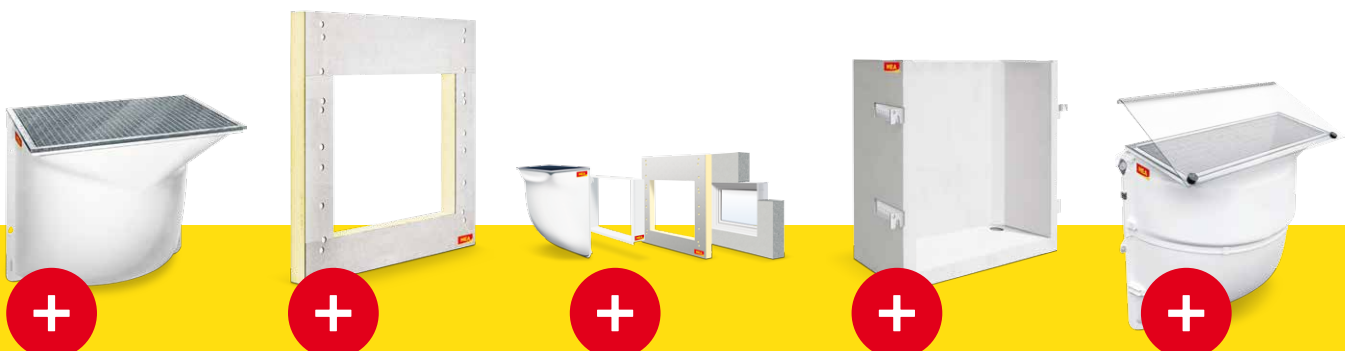


MEA

THE COMPREHENSIVE CAREFREE SYSTEM FROM MEA

Each new building or modernisation project has its own special requirements in terms of materials, workmanship and insulation. That's why we have developed the right solution for every building project. MEA light wells channel daylight into your basement and reliably restrain invasive water,

depending on the design. You can choose between ultra-light-weight glass-fibre reinforced plastic light wells (GRP) and made-to-measure solutions in concrete. Get to know the MEA product range for light wells, including all the accessories and everything you need for installation.



Plastic light wells



Insulation panels



Complete systems



Concrete light wells



Accessories

Our products are all coordinated to ideally match one another, helping you avoid installation errors and saving you time, as there is no complicated measuring and drilling.

PLASTIC LIGHT WELLS: LIGHT WORK IN THE BASEMENT

We have a longstanding reputation as specialists for the manufacturing and processing of GRP. You can literally feel the benefits of this lightweight building material:

- ✓ GRP light wells retain their shape
- ✓ Effectively channel light
- ✓ Recyclable
- ✓ Up to 84 per cent lighter than concrete products
- ✓ Low-cost delivery and storage
- ✓ Easy to stack
- ✓ Can be installed by one person
- ✓ Can be installed directly on the concrete wall or with insulation

MEA MULTINORM: the GRP all-rounder

The all-rounder in the GRP field is suitable for simple applications in new buildings or when renovating. Apart from the standard version, there is also a reinforced version for soils that are difficult to compact as well as an AQUA solution.

MEAMAX: the flexible, all-purpose light well

Not everything can always be planned down to the last detail. Whereas conventional products are unforgiving, MEAMAX offers you a great deal of flexibility. Even after installation, the system can still be adjusted to the required ground height, finely adjusted and then fixed with clamps – without having to drill additional holes. Available in six different sizes.

MEA MULTINORM

- ✓ Lightweight well body made of GRP
- ✓ Withstands up to 900 kg wheel load when equipped with suitable grating
- ✓ Available in three depths (40, 60, 70 cm) and as large light well
- ✓ Suitable for all building situations when fitted with the appropriate light well gratings
- ✓ Height-adjustable using extensions

MEAMAX

- ✓ With integrated height adjustability
- ✓ Height can be additionally raised with up to three intermediate elements
- ✓ Watertight installation up to the height of the ground element
- ✓ Suitable for pedestrian or light vehicle traffic

Available as a reinforced version for soils that are difficult to compact



Available either with closed floor or with drainage opening

Height-adjustable by up to 25 cm with integrated extension



MEA MULTINORM light well

MEAMAX light well

VENTILATION SHAFTS: TAKING A DEEP BREATH

In some basement rooms such as the laundry or the boiler room, sufficient ventilation is essential. The optimum solution for basements where daylight is not the key issue are MEA ventilation shafts made of GRP.

- ✓ Up to seven shafts can be stacked on top of each other
- ✓ Can be fitted by one person
- ✓ Takes up very little space

Small in size, but plenty of air: ventilation shafts are available in size 42 cm x 42 cm x 325 cm

Available with specially designed gratings and fixing sets



MEA ventilation shaft

AQUA SOLUTIONS: **WATERTIGHT** SYSTEMS MEETING DIN STANDARDS



We also offer watertight versions of our plastic light wells. The Materials Testing and Research Institute [MPA Karlsruhe] examined the AQUA solutions under permanent exposure to water over a period of five years. The conclusion: our light wells are absolutely watertight in accordance with DIN 18195 standards.

- ✓ Simple, watertight installation with AQUA fixing set
- ✓ Specially designed adhesive and sealing agent for lasting watertight bonding between the concrete wall and the light well
- ✓ Available either with closed floor or with drainage opening to connect to the wastewater system

Watertight installation up to the height of the ground element



Four holes through bond with concrete using MEA AQUA adhesive and sealing agent

MEAMAX AQUA light well

Three types of walk-on grating are available



Optionally available with drainage connection

MEA MULTINORM AQUA light well

Timesaving installation without rail systems that are complicated to fit

INSTALLATION: EACH PART FITS THE OTHER

A smart solution isn't something you only appreciate when it's put into use. It should also be simple to install in just a few working steps. That's why we have developed a method that makes installation as simple as possible for you. With the

MEA Connect-System, we provide you with a well thought out system in which the components all match each other perfectly – frame, window unit, insulation panel, perimeter masking frame and plastic light well.



Installation according to the MEA Connect-System



MEAFIX for GRP light wells: including thermal insulation

With the MEAFIX insulation panel, installation is done in next to no time. The precisely fitting opening for the required size of casement window and integrated connection holes enable the components to be installed without measuring or drilling. The perimeter insulation does not have to be damaged and the light well can be installed without creating unwanted thermal bridges.

We don't use just any insulation material for the sealing, but XPS. It has been specially approved for use with soil and displays thermal conductivity of 0.038 W/(m²K), making it simple to comply with energy efficiency regulations.

- ✓ Clad with a fibre cement board
- ✓ Can be directly painted
- ✓ Watertight installation with MEA AQUA fixing set
- ✓ Light wells are anchored in the insulation panel
- ✓ Concrete wall does not need to be penetrated
- ✓ Suitable for walk-on light wells
- ✓ Custom-made sizes also available

CONCRETE LIGHT WELLS: DURABLE DESIGNS FOR TOUGH ENVIRONMENTS

Their high compressive strength makes concrete light wells the ideal choice for meeting tough building site requirements or wherever there is heavy traffic, such as in underground garages, public buildings, skyscrapers or industrial complexes.

Specially designed solutions can also be made to order. A green advantage: its natural basic materials such as cement, sand, gravel and water make concrete the ideal material for ecological building.

MEAVECTOR: handles any pressure

MEAVECTOR concrete light wells are at least eight centimetres thick. Their reinforced concrete construction and braced corners give them the ability to withstand constant high soil pressure. Light coloured, exposed concrete makes sure that your basement gets plenty of light.

- ✓ C30/37 quality concrete certified by the "PÜZ BAU" quality monitoring association
- ✓ Available in six standard widths (up to 252 cm), eight standard heights (up to 200 cm) and four depths (50, 60, 80 and 100 cm)
- ✓ Also available as emergency exit
- ✓ MEAVECTOR Individual: Made-to-measure manufacturing and non-standard shapes available to suit individual needs (widths up to 350 cm; heights up to 380/430 cm with or without floor)

High-precision concrete edges for absolutely smooth grating support

With gratings suitable for pedestrians or light vehicular traffic

Crane cable securing bolts available for safe installation

Additional height with concrete, steel or PVC FLEX extension units

Galvanised steel retaining clips for insulation thicknesses up to 300 mm

Available either with closed floor or with drainage opening



MEAVECTOR standard concrete light well

MEAVECTOR AQUA:

Water protection according to regulations

The MEAVECTOR AQUA or AQUA PLUS models are recommended for use if there is a risk of flooding or pressurised water. They are watertight and suitable for use for load factors in accordance with DIN 18195 sections 4 and 6. Robust insulation material guarantees high compressive strength.

MEAVECTOR pumping sump shaft: the ideal solution for wastewater

The MEAVECTOR pumping sump shaft is a pre-fabricated concrete component that reliably collects and channels off wastewater from your basement. An integrated submersible pump conveys the water into the wastewater pipe.

MEAVECTOR AQUA

- ✓ **With MEAVECTOR AQUA duplex seal:**
compensates for uneven subsurfaces and seals reliably – low thermal conductivity, prevents thermal bridges
- ✓ **Integrated compression protector:**
a butyl rubber seal maintains even distance between concrete wall and light well
- ✓ **Also available as MEAVECTOR AQUA PLUS:**
with additional thermally separated spacers, pressure-resistant, insulates without thermal bridges

MEAVECTOR pumping sump shaft

- ✓ Available with and without drain
- ✓ Chequered plate cover available separately
- ✓ Including sealing band for secure connection to the base plate
- ✓ No additional formwork required



With factory-installed seal



Additional installation point, in case concrete reinforcement prevents installation

AQUA fixing bracket for quick, practical installation

In addition to seal with circumferential spacer

Sealing band and structural steel for integration in the base plate



With or without drain

INSTALLATION: NOTHING COULD BE SIMPLER

Our concrete products are also easy to install using the proven MEAVECTOR Connect-System: the MEAFIX insulation panel is available with the right openings for MEALUXIT and MEAFIX casement windows. Once the window size has been determined, all of the other system components can be coordinated to match. The MEAVECTOR light well can be installed on the insulation panel in widths up to 152 centimetres using specially designed anchors that ensure there are no thermal bridges.

- ✓ Prefabricated attachment points for easy installation
- ✓ Without damaging the house wall
- ✓ Clad with a fibre cement board, can be directly painted
- ✓ No plastering required
- ✓ Suitable for walk-on light wells
- ✓ Custom-made sizes also available



Installation according to the MEA Connect-System

MEAFIX specially designed anchoring for thermally separating concrete wall from concrete light well

ACCESSORIES FOR CONCRETE LIGHT WELLS: CAPABLE OF HANDLING ANY HEIGHT

No two building projects are the same. That's why the specially designed MEAVECTOR accessories are just as flexible to use as the concrete light wells and available in a wide range of sizes.

MEAVECTOR concrete extension unit

- ✓ For extending the height of concrete light wells by 10, 15 or 20 cm
- ✓ Custom-made heights on request
- ✓ Fold height 2.5 cm, fold inside

MEAFLEX PVC extension unit

- ✓ For repaving in areas for pedestrian use
- ✓ Including steel frames for increasing height by 20 cm
- ✓ Height easy to adapt on-site
- ✓ Angled cut possible for gradients

MEAVECTOR steel extension unit

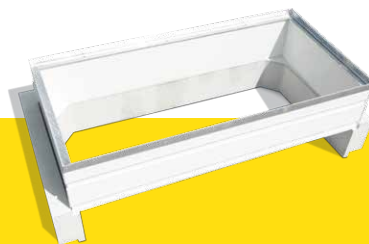
- ✓ Circumferential extension unit made of galvanised steel
- ✓ For paving flush to light well
- ✓ Concrete edge no longer visible after paving
- ✓ For increasing height by 5 or 10 cm
- ✓ For inside fold, 3 mm angled profile

MEAVECTOR backfill plates

- ✓ For closing the back when used as a ventilation shaft, such as for ventilating underground garages
- ✓ Available in various widths and heights
- ✓ Bonding with installation adhesive



MEAVECTOR concrete extension unit



MEAFLEX PVC extension unit



MEAVECTOR backfill plates



GENERAL ACCESSORIES: EVERYTHING ELSE YOU NEED

There are various options for protecting MEA light wells from fallen leaves and small animals. Our gratings and light well covers keep out dirt and allow fresh air to flow into the basement.

Light well gratings

- ✓ Various models available in galvanised steel
- ✓ Various types of grating for walk-on, light and heavy vehicle traffic
- ✓ Gratings in standard depths: with 3.5 cm space to wall
- ✓ Shortened gratings: precisely manufactured to match the thickness of plaster or insulation
- ✓ Extra-deep gratings: 3 cm deeper than standard gratings, recommended for use with back-fill plates

MEACOVER covering

- ✓ Aluminium cover with UV-resistant polycarbonate insert
- ✓ Including ventilation grating
- ✓ Optionally available with ventilation extension for protection from rainwater
- ✓ No waterlogging

MEATOP protective grating

- ✓ Universal protective grating made of tightly meshed stainless steel
- ✓ Aluminium frame
- ✓ Can be cut exactly to size
- ✓ Suitable for all light well sizes up to 115 x 60 cm
- ✓ End profile brush optionally available

MEACAPE glass cover

- ✓ Cover made of single-pane safety glass
- ✓ Can be directly attached to the house wall at sloping angle using aluminium profile
- ✓ Protection from building run-off water



Optionally available with ventilation extension for protection from rainwater

Aluminium frame with polycarbonate insert and ventilation grating

MEACAPE glass cover:

easy to attach to the house wall using aluminium profile – effective protection from building run-off

MEATOP: universal protective grating, suitable for all light wells up to 115 x 60 cm



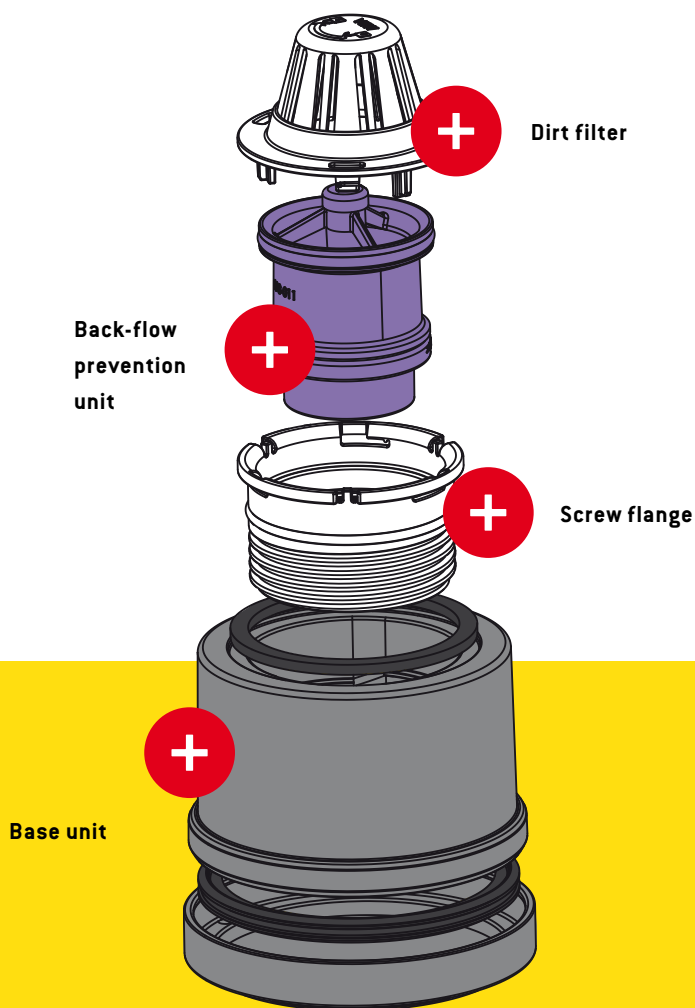
MEATOP: optionally available end profile with brush for precise connection to the house wall

MEACOVER

Light well cover

Drainage accessories

Our light wells are optionally available with an opening for a drainage connection and can be combined with further accessories:



MEASTOP PRO

MEASTOP PRO

drainage connection

- ✓ With dirt filter, screw flange and base unit (can be optionally retrofitted with MEASTOP PRO back-flow prevention unit)

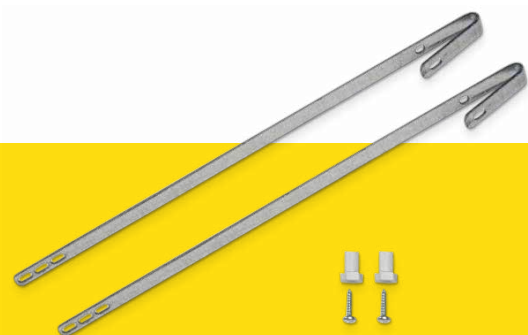
MEASTOP PRO

back-flow prevention unit

- ✓ Including odour barrier, reduces back-flowing water, reduces odours from continuing wastewater pipes.

Grating retaining clips

- ✓ Available in various models for all types of light well





Grating fixings

CONCRETE OR PLASTIC: WHICH LIGHT WELL IS RIGHT FOR WHICH BUILDING PROJECT?

With MEA you have the choice between lightweight, low-cost solutions made of glass-fibre reinforced plastic and robust concrete light wells for handling extremely heavy loads.

But which is the best choice for your project? This overview can help you make the right decision.

	 GRP	 Concrete
Light loads (walk-on)	●	●
Heavy loads (suitable for trucks)	○	●
Easy to install	●	○
Low-cost solution	●	○
Standard-sized light well	●	●
Custom sizes	○	●
Residential building	●	●
Public building	○	●
AQUA installation	●	●

MEA

MEA services

Whatever project you are planning, our contacts at MEA Bausysteme are always nearby to assist you. Our expert sales team can provide you with comprehensive advice on building and also offer training for planners, builders and building materials suppliers. Our extensive network of materials suppliers always have our products on stock and are ready to deliver at short notice.

Just give us a call and we will be happy to discuss your options with you.

You can find your own individual contact online on our contact page at:

www.mea-group.de/bauprodukte



BUILDING SUCCESS

ME A Bausysteme GmbH / Sudetenstrasse 1 / D-86551 Aichach
www.me-a-group.de