pendant light fittings
From drilling platforms through to chemical installations, from grain silos through to pharmaceutical, environmental and foodstuff-engineering facilities – R. STAHL is a partner that you can rely on.

With the wide range of floodlights, pendant light fittings, compact lights, hand lamps as well as complex emergency lighting systems, every area of your plant is safely illuminated. In addition to standard solutions, R. STAHL is your partner for individual complete solutions in the explosion protected lighting system sector and for comprehensive service. Need vast quantities of light? Then the pendant light fittings from R. STAHL for Zone 2 and Zone 1 are the perfect choice for you.

Pendant light fitting series 6470/6480 _ Zone 2, Zone 21, Zone 22, Division 2  

Pendant light fitting series 6050 _ Zone 1, Zone 21  

Uncompromising _ 100% tested  

Certified _ worldwide approvals  

Technical data
A wealth of light for Zone 2. This task is accomplished both safely and extremely cost-effectively with the new and meticulously thought out 6470/6480 series of pendant light fittings from R. STAHL. In order to fulfil our promise of "light without end", these light fittings have been put into standardised serial production. The pendant light fittings are available in three sizes. Size 1 allows light sources of up to 150 W to be used, size 2 up to 250 W and size 3 up to 600 W. The entire 6470/6480 series of light fittings meets the IEC and NEC guidelines and can thus be used worldwide in Zone 2, Zone 21 and Zone 22 as well as in Division 2 and both onshore and offshore. Diverse mounting options make these compact, lightweight pendant light fittings from R. STAHL extremely flexible. Connecting and maintaining the light fittings requires no effort and is literally a matter of child’s play. And in order to fulfil almost every wish, we also offer several optional accessories, such as an aluminium wire guard or two different external reflectors made of fibre-glass reinforced polyester.
Description
> for gas discharge lamps up to 600 W
> pendant light fittings in a restricted breathing version featuring diverse mounting options
> glass cover made of impact-resistant, temperature change-resistant borosilicate glass
> housing material made of seawater-resistant aluminium
> external reflector and wire guard available

Use
> for general lighting systems with a higher suspended mounting in outdoor installation or production halls
> suitable for low ambient temperatures –40 °C to +55 °C (depending on lamp type)
> international approvals
  ATEX, IEC Ex, GL (für 6470) and UL

Light technology
> very high light efficiency
> rotationally symmetrical light distribution (narrow und broad-beamed)
> long lamp service life
> lamps are alternatively fitted with mercury blended lamps, high-pressure mercury vapour or sodium lamps

Level of protection
> IP 66 according to EN 60529
> Type 3, 4, 4X

EN, IEC
- II 3 G, EEx nR T*
- II 2 D, IP 66 T_{\text{Omax}}
- II 3 D, IP 66 T_{\text{Omax}}

NEC
- Class I Div. 2, Groups A, B, C, D
- Class I Zone 2
- Class II Div. 2, Groups A, B, C, D, F
- Class III

* depending on lamp capacity T3/T4
With the 6470/6480 series of pendant light fittings, you can rest assured that your work will be as efficient as humanly possible. The numerous different mounting options featured in this series of light fittings ensure a suspension method precisely tailored to your specific needs without any improvisations. Installation is exceedingly efficient and easy. The generously-sized terminal compartment is opened by a hinge, the cables can be quickly mounted and the light fitting is easily closed again. When the glass cover is opened to screw in one of the many different lamps, the cover, along with the wire guard, can be hung on a chain. This frees up both your hands. Of course, there are even more accessories as well as numerous small mounting components available for the 6470/6480 series of pendant light fittings from R. STAHL.
**Mounting options**
- direct ceiling installation
- suspension-mounting using ring bolts
- ceiling or wall installation with an adjustable stainless steel mounting bracket
- mast-mounting 25° or straight
- suspension-mounting using conduit

**Installation**
- uncomplicated and efficient
- large, well-arranged terminal compartment
- quick apparatus replacement
- easy opening and closing using a hinge
- quick lamp replacement
- glass cover and wire guard hang on a chain
- extremely maintenance-friendly

**Lamp types**
- all-purpose lamps
- halogen incandescent lamps
- mercury blended lamps
- halogen high-pressure iodide lamps
- high-pressure sodium lamps, single and dual burner
- mercury vapour lamps
- induction lamps

**Accessories**
- can be subsequently retrofitted
- external reflector made of fibre-glass reinforced polyester
- wire guard made of seawater-resistant aluminium
- hand-held testing device for restricted breathing
Even in Zone 1, it will be bright as day. The 6050 series of pendant light fittings from R. STAHL has also been put into standardised serial production in order to provide you with vast quantities of light. Approved according to IEC for Zone 1 and Zone 21, they can be used worldwide both onshore and offshore. They are installed using eyelets or the swivelling mounting bracket. The external terminal box considerably facilitates and expedites installation. This modern 6050 series of pendant light fittings from R. STAHL is virtually maintenance-free. An extremely long service life can be achieved using the corresponding lamps, for example, the induction lamps or the high-pressure sodium lamps equipped with dual burner technology. This light fitting is particularly suitable for poorly accessible, safety-related areas.

If, however, the lamp must be replaced, an optional switch can be installed for safety purposes in order to open the glass. Additional accessories, such as a stainless steel wire guard and a highly-reflective aluminium reflector are also available for this series of light fittings.
**series 6050**

1. Adjustable stainless steel mounting bracket for wall mounting
2. Ceiling installation with single point mounting
3. Ceiling installation with two eyelets
4. Easily accessible connection box
5. Secure option for holding the glass cover during maintenance work

**Description**
- For mercury blended and gas discharge lamps up to 400 W
- Pendant light fittings housed in a flameproof housing with Ex e connection boxes
- Seawater corrosion-resistant housing made of aluminium alloys, optional powder coated
- Glass cover made of impact-resistant, temperature change-resistant pressed glass
- Stainless steel wire guard
- Optional compensation in an add-on housing

**Light technology**
- Rotationally symmetrical light distribution (narrow und broad-beamed)
- High light efficiency
- Long lamp service life
- Lamps are alternatively fitted with mercury blended lamps, high-pressure mercury vapour or sodium lamps as well as compact lamps and halogen incandescent lamps

**Use**
- For general lighting systems with a higher suspension-mounting in outdoor installations or production halls
- Suitable for low ambient temperatures:
  -\(-25^\circ C\) to \(+55^\circ C\) (6050/3)
  -\(-40^\circ C\) to \(+55^\circ C\) (6050/1)
- International approvals for ATEX, IEC Ex and GOST-R

**Level of protection**
- IP 65/66 according to EN 60529

**EN, IEC**

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\begin{array}{ll}
\text{II 2 G, Ex de IIC T}^* \\
\text{II 2 D, IP 66 T}_{\text{O,max}}^*
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*Temperature class or maximum surface temperature varies depending on lamp capacity
R. STAHL places a high priority on the importance of developing new components, systems and processes in the lighting sector. Therefore, all important tests are conducted directly in our laboratories that have been recognised by independent testing authorities. The R. STAHL quality management ensures the high product level throughout the entire development and production phase. The light fittings undergo functional checks, hardness and safety tests according to the latest directives and standards.

Testing procedures
- our own testing laboratory
- our own calibration laboratory
- modern verifying and testing equipment
- recognised by the leading international testing authorities
- factory acceptance tests for national and international projects
- ongoing quality inspections
- routine testing conducted by regularly trained personnel
R. STAHL is one of the world’s leading manufacturers of explosion protected components and systems. We provide our customers with tailored, technologically pioneering solutions, including all the related advisory and customer services. In addition, the R. STAHL specialists collaborate together with national and international committees and have actively invested their many years of experience in helping to design and further develop improved safety regulations across the globe. This is precisely why we can also design, plan, configure and manufacture products within the lighting sector in exact accordance with local regulations and requirements for every market in the world. International certifications, approvals and patents underscore our competence and allow products from R. STAHL to be used all over the world.

- over 3000 certificates for explosion protection worldwide
- more than 70 patents
- member in numerous international standardisation committees, technical committees and work groups
- worldwide presence
- factory acceptance tests for national and international projects
technical data for pendant light fittings 6470/6480

Explosion protection

- gas explosion protection
- dust explosion protection

6470 II 3 G Ex nR II T
6470 II 3 D Ex IP 66 Tₐmax
6480 Class I, Zone 2, Group IIC T
6480 Class I, Div. 2, Groups ABCD T
6480 Class II, Div. 2, Groups FG T
6480 Class III

6470 PTB 05 ATEX 2045 (Zones 2, 22)
6480 PTB 05 ATEX 2043 (Zone 21)

Certifications

- gas explosion protection
- PTB 05 ATEX 2045 (Zones 2, 22)
- PTB 05 ATEX 2043 (Zone 21)
- dust explosion protection PTB 05 ATEX 2043 (Zone 21) File No. E 258154
- other approvals IEC Ex, GL
- marking 0102

6470 230 V, AC ±10%, 50 Hz,
6480 120 V, 60 Hz
others available upon request
observe specifications on the rating plate

- cos ψ = 0.9 (compensated)
- I (PE connection)
- L1+N for 4 mm² singel-wire and 6 mm² single-wire via the internal terminal block

Material

- housing material seawater-resistant aluminium
- glass cover temperature change-resistant borosilicate glass
- cover seal silicone rubber
- glass seal silicone rubber
- mounting bracket stainless steel
- external reflector fibre-glass reinforced polyester
- wire guard seawater-resistant aluminium
- M8 fastening screw (stainless steel)
- wall and ceiling installation,
- installation using mast adapter,
- suspended using eyelets,
- mounting brackets or conduit
- IP 66/Typ 3, 4, 4X
- –20 °C... +40 °C all variants
- –30 °C... +55 °C for sodium and high-pressure halogen-iodide lamps
- –50 °C... +55 °C for halogen incandescent lamps,
- all-purpose lamps and mercury blended lamps
- can easily be mounted later using M6 screws

Specially certified cable entries must be used (according to directive 95/9/EG)
- ›high‹ risk of mechanical damage – with minimum ingress protection 66.
The number of cable entries depends on the type of installation.
- standard M25 x 1.5
- special cable gland M20 x 1.5, others on request
- 1 1/4" BSP, 1 1/2" BSP, 3/4" NPT, 1" NPT

Cable entries

- threaded sockets for mast adapter light fittings

a detailed data sheet can be downloaded at:
technical data for pendant light fittings 6050

**Explosion protection**
- gas explosion protection
- dust explosion protection
  - II 2 G EEx de IIC T (Zone 1)
  - II 2 D IP 66 T_{D,max} (Zone 21)

**Certifications**
- gas explosion protection
- dust explosion protection
  - PTB 03 ATEX 1096 (Zone 1)
  - PTB 03 ATEX 1096 (Zone 21)
  - other approvals IEC Ex, GL
  - C E 0102

**Other approvals**
- 220 V/230 V/240 V/250 V, AC ± 6%, 50 Hz, others on request
- cos ϕ ≤ 0,9 (compensated)
- I (internal + external PE-/PA connection)
- L1+N+PE for 2,5 mm² single and fine-stranded wire

**Material**
- housing material: light metal
- glass cover: temperature resistant pressed glass
- cover seal: neoprene
- internal reflector: highly-polished aluminium
- external reflector: pure aluminium
- wire guard: steel wire (stainless steel)
- M4 fastening screw, torx screw heads
- suspended or ± 40° slewing angle
- using 2 x M8/2 x M10 thread wire inserts in the light fitting cover
- alternative: using additional mounting brackets (stainless steel); adjustable in 10° increments
- IP 66
- –40 °C... +40 °C/+50 °C for size 1
- –25 °C... +40 °C/+50 °C for size 3
- can easily be mounted later using M6 screws
- 2 x M25 x 1.5 → 1 x cable gland Ø 7 mm... 17 mm, 1 x stopping plug
- 2 x M20 x 1.5 → 1 x cable gland Ø 6 mm... 13 mm, 1 x stopping plug
- 2 x NPT 3/4" threaded holes
- 2 x NPT 1" threaded holes
- 2-pole, when opening the glass cover (option)

**Level of protection**
- IP 66
- ambient temperature
- –40 °C... +40 °C/+50 °C for size 1
- –25 °C... +40 °C/+50 °C for size 3

**Application position**
- suspended or ± 40° slewing angle

**Connection options**
- L1 + N + PE for 2,5 mm² single and fine-stranded wire

**Level of protection and ambient temperature**
- IP 66
- –40 °C... +40 °C/+50 °C for size 1
- –25 °C... +40 °C/+50 °C for size 3

**Switching off the light fitting**
- 2-pole, when opening the glass cover (option)

A detailed data sheet can be downloaded at: