

# Nominees of the viscom Best Practice Award Light Advertising

## LED Kreuz

### "Luminous LED cross on Möglingen Catholic Church"

It all started with a car journey that Reverend Merkelbach took one night. It was dark, but along the way he noticed company logos and symbols everywhere. He then suddenly had a craving for a local speciality called "Maultaschen". He had just passed the illuminated sign of a large Maultaschen manufacturer.

It was then that Reverend Merkelbach had the idea of using the same principle to whet people's appetite for "church", "faith" and "God".

He presented his idea to the church council which he quickly managed to persuade. The entire cost could be covered by donations within just 2 months.

2 former church servers even donated their winnings from a popular TV quiz show to the LED cross campaign.

Now all that was needed was to turn the priest's idea into technical reality. The planning had to be based on the following criteria:

- the cross had to be clearly visible from the motorway.
- the cross should be visible from a great distance at night.
- the cross should shine out but not dazzle
- the cross should be clearly visible but not overpowering
- the cross should not exceed the budget, as it was to be financed entirely from donations
- the cross should shine from both sides but also display detailed workmanship
- the cross should be able to withstand storms and hail.
- the cross had to be protected from the vibrations from the bell tower.
- an energy-saving design was called for.

The first LED cross in Germany should, quite simply, be perfect.

It quickly became apparent to Kreder Neon Stuttgart GmbH that the only way to provide the illumination was with LEDs.

The next task was to work out how large it had to be - it should be visible from the motorway and match the proportions of the church tower, yet remain affordable.

A number of photorealistic drafts were created. Then it was time for the construction design part of the planning.

A rigid steel base structure was created with aluminium panels on both sides to create the cross-shape. This was then painted black. Delicate LED light channels with a white cover and aluminium base parts were applied to give a profile to these aluminium trims. The illumination was provided by white LEDs. This makes the contours shine with a fine white light. The necessary converters were housed in the accessible part of the bell tower.

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## Technical data:

Cross in profile no. 1, made from a hot-dip galvanised steel structure constructed from a 40 x 40 x 3.2 mm quadratric tube covered with a 2 mm thick, black thermolacquered aluminium sheet with enclosing aluminium angles.  
30 x 30 x 2 mm.

Silver EV1 anodised aluminium section mounted to house the LEDs, with corresponding diffuse-white plastic covering.

A circular flange plate with 16 fastening holes for erection and for precise positioning of the cross was welded onto the bottom. This flange plate was then mounted onto the receiving plate and bolted down.

Overall dimensions:

Width: 3000 mm, total height 6350 mm, 4200 mm of which visible.

Thickness: 250 mm, plus LED section.

236 power LED modules, neutral white, 4200 kelvin, power consumption 240 W

4 converters 240/12V

Erection height 28 metres

Weight 250 kg

Erection equipment: 70 tonne hydraulic crane, working height 40 metres

Lorry-mounted operating platform, working height 35 metres

## Erection

The 4200 mm high, 3000 mm wide cross was mounted on the 28 m high church tower, built in 1967, at the start of April this year. The erection was undertaken using a hydraulic crane and a lorry-mounted lifting platform. The entire assembly was completed on the church square itself.

Reverend Merkelbach and members of the church council watched the fitters from Kreder Neon Stuttgart GmbH as they carried out the erection - and also provided plenty of cups of coffee. The church is located in a built-up residential area, meaning the fitters had to carry out precision-work with the crane. First the cross was stood up by 4 fitters and then carefully moved towards the church tower. It was then mounted using the operating platform. It was not possible to access the roof of the bell tower and so the fitters themselves had to be taken up to the church tower on the operating platform. The converters were installed in the accessible part of the bell tower, roughly 10 m from the cross itself, for ease of maintenance.

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## The cross goes into operation

Once the erection work was complete, Reverend Merkelbach was taken up on the operating platform to inspect his LED cross.

He then blessed it to the applause of members of the congregation and the press.

The Protestant vicar acknowledged that the cross represented a uniting symbol of hope to people. He offered his congratulations, joking that the Catholics had once again got in first.

A ceremony was then held in the evening.

Following a mass countdown in the dark the LED was then switched on. The gathered congregation and the invited guests burst into applause.

Even on such a sensitive project as this, it was proven that tradition and innovation can be successfully combined. It was precisely these challenges which made the planning and production of the light advertising so exciting and interesting.

## About the company

Kreder Neon Stuttgart GmbH has offered the full spectrum of light advertising products since being founded in 1950. We relish the opportunity to forge connections between the traditional and the innovative. Up to 85% of our illuminated signs feature LED technology. However, we still produce all-glass lettering and, above all, neon works of art in our glass blowing workshop. One of our main strengths is the production of custom-built illuminated signs, as there is nothing we enjoy more than an unusual challenge.

Since 2008 we have been planning, producing and assembling in our new 1100 square metre location close to Stuttgart.

Sustainability is very important for us, and not only when it comes to energy. This is why we regularly take on apprentices in the fields of signmaking and light advertising.