

**Specification text for applications in bridge building and 3-dimensional long-term monitoring of bridges**

Item Description of works:

Prior to the commencement of building works, fit at least 3 survey markers on firm substrate and measure and record their position in order to allow easy on-site positioning with tachymeter or Totalstation as a record of the fixed points. Use a stamping mould or waterproof pen to indicate the position number or serial number on the markers. If the markers are placed at axis positions, the elevation and axis designation should also be indicated on the marker.  
Survey markers by Messrs. Rothbucher Systems, Bayerisch Gmain, Tel.: +49 (0)8651/2749 Fax: +49 (0)8651/3090, including fitting using self-adhesive backing and 2 mechanical fixings.

We recommend article nos. **RS50** or **RS60** and for survey measurements over 100 meter article no. **RSKZ6** in red or grey.

Type: \_\_\_\_\_ Quantity: \_\_\_\_\_ pieces UP: \_\_\_\_\_ TOTAL: \_\_\_\_\_

Item Description of works:

For long-term observation of bridges and for documenting the survey points during the construction phase, use a stamping mould or waterproof pen to indicate the position number or serial number on the markers and attach these at the places listed below, including fixing with 2 stainless steel screws:

- a) on all piers of the bridge at low level, centre level and top level of the piers
- b) above and below all bridge bearings
- c) At the bridge caps, turn adapters of the type **RSAMG80** into the existing anchor bushes at 5 m spacings, using 2-component adhesive, and align in accordance with instructions from the surveyor. Where there are no anchor bushes, use adapters of the type **RSK80** or **RSAM80**.  
The markers will be left on the structure for long-term monitoring.  
Survey markers by Messrs. Rothbucher Systems, Bayerisch Gmain, Tel.: +49 (0)8651/2749 Fax: +49 (0)8651/3090.

We recommend article no. **RS60**, for survey measurements over 100 meter article no. **RSKZ6**.  
On the underside of the caps, use **adapters with pre-fitted angle-survey markers** in red or grey. On metal substrates, a 2-component adhesive has to be used that ensures firm fixing.

Type: \_\_\_\_\_ Quantity: \_\_\_\_\_ pieces UP: \_\_\_\_\_ TOTAL: \_\_\_\_\_