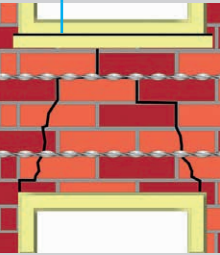


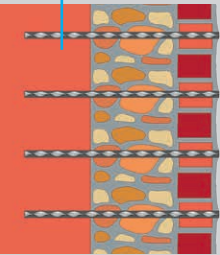
## Fields of application

### Horizontal laying



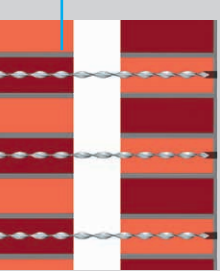
- Crack reconstruction / reinforcement of cracked masonry parts
- Stabilisation of building corners/building sections
- (subsequent) masonry reinforcement e. g. in lintel areas
- Replacement/complement of ring anchors/ circular beams

### Needling



- Reinforcement and stabilisation of natural stone walls and thick brick walls
- Crack needling in thick masonry construction
- Stabilisation and load carrying capability increase of arched constructions
- Securing of decorative elements

### Anchoring\*



- Anchoring of facing layers for two-layer masonry
- Anchoring of facing masonry and full-surface wall cladding
- Connection of cracked or broken masonry parts
- Rear anchoring of masonry in wooden constructions

## Further information

### Standards / guidelines (selection)

- DIBt Building Rules List C Chapter 1 No. 1.4
- DIN EN 845, part 1-3 "Supplementary Components for Masonry"
- WTA pamphlet 4-3-98/D "Repair of Masonry – Static Stability and Load Carrying Capacity"

### Literature (selection)

- Meichsner, Heinz: „Spiralanker für die Mauerwerksinstandsetzung“ (Spiral Anchors for Masonry Repair), IRB Verlag, 2009
- Pfefferkorn, Werner; Klaas, Helmut: „Risschäden an Mauerwerk“ (Crack Damage in Masonry), IRB Verlag, 3rd revised edition 2002

### Test certificates (selection)

- PB 1.1/07-095 of the MFPA Leipzig dated 16 July 2007
- PB No. 220.01.05 of the TU Darmstadt dated 17 Oct 2005
- PB M 01 0363 of the MPA Darmstadt dated 4 Apr 2001

### System documents (please request)

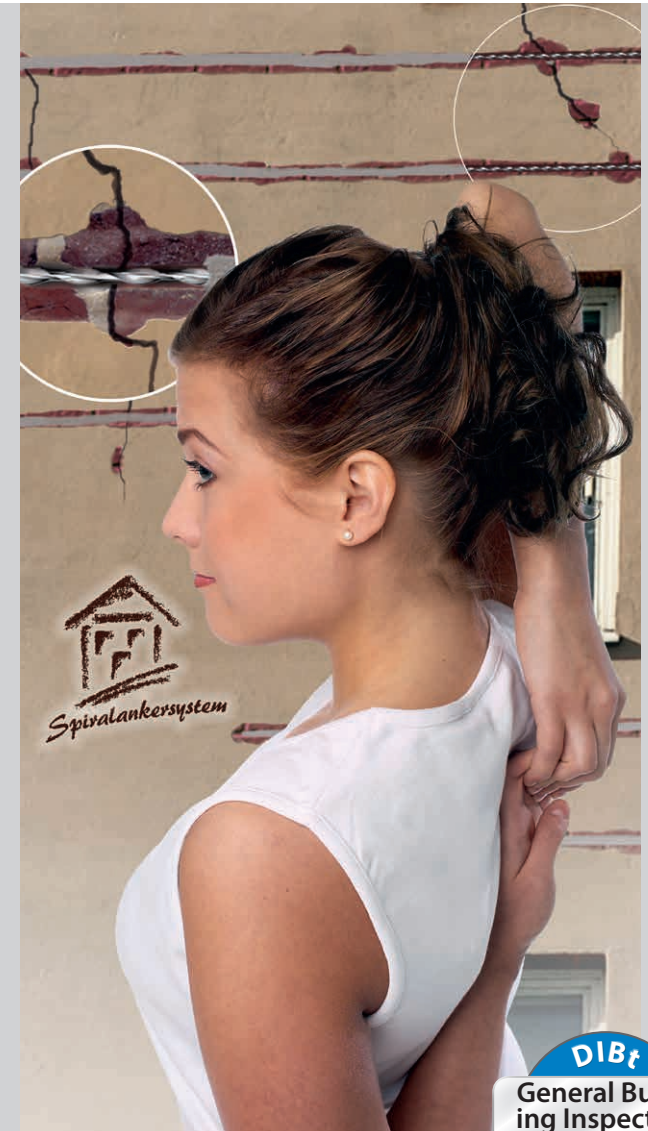
- Technical descriptions of areas of Application
- Articles on sample projects
- Processing instructions
- Technical leaflets of system components

### Customer service

- Tel.: 0049-(0)-37204 / 635-0    info@ruberstein.de

# Spiral Anchor System

## For Masonry Reconstruction



www.spiralankersystem.de



**Recognition and effective repair of damage**



\*General Building Inspection Approval by the **Deutsches Institut für Bautechnik** (German Institute for Construction Engineering)

RUBERSTEINWERK GmbH  
Baustoffe für Mauerwerk und Fassade  
Michelner Str. 7 - 9, 09350 Lichtenstein  
www.ruberstein.de



# System components

## RUBERSTEIN® Spiral Anchors

### Material

Spiral bar made of austenitic stainless steel (material 1.4301 or 1.4401 for increased requirements) manufactured in a combined rolling and turning process

### Advantages

- Fast and easy installation
- Very high tensile stress along with relatively high elasticity - acts like a strongly pre-stressed spring
- Very good bonding properties
- Uniform force transmission without load concentrations

### Delivery forms

- Diameters 6 mm, 8 mm, 10 mm (others on request)
- Without tip, one or two tips
- Lengths from 10 cm to 1 m; 10 m roll

### Characteristic data

	Ø 6 mm	Ø 8 mm	Ø 10 mm
Mass	67 g/m	79 g/m	111 g/m
Cross-section	8 mm <sup>2</sup>	10 mm <sup>2</sup>	13 mm <sup>2</sup>
Max. tensile strength	7,2 kN	8,8 kN	10,7 kN
Yield point	6,0 kN	7,5 kN	8,3 kN
Elasticity module	156.269 N/mm <sup>2</sup>	148.813 N/mm <sup>2</sup>	146.114 N/mm <sup>2</sup>

See also test report M 01 0363 of the MPA Darmstadt (4 Apr 2001)

## RUBERSTEIN® Anchor grout

### Characteristics

- Mineral grouting on cement basis
- Two components
- Easily pumpable
- Low-shrinkage
- Thixotropic
- Frost-resistant
- With high initial strength



### Variants

- Standard
- High-strength (F)
- High sulphate resistant (R)

### Delivery form

Bucket with two units of dry and liquid component each, for a total quantity of 6 L fresh grouting (= 12 kg)

### Characteristic data

Compression strength	27,8 N/mm <sup>2</sup> 35,0 N/mm <sup>2</sup> (high-strength)
Bending tensile strength	5,44 N/mm <sup>2</sup>
Elasticity module	12.878 N/mm <sup>2</sup>
Bond shear strength	0,86 N/mm <sup>2</sup> (on reference stone according to DIN 18555-5)

See also test report PB 1.1/07-095 of the MIPA Leipzig (16 July 2007)

## Material and accessories

- Wall chaser
- Hammer drill / stone drill
- Mortar gun
- Filling tubes
- Perforated sleeve
- RUBERSTEIN® Crack putty
- Setting tools
  - Hammer tools
  - Driving tools
- Extraction measuring device



### Reference (selection)

- Young People's Church Chemnitz
- Portico of Bavarian Station Leipzig
- Johanneum Dresden
- Friedenstein Castle Gotha
- Regional Archive of Magdeburg
- Bendlerblock Berlin
- University Auditorium Göttingen
- Tomb Hall of Main Cemetery Frankfurt/M.
- Town Hall of Augsburg-Haunstetten
- Altena Castle
- U-Tower Dortmund
- Protestant City Church Moers
- Water Tower Straelen
- Arsenal Vienna
- Treasury Department of Vienna

