

# ELEVATOR ROPES

## GOING UP IS OUR MOTTO.



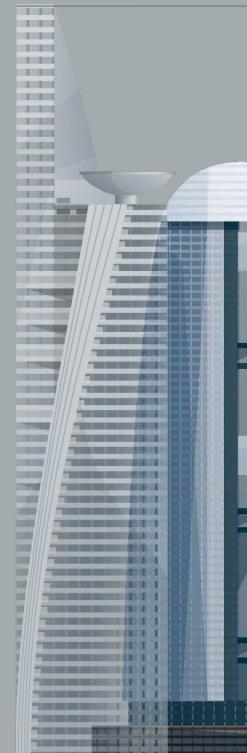
Through our three production facilities located in Switzerland, the U.S.A. and China, we produce elevator ropes to service the global market. Over decades, our ropes have transported millions of passengers in a secure and comfortable way. It is especially in high-rise high speed installations that BRUGG LIFTING elevator ropes show their excellent performance, ensuring smoothness of ride, above-average lifetime and high economic efficiency.

The development of new and innovative products, the continuous improvement of existing products as well as the optimization of production processes ensures, that customers of BRUGG LIFTING can demand and expect consistently high product quality and optimum performance.

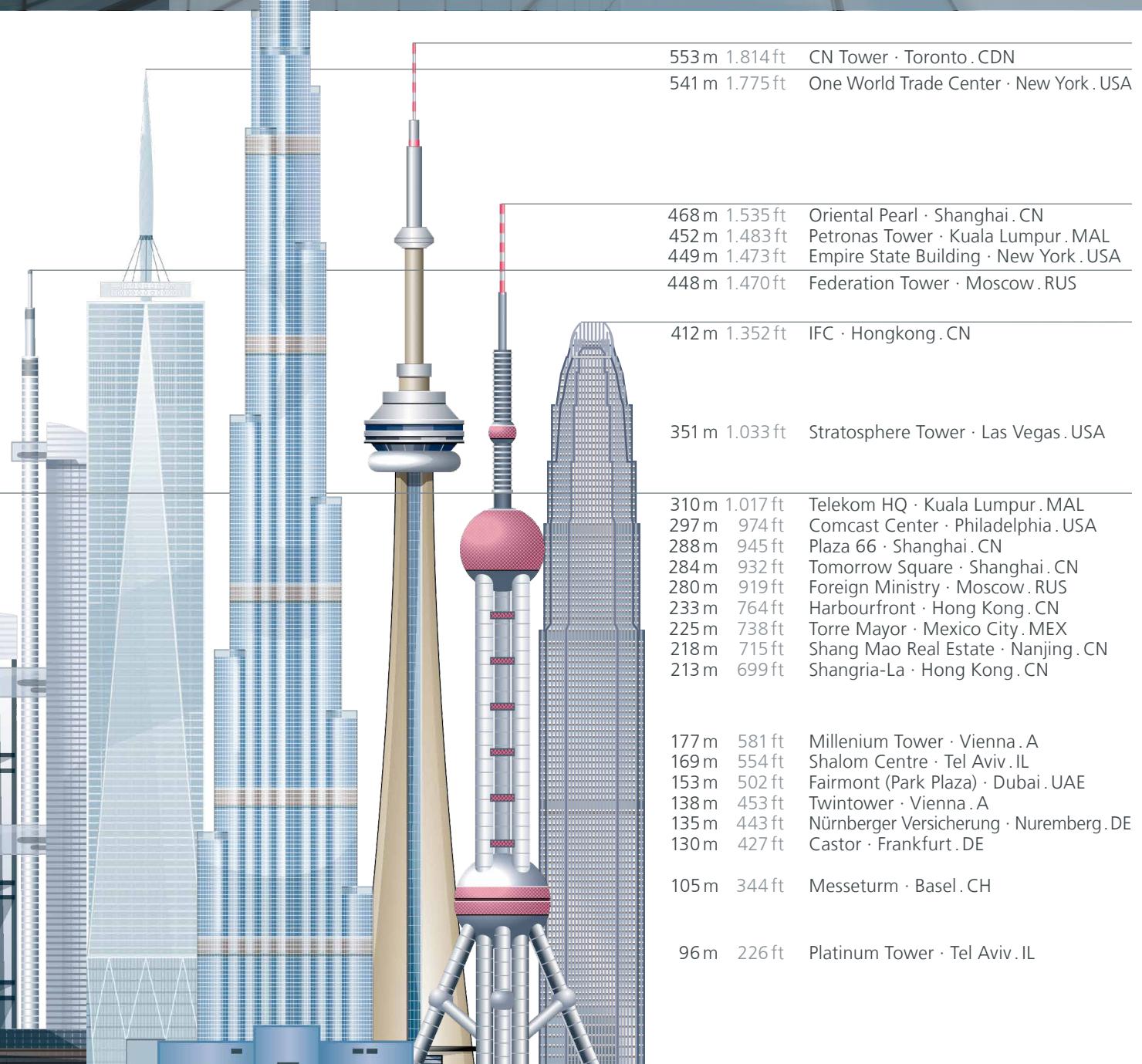
For additional flexibility and innovation BRUGG LIFTING also produce hoist and governor ropes in compliance with individual customer specifications.

Working with our global logistics and distribution partners ensures, that our products are correctly packaged, labeled and available for our customers everywhere at the right place and time – every time.

Our performance parameters are convincing. That's why international elevator engineering groups through to local small and medium-sized companies rely on BRUGG LIFTING elevator ropes.



828m 2.717ft Burj Khalifa · Dubai . UAE



# SERVICES



## System Provider

We offer to you a wide assortment of elevator ropes, accessories and tools to meet all of your requirements. We supply you with complete solutions or individually combined components as individual or pre-assembled parts to suit your needs.



## Customized

Our wide assortment of elevator ropes, accessories and tools provides nearly all products required for your applications. If none of the articles depicted in the catalog solves your problem, or if your elevator is to meet specific requirements, we will be glad to advise you and to develop customized solutions together with you.



## Availability

Due to our three production facilities located in Switzerland and China, as well as due to our global network of warehouse locations, our products will be delivered to your factory or your construction site within a very short time. Please contact us if you have any questions regarding deadlines, individual deliveries and specific projects.



## Express Service

In urgent cases we provide the required materials ex works within the hour and ship it to you as quickly as possible by courier all over the world.



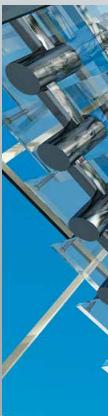
## International Standards

All of our products meet the valid international standards.  
BRUGG LIFTING is certified according to ISO 9001:2008 and ISO 14001:2004.



## Training/Specialist Workshops

Our aim is to ensure that you will enjoy an optimal use and an increase service life of your elevator ropes. Make use of our offering of qualified and customized training units for your staff.

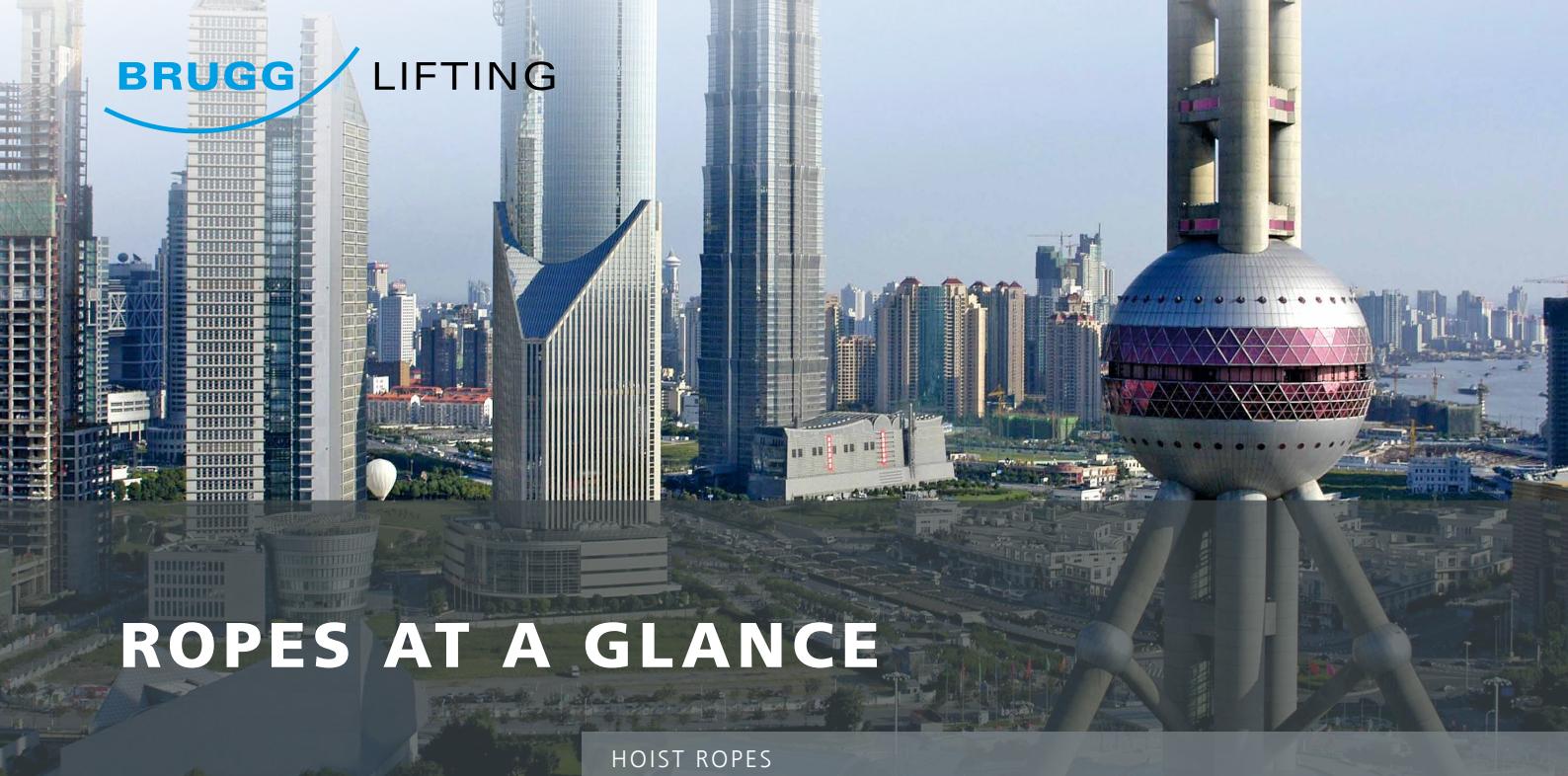




**ISO** 9001Certified

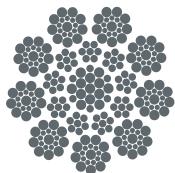


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## ROPES AT A GLANCE

### HOIST ROPES



- Steel Core Rope
- 9 Strands
- Parallel Lay

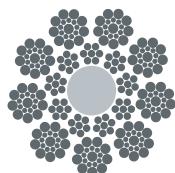
**HRS**

125.000  
N/mm<sup>2</sup>  
 $18.1 \times 10^6$   
psi

0.104  
%  
1.2  
in/100ft

0.13  
%

≤ 425  
m  
≤ 1400  
ft



- Wire Rope with Polypropylene Fiber Core
- 9 Strands
- Parallel Lay

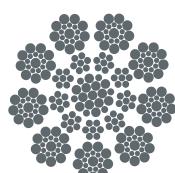
**DP9**

115.000  
N/mm<sup>2</sup>  
 $16.7 \times 10^6$   
psi

0.112  
%  
1.35  
in/100ft

0.25  
%  
3  
in/100ft

≤ 250  
m  
≤ 800  
ft



- Steel Core Rope
- 9 Strands
- Separate Lay

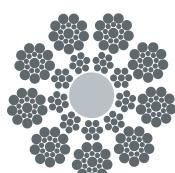
**SCX9**

120.000  
N/mm<sup>2</sup>  
 $17.4 \times 10^6$   
psi

0.108  
%  
1.3  
in/100ft

0.16  
%  
2  
in/100ft

≤ 325  
m  
≤ 1000  
ft



- Wire Rope with Polypropylene Fiber Core
- 9 Strands
- Separate Lay

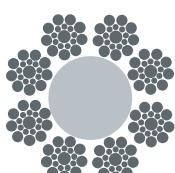
**MCX9**

110.000  
N/mm<sup>2</sup>  
 $16 \times 10^6$   
psi

0.120  
%  
1.5  
in/100ft

0.30  
%  
4  
in/100ft

≤ 200  
m  
≤ 650  
ft



- Wire Rope with Sisal Fiber Core
- 8 Strands

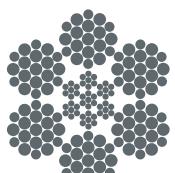
**8x19**

110.000  
N/mm<sup>2</sup>  
 $16 \times 10^6$   
psi

0.122  
%  
1.5  
in/100ft

0.26  
%  
4  
in/100ft

≤ 200  
m  
≤ 650  
ft



- Steel Core Rope
- 6 Strands
- Zinc-Plated
- Separate Lay

**TSR**

125.000  
N/mm<sup>2</sup>  
 $18.1 \times 10^6$   
psi

0.104  
%  
1.25  
in/100ft

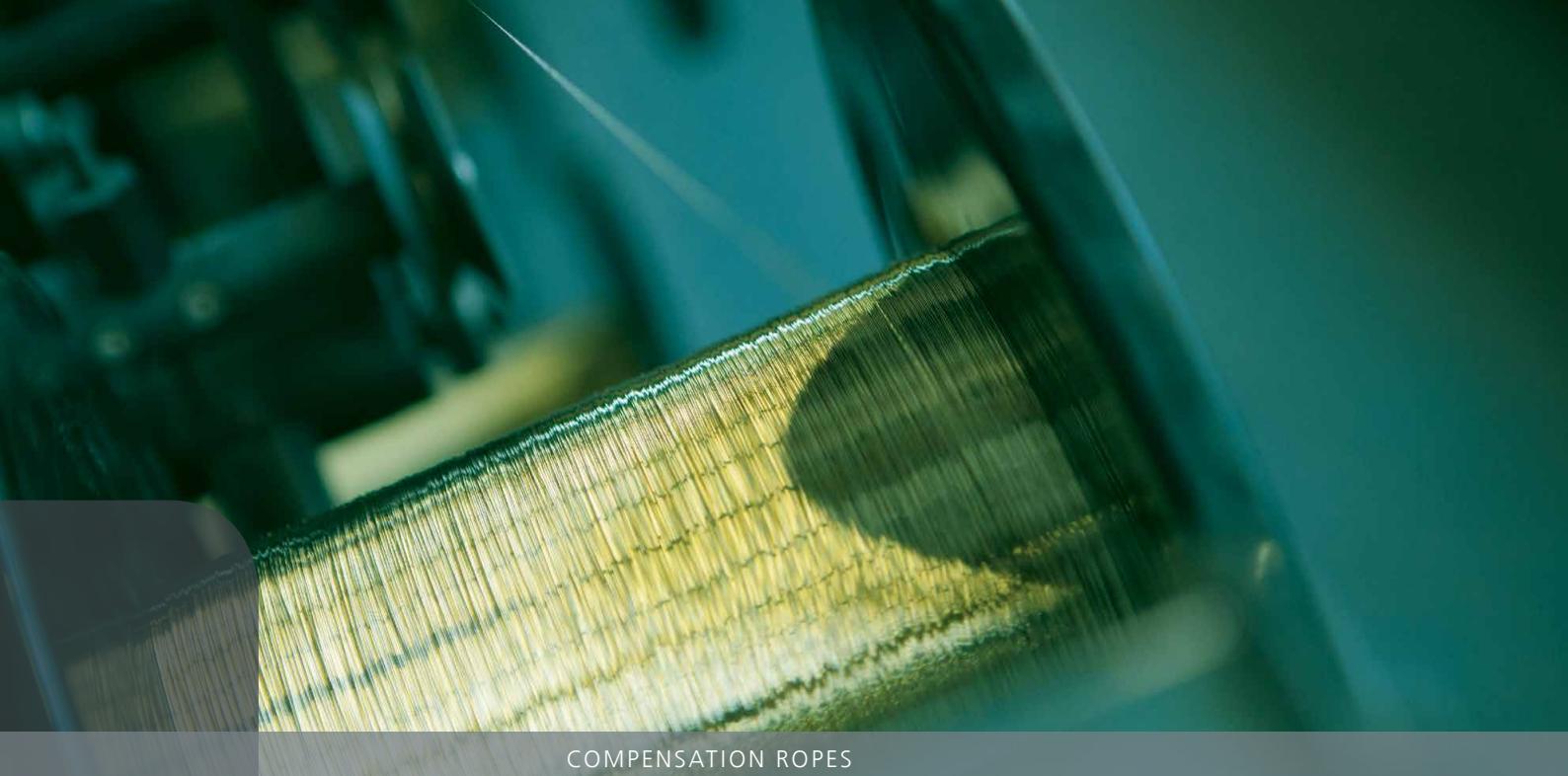
0.50  
%  
6.0  
in/100ft

E-Module

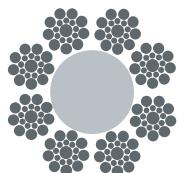
Elastic elongation

Permanent elongation

Lifting height

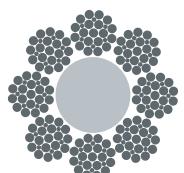
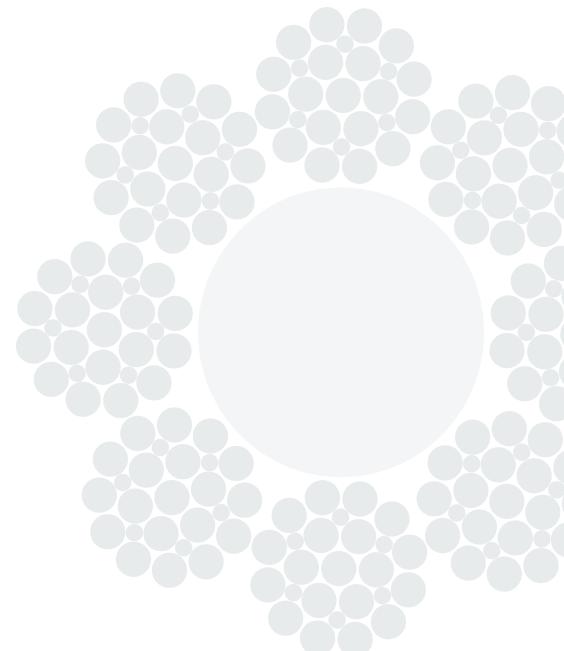


## COMPENSATION ROPES



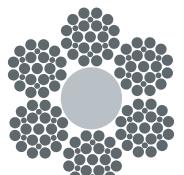
- Wire Rope with Polypropylene Core
- 8 Strands • Seale

**8x19**



- Wire Rope with Polypropylene Core
- 8 Strands • Filler

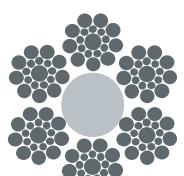
**8x25**



- Wire Rope with Polypropylene Core
- 6 Strands • Filler

**6x25**

## GOVERNOR ROPES



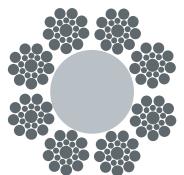
- Wire Rope with Polypropylene Core
- 6 Strands • Seale

**6x19**

105.000  
N/mm<sup>2</sup>  
 $15.2 \times 10^6$   
psi

0.084  
%  
1.0  
in/100ft

0.22  
%  
2.64  
in/100ft



- Wire Rope with Polypropylene Core
- 8 Strands • Seale

**8x19**

110.000  
N/mm<sup>2</sup>  
 $15.2 \times 10^6$   
psi

0.142  
%  
1.7  
in/100ft

0.22  
%  
2.64  
in/100ft

E-Module

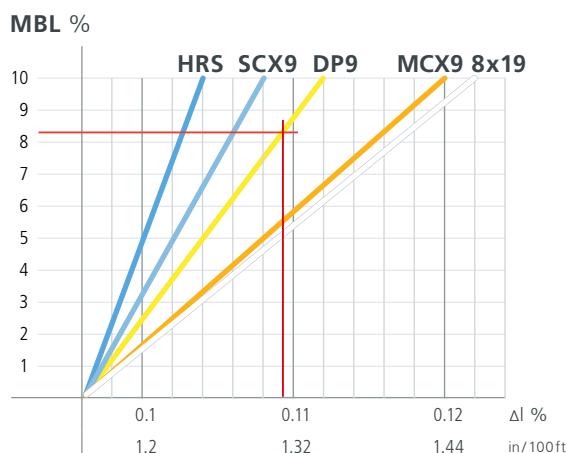
Elastic elongation

Permanent  
elongation



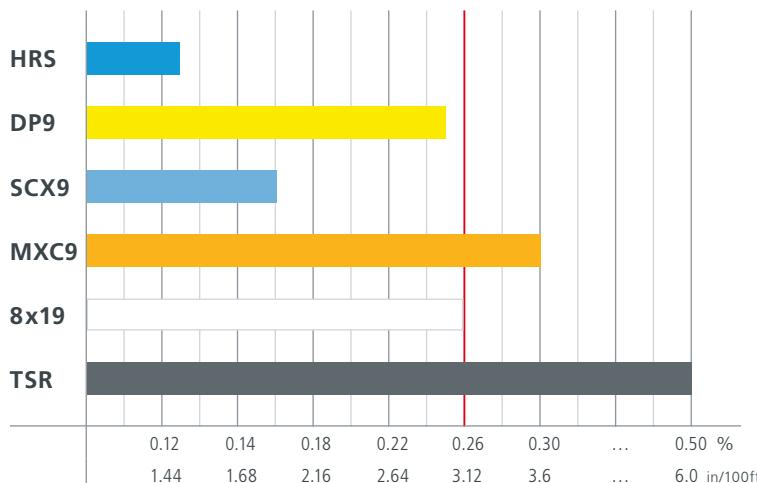
# ROPE COMPARISON

## Elastic Elongation



- Elongation of the rope occurring whenever a rope is loaded. When the load is removed, the rope is restored to its initial state
- Example: With a DP9 rope, a load of 8.3 % of the minimum breaking force results in an elastic elongation of ca. 0.109 % of the length of the rope (with a length of 100 m, this is equivalent to 109 mm)
- Elevator ropes from BRUGG LIFTING are especially characterized by a very low elastic elongation

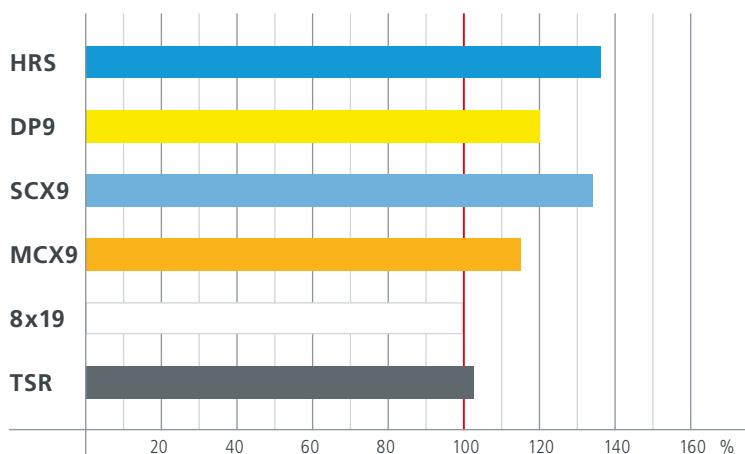
## Permanent Elongation in %



- Elongation of the rope occurring until the rope has settled as a result of operation. This elongation is expected to occur at about 2% of the estimated rope service life
- The graphic compares the permanent elongation of the different types of suspension ropes
- Elevator ropes from BRUGG LIFTING are especially characterized by a very low permanent elongation

# ROPE COMPARISON . iLINE

## Minimum Breaking Load in %



- MBL represents the minimum load that can be applied to a rope before it breaks
- The graphic compares the minimum breaking load of the different types of suspension ropes
- Reference: 100 % = 8x19 suspension rope with natural fiber core

## iLine & Color Coding

Correctly installed hoist ropes increase the service life and the safety. They improve the riding comfort and avoid downtimes. Independent of the construction and the producer, every hoist rope is susceptible to untwisting during the installation.

With the help of the i-LINE, which is applied to our hoist ropes by BRUGG LIFTING already during the production, untwisted hoist ropes can be detected easily and fast, located and adjusted correctly.

### Advantages of the iLINE

- simple and correct installation
- safe installation aid
- optimizes product performance
- colour code for the identification of the rope type

|      |
|------|
| HRS  |
| DP9  |
| SCX9 |
| MCX9 |
| 8x19 |

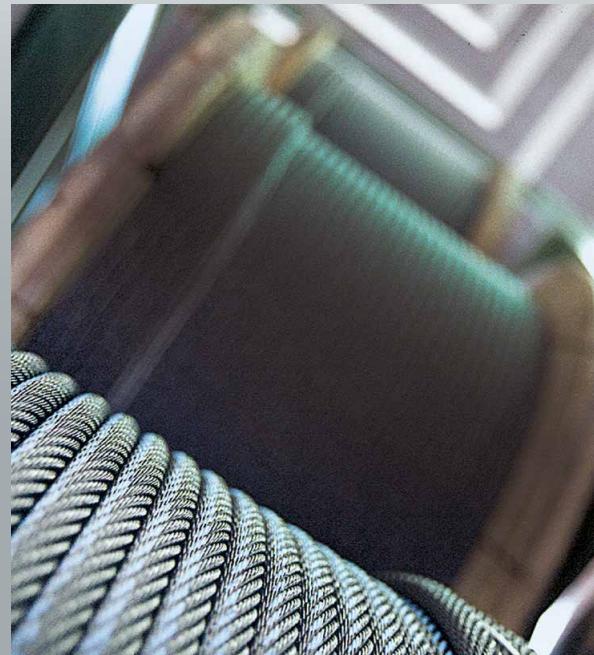


## ELEVATOR ROPES . ACCESSORIES

BRUGG LIFTING elevator ropes are a symbol of the highest quality.

To ensure that our customers can rely on the consistent excellent quality of our products, we control all our manufacturing processes very tightly and continuously validate the quality of our products with a sophisticated system. Already the wire material is selected by us with the greatest care. We purchase our raw materials exclusively from suppliers that permanently meet our high standards. Further essential factors for the high product quality are modern production technologies and especially the experience of many years of our qualified skilled workers. In order to guarantee a complete production quality we use the most modern measuring and monitoring techniques in our production lines. After that all our products are subjected to fatigue tests and property analysis with statistical evaluation at our in-house test facility.

As a customer you benefit from the products that stand out due to the very best values concerning elongation, breaking load, smoothness of ride and service life. Thus BRUGG LIFTING elevator ropes symbolize the highest economic value – and a cost-performance ratio that convinces again and again.

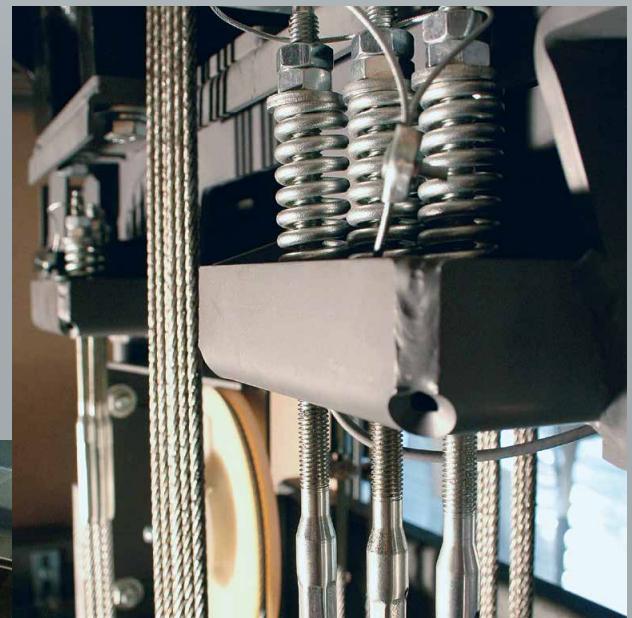




As system supplier we have the corresponding end terminations, buffer systems and accessories for all elevator ropes in our range of products.

Most items are available from inventory, allowing short delivery times and state of the art logistics.

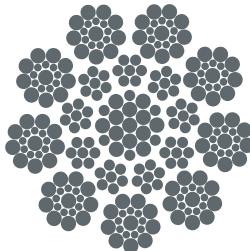
We are specialized in the development and manufacture of threaded swaged end fittings and are also able to provide customized end terminations.





# HRS

## HOIST ROPES



### Steel Core Rope, 9 Strands, Parallel Lay

For highest demands on breaking force, elongation and number of trips.  
Recommended for round grooves with an undercut angle of  $\leq 85^\circ$ .

**125.000**  
N/mm<sup>2</sup>  
 **$18.1 \times 10^6$**   
psi

E-Module \*\*

**0.104**  
%  
**1.2**  
in/100 ft

Elastic  
elongation

**0.13**  
%  
**1.6**  
in/100 ft

Permanent  
elongation

**$\leq 425$**   
m  
 **$\leq 1400$**   
ft

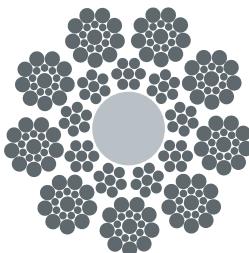
Lifting height \*

| item<br>number | rope ø |      | breaking load<br>min. |        | weight  |       | construction                |
|----------------|--------|------|-----------------------|--------|---------|-------|-----------------------------|
|                | mm     | in   | kN                    | lbs    | kg/100m | lb/ft |                             |
| 10699          | 8.0    | 5/16 | 42.7                  | 9,599  | 26.9    | 0.181 | 9x19S-PWRC 1570 U sZ. (RRL) |
| 10702          | 9.0    | –    | 56.3                  | 12,657 | 35.5    | 0.239 | 9x19S-PWRC 1570 U sZ. (RRL) |
| 10705          | 10.0   | –    | 68.0                  | 15,287 | 42.8    | 0.288 | 9x19S-PWRC 1570 U sZ. (RRL) |
| 10708          | 11.0   | 7/16 | 83.4                  | 18,749 | 52.5    | 0.353 | 9x19S-PWRC 1570 U sZ. (RRL) |
| 73040          | 12.0   | –    | 96.8                  | 21,762 | 60.9    | 0.409 | 9x21F-PWRC 1570 U sZ. (RRL) |
| 10163          | 12.7   | 1/2  | 110.1                 | 24,752 | 71.0    | 0.477 | 9x21F-PWRC 1570 U sZ. (RRL) |
| 10648          | 13.0   | –    | 114.1                 | 25,651 | 71.8    | 0.482 | 9x21F-PWRC 1570 U sZ. (RRL) |
| 10643          | 15.5   | –    | 165.8                 | 37,273 | 104.4   | 0.702 | 9x25F-PWRC 1570 U sZ. (RRL) |
| 78712          | 16.0   | 5/8  | 174.9                 | 39,319 | 110.1   | 0.740 | 9x25F-PWRC 1570 U sZ. (RRL) |
| 10646          | 19.0   | 3/4  | 245.7                 | 55,236 | 154.6   | 1.039 | 9x25F-PWRC 1570 U sZ. (RRL) |
| 10647          | 22.0   | 7/8  | 333.0                 | 74,862 | 210.3   | 1.413 | 9x25F-PWRC 1570 U sZ. (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

# DP9

## HOIST ROPES



### Wire Rope with Polypropylene Fiber Core, 9 Strands, Parallel Lay

For high demands on breaking force, elongation and number of trips.  
Recommended for conical grooves and undercut round grooves.

**115.000**  
N/mm<sup>2</sup>  
 **$16.7 \times 10^6$**   
psi

**0.112**  
%  
**1.35**  
in / 100 ft

**0.25**  
%  
**3**  
in / 100 ft

**$\leq 250$**   
m  
 **$\leq 800$**   
ft

E-Module \*\*

Elastic elongation

Permanent elongation

Lifting height \*

| item number | rope ø |      | breaking load min. |        | weight  |        | construction                     |
|-------------|--------|------|--------------------|--------|---------|--------|----------------------------------|
|             | mm     | in   | kN                 | lbs    | kg/100m | lb/ft  |                                  |
| 10681       | 8.0    | 5/16 | 36.7               | 8.251  | 25.0    | 0.1680 | 9x19S-PWRC 1570 U sZ. (RRL)      |
| 10684       | 9.0    | –    | 48.5               | 10.903 | 33.0    | 0.2217 | 9x19S-PWRC 1570 U sZ. (RRL)      |
| 10687       | 10.0   | –    | 58.6               | 13.174 | 40.0    | 0.2688 | 9x19S-PWRC 1570 U sZ. (RRL)      |
| 10690       | 11.0   | 7/16 | 71.9               | 16.164 | 49.0    | 0.3293 | 9x19S-PWRC 1570 U sZ. (RRL)      |
| 10164       | 12.7   | 1/2  | 95.6               | 21.492 | 64.9    | 0.4361 | 9x21F-PWRC 1770/1370 U sZ. (RRL) |
| 10696       | 13.0   | –    | 98.1               | 22.054 | 66.0    | 0.4435 | 9x21F-PWRC 1570 U sZ. (RRL)      |
| 78730       | 15.5   | –    | 144.7              | 32.530 | 98.9    | 0.6646 | 9x25F-PWRC 1570 U sZ. (RRL)      |
| 78733       | 16.0   | 5/8  | 150.9              | 33.924 | 101.0   | 0.6787 | 9x25F-PWRC 1570 U sZ. (RRL)      |
| 78734       | 16.0   | 5/8  | 148.1              | 33.294 | 103.1   | 0.6928 | 9x25F-PWRC 1770/1370 U sZ. (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.

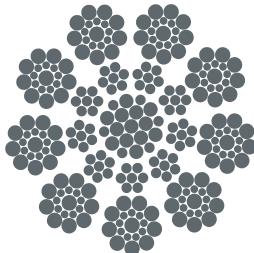
Rope diameter-tolerances according to EN12385-5/ISO 4344.

\* The defined lifting height is based on an elevator with a 1:1 suspension and is only indicative.  
It does not replace the exact calculation according to the system specifications.

\*\* E-Module tested according to DIN 18800. The specified E-Module is tested with 30-40% of MBL.

# SCX9

## HOIST ROPES



### Steel Core Rope, 9 Strands, Separate Lay

For highest demands on breaking force, elongation and number of trips, also under difficult installation conditions.

Recommended for round grooves with an undercut angle of  $\leq 85^\circ$ .

**120.000**  
N/mm<sup>2</sup>  
 **$17.4 \times 10^6$**   
psi

E-Module \*\*

**0.108**  
%  
**1.3**  
in/100 ft

Elastic  
elongation

**0.16**  
%  
**2**  
in/100 ft

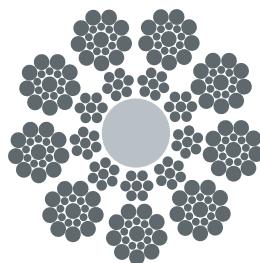
Permanent  
elongation

**$\leq 325$**   
m  
 **$\leq 1000$**   
ft

Lifting height \*

| item<br>number | rope ø |      | breaking load<br>min. |        | weight  |       | construction                |
|----------------|--------|------|-----------------------|--------|---------|-------|-----------------------------|
|                | mm     | in   | kN                    | lbs    | kg/100m | lb/ft |                             |
| 11666          | 8.0    | 5/16 | 41.9                  | 9.420  | 26.3    | 0.176 | 9x19S-IWRC 1570 U sZ. (RRL) |
| 11668          | 10.0   | –    | 65.8                  | 14.792 | 41.3    | 0.332 | 9x19S-IWRC 1570 U sZ. (RRL) |
| 11669          | 11.0   | 7/16 | 76.5                  | 17.198 | 48.0    | 0.323 | 9x19S-IWRC 1570 U sZ. (RRL) |
| 11670          | 12.0   | –    | 95.0                  | 21.357 | 59.7    | 0.401 | 9x21F-IWRC 1570 U sZ. (RRL) |
| 73107          | 12.7   | 1/2  | 108.3                 | 24.347 | 68.0    | 0.457 | 9x21F-IWRC 1570 U sZ. (RRL) |
| 11671          | 13.0   | –    | 111.0                 | 24.954 | 70.7    | 0.475 | 9x21F-IWRC 1570 U sZ. (RRL) |
| 11674          | 16.0   | 5/8  | 170.4                 | 38.307 | 107.2   | 0.721 | 9x25F-IWRC 1570 U sZ. (RRL) |
| 11675          | 19.0   | 3/4  | 240.7                 | 54.112 | 151.3   | 1.017 | 9x25F-IWRC 1570 U sZ. (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.



### Steel Core Rope, 8 Strands, Parallel Lay

For high demands on breaking force, elongation and number of trips.  
Recommended for round grooves with an undercut angle of  $\leq 85^\circ$ .

**110.000**  
N/mm<sup>2</sup>  
**16 x 10<sup>6</sup>**  
psi

E-Module \*\*

**0.120**  
%  
**1.5**  
in / 100 ft

Elastic elongation

**0.3**  
%  
**4**  
in / 100 ft

Permanent elongation

**$\leq 200$**   
m  
 **$\leq 650$**   
ft

Lifting height \*

| item number | rope ø |      | breaking load min. |        | weight  |       | construction         |
|-------------|--------|------|--------------------|--------|---------|-------|----------------------|
|             | mm     | in   | kN                 | klbf   | kg/100m | lb/ft |                      |
| 11680       | 8.0    | 5/16 | 35.8               | 8.048  | 22.8    | 0.153 | 9x19S-IWRC 1570 U sZ |
| 11682       | 10.0   | –    | 57.2               | 12.859 | 36.4    | 0.244 | 9x19S-IWRC 1570 U sZ |
| 11693       | 12.0   | –    | 82.4               | 18.524 | 52.4    | 0.352 | 9x21F-IWRC 1570 U sZ |
| 11684       | 12.7   | 1/2  | 92.0               | 20.682 | 58.5    | 0.393 | 9x21F-IWRC 1570 U sZ |
| 11685       | 13.0   | –    | 96.0               | 21.581 | 61.0    | 0.410 | 9x21F-IWRC 1570 U sZ |
| 11688       | 16.0   | 5/8  | 147.0              | 33.046 | 93.6    | 0.629 | 9x25F-IWRC 1570 U sZ |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

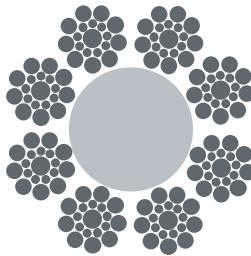
\* The defined lifting height is based on an elevator with a 1:1 suspension and is only indicative.  
It does not replace the exact calculation according to the system specifications.

\*\* E-Module tested according to DIN 18800. The specified E-Module is tested with 30-40% of MBL.



# 8x19

## HOIST ROPES



### Wire Rope with Sisal Fiber Core, 8 Strands

For high demands on elongation also under difficult installation conditions.  
Recommended for all groove shapes.

**110.000**  
N/mm<sup>2</sup>  
**16 x 10<sup>6</sup>**  
psi

E-Module \*\*

**0.122**  
%  
**1.5**  
in / 100 ft

Elastic  
elongation

**0.26**  
%  
**4**  
in / 100 ft

Permanent  
elongation

**≤ 200**  
m  
**≤ 650**  
ft

Lifting height \*

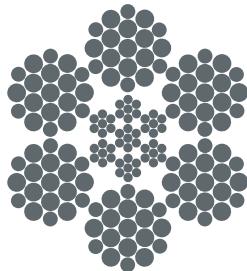
| item<br>number | rope ø |      | breaking load<br>min. |        | weight  |       | construction                    |
|----------------|--------|------|-----------------------|--------|---------|-------|---------------------------------|
|                | mm     | in   | kN                    | lbs    | kg/100m | lb/ft |                                 |
| 63999          | 8.0    | 5/16 | 30.48                 | 6.852  | 21.7    | 0.146 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 78748          | 9.0    | –    | 38.20                 | 8.588  | 27.0    | 0.181 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 63980          | 9.5    | 3/8  | 42.53                 | 9.561  | 30.3    | 0.204 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 78677          | 9.5    | 3/8  | 50.28                 | 11.303 | 30.3    | 0.204 | 8x19 -NFC 1770 U ZZ (RLL)       |
| 60544          | 10.0   | –    | 47.20                 | 10.611 | 33.6    | 0.226 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 63996          | 11.0   | 7/16 | 58.62                 | 13.178 | 41.6    | 0.280 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 62928          | 12.0   | –    | 71.00                 | 15.962 | 50.6    | 0.340 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 61618          | 12.7   | 1/2  | 79.37                 | 17.843 | 54.0    | 0.363 | 8x19S -NFC 1570 U sZ (RRL)      |
| 63981          | 12.7   | 1/2  | 75.93                 | 17.070 | 54.0    | 0.363 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 78680          | 12.7   | 1/2  | 89.48                 | 20.116 | 54.0    | 0.363 | 8x19S -NFC 1770 U sZ (RRL)      |
| 61577          | 13.0   | –    | 81.90                 | 18.412 | 58.2    | 0.391 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 10675          | 15.5   | –    | 115.20                | 25.898 | 81.6    | 0.548 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 29361          | 16.0   | 5/8  | 128.20                | 28.821 | 87.2    | 0.586 | 8x19S -NFC 1570 U sZ (RRL)      |
| 63982          | 16.0   | 5/8  | 122.30                | 27.494 | 87.2    | 0.586 | 8x19S -NFC 1370/1770 U sZ (RRL) |
| 77820          | 16.0   | 5/8  | 144.40                | 32.463 | 87.2    | 0.586 | 8x19S -NFC 1770 U sZ (RRL)      |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.



# TSR

## HOIST ROPES



### Steel Core Rope, 6 Strands, Zinc-Plated, Separate Lay

For high demands on small traction sheaves.  
Suitable for conical grooves of  $\geq 45^\circ$ .

**125.000**  
N/mm<sup>2</sup>  
 **$18.1 \times 10^6$**   
psi

E-Module \*\*

**0.104**  
%  
**1.25**  
in / 100 ft

Elastic elongation

**0.50**  
%  
**6**  
in / 100 ft

Permanent elongation

**$\leq 175$**   
m  
 **$\leq 550$**   
ft

Lifting height \*

| item number | rope ø |    | breaking load min. |       | weight  |       | construction               |
|-------------|--------|----|--------------------|-------|---------|-------|----------------------------|
|             | mm     | in | kN                 | lbs   | kg/100m | lb/ft |                            |
| 64496       | 6.7    | –  | 31.3               | 7.037 | 19.2    | 0.129 | 6x19W-IWRC 1960 B sZ (RRL) |

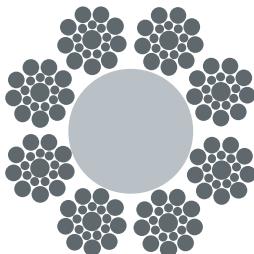
Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

\* The defined lifting height is based on an elevator with a 1:1 suspension and is only indicative.  
It does not replace the exact calculation according to the system specifications.

\*\* E-Module tested according to DIN 18800. The specified E-Module is tested with 30-40% of MBL.

# 8x19

## COMPENSATION ROPES



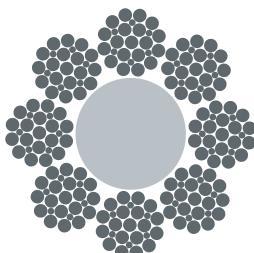
### Wire Rope with Polypropylene Core, 8 Strands, Seale

Compensation ropes are used to balance the weight of hoist ropes and travelling cables in an elevator.

| item<br>number | rope ø |     | breaking load<br>min. |        | weight  |       | construction                   |
|----------------|--------|-----|-----------------------|--------|---------|-------|--------------------------------|
|                | mm     | in  | kN                    | lbs    | kg/100m | lb/ft |                                |
| 77870          | 16.0   | 5/8 | 128.64                | 28.909 | 91.5    | 0.615 | 8x19S-SFC 1370/1770 U sZ (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

# 8x25



### Wire Rope with Polypropylene Core, 8 Strands, Filler

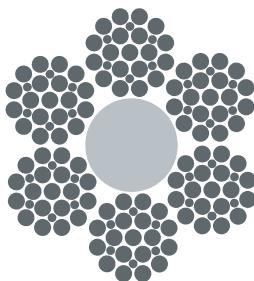
Compensation ropes are used to balance the weight of hoist ropes and travelling cables in an elevator.

| item<br>number | rope ø |     | breaking load<br>min. |        | weight  |       | construction                   |
|----------------|--------|-----|-----------------------|--------|---------|-------|--------------------------------|
|                | mm     | in  | kN                    | lbs    | kg/100m | lb/ft |                                |
| 73330          | 16.0   | 5/8 | 126.2                 | 28.361 | 88.7    | 0.596 | 8x25F SFC 1370/1770 U sZ (RRL) |
| 73044          | 19.0   | 3/4 | 159.0                 | 35.732 | 122.8   | 0.825 | 8x25F SFC 1370/1770 U sZ (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.



6x25



### Wire Rope with Polypropylene Core, 6 Strands, Filler

Compensation ropes are used to balance the weight of hoist ropes and travelling cables in an elevator.

| item<br>number | rope ø |    | breaking load<br>min. |        | weight  |       | construction                   |
|----------------|--------|----|-----------------------|--------|---------|-------|--------------------------------|
|                | mm     | in | kN                    | lbs    | kg/100m | lb/ft |                                |
| 73331          | 20.0   | –  | 198                   | 44.497 | 144.0   | 0.968 | 6x25F SFC 1370/1770 U sZ (RRL) |

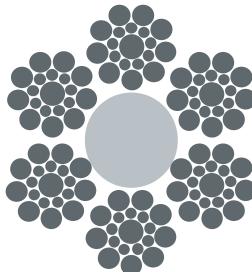
Further nominal strengths and/or diameters (including imperial dimensions) on request.

Rope diameter-tolerances according to EN12385-5/ISO 4344.



## 6x19

### GOVERNOR ROPES



#### Wire Rope with Polypropylene Core, 6 Strands, Seale

For high demands on elongation and corrosion protection with special rope lubrication.

|                                     |                           |                            |
|-------------------------------------|---------------------------|----------------------------|
| <b>105.000</b><br>N/mm <sup>2</sup> | <b>0.084</b><br>%         | <b>0.22</b><br>%           |
| <b>15.2 x 10<sup>6</sup></b><br>psi | <b>1.0</b><br>in / 100 ft | <b>2.64</b><br>in / 100 ft |
| E-Module **                         | Elastic elongation        | Permanent elongation       |

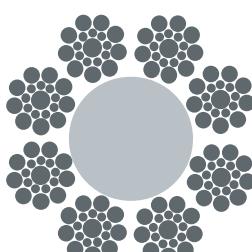
| item number | rope ø |    | breaking load min. |       | weight  |       | construction              |
|-------------|--------|----|--------------------|-------|---------|-------|---------------------------|
|             | mm     | in | kN                 | lbs   | kg/100m | lb/ft |                           |
| 29463       | 6.0    | —  | 24.4               | 5.485 | 12.3    | 0.081 | 6x19S-SFC 1960 B sZ (RRL) |
| 03901       | 6.5    | —  | 28.2               | 6.339 | 14.4    | 0.095 | 6x19S-SFC 1960 B sZ (RRL) |

Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

## 8x19

#### Wire Rope with Polypropylene Core, 8 Strands, Seale

For high demands on elongation and corrosion protection with special rope lubrication.



|                                     |                           |                            |
|-------------------------------------|---------------------------|----------------------------|
| <b>110.000</b><br>N/mm <sup>2</sup> | <b>0.142</b><br>%         | <b>0.22</b><br>%           |
| <b>15.2 x 10<sup>6</sup></b><br>psi | <b>1.7</b><br>in / 100 ft | <b>2.64</b><br>in / 100 ft |
| E-Module **                         | Elastic elongation        | Permanent elongation       |

| item number | rope ø |      | breaking load min. |        | weight  |       | construction                   |
|-------------|--------|------|--------------------|--------|---------|-------|--------------------------------|
|             | mm     | in   | kN                 | lbs    | kg/100m | lb/ft |                                |
| 61540       | 8.0    | 5/16 | 35.5               | 7.980  | 21.0    | 0.139 | 8x19S-SFC 1770 B sZ (RRL)      |
| 77513       | 9.5    | 3/8  | 50.3               | 11.307 | 30.3    | 0.200 | 8x19S-SFC 1770 B sZ (RRL)      |
| 10884       | 9.5    | 3/8  | 42.5               | 9.558  | 30.3    | 0.204 | 8x19S-SFC 1370/1770 B sZ (RRL) |
| 73003       | 12.7   | 1/2  | 75.9               | 17.064 | 54.0    | 0.363 | 8x19S-SFC 1370/1770 B sZ (RRL) |

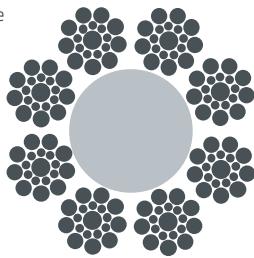
Further nominal strengths and/or diameters (including imperial dimensions) on request.  
Rope diameter-tolerances according to EN12385-5/ISO 4344.

\*\* E-Module tested according to DIN 18800. The specified E-Module is tested with 30-40% of MBL.



## ABBREVIATED DESIGNATIONS

Example



**12 8x19S-NFC 1370/1770 U sz**



Designation and classification of wire ropes (EN 12385-2 formerly ISO 17893)

### A Rope nominal Diameter in mm

(See corresponding table for each)

### B Rope Construction

### C Construction and Lay Direction

|    |  |  |
|----|--|--|
| -  | single lay strand  |  |
| S  | example for strand construction:<br>seale parallel lay                       | 7 d.h. (1-6)                                 |
| W  | example for strand construction:<br>warrington parallel lay                  | 19S d.h. (1-9-9)                             |
| F  | example for strand construction:<br>filler parallel lay                      | 19W d.h. (1-6-6+6)                           |
| WS | example for strand construction:<br>combined (Warrington Seale) parallel lay | 21F d.h. (1-5-5F-10)<br>25F d.h. (1-6-6F-12) |
|    | example for strand construction:   | 31WS d.h. (1-6-6+6-12)                       |

### D Construction of Core

Single layer rope with fibre core FC

NFC natural fibre core

SFC synthetic fiber core

Single layer rope with steel core WC

WSC wire strand core

IWRC independant wire rope core

Rope with parallel lay

PWRC parallel wire rope centre

### E Nominal Tensile Grade of Wires in N/mm<sup>2</sup>

### F Surface Finish of Wires

|   |                       |
|---|-----------------------|
| U | bright                |
| B | zinc coated (class B) |

### G Type and Direction of Lay

|          |                         |
|----------|-------------------------|
| z        | right lay (strand)      |
| s        | left lay (strand)       |
| Z        | right lay (rope)        |
| S        | left lay (rope)         |
| sZ (RRL) | regular lay, right-hand |
| zS (RLL) | regular lay, left-hand  |



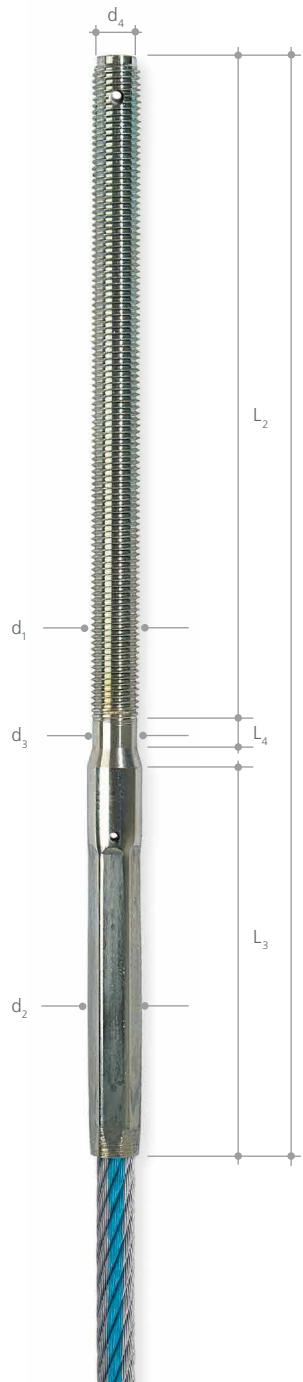
## APAG Threaded Swaged Sockets

### Product Data

- APAG-end connections are TÜV tested and approved according to TRA/EN81.
- APAG-end connections transmits 80 % of minimal breaking load of traction rope

### Advantages

- simple, fast and safe end terminations
- shortened installation time, since no mounting of end connections by customers
- no special tools required
- the compact type enables a very tight arrangement of ropes and parallel running ropes
- simple securing against rotation
- position of pilot hole for rope end
- quiet operation because there are no individual parts



| item number | rope ø | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | L <sub>1</sub> | dimensions in mm |       |      |
|-------------|--------|----------------|----------------|----------------|----------------|----------------|------------------|-------|------|
|             |        |                |                |                |                |                |                  |       |      |
| 10112       | 6.0    | M 10           | 13             | 9.0            | 7              | 240            | 150              | 66.0  | 16.6 |
| 10113       | 6.5    | M 10           | 13             | 9.0            | 7              | 240            | 150              | 71.5  | 11.1 |
| 77743       | 6.7    | M 10           | 13             | 9.0            | 7              | 240            | 150              | 73.7  | 8.9  |
| 10114       | 7.0    | M 12           | 18             | 10.9           | 9              | 280            | 180              | 77.0  | 9.7  |
| 10081       | 8.0    | M 12           | 18             | 10.9           | 9              | 280            | 170              | 88.0  | 8.7  |
| 10082       | 8.0    | M 14           | 18             | 12.7           | 11             | 280            | 170              | 88.0  | 12.1 |
| 10083       | 8.0    | M 14           | 18             | 12.7           | 11             | 400            | 200              | 88.0  | 12.1 |
| 10084       | 9.0    | M 14           | 18             | 12.7           | 11             | 290            | 170              | 99.0  | 11.1 |
| 10085       | 9.0    | M 14           | 18             | 12.7           | 11             | 400            | 200              | 99.0  | 91.1 |
| 10086       | 9.0    | M 16           | 18             | 14.7           | 13             | 340            | 220              | 99.0  | 14.8 |
| 10087       | 10.0   | M 16           | 18             | 14.7           | 13             | 300            | 170              | 110.0 | 14.0 |
| 10088       | 10.0   | M 16           | 18             | 14.7           | 13             | 400            | 250              | 110.0 | 34.0 |
| 10089       | 11.0   | M 14           | 18             | 12.7           | 11             | 310            | 170              | 121.0 | 9.0  |
| 10090       | 11.0   | M 14           | 18             | 12.7           | 11             | 420            | 200              | 121.0 | 89.0 |
| 10091       | 11.0   | M 16           | 18             | 14.7           | 13             | 350            | 210              | 121.0 | 13.0 |
| 10092       | 11.0   | M 16           | 18             | 14.7           | 13             | 420            | 280              | 121.0 | 13.0 |
| 10093       | 12.0   | M 16           | 22             | 14.7           | 13             | 350            | 190              | 132.0 | 14.0 |
| 10094       | 12.0   | M 20           | 22             | 18.4           | 16             | 400            | 250              | 132.0 | 11.0 |
| 10095       | 13.0   | M 16           | 22             | 14.7           | 13             | 340            | 170              | 143.0 | 13.0 |
| 10096       | 13.0   | M 16           | 22             | 14.7           | 13             | 420            | 250              | 143.0 | 13.0 |
| 10097       | 13.0   | M 16           | 22             | 14.7           | 13             | 480            | 310              | 143.0 | 13.0 |
| 10098       | 13.0   | M 16           | 22             | 14.7           | 13             | 540            | 370              | 143.0 | 13.0 |
| 10099       | 13.0   | M 20           | 22             | 18.4           | 16             | 420            | 250              | 143.0 | 20.0 |
| 10100       | 14.0   | M 20           | 25             | 18.4           | 16             | 420            | 250              | 154.0 | 4.0  |
| 10101       | 15.0   | M 20           | 25             | 18.4           | 16             | 450            | 250              | 165.0 | 23.0 |
| 10103       | 15.5   | M 20           | 27             | 18.4           | 16             | 450            | 250              | 170.5 | 13.0 |
| 10105       | 16.0   | M 24           | 27             | 22.1           | 19             | 480            | 280              | 176.0 | 15.0 |

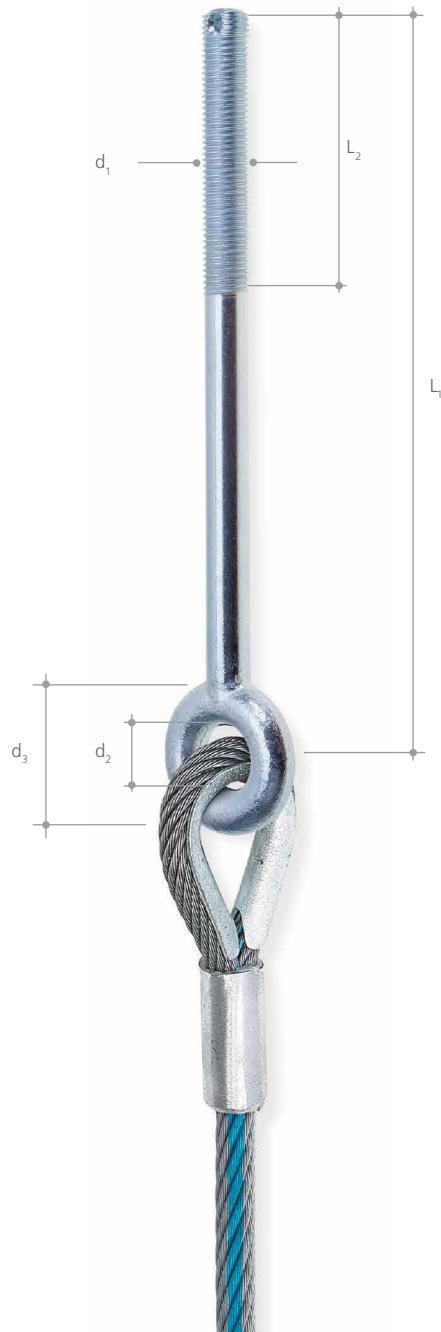
Other sizes available upon request.



## EYELET BOLT with Swaged Thimble

### Product Data

- eyelet bolt steel St 37, zinc-plated



### Advantages

- simple, fast and safe end terminations
- no special tools required
- simple securing against twisting

| item number | rope ø<br>mm | $d_1$            | $d_2$ | $d_3$ | $L_1$ | $L_2$ | breaking load<br>kN |
|-------------|--------------|------------------|-------|-------|-------|-------|---------------------|
|             |              | dimensions in mm |       |       |       |       |                     |
| 64250       | 6.0          | M 12             | 26.0  | 50.0  | 260   | 60    | 33.7                |
| 64251       | 6.0          | M 12             | 26.0  | 50.0  | 500   | 150   | 33.7                |
| 64252       | 6.5          | M 12             | 26.0  | 50.0  | 260   | 60    | 33.7                |
| 64253       | 6.5          | M 12             | 26.0  | 50.0  | 500   | 150   | 33.7                |
| 64254       | 8.0          | M 12             | 26.0  | 50.0  | 260   | 60    | 33.7                |
| 64255       | 8.0          | M 12             | 26.0  | 50.0  | 500   | 150   | 33.7                |
| 64256       | 9.0          | M 16             | 22.0  | 51.4  | 260   | 120   | 62.8                |
| 64257       | 9.0          | M 16             | 22.0  | 51.4  | 450   | 200   | 62.8                |
| 64258       | 10.0         | M 16             | 22.0  | 51.4  | 260   | 120   | 62.8                |
| 64259       | 10.0         | M 16             | 22.0  | 51.4  | 450   | 200   | 62.8                |
| 64260       | 11.0         | M 16             | 22.0  | 51.4  | 260   | 120   | 62.8                |
| 64261       | 11.0         | M 16             | 22.0  | 51.4  | 450   | 200   | 62.8                |
| 64262       | 12.0         | M 20             | 27.7  | 67.6  | 290   | 120   | 98.0                |
| 64263       | 12.0         | M 20             | 27.7  | 67.6  | 450   | 200   | 98.0                |
| 64264       | 12.0         | M 20             | 27.7  | 67.6  | 600   | 200   | 98.0                |
| 64265       | 12.0         | M 20             | 27.7  | 67.6  | 800   | 400   | 98.0                |
| 64266       | 13.0         | M 20             | 27.7  | 67.6  | 290   | 120   | 98.0                |
| 64267       | 13.0         | M 20             | 27.7  | 67.6  | 450   | 200   | 98.0                |
| 64268       | 13.0         | M 20             | 27.7  | 67.6  | 600   | 200   | 98.0                |
| 64269       | 13.0         | M 20             | 27.7  | 67.6  | 800   | 400   | 98.0                |
| 64270       | 15.5         | M 24             | 27.0  | 65.0  | 400   | 220   | 141.0               |
| 64271       | 15.5         | M 24             | 27.0  | 65.0  | 600   | 100   | 141.0               |
| 64272       | 16.0         | M 24             | 27.0  | 65.0  | 400   | 220   | 141.0               |
| 64273       | 16.0         | M 24             | 27.0  | 65.0  | 600   | 100   | 141.0               |

Other sizes available upon request.



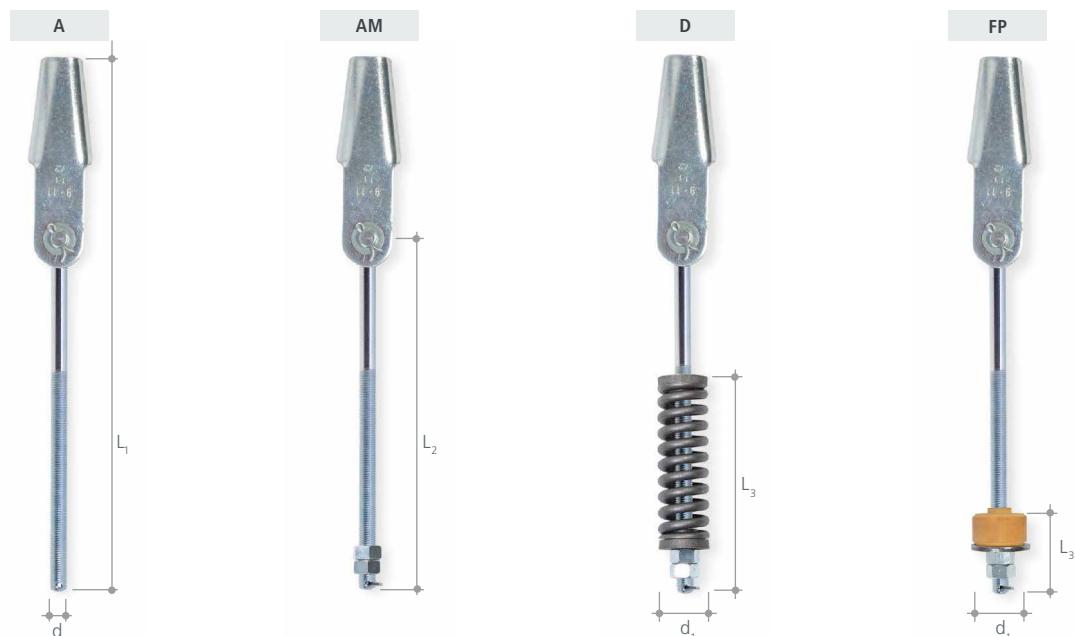
## WEDGE SOCKET Symmetrical [EN 13411-7] with Eyelet Bolt [DIN 444]

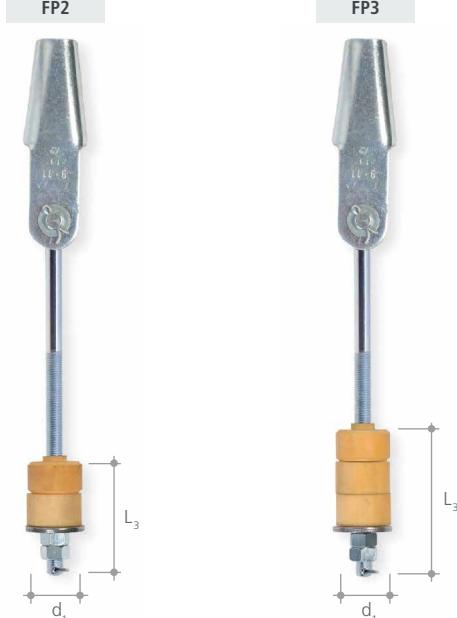
### Product Data

- wedge socket welded, steel zinc-plated
- incl. wedge, bolt and safety pins pre-assembled
- wedge socket transmits 80 % of minimal breaking load of traction rope or governor rope
- eyelet bolt welded, steel zinc-plated
- in connection with the wedge socket the eyelet bolt transmits 80 % of the minimal breaking load of the elevator rope
- for mounting and operation the explanations in appendix B of the norm EN 13411-7 are valid

### Advantages

- can be assembled safely and simply on-site
- springs, buffers and other accessories can be mounted individually





| item number | rope ø      | d   | d <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-------------|-------------|-----|----------------|----------------|----------------|----------------|
| <b>A</b>    |             |     |                |                |                |                |
| 64109       | 5.0 - 6.5   | M10 |                | 265            | 180            |                |
| 64110       | 6.0 - 8.0   | M12 |                | 450            | 320            |                |
| 64111       | 9.0 - 11.0  | M16 |                | 484            | 320            |                |
| 64112       | 12.0 - 14.0 | M20 |                | 598            | 400            |                |
| 64113       | 15.0 - 17.0 | M24 |                | 674            | 450            |                |
| 64114       | 18.0 - 20.0 | M27 |                | 760            | 500            |                |
| <b>AM</b>   |             |     |                |                |                |                |
| 64140       | 5.0 - 6.5   | M10 |                | 265            | 180            |                |
| 64141       | 6.0 - 8.0   | M12 |                | 450            | 320            |                |
| 64142       | 9.0 - 11.0  | M16 |                | 484            | 320            |                |
| 64143       | 12.0 - 14.0 | M20 |                | 598            | 400            |                |
| 64144       | 15.0 - 17.0 | M24 |                | 674            | 450            |                |
| 64145       | 18.0 - 20.0 | M27 |                | 760            | 500            |                |
| <b>D</b>    |             |     |                |                |                |                |
| 64115       | 5.0 - 6.5   | M10 | 23             | 265            | 180            | 85.5           |
| 64116       | 6.0 - 8.0   | M12 | 44             | 450            | 320            | 167.0          |
| 64117       | 9.0 - 11.0  | M16 | 44             | 484            | 320            | 173.0          |
| 64118       | 12.0 - 14.0 | M20 | 53             | 598            | 400            | 202.0          |
| 64119       | 15.0 - 17.0 | M24 | 65             | 674            | 450            | 248.0          |
| 64120       | 18.0 - 20.0 | M27 | 65             | 760            | 500            | 254.0          |
| <b>FP</b>   |             |     |                |                |                |                |
| 64121       | 6.0 - 8.0   | M12 | 50             | 450            | 320            | 51.0           |
| 64122       | 9.0 - 11.0  | M16 | 58             | 484            | 320            | 59.0           |
| 64123       | 12.0 - 14.0 | M20 | 68             | 598            | 400            | 65.0           |
| 64124       | 15.0 - 17.0 | M24 | 80             | 674            | 450            | 74.0           |
| <b>FP2</b>  |             |     |                |                |                |                |
| 64125       | 6.0 - 8.0   | M12 | 50             | 450            | 320            | 79.0           |
| 64126       | 9.0 - 11.0  | M16 | 58             | 484            | 320            | 87.0           |
| 64127       | 12.0 - 14.0 | M20 | 68             | 598            | 400            | 93.0           |
| 64128       | 15.0 - 17.0 | M24 | 80             | 674            | 450            | 102.0          |
| <b>FP3</b>  |             |     |                |                |                |                |
| 64129       | 6.0 - 8.0   | M12 | 50             | 450            | 320            | 107.0          |
| 64130       | 9.0 - 11.0  | M16 | 58             | 484            | 320            | 115.0          |
| 64131       | 12.0 - 14.0 | M20 | 68             | 598            | 400            | 121.0          |
| 64132       | 15.0 - 17.0 | M24 | 80             | 674            | 450            | 130.0          |

Other sizes available upon request.

You will find the item numbers for all combination possibilities in the price list.



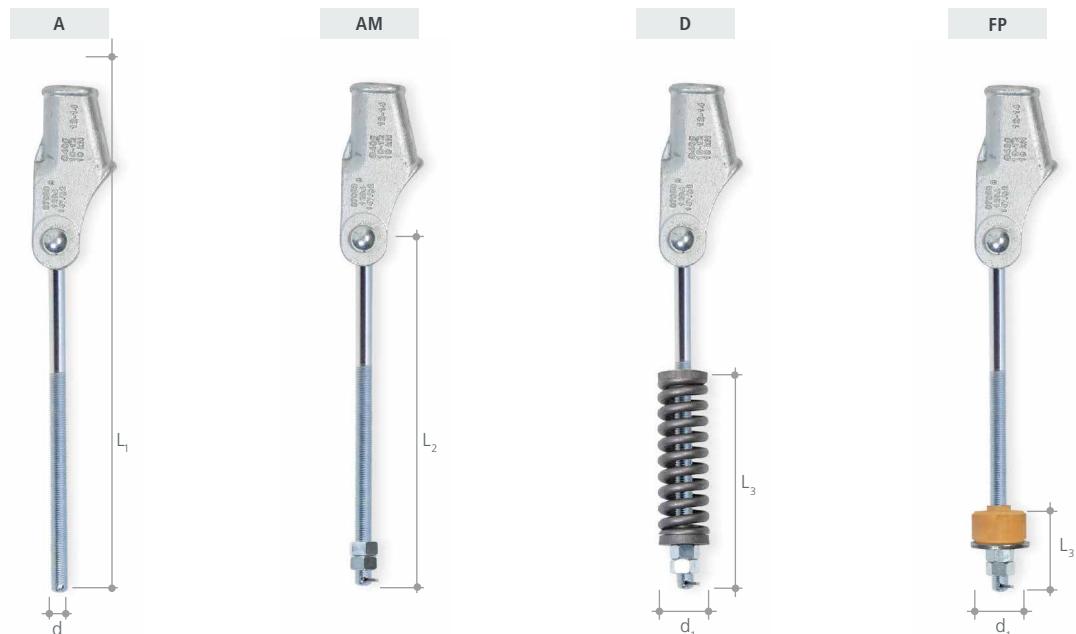
## WEDGE SOCKET Asymmetrical [EN 13411-6] with Eyelet Bolt [DIN 444]

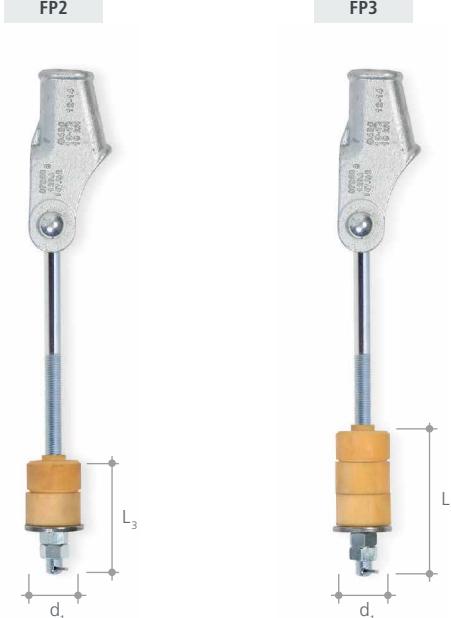
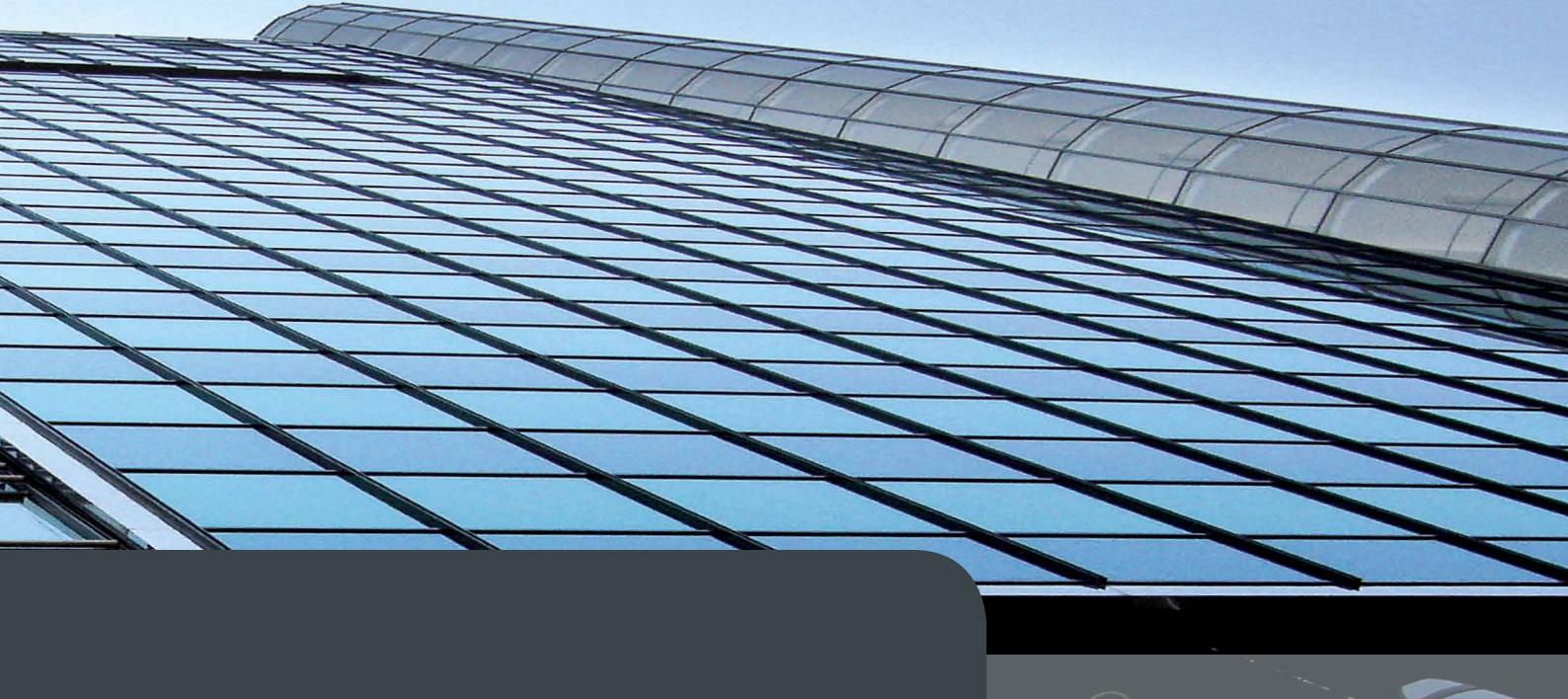
### Product Data

- wedge socket cast, steel zinc-plated
- incl. wedge, bolt and security pins pre-assembled
- eyelet bolt welded, steel zinc-plated
- in connection with the wedge socket the eyelet bolt transmits 80 % of the minimal breaking load of the traction  
– or governor rope

### Advantages

- can be assembled safely and simply on-site
- springs, buffers and other accessories can be mounted individually
- for mounting and operation the explanations in appendix B of the norm EN 13411-6 are valid





| item number | rope ø    | d     | d <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-------------|-----------|-------|----------------|----------------|----------------|----------------|
| <b>A</b> mm |           |       |                |                |                |                |
| 64302       | 6.0- 7.0  | M12 * |                | 430            | 300            |                |
| 64303       | 8.0       | M12 * |                | 430            | 300            |                |
| 64304       | 9.0-12.0  | M12 * |                | 430            | 300            |                |
| 64305       | 10.0-12.0 | M16   |                | 440            | 300            |                |
| 64306       | 12.0-14.0 | M16   |                | 440            | 300            |                |
| 64307       | 12.0-15.0 | M20 * |                | 590            | 400            |                |
| <b>AM</b>   |           |       |                |                |                |                |
| 64334       | 6.0- 7.0  | M12 * |                | 430            | 300            |                |
| 64335       | 8.0       | M12 * |                | 430            | 300            |                |
| 64336       | 9.0-12.0  | M12 * |                | 430            | 300            |                |
| 64337       | 10.0-12.0 | M16   |                | 440            | 300            |                |
| 64338       | 12.0-14.0 | M16   |                | 440            | 300            |                |
| 64339       | 12.0-15.0 | M20 * |                | 590            | 400            |                |
| <b>D</b>    |           |       |                |                |                |                |
| 64309       | 6.0- 7.0  | M12 * | 44             | 430            | 300            | 167.0          |
| 64310       | 8.0       | M12 * | 44             | 430            | 300            | 167.0          |
| 64311       | 9.0-12.0  | M12 * | 44             | 430            | 300            | 167.0          |
| 64312       | 10.0-12.0 | M16   | 44             | 440            | 300            | 173.0          |
| 64313       | 12.0-14.0 | M16   | 44             | 440            | 300            | 173.0          |
| 64314       | 12.0-15.0 | M20 * | 50             | 590            | 400            | 201.5          |
| <b>FP</b>   |           |       |                |                |                |                |
| 64316       | 6.0- 7.0  | M12 * | 50             | 430            | 300            | 51             |
| 64317       | 8.0       | M12 * | 50             | 430            | 300            | 51             |
| 64318       | 9.0-12.0  | M12 * | 50             | 430            | 300            | 51             |
| 64319       | 10.0-12.0 | M16   | 57             | 440            | 300            | 59             |
| 64320       | 12.0-14.0 | M16   | 57             | 440            | 300            | 59             |
| 64321       | 12.0-15.0 | M20 * | 68             | 590            | 400            | 65             |
| <b>FP2</b>  |           |       |                |                |                |                |
| 64322       | 6.0- 7.0  | M12 * | 50             | 430            | 300            | 79             |
| 64323       | 8.0       | M12 * | 50             | 430            | 300            | 79             |
| 64324       | 9.0-12.0  | M12 * | 50             | 430            | 300            | 79             |
| 64325       | 10.0-12.0 | M16   | 57             | 440            | 300            | 87             |
| 64326       | 12.0-14.0 | M16   | 57             | 440            | 300            | 87             |
| 64327       | 12.0-15.0 | M20 * | 68             | 590            | 400            | 93             |
| <b>FP3</b>  |           |       |                |                |                |                |
| 64328       | 6.0- 7.0  | M12 * | 50             | 430            | 300            | 107            |
| 64329       | 8.0       | M12 * | 50             | 430            | 300            | 107            |
| 64330       | 9.0-12.0  | M12 * | 50             | 430            | 300            | 107            |
| 64331       | 10.0-12.0 | M16   | 57             | 440            | 300            | 115            |
| 64332       | 12.0-14.0 | M16   | 57             | 440            | 300            | 115            |
| 64333       | 12.0-15.0 | M20 * | 68             | 590            | 400            | 121            |

\* The head of the screw is not according to DIN 444. Other sizes available upon request.  
You will find the item numbers for all combination possibilities in the price list.



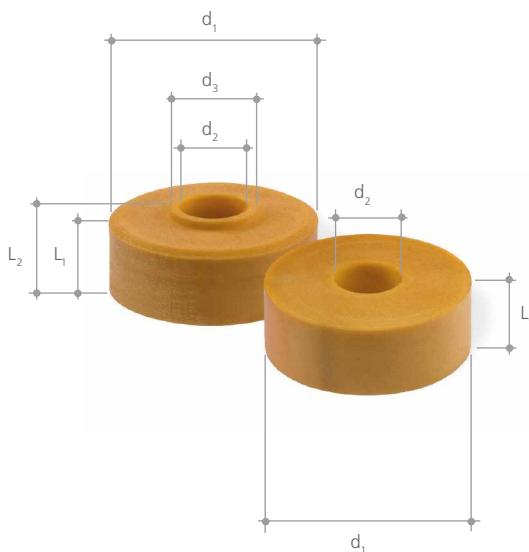
## ELASTOMER BUFFERS for Rope Attachment

### Product Data

- polyurethane elastomer with cells
- suitable for APAG, eyelet bolt, wedge socket symmetrical and asymmetrical

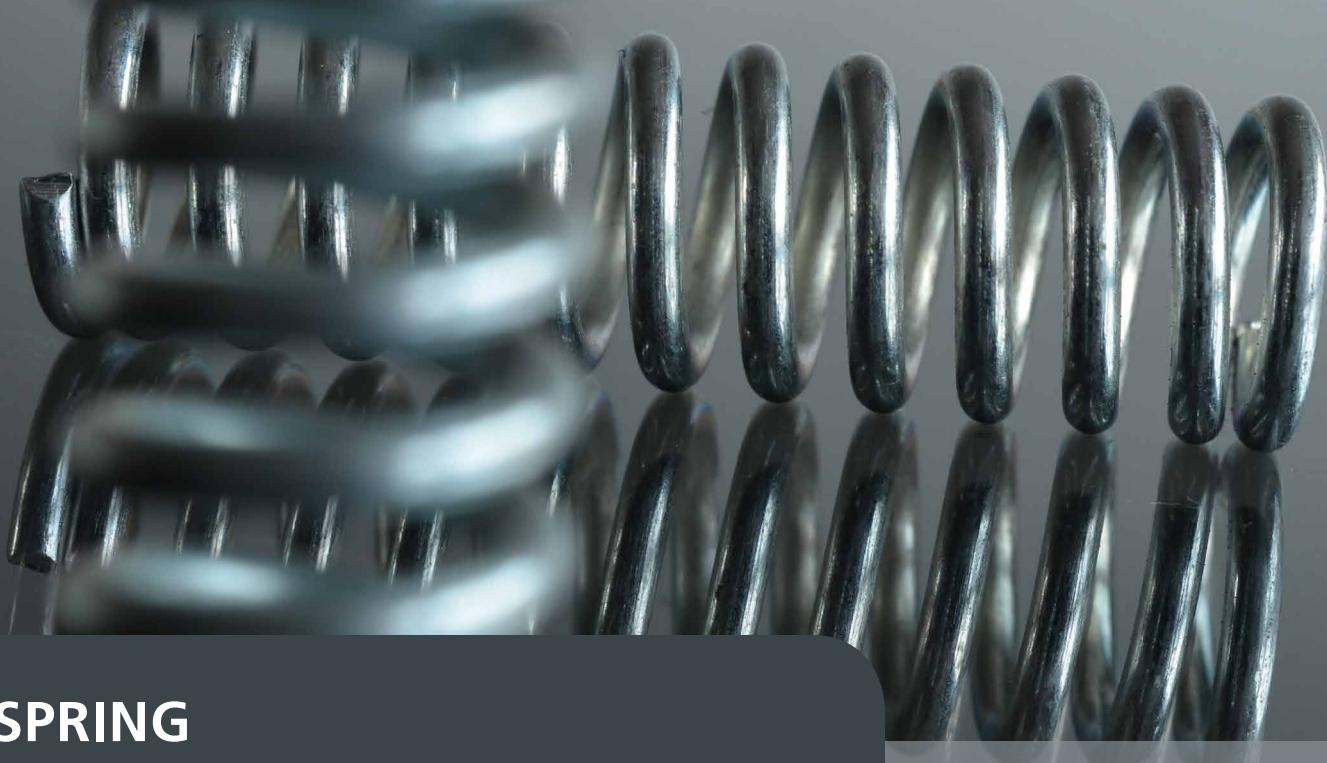
### Advantages

- excellent buffering properties at minimum overall height
- transverse elongation
- also applicable on the counterweight side as rope length compensation
- grease- and oil resistant



| item number | for tread | d <sub>1</sub>   | d <sub>2</sub> | d <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | max. stat. weight | max. pressure force |
|-------------|-----------|------------------|----------------|----------------|----------------|----------------|-------------------|---------------------|
|             | mm        | dimensions in mm |                |                |                |                |                   |                     |
| 77658 *     | M12       | 50               | 13             | 22             | 28             | 33             | 170               | 6.867               |
| 77659       | M12       | 50               | 13             |                | 28             |                | 170               | 6.867               |
| 77660 *     | M16       | 50               | 17             | 22             | 28             | 33             | 170               | 6.867               |
| 77661       | M16       | 50               | 17             |                | 28             |                | 170               | 6.867               |
| 77662 *     | M20       | 65               | 21             | 27             | 28             | 33             | 270               | 11.772              |
| 77663       | M20       | 65               | 21             |                | 28             |                | 270               | 11.772              |
| 77664 *     | M24       | 80               | 25             | 27             | 28             | 33             | 420               | 11.772              |
| 77665       | M24       | 80               | 25             |                | 28             |                | 420               | 11.772              |

\* with collar. If not expressly desired differently, we supply rope attachments with a buffer always with a collar. In case of several buffers always the top one with collar.



# SPRING



## Product Data

- steel spring, bright
- cylindrical type
- suitable for APAG, eyelet bolt, wedge socket symmetrical and asymmetrical

## Advantages

- improved riding comfort

| item number                   | for tread | d <sub>1</sub>      | d <sub>2</sub> | d <sub>3</sub> | L <sub>1</sub> | spring rate | spring force |
|-------------------------------|-----------|---------------------|----------------|----------------|----------------|-------------|--------------|
|                               |           | mm dimensions in mm |                |                |                |             |              |
| 64468                         | M10       | 23.5                | 4.5            | 14.5           | 61.5           | 81.0        | 1.703        |
| 64469                         | M12       | 43.0                | 7.5            | 28.0           | 135.0          | 71.0        | 3.382        |
| 64470                         | M16       | 46.0                | 9.0            | 28.0           | 135.0          | 146.0       | 5.930        |
| 64471                         | M20       | 53.0                | 11.0           | 31.0           | 157.5          | 223.0       | 9.383        |
| 64472                         | M24       | 65.0                | 15.0           | 35.0           | 190.0          | 458.0       | 14.880       |
| 64472                         | M27       | 65.0                | 15.0           | 35.0           | 190.0          | 458.0       | 14.880       |
| on request                    | M30       | 80.0                | 18.0           | 44.0           | 155.0          | 908.3       | 24.525       |
| substitute for 64469 od 64470 |           |                     |                |                |                |             |              |
| 10822                         | M12       | 31.0                | 7.0            | 17.0           | 148.0          | 124.5       | 2.500        |
| 77746                         | M16       | 33.0                | 8.0            | 17.0           | 122.0          | 114.7       | 2.740        |



## DOOR CLOSING ROPE SETS



TSS



SMZ

### TSS - Rope Set

- 1 FLEX door closing rope, 3500 mm length, with one-sided pressed APAG - external thread to adjust the correct rope tension
- 1 clamping ring to fasten a rope end at a fixed point
- 1 rope clamp and 1 thimble to mount the loose rope end

One packaging unit contains 5 rope sets each.

| item<br>number | rope ø |
|----------------|--------|
|                | mm     |
| 77720          | 3.0    |
| 77721          | 4.0    |

### SMZ - Rope Set

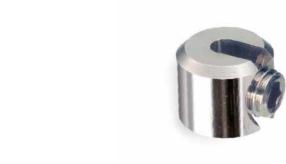
- 1 thread for easy installation DO-IT-LINE to adjust the correct rope tension
- 1 clamping ring to fasten a rope end at a fixed point
- 1 rope clamp and thimble to mount a loose rope end

One packaging unit contains 5 rope sets each.

The SMZ - rope set does not contain a door closing rope. This can be ordered separately.

### Advantages

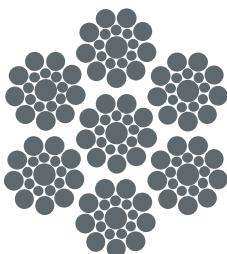
- fast and simple installation
- suitable for most elevator door-closing systems
- reduces downtimes
- complete set – all parts are included
- not much warehousing required



| item<br>number | rope ø |
|----------------|--------|
|                | mm     |
| 77744          | 3.0    |
| 77745          | 4.0    |



## DOOR CLOSING ROPE FLEX . ROPE CLAMP



### Steel Core Rope, 6 Strands, Separate Lay

Special design for door drives. Due to very fine strands especially suitable for deflector sheaves. Excellent service life with regard to high bending load.

|                                     |                    |                      |
|-------------------------------------|--------------------|----------------------|
| <b>110.000</b><br>N/mm <sup>2</sup> | <b>0.138</b><br>%  | <b>0.25</b><br>%     |
| E-Module                            | Elastic elongation | Permanent elongation |

| item number | rope ø | breaking load min. |      | weight | construction              |
|-------------|--------|--------------------|------|--------|---------------------------|
|             |        | mm                 | kN   |        |                           |
| 04132       | 3.0    |                    | 6.7  | 3.6    | 6x19S-WSC 1960 B sZ (RRL) |
| 03895       | 4.0    |                    | 11.0 | 6.0    | 6x19S-WSC 1960 B sZ (RRL) |
| 03899       | 5.0    |                    | 16.0 | 8.7    | 6x19S-WSC 1960 B sZ (RRL) |

### Rope Clamp

- zinc coated
- for mounting and operation the explanations of the norm EN 13411-5 are valid

### Advantages

- can be assembled safely and simply on-site



| item number | rope ø* | d   | dimensions in mm |                | required torque | rope clamp/loop |
|-------------|---------|-----|------------------|----------------|-----------------|-----------------|
|             |         |     | L <sub>1</sub>   | L <sub>2</sub> |                 |                 |
| 49459       | 5.0     | M5  | 25               | 12             | 2.0             | 3               |
| 01946       | 6.5     | M6  | 32               | 14             | 3.5             | 3               |
| 01947       | 8.0     | M8  | 41               | 18             | 6.0             | 4               |
| 01948       | 10.0    | M8  | 46               | 20             | 9.0             | 4               |
| 01950       | 12.0    | M10 | 56               | 24             | 20.0            | 4               |
| 78144       | 13.0    | M12 | 64               | 27             | 33.0            | 4               |
| 78145       | 14.0    | M12 | 66               | 28             | 33.0            | 4               |
| 01951       | 16.0    | M14 | 76               | 32             | 49.0            | 4               |
| 01952       | 19.0    | M14 | 83               | 36             | 68.0            | 4               |
| 01953       | 22.0    | M16 | 96               | 40             | 107.0           | 5               |

\* Corresponds to the maximum rope diameter.

For interim sizes of the rope diameter the next-largest clamp size is to be used.



## RPM Rope Performance Measurement Device

The RPM Rope performance measurement device makes it easier for you to check the rope tension during the installation, the inspection and the maintenance of elevators.

### Advantages

- quick, easy and precise determination of rope diameter and tension
- comparison and measurement of the rope tensions e.g. within a rope set
- determination of the weight of cabin, counterweights etc.
- easy documentation, query and comparison of the last 94 measuring results through storage in the device
- high precision of rope tension measurement of + / - 5%
- and diameter measurement of + / - 1%
- versatile through battery-supplied operation (1 x 9 V battery)
- handy device: just 330 x 230 x 50 mm (12.9 x 9.1 x 2.0 in), weight only 2.6 kg (5,73 lb)



### Keep the tension under control

Only the even tension within an elevator rope set can guarantee a wear- and maintenance low operation and secures a high economic efficiency.

| item<br>number | rope ø |          |
|----------------|--------|----------|
|                | mm     | in       |
| 70020          | 8-22   | 5/16-7/8 |





## GDC Grove Depth Comparator . RWG Rope Wear Gauge



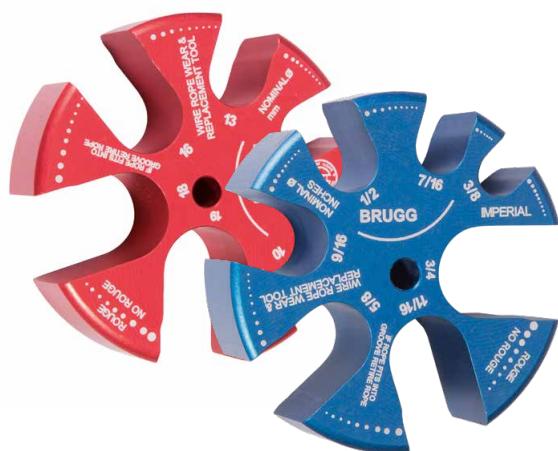
### GDC Groove Depth Comparator

The GDC enables you to precisely measure and compare sheave groove variations. It serves to early detect worn-out drive sheaves and may thus help to increase the service life of ropes.

#### Advantages

- Applicable for all common groove shapes
- Very easy handling
- Measurement in 1/100 mm or 1/1000 inch
- Measuring accuracy:  $\pm 5/1000$  mm or  $\pm 5/10000$  inch
- Total weight of 190 g
- Switching between metric and imperial system

| item number | size           | version  |
|-------------|----------------|----------|
| 77768       | 8 - 19 mm      | metric   |
| 77749       | 3/8 - 13/16 in | imperial |



### RWG Rope Wear Gauge

Within seconds, the precision gauge enables you to check, whether the minimum nominal diameter of the rope is below the target. If below limit, the rope must be replaced.

#### Advantages

- Robust design in aluminum with anodized surface
- Application in seconds
- Weight of only 100 g
- Applicable for diameters from 8-22 mm or 3/8-3/4 inch
- Precise finish

| item number | size         | unit of measurement |
|-------------|--------------|---------------------|
| 10909       | 8 - 22 mm    | metric              |
| 10910       | 3/8 - 3/4 in | imperial            |

Do not use  
in event of a fire

## VT-LUBE Rope Care Lubricant . ROPE CUTTERS



### VT-Lube

This rope care lubricant was especially developed for the relubrication of elevator ropes.

### Advantages

- excellent penetration quality causes optimum friction reduction in the rope
- excellent creep quality enables even lubricant distribution on and in the rope
- excellent corrosion protection
- suitable for high rope speed through very good adhesive quality
- neutral quality towards synthetic materials (no swelling of plastic parts)

| item number | content |
|-------------|---------|
|             | liter   |
| 77738       | 5       |

### Rope Cutters



| item number | rope ø   | weight | length cutters |
|-------------|----------|--------|----------------|
| 07534       | up to 12 | 1.5    | 500            |
| 07535       | up to 16 | 2.3    | 600            |

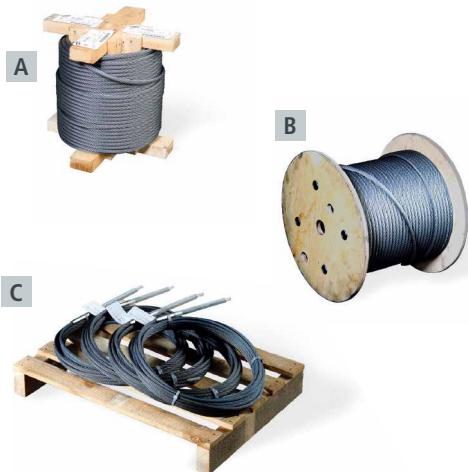


### Hydraulic Rope Cutters

| item number | rope ø | weight | length cutters |
|-------------|--------|--------|----------------|
| 77790       | 8-20   | 2.7    | 370            |



## PACKAGING



When selecting the packaging, BRUGG LIFTING pays attention to the best transport protection possible. Our ropes are protected in the best possible way during the transport with special packaging materials against corrosion and mechanical damaging.

BRUGG LIFTING is committed to handle resources with great care. That is why our ropes, whenever possible, are delivered on sturdy returnable reels and drums that can be reused.

### A Cross Drums

capacity according to rope diameter  
from 100 m ( $\varnothing$  16 mm) to 400 m ( $\varnothing$  6,5 mm)

### B Round Reels \*

$\varnothing$ /width: 300-600 mm / 320-530 mm

### C Coils

up to 50 m or 30 kg

### D XJ-Wooden Reels $\varnothing$ 100 x 65 cm

capacity according to rope diameter  
from 1000m HRS ( $\varnothing$  16 mm) or 1132 kg reel weight  
up to 4100 m HRS ( $\varnothing$  8 mm) or 1118 kg reel weight

### E System Deliveries on Pallets

consisting of rope/end terminations/accessories/  
mounting material

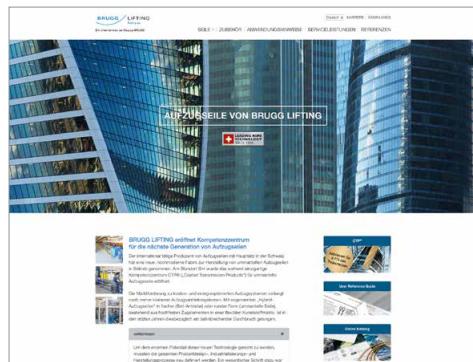
### F System Deliveries in Sturdy Cardboard Box

L/W/H: 80x60x80 cm / 120x60x80 cm

\* Non-returnable packs from cardboard/wood



## WE SUPPORT YOU. WORLDWIDE.

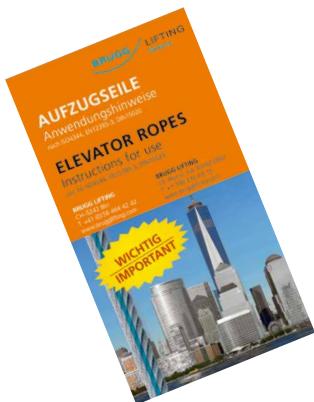


### **brugglifting.com** · The compact informative homepage

Our Homepage provides you with vivid depictions of our entire product range. You can intuitively make preselections to meet your individual requirements and find your BRUGG LIFTING contacts all over the world with just a click. For the latest information, just visit our start page.

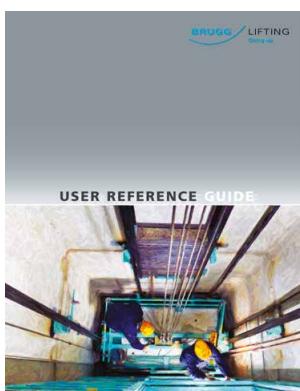
### **RLP** · Calculate the service life of your ropes

Log in to our service life calculator on our website and enter the data of your ropes to calculate their service life.



### **Instructions for Use** · Important tips for rope handling

Together with every rope delivered by us, you will be provided with illustrated application instructions on appropriate handling. From transport to rope control, you will get all useful information at a glance.



### **User Reference Guide** · About the handling our ropes

Make use of our extensive know-how about rope handling. A Quick Link on our website takes you to our User Reference Guide where you both find comprehensive technical details and tips and may retrieve the requested information via a targeted full-text search. You may store all data as a PDF file.



 **LEADING ROPE  
TECHNOLOGY**  
SINCE 1896

•  **SWITZERLAND**

**BRUGG LIFTING**

Wydenstrasse 36

5242 Birr

Switzerland

T +41 (0) 56 464 42 42

F +41 (0) 56 464 42 84

[info.lifting@brugg.com](mailto:info.lifting@brugg.com)

[brugglifting.com](http://brugglifting.com)

•  **SWITZERLAND**

**BRUGG LIFTING**

Chemin de Forêt 12

1024 Ecublens

Switzerland

T +41 (0) 21 634 20 21

F +41 (0) 21 635 09 71

[vente.lifting@brugg.com](mailto:vente.lifting@brugg.com)

[brugglifting.com](http://brugglifting.com)

•  **USA**

**Brugg Wire Rope LLC**

3411 Turkey Mountain Road NE

US-Rome, GA 30161

T +1 706 314 29 82

F +1 706 235 60 35

[lifting.usa@brugg.com](mailto:lifting.usa@brugg.com)

[brugglifting.com](http://brugglifting.com)

•  **CHINA**

**BRUGG LIFTING**

Plant 1, Nr. 88 Jinling East Road

Suzhou Industrial Park

Jiangsu Province, 215121

P.R. China

T +86 512 6299 0779

F +86 512 6299 0774

[lifting.cn@brugg.com](mailto:lifting.cn@brugg.com)

[brugglifting.cn](http://brugglifting.cn)

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