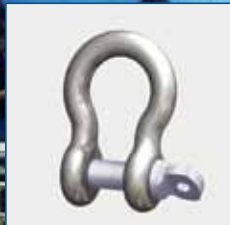


Event technology

- Rigging
- Stage Production
- Fair Booths



REUTLINGER[®]
systematic suspension

REUTLINGER - The Suspension Specialists



From a traditional workshop into a global high-tech company

»Technology should help us reach our goals. Therefore REUTLINGER constantly strives for logic and simplicity in all our products. Every detail must be functional and each function must make sense.«

Wolf Reutlinger, who has led the company since 1987, continued this tradition of craftsmanship while initiating innovative processes which opened up new applications and markets.

WILHELM REUTLINGER
MECHAN. SEILERWAREN-
HANF- u. DRAHTSEIL-FABRIK
FRANKFURT A. M.

More than meets the eye

The use of REUTLINGER fastening attachments always results in permanent connections.

This is the effect guaranteed by the self-locking mechanisms at the heart of our attachments. The elements devised specifically for this purpose are based on the following principle: the heavier the load – the greater the clamping force. For safe working loads (WLL) of up to 330kg.

Global success with continuous product improvement

By continually expanding the range of our products we were able to dominate the world market for suspended lighting fixtures within a few years. Today we are proud to count virtually all manufacturers of

high-quality lighting fixtures – as well as the automotive industry, sign- and shelf-manufacturers, galleries and museums – among our regular customers.

Special holders for rigging and fair-booth construction

The same technology that proved so successful in safely and quickly suspending luminaires has now been made available to riggers and fair-booth contractors. The holders type 50SV II (for cables Ø 4.0 mm and 5.0 mm) and type 80SV II (for cables Ø 6.0 mm and 8.0 mm) offer various advantages:

- **One hand is enough**
The holders are installed and infinitely adjustable without the use of any tools.
- **Easy scenic integration**
The holders' black surface prevents unwanted reflections, making them barely visible in scenic productions and on fair-booths.
- **Safe and secure loadability**
These holders are rated for Working Load Limit (WLL) between 80kg and 330kg (according to German Institute for Statutory Accident Insurance and Prevention).

*Photo + Cover picture
Irrlicht GmbH · 61440 Oberursel*



Versatility and high loadability

Even when suspending heavy loads REUTLINGER holders are infinitely adjustable along the cable.

Remove the load, loosen the safety-cap, press down the plunger by hand, move the holder to the desired position, release the plunger, screw down the safety cap. That's it.

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REUTLINGER cable holders – twofold certification!

ZERTIFIKAT ♦ CERTIFICATE ♦ CERTIFICADO ♦ CERTIFICAT ♦ 合格証書 ♦



CERTIFICATE
No. Z2 07 10 14229 017
Holder of Certificate: Reutlinger GmbH
Offenbacher Landstr. 190
60599 Frankfurt
GERMANY
14229

Production Facility(ies):

Certificate

Product Model Parameters

Tested
The listed
The certificate
not be all
Test report

Date, Page 1 of 1




Fachausschuss Metall und Oberflächenbehandlung
Prüf- und Zertifizierungsstelle im BG-PRÜFZERT

BG Test Certificate

Translation

certificate no. MO 085106 dated 2008.03.13

Name and address of the holder of the certificate: (customer)	Reutlinger GmbH Offenbacher Landstr. 190 DE-60599 Frankfurt a. M.
Name and address of the Manufacturer:	-dit-
Product designation:	Cable holder
Type:	DSH 50 SV, DSH 80 SV with special coupling devices, DSH 50 SV ZW threaded bolt made of steel
Intended purpose:	Load lifting attachment
Testing based on:	Principles for the testing and certification of slings (GS-MO 15-01, 08.2005)
Remarks:	<ol style="list-style-type: none"> 1. The cable holders shall not be loaded dynamically. 2. The rope deflection compared to the symmetry axis of the cable holders shall not exceed 5° (see marking of the cable holder). 3. Cable holders shall at least be used in pairs. 4. The BG-PRÜFZERT mark is to be used together with the supplement BGV C1.

The type tested complies with the test basis specified above.
The holder of the certificate is entitled to affix the BG-mark shown overleaf to the products complying with the type tested, including the specification given under the heading 'remarks'.

The present certificate will become invalid at the latest on: **2013.02.28**

Further provisions concerning the validity, the extension of the validity and other conditions are laid down in the Rules of Procedure for Testing and Certification of April 2004.




Postfach address: Postfach 45 29 • 30045 Hannover • Office Selgmannallee 4 • DE • 30173 Hannover
Phone +49 (0) 511 8118 • 446 • Fax +49 (0) 511 8118 • 373 • E-Mail pz-mo@bgmet.de • www.bg-metall.de

No.: fsh 671.731/242-RP gsh-pou

Twofold testing – two certificates!

Type 50SV II and Type 80SV II holders fulfil not just the requirements of GS certificates – as all REUTLINGER holders do – but also passed stringent testing by the German Institute for Statutory Accident Insurance and Prevention.

REUTLINGER cable holders – the only ones tested by the TÜV

The German TÜV is internationally recognized as a rigorous testing institute trusted by consumers and manufacturers alike, especially concerning technical products.

The highest and most comprehensive level of testing is that required for GS (product safety) certificates, recognizable by the well-known blue tag.

REUTLINGER is the world's only manufacturer of cable-based load-suspending systems whose holders have all been rated GS. The TÜV confirmed the promise of safety we make to all our customers.



TÜV – certificates

All REUTLINGER cable holders Type 50SV II and Type 80SV II were issued GS (product safety) certificates.

Holder Type 50SV II

Certificate-No.

Z1A 0807 14229 030 (TÜV-GS)

MO 085106 (TÜV-BGV)

Holder Type 80SV II

Certificate-No.

Z1A 0807 14229 031 (TÜV-GS)

MO 085106 (TÜV-BGV)

Cable Holder Type 50SV II and Type 80SV II with BG – PRÜFZERT

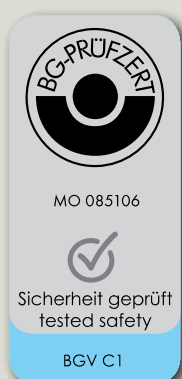
The only holders certified as safe by the German Institute for Statutory Accident Insurance and Prevention:

Type 50SV II and Type 80SV II with BG-PRÜFZERT!

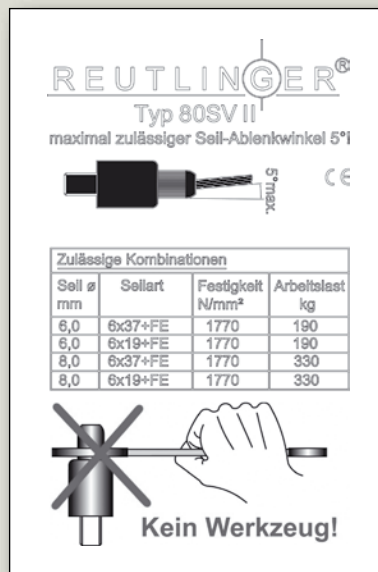


The BG-PRÜFZERT label is issued only after exacting and stringent testing of all conceivable loading variations, and includes testing of anticipated off-label applications.

REUTLINGER cable holders are the only load-bearing devices certified as safe for use in German staging and production facilities.



Relevant information always available



All information relevant to the use of the holders Type 50SV II and Type 80SV II is permanently enscribed on their shell:

- name of manufacturer
- permissible cables (construction; diameter and tensile strength)
- screwing down of the safety-cap by hand (no tools!)
- the Working Load Limit (WLL)
- the date of manufacturing



Technical information

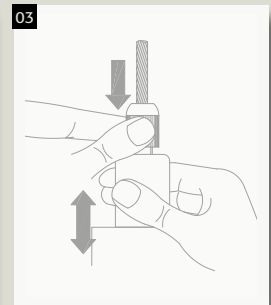
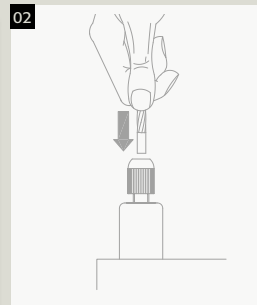
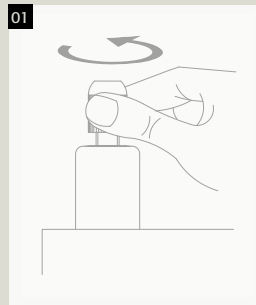
Installation and adjustment

First, the holder is attached to the load to be suspended.

Next, the knurled safety-cap is unscrewed a few turns so that the cable can be inserted (illustrations 1 & 2).

By suppressing the plunger (the moveable threaded bolt with safety-cap) the load can be infinitely adjusted along the cable (illustration 3).

After stopping the holder in the desired position the safety-cap is screwed down (without the use of tools) until firm resistance is felt. We recommend occasional readjustment of the safety-cap.



Safety cap

Safety caps prevent inadvertent release of the clamping mechanism inside the holders. That's why the plunger is threaded. Safety-caps are available in various versions.

Safe Working Loads & cables

The Working Load Limit (WLL) of a load-bearing system is computed by dividing its breaking load by the required safety-factor.

The WWL entered on the holders equals one twelfth (1/12) of the breaking load of the recommended cables.

Cables				Recommended Safe Working Loads (WLL) of cable holders	
Cable diameters	Cabel materials	Cable construction	Cable strength	Type 50SV II	Type 80SV II
4,0	zinc-plated	6x7+1FE	1.770 N/mm ²	80 kg	
	zinc-plated	6x19+1FE	1.770 N/mm ²	80 kg	
	black zinc-plated	6x7+1SE	1.960 N/mm ²	80 kg	
5,0	zinc-plated	6x7+1FE	1.770 N/mm ²	130 kg	
	zinc-plated	6x19+1FE	1.770 N/mm ²	130 kg	
	black zinc-plated	6x7+1SE	1.960 N/mm ²	130 kg	
6,0	zinc-plated	6x19+1FE	1.770 N/mm ²		190 kg
	black zinc-plated	6x19+1SE	1.960 N/mm ²		190 kg
8,0	zinc-plated	6x19+1FE	1.770 N/mm ²		330 kg
	zinc-plated	6x37+1FE	1.770 N/mm ²		330 kg

Chart 1: Recommended cables and Working Loads Limit (WLL)

Cable Holder Type 50SV II and Type 80SV II



Photo:
Irrlicht GmbH · 61440 Oberursel

The heavyweights: Cable holders Type 50SV II and Type 80SV II

These black holders are especially suitable for stage and fair-booth applications

- because they're easily and quickly height-adjusted;
- because they optimize the loadability of the cables;
- because their surface doesn't reflect light.

When using the recommended cables these holders can be loaded from 80kg to 330kg.

Cable holder Type 50SV II
Maximum loadability from 80kg (Ø 4.0mm) to 130kg (Ø 5.0mm).

Cable Holder Type 80SV II
Maximum loadability from 190kg (Ø 6.0mm) to 330kg (Ø 8.0mm).

Cable Holder Type 50SV II

Cable diameter 4.0 mm to 5.0 mm (all illustrations in original size)

Central cable exit

50



01
Holder Type 50SV II
M12; black

Diameter	25 mm
Length	70 mm
Coupling thread	M12
Length of thread	18 mm
Art. No.	193.005.021
BG-Prüfzert No.:	MO 085106



02
Holder Type 50SV II
M12 with ringnut M12; black

Diameter	25 mm
Length	106 mm
Coupling thread	M12
Exterior diameter	54 mm
Interior diameter	30 mm
Art. No.	193.005.035
BG-Prüfzert No.:	MO 085106



03
Holder Type 50SV II M12
with fork 14x28 and safety-bolt;
black

Diameter	25 mm
Length	122 mm
Fork length	41 mm
Fork width	14 mm
Bolt diameter	14 mm
Art. No.	193.005.024
BG-Prüfzert No.:	MO 085106



Lateral cable exit



01
**Holder Type 50SVZW II
M12i; black**

Diameter	25 mm
Length	99 mm
Coupling thread	M12i
Depth of thread	10 mm
Art. No.	193.005.025

Information

Further configurations available on demand. Also available with glued-in set screws in any desired length.



02
**Holder Type 50SVZW II M12i;
black with Doughty slimline half
coupler M1:2**

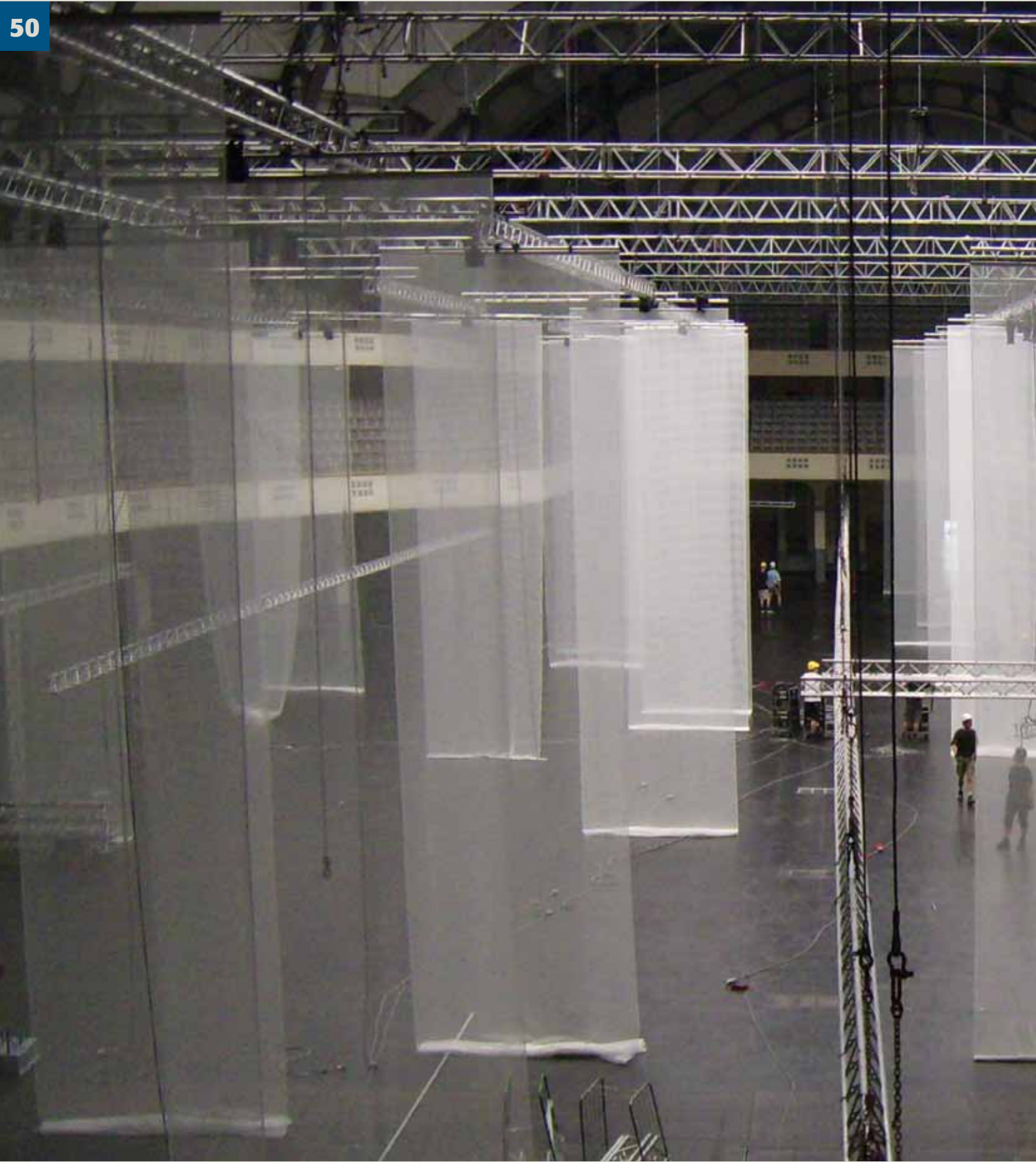
for pipe diameter	45 to 50 mm
Art. No.	193.005.040

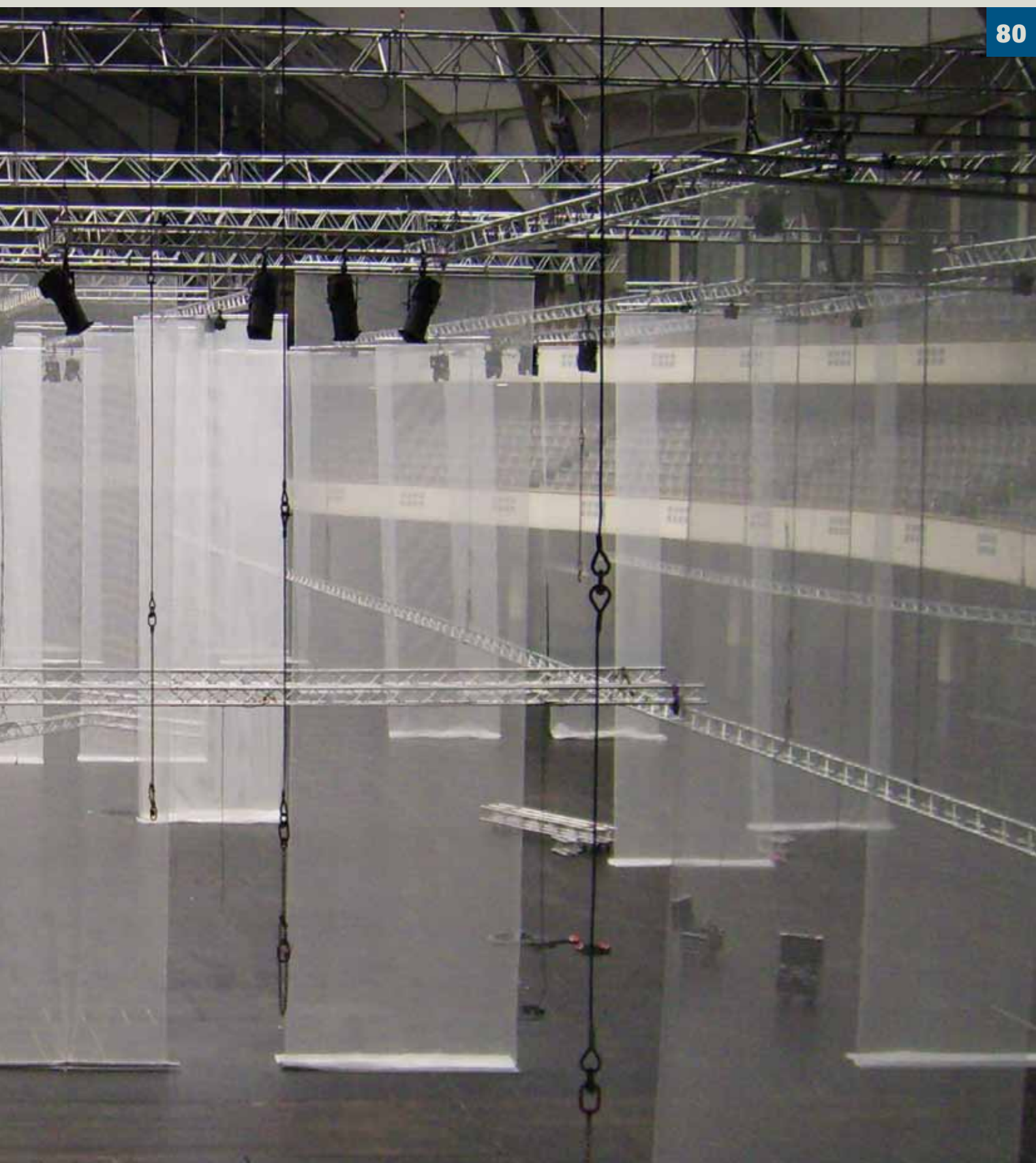
Holder Type 50SVZW II

Diameter	25 mm
Length	99 mm
Coupling thread	M12i
Depth of thread	8 mm
BG-Prüfzert No.	MO 085106

Note
DOUGHTY half-couplers are also available without holders; see page 19.







Cable Holder Type 80SV II

Cable diameter 6.0 mm to 8.0 mm (all illustrations in original size)

Central cable exit

80



01
Holder Type 80SV II M20;
black

Diameter	40 mm
Length	114 mm
Coupling thread	M20
Length of thread	29 mm
Art. No.	193.009.003
BG-Prüfzert No.:	MO 085106



02
Holder Type 80SV II M20 with ringnut
M20; black

Diameter	40 mm
Length	155 mm
Coupling thread	M20
Exterior diameter	72 mm
Interior diameter	40 mm
Art. No.	193.009.004
BG-Prüfzert No.:	MO 085106

Central cable exit



Lateral cable exit



01	
Holder Type 80SV II M20 with fork 20x40 and safety-bolt; black	
	M1:1
Diameter	40 mm
Length	190 mm
Fork length	63 mm
Fork width	20 mm
Bolt diameter	20 mm
Art. No.	193.009.005
BG-Prüfzert No.:	MO 085106

02	
Holder Type 80SVZV II M12i; black	
	M1:2
Diameter	40 mm
Length	110 mm
Coupling thread	M12i
Depth of thread	20 mm
Art. No.	193.009.008
BG-Prüfzert No.:	MO 085106

Note
Illustration not true to scale!

Combination with Doughty Coupler

Cable diameter 6.0 mm to 8.0 mm

01



01

**Holder Type 80SVZW II M12i;
black with Doughty Standard Half
Coupler** **M1:2**

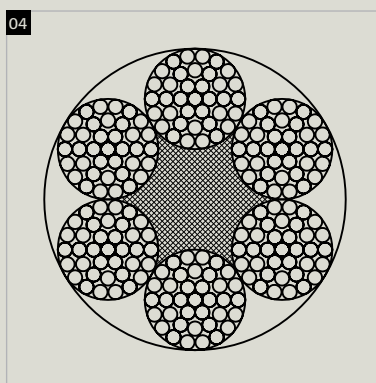
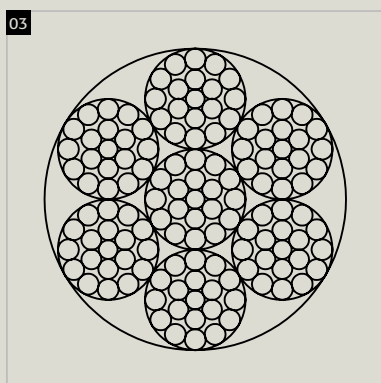
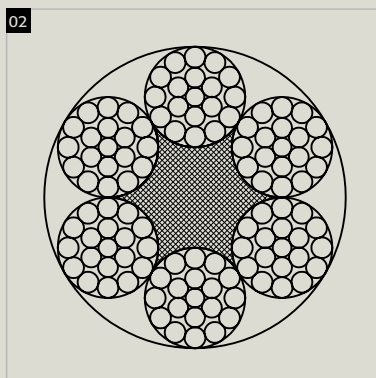
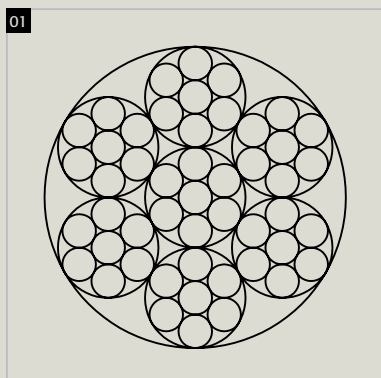
for pipe diameter	45 to 50 mm
Art. No.	193.009.009

Holder Type 80SVZW II

Diameter	40 mm
Length	110 mm
Coupling thread	M12i
Depth of thread	20 mm
BG-Prüfzert No.	MO 085106

Note

DOUGHTY half-couplers are also
available without holders;
see page 19.



- 01 DIN EN 12385-4 6x7+1SE
- 02 DIN EN 12385-4 6x19+1FE
- 03 DIN EN 12385-4 6x19+1SE
- 04 DIN EN 12385-4 6x37+1FE

Tip:

Cables may not be greased or oiled

1. Materials + surfaces

Cables are available in two degrees of durability

- 1.1 galvanized steel for normal interior use
- 1.2 stainless steel for exterior use and decorative requirements

2. Specific cable strength

Along with the standard-strength cables with 1570 N/mm² we also offer high-tensile-strength cables with up to 2300 N/mm². With these you get a higher system strength with the same cable diameter.

3. Cable constructions

You can choose between different cable constructions.

Please note:

- 3.1 cables with steel core have a higher strength than those with a fiber core but they are less flexible.
- 3.2 Cables with many wires like the 6x37 are more flexible than cables with less wires, as in 7x7 cables.
- 3.3. Swaged-on threaded bolts require cables with steel cores.
- 3.4. Cables running on pulleys should have fiber cores.

4. Cable diameter

REUTLINGER offers holders suitable for cables from 0.8 mm to 8 mm diameter.

5. Using other cables

REUTLINGER – cables are free of tension, stress-free, not twisted and cut-proofed. When using other cables, take care that cutting does not untwist the cable, because it is possible that they do not fit into the holder after they have been tinned.

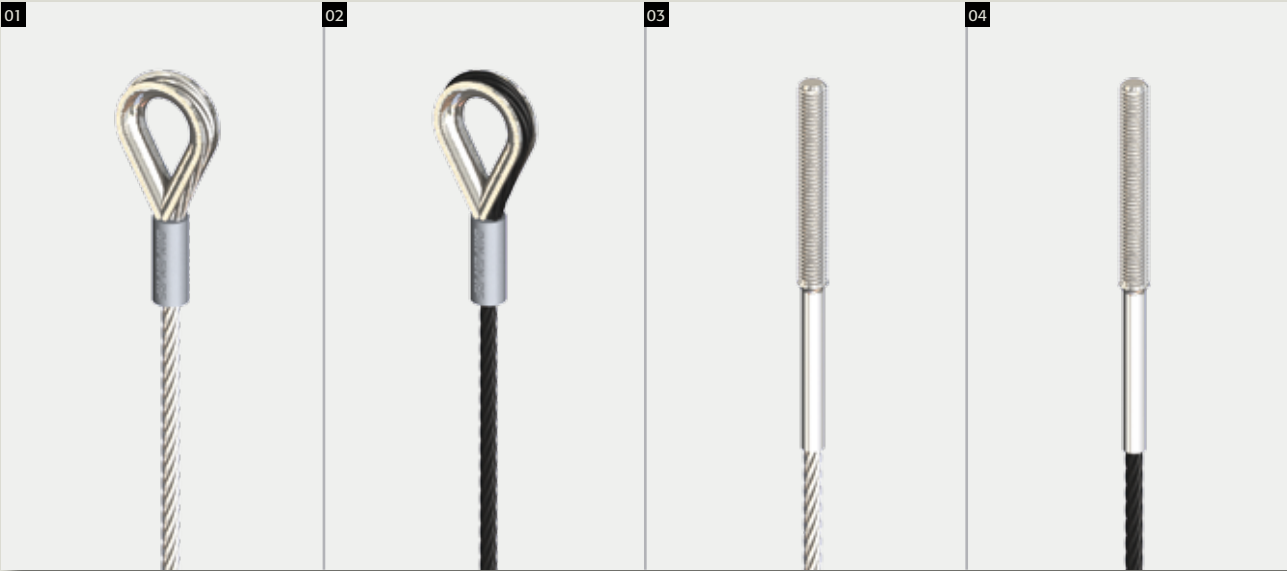
6. Individual solutions

Let us help you choose the best solution among our variety of cable ends.

Cable ends

Swaged terminals

Customized cables in desired lengths, materials, and diameters available with various terminals. Please enquire.



01

Loop & thimble

Available cables see chart. Measurements according to drawing.

02

Loop & thimble on black cable

Available cables see chart. Measurements according to drawing.

03

Threaded bolt

Available cables see chart. Measurements according to drawing.

04

Threaded bolt on black cable

Available cables see chart. Measurements according to drawing.

Cables					
Cable diameters	Cabel materials	Cable construction	Cable strength	Cable loop with thimble (01 + 02)	Threaded bolt (03 + 04)
4,0	zinc-plated	6x7+1FE	1.770 N/mm ²	●	
	zinc-plated	6x19+1FE	1.770 N/mm ²	●	
	black zinc-plated	6x7+1SE	1.960 N/mm ²	●	●
5,0	zinc-plated	6x7+1FE	1.770 N/mm ²	●	
	zinc-plated	6x19+1FE	1.770 N/mm ²	●	
	black zinc-plated	6x7+1SE	1.960 N/mm ²	●	●
6,0	zinc-plated	6x19+1FE	1.770 N/mm ²	●	
	black zinc-plated	6x19+1SE	1.960 N/mm ²	●	●
8,0	zinc-plated	6x19+1FE	1.770 N/mm ²	●	
	zinc-plated	6x37+1FE	1.770 N/mm ²	●	

Chart 2: Cables with cable ends (● available)

Safeties, shackles, and quick connecting elements

Additional safety for cable suspensions

Suspended loads can be redundantly secured against inadvertent falling by adding safety-cables and connecting elements of appropriate size.



Attention!

The requirement for sufficient dimensioning is fulfilled if the load on attachment gear, such as ropes and webbings, is no higher than a twelfth of the breaking strength.

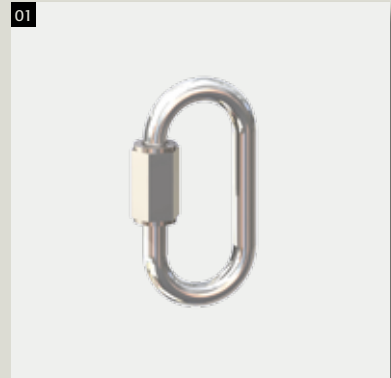
The load on other attachment gear must not exceed half of the load capacity specified by the manufacturer.

01

Chain link ›Form B‹ with large opening DIN 56926

Size 6, WLL 200 kg
Art. No. 020.860.600
Size 8, WLL 350 kg
Art. No. 020.860.800
Size 10, WLL 550 kg
Art. No. 020.861.000
Size 12, WLL 750 kg
Art. No. 020.861.200

01



02



02

High-strength shackle, curved version with eyelet-bolt DIN EN 1677-1

5/16", WLL 750 kg
Art. No. 023.020.021
7/16", WLL 1.500 kg
Art. No. 023.020.026

Ringbolts | Ringnuts



01
Ringbolts M12
similar DIN 580

zinc-plated Art. No. 028.201.200

Also available:

M8	Art. No. 028.200.800
M10	Art. No. 028.201.000
M16	Art. No. 028.201.600

Note

Illustrations reduced to 60%
actual size.



02
Ringnuts M12
similar DIN 582

Nickel-plated Art. No. 028.201.802

Also available:

M6	Art. No. 028.201.706
M8	Art. No. 028.201.708
M10	Art. No. 028.201.710
M20	Art. No. 028.201.804



03
Ringnuts M12
similar DIN 582

black Art. No. 028.201.806

Also available:

M20	Art. No. 028.201.807
-----	----------------------



01
Doughty Standard Half Coupler;
black

WLL 750 kg
for pipe diameter 45 to 50 mm
Art. No. 029.001.800

Note
Illustration reduced to 70%
original size.



02
Doughty Slimline Half Coupler;
black

WLL 300 kg
for pipe diameter 45 to 50 mm
Art. No. 029.001.805

Note
Illustration reduced to 40%
original size.



03
Hexnut M12x20 ISO 4017
threaded to bolt-head

Wrench opening 18 mm
Depth of thread 20 mm
Coupling thread M12
Art. No. 029.002.320



04
Hexnut M12x30 ISO 4017
threaded to bolt-head

Wrench opening 18 mm
Depth of thread 30 mm
Coupling thread M12
Art. No. 029.002.330



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