



These retaining systems protect man and machine from the dangerous whipping effect in case that the hose tears apart. Extracts from specifications and regulations which require the tuse of these safety components are available at the end of this catalogue.



all Cablelocks are



This product idea won the



innovation award



Available also in

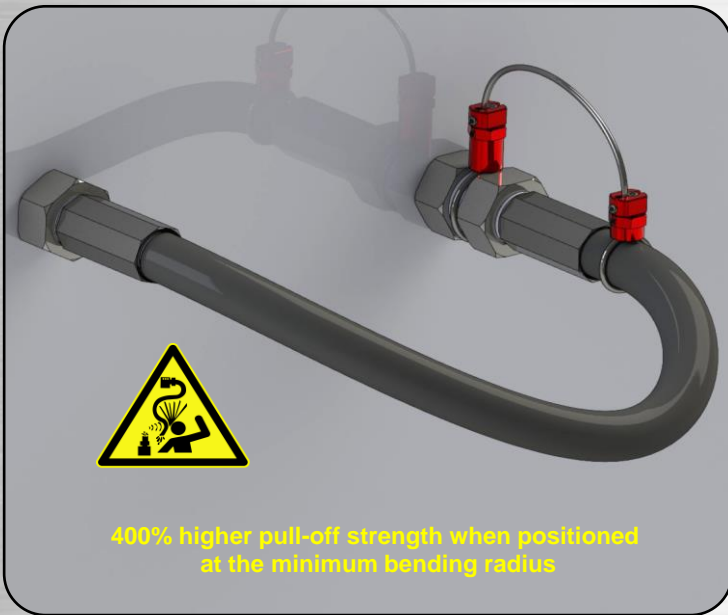




When do you have to use retaining systems?
 You will find the answer to this question on page 21 of this catalogue!

The idea of the Cablelock tensioner lock
 - the key to success -

The development of the innovative Cablelock retaining system started with the question: How do I attach a wire cable easily, quickly and secured against motion on a hose? The key of this solution is the meanwhile international patented Cablelock tensioner lock. It allows to build a sling with the wire cables **subsequently** around any type of fixation point, to prefixate them and finally to brace them safely with the Cablelock clamping ferrule at the fixation point. This type of adjustable wire cable sling is worldwide unique! Even though the clamping ferrules of the various series look different, the central idea described above is the same! You can find a series of pictures to the individual installation steps on page 19 in this catalogue!



'Factory standard test'
Important safety information:

There is currently no official standard, which requires how hose retaining systems have to be tested!
 From our own tests we know, that a lot of suppliers test their protection devices insufficiently - numerous competitive products failed prematurely in our tests!
 Obviously the fact, that the tear-off strength increases by approximately 400% when positioned at the minimum bending radius is often ignored!
 Cablelock retaining systems are therefore tested according to following factory standard:
 In the tear-off test, the Cablelock retaining system has to hold back the hydraulic hose line safely, when the hose line is positioned at the minimum bending radius and at least the quantity of 1.5 times the given operating pressure is applied.

More good reasons for Cablelock retaining systems:

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Cablelocks are marked with



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Series <i>Nominal size-pressure stage</i>	Catalogue Page	Image examples	Selection parameters: <i>Special features: colour coded</i>	
AS-Professional	Page 3-4		Assembly	retrofitable
DN5 - DN25 to R15			Outdoor	no
DN32 - DN50 to 4SH			Chemistry	no
			Max. temperature	+ 150°C
AS-Megaforce	Page 5-6		Assembly	retrofitable
DN16 - DN50 to R15			Outdoor	no
DN60 - DN100 to 2SN			Chemistry	no
			Max. temperature	+ 125°C
AS-Mini	Page 7-8		Assembly	retrofitable
DN2, DN3, DN4 - Special type for the hydraulic measurement technology			Outdoor	no
			Chemistry	no
			Max. temperature	+ 150°C
AS-ECO	Page 9-10		Assembly	disconnect
DN5 - DN25 to R15			Outdoor	no
DN32 - DN50 to 4SH			Chemistry	no
			Max. temperature	+ 100°C
AS-INOX-PRO	Page 11-12		Assembly	retrofitable
DN5 - DN50 max.4 layer hose			Outdoor	yes (AISI 303)
DN60,63,76 max.2 layer hose			Chemistry	yes (AISI 316)
			Max. temperature	+ 200°C
AS-INOX-ECO	Page 13-14		Assembly	disconnect
DN5 - DN25 to R15			Outdoor	yes (AISI 303)
DN32 - DN50 to 4SH			Chemistry	yes (AISI 316)
			Max. temperature	+ 100°C
AS-Complete	Page 15-16		Assembly	retrofitable
Complete assortment including mounting bracket			Outdoor	no
			Chemistry	no
			Max. temperature	+ 150°C
AS-Accessories	Page 17-18		Assembly	N/A
AS-Tape (protection tape), Cablelock-tools- & type overview			Outdoor	N/A
			Chemistry	N/A
			Max. temperature	N/A
Assembly, Technology & Regulations	Page 19-22	Helpful assembly information, picture series of tensioner lock assembly, additional information about residual risks, extracts from regulations and much more		

Explanations concerning the selection parameters:

Assembly - retrofitable or not

Series where the hose retaining systems can be retrofitted, which means without removing the hose line, are marked with '**retrofitable**' in the table above. Series, where the hose retaining system can only be installed when the hose line is disconnected are marked with '**disconnect**'.

Nominal size - pressure stage

All types of hose retaining systems are assigned to the corresponding common hose quality according to their maximum load.

- 'for hose qualities up to **2SN**' corresponds to medium up to high hydraulic operating pressures
- 'for hose qualities up to **4SP**' corresponds to high hydraulic operating pressures
- 'for hose qualities up to **4SH**' corresponds to very high hydraulic operating pressures
- 'for hose qualities up to **R15**' corresponds to extremely high hydraulic operating pressures

Possible applications

All Cablelock series are designed for the use in the interior area (dry), so called 'inside application'.

Cablelock series made of AISI 303 are furthermore weather- and moisture resistant and marked with '**Outdoor**'.

Cablelock series made of AISI 316 (for food, pharmaceutical and chemical sector) are marked with '**Chemistry**'.



The retaining system for high pressure hoses

AS-Professional Selection parameters:		
Assembly: retrofitable	for hoses DN5 - DN25 to R15 for hoses DN32 - DN50 to 4SH	
Outdoor: no	Chemistry: no	max. temperature: +150°C

Series AS-Professional ... All-round retaining system for subsequent assembly ...

The series AS-Professional is the most frequently sold retaining system for hydraulic hoses of the Cablelock assortment. The successful story of 'Cablelock' began with AS-Professional. Due to the infinitely variable fastening sling on both sides all fastening diameters of the respective nominal diameters are covered by the retaining systems of this series. Since the tensioner locks can be opened, these types can be installed quickly and easily without removing the hose! The series AS-Professional meets all the requirements that must be fulfilled by a modern retaining system. Please consider the operation notes given below! For the protection of the outer rubber of the hose and in case of pulsation/vibration we recommend the use of the self-adhesive or extra strong protection tape 'Cablelock-AS-Tape' on the hose side.



You can find an interesting 5-parted series of assembly pictures of AS-Professional on page 19!

Retaining systems which are firmly braced on the hose prevent frayed wire cables!

The 17 advantages of the series AS-Professional:

- installable without line disconnection - saves time and money!
- installable even for limited installation conditions!
- no sharp corners, edges or sharp ends of the wire cable
- compact length of cable bow for short whipping distances
- low stock costs due to few types
- short installation time even when the hose line is installed
- firmly braced on the hose side (see above)
- firmly braced on the machine side
- suitable even in high operating temperatures
- every Cablelock is packed individually
- very detailed operating manual supplied with each Cablelock
- smallest delivery quantity 1 piece - no annoying packing units
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

Technical data:

- for nominal hose diameters from DN5 to DN50
- for pressure stages from 165 bar up to 700 bar
- operating temperature -30°C up to +150°C
- materials steel galv./brass/light metal
- for more technical data see tables on the right

Accessories (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape



Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
 Always observe the information of the detailed operating manual supplied with the delivery!
 The series above is not suitable for outdoor use. For outdoor application please use the series INOX!
 Please note the list of residual risk at www.cablelock.de - important information.

Series AS-Professional



The retaining system for high pressure hoses

Type AS3-Professional for hoses DN5 to DN16

Professional hose retaining system with a 3mm high-strength wire cable and openable original Cablelock tensioner locks on both sides. Type AS3 is suitable for all common hydraulic hoses with nominal diameters from DN5 to DN16 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15. Special type 37A for 700bar hydraulic tool hoses. Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.



also suitable for subsequent assembly

for hose*	max. operating pressure	for fixpoints OD	visible length of cable bow	Ident. length**	Ident. No.	Abbr.***
DN5-DN6 Special type	700bar-max.pressure	11mm - 19mm	approx. 200-260mm	450mm	CL-AS-37A	37A
DN5-DN8	450bar	11mm - 21mm	approx. 200-260mm	450mm	CL-AS-3A	3A
DN10-DN12	450bar	17mm - 28mm	approx. 210-270mm	500mm	CL-AS-3B	3B
DN16	420bar	22mm - 31mm	approx. 230-290mm	550mm	CL-AS-3C	3C

Type AS4-Professional for hoses DN10 to DN25

Professional hose retaining system with a 4mm high-strength wire cable and openable original Cablelock tensioner locks on both sides. Type AS4 is suitable for all common hydraulic hoses with nominal diameters from DN10 to DN50 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15. Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.



also suitable for subsequent assembly

for hose*	max. operating pressure	for fixpoints OD	visible length of cable bow	Ident. length**	Ident. No.	Abbr.***
DN10-DN12 Special type	700bar-max.pressure	17mm - 28mm	approx. 210-290mm	520mm	CL-AS-47B	47B
DN16 Special type	560bar-max.pressure	22mm - 31mm	approx. 230-300mm	570mm	CL-AS-45C	45C
DN20 up to R15	420bar	26mm - 36mm	approx. 240-310mm	640mm	CL-AS-4D	4D
DN25 up to R15	420bar	32mm - 44mm	approx. 250-320mm	700mm	CL-AS-4E	4E

Type AS5-Professional for hoses DN20 to DN50

Professional hose retaining system with a 5mm high-strength wire cable and openable original Cablelock tensioner locks on both sides. Type AS5 is suitable for all common hydraulic hoses with nominal diameters from DN20 to DN50 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15. DN32-50 concerning pressure stage especially developed for 4SH. Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.



also suitable for subsequent assembly

for hose*	max. operating pressure	for fixpoints	visible length of cable bow	Ident. length**	Ident. No.	Abbr.***
DN20 Special type	560bar-max.pressure	26mm - 36mm	approx. 240-330mm	670mm	CL-AS-55D	55D
DN25 Special type	560bar-max.pressure	32mm - 44mm	approx. 250-340mm	730mm	CL-AS-55E	55E
DN32 up to 4SH	350bar	38mm - 52mm	approx. 260-350mm	780mm	CL-AS-5F	5F
DN40 up to 4SH	310bar	44mm - 61mm	approx. 280-370mm	840mm	CL-AS-5G	5G
DN50 up to 4SH	270bar	56mm - 74mm	approx. 290-380mm	920mm	CL-AS-5H	5H

* The retaining systems fit to the listed hose types, however only if the maximum operating pressure according to the table is obeyed!

** The identification length corresponds to the total length of the cable including the pressed limiter ferrules in disassembled status.

*** The abbreviation is imprinted as a code letter on every CE marking plate for an easy identification of the retaining system.



The retaining system for high pressure hoses

AS-Megaforce Selection parameters:		
Assembly: retrofitable*	for hoses DN16 - DN50 to R15	
	for hoses DN60 - DN100 to 2SN	
Outdoor: no	Chemistry: no	max. temperature: +125°C

* only type 52-B and 52-K (type 52-L: disconnect and max. 100°C)

Series AS-Megaforce ... sometimes it just has to be a little bit more ...

The development of the series AS-Megaforce was a challenge! The goal: Development of a hose retaining system combining the numerous advantages of the series AS-Professional, but for extreme pressure stages and large nominal diameters of the hose at the same time. The result: Exceeds all expectations - the name AS-Megaforce is justified! In order to satisfy the various application profiles we developed three types. All those three types have the subsequently openable tensioner lock 'Basic52' on the hose side. This tensioner lock allows the retaining system to be braced tightly on the hose - this is extremely important in order to minimize the signs of wear during the later operation! For further details about the different types please refer to the page on the right. For the protection of the outer rubber of the hose and in case of pulsation/vibration we recommend the use of the extra wide, self-adhesive or extra strong protection tape 'Cablelock-AS-Tape'.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!

The 18 advantages of the series AS-Megaforce:

- installable without line disconnection** - saves time and money!
- installable even for limited installation conditions!
- no sharp corners, edges or sharp ends of the wire cable
- compact length of cable bow for short whipping distances
- low stock costs due to few types
- short installation time even when the hose line is installed**
- firmly braced on the hose side (see above)
- firmly braced on the machine side**
- suitable even in high operating temperatures**
- DN16 - DN40 exceed R15-pressure values / DN50 up to R15
- every Cablelock is packed individually
- very detailed operating manual supplied with each Cablelock
- smallest delivery quantity 1 piece - no annoying packing units
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

** only for series 52-B

Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
Always observe the information of the detailed operating manual supplied with the delivery!
The series above is not suitable for outdoor use. For outdoor application please use the series INOX!
Please note the list of residual risk at www.cablelock.de - important information.

Technical data:

- for nominal hose diameters from DN16 to DN100
- for pressure stages from 50 bar up to 560 bar
- operating temp. -40°C up to +125°C type 52-B & 52-K
- operating temp. -40°C up to +100°C type 52-L & 51-2L
- materials steel galv./brass/light metal; type AS52-L & AS51-2L additional protective cover out of PA
- ident. length see www.cablelock.de
- for more technical data see tables on the right

Accessories (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape

Series AS-Megaforce



The retaining system for high pressure hoses

Type AS52-B for hoses DN32 to DN76

Extra strong retaining system with a 5mm high tensile dual wire cable and an openable Cablelock tensioner lock on both sides. Type AS52-B is suitable for all common hydraulic hoses with nominal diameters from DN32 to DN76 and dimensionally suitable for the hose types* 1-2SC, 1-2SN, 4SP, 4SH, R13, R15. DN32-DN50 concerning pressure stage up to R13/R15 and higher (DN60-DN76 for 2SN). Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.

also suitable for subsequent assembly



for hose*	for fixpoints OD	for connection	max. operating pressure	visible length of cable bow	Ident. No.**
DN32 exceeds R15	38mm - 52mm	Suitable for all connection sizes according to DIN 20066	525bar	approx. 290-370mm	CL-AS52-BF
DN40 exceeds R15	44mm - 61mm		450bar	approx. 300-380mm	CL-AS52-BG
DN50 up to R15	56mm - 74mm		420bar	approx. 300-390mm	CL-AS52-BH
DN60+DN63	68mm - 87mm		210bar	approx. 310-390mm	CL-AS52-BK
DN76	85mm - 102mm		100bar	approx. 310-390mm	CL-AS52-BM

Type AS52-L and AS51-2L for hoses DN16 to DN76

Extra strong retaining system with a 5mm high tensile dual wire cable***. With a openable Cablelock tensioner lock on the hose side and a bracket attachment on SAE-screws on the machine side. Suitable for all common hydraulic hoses from DN16 to DN76 and suitable for the hose types* 1-2SC, 1-2SN, 4SP, 4SH, R13, R15. DN16-DN50 concerning pressure stage up to R13/R15 and higher (DN60-DN76 for 2SN). Compatible for SAE flange fittings of the series 3000+6000PSI. More important information see on the left page.



for hose*	bracket ID	for SAE-flange types	max. operating pressure	visible length of cable bow	Ident. No.**
DN16+DN20 exceeds R15	10,5mm	6000-3/4"	560bar	approx. 230-350mm	CL-AS51-2LW***
DN25 - DN40 exceeds R15	10,5mm	3000-11/4"	DN25 up to 560bar DN32 up to 525bar DN40 up to 450bar	approx. 340-450mm	CL-AS52-LF
DN20+DN25 exceeds R15	12,5mm	6000-1"	560bar	approx. 240-380mm	CL-AS51-2LX***
DN32+DN40 exceeds R15 DN50 up to R15	12,5mm	3000-11/2"+2"	DN32 up to 525bar DN40 up to 450bar DN50 up to 420bar	approx. 350-450mm	CL-AS52-LG
DN60+DN63	12,5mm	3000-21/2"	210bar	approx. 360-450mm	CL-AS52-LH
DN25 - DN40 exceeds R15	14,5mm	6000-11/4"	DN25 up to 560bar DN32 up to 525bar DN40 up to 450bar	approx. 340-450mm	CL-AS52-LN
DN32+DN40 exceeds R15 DN50 up to R15	16,5mm	6000-11/2"	DN32 up to 525bar DN40 up to 450bar DN50 up to 420bar	approx. 350-450mm	CL-AS52-LP
DN76	16,5mm	3000-3"	100bar	approx. 380-450mm	CL-AS52-LL
DN40 exceeds R15 DN50 up to R15	20,5mm	6000-2"	DN40 up to 450bar DN50 up to 420bar	approx. 350-450mm	CL-AS52-LS

Type AS52-K for hoses DN32 to DN100

Extra strong retaining system with a 5mm high tensile dual wire cable. With a openable Cablelock tensioner lock on the hose side and a thimble version for shackle attachment on the machine side. Suitable for all common hydraulic hoses from DN32 to DN100 and suitable for the hose types* 1-2SC, 1-2SN, 4SP, 4SH, R13, R15. DN32-DN50 concerning pressure stage up to R13/R15 and higher (DN60-DN100 for 2SN). The pressed-on thimbles allow various installation methods. More important information see on the left page.



for hose*	thimble ID	for connection	max. operating pressure	visible length of cable bow	Ident. No.**
DN32 exceeds R15	15mm for M14	Universal installation option. Cables have to be equally loaded when tearing off.	525bar	approx. 400-440mm	CL-AS52-KF
DN40 exceeds R15	15mm for M14		450bar	approx. 400-440mm	CL-AS52-KG
DN50 up to R15	15mm for M14		420bar	approx. 400-440mm	CL-AS52-KH
DN60+DN63	15mm for M14		210bar	approx. 410-450mm	CL-AS52-KK
DN76	15mm for M14		100bar	approx. 410-450mm	CL-AS52-KM
DN100	15mm for M15		50bar	approx. 410-500mm	CL-AS52-KP

* The retaining systems fit to the listed hose types, however only if the maximum operating pressure according to the table is obeyed!

** The last two letters of the ident number are imprinted as a code letter on the CE marking plate of each retaining system.

*** Attention: the types AS51-2L are constructed as a 5mm SINGLE cable with two brackets and NOT according to the picture above!



The retaining system for high pressure hoses

AS-Mini Selection parameters:		
Assembly: retrofitable	For hydraulic measurement technology for hoses DN2 - DN3 - DN4	
	Outdoor: no	Chemistry: no

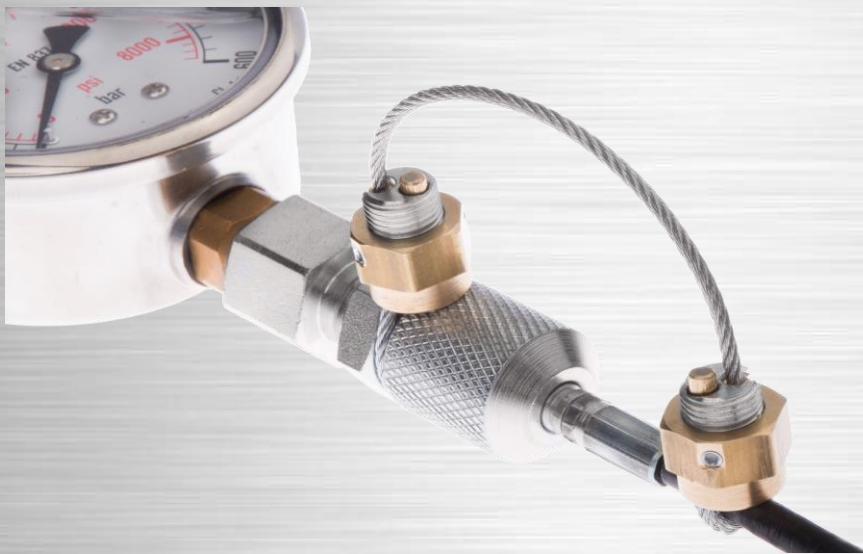
* only type AS2-M (type AS2-L: max. 100°C)

Series AS-Mini ... the problem solver of the measurement technology ...

The development of series AS-Mini began with the question: Is a retaining system for measuring hoses even possible? Our answer is: Yes! Thanks to the international patented Cablelock tensioner lock even this is possible! AS-Mini adapts perfectly to the requirements in the measurement technology and is, thanks to the new 'speed construction', installable quickly subsequently.

In addition to the initial type AS2-M the new type AS2-L was added due to repeated customer requests.

On the hose side, the new type fits on all common measurement hoses and has a bracket on the machine side for a universal installation - simply prepare a metric M6 screw hole and the type can nearly be used for all applications.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!

The 18 advantages of the series AS-Mini:

- installable without line disconnection - saves time and money!
- installable even for limited installation conditions!
- no sharp corners, edges or sharp ends of the wire cable
- very reasonable price!
- compact length of cable bow for short whipping distances
- low stock costs due to few types
- short installation time even when the hose line is installed
- firmly braced on the hose side (see above)
- firmly braced on the machine side*
- suitable even in high operating temperatures*
- packed in a packaging unit of 2 pieces including Allen key
- smallest delivery quantity 1 pieces - no annoying packing units
- very detailed operating manual supplied with each Cablelock
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

* **only for series AS2-M**

Important operation notes:

Install the retaining system for safety reasons always in pressureless state!

Always observe the information of the detailed operating manual supplied with the delivery!

The series above is not suitable for outdoor use. For outdoor application please use the series INOX!

Please note the list of residual risk at www.cablelock.de - important information.

Technical data:

- for nominal hose diameters DN2; DN3; DN4
- for pressure stages from 450bar up to 630bar
- operating temp. -30°C up to +150°C (type AS2-M)
- operating temp. -30°C up to +100°C (type AS2-L)
- materials steel galv./brass/light metal (AS2-L additional PA)
- ident. length see www.cablelock.de
- for more technical data see tables on the right

Accessories:

- the 1,5mm Allen key (only tool needed) is automatically included in each 2 piece packaging unit

New type AS2/L



Type AS2-M for hoses DN2, DN3, DN4

Extremely compact retaining system with a 2mm high tensile wire cable and an openable Cablelock tensioner lock on both sides. Due to this construction the retaining system can be installed extremely fast without disconnecting the hose line. Type AS2-M is suitable for all common hydraulic measurement hoses with the nominal diameters DN2, DN3, DN4 and also for all common measurement hose fittings (Measurement hoses and fittings are no subject to a standard so far; therefore please always check the measure 'for machine fixpoint'). The retaining system can be installed almost without tools - the Allen key which is needed to secure the Cablelock is included in the delivery.



for measuring hose		for machine fixpoint		Visible length of the cable bow (approx.) 'SBL'	for max. operating pressure	Ident. No.**
hose DN 'nominal size'	for OD* (install)	for OD* (install)	for OD max* (push over)			
DN2 - DN4	4,5 - 8,5mm	7,5 - 11,5mm	(12,5mm)	approx. 75mm	applies to all types DN2: 630bar DN3: 500bar DN4: 450bar	CL-AS-2MA
DN2 - DN4	4,5 - 8,5mm	11,5 - 15,5mm	(16,5mm)	approx. 80mm		CL-AS-2MB
DN2 - DN4	4,5 - 8,5mm	15,5 - 19,5mm	(20,5mm)	approx. 85mm		CL-AS-2MC
DN2 - DN4	4,5 - 8,5mm	customer - specific value***				customer-specific

Connection table for fast selection 'which Cablelock for which connection?':

Cutting ring fitting 24° - system 'Ermeto'	4LL, 5LL, 6LL, 8LL, 6L :	CL-AS-2MA
Cutting ring fitting 24° - system 'Ermeto'	10LL, 12LL, 6L, 8L, 10L, 6S :	CL-AS-2MB
Cutting ring fitting 24° - system 'Ermeto'	10L, 12L, 15L, 8S, 10S, 12S :	CL-AS-2MC
Typical measuring hose connections	M16x1,5 ; M16x2 ; S12.65x1.5:	CL-AS-2MC



Type AS2-L for hoses DN2, DN3, DN4

Extremely compact retaining system with a 2mm high tensile wire cable and an openable Cablelock tensioner lock on the hose side. A fastening bracket with a hole for a M6 screw is located on the machine side. Even though a sufficiently stable screw hole has to be ensured due to this universal mounting method, the user only needs one type of retaining system in return. The wire cable is protected against damage by a hose coating made of PA. The user covers all measuring hose applications with this retaining system quickly and cost-effective!



for measuring hose		for machine fixpoint bracket hole	Visible length of the cable bow (approx.) 'SBL'	for max. operating pressure	Ident. No.**
hose DN nominal size'	for OD* (install)				
DN2 - DN4	4,5 - 8,5mm	ID 6,2mm	ca. 80mm	DN2: 630bar DN3: 500bar DN4: 450bar	CL-AS-2ML

* The values given in the column 'install' are the outer diameters (OD), for which the Cablelock tensioner lock can be installed SUBSEQUENTLY (always 4mm clamping range). In the case that the tensioner lock is already pre-installed it can still be pushed over an outer diameter which is 1mm thicker - see column 'push over'.

** The last two letters of the ident. number are imprinted as a code letter on the CE marking plate of each retaining system.

*** Please note for the customer-specific values that the relation min./max. diameter has to be in the range of 4+1mm.

AS-ECO Selection parameters:		
Assembly: disconnect	For hoses DN5 - DN25 to R15 For hoses DN32 - DN50 to 4SH	
Outdoor: no	Chemistry: no	max. temperature: +100°C

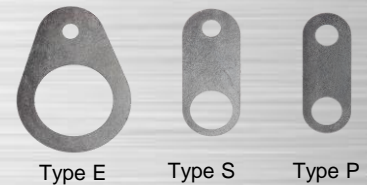
Series AS-ECO ... the cost-effective alternative ...

The success of the Cablelock retaining system started in the year 2012 by winning the VTH innovation award. The series AS-ECO provides a reliable hose retaining system in the lower price segment due to the hose sided assembly with brackets. In contrast to the series Professional the series AS-ECO is not installable without disconnecting the hose from the machine. If this connection is disconnected, AS-ECO can be installed quickly and easily and has a lot more advantages to offer (compare the list below). Altogether Cablelock AS-ECO presents a good solution for a lot of original equipment manufacturers due to its attractive price because the installation of the retaining systems can be scheduled within the regular assembly process. For the series AS-ECO we also recommend the use of the self-adhesive or extra strong protection tape 'Cablelock-AS-Tape' on the hose side.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!

Bracket types:



The 12 advantages of the series AS-ECO:

- very reasonable price
- compact length of cable bow for short whipping distances
- short installation time when the hose line is disconnected
- firmly braced on the hose side (see above)
- no sharp corners and edges on the hose side
- very detailed operating manual supplied with every delivery
- protection of the wire cable by a protective hose out of PA
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

Technical data:

- for nominal hose diameters from DN5 to DN50
- for pressure stages from 250bar up to 450bar
- operating temperature -30°C up to +100°C
- materials steel galv./brass/light metal/PA
- ident length see www.cablelock.de
- for more technical data see tables on the right

Accessories (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape

Additional information:

- Sale only in packaging units of 10,15 or 20 pieces
- Pre-assembly of the tensioner lock by the customer

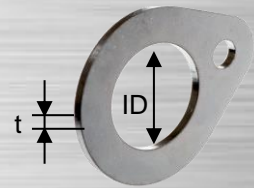
Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
 Always observe the information of the detailed operating manual supplied with the delivery!
 The series above is not suitable for outdoor use. For outdoor application please use the series INOX!
 Please note the list of residual risk at www.cablelock.de - important information.

Type AS-EE bracket type E: For union nut connection

Cost-effective retaining system with a 3, 4 or 5mm high tensile wire cable. For the hose types* of DIN 20066 & union nut fittings (please note the information on the left page).

for hose*	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No.
	ID	t**					
DN5-DN8	12,5mm	2,0mm	6L	450bar	210-250mm	3mm	CL-AS-E125
DN5-DN8	14,5mm	2,0mm	8L-6S-1/4"	450bar	210-250mm	3mm	CL-AS-E145
DN5-DN8	17,0mm	2,0mm	10L-8S-3/8"	450bar	210-250mm	3mm	CL-AS-E170
DN8-DN10	18,5mm	2,0mm	12L-10S	445bar	220-270mm	3mm	CL-AS-E185
DN8-DN10	20,5mm	2,0mm	12S	445bar	220-270mm	3mm	CL-AS-E205
DN10-DN12	22,5mm	2,5mm	15L-14S-1/2"	445bar	230-290mm	3mm	CL-AS-E225
DN10-DN12	24,5mm	2,5mm	16S	445bar	230-290mm	3mm	CL-AS-E245
DN16-DN20	27,0mm	2,5mm	18L-3/4"	420bar	240-370mm	4mm	CL-AS-E270
DN16-DN20	30,5mm	3,0mm	22L-20S	420bar	240-370mm	4mm	CL-AS-E305
DN20-DN25	34,0mm	3,0mm	1"	420bar	300-370mm	4mm	CL-AS-E340
DN20-DN25	36,5mm	3,0mm	28L-25S	420bar	300-370mm	4mm	CL-AS-E365
DN20-DN25	42,5mm	3,0mm	30S	420bar	300-390mm	4mm	CL-AS-E425.1
DN32 up to 4SH	42,5mm		11/4"	325bar	340-390mm	5mm	CL-AS-E425.2
DN32 up to 4SH	45,5mm	3,0mm	35L	325bar	330-400mm	5mm	CL-AS-E455
DN40 up to 4SH				290bar			
DN40 up to 4SH	49,0mm	3,0mm	1 1/2"	290bar	330-420mm	5mm	CL-AS-E490
DN50 up to 4SH				250bar			
DN32 up to 4SH	52,5mm	3,0mm	38S	325bar	350-430mm	5mm	CL-AS-E525
DN40 up to 4SH			42L				
DN40 up to 4SH	61,0mm	3,0mm	2"	290bar	340-440mm	5mm	CL-AS-E610
DN50 up to 4SH				250bar			



Type AS-ES bracket type S: Allen screws on SAE connection

Cost-effective retaining system with a 3, 4 or 5mm high tensile wire cable. For the hose types* of DIN 20066 & SAE flanges (please note the information on the left page).

for hose*	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No.	
	ID	t**						
DN12-DN16	8,5mm	4,0mm	SAE 1/2"3000 SAE 1/2"6000	445bar	230-290mm	4mm	CL-AS-S085	
DN20-DN25	10,5mm	4,0mm	SAE 3/4"+1"3000 SAE 3/4"6000	420bar	290-360mm	4mm	CL-AS-S105.1	
DN32 up to 4SH	10,5mm		SAE 1 1/4"3000	325bar	350-400mm	5mm	CL-AS-S105.2	
DN20-DN25	12,5mm	4,0mm	SAE 1"6000	420bar	320-390mm	4mm	CL-AS-S125.1	
DN32 up to 4SH	12,5mm		SAE 1 1/2"3000 SAE 2"3000	325bar 290bar 250bar	330-430mm	5mm	CL-AS-S125.2	
DN40 up to 4SH								
DN50 up to 4SH								
DN25	14,5mm	4,0mm	SAE 1 1/4"6000	420bar	340-390mm	4mm	CL-AS-S145.1	
DN32 up to 4SH	14,5mm		SAE 1 1/2"6000	325bar	370-430mm	5mm	CL-AS-S145.2	
DN32 up to 4SH	16,5mm	4,0mm	SAE 1 1/2"6000	325bar	350-430mm	5mm	CL-AS-S165	
DN40 up to 4SH				290bar				
DN40 up to 4SH	20,5mm	4,0mm	SAE 2"6000	290bar	340-440mm	5mm	CL-AS-S205	
DN50 up to 4SH				250bar				



Type AS-EP bracket type P: Universal mounting - screw hole

Cost-effective retaining system with a 3, 4 or 5mm high tensile wire cable. For the hose types* of DIN 20066 & fittings (please note the information on the left page).

for hose*	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No.
	ID	t**					
DN5-DN12	9,0mm	3,0mm	free drilling fixation point	325bar	250-320mm	3mm	CL-AS-P090
DN16-DN25	11,0mm	4,0mm		325bar	260-350mm	4mm	CL-AS-P110
DN32 up to 4SH	13,0mm	4,0mm		325bar	320-440mm	5mm	CL-AS-P130
DN40 up to 4SH				290bar			
DN50 up to 4SH				250bar			



* For 1SN, 2SN, 1SC, 2SC, 4SP, 4SH, R13, R15 - ALWAYS considering maximum operating pressure mentioned above.

** The ECO-bracket thickness usually fits standard fittings without clamps; please check this dimension anyway.

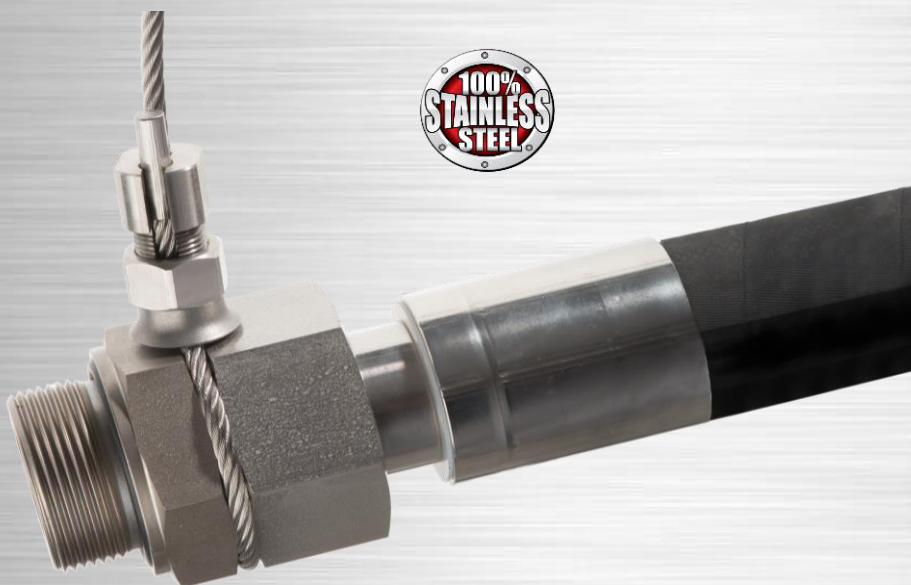


The retaining system for high pressure hoses

AS-INOX-PRO Selection parameters:		
Assembly: retrofitable	for hoses DN5 - DN25 to R15	
	for hoses DN32 - DN50 to 4SH	
Outdoor: yes (AISI 303)	Chemistry: yes (AISI 316)	max. temperature: +200°C

Series AS-INOX-PRO ... for the outdoor-, food - and pharmaceutical sector ...

The series AS-INOX-PRO is the new corrosion-resistant retaining system of the Cablelock family. AS-INOX-PRO combines all the advantages of the classic AS-Professional but it offers a wider range of applications due to its corrosion-resistance. In order to offer an attractive price for this series, we decided to provide AS-INOX-PRO in AISI 303 (for outdoor and average corrosion resistance requirements) AS WELL AS AISI 316 (for increased requirements regarding corrosion & hygiene). We are very proud of the almost perfect design, which resulted inevitably during the development! For the protection of the outer rubber of the hose and in case of pulsation/vibration we recommend the use of the self-adhesive or extra strong protection tape 'Cablelock-AS-Tape' on the hose side.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!

The 18 advantages of the series AS-INOX-PRO:

- installable without line disconnection - saves time and money!
- installable even for limited installation conditions!
- almost unlimited number of applications due to AISI 316
- no sharp edges, corners or sharp ends of the wire cable
- compact length of cable bow for short whipping distances
- low stock costs due to few types
- short installation time even when the hose line is installed
- firmly braced on the hose side (see above)
- firmly braced on the machine side
- suitable even in EXTREMELY high operating temperatures
- every Cablelock is packed individually
- very detailed operating manual supplied with each Cablelock
- smallest delivery quantity 1 piece - no annoying packing units
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

Technical data:

- for nominal hose diameters from DN5 to DN50
- for pressure stages from 80bar up to 450bar
- operating temperature -30°C up to +200°C
- materials only STAINLESS STEEL (AISI 303 or AISI 316)
- for more technical data see tables on the right

Accessories (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape

Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
 Always observe the information of the detailed operating manual supplied with the delivery!
 Please note the list of residual risk at www.cablelock.de - important information.



functional & attractive:
'AS-INOX-PRO'

Type INOX-ASP3 for hoses DN5 to DN16

Professional retaining system made of 100% STAINLESS STEEL, with a 3mm high-strength wire cable and openable stainless steel tensioner locks on both sides. Type ASP3 is suitable for all common hydraulic hoses with nominal diameters from DN5 to DN16 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15. DN16 only up to a pressure of 330bar, that means max. approx. 2SN/2SC (for 4SP-DN16 see type ASP4). Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.



also suitable for subsequent assembly

for hose*	for fixpoints OD	for max. operating pressure	visible length of cable bow	Ident. length**	Ident. No.*** AISI 303	Ident. No.*** AISI 316
DN5-DN8	8mm - 21mm	450bar	approx. 200-260mm	450mm	VA32	VA34
DN10-DN12	17mm - 28mm	450bar	approx. 210-270mm	500mm	VB32	VB34
DN16 up to 2SN/2SC	22mm - 31mm	330bar	approx. 230-290mm	550mm	VC32	VC34

Type INOX-ASP4 for hoses DN16 to DN25

Professional retaining system made of 100% STAINLESS STEEL, with a 4mm high-strength wire cable and openable stainless steel tensioner locks on both sides. Type ASP4 is suitable for all common hydraulic hoses with nominal diameters from DN16 to DN25 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15. DN20 up to max. 4SH, DN25 up to 4SP (for higher pressure see ASP5). Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.



also suitable for subsequent assembly

for hose*	for fixpoints OD	for max. operating pressure	visible length of cable bow	Ident. length**	Ident. No.*** AISI 303	Ident. No.*** AISI 316
DN16 up to R15	22mm - 31mm	450bar	approx. 230-290mm	550mm	VC42	VC44
DN20 up to 4SH	26mm - 36mm	380bar	approx. 240-310mm	640mm	VD42	VD44
DN25 up to 4SP	32mm - 44mm	300bar	approx. 250-320mm	700mm	VE42	VE44

Type INOX-ASP5 for hoses DN20 to DN50

Professional retaining system made of 100% STAINLESS STEEL, with a 5mm high-strength wire cable and openable stainless steel tensioner locks on both sides. Type ASP5 is suitable for all common hydraulic hoses with nominal diameters from DN20 to DN50 and dimensionally suitable for the hose types* 1SC, 2SC, 1SN, 2SN, 4SP, 4SH, R13, R15, but primarily designed for DN20 & DN25 up to R15, as well as DN32, DN40, DN50 up to 4SH. Compatible to all fitting types according to DIN EN 20066. More important information see on the left page.

...for increased pressure stages...



also suitable for subsequent assembly

for hose*	for fixpoints OD	for max. operating pressure	visible length of cable bow	Ident. length**	Ident. No.*** AISI 303	Ident. No.*** AISI 316
DN20 exceeds R15	26mm - 36mm	480bar	approx. 240-330mm	660mm	VD52	VD54
DN25 up to R15	32mm - 44mm	420bar	approx. 250-340mm	700mm	VE52	VE54
DN32 up to 4SH	38mm - 52mm	325bar	approx. 350-450mm	880mm	VF52	VF54
DN40 up to 4SH	44mm - 61mm	290bar	approx. 370-450mm	940mm	VG52	VG54
DN50 up to 4SH	56mm - 74mm	250bar	approx. 380-450mm	1020mm	VH52	VH54

* The retaining systems fit to the listed hose types, however only if the maximum operating pressure according to the table is obeyed!

** The identification length corresponds to the total length of the cable including the pressed limiter ferrules in disassembled status.

*** The abbreviation is imprinted as a code letter on every CE marking plate for an easy identification of the retaining system.



The retaining system for high pressure hoses

AS-INOX-ECO Selection parameters:		
Assembly: disconnect	for hoses DN5 - DN20 to R15 for hoses DN25 - DN50 to 4SH	
Outdoor: yes (AISI 303)	Chemistry: yes (AISI 316)	max. temperature: +100°C

Series AS-INOX-ECO ... STAINLESS STEEL retaining systems very cost-effective ...

The series AS-INOX-ECO is the new corrosion-resistant and yet very cost-effective retaining system of the Cablelock family. AS-INOX-ECO requires that the hose and machine are disconnected in order to be installed, but offers a wide range of applications thanks to the stainless steel design. The customer can choose between AISI 303 (for outdoor and average corrosion resistance requirements) and AISI 316 (for increased requirements regarding corrosion and hygiene). For the protection of the outer rubber of the hose and in case of pulsation/vibration we recommend the use of self-adhesive or extra strong protection tape 'Cablelock-AS-Tape' on the hose side.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!



The 13 advantages of the series AS-INOX-ECO:

- very reasonable price
- compact length of cable bow for short whipping distances
- no sharp edges, corners or sharp ends of the wire cable
- almost unlimited number of applications due to AISI 316
- short installation time - quick & easy installation
- firmly braced on the hose side (see above)
- very detailed operating manual supplied with every delivery
- protection of the wire cable by a protective hose out of PA
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- special length even possible for small quantities
- made in Germany

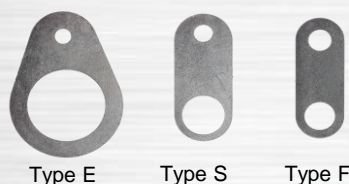
Technical data:

- for nominal hose diameters from DN5 to DN50
- for pressure stages from 250bar up to 450bar
- operating temperature -30°C up to +100°C
- materials only STAINLESS STEEL (AISI 303 or AISI 316), except protection sleeve (PA)
- ident. length see www.cablelock.de
- for more technical data see tables on the right

Accessories (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape und des Tapes

bracket types:



Additional information:

- Sale only in packaging units of 10, 15 or 20 pieces

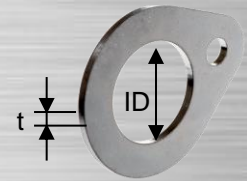
Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
Always observe the information of the detailed operating manual supplied with the delivery!
Please note the list of residual risk at www.cablelock.de - important information

Type INOX-ASE bracket type E: for union nut connection

Cost-effective retaining system completely* made of STAINLESS STEEL with a 3, 4 or 5mm wire cable.
For all hose types** of DIN 20066 & union nut fittings (please note the information on the left page).

for hose**	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No. AISI 303	Ident. No. AISI 316
	ID	t***						
DN5-DN8	12,5mm	2,0mm	6L	450bar	210-250mm	3mm	EV122	EV124
DN5-DN8	14,5mm	2,0mm	8L-6S-1/4"	450bar	210-250mm	3mm	EV142	EV144
DN5-DN8	17,0mm	2,0mm	10L-8S-3/8"	450bar	210-250mm	3mm	EV172	EV174
DN8-DN10	18,5mm	2,0mm	12L-10S	445bar	220-270mm	3mm	EV182	EV184
DN8-DN10	20,5mm	2,0mm	12S	445bar	220-270mm	3mm	EV202	EV204
DN10-DN12	22,5mm	2,5mm	15L-14S-1/2"	445bar	230-290mm	3mm	EV222	EV224
DN10-DN12	24,5mm	2,5mm	16S	445bar	230-290mm	3mm	EV242	EV244
DN16-DN20	27,0mm	2,5mm	18L-3/4"	420bar	240-370mm	4mm	EV272	EV274
DN16-DN20	30,5mm	3,0mm	22L-20S	420bar	240-370mm	4mm	EV302	EV304
DN20-DN25	34,0mm	3,0mm	1"	380bar	300-370mm	4mm	EV342	EV344
DN20-DN25	36,5mm	3,0mm	28L-25S	380bar	300-370mm	4mm	EV362	EV364
DN20-DN25	42,5mm	3,0mm	30S	380bar	300-390mm	4mm	EV42.12	EV42.14
DN32 up to 4SH	42,5mm		11/4"	325bar	340-390mm	5mm	EV42.22	EV42.24
DN32 up to 4SH	45,5mm	3,0mm	35L	325bar	330-400mm	5mm	EV452	EV454
DN40 up to 4SH				290bar				
DN40 up to 4SH	49,0mm	3,0mm	1 1/2"	290bar	330-420mm	5mm	EV492	EV494
DN50 up to 4SH				250bar				
DN32 up to 4SH	52,5mm	3,0mm	38S	325bar	350-430mm	5mm	EV522	EV524
DN40 up to 4SH			42L	290bar				
DN40 up to 4SH	61,0mm	3,0mm	2"	290bar	340-440mm	5mm	EV612	EV614
DN50 up to 4SH				250bar				



Type INOX-ASS bracket type S: Allen screws on SAE connection

Cost-effective retaining system completely* made of STAINLESS STEEL with a 3, 4 or 5mm wire cable.
For all hose types** of DIN 20066 & SAE flanges (please note the information on the left page).

for hose**	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No. AISI 303	Ident. No. AISI 316
	ID	t***						
DN12-DN16	8,5mm	4,0mm	SAE 1/2"3000 SAE 1/2"6000	445bar	230-290mm	4mm	SV082	SV084
DN20-DN25	10,5mm	4,0mm	SAE 3/4"+1"3000 SAE 3/4"6000	380bar	290-360mm	4mm	SV10.12	SV10.14
DN32 up to 4SH	10,5mm		SAE 1 1/4"3000	325bar	350-400mm	5mm	SV10.22	SV10.24
DN20-DN25	12,5mm	4,0mm	SAE 1"6000	380bar	320-390mm	4mm	SV12.12	SV12.14
DN32 up to 4SH	12,5mm		SAE 1 1/2"3000 SAE 2"3000	325bar 290bar	330-430mm	5mm	SV12.22	SV12.24
DN40 up to 4SH			250bar					
DN50 up to 4SH								
DN25	14,5mm	4,0mm	SAE 1 1/4"6000	380bar	340-390mm	4mm	SV14.12	SV14.14
DN32 up to 4SH	14,5mm		325bar	370-430mm	5mm	SV14.22	SV14.24	
DN32 up to 4SH	16,5mm	4,0mm	SAE 1 1/2"6000	325bar	350-430mm	5mm	SV162	SV164
DN40 up to 4SH				290bar				
DN40 up to 4SH	20,5mm	4,0mm	SAE 2"6000	290bar	340-440mm	5mm	SV202	SV204
DN50 up to 4SH				250bar				



Type INOX-ASF bracket type F: Universal mounting - screw hole

Cost-effective retaining system completely* made of STAINLESS STEEL with a 3, 4 or 5mm wire cable.
For all hose types** of DIN 20066 & fittings (please note the information on the left page).

for hose**	bracket		for connection	max. operating pressure	length of cable bow approx.	cable OD	Ident. No. AISI 303	Ident. No. AISI 316
	ID	t***						
DN5-DN12	9,0mm	3,0mm	free drilling fixation point	325bar	250-320mm	3mm	FV092	FV094
DN16-DN25	11,0mm	4,0mm		325bar	260-350mm	4mm	FV112	FV114
DN32 up to 4SH	13,0mm	4,0mm		325bar	320-440mm	5mm	FV132	FV134
DN40 up to 4SH				290bar				
DN50 up to 4SH				250bar				



* The sleeve to protect the stainless steel wire cable is made of PA (Polyamide). // The Ident. No. is imprinted on each Cablelock.

** For 1SN, 2SN, 1SC, 2SC, 4SP, 4SH, R13, R15 - ALWAYS considering maximum operating pressure mentioned above.

*** The ECO-bracket thickness usually fits standard fittings without clamps; please check this dimension anyway.

AS-Complete Selection parameters:		
Assembly: retrofitable	For hoses DN5 - DN25 to R15	
	For hoses DN32 - DN50 to 4SH	
Outdoor: no	Chemistry: no	max. temperature: +150°C

Series AS-Complete ... practical complete set including mounting support ...

The series AS-Complete is a retaining system complete set which can be individually combined and it includes a precisely tailored mounting bracket in a hydraulic design. AS-Complete contains the most common types of the series AS-Professional and it can be combined in different modules. This way you will always keep the overview and you can reorder if required. Quickly and very space-saving you can choose to use AS-Complete as a kind of toolbox - portable - or firmly installed as a wall mount. The parts you need to install the wall mount are automatically part of each delivery.



Retaining systems which are firmly braced on the hose prevent frayed wire cables!



The 16 advantages of the series AS-Complete:

- Oversight on order in the smallest space
- optionally portable or fixed wall mounting
- with retaining systems of the series AS-Professional:
- installable without line disconnection - saves time and money!
- installable even for limited installation conditions!
- no sharp corners, edges or sharp ends of the wire cable
- compact length of cable bow for short whipping distances
- low stock costs due to few types
- short installation time even when the hose line is installed
- firmly braced on the hose side (see above)
- firmly braced on the machine side
- suitable even in high operating temperatures
- imprinted CE-label and identification letter
- tested with 1.5x operating pressure at minimum bending radius (see also page 1)
- very good overall impression
- made in Germany

Important operation notes:

Install the retaining system for safety reasons always in pressureless state!
Always observe the information of the detailed operating manual supplied with the delivery!
The series above is not suitable for outdoor use. For outdoor application please use the series INOX!
Please note the list of residual risk at www.cablelock.de - important information.

Technical data:

- for nominal hose diameters from DN5 to DN50
- for pressure stages from 165bar up to 450bar
- operating temperature -30°C up to +150°C
- materials steel galv./brass/light metal
- ident. length see www.cablelock.de
- for more technical data see tables on the right

Accessories can be reordered (see page 18):

- AS-Tape as a protection for the outer rubber of the hose in case of pulsation/vibration
- table with tape length see www.cablelock.de
- installation tools with all the tools needed to install the Cablelock and the tape

Additional information:

AS-Complete is supplied as an assembly kit including assembly instructions.

Module G for Cablelocks DN5 to DN25

Basic mount for the Cablelock series AS-Professional. Combi-type usable for a firmly wall mounting as well as for a mobile use on changing sites. Sturdy steel construction in a hydraulic design. Includes 5 snap hooks. For more important information see left page.

AS-Professional:	Module G00	Module G01	Module G02
Cablelock types 3A; 3B; 3C*	empty	each 6x	each 10x
Cablelock types 4D; 4E*	empty	each 4x	each 8x
Total number of Cablelocks	zero	26 pieces	48 pieces
Total weight approx.	1,8 kg	3,9 kg	6,0 kg
Ident. No.:	CL-AS-G00	CL-AS-G01	CL-AS-G02



Sample image G01

* For technical data of the Cablelocks please see page 3 and 4 of this catalogue: Series AS-Professional

Module S Assortment boxes with accessories

Assortment boxes with a filling of different accessories. Quick and easy mounting with hooks on the basic module. A maximum of boxes can be fastened on one basic module. For more important information see left page.

Accessories	Module S00	Module S01	Module S02
Complete tool set TK01	empty	1 piece	zero
Rubber protection tape 2m	empty	2 pieces	zero
Rubber protection tape 5m	empty	zero	2 pieces
Total weight approx.	0,02 kg	0,11 kg	0,25 kg
Ident. No.:	CL-AS-S00	CL-AS-S01	CL-AS-S02



Sample image module S01

For technical data see section 'Accessories' on page 18

Module E for Cablelocks DN32 to DN50

Extension frame for the Cablelocks of the series AS-Professional. Quick and easy extension of the basic module by pushing it over. The combined use is still possible. Including 3 snap hooks. For more important information see left page.

AS-Professional:	Module E00	Module E01	Module E02
Cablelock types 5F; 5G; 5H*	empty	each 4x	each 8x
Total number of Cablelocks	zero	12 pieces	24 pieces
Total weight approx.	0,9 kg	2,9 kg	5,1 kg
Ident. No.:	CL-AS-E00	CL-AS-E01	CL-AS-E02



Sample image module E01

* For technical data of the Cablelocks please see page 3 and 4 of this catalogue: Series AS-Professional

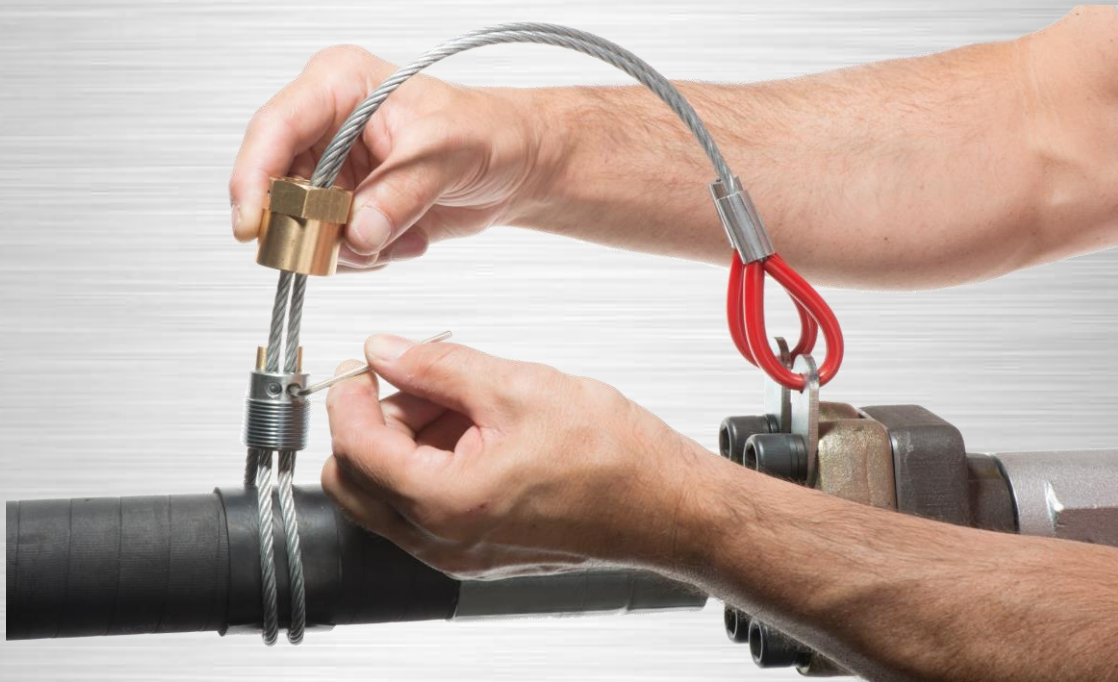
The most common complete sets:

Complete set K01 : Module G01+S01+E01	Ident. No. CL-AS-K01
Complete set K02 : Module G02+2xS01+E02	Ident. No. CL-AS-K02
Complete set K03 : Module G02+S01+S02+E02	Ident. No. CL-AS-K03

For a sample image of the complete set K02 please see on the left page

Series AS-ACCESSORIES ... everything that is still missing ...

For the installation of the Cablelock retaining system you don't need a lot. Some protection for the outer rubber of the hose - short AS-Tape, as well as a handful of standard tools - short AS-Tools. You won't have to search long for those things. On the page on the right you can find two types of hose protection and almost all of the tools you need to install the retaining system.



The advantages of the Cablelock series at a glance:	Professional	Megaforce	Mini	ECO	INOX-PRO	INOX-ECO
- installable without line disconnection - saves time and money!	yes	yes	yes	no	yes	no
- installable even for limited installation conditions	yes	yes	yes	no	yes	no
- no sharp edges, corners or sharp ends of the wire cable	yes	yes	yes	yes	yes	yes
- compact length of cable bow for short whipping distances	yes	yes	yes	yes	yes	yes
- low stock costs due to few types	yes	yes	yes	no	yes	no
- short installation time - quick & easy installation	yes	yes	yes	yes	yes	yes
- firmly tensioned on the hose side (see page 20)	yes	yes	yes	yes	yes	yes
- firmly tensioned on the machine side	yes	yes	yes	no	yes	no
- suitable even in high operating temperatures	yes	yes	yes	no	yes	no
- every Cablelock is packed individually (or units of 2 pieces)	yes	yes	yes	no	yes	no
- very detailed operating manual is supplied with each delivery	yes	yes	yes	yes	yes	yes
- smallest delivery quantity 1-2 pcs - no annoying packing units of 10 pcs	yes	yes	yes	no	yes	no
- imprinted CE-label AND identification letter	yes	yes	yes	yes	yes	yes
- tested with 1.5x operating pressure at minimum bending radius (see below)	yes	yes	yes	yes	yes	yes
- DN32&DN40 exceed the R15 pressure values/DN50 up to R15	no	yes	no	no	no	no
- very reasonable price	no	no	yes	yes	no	yes
- wire rope protection through PA protection sleeve	not applicable	not applicable	not applicable	yes	yes	yes
- almost unlimited number of applications due to AISI 316	no	no	no	no	yes	yes
- very good overall impression	yes	yes	yes	yes	yes	yes
- special length even possible for small quantities	yes	yes	yes	yes	yes	yes
- Made in Germany	yes	yes	yes	yes	yes	yes

Type AS-Tape self-adhesive - made of ELASTOMER

One-sided self-adhesive protection tape made of oil-resistant, robust rubber. Very well suited as a protection of the outer rubber of the hose when using Cablelock retaining systems. The self-adhesive design makes a very comfortable and quick installation possible. Suitable for light up to medium vibration/pulsation. An operating manual with a cutting length table is additionally included to every roll. It is recommended to wrap the tape around the hose in two layers.

How much tape lasts for how many retaining systems? See www.cablelock.de - important information - tape-length table



Name	Length per roll	Width	for series	Ident. No.
AS-Tape B25	2 metres	25 mm	Professional, ECO, INOX-PRO+ECO, Complete	CL-TP-02
AS-Tape B25	5 metres	25 mm	Professional, ECO, INOX-PRO+ECO, Complete	CL-TP-05
AS-Tape B25	10 metres	25 mm	Professional, ECO, INOX-PRO+ECO, Complete	CL-TP-10
AS-Tape WIDE B40	2 metres	40 mm	Megaforce	CL-TP-402
AS-Tape WIDE B40	5 metres	40 mm	Megaforce	CL-TP-405
AS-Tape WIDE B40	10 metres	40 mm	Megaforce	CL-TP-410

Type AS-Tape extra strong - made of PP

Protection tape made of very robust polypropylene fabric. It is not self-adhesive and the installation is therefore **significantly** less comfortable compared to the rubber type above. The cutting edges should be protected against fraying by using a lighter. This extra strong tape is suitable as a protection against strong vibration/pulsation. An operating manual with a cutting length table is additionally included to every roll. It is recommended to wrap the tape around the hose in two layers.

How much tape lasts for how many retaining systems? See www.cablelock.de - important information - tape-length table



Name	Length per roll	Width	for series	Ident. No.
AS-Polytape B35	2 metres	35 mm	Professional, ECO, INOX-PRO+ECO	CL-PTP-302
AS-Polytape B35	5 metres	35 mm	Professional, ECO, INOX-PRO+ECO	CL-PTP-305
AS-Polytape B35	10 metres	35 mm	Professional, ECO, INOX-PRO+ECO	CL-PTP-310
AS-Polytape WIDE B50	2 metres	50 mm	Megaforce	CL-PTP-502
AS-Polytape WIDE B50	5 metres	50 mm	Megaforce	CL-PTP-505
AS-Polytape WIDE B50	10 metres	50 mm	Megaforce	CL-PTP-510

Type AS-Tools - ASSEMBLY TOOLS

Following almost all the tools you need for the installation of the Cablelock retaining systems and for cutting the AS-tape to length. The tools can be bought separately or as a handy complete set. The so-called 'Safety-Stick' (figure top position) should be especially highlighted, because the tightening of the safety screw will be significantly simplified compared to a standard Allen key.



Name	for series	Content	Ident. No.
Complete set (acc. figure)	Professional, ECO, INOX-PRO+ECO, Complete	6 pcs.	CL-TK-01
Safety-Stick for Allen key M3	Professional, Megaforce, Mini, ECO, INOX-PRO+ECO, Complete	1 pc.	CL-TK-02
Scissors	for AS-Tape self-adhesive and AS-Tape extra strong	1 pc.	CL-TK-03
Open-end wrench AF 17-22	Professional, ECO, INOX-PRO+ECO, Complete	1 pc.	CL-TK-04
Allen key standard M3	Professional, Megaforce, Mini, ECO, INOX-PRO+ECO, Complete	1 pc.	CL-TK-05
Allen key standard M5	Professional, ECO, INOX-PRO+ECO, Complete	1 pc.	CL-TK-06
Allen key standard M6	Professional, ECO, INOX-PRO+ECO, Complete	1 pc.	CL-TK-07

The basic idea of the international patented Cablelock tensioner lock is the same for all series!

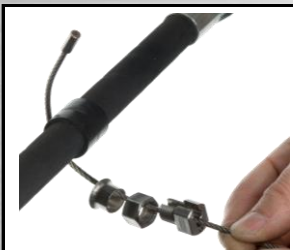
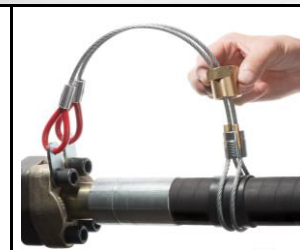
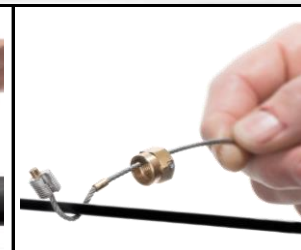
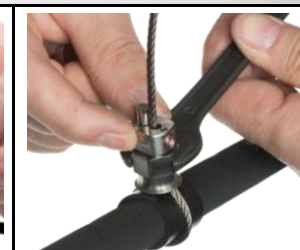

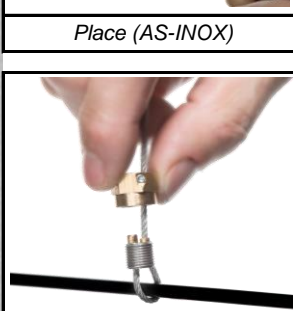
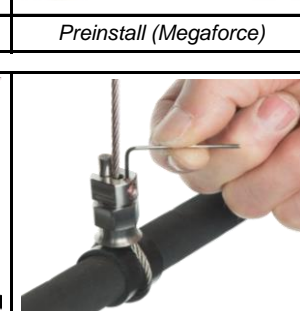
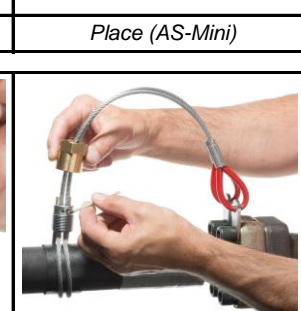
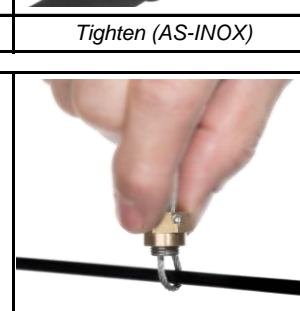
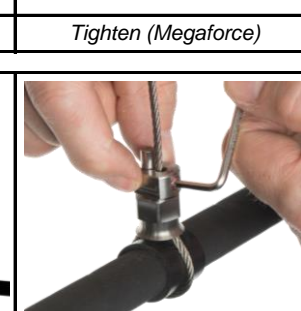
The most important *Installation steps* at the example of *AS-Professional*

Quick, easy and completely safe! These are the strengths of the new innovative wire cable tensioner lock.

			Installation time under a minute!
Place	Preinstall	Fasten	
		FINISHED! <i>The retaining system is now operational!</i>	
Tighten	Secure		

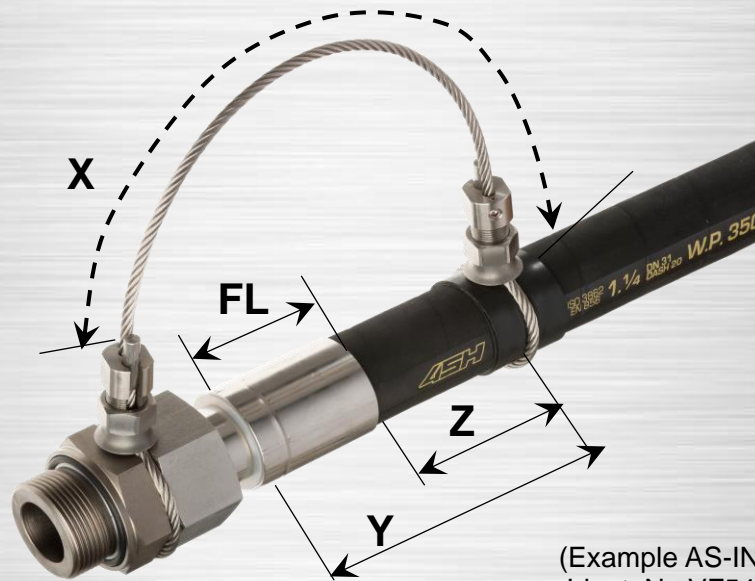
The installation of the Cablelock tensioner locks is possible in less than a minute with a little practice! Compared to other systems this saves a lot of time and money. You can find all the necessary information you need for the installation in the enclosed detailed operating manuals which are CE compliant. The operating manuals can be downloaded at any time on www.cablelock.de - important information!

The same installation steps as an example for the other series:

				
Place (AS-INOX)	Preinstall (Megaforce)	Place (AS-Mini)	Tighten (AS-INOX)	Tighten (Megaforce)
				
Preinstall (AS-Mini)	Secure (AS-INOX)	Fasten (Megaforce)	Tighten (AS-Mini)	Fasten (AS-INOX)

Positioning of hose retaining systems

During the installation of the hose retaining systems, ALWAYS observe the important installation information in the supplied operating instructions (also available at www.cablelock.de - important information - operating manuals). Below are the most important measurements in the example of type AS-INOX-PRO:



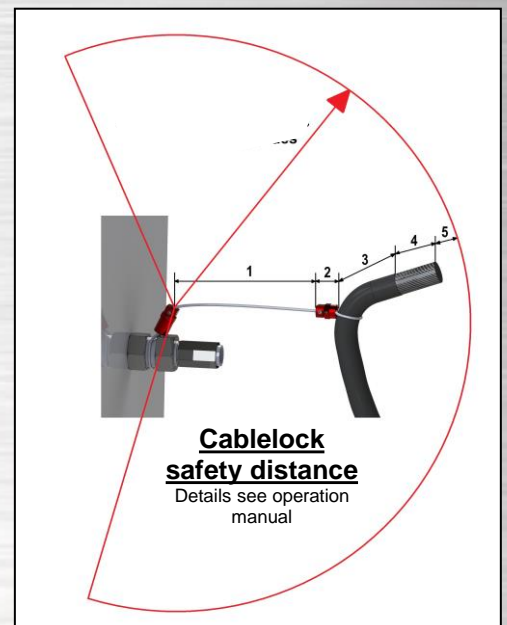
(Example AS-INOX-PRO
Ident. No.VF54)

Despite the installed retaining system residual risks can remain which the operator has to document in his risk assessment.

Type of possible risk

- Residual risk due to damage of retaining system
- Residual risk due to exceeding the temperature
- Residual risk due to ignoring the safety distance
- Residual risk due to limited movement of hose or machine
- Residual risk due to unsuitable environment (e.g. explosives, pharma., etc.)
- Residual risk due to leaking pressure fluids
- Residual risk due to exceeding the specified pressure
- Residual risk due to frequent installation/removal
- Residual risk due to improper installation
- Residual risk due to improper storage
- Residual risk due to insufficient maintenance
- Residual risk due to low stability of the machine-sided fixation point
- Residual risk due to excessive vibrations
- Residual risk due to ignoring the minimum bending radius
- Residual risk due to additional parts tearing off (as well as fitting- and safety parts)
- possibly more situation-specific residual risks

The complete list is available on www.cablelock.de





Binding European provisions and standards on the topic: Hydraulic hose lines - Danger if a hose rips

Many hydraulic hose lines present significant danger to life and limb. Therefore, it is entirely possible that new and old hose lines burst or are torn out of the crimp fitting with enormous energy and can whip around.

That's why machines sold in the EU must fulfil the safety requirements cited below.

In simple terms, the provisions state: "If a hose line causes a hazard due to whipping or bursting, the hose line must be restrained by suitable means."

The European parliament describes general protective goals for machines when placing onto the market in the European economic area as well as Switzerland and Turkey in the [Machine Directive 2006/42/EC](#), which states:

"Both rigid and flexible pipes carrying fluids, particularly those under high pressure, must be able to withstand the foreseen internal and external stresses and must be firmly attached and/or protected to ensure that no risk is posed by a rupture."

The above regulation must be strictly observed by every manufacturer. If he does not observe it, the affixing of the CE plate is NOT PERMITTED.

The general protective goals in accordance with above-mentioned Machine Directive 2006/42/EC are substantiated by supplementary [safety standards such as DIN EN ISO](#). Even in the substantiating standards, the use of hose safety catches is clearly requested. Some respective standards excerpts appear in the following:

DIN EN ISO 12100 Safety of machines:

"Pneumatic and hydraulic equipment of machines must be designed in such a way that:
- leaks or component failure do not lead to danger due to liquids spurting out or due to suddenly endangering movement of hoses (whips)."

DIN EN ISO 4413 Hydraulic fluid power: General rules and safety requirements for systems and their components:

"If the failure of a hose line causes a hazard due to whipping, the hose line must be restrained or shielded by suitable means. If this is not possible due to intended machine movements, information on residual risks must be provided."

DIN EN 201 Plastic and rubber machines - Injection moulding machines - Safety requirements:

"The dangerous thrashing about of hose lines with pressures of more than 5 MPa (50 bar) must be prevented by stationary housings (see EN 953:1997, 3.2.1) and/or additional fastenings of the hose lines, e.g. by chains, cables or clamps."

The above sets of regulations have been compiled to the best of our knowledge and express the contents accordingly. However, sets of regulations can change, which is why no guarantee can be made for accuracy. Therefore, please also check every individual case on your own responsibility.

Cablelock - A system with many possibilities

all Cablelocks are



Cablelocks are marked with



Cablelocks are



This product idea won the



innovation award

Available also in



Cablelock[®] AS

The retaining system for high pressure hoses



The efficiency of the Cablelock retaining system has been documented in a lot of videos:



A lot of interesting tear-off and bursting tests are available on our quadrilingual homepage www.cablelock.de.

On www.cablelock.de you can find:

- detailed operating manuals
- checklist with the remaining residual risks
- detailed technical information
- series of pictures, pictograms, videos
- practical working aids and much more!



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