

PFEIFER



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**Rope accessories and service –
One-stop service**

**PFEIFER
SEIL- UND HEBETECHNIK
GMBH**

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Rope accessories – one-stop service

Moving means to set things in motion, to unfold dynamics, to create things. For us in the PFEIFER group, to move is very specific: it means that with our products from Wire Rope Technology, Rope and Lifting and Building Systems elevators, heavy loads on cranes, sheet metal coils, workpieces and precast concrete elements move. Our cable structure buildings are known all over the world, and so is our extensive knowledge on the dynamics of wire rope in all applications.

Moving also means for us that we don't sit still, we study, we learn, we apply and we invest. There is a reason why the PFEIFER group is one of Europe's leading companies in Structures, Wire Rope Technology, Rope and Lifting and Building Systems.

We get things going – special requests by customers, efficient and practical solutions, technical expertise, quality and dependable service – these are the benefits for you as a partner.



Gerhard Pfeifer,
President of the PFEIFER group



The PFEIFER group is one of Europe's leading companies in Structures, Wire Rope Technology, Rope and Lifting and Building Systems. The headquarters are located in Memmingen, Germany. Numerous service centres and subsidiaries worldwide are responsible for sales and distribution.

Based on our long-term practical experience of rope drive inspection, we created a wide range of measurement devices, special caliper and further devices for the optimum handling of ropes. Increase lifetime of ropes and reduce costs by using our equipment.



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Rope handling

PFEIFER-reels and PFEIFER-stands for reels – innovative packaging solutions

Durch unsere optimierte Verpackung gelangt jede Haspel gut geschützt zu Ihrem Sitz in Deutschland oder in der ganzen Welt.

Your benefits

- + Optimized packaging sizes
- + Simplified transport – to be taken by forklift
- + Stands for reels are gently for reels and ropes
- + Prevention of transport mistakes and resulting damages
- + No accidental slipping through anti-slip-mats
- + Heat treatment according to IPPC-Standard ISPM15
- + Safe and proper transport through simple tie-down lashing
- + Simple installation of the rope: Turning of the horizontal reel is not required



We recommend



Round reels

Item	Flange [mm]	Max. Rope-Ø [mm]	Weight [kg]	Reference no.
S30	300	11	1,85	167824
S40	400	13	3,6	167826
S50	500	16	7,04	167827
H60N	600	20	15,5	266622
H70N	700	25	24,5	266623
H80N	800	29	27	266624
H100N	1000	33	66	266625
H120N	1200	41	90	266626
H140N	1400	50	160	266627
H160N	1600	58	230	266628
H180N	1800	75	310	266629
H200N	1900	83	420	266630

Stands for reels

Item	Weight [kg]	Reference no.
–	–	–
–	–	–
–	–	–
G678	26,8	266663
G678	26,8	266663
G678	26,8	266663
G100	34,17	266664
G120	34,92	266665
G140	52	266666
G160	63,2	266667
G180	68,6	266668
G200	76	266669



Further packaging options:

- Planked reels
- In-between diameters available

Please contact us!

PFEIFER-Vario Clou – practical dispenser

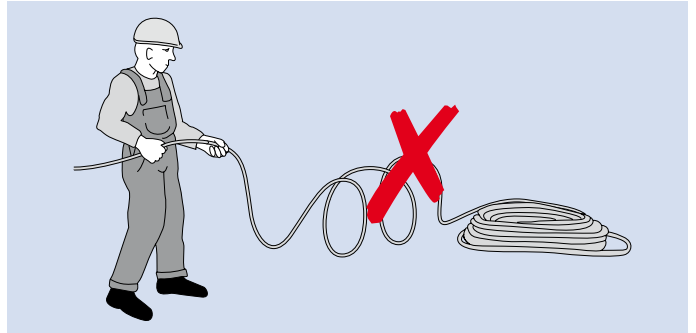
Depend on the direction of lay the rope gets durable damaged by sideward take down. Dissimilar strand lengths are the result of the unintended turning by ropes with wire core.

As result the load distribution is not at equilibrium any more and overlength strands can break through the rope structure.

To avoid the danger of irreversible damages use the Vario Clou.

Your benefits

- + No twists of the rope when unreeling
- + Professional installation
- + Space-saving transport
- + Easy to open
- + Small and portable
- + Simple and flexible placement
- + Professional unwinding



We recommend



PFEIFER-Vario Clou

Loadcapacity	80 kg
Ring diameter	750 mm
Core diameter	15–260 mm
Core height	350 mm
Work surface	800 x 800 mm
Weight	8,5 kg
Storage space	170 x 170 x 450 mm
Reference no.	218708

PFEIFER Winder Willi – winding device for professional rope handling

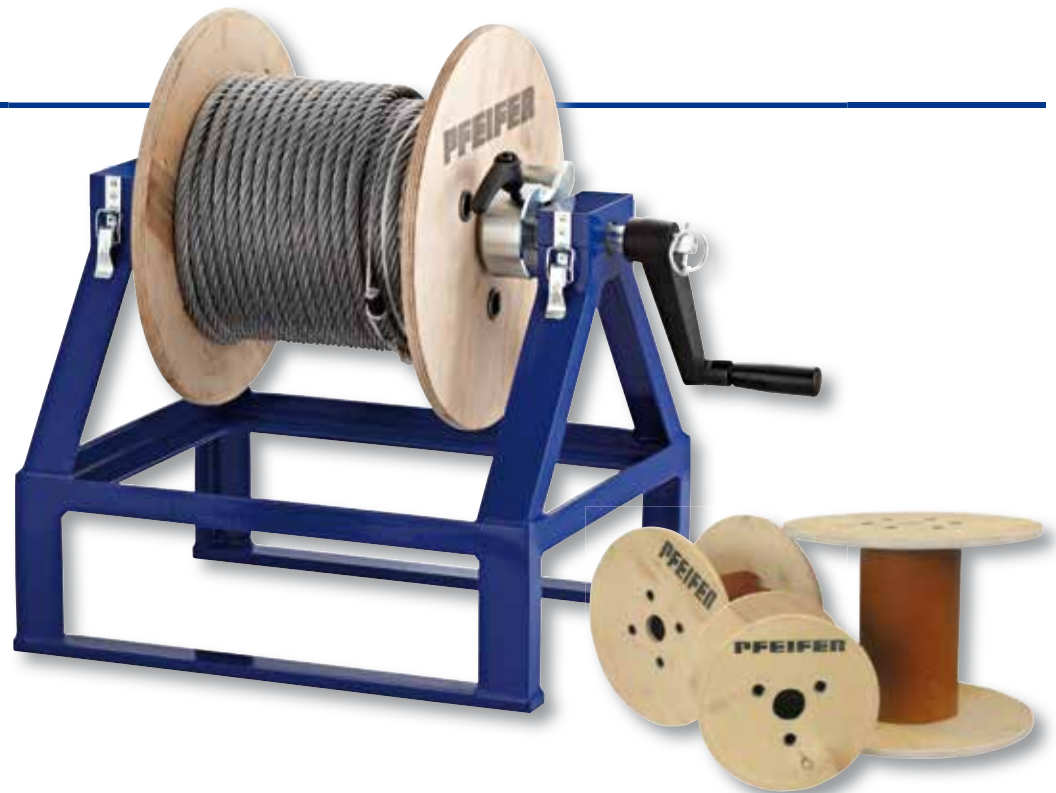
The PFEIFER Winder Willi revolutionises the winding and unwinding of ropes, whether it's on the building site, in the warehouse or in the workshop. This winding device was developed in answer to numerous suggestions from our customers. These suggestions, coupled with PFEIFER's many years of experience, gave birth to Winder Willi – a reeling device that unites comfort, ergonomics and high cost-effectiveness.

Your benefits

- + Gentle rope handling and protection against mechanical damage
- + Cost-effective
- + The rope lifetime is significantly increased by the avoidance of winding errors
- + Use with any number of PFEIFER standard reels is possible, since the reel is changeable
- + Accessible with the forks of the common fork lift or pallet trucks, and thus safely transportable.
- + Fast clamping/unclamping of the reels without tools. Thanks to the clamping of the movable mandrel with the aid of a toggle screw.
- + Significantly faster winding/unwinding of the ropes
- + Space-saving storage – folding crank handle
- + Locking of the bearings with quick-release locks.
- + Can be kept in position by attached footplates. Ergonomic winding of the rope thanks to the built-in crank handle.
- + Easy winding thanks to plain-bearings.



We recommend



Winder Willi 3.0

Dimensions	Without hand grip and reel approx. 450 x 365 x 355 mm
Surfaces	Frame powder-coated, shaft and clamping flange galvanized
Weight	14 kg
Reference no.	235775

Suitable reel

Rope capacity	4 mm/600 m; 6 mm/280 m; 8 mm/160 m; 10 mm/100 m; 12 mm/70 m; 14 mm/54 m
Diameter	300 mm
Reference no.	167824

Winder Willi 5.0

Dimensions	Without hand grip and reel approx. 650 x 550 x 480 mm
Surfaces	Frame powder-coated, shaft and clamping flange galvanized
Weight	55 kg
Reference no.	244505

Suitable reel

Rope capacity	4 mm/3300 m; 6 mm/1500 m; 8 mm/850 m; 10 mm/550 m; 12 mm/380 m; 14 mm/280 m; 16 mm/215 m; 18 mm/170 m; 20 mm/140 m
Diameter	500 mm
Reference no.	167827

PFEIFER Winder Willi hydraulic – winding device for comfort and high efficiency

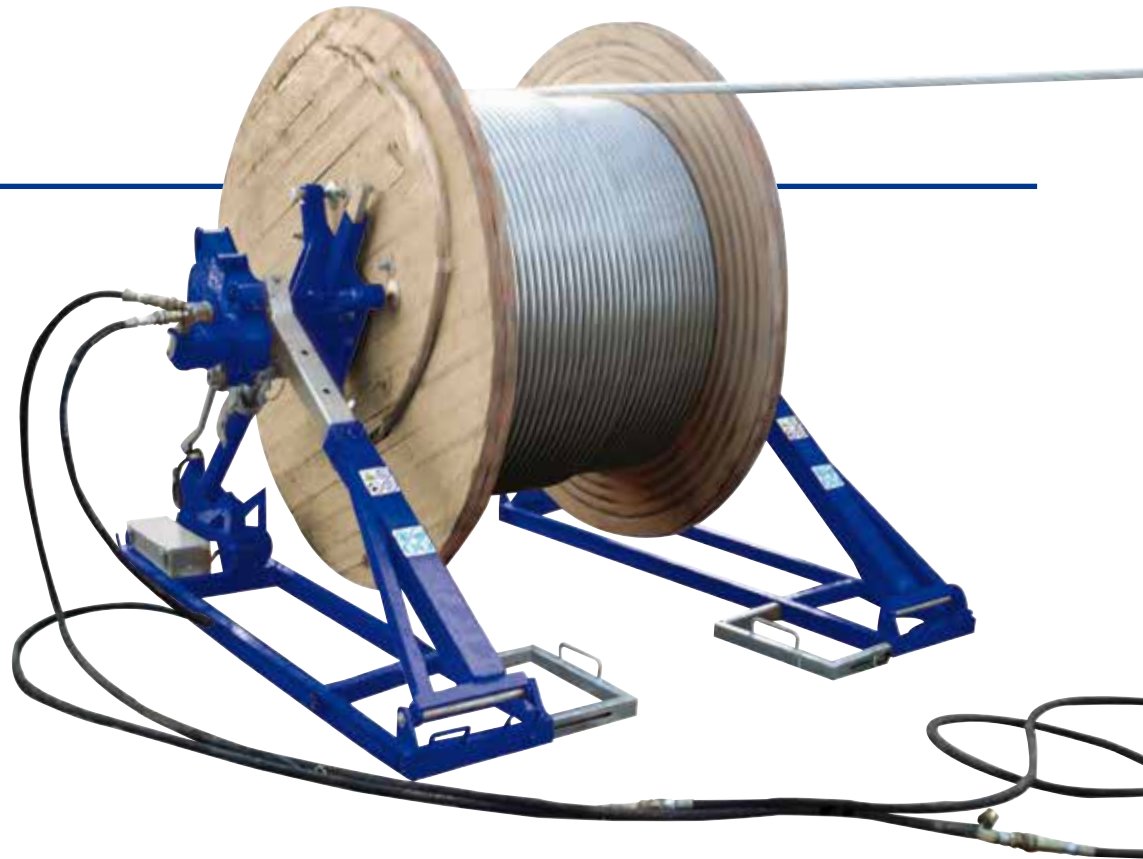
Gentle rope handling and protection against mechanical damage. The PFEIFER Winder-Willi revolutionizes the winding and unwinding of ropes – on the construction site, in the warehouse or in the workshop.

Your benefits

- + Hydraulic assisted lifting, lowering and turning of the reel
- + The rope lifetime is significantly increased by the avoidance of handling or winding errors
- + The robust, stable design enables safe handling of the heaviest reels
- + Attachment of pretensioned ropes is possible – ideal for multi-layer winding of ropes
- + Deceleration by a disc brake on each upright
- + Painted steel frame including fixtures for secure anchoring



We recommend



Description	Winder Willi 28.7	Winder Willi 32.8	Winder Willi 35.15	Winder Willi 40.18
Dimensions per half [mm]	2100 x 500	2400 x 550	3100 x 600	3100 x 600
Pair weight [kg]	350	540	1100	1250
Reel diameter min – max [mm]	1000–2800	1500–3200	2000–4000	2000–4000
Reel width max.	1500	1700	3000	3000
Maximum reel load [daN] ¹	7000	10000	15000	20000
Maximum brake torque [daN] ¹	300	460	460	560
Maximum coil torque [daN] ¹	180	230	250	300
Maximum speed of rotation [km/h] ^{1,2}	5	5	5	5
Reference no.	257445	257446	257448	257449

¹ Performance data at 20 °C at sea level ² with hydraulic unit, ref. no. 250961
Additional sizes on request!

Optimise the use of your Winder Willi with suitable accessories:

Accessories (available as an option)	Hydraulic power unit	Hydraulic hose 5 m	Hydraulic hose 10 m	Hydraulic hose 15 m	Manual hydraulic brake
Reference no.	250961	250955	250957	250959	440276

For the care of your wire ropes

Lubricant – power for your wire ropes

During the lifetime of a rope the lubricant will be reduced especially on the surface. This increases the friction between the strands and wires and causes excessive wear.

Your benefits

- +** Reduction of the friction between the strands and wires
- +** Protection against corrosion
- +** Reduction of inner invisible wear of ropes at the beginn of the loss of the zinc protection on galvanized ropes

This is how you do it:

When should ropes be relubricated?

- Depends on external influences like climate, operation, dirt etc.
- Condition of the rope has to be checked in order to determine the right period

Amount of grease

- Depends upon the ropeconstruction and diameter
- Generally: less grease in shoerter periods

Drying time

- Evaporation of the solvent has to be considered
- Depends of the ambient temperature

Choice of the right lubricant

- Compatibility with basic lubricant and sheave material
- Requirements: penetration capability, applicability, burning point, viscosity

So much money could be saved by relubrication

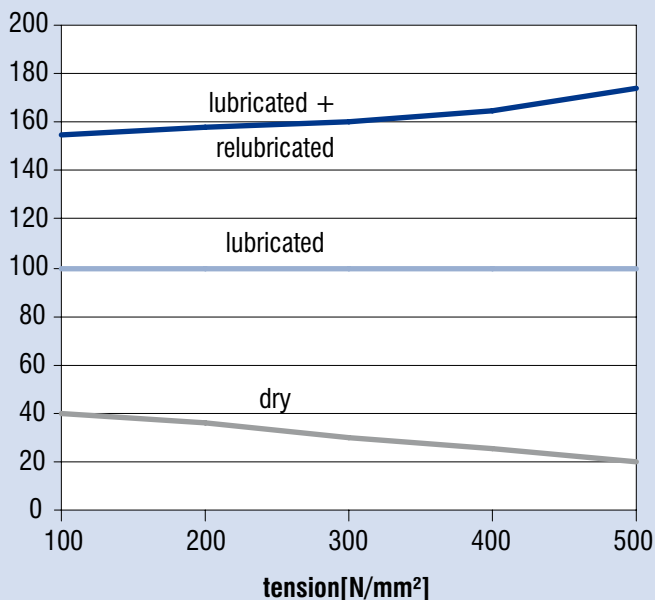
Hoist rope price for a mobile crane: 1000 EUR

Estimated average lifetime: 4 years

Proposed elongation of lifetime through relubrication: 2 years

Total Savings 1100 EUR

Bending cycles [%]



Amount of grease

$$\text{Amount [l]} = \frac{0,2 \text{ [l]} \cdot \text{rope length [m]} \cdot \text{rope diameter [mm]}}{100 \text{ [m]} \cdot 10 \text{ [mm]}}$$

year	not relubricated			relubricated			
	rope EUR	rope change EUR	total EUR	rope EUR	rope change EUR	lubricant EUR	total EUR
1	1000	600	1600	1000	600	–	1600
2	–	–	–	–	–	50	50
3	–	–	–	–	–	50	50
4	–	–	–	–	–	50	50
5	1000	600	1600	–	–	50	50
6	–	–	–	–	–	50	50
7	–	–	–	1000	600	–	1600
8	–	–	–	–	–	50	50
9	1000	600	1600	–	–	50	50
10	–	–	–	–	–	50	50
11	–	–	–	–	–	50	50
12	–	–	–	–	–	50	50
total			4 800 EUR				3 700 EUR

We recommend



Re-Lubricant PFEIFER RL-S & RL-B

Product	Reference no.
12 x Spray 600 ml	245066
Bucket 10 l	212406
Bucket 30 l	212405

Maintain your wire ropes with the proper re-lubricant and extend the lifetime.
Save costs for new ropes and rope changes by extended lifetime.

Product advantages

- Reduction of the destructive friction between the rope elements
- Protection against corrosion
- No intrusion of water into the wire rope
- Reduction of inner invisible wear of ropes at the beginning of the loss of the zinc protection on galvanized ropes



Re-Lubricant PFEIFER RL-M Green Line

Product	Reference no.
Drum 200 l	286966
Hobbock 30 l	286967

Lubricant for maritime wire ropes and their fibre cores for prevention of corrosion and wear for wire ropes in off-shore, fishing and navy

Product advantages

- Environmentally Acceptable Lubricant (EAL) according to US Vessel General Permit (VGP)
- Readily biodegradable
- Especially suitable for marine environment
- High corrosion protection also in seawater
- Primary and secondary Lubrication
- Based on synthetic esters

Rope measuring equipment/rope measuring aids

Rope calipers – professional rope diameter measurement

The actual diameter of a wire rope decreases during operation due to difference influences. Many important characteristics for rope within the application depend on the correct rope diameter. We recommend measurements at regular intervals for preservation of the optimal function of your application.

Your benefits of regular measurement of rope diameters

- + Monitoring of the rope condition
- + Timely recognition of rope damages
- + Reparation if necessary
- + Prevention of hazards

This is how you do it:

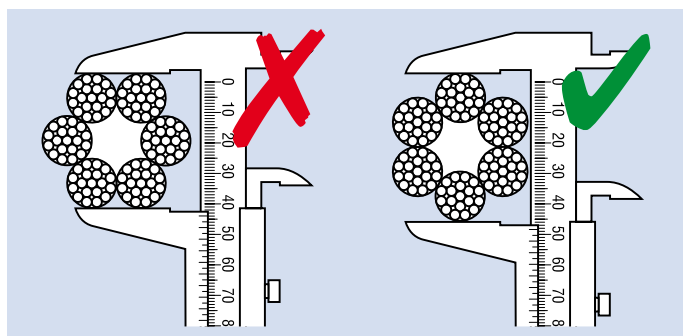
Procedure recording to ISO 4309

Measuring points

- Measurement on unloaded ropes at multiple points

Date of examination

- New ropes: 2 points 1 meter apart
- After installation but before first-use ropes; at regular intervals, in accordance to the rope condition and to unpredict



We recommend



Rope caliper 40 + 75

Rope diameter	Reference no.
0–40 mm	246658
0–75 mm	261932

With attached wide jaws
Galvanized steel

Product advantages

- Recommended for frequent measurement of ropes with the most common diameters up to 75 mm
- Highest abrasion and break resistance through measure plates made of hardened steel
- Enables quick and easy check – wide jaws avoid measuring faults

Supplied

Up to 40 mm in plastic box
Up to 75 mm in sturdy case



Rope caliper 60+125

Rope diameter	Reference no.
0–60 mm	272238
40–125 mm	252968

With attached extra wide jaws (as well as adapter plates for big rope diameters for rope caliper 125)

Steel (as well as aluminum for rope caliper 125)

Product advantages

- Recommended for frequent measurement of ropes with the most common diameters up to 125 mm
- Highest abrasion and break resistance through measure plates made of special steel and aluminum
- Enables quick and easy check – wide jaws avoid measuring faults

Supplied

- In solid plastic case, with manual “Measuring of diameter”
- Rope caliper auto turnoff saves battery
- Including replacement screws and allen key



Diameter Measurement Manual

Detailed manual for correct measurement of rope diameters using PFEIFER rope calipers.

Available as PDF in the PFEIFER download centre at:



→ www.pfeifer.info/manual-caliper-gauges

Language variants on request.

Groove gauges – professional rope drive groove measurement

Worn out or no longer functional sheaves can cause premature rope wear (e.g. wire breaks) or malfunctions of the operation, such as rope torsions. Rope damages like corkscrew or basket deformations can be other results. For early detection and prevention of these problems, the sheaves should be inspected.

Your benefits by regular sheaves measurements

- + Timely recognition and prevention of rope damages triggered by sheaves
- + Maintenance of safety operation through regular inspection of the wearing

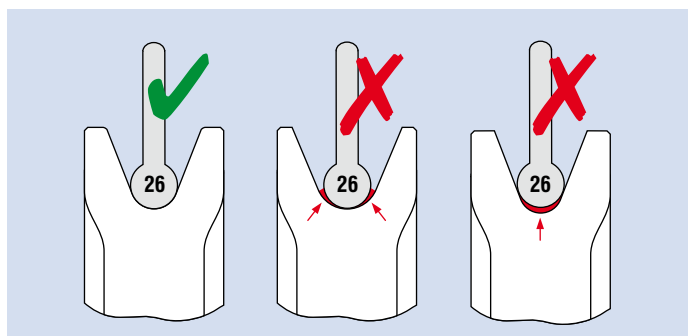
This is how you do it:

Parameter to be analysed:

- Sheave groove diameter
- Condition of sheave groove
- Free movement of sheaves
- General condition of sheaves

Date of examination

- In regular terms, at least once within 6 month
- Before installation of a new rope or spare parts
- After replacement of sheaves



! Groove gauges are not measuring instruments but measuring aids and are therefore not subject to the obligation to inspect measuring instruments.

Quick and easy measurement

We recommend



Ring

Rope diameter	Reference no.
5–20 mm	253318
20–40 mm	253319
40–60 mm	253320
60–75 mm	253321

Stainless steel

Product advantages

- Recommended for the frequent check of rope drives with the most common rope diameters.
- Including a table with recommended size of the grooves for each rope diameter, based on ISO 4308
- Highest abrasion and break resistance through stainless steel with high resistance against chemicals

Supplied

Laser printed numbers are the real diameters of the groove gauges.



Worker

Rope diameter	Reference no.
6–40 mm	244328

Fan, 28 parts
Fiberglass reinforced polyamide, blue color

Product advantages

- Recommended for occasional rope drive checks
- Good abrasion and break resistance through fiberglass reinforced polyamide – high resistance against chemicals

Supplied

The groove gauges diameters matches DIN 15061, e.g. groove gauge radius 5.3 mm for a rope with nominal diameter 10.00 mm.



Inspector

Rope diameter	Reference no.
6–18 mm	210529
19–30 mm	210530

Fan, 10 | 13 parts
Stainless steel

Product advantages

- Recommended for frequent rope drive checks
- Highest abrasion and break resistance by manufacturing of stainless steel – very high chemical resistance

Supplied

The groove gauges diameter is made according DIN 15061, e.g. groove gauges radius 5.3 mm for a rope with nominal diameter 10.00 mm.



Manual “Groove control”

Available as PDF in the PFEIFER download centre at:

 → www.pfeifer.info/manual-groove-gauges

Language variants on request.

! Groove gauges are not measuring instruments but measuring aids and are therefore not subject to the obligation to inspect measuring instruments.

Measurement devices sets – the complete measurement equipment convenience kits



Measurement equipment case 75

Rope diameter	Reference no.
5–28 mm	254854
5–45 mm	258383
5–60 mm	254853
12–45 mm	256777
21–60 mm	254855

Further combinations of the 5 different groove gauges kits on request

Content:

- Rope caliper 75 made of galva-nized steel with attached wide jaws (see small picture)
- Recommended for the frequent measuring of ropes in the most common diameters
- Suitable groove gauges “Screw” acc. mentioned rope diameter range

Product advantages

Combine your own measurement equipment case according to your needs!

Supplied

- Solid plastic case with manuals for rope caliper, groove gauges and wire ropes
- Including a table with recommended size of the grooves for each rope diameter, based on ISO 4308



Measurement equipment case 125

Rope diameter	Reference no.
5–60 mm	252662

Content:

- Rope caliper 125
- Groove gauges „Srew“ with 5 kits (see picture measurement equipment case 75)

Product advantages

The complete measurement equipment case for the frequent professional rope drive inspection!

Supplied

- Solid plastic case with manuals for rope caliper, groove gauges and wire ropes
- Including a table with recommended size of the grooves for each rope diameter, based on ISO 4308



Connecting links

For fast and simple connection and fastening options of steel wire ropes

Available in various versions



Bolts

For fast and stable securing in the most diverse areas of application



Swivels

To avoid the rope torque being transmitted to the load and thus causing great damage



Hand Swaging Tool 3

Rope diameter with steel core	Reference no.
2,5–4,5	200982

The Hand swaging tool Typ 3 is able to create reliable crimp connections with fibre core and wire core ropes with a ferrule.



Rope tensioning clamp wedge

Robust construction thanks to steel wedge and quenched and tempered plunger. Surface hardened and painted finish.

Advantages

- Robust – resistant through hardening
- Handy – gentle tensioning of the rope
- Robust – plunger and wedge made of steel

Rope diameter range	Reference no.
10	198559
14	198561
20	198562



Wire rope cutter Felco CC

The Wire Rope Cutter FELCO CC impresses by making a clean cut without crushing and is suitable for use in the workshop. For rope diameters up to 12mm, depending on the version.

Rope diameter range	Reference no.
7	200966
9	200967
12	200968
16	200969
108	200970
112	200971



Manual strand ropes

Detailed manual for the proper use of your strand ropes with useful tips to extend the rope lifetime

Included in each Rope Service Starter Kit and the measurement equipment cases 75/150 or available as PDF in the PFEIFER download centre at:



→ www.pfeifer.info/manual-strand-ropes

Language variants on request.

PFEIFER Repair Service for sockets

Your advantages

- +** PFEIFER guarantees you a **wire rope repair in original rope quality**.
- +** Casting resin with filler provides **100% of the breaking force of the original wire rope system** and fast loadability, so that you can use your crane rope safely as usual.
- +** Of course, the repair of wire ropes with the **original PFEIFER pouch socket** is also possible.
- +** Certified PFEIFER service technicians come to your site with the **mobile repair service**.
- +** Repairs to hoisting and adjusting ropes from the manufacturers:
 - LIEBHERR
 - TEREX DEMAG
 - GROVE GMK
 - SENNEBOGEN
 - BAUER



Our repair service includes the following items

- Determining, marking and professionally removing damaged spots in ropes.
- Preparation of the rope end and casting of the resin socket take place in the specially developed PFEIFER pulling jig in order to achieve an optimum result.
This process guarantees you continued safe use of your crane rope in your pouch socket system.
- Of course, we document this and issue a corresponding repair certificate to you.

Don't miss the simple and safe handling of your crane rope with the original swaged sleeve even in case of rope damage!



! Mobile repairs of sockets require expertise and experience. Therefore these repairs are only done by specially trained and regularly audited employees. Each of our authorized employee has a certificate that he will be happy to show off.



PFEIFER Rope Inspection Service

Your benefits

- +** Worldwide availability of specialists for complex application problems and support by immediate troubleshooting
- +** Analysis of rope drives and identification of improvement potentials
- +** Inspection of ropes regarding wear and damage
- +** Increase of the lifetime of ropes
- +** Reduction of operational and downtime costs
- +** Increase of safety



PFEIFER offers the inspection of wire ropes on cranes. The scope of our service:

- Visual and tactile inspection of wire ropes according to the criteria of ISO 4309
- Measurement of rope diameter
- Examination for wear and damages of sheaves, winch drums and rope drive systems
- Detailed technical documentation

Therefore a team of well trained and experienced specialists is available to inspect your ropes worldwide and at any time.

The conditions may be requested at your PFEIFER contact person.



Further Rope Services



Rope assembly

PFEIFER is expert in all kinds of rope assembly – from the high-precision manufacturing of the finest ropes for medical technology to the precise cutting to length of crane hoisting ropes and the casting of ropes with the largest of diameters.



Rope application consultancy

Through the correct selection of ropes and end connections to suit the conditions of use you can achieve the most economical lifetime, reduce possible dangers and avoid high failure costs.



End connection design

Standard or tailor-made – through our own development and production every rope receives the optimal connection.



Rope stocking

PFEIFER guarantees fast availability in one of the industry's largest stock assortments and a capacity of well over 4000 tonnes in a fully automatic rope warehouse in Memmingen and in further warehouses all over the world. High-performance logistics partners guarantee fast delivery. Thanks to optimised packaging, every reel reaches its destination worldwide well protected.



Technical rope seminar

Interested in a seminar at your premises?

We would be pleased to provide you with an individual offer.

Using discarded products or disregarding basics of proper application by the use of wire ropes can cause enormous danger for humans and material.

Trained employees increase safety in your company, avoid accidents and reduce costs.

In our established technical seminars, our competent and experienced instructors train your staff in latest standards and in all theoretical and practical issues.

Rope analysis

- PFEIFER analyses with extensive tests in the central Rope and Material Test Centre all properties of wire ropes and applied materials at the headquarter in Memmingen as well as at further machines at PFEIFER DRAKO in Mülheim/Ruhr. Also necessary tests can be done locally in our global subsidiaries.
- Aware that not only the usual catalog values such as weight per meter and minimum breaking force decide on the performance of wire ropes, all properties of the ropes are determined at PFEIFER in extensive tests.
- Equipped with this knowledge, we will choose the right wire rope for your application and so we optimize the lifetime of your equipment.



Test Facility for Determining Bending Fatigue



Spectral Analysis



Magnaflux Test



Rope Efficiency Test Facility

Multi Layer Spooling Test Tower

Further Offers:

Test Facility for Lateral Pressure Resistance

Coat Thickness Measuring

Ultrasonic

Torsion Test Facility

Microscopic Analysis

Elongation and Pull Test Facility

Hardness Test

Notch Impact Test

Dye Penetrate Test

Pull Test Facility
800 kN



Tension Fatigue Test Facility



Pull Test Facility
6,000 kN

PFEIFER – at your service all over the world



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