Deutsches Institut für Bautechnik

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Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment ETA-11/0160 of 1 October 2021

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	PFEIFER Wire Ropes
Product family to which the construction product belongs	Prefabricated unalloyed steel and stainless steel wire ropes with end connectors
Manufacturer	Pfeifer Seil- und Hebetechnik GmbH Dr.-Karl-Lenz-Str. 66 87700 Memmingen DEUTSCHLAND
Manufacturing plant	Pfeifer Seil- und Hebetechnik GmbH Dr.-Karl-Lenz-Str. 66 87700 Memmingen DEUTSCHLAND
This European Technical Assessment contains	61 pages including 57 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 200001-00-0602
This version replaces	ETA-11/0160 issued on 21 November 2018

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Specific part

1 Technical description of the product

The construction products are prefabricated high-strength unalloyed and stainless steel wire ropes with appropriate end connectors and the trade name "PFEIFER Wire Ropes".

The prefabricated high-strength wire ropes made of unalloyed steel consist of full locked coil cables or open spiral strands as well as the appropriate end connectors. The unalloyed wire ropes correspond to EN 10264-2:2012, EN 10264-3:2012 as well as to the series of the standards EN 12385[1].

The prefabricated high-strength wire ropes made of stainless steel consist of open spiral strands and the appropriate end connectors. Wire ropes made of stainless steel correspond to EN 10264-4:2012 as well as to the series of the standards EN 12385[1].

In addition to the above-mentioned standards, the unalloyed and stainless steel wire ropes comply with the specifications in annexes C1 to L2.

The end connectors including the connection components consist of a combination of the individual components given in annex B (B1 to B6), depending on the particular application. For the product characteristics of the components of the end connectors the indications in annex C (C1 to C5) apply. The dimensions correspond to the indications in annexes D1 to H7. Threads are metric ISO threads.

Drawings of the end connectors with its components with the essential dimensions are given in the annexes to this European technical assessment.

Dimensions and tolerances not indicated in the annexes shall correspond to the indications laid down in the technical documentation[2] to this European Technical Assessment.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The intended use comprises all typical structural applications of high-strength wire ropes made of unalloyed respectively stainless steel taking into account the national provisions of the Member State applicable for the location where the product is incorporated in the works.

The wire ropes with the appropriate connectors are intended for the use in structures with static or quasi-static loads according to EN 1990:2002, where no verification of fatigue relating to EN 1993-1-9:2005 is necessary.

The performances given in Section 3 are only valid if the prefabricated high-strength wire ropes with the appropriate end connectors are used in compliance with the specifications and conditions given in annex A and the annexes.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the prefabricated high-strength wire ropes with the appropriate end connectors of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

With regard to durability the regulations given in EN 1993-1-11:2006+AC:2009, section 4 and EN 1090-2:2018 shall be observed.

For sockets EN 13411-4:2011 applies.

[1] EN 12385-1:2009, EN 12385-2:2008, EN 12385-3:2020, EN 12385-4:2008 and EN 12385-10:2008

[2] The technical documentation to this European Technical Assessment is deposited with Deutsches Institut für Bautechnik and, as far as relevant for the tasks of the approved bodies involved in the attestation of conformity procedure is handed over to the approved bodies.

3 Performance of the product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Breaking strength	See Annexes J1 to J3, L1 and L2
Modulus of deformation / elasticity	See Annex C5

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1 according to EN 13501-1:2007+A1:2009

The components of the prefabricated unalloyed steel and stainless steel wire ropes with end connectors satisfy the requirements for performance class A1 of the characteristic reaction to fire, in accordance with the provisions of EC decision 96/603/EC (as amended).

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 200001-00-0602 the applicable European legal act is: Decision 1998/214/EC.

The system to be applied is: 2+

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 1 October 2021 by Deutsches Institut für Bautechnik

Dr.-Ing. Ronald Schwuchow
Head of Section

beglaubigt:
Bertram

Deutsches Institut für Bautechnik DIBt

Annex A

A.1 Assumptions concerning design

The design is carried out according to EN 1993-1-11:2006+AC:2009.

The design values of resistance given below are used for design.

The loading is static or quasi-static according to EN 1990:2002 without need of verification of fatigue relating to EN 1993-1-9:2005+AC:2009.

The dimensions, tolerances, material properties and thread engagements ("ETmin") stated in this European Technical Assessment are observed.

The wire ropes with appropriate end connectors are to be used that no systematic bending occurs in the connecting parts.

The design is carried out by a designer of the structure experienced in the field of steel structures.

Design tension resistance of the wire ropes with end connectors

The design value of the tension resistance F_{Rd} (corresponds to the values in the annexes J1 to J3, L1 and L2) of the wire ropes including the end connectors shall be determined as follows:

$$F_{Rd} = F_{uk}/(1.5 \cdot \gamma_R)$$

Where:

F_{uk} = characteristic value of the breaking strength of the wire ropes according to annexes J1 to J3, L1 and L2

(General remark: $F_{uk} = F_{min} \cdot k_e$

with: F_{min} - minimum breaking force and k_e - loss factor)

γ_R = 1.0

The value given for the partial safety factor γ_R is a minimum value, that means values < 1,0 for γ_R are not allowed. It should be used in cases where no values or no unfavourable values are given in national regulations of the Member State where the wire ropes with end connectors are used or in the respective National Annex to Eurocode 3.

Resistance of pins

The resistance of the pins of the fork end connectors is already covered by the tension resistance F_{Rd} of the wire ropes with end connectors (as before) if the thickness of the gusset plate "tLmin" is in accordance with the indications in annexes D1, D2, D5, D6, D13, E1, E3, F1, F3, G1, G3, G6, G7, H1, H3, H6 and H7 and the steel grade of the gusset plate is at least S355.

Resistance of sockets

The resistance of the sockets is already covered by the tension resistance F_{Rd} of the wire ropes.

Resistance of threads

The resistance of the threads is already covered by the tension resistance F_{Rd} of the wire ropes in compliance with the minimum thread engagements "ETmin" according to the annexes I1 to I3 and K1.

A.2 Assumptions concerning installation

The installation is carried out such that the wire ropes with end connectors are accessible for repair or maintenance at any time.

The installation is only carried out according to the manufacturer's instructions. The manufacturer hands over the assembly instructions to the assembler. From the assembly instructions it is followed that, prior to installation, all components of the wire ropes with end connectors shall be checked for their perfect condition and that damaged components shall not be used.

The responsible assembler attests by notation that all connections with threads were checked concerning the keeping of the minimum thread engagements.

Below the lock nut of the sockets type 803 and type 804 washers according to EN ISO 7089-200HV-tzn shall be arranged. For undeliverable sizes washers shall be made of steel 34CrNiMo6+QT.

By installing the sockets of type 803 and type 804 attention is paid on accurate symmetric arrangement of thread bar to avoid eccentric loading of the sleeve.

An uneven distribution of the wire rope force and unfavourable compulsion on Type 803 and Type 804 are excluded. When installing the adjustable sockets Type 803 and Type 804 the two threaded rods are tightened evenly. The difference between the free lengths of the threaded rods in the final state is a maximum of 2 mm.

The conformity of the gusset plates and the installed wire ropes with end connectors with the provisions of the European Technical Assessment is attested by the executing assembler.

A.3 Indications to the manufacturer

The manufacturer shall ensure that the information on the specific conditions is given to those who are concerned. This information may be given by reproduction of the European Technical Assessment.

In addition all essential installation data shall be shown clearly on the package or on an enclosed instruction sheet, preferably using illustration(s).

To prevent confusion the wire ropes with end connectors should be packaged and delivered as a complete unit.

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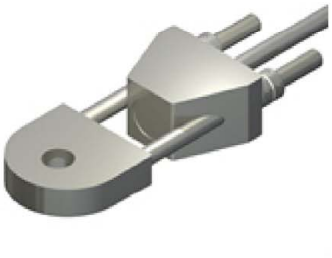
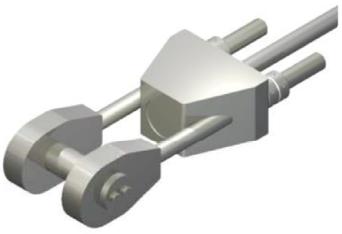
PV			
	Conical Socket with Internal Thread Type 800 **Konische Vergusshülse mit Innengewinde Typ 800**	**Cylindrical Socket with Internal Thread Type 801** **Zylindrische Vergusshülse mit Innengewinde Typ 801**	**Closed Bridge Socket Type 803** **Vergusshülse mit Öse Typ 803**
PV			
	Open Bridge Socket Type 804 **Vergusshülse mit Augenstab Typ 804**	**Cyl. Socket with Internal and External Thread Type 810** **Zyl. Vergusshülse mit Innen- und Außengewinde Typ 810**	**Cylindrical Socket Type 811** **Zylindrische Vergusshülse Typ 811**
PV			
	Cylindrical Socket with External Thread Type 812 **Zylindrische Vergusshülse mit Außengewinde Typ 812**	**Spherical Nut / Spherical Disc Type 813 / 814** **Sphärische Mutter / Sphärische Scheibe Typ 813 / 814**	

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex B1 Anhang B1
End Connectors – Components Endverankerungen – Bauteile	

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PV			
	Open Spelter Socket Type 700 **Gabelseilhülse Typ 700**	**Adjustable Open Spelter Socket Type 710** **Verstellbare Gabelseilhülse Typ 710**	**Spherical Anchor Type 850** **Sphärischer Anker Typ 850**
PV			
	Conical Socket with Fork End Type 864 **Konische Vergusshülse mit Gabelkopf Typ 864**	**Spherical Nut / Spherical Disc Type 813 / 814** **Sphärische Mutter / Sphärische Scheibe Typ 813 / 814**	
PV			
	Threaded Rod Type 840 **Gewindestange Typ 840**		

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex B2 Anhang B2
End Connectors – Components Endverankerungen – Bauteile	

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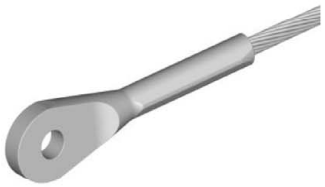
PG	 **Open Swaged Fitting** **Type 980** **Gabelfitting** **Typ 980**	 **Closed Swaged Fitting** **Type 982** **Ösenfitting** **Typ 982**
PG	 **Adjustable Open Swaged Fitting Type 984** **Gabelstellschloss** **Typ 984**	 **Threaded Fitting** **Type 988** **Gewindefitting** **Typ 988**

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

End Connectors – Components
Endverankerungen – Bauteile

Annex B3
Anhang B3

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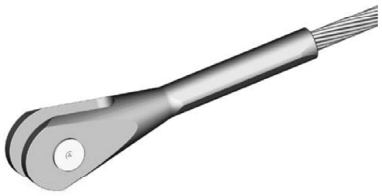
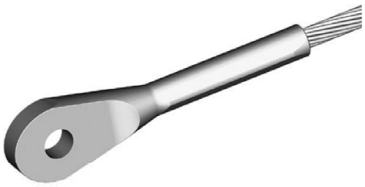
PE	 **Open Swaged Fitting** **Type 981** **Gabelfitting** **Typ 981**	 **Closed Swaged Fitting** **Type 983** **Ösenfitting** **Typ 983**
PE	 **Adjustable Open Swaged Fitting Type 985** **Gabelstellschloss** **Typ 985**	 **Threaded Fitting** **Type 989** **Gewindefitting** **Typ 989**

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

End Connectors – Components
Endverankerungen – Bauteile

Annex B4
Anhang B4

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PG UMIX	 **Open Swaged Fitting Type 620** **Gabelfitting Typ 620**  **Closed Swaged Fitting Type 622** **Ösenfitting Typ 622**  **Adjustable Open Swaged Fitting Type 624** **Gabelstellschloss Typ 624**
PG UMIX	 **Adjustable Closed Swaged Fitting Type 626** **Ösenstellschloss Typ 626**  **Threaded Fitting Type 628** **Gewindefitting Typ 628**  **Threaded Fitting with Fork End Type 632** **Gewindefitting mit Gabelkopf Typ 632**
PG UMIX	 **Threaded Fitting with Adapter Type 634** **Gewindefitting mit Adapter Typ 634**

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex B5 Anhang B5
Cable Systems – Components Seilsysteme – Bauteile	

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PE UMIX			
	Open Swaged Fitting Type 621 **Gabelfitting Typ 621**	**Closed Swaged Fitting Type 623** **Ösenfitting Typ 623**	**Adjustable Open Swaged Fitting Type 625** **Gabelstellschloss Typ 625**
PE UMIX			
	Adjustable Closed Swaged Fitting Type 627 **Ösenstellschloss Typ 627**	**Threaded Fitting Type 629** **Gewindefitting Typ 629**	**Threaded Fitting with Fork End Type 633** **Gewindefitting mit Gabelkopf Typ 633**
PE UMIX			
	Threaded Fitting with Adapter Type 635 **Gabelfitting mit Adapter Typ 635**		

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex B6 Anhang B6
Cable Systems – Components Seilsysteme –Bauteile	

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Table 1.1 - Steel grade of PV-, PG-components for wire ropes of unalloyed steel, mechanical properties (minimum values)
Tabelle 1.1 - Stahlsorten der PV-, PG-Bauteile für Seile aus unlegiertem Stahl, mechanische Eigenschaften (Mindestwerte)

Components of end connectors **Bauteile für die Endverankerungen**	**Steel grade** **Stahlsorte**		**mechanical properties (minimum values)** **Mechanische Eigenschaften (Mindestwerte)**				
	Symbol Kurzname	Material-No. Werkstoff Nr.	Thickness Erzeugnisdicke t in mm	Yield strength Streckgrenze $R_{p0,2}$ in N/mm²	Tensile strength Zugfestigkeit R_m in N/mm²	Elongation Bruchdehnung A_5 in %	Impact strength Kerbschlagarbeit α_k in J/°C (ISO-V)
Wire rope / Seil	according to / gemäß 12385						
Socket / Vergusshülse	G18NiMoCr3-6	1.6759	according to / gemäß EN 10340:2008-01				
Clamp / Klemme	G18NiMoCr3-6	1.6759	according to / gemäß EN 10340:2008-01				
Guide / Umlenklager	G18NiMoCr3-6	1.6759	according to / gemäß EN 10340:2008-01				
Pin / Bolzen	34CrNiMo6	1.6582	according to / gemäß EN 10083-3:2007-01				≥27/-40
Socket / Vergusshülse	34CrNiMo6	1.6582	according to / gemäß EN 10083-3:2007-01				≥27/-40
Threaded rod / Gewindestange Typ 710	34CrNiMo6	1.6582	according to / gemäß EN 10083-3:2007-01				≥27/-40
Fitting Type / Typ 980, 982, 988	S460	1.8901		460	690	17	≥27/-20
Threaded rod / Gewindestange Type / Typ 864	S460	1.8901		460	625	17	≥27/-20
Threaded rod / Gewindestange Typ 840,850	S355J2	1.0577	according to / gemäß EN 10025-2:2005-04				
Spherical nut-disc Sphärische Mutter-Scheibe Type / Typ 813, 814, 851, 852	S355J2	1.0577	according to / gemäß EN 10025-2:2005-04				
Fork end / Gabelkopf Type / Typ 980	EN-GJS-400-18-LT	5.3103	according to / gemäß EN 1563:2012-03				

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Table 1.1 – Material / Steel grade, mechanical properties (minimum values)
Tabelle 1.1 – Material / Stahlsorten, Mechanische Eigenschaften (Mindestwerte)

Annex C1
Anhang C1

Deutsches Institut für Bautechnik DIBt

Table 1.2 - steel grade of components for wire ropes of stainless steel, mechanical properties (minimum values)
Tabelle 1.2 - Stahlsorten der Bauteile für Seile aus nichtrostendem Stahl, Mechanische Eigenschaften (Mindestwerte)

Components Bauteile	Steel grade Stahlsorte			mechanical properties (minimum values) Mechanische Eigenschaften (Mindestwerte)					
	Symbol Kurzname	Material-No. Werkstoff Nr.	Strength class Festigkeitsklasse	Yield strength Streckgrenze $R_{p0,2}$ in N/mm²	Tensile strength Zugfestigkeit R_m in N/mm²	Elongation Bruchdehnung in %			Thermal expansion coefficient/ Temperaturdehnzahl α_k in K^{-1}
						A_5	A_{10}	A_{GL}	
Wire rope / Seil	X3CrNiMo 17-13-3	1.4436	S1100	1100	1450		6	2	16x10^{-6}
	X5CrNiMo 17-12-2	1.4401	S1100	1100	1450		6	2	16x10^{-6}
Pin / Bolzen				according to / gemäß EN 10088-3:2014-12					13x10^{-6}
Open swaged fitting Type 981 Gabelfitting Typ 981									
Closed swaged fitting Type 983 Ösenfitting Typ 983	X2CrNiMoN 22-5-3	1.4462	S460						
Swaged fitting with thread Type 989 Gewindefitting Typ 989									

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Table 1.2 - Material / Steel grade, mechanical properties (minimum values)
Tabelle 1.2 – Material / Stahlsorten, Mechanische Eigenschaften (Mindestwerte)

Annex C2
Anhang C2

Deutsches Institut für Bautechnik DIBt

1.3 Steel grade, mechanical properties PG UMIX components (minimum values)
Stahlsorten, Mechanische Eigenschaften PG UMIX Bauteile (Mindestwerte)

Components Bauteile	Steel grade Stahlsorte		Mechanical properties (minimum values) Mechanische Eigenschaften (Mindestwerte)				
	Symbol Kurzname	Material-No. Werkstoff Nr.	Thickness Erzeugnissdicke t in mm	Yield strength Streckgrenze $R_{p0,2}$ in N/mm²	Tensile strength Zugfestigkeit R_m in N/mm²	Elongation Bruchdehnung A_5 in %	Impact strength Kerbschlagarbeit α_k in J/°C (ISO-V)
Fork end Gabelkopf	EN-GJS-400-18-LT	5.3103	according to/gemäß EN 1563:2012-03				
	S355J2	1.0577	according to/gemäß EN 10025-2:2005-04				
Pin/Bolzen	34CrNiMo6+QT	1.6582	according to/gemäß EN ISO 683-2:2018-09				27/-20
Spade End/ Ösenkopf	S355J2	1.0577	according to/gemäß EN 10025-2:2005-04				
Lock Nut/ Kontermutter	S355J2	1.0577	according to/gemäß EN 10025-2:2005-04				
Swaged Fitting with Thread/ Gewindefitting	S600*			530	790	17	27/-20
Connecting Plate/ Anschlussblech	S355J2	1.0577	according to/gemäß EN 10025-2:2005-04				
Adapter	S520*/S600*		based on/in Anlehnung an EN ISO 683-2:2018-09	530	710	17	27/-20
	34CrNiMo6+QT	1.6582				12	27/-20
Coupler/ Muffe	S520*/S600*		based on/in Anlehnung an EN ISO 683-2:2018-09	530	710	17	27/-20
	34CrNiMo6+QT	1.6582				12	27/-20
Intersection Plate/ Knotenblech	S355J2	1.0577	according to/gemäß EN 10025-2:2005-04				

* based on/in Anlehnung an EN 10025-3:2005-02

PFEIFER – Wire Ropes
PEIFER - Seilzugglieder

Table 1.3 – Material UMIX / Steel grade, mechanical properties (minimum values)
Tabelle 1.3 – Material UMIX/ Stahlsorten, Mechanische Eigenschaften (Mindestwerte)

Annex C3
Anhang C3

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1.3 Steel grade, mechanical properties PE UMIX components (minimum values)
Stahlsorten, Mechanische Eigenschaften PE UMIX Bauteile (Mindestwerte)

Components Bauteile	Steel grade Stahlsorte		Mechanical properties (minimum values) Mechanische Eigenschaften (Mindestwerte)				
	Symbol Kurzname	Material-No. Werkstoff Nr.	Thickness Erzeugnissdicke t in mm	Yield strength Streckgrenze $R_{p0,2}$ in N/mm²	Tensile strength Zugfestigkeit R_m in N/mm²	Elongation Bruchdehnung A_5 in %	Impact strength Kerbschlagarbeit α_k in J/°C (ISO-V)
Fork end Gabelkopf	GX2CrNiMoN22-5-3	1.4470	according to / gemäß EN 10283:2019-06				30/20 27/-20
Pin/Bolzen	X5CrNiCuNb 16-4	1.4542	according to / gemäß EN 10088-3:2005-09				
Spade End/ Ösenkopf	GX2CrNiMoN22-5-3	1.4470	according to / gemäß EN 10283:2019-06				30/20 27/-20
Swaged Fitting with Thread/ Gewindefitting	X2CrNiMoN29-7-2	1.4477		580	790	17	100/20 40/-40
	X2CrNiMoCuWN25-7-4	1.4501		580	790	17	100/20 40/-40
	X2CrNiMoN22-5-3	1.4462		580	790	17	100/20 40/-40
Lock Nut/ Kontermutter	X2CrNiMo17-12-2	1.4404	according to / gemäß EN 10088-5:2009-07				
Connecting Plate/ Anschlussblech	S355J2 **	1.0577	according to/gemäß EN 10025-2:2005-04				
Adapter	X2CrNiMoN29-7-2	1.4477		580	790	17	100/20 40/-40
	X2CrNiMoCuWN25-7-4	1.4501		580	790	17	100/20 40/-40
	X2CrNiMoN22-5-3	1.4462		580	790	17	100/20 40/-40
Coupler/ Muffe	X2CrNiMoN29-7-2	1.4477		580	790	17	100/20 40/-40
	X2CrNiMoCuWN25-7-4	1.4501		580	790	17	100/20 40/-40
	X2CrNiMoN22-5-3	1.4462		580	790	17	100/20 40/-40
Intersection Coupler / Kreuzmuffe	X2CrNiMoN29-7-2	1.4477		580	790	17	100/20 40/-40
	X2CrNiMoCuWN25-7-4	1.4501		580	790	17	100/20 40/-40
	X2CrNiMoN22-5-3	1.4462		580	790	17	100/20 40/-40
Intersection Plate/ Knotenblech	S355J2 **	1.0577	according to/gemäß EN 10025-2:2005-04				

* based on/in Anlehnung an EN 10025-3:2005-02
** Werkstoff in Anlehnung an S355J2 und unter Berücksichtigung der Teilsicherheitsbeiwerts γ_{M0} = 1,1 für nichtrostenden Stahl

PFEIFER – Wire Ropes
PEIFER - Seilzugglieder

Table 1.4 – Material UMIX / Steel grade, mechanical properties (minimum values)
Tabelle 1.4 – Material UMIX/ Stahlsorten, Mechanische Eigenschaften (Mindestwerte)

Annex C4
Anhang C4

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Table 2 – Reference Values for modulus of elasticity E_Q

Tabelle 2 – Anhaltswerte für den Verformungsmodul E_Q

	Cable Type Seiltyp	E_Q in N/mm²
Unalloyed steel Unlegierter Stahl	Full locked cables Vollverschlossene Seile	$0{,}16 \times 10^6$
	Open spiral strands Offene Spiralseile	$0{,}16 \times 10^6$
	Structural wire ropes with steel core Rundlitzenseile mit Stahleinlage	$0{,}12 \times 10^6$
Stainless steel Nichtrostender Stahl	Open spiral strands Offene Spiralseile	$0{,}13 \times 10^6$
	Structural wire ropes with steel core Rundlitzenseile mit Stahleinlage	$0{,}10 \times 10^6$

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex C5 Anhang C5
Table 2 – Reference Values for Modulus of Elasticity E_Q Tabelle 2 – Anhaltswerte für den Verformungsmodul E_Q	

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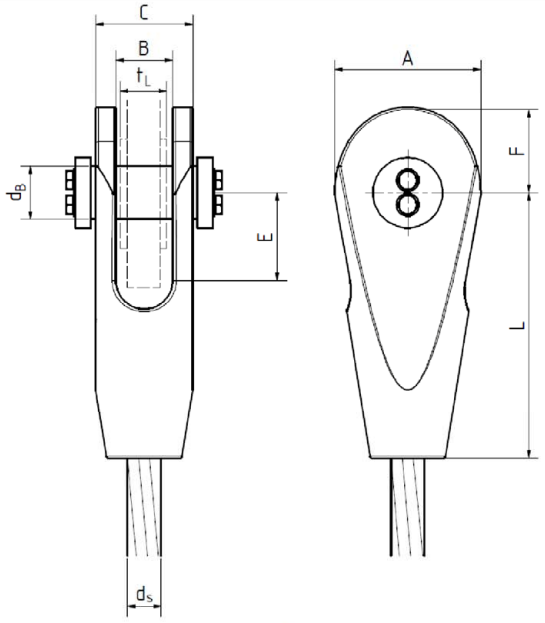


d_B = Bolzendurchmesser / pin diameter

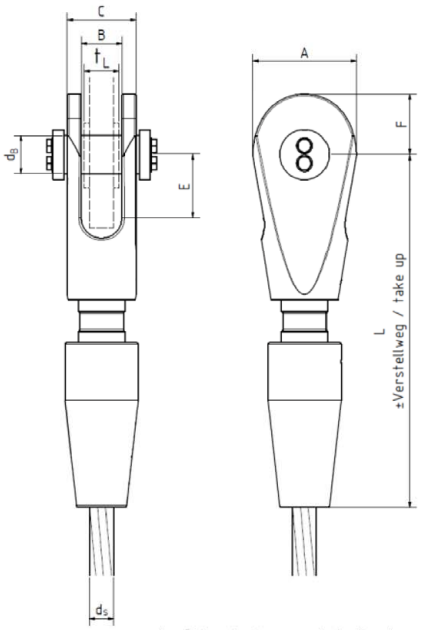
Size Größe	ds mm	A mm	B mm	C mm	dB mm	E mm	F mm	tL min mm	L mm
PV 40	21	92	35	61	39	55	57	29	168
PV 60	26	116	43	75	44	70	68	36	208
PV 90	31	137	52	90	54	83	86	45	248
PV 115	35	153	60	102	59	93	91	52	280
PV 150	40	176	68	116	64	106	98	60	320
PV 195	45	197	77	131	73	120	110	69	360
PV 240	50	220	85	145	83	133	123	76	400
PV 300	55	241	94	160	88	146	140	85	440
PV 360	60	263	102	174	98	159	153	92	480
PV 420	65	285	111	189	108	173	165	100	520
PV 490	70	308	119	203	118	186	178	107	560
PV 560	75	329	128	218	128	199	195	114	600
PV 640	80	351	136	232	138	212	208	121	640
PV 720	85	372	145	247	142	226	220	129	680
PV 810	90	395	153	261	153	239	233	136	720
PV 910	95	416	162	276	162	252	253	144	760
PV 1010	100	438	170	290	172	265	263	151	800
PV 1110	105	459	179	305	182	279	276	159	840
PV1220	110	484	187	319	187	292	286	165	880
PV1340	115	511	196	334	202	305	299	174	920
PV1450	120	532	204	348	207	318	312	180	960
PV1580	125	555	213	363	217	332	325	187	1000
PV1730	130	577	221	377	227	345	338	193	1040
PV1860	135	599	230	392	237	358	351	196	1080
PV2000	140	621	238	406	247	371	364	204	1120
PV2150	145	644	247	421	261	385	387	211	1160
PV2300	150	671	255	435	271	398	400	217	1200
PV2450	155	688	264	450	281	411	415	224	1240
PV2600	160	710	272	464	291	424	428	232	1280

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Spelter Socket Type 700
Gabelseilhülse Typ 700

Annex D1
Anhang D1

Deutsches Institut für Bautechnik DIBt



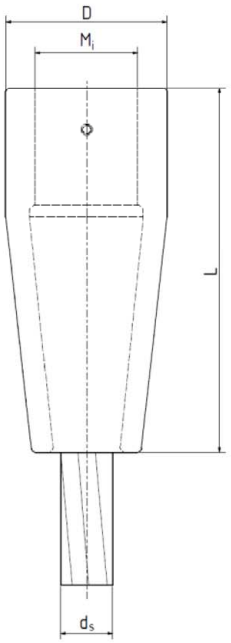
Size Größe	ds mm	A mm	B mm	C mm	dB mm	E mm	F mm	tL min mm	L mm	take up Verstellweg mm
PV 40	21	92	35	61	39	55	57	29	359	±32
PV 60	26	116	43	75	44	70	68	36	429	±36
PV 90	31	137	52	90	54	83	86	45	497	±38
PV 115	35	153	60	102	59	93	91	52	559	±42
PV 150	40	176	68	116	64	106	98	60	590	±42
PV 195	45	197	73	131	73	120	110	69	660	±46
PV 240	50	220	85	145	83	133	123	76	746	±56
PV 300	55	241	94	160	88	146	140	85	824	±58
PV 360	60	263	102	174	98	159	153	92	894	±62
PV 420	65	285	111	189	108	173	165	100	973	±70
PV 490	70	308	119	203	118	186	178	107	1041	±72
PV 560	75	329	128	218	128	199	195	114	1111	±76
PV 640	80	351	136	232	138	212	208	121	1181	±80
PV 720	85	372	145	247	142	226	220	129	1261	±84
PV 810	90	395	153	261	153	239	233	136	1345	±92
PV 910	95	416	162	276	162	252	253	144	1415	±96
PV 1010	100	438	170	290	172	265	263	151	1483	±98
PV1110	105	459	179	305	182	279	276	159	1561	±114
PV1220	110	484	187	319	187	292	286	165	1634	±124
PV1340	115	511	196	334	202	305	299	174	1731	±118
PV1450	120	532	204	348	207	318	312	180	1808	+122
PV1580	125	555	213	363	217	332	325	187	1885	±130
PV1730	130	577	221	377	227	345	338	193	1962	±134
PV1860	135	599	230	392	237	358	351	196	2037	±140
PV2000	140	621	238	406	247	371	364	204	2114	±144
PV2150	145	644	247	421	261	385	387	211	2199	±150
PV2300	150	671	255	435	271	398	400	217	2264	±156
PV2450	155	688	264	450	281	411	415	224	2330	±162
PV2600	160	710	272	464	291	424	428	232	2400	±168

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Open Spelter Socket Type 710
Verstellbare Gabelseilhülse Typ 710

Annex D2
Anhang D2

Deutsches Institut für Bautechnik DIBt



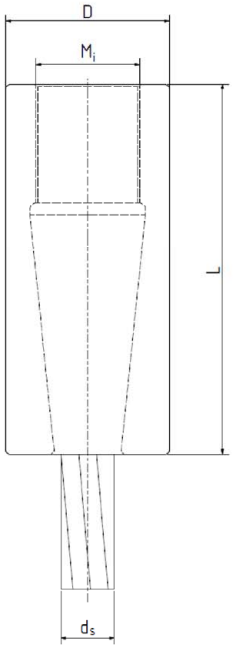
Size Größe	ds mm	D mm	Mi mm	L mm
PV 40	21	80	42 x 3	165
PV 60	26	95	52 x 3	200
PV 90	31	110	64 x 4	235
PV 115	35	125	75 x 4	270
PV 150	40	125	75 x 4	270
PV 195	45	140	85 x 4	305
PV 240	50	155	95 x 4	350
PV 300	55	170	108 x 4	385
PV 360	60	185	118 x 4	420
PV 420	65	205	128 x 4	460
PV 490	70	220	140 x 4	495
PV 560	75	235	150 x 4	530
PV 640	80	250	160 x 4	565
PV 720	85	265	172 x 4	600
PV 810	90	280	185 x 6	645
PV 910	95	295	195 x 6	680
PV 1010	100	310	205 x 6	715
PV 1110	105	330	215 x 6	760
PV 1220	110	345	225 x 6	800
PV 1340	115	360	235 x 6	840
PV 1450	120	380	245 x 6	880
PV 1580	125	395	260 x 6	920
PV 1730	130	410	270 x 6	960
PV 1860	135	425	280 x 6	1000
PV 2000	140	440	290 x 6	1040
PV2150	145	460	300 x 6	1070
PV2300	150	475	310 x 6	1100
PV2450	155	490	325 x 6	1125
PV2600	160	510	335 x 6	1160

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Conical Socket with internal Thread Type 800
Konische Vergusshülse mit Innengewinde Typ 800

Annex D3
Anhang D3

Deutsches Institut für Bautechnik DIBt



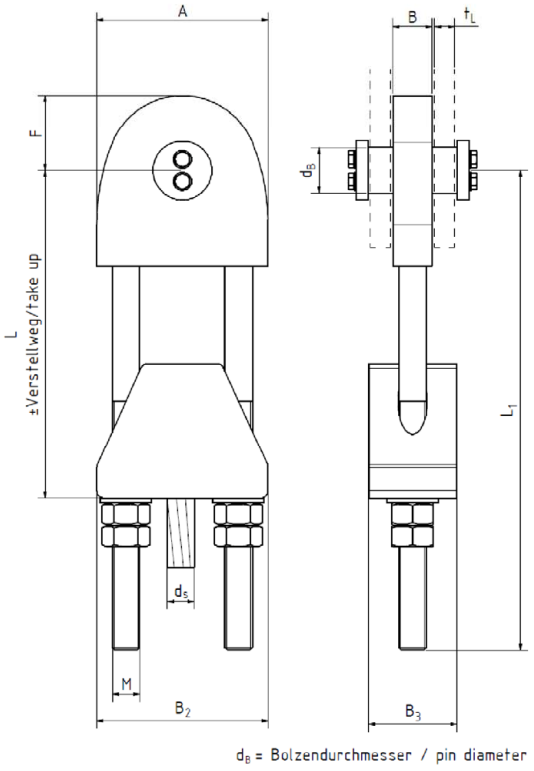
Size Größe	ds mm	D mm	Mi mm	L mm
PV 40	21	80	42 x 3	165
PV 60	26	95	52 x 3	200
PV 90	31	110	64 x 4	235
PV 115	35	125	75 x 4	270
PV 150	40	125	75 x 4	270
PV 195	45	140	85 x 4	305
PV 240	50	155	95 x 4	350
PV 300	55	170	108 x 4	385
PV 360	60	185	118 x 4	420
PV 420	65	205	128 x 4	460
PV 490	70	220	140 x 4	495
PV 560	75	235	150 x 4	530
PV 640	80	250	160 x 4	565
PV 720	85	265	172 x 4	600
PV 810	90	280	185 x 6	645
PV 910	95	295	195 x 6	680
PV 1010	100	310	205 x 6	715
PV 1110	105	330	215 x 6	760
PV 1220	110	345	225 x 6	800
PV 1340	115	360	235 x 6	840
PV 1450	120	380	245 x 6	880
PV 1580	125	395	260 x 6	920
PV 1730	130	410	270 x 6	960
PV 1860	135	425	280 x 6	1000
PV 2000	140	440	290 x 6	1040
PV2150	145	460	300 x 6	1070
PV2300	150	475	310 x 6	1100
PV2450	155	490	325 x 6	1125
PV2600	160	510	335 x 6	1160

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Cylindrical Socket with Internal Thread Type 801
Zylindrische Vergusshülse mit Innengewinde Typ 801

Annex D4
Anhang D4

Deutsches Institut für Bautechnik DIBt



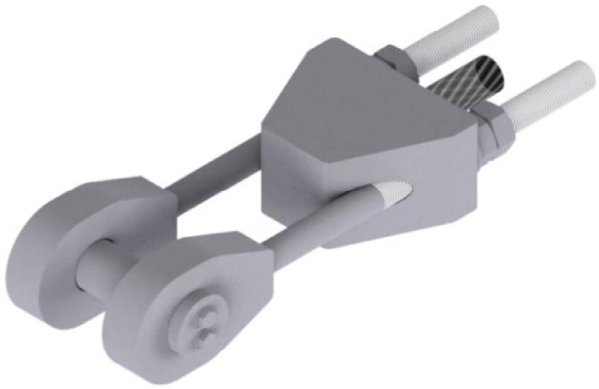
Size Größe	ds mm	A mm	B mm	B2 mm	B3 mm	dB mm	F mm	M mm	tL min mm	L1 mm	L mm	take up Verstellweg mm
PV 40	21	155	30	155	80	39	67	20	15	525	330	±150
PV 60	26	190	40	190	90	44	75	27	20	579	375	±150
PV 90	31	220	50	220	110	54	91	30	25	624	415	±150
PV 115	35	260	70	260	130	67	112	42	35	725	495	±150
PV 150	40	260	70	260	130	67	112	42	35	725	495	±150
PV 195	45	290	70	290	150	75	125	48	35	781	540	±150
PV 240	50	325	80	325	160	83	138	52	40	825	575	±150
PV 300	55	350	80	350	180	93	154	56	40	981	670	±200
PV 360	60	380	90	380	200	106	174	60	45	1035	715	±200
PV 420	65	420	100	420	220	115	189	68 x 6	50	1093	760	±200
PV 490	70	450	110	450	240	124	203	72 x 6	55	1147	805	±200
PV 560	75	480	110	480	250	133	218	76 x 6	55	1187	845	±200
PV 640	80	510	120	510	280	142	232,5	80 x 6	60	1342	940	±250
PV 720	85	550	120	550	300	151	247	85 x 6	60	1389	980	±250
PV 810	90	580	130	580	320	168	273,5	90 x 6	65	1437	1020	±250
PV 910	95	630	140	630	340	179	291	100 x 6	70	1514	1075	±250
PV 1010	100	650	150	650	350	188	305,5	105 x 6	75	1566	1120	±250

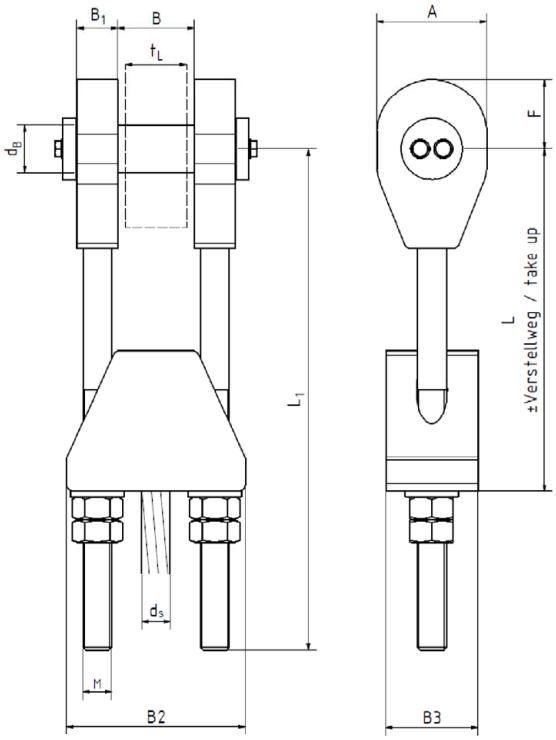
PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Closed Bridge Socket Type 803
Vergusshülse mit Öse Typ 803

Annex D5
Anhang D5

Deutsches Institut für Bautechnik DIBt





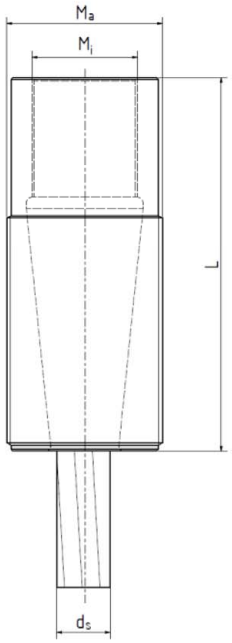
Size Größe	ds mm	A mm	B mm	B1 mm	B2 mm	B3 mm	dB mm	M mm	L1 mm	F mm	tL mm	L mm	take up Verstellweg mm
PV 40	21	94	65	30	155	80	39	20	525	61	60	330	±150
PV 60	26	110	75	40	190	90	44	27	579	71	70	375	±150
PV 90	31	127	85	50	220	110	54	30	624	83,5	80	415	±150
PV 115	35	148	95	70	260	130	67	42	725	96	90	495	±150
PV 150	40	148	95	70	260	130	67	42	725	96	90	495	±150
PV 195	45	165	120	70	290	150	75	48	781	107,5	115	540	±150
PV 240	50	200	130	80	325	160	83	52	825	128	125	575	±150
PV 300	55	215	150	80	350	180	93	56	981	136,5	145	670	±200
PV 360	60	235	160	90	380	200	106	60	1035	150	155	715	±200
PV 420	65	250	175	100	420	220	115	68 x 6	1093	163	170	760	±200
PV 490	70	270	180	110	450	240	124	72 x 6	1147	175	175	805	±200
PV 560	75	290	210	110	480	250	133	76 x 6	1187	190	205	845	±200
PV 640	80	310	230	120	510	280	142	80 x 6	1342	201	225	940	±250
PV 720	85	330	255	120	550	300	151	85 x 6	1389	215	250	980	±250
PV 810	90	365	270	130	580	320	168	90 x 6	1437	240	265	1020	±250
PV 910	95	385	285	140	630	340	179	100 x 6	1514	250	280	1075	±250
PV 1010	100	405	290	150	650	350	188	105 x 6	1566	265	285	1120	±250

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Bridge Socket Type 804
Vergusshülse mit Augenstab Typ 804

Annex D6
Anhang D6

Deutsches Institut für Bautechnik DIBt



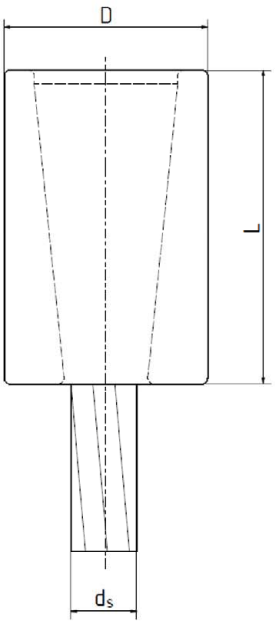
Size Größe	ds mm	Mi mm	Ma mm	L mm
PV 40	21	42 x 3	70 x 4	165
PV 60	26	52 x 3	85 x 4	200
PV 90	31	64 x 4	100 x 4	235
PV 115	35	75 x 4	115 x 6	270
PV 150	40	75 x 4	115 x 6	270
PV 195	45	85 x 4	130 x 6	305
PV 240	50	95 x 4	145 x 6	350
PV 300	55	108 x 4	160 x 6	385
PV 360	60	118 x 4	175 x 6	420
PV 420	65	128 x 4	195 x 6	460
PV 490	70	140 x 4	210 x 8	495
PV 560	75	150 x 4	225 x 8	530
PV 640	80	160 x 4	240 x 8	565
PV 720	85	172 x 4	255 x 8	600
PV 810	90	185 x 6	270 x 8	645
PV 910	95	195 x 6	285 x 8	680
PV 1010	100	205 x 6	300 x 8	715
PV 1110	105	215 x 6	320 x 8	760
PV 1220	110	225 x 6	335 x 8	800
PV 1340	115	235 x 6	350 x 8	840
PV 1450	120	245 x 6	370 x 8	880
PV 1580	125	260 x 6	385 x 10	920
PV 1730	130	270 x 6	400 x 10	960
PV 1860	135	280 x 6	415 x 10	1000
PV 2000	140	290 x 6	430 x 10	1040
PV2150	145	300 x 6	450 x 10	1070
PV2300	150	310 x 6	465 x 10	1100
PV2450	155	325 x 6	480 x 10	1125
PV2600	160	335 x 6	500 x 10	1160

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Cylindrical Socket with Internal and External Thread Type 810
Zylindrische Vergusshülse mit Innen- und Außengewinde Typ 810

Annex D7
Anhang D7

Deutsches Institut für Bautechnik DIBt



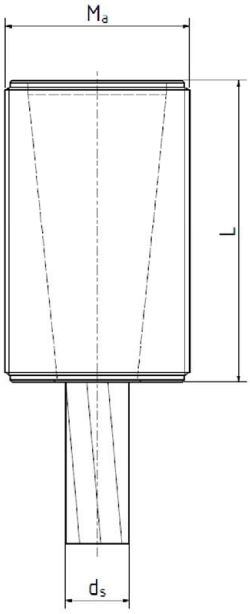
Size Größe	ds mm	D mm	L mm
PV 40	21	80	108
PV 60	26	95	133
PV 90	31	110	158
PV 115	35	125	183
PV 150	40	125	183
PV 195	45	140	208
PV 240	50	155	237
PV 300	55	170	262
PV 360	60	185	287
PV 420	65	205	312
PV 490	70	220	337
PV 560	75	235	362
PV 640	80	250	387
PV 720	85	265	412
PV 810	90	280	441
PV 910	95	295	466
PV 1010	100	310	491
PV 1110	105	330	516
PV 1220	110	345	541
PV 1340	115	360	566
PV 1450	120	380	591
PV 1580	125	395	616
PV 1730	130	410	645
PV 1860	135	425	670
PV 2000	140	440	695
PV2150	145	475	745
PV2300	150	490	770
PV2450	155	490	770
PV2600	160	510	800

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Cylindrical Socket Type 811
Zylindrische Vergusshülse Typ 811

Annex D8
Anhang D8

Deutsches Institut für Bautechnik DIBt



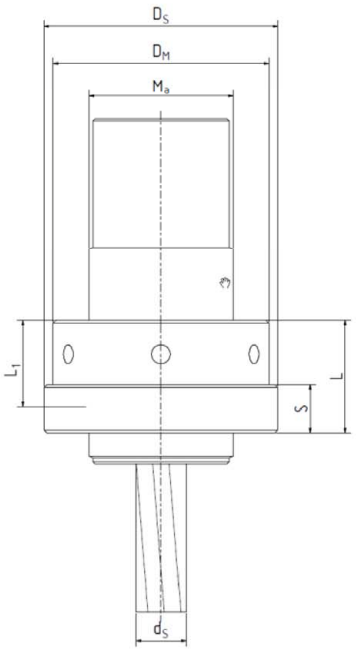
Size Größe	ds mm	Ma mm	L mm
PV 40	21	70 x 4	108
PV 60	26	85 x 4	133
PV 90	31	100 x 4	158
PV 115	35	115 x 6	183
PV 150	40	115 x 6	183
PV 195	45	130 x 6	208
PV 240	50	145 x 6	237
PV 300	55	160 x 6	262
PV 360	60	175 x 6	287
PV 420	65	195 x 6	312
PV 490	70	210 x 8	337
PV 560	75	225 x 8	362
PV 640	80	240 x 8	387
PV 720	85	255 x 8	412
PV 810	90	270 x 8	441
PV 910	95	285 x 8	466
PV 1010	100	300 x 8	491
PV 1110	105	320 x 8	516
PV 1220	110	335 x 8	541
PV 1340	115	350 x 8	566
PV 1450	120	370 x 8	591
PV 1580	125	385 x 10	616
PV 1730	130	400 x 10	645
PV 1860	135	415 x 10	670
PV 2000	140	430 x 10	695
PV2150	145	450 x 10	720
PV2300	150	465 x 10	745
PV2450	155	480 x 10	770
PV2600	160	500 x 10	800

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Annex D9
Anhang D9

Cylindrical Socket with External Thread Type 812
Zylindrische Vergusshülse mit Außengewinde Typ 812

Deutsches Institut für Bautechnik DIBt

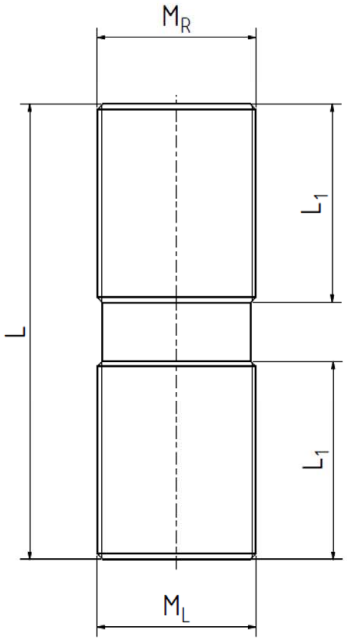


Size Größe	ds mm	DS mm	DM mm	Ma mm	S mm	L mm	L1 mm
PV 40	21	120	105	70 x 4	25	58	42
PV 60	26	140	125	85 x 4	25	66	52
PV 90	31	165	150	100 x 4	35	82	60
PV 115	35	190	170	115 x 6	35	89	69
PV 150	40	190	170	115 x 6	35	89	69
PV 195	45	215	195	130 x 6	45	106	79
PV 240	50	235	215	145 x 6	45	113	87
PV 300	55	260	240	160 x 6	55	130	97
PV 360	60	280	260	175 x 6	55	137	105
PV 420	65	310	290	195 x 6	65	156	117
PV 490	70	335	315	210 x 8	65	163	126
PV 560	75	355	335	225 x 8	75	180	135
PV 640	80	380	360	240 x 8	75	187	144
PV 720	85	405	380	255 x 8	85	204	153
PV 810	90	430	405	270 x 8	85	211	162
PV 910	95	450	425	285 x 8	95	228	171
PV 1010	100	475	450	300 x 8	95	235	180
PV 1110	105	505	480	320 x 8	105	253	192
PV 1220	110	525	500	335 x 8	105	264	201
PV 1340	115	550	525	350 x 8	115	278	210
PV 1450	120	580	555	370 x 8	115	286	222
PV 1580	125	600	575	385 x 10	125	306	231
PV 1730	130	630	600	400 x 10	125	312	240
PV 1860	135	650	620	415 x 10	135	329	249
PV 2000	140	675	645	430 x 10	135	334	258
PV2150	145	705	675	450 x 10	145	354	270
PV2300	150	725	695	465 x 10	145	359	279
PV2450	155	750	720	480 x 10	155	378	288
PV2600	160	780	750	500 x 10	155	387	300

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Spherical Nut / Spherical Disc Type 813 / 814
Sphärische Mutter / Sphärische Scheibe Typ 813 / 814

Annex D10
Anhang D10



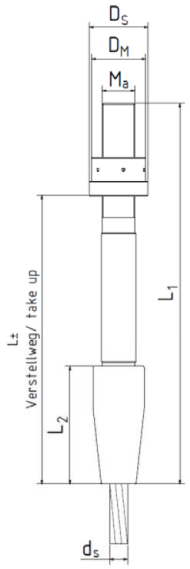
Size Größe	MR mm	ML mm	L mm	L1 mm
PV 40	42 x 3	42 x 3	160	65
PV 60	52 x 3	52 x 3	180	75
PV 90	64 x 4	64 x 4	200	85
PV 115	75 x 4	75 x 4	220	95
PV 150	75 x 4	75 x 4	220	95
PV 195	85 x 4	85 x 4	240	105
PV 240	95 x 4	95 x 4	280	125
PV 300	108 x 4	108 x 4	310	135
PV 360	118 x 4	118 x 4	330	145
PV 420	128 x 4	128 x 4	360	160
PV 490	140 x 4	140 x 4	380	170
PV 560	150 x 4	150 x 4	400	180
PV 640	160 x 4	160 x 4	420	190
PV 720	172 x 4	172 x 4	450	200
PV 810	185 x 6	185 x 6	490	220
PV 910	195 x 6	195 x 6	510	230
PV 1010	205 x 6	205 x 6	530	240
PV 1110	215 x 6	215 x 6	570	260
PV 1220	225 x 6	225 x 6	600	275
PV 1340	235 x 6	235 x 6	640	290
PV 1450	245 x 6	245 x 6	670	305
PV 1580	260 x 6	260 x 6	700	320
PV 1730	270 x 6	270 x 6	730	335
PV 1860	280 x 6	280 x 6	760	350
PV 2000	290 x 6	290 x 6	790	365
PV2150	300 x 6	300 x 6	820	370
PV2300	310 x 6	310 x 6	830	375
PV2450	325 x 6	325 x 6	830	375
PV2600	335 x 6	335 x 6	850	385

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Rod Type 840
Gewindestange Typ 840

Annex D11
Anhang D11

Deutsches Institut für Bautechnik DIBt



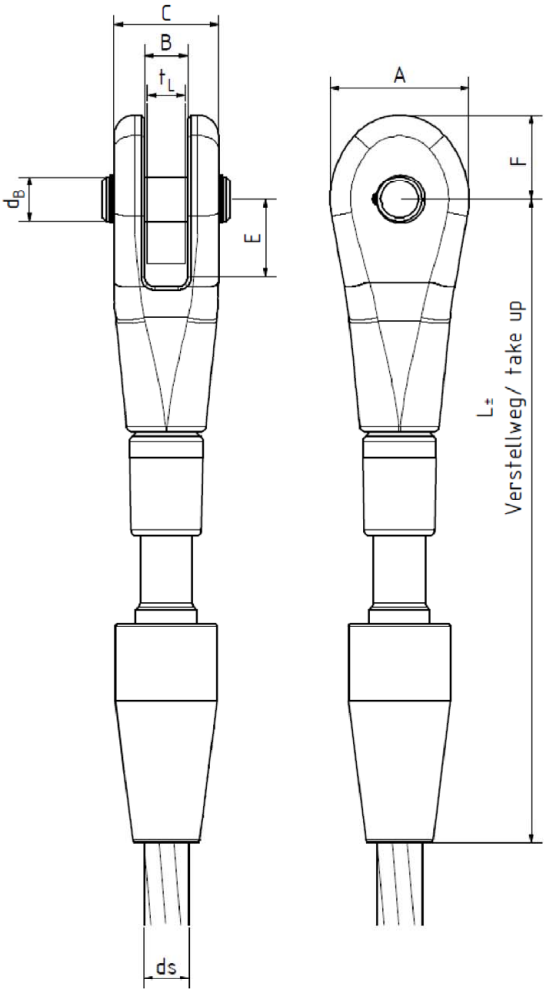
Size Größe	ds mm	DS mm	DM mm	Ma mm	L mm	L1 mm	L2 mm	take up Verstellweg ± mm
PV 40	21	75	70	42 x 3	449	632	165	100
PV 60	26	95	90	52 x 3	527	730	200	100
PV 90	31	115	110	64 x 4	615	839	235	101
PV 115	35	135	125	75 x 4	695	943	270	101
PV 150	40	135	125	75 x 4	695	943	270	101
PV 195	45	155	140	85 x 4	772	1042	305	102
PV 240	50	170	160	95 x 4	861	1142	350	103
PV 300	55	195	180	108 x 4	950	1256	385	103
PV 360	60	215	200	118 x 4	1028	1352	420	104
PV 420	65	230	215	128 x 4	1111	1455	460	106
PV 490	70	250	230	140 x 4	1196	1566	495	107
PV 560	75	270	250	150 x 4	1275	1655	530	109
PV 640	80	290	265	160 x 4	1352	1768	565	110
PV 720	85	310	285	172 x 4	1439	1871	600	112
PV 810	90	335	305	185 x 6	1546	1996	645	114
PV 910	95	350	320	195 x 6	1624	2088	680	116
PV 1010	100	370	340	205 x 6	1703	2192	715	117
PV 1110	105	385	355	215 x 6	1791	2294	760	119
PV 1220	110	405	370	225 x 6	1874	2404	800	121
PV 1340	115	425	385	235 x 6	1957	2501	840	123
PV 1450	120	440	405	245 x 6	2041	2599	880	125
PV 1580	125	470	430	260 x 6	2148	2749	920	129
PV 1730	130	485	445	270 x 6	2231	2848	960	131
PV 1860	135	505	460	280 x 6	2315	2958	1000	134
PV 2000	140	520	480	290 x 6	2400	3057	1040	136
PV2150	145	540	495	300 x 6	2470	3156	1070	140
PV2300	150	560	510	310 x 6	2550	3245	1100	145
PV2450	155	580	535	325 x 6	2645	3375	1125	152
PV2600	160	600	550	335 x 6	2730	3469	1160	157

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Spherical Anchor Type 850
Sphärischer Anker Typ 850

Annex D12
Anhang D12

Deutsches Institut für Bautechnik DIBt



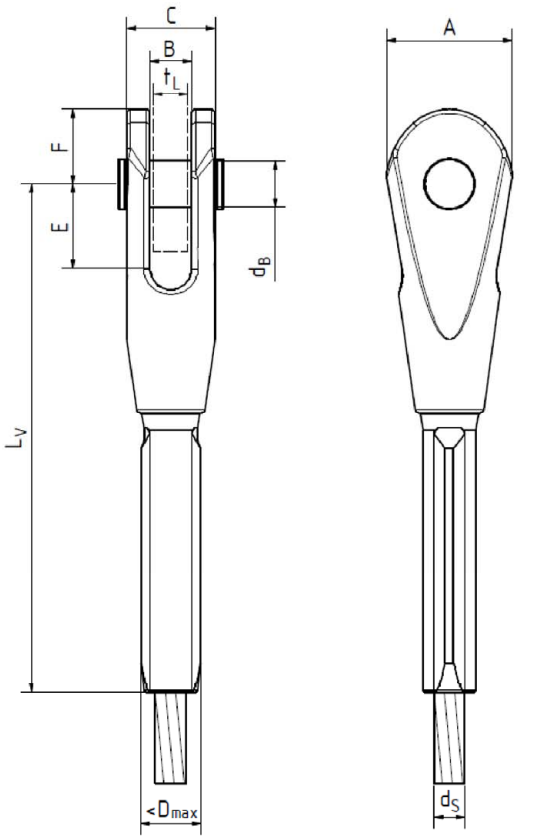
Size Größe	ds mm	A mm	B mm	C mm	dB mm	E mm	F mm	tL mm	L mm	take up Verstellweg ± mm
PV 40	21	90	28	72	32	57	58	25	480	35
PV 60	26	104	33	84	36	63	66	30	560	42
PV 90	31	120	38	96	40	68	74	35	630	41
PV 115	35	148	43	112	50	84	91	40	740	47
PV 150	40	170	53	128	55	95	103	50	790	50
PV 195	45	185	58	140	60	103	113	55	870	55
PV 240	50	210	68	160	70	117	132	65	1000	67
PV 300	55	240	78	180	79	132	150	75	1090	70
PV 360	60	265	83	200	89	150	165	80	1210	75

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Conical Socket with Fork End Type 864
Konische Vergusshülse mit Gabelkopf Typ 864

Annex D13
Anhang D13

Deutsches Institut für Bautechnik DIBt



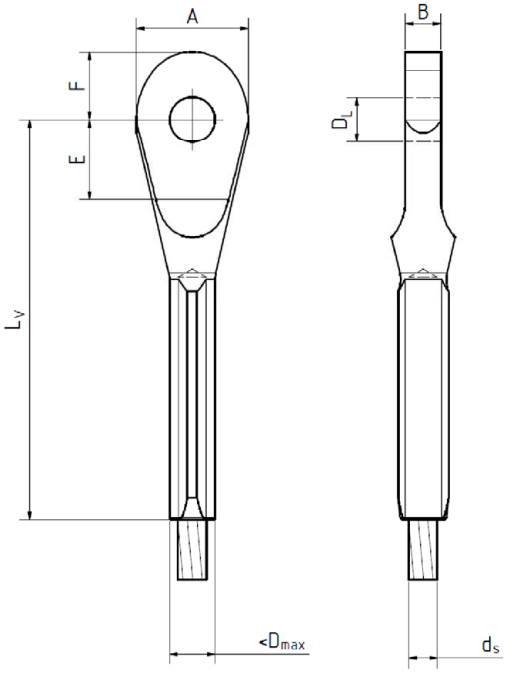
d_B = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	C mm	Dmax mm	dB mm	E mm	F mm	tL min mm	~Lv mm
PG 5	8,1	33	12,5	25	16	12	24	20	10	135
PG 10	10,1	42	14,5	30	20	15	29	25	12	167
PG 15	12,2	51	17,5	37	25	19	35	30	15	200
PG 20	14,1	60	20,5	42	30	22	41	35	18	234
PG 25	17,0	70	22,5	49	34	25	48	40	20	276
PG 40	20,1	83	28,0	59	40	30	59	49	25	335
PG 55	24,4	102	28,0	70	49	33	66	60	25	403
PG 75	28,3	118	33,0	82	57	40	77	69	30	471
PG 90	31,3	127	38,0	87	64	45	84	74	35	514
PG 125	36,3	149	49,0	105	71	55	102	89	45	604

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Swaged Fitting Type 980
Gabelfitting Typ 980

Annex E1
Anhang E1



Size Größe	ds mm	A mm	B mm	Dmax mm	DL mm	E mm	F mm	~Lv mm
PG 5	8,1	32	10	16	13	24	20	120
PG 10	10,1	40	12	20	16	29	24	145
PG 15	12,2	50	15	25	20	35	30	175
PG 20	14,1	57	18	30	23	41	35	204
PG 25	17,0	67	20	34	27	48	41	245
PG 40	20,1	80	25	40	32	59	48	286
PG 55	24,4	96	25	49	35	66	57	338
PG 75	28,3	110	30	57	42	77	67	392
PG 90	31,3	117	35	64	47	84	71	437
PG 125	36,3	142	45	71	57	102	86	515

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Closed Swaged Fitting Type 982
Ösenfitting Typ 982

Annex E2
Anhang E2

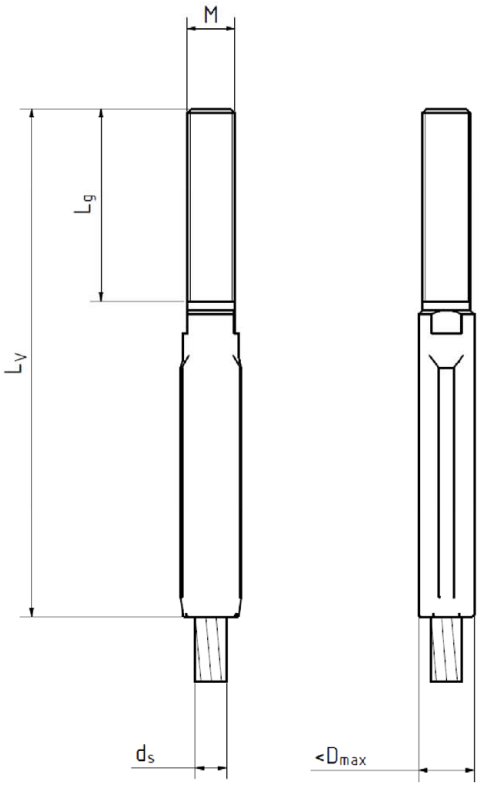
Deutsches Institut für Bautechnik DIBt

Size Größe	ds mm	A mm	B mm	C mm	DA mm	Dmax mm	dB mm	E mm	F mm	M mm	tL min mm	~L mm	take up Verstellweg ± mm	K mm
PG 5	8,1	33	12,5	25	18,5	16	12	24	20	14	10	310	28	230
PG 10	10,1	42	14,5	30	22	20	15	29	25	16	12	369	32	270
PG 15	12,2	51	17,5	37	27	25	19	35	30	20	15	455	40	335
PG 20	14,1	60	20,5	42	33	30	22	41	35	24	18	537	48	397
PG 25	17,0	70	22,5	49	37	34	25	48	40	27	20	619	54	450
PG 40	20,1	83	28	59	43	40	30	59	49	30	25	723	60	525
PG 55	24,4	102	28	70	51	49	33	66	60	36	25	875	72	635
PG 75	28,3	118	33	82	60	57	40	77	69	42	30	1017	84	738
PG 90	31,3	127	38	87	67	64	45	84	74	48	35	1133	96	824
PG 125	36,3	149	49	105	78	71	55	102	89	56	45	1313	112	956

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Open Swaged Fitting Type 984
Gabelstellschloss Typ 984

Annex E3
Anhang E3



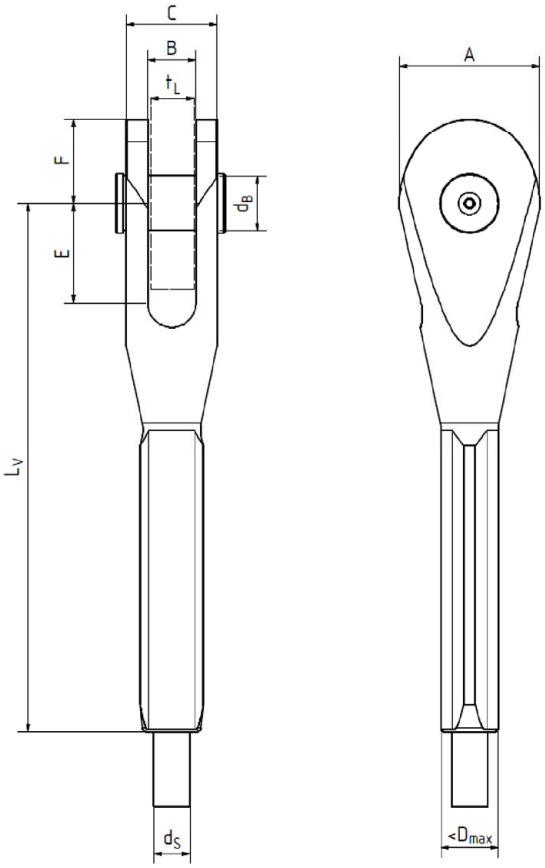
Size Größe	ds mm	Dmax mm	M mm	Lg mm	~Lv mm
PG 5	8,1	16	14	56	140
PG 10	10,1	20	16	64	167
PG 15	12,2	25	20	80	205
PG 20	14,1	30	24	96	242
PG 25	17,0	34	27	108	283
PG 40	20,1	40	30	120	325
PG 55	24,4	49	36	144	392
PG 75	28,3	57	42	168	456
PG 90	31,3	64	48	192	511
PG 125	36,3	71	56	224	592

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting Type 988
Gewindefitting Typ 988

Annex E4
Anhang E4

Deutsches Institut für Bautechnik DIBt



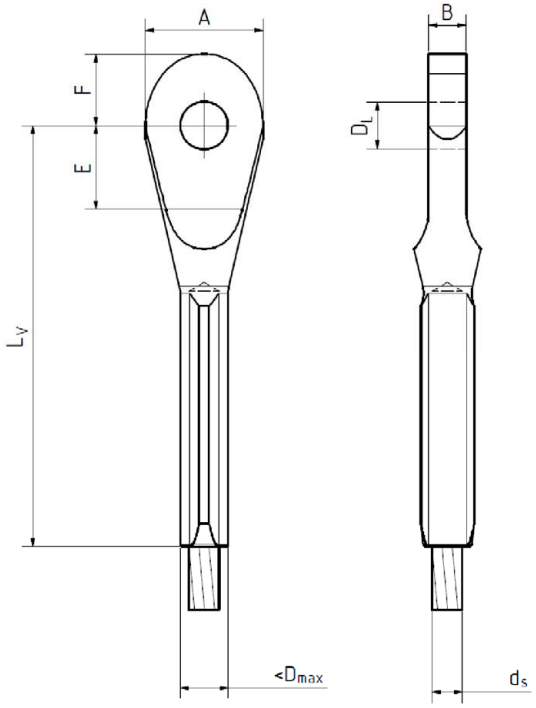
d_B = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	C mm	Dmax mm	dB mm	E mm	F mm	tL mm	~Lv mm
PE 3	6,1	25	10,5	18	13	9	18	15	8	99
PE 5	8,1	32	12,5	23	15	12	24	20	10	127
PE 7	10,1	40	14,5	27	20	15	29	24	12	153
PE 10	11,9	50	17,5	33	22	19	35	30	15	187
PE 15	14,1	57	20,5	38	26	22	41	35	18	218
PE 20	16,6	67	22,5	43	30	25	48	41	20	253
PE 30	20,5	80	28,0	52	39	30	59	48	25	303
PE 45	24,1	96	28,0	58	44	34	66	57	25	375
PE 60	28,6	110	33,0	68	51	40	77	67	30	415
PE 75	32,1	117	38,0	76	59	45	84	71	35	458
PE 100	36,6	142	49,0	92	65	55	102	86	45	535

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Swaged Fitting Type 981
Gabelfitting Typ 981

Annex F1
Anhang F1

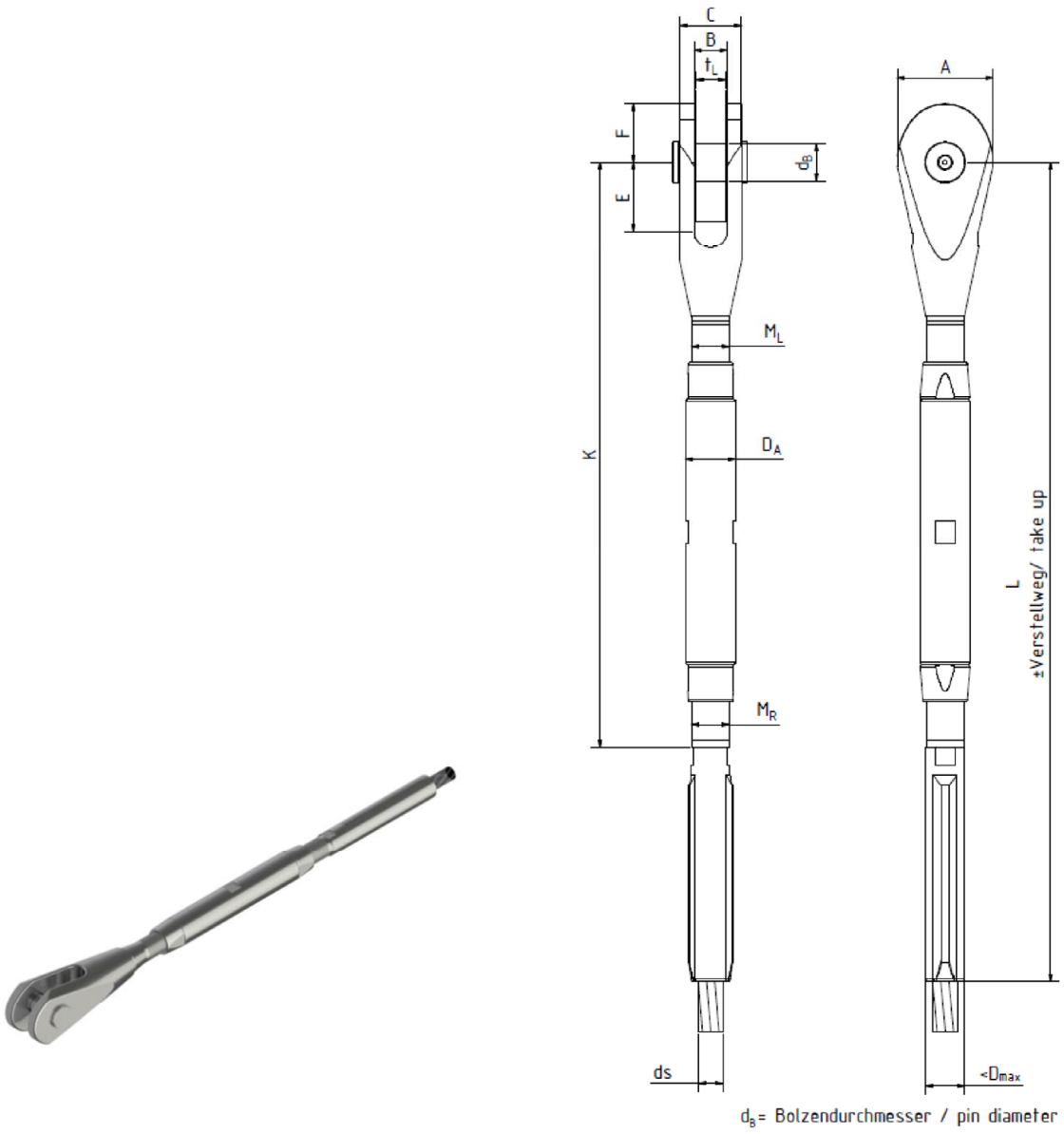


Size Größe	ds mm	A mm	B mm	Dmax mm	DL mm	E mm	F mm	~Lv mm
PE 3	6,1	25	8	13	11	18	15	85
PE 5	8,1	32	10	15	14	24	20	118
PE 7	10,1	40	12	20	16	29	24	140
PE 10	11,9	50	15	22	20	35	30	178
PE 15	14,1	57	18	26	23	41	35	203
PE 20	16,6	67	20	30	27	48	41	230
PE 30	20,5	80	25	39	32	59	48	283
PE 45	24,1	96	25	44	37	66	57	337
PE 60	28,6	110	30	51	43	77	67	391
PE 75	32,1	117	35	59	48	84	71	437
PE 100	36,6	142	45	65	57	102	86	508

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Closed Swaged Fitting Type 983
Ösenfitting Typ 983

Annex F2
Anhang F2



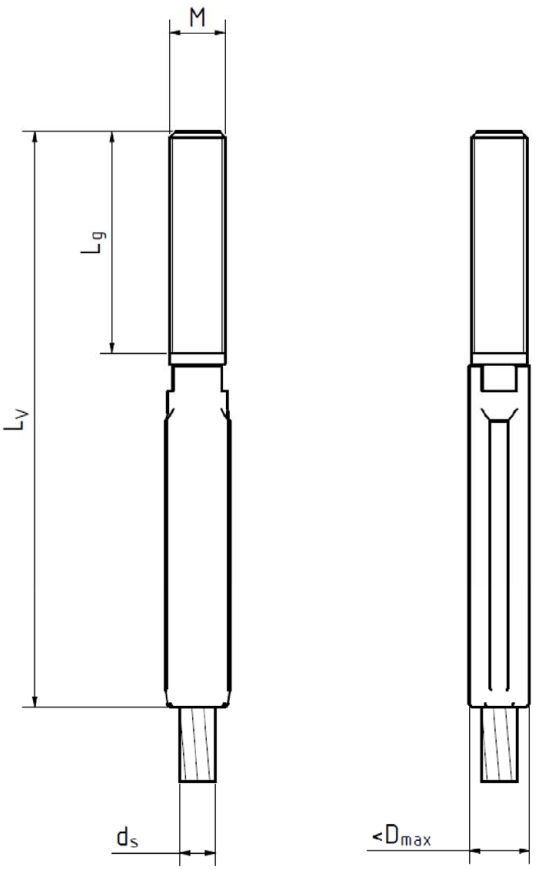
Size Größe	ds mm	A mm	B mm	C mm	DA mm	Dmax mm	dB mm	E mm	F mm	M mm	tL min mm	~L mm	take up Verstellweg ± mm	K mm
PE 3	6,1	25	10,5	18	14	13	9	18	15	10	8	225	20	165
PE 5	8,1	32	12,5	23	18,0	15	12	24	20	14	10	294	28	216
PE 7	10,1	40	14,5	27	22	20	15	29	24	16	12	353	32	255
PE 10	11,9	50	17,5	33	27	22	19	35	30	20	15	427	40	310
PE 15	14,1	57	20,5	38	32	26	22	41	35	24	18	503	48	367
PE 20	16,6	67	22,5	43	37	30	25	48	41	27	20	575	54	420
PE 30	20,5	80	28,0	52	42	39	30	59	48	30	25	680	60	484
PE 45	24,1	96	28,0	58	49	44	34	66	57	36	25	816	72	583
PE 60	28,6	110	33,0	68	59	51	40	77	67	42	30	927	84	656
PE 75	32,1	117	38,0	76	64	59	45	84	71	48	35	1047	96	736
PE 100	36,6	142	49,0	92	74	65	55	102	86	56	45	1215	112	868

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Open Swaged Fitting Type 985
Gabelstellschloss Typ 985

Annex F3
Anhang F3

Deutsches Institut für Bautechnik DIBt



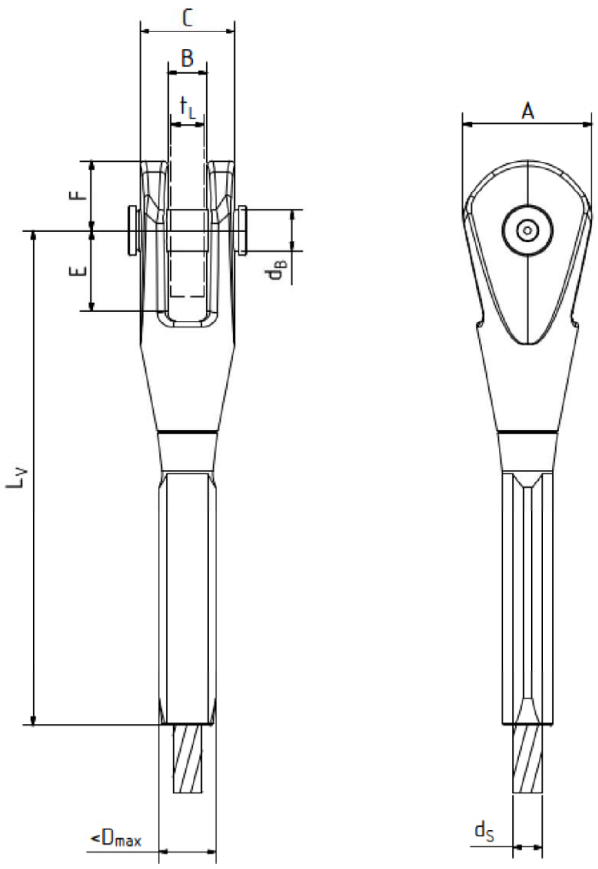
Size Größe	ds mm	M mm	Dmax mm	Lg mm	~Lv mm
PE 3	6,1	10	13	40	103
PE 5	8,1	14	15	56	138
PE 7	10,1	16	20	64	166
PE 10	11,9	20	22	80	202
PE 15	14,1	24	26	96	238
PE 20	16,6	27	30	108	269
PE 30	20,5	30	39	120	323
PE 45	24,1	36	44	144	385
PE 60	28,6	42	51	168	448
PE 75	32,1	48	59	192	513
PE 100	36,6	56	65	224	582

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting Type 989
Gewindefitting Typ 989

Annex F4
Anhang F4

Deutsches Institut für Bautechnik DIBt



d_B = Bolzendurchmesser / pin diameter

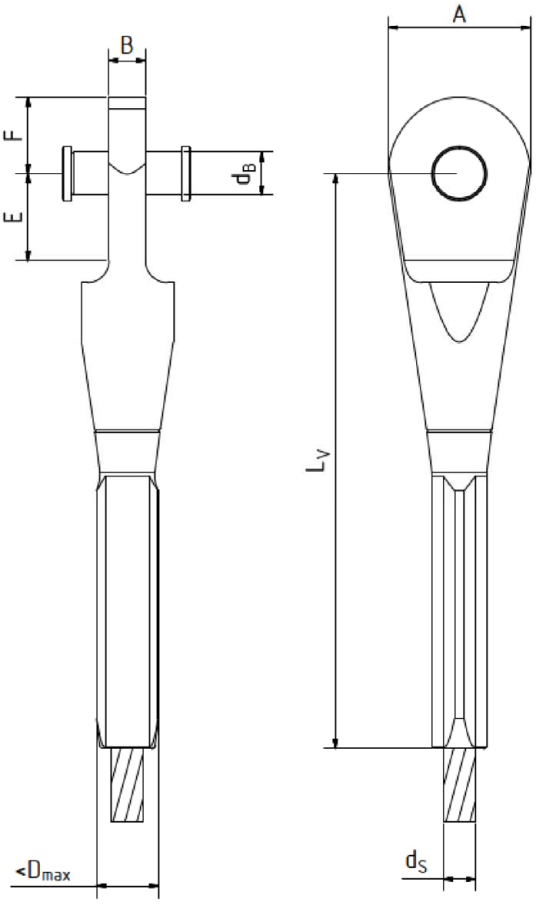
Size Größe	ds mm	A mm	B mm	C mm	dB mm	Dmax mm	E mm	F mm	tL mm	~Lv mm
PG 008	5,5	26,0	10,0	21,0	8	13	18,5	14,5	8,0	97,0
PG 010	7,0	32,0	12,0	25,6	10	15	22,5	17,5	10,0	120,0
PG 012	8,4	38,5	14,0	31,0	12	16	27,5	21,5	12,0	148,0
PG 014	9,9	47,0	17,0	36,0	14	20	32,0	26,0	15,0	174,0
PG 016	11,5	53,0	18,0	40,0	16	22	37,0	29,0	15,0	198,0
PG 020	14,5	66,0	23,0	51,0	20	30	45,0	35,0	20,0	245,0
PG 024	17,4	77,0	23,5	56,5	24	34	54,0	42,0	20,0	295,0
PG 027	19,8	87,5	23,5	61,5	27	39	60,0	48,0	20,0	334,0
PG 030	21,9	98,0	28,5	70,5	30	44	65,0	53,0	25,0	366,0
PG 036	26,4	115,0	28,5	79,5	36	50	76,0	62,0	25,0	442,0
PG 042	30,9	133,0	34,0	94,0	42	59	86,0	72,0	30,0	515,0
PG 048	35,4	151,0	39,0	108,0	48	66	96,0	82,0	35,0	583,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Swaged Fitting Type 620
Gabelfitting Typ 620

Annex G1
Anhang G1

Deutsches Institut für Bautechnik DIBt



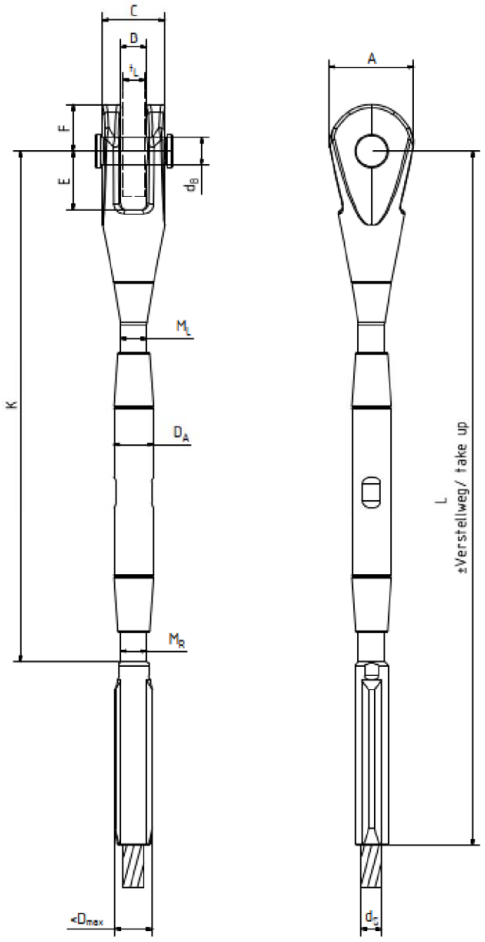
d_B = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	dB mm	Dmax mm	E mm	F mm	~Lv mm
PG 008	5,5	25	8	8	13	16,5	14,5	104,0
PG 010	7,0	31	10	10	15	20,5	17,5	129,0
PG 012	8,4	38	12	12	16	24,5	21,5	158,0
PG 014	9,9	45	15	14	20	29,0	26,0	187,0
PG 016	11,5	53	15	16	22	33,0	29,0	211,0
PG 020	14,5	66	20	20	30	40,0	35,0	261,5
PG 024	17,4	78	20	24	34	48,0	42,0	316,0
PG 027	19,8	88	20	27	39	54,0	48,0	358,5
PG 030	21,9	98	25	30	44	59,0	53,0	392,0
PG 036	26,4	115	25	36	50	66,0	62,0	472,5
PG 042	30,9	135	30	42	59	78,0	72,0	553,5
PG 048	35,4	153	35	48	66	87,0	82,0	626,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Closed Swaged Fitting Type 622
Ösenfitting Typ 622

Annex G2
Anhang G2



d_S = Bolzendurchmesser / pin diameter

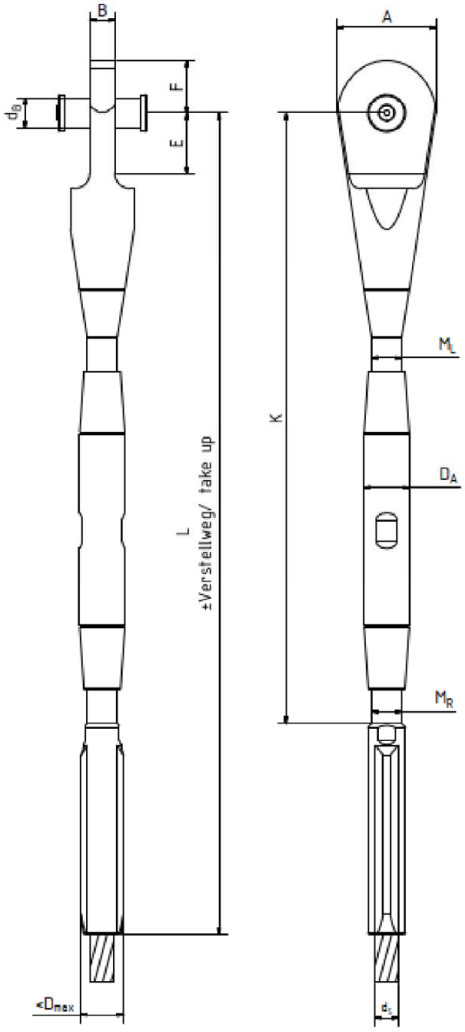
Size Größe	ds mm	A mm	B mm	C mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	tL mm	~L mm	take up Verstellweg mm	K mm
PG 008	5,5	26,0	10,0	21,0	12,0	8	13	18,5	14,5	8	8	217	18	163,5
PG 010	7,0	32,0	12,0	25,6	15,0	10	15	22,5	17,5	10	10	268	22	200,0
PG 012	8,4	38,5	14,0	31,0	18,0	12	16	27,5	21,5	12	12	319	26	237,5
PG 014	9,9	47,0	17,0	36,0	21,0	14	20	32,0	26,0	14	15	380	30	282,5
PG 016	11,5	53,0	18,0	40,0	24,0	16	22	37,0	29,0	16	15	423	34	311,0
PG 020	14,5	66,0	23,0	51,0	30,0	20	30	45,0	35,0	20	20	531	42	390,5
PG 024	17,4	77,0	23,5	56,5	36,0	24	34	54,0	42,0	24	20	632	50	464,0
PG 027	19,8	87,5	23,5	61,5	40,5	27	39	60,0	48,0	27	20	709,5	56	517,0
PG 030	21,9	98,0	28,5	70,5	45,0	30	44	65,0	53,0	30	25	792	64	580,5
PG 036	26,4	115,0	28,5	79,5	54,0	36	50	76,0	62,0	36	25	941	76	686,5
PG 042	30,9	133,0	34,0	94,0	63,0	42	59	86,0	72,0	42	30	1095	88	796,5
PG 048	35,4	151,0	39,0	108,0	72,0	48	66	96,0	82,0	48	35	1246	100	906,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Open Swaged Fitting Type 624
Gabelstellschloss Typ 624

Annex G3
Anhang G3

Deutsches Institut für Bautechnik DIBt



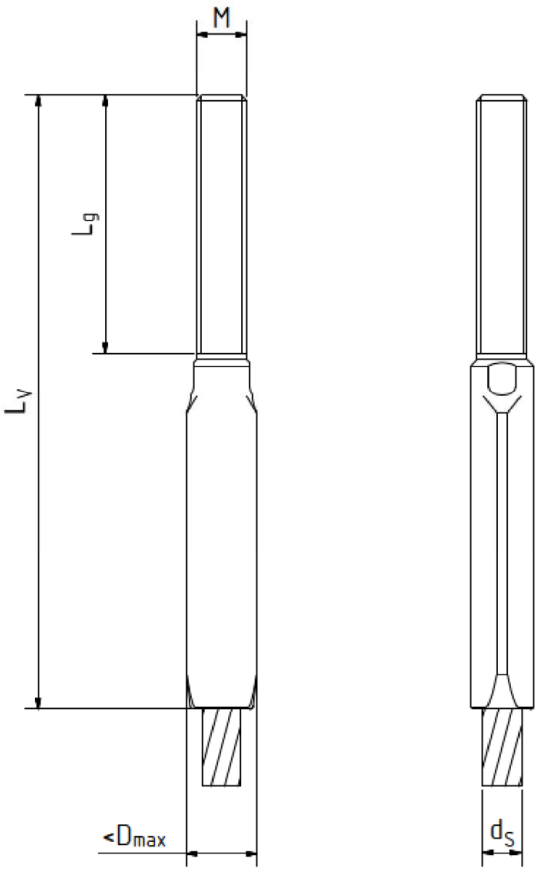
ds = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	~L mm	take up Verstellweg mm	K mm
PG 008	5,5	25	8	12,0	8	13	16,5	14,5	8	224,0	18	170,5
PG 010	7,0	31	10	15,0	10	15	20,5	17,5	10	277,0	22	209,0
PG 012	8,4	38	12	18,0	12	16	24,5	21,5	12	329,0	26	247,5
PG 014	9,9	45	15	21,0	14	20	29,0	26,0	14	392,5	30	295,5
PG 016	11,5	53	15	24,0	16	22	33,0	29,0	16	436,0	34	324,0
PG 020	14,5	66	20	30,0	20	30	40,0	35,0	20	548,5	42	407,5
PG 024	17,4	78	20	36,0	24	34	48,0	42,0	24	653,0	50	485,0
PG 027	19,8	88	20	40,5	27	39	54,0	48,0	27	734,5	56	542,0
PG 030	21,9	98	25	45,0	30	44	59,0	53,0	30	818,0	64	606,5
PG 036	26,4	115	25	54,0	36	50	66,0	62,0	36	972,0	76	717,5
PG 042	30,9	135	30	63,0	42	59	78,0	72,0	42	1134,0	88	835,5
PG 048	35,4	153	35	72,0	48	66	87,0	82,0	48	1289,0	100	949,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Closed Swaged Fitting Type 626
Ösenstellschloss Typ 626

Annex G4
Anhang G4



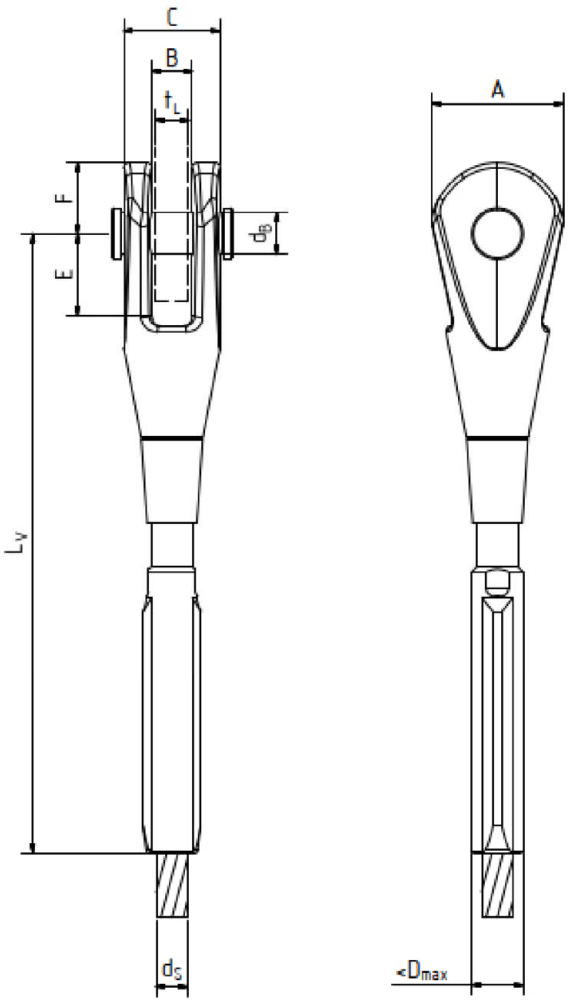
Size Größe	ds **mm**	Dmax **mm**	M **mm**	Lg **mm**	~Lv **mm**
PG 008	5,5	13	8	44,0	99
PG 010	7,0	15	10	53,5	123
PG 012	8,4	16	12	63,0	147
PG 014	9,9	20	14	75,5	175
PG 016	11,5	22	16	83,0	197
PG 020	14,5	30	20	104,5	248
PG 024	17,4	34	24	124,0	295
PG 027	19,8	39	27	137,5	333
PG 030	21,9	44	30	155,0	370
PG 036	26,4	50	36	183,5	442
PG 042	30,9	59	42	214,0	517
PG 048	35,4	66	48	244,0	589

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting Type 628
Gewindefitting Typ 628

Annex G5
Anhang G5

Deutsches Institut für Bautechnik DIBt



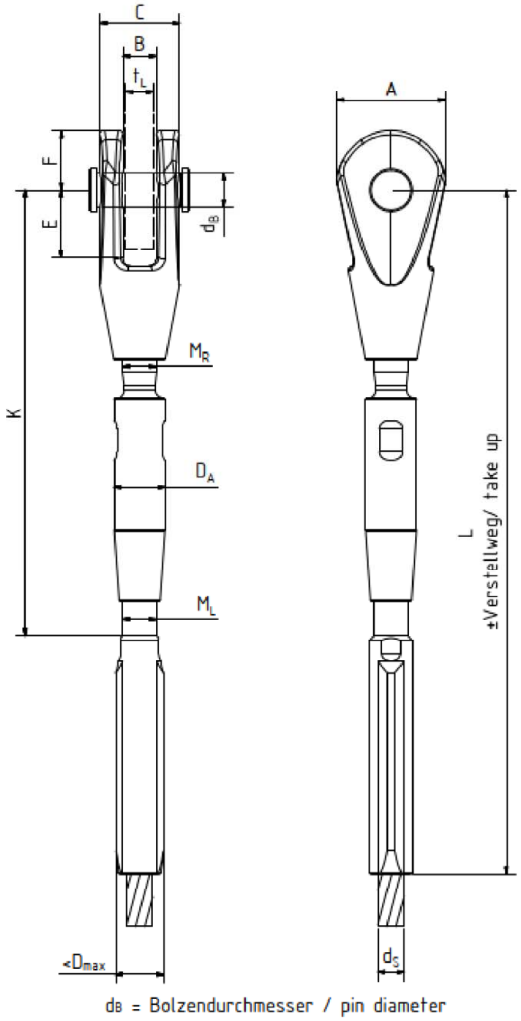
d_B = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	C mm	dB mm	Dmax mm	E mm	F mm	tL mm	~L_V mm	take up Verstellweg mm
PG 008	5,5	26,0	10,0	21,0	8	13	18,5	14,5	8	122,0	4,5
PG 010	7,0	32,0	12,0	25,6	10	15	22,5	17,5	10	151,0	5,5
PG 012	8,4	38,5	14,0	31,0	12	16	27,5	21,5	12	181,0	6,5
PG 014	9,9	47,0	17,0	36,0	14	20	32,0	26,0	15	216,0	9,0
PG 016	11,5	53,0	18,0	40,0	16	22	37,0	29,0	15	243,0	9,0
PG 020	14,5	66,0	23,0	51,0	20	30	45,0	35,0	20	305,0	11,5
PG 024	17,4	77,0	23,5	56,5	24	34	54,0	42,0	20	363,0	14,0
PG 027	19,8	87,5	23,5	61,5	27	39	60,0	48,0	20	409,0	16,0
PG 030	21,9	98,0	28,5	70,5	30	44	65,0	53,0	25	453,0	17,5
PG 036	26,4	115,0	28,5	79,5	36	50	76,0	62,0	25	539,0	21,0
PG 042	30,9	133,0	34,0	94,0	42	59	86,0	72,0	30	628,0	25,0
PG 048	35,4	151,0	39,0	108,0	48	66	96,0	82,0	35	713,5	28,5

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting with Fork End Type 632
Gewindefitting mit Gabelkopf Typ 632

Annex G6
Anhang G6



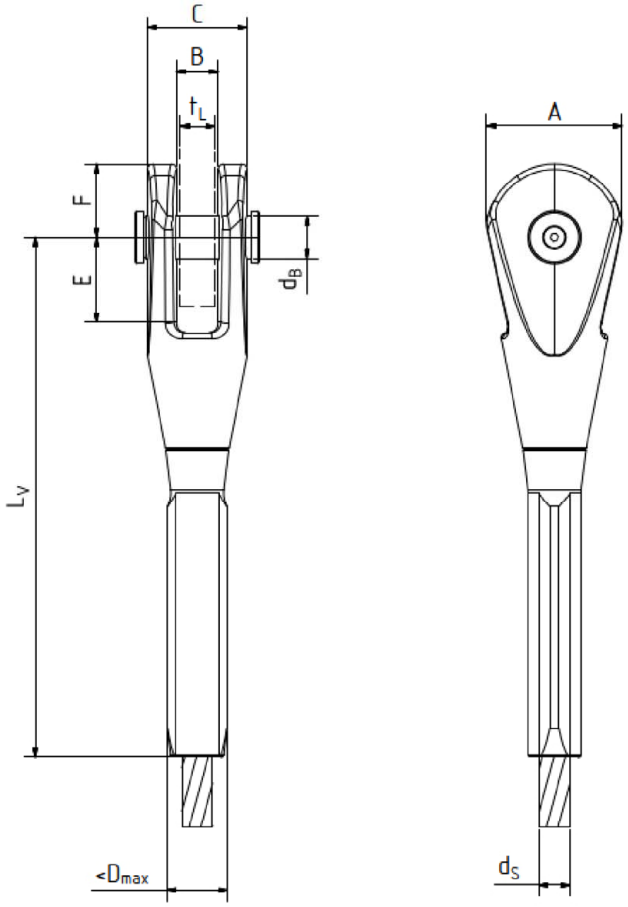
dB = Bolzendurchmesser / pin diameter

Size Größe	ds mm	A mm	B mm	C mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	tL mm	~L mm	take up Verstellweg mm	K mm
PG 008	5,5	26,0	10,0	21,0	12,0	8	13	18,5	14,5	8	8	164,0	9,0	110,5
PG 010	7,0	32,0	12,0	25,6	15,0	10	15	22,5	17,5	10	10	203,0	11,0	135,0
PG 012	8,4	38,5	14,0	31,0	18,0	12	16	27,5	21,5	12	12	244,0	13,0	162,5
PG 014	9,9	47,0	17,0	36,0	21,0	14	20	32,0	26,0	14	15	290,5	18,0	193,5
PG 016	11,5	53,0	18,0	40,0	24,0	16	22	37,0	29,0	16	15	323,0	18,0	210,5
PG 020	14,5	66,0	23,0	51,0	30,0	20	30	45,0	35,0	20	20	405,0	23,0	264,0
PG 024	17,4	77,0	23,5	56,5	36,0	24	34	54,0	42,0	24	20	483,0	28,0	315,0
PG 027	19,8	87,5	23,5	61,5	40,5	27	39	60,0	48,0	27	20	542,0	32,0	349,5
PG 030	21,9	98,0	28,5	70,5	45,0	30	43	65,0	53,0	30	25	602,0	35,0	390,5
PG 036	26,4	115,0	28,5	79,5	54,0	36	50	76,0	62,0	36	25	704,0	42,0	449,5
PG 042	30,9	133,0	34,0	94,0	63,0	42	59	86,0	72,0	42	30	821,0	50,0	522,5
PG 048	35,4	151,0	39,0	108,0	72,0	48	66	96,0	82,0	48	35	933,0	57,0	593,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting with Adapter Type 634
Gewindefitting mit Adapter Typ 634

Annex G7
Anhang G7



d_B = Bolzendurchmesser / pin diameter

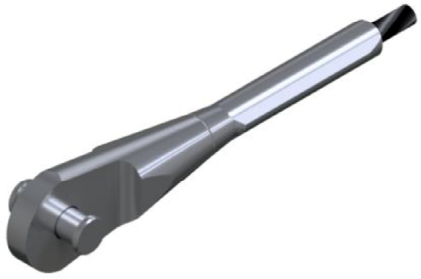
Size Größe	ds mm	A mm	B mm	C mm	dB mm	Dmax mm	E mm	F mm	tL mm	~Lv mm
PE 008	6,3	26,0	10,0	21,0	8	13	18,5	14,5	8,0	103,0
PE 010	7,9	32,0	12,0	25,6	10	15	22,5	17,5	10,0	127,0
PE 012	9,5	38,5	14,0	31,0	12	16	27,5	21,5	12,0	156,0
PE 014	11,2	47,0	17,0	36,0	14	20	32,0	26,0	15,0	182,0
PE 016	13,0	53,0	18,0	40,0	16	22	37,0	29,0	15,0	208,0
PE 020	16,3	66,0	23,0	51,0	20	30	45,0	35,0	20,0	256,0
PE 024	19,5	77,0	23,5	56,5	24	34	54,0	42,0	20,0	308,0
PE 027	22,2	87,5	23,5	61,5	27	39	60,0	48,0	20,0	349,0
PE 030	24,7	98,0	28,5	70,5	30	43	65,0	53,0	25,0	387,0
PE 036	29,8	115,0	28,5	79,5	36	50	76,0	62,0	25,0	464,0
PE 042	34,9	133,0	34,0	94,0	42	59	86,0	72,0	30,0	537,0

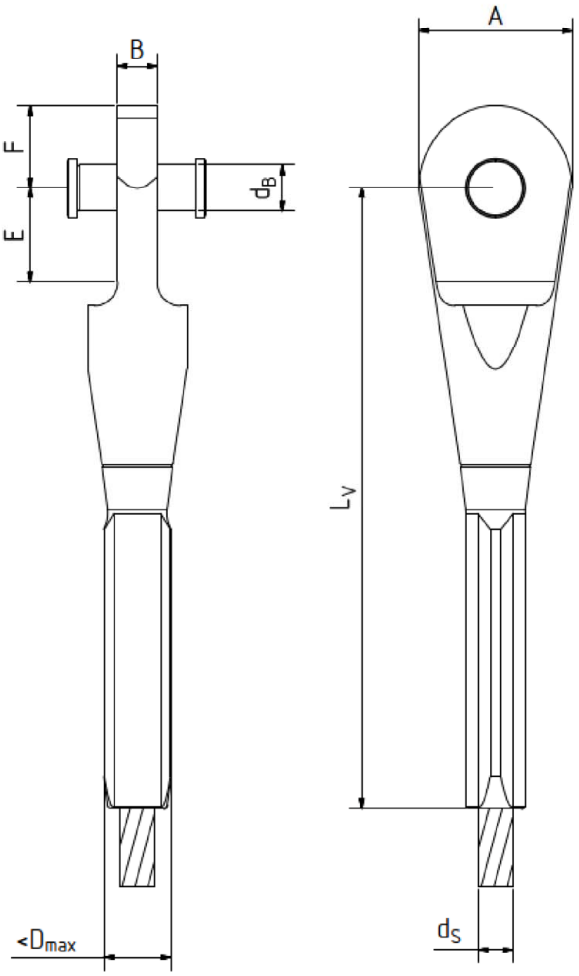
PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Open Swaged Fitting Type 621
Gabelfitting Typ 621

Annex H1
Anhang H1

Deutsches Institut für Bautechnik DIBt



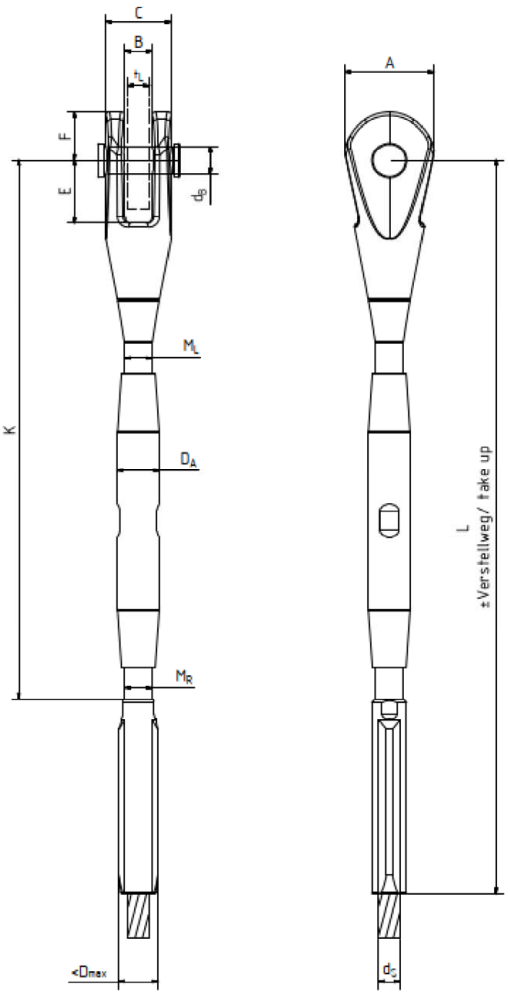


Size Größe	ds mm	A mm	B mm	dB mm	Dmax mm	E mm	F mm	~Lv mm
PE 008	6,3	25,0	8	8	13	16,5	14,5	110,0
PE 010	7,9	31,0	10	10	15	20,5	17,5	136,0
PE 012	9,5	38,0	12	12	16	24,5	21,5	166,0
PE 014	11,2	45,0	15	14	20	29,0	26,0	195,0
PE 016	13,0	53,0	20	16	22	33,0	29,0	221,0
PE 020	16,3	66,0	20	20	30	40,0	35,0	272,5
PE 024	19,5	78,0	20	24	34	48,0	42,0	329,0
PE 027	22,2	88,0	20	27	39	54,0	48,0	373,5
PE 030	24,7	98,0	25	30	43	59,0	53,0	413,0
PE 036	29,8	115,0	25	36	50	66,0	62,0	494,5
PE 042	34,9	135,0	30	42	59	78,0	72,0	579,5

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Closed Swaged Fitting Type 623
Ösenfitting Typ 623

Annex H2
Anhang H2



dB = Bolzendurchmesser / pin diameter

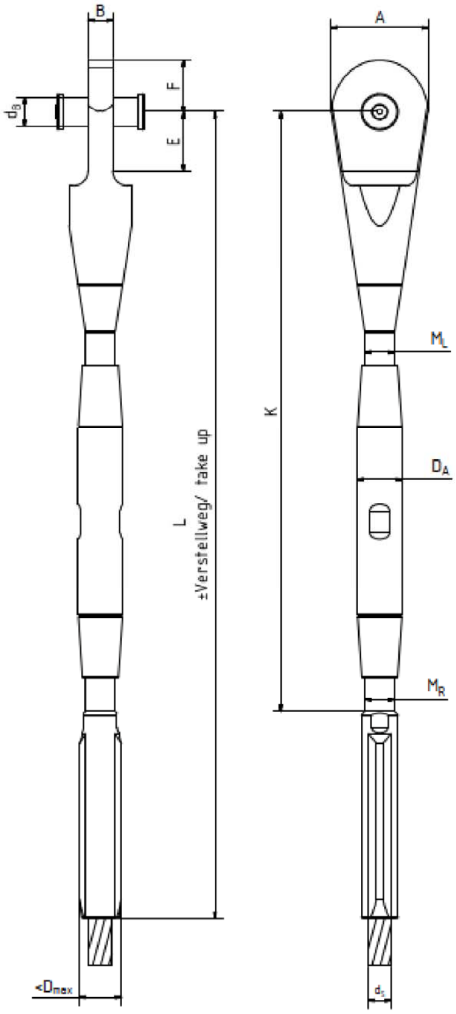
Size Größe	ds mm	A mm	B mm	C mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	tL mm	~L mm	take up Verstellweg mm	K mm
PE 008	6,3	26,0	10,0	21,0	12,0	8	13	18,5	14,5	8	8,0	223,0	18	163,5
PE 010	7,9	32,0	12,0	25,6	15,0	10	15	22,5	17,5	10	10,0	275,0	22	200,0
PE 012	9,5	38,5	14,0	31,0	18,0	12	16	27,5	21,5	12	12,0	327,0	26	237,5
PE 014	11,2	47,0	17,0	36,0	21,0	14	20	32,0	26,0	14	15,0	388,0	30	282,5
PE 016	13,0	53,0	18,0	40,0	24,0	16	22	37,0	29,0	16	15,0	433,0	34	311,0
PE 020	16,3	66,0	23,0	51,0	30,0	20	30	45,0	35,0	20	20,0	542,0	42	390,5
PE 024	19,5	77,0	23,5	56,5	36,0	24	34	54,0	42,0	24	20,0	645,0	50	464,0
PE 027	22,2	87,5	23,5	61,5	40,5	27	39	60,0	48,0	27	20,0	724,5	56	517,0
PE 030	24,7	98,0	28,5	70,5	45,0	30	43	65,0	53,0	30	25,0	813,0	64	580,5
PE 036	29,8	115,0	28,5	79,5	54,0	36	50	76,0	62,0	36	25,0	963,0	76	686,5
PE 042	34,9	133,0	34,0	94,0	63,0	42	59	86,0	72,0	42	30,0	1121,0	88	796,5

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable open Swaged Fitting Type 625
Gabelstellschloss Typ 625

Annex H3
Anhang H3

Deutsches Institut für Bautechnik DIBt



ds = Bolzendurchmesser / pin diameter

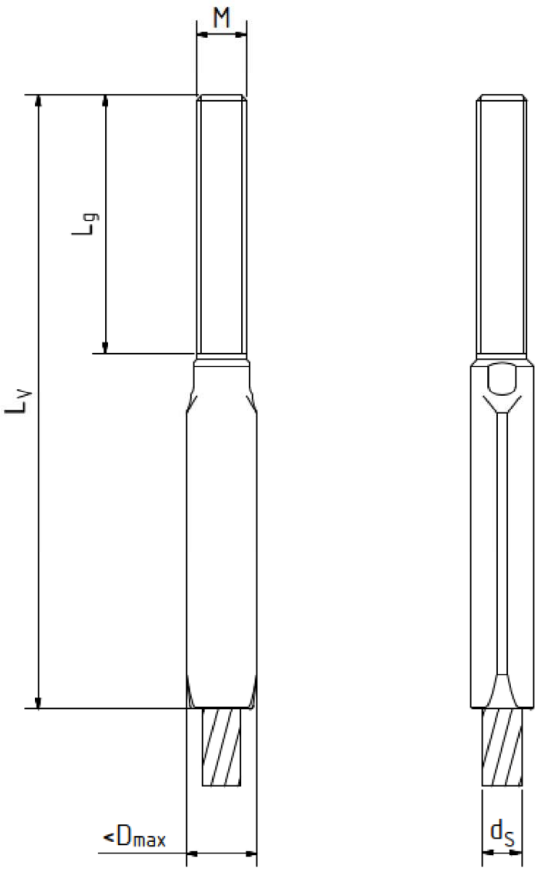
Size Größe	ds mm	A mm	B mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	~L mm	take up Verstellweg mm	K mm
PE 008	6,3	25,0	8,0	12,0	8	13	16,5	14,5	8	230	18	170,5
PE 010	7,9	31,0	10,0	15,0	10	15	20,5	17,5	10	284	22	209,0
PE 012	9,5	38,0	12,0	18,0	12	16	24,5	21,5	12	337	26	247,5
PE 014	11,2	45,0	15,0	21,0	14	20	29,0	26,0	14	400,5	30	295,5
PE 016	13,0	53,0	15,0	24,0	16	22	33,0	29,0	16	446	34	324,0
PE 020	16,3	66,0	20,0	30,0	20	30	40,0	35,0	20	559,5	42	407,5
PE 024	19,5	78,0	20,0	36,0	24	34	48,0	42,0	24	666	50	485,0
PE 027	22,2	88,0	20,0	40,5	27	39	54,0	48,0	27	749,5	56	542,0
PE 030	24,7	98,0	25,0	45,0	30	43	59,0	53,0	30	839	64	606,5
PE 036	29,8	115,0	25,0	54,0	36	50	66,0	62,0	36	994	76	717,5
PE 042	34,9	135,0	30,0	63,0	42	59	78,0	72,0	42	1160	88	835,5

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Adjustable Closed Swaged Fitting Type 627
Ösenstellschloss Typ 627

Annex H4
Anhang H4

Deutsches Institut für Bautechnik DIBt



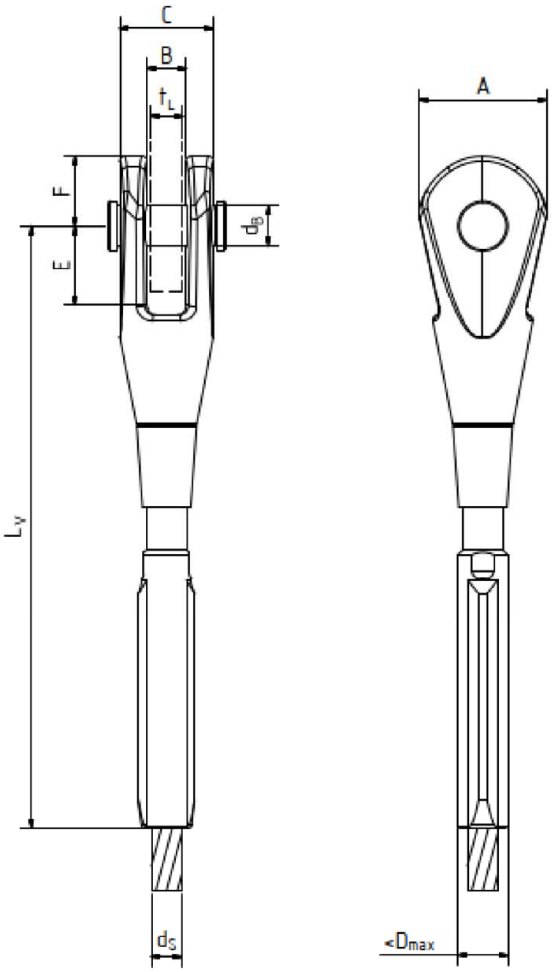
Size Größe	ds mm	Dmax mm	M mm	Lg mm	~Lv mm
PE 008	6,3	13	8	44,0	105
PE 010	7,9	15	10	53,5	130
PE 012	9,5	16	12	63,0	155
PE 014	11,2	20	14	75,5	183
PE 016	13,0	22	16	83,0	207
PE 020	16,3	30	20	104,5	259
PE 024	19,5	34	24	124,0	308
PE 027	22,2	39	27	137,5	348
PE 030	24,7	43	30	155,0	391
PE 036	29,8	50	36	183,5	464
PE 042	34,9	59	42	214,0	543

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting Type 629
Gewindefitting Typ 629

Annex H5
Anhang H5

Deutsches Institut für Bautechnik DIBt



dB = Bolzendurchmesser / pin diameter

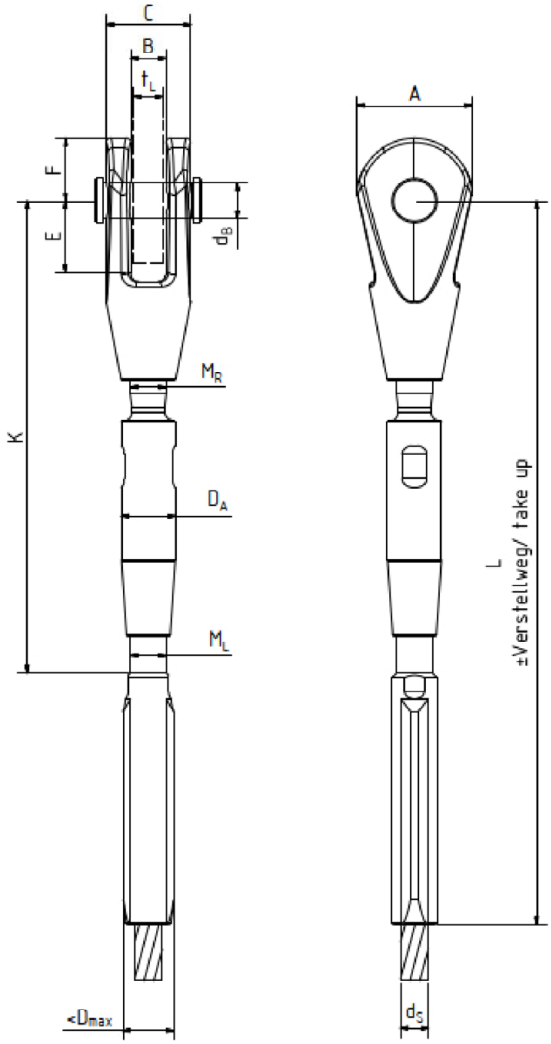
Size Größe	ds mm	A mm	B mm	C mm	dB mm	Dmax mm	E mm	F mm	tL mm	~L_V mm	take up Verstellweg mm
PE 008	6,3	26,0	10,0	21,0	8	13	18,5	14,5	8	122,0	4,5
PE 010	7,9	32,0	12,0	25,6	10	15	22,5	17,5	10	151,0	5,5
PE 012	9,5	38,5	14,0	31,0	12	16	27,5	21,5	12	181,0	6,5
PE 014	11,2	47,0	17,0	36,0	14	20	32,0	26,0	15	216,0	9,0
PE 016	13,0	53,0	18,0	40,0	16	22	37,0	29,0	15	243,0	9,0
PE 020	16,3	66,0	23,0	51,0	20	30	45,0	35,0	20	305,0	11,5
PE 024	19,5	77,0	23,5	56,5	24	34	54,0	42,0	20	363,0	14,0
PE 027	22,2	87,5	23,5	61,5	27	39	60,0	48,0	20	409,0	16,0
PE 030	24,7	98,0	28,5	70,5	30	43	65,0	53,0	25	453,0	17,5
PE 036	29,8	115,0	28,5	79,5	36	50	76,0	62,0	25	539,0	21,0
PE 042	34,9	133,0	34,0	94,0	42	59	86,0	72,0	30	628,0	25,0

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting with Fork End Type 633
Gewindefitting mit Gabelkopf Typ 633

Annex H6
Anhang H6

Deutsches Institut für Bautechnik DIBt



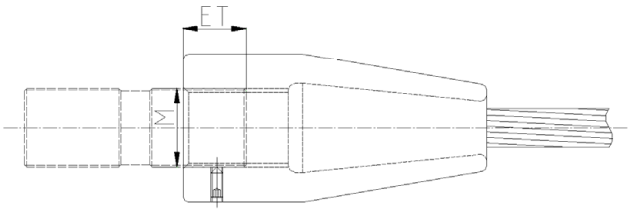
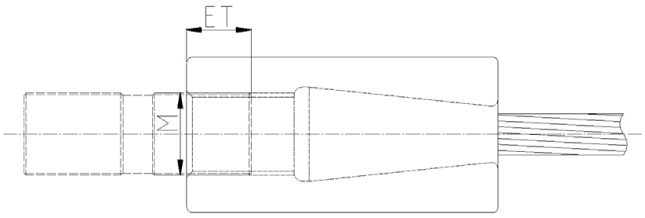
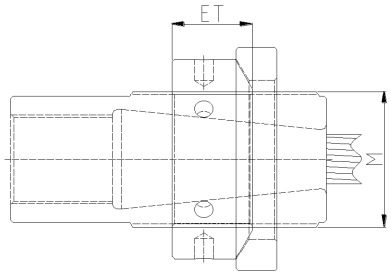
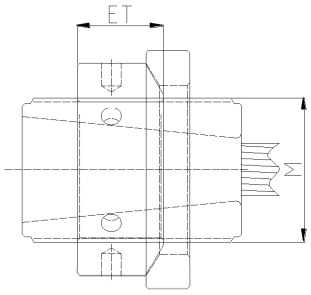
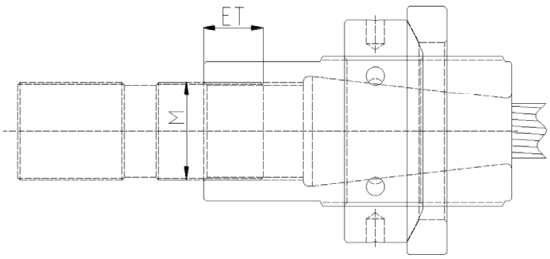
Size Größe	ds mm	A mm	B mm	C mm	DA mm	dB mm	Dmax mm	E mm	F mm	M mm	tL mm	~L mm	take up Verstellweg mm	K mm
PE 008	6,3	26,0	10,0	21,0	12,0	8	13	18,5	14,5	8	8	170,0	9,0	110,5
PE 010	7,9	32,0	12,0	25,6	15,0	10	15	22,5	17,5	10	10	210,0	11,0	135,0
PE 012	9,5	38,5	14,0	31,0	18,0	12	16	27,5	21,5	12	12	252,0	13,0	162,5
PE 014	11,2	47,0	17,0	36,0	21,0	14	20	32,0	26,0	14	15	298,5	18,0	193,5
PE 016	13,0	53,0	18,0	40,0	24,0	16	22	37,0	29,0	16	15	332,5	18,0	210,5
PE 020	16,3	66,0	23,0	51,0	30,0	20	30	45,0	35,0	20	20	416,0	23,0	264,0
PE 024	19,5	77,0	23,5	56,5	36,0	24	34	54,0	42,0	24	20	496,0	28,0	315,0
PE 027	22,2	87,5	23,5	61,5	40,5	27	39	60,0	48,0	27	20	557,0	32,0	349,5
PE 030	24,7	98,0	28,5	70,5	45,0	30	44	65,0	53,0	30	25	623,0	35,0	390,5
PE 036	29,8	115,0	28,5	79,5	54,0	36	50	76,0	62,0	36	25	726,0	42,0	449,5
PE 042	34,9	133,0	34,0	94,0	63,0	42	59	86,0	72,0	42	30	847,0	50,0	522,5

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

Threaded Fitting with Adapter Type 635
Gewindefitting mit Adapter Typ 635

Annex H7
Anhang H7

Deutsches Institut für Bautechnik DIBt

	**Conical socket with internal thread Type 800 with threaded rod material S355** **Konische Vergusshülse mit Innengewinde Typ 800 mit Gewindestange Material S355** **ETmin = 1,0*M**
	**Cylindrical socket with internal thread Type 801 with threaded rod material S355** **Zylindrische Vergusshülse mit Innengewinde Typ 801 mit Gewindestange Material S355** **ETmin = 1,0*M**
	**Cylindrical socket Type 810 with spherical nut / spherical disc Type 813 / 814** **Zylindrische Vergusshülse Typ 810 mit sphärischer Mutter / sphärischer Scheibe Typ 813 / 814** **ETmin = 0,6*M**
	**Cylindrical socket Type 812 with spherical nut / spherical disc Type 813 / 814** **Zylindrische Vergusshülse Typ 812 mit sphärischer Mutter / sphärischer Scheibe Typ 813 / 814** **ETmin = 0,6*M**
	**Only for installation** **Nur für Montage** **Cylindrical socket Type 810 with threaded rod material S355** **Zylindrische Vergusshülse Typ 810 mit Gewindestange Material S355** **ETmin = 1,0*M**

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex I1 Anhang I1
PV Screw-in depths PV Einschraubtiefen	

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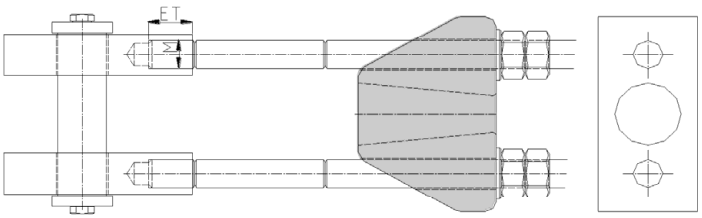
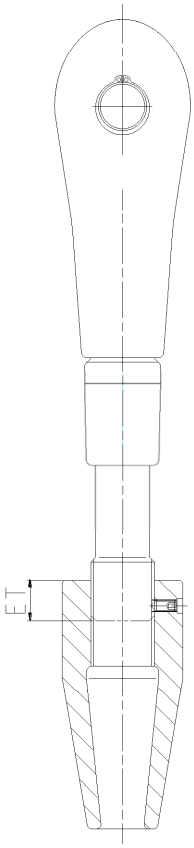


Open bridge socket Type 804
Closed bridge socket Type 803

Vergusshülse mit Augenstab Typ 804
Vergusshülse mit Öse Typ 803

ET = 1,5*M



Conical socket with fork end
Type 864

Konische Vergusshülse
mit Gabelkopf
Typ 864

PV 040: ET min = 27 mm
PV 060: ET min = 33 mm
PV 090: ET min = 41 mm
PV 115: ET min = 47 mm
PV 150: ET min = 47 mm
PV 195: ET min = 53 mm
PV 240: ET min = 59 mm
PV 300: ET min = 67 mm
PV 360: ET min = 73 mm

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex I2 Anhang I2
PV Screw-in depths PV Einschraubtiefen	

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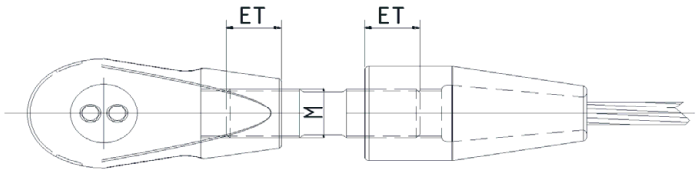
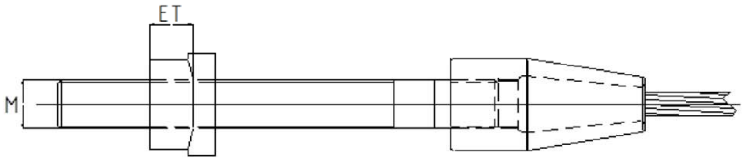
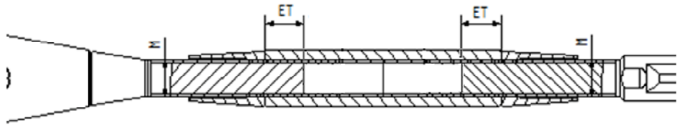
	**Adjustable open spelter socket** **Type 710** **Verstellbare Gabelseilhülse** **Typ 710** **ETmin = 0,6*M**
	**Spherical anchor** **Type 850** **Sphärischer Anker** **Typ 850** **ETmin = 0,9*M**
	**Adjustable open Swaged Fitting** **Type 984 / 985** **Gabelstellschloss** **Typ 984 / 985** **ETmin = 1,0*M**

PFEIFER – Wire Ropes PFEIFER – Seil-Zugglieder	Annex I3 Anhang I3
PV Screw-in depths PV Einschraubtiefen	

Deutsches Institut für Bautechnik DIBt

Size Größe	Nominal diameter of the rope Seil-Nenndurchmesser	Charact. breaking strength F_{uk} Charakteristische Bruchkraft F_{uk}	Design resistance F_{Rd} Bemessungszugkraft F_{Rd}
	mm	**kN**	**kN**
PV 40	21	405	270
PV 60	26	621	414
PV 90	31	916	611
PV 115	35	1170	780
PV 150	40	1520	1013
PV 195	45	1930	1287
PV 240	50	2380	1587
PV 300	55	3020	2013
PV 360	60	3590	2393
PV 420	65	4220	2813
PV 490	70	4890	3260
PV 560	75	5620	3747
PV 640	80	6390	4260
PV 720	85	7210	4807
PV 810	90	8090	5393
PV 910	95	9110	6073
PV 1010	100	10100	6733
PV 1110	105	11100	7400
PV 1220	110	12200	8133
PV 1340	115	13400	8933
PV 1450	120	14500	9667
PV 1580	125	15800	10533
PV 1730	130	17300	11533
PV 1860	135	18600	12400
PV 2000	140	20000	13333
PV 2150	145	21500	14333
PV 2300	150	23000	15333
PV 2450	155	24500	16333
PV 2600	160	26000	17333

sockets of wire rope sizes PV 115 and PV 150 are identical with the exception of type 700 and type 710
die Hülsen der Seilgrößen PV 115 und PV 150 sind mit Ausnahme vom Typ 700 und 710 identisch

All corresponding PV-cable end connectors are designed for the characteristic breaking strengths F_{uk} respectively for the design resistances F_{Rd} shown in the table.

Example:
Cable PV 40 with end connectors Type 700-PV 40, Type 710-PV 40, Type 800-PV 40, Type 801-PV 40, Type 803-PV 40, Type 804-PV 40, Type 810-PV 40, Type 811-PV 40, Type 812-PV 40, Type 813 / 814-PV 40, Type 840-PV 40, Type 850-PV 40 or Type 864-PV 40 is designed for the characteristic breaking strength 405 kN respectively for the design resistance 270 kN.

Alle dazugehörenden PV-Seilendbeschläge sind auf die in der Tabelle angegebenen charakteristischen Bruchkräfte F_{uk} bzw. auf die in der Tabelle angegebenen Bemessungszugkräfte F_{Rd} ausgelegt.

Beispiel:
Seil PV 40 mit den Endbeschlägen und Verbindungsteilen Typ 700-PV 40, Typ 710-PV 40, Typ 800-PV 40, Typ 801-PV 40, Typ 803-PV 40, Typ 804-PV 40, Typ 810-PV 40, Typ 811-PV 40, Typ 812-PV 40, Typ 813 / 814-PV 40, Typ 840-PV 40, Typ 850-PV 40 oder Typ 864-PV 40 ist für eine charakteristische Bruchkraft von 405 kN bzw. für eine Bemessungszugkraft von 270 kN ausgelegt.

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PV Characteristic breaking strengths and design resistances
PV Charakteristische Bruchkräfte und Bemessungszugkräfte

Annex J1
Anhang J1

Deutsches Institut für Bautechnik DIBt

Size Größe	Nominal diameter of the rope Seil-Nenndurchmesser	Charact. breaking strength F_{uk} Charakteristische Bruchkraft F_{uk}	Design resistance F_{Rd} Bemessungszugkraft F_{Rd}
	mm	**kN**	**kN**
PG 5	8,1	59	39
PG 10	10,1	93	62
PG 15	12,2	134	89
PG 20	14,1	181	121
PG 25	17,0	260	173
PG 40	20,1	367	245
PG 55	24,4	537	358
PG 75	28,3	722	481
PG 90	31,3	884	589
PG 125	36,3	1189	793

All corresponding PG-cable end connectors are designed for the characteristic breaking strengths F_{uk} respectively for the design resistances F_{Rd} shown in the table.
Example:
Cable PG 5 with end connectors Type 980-PG 5, Type 982-PG 5, Type 984-PG 5 or Type 988-PG 5 is designed for the characteristic breaking strength 59 kN respectively for the design resistance 39 kN.

Alle dazugehörenden PG-Seilendbeschläge sind auf die in der Tabelle angegebenen charakteristischen Bruchkräfte F_{uk} bzw. auf die in der Tabelle angegebenen Bemessungszugkräfte F_{Rd} ausgelegt.
Beispiel:
Seil PG 5 mit den Endbeschlägen Typ 980-PG 5, Typ 982-PG 5, Typ 984-PG 5 oder Typ 988-PG 5 ist für eine charakteristische Bruchkraft von 59 kN bzw. für eine Bemessungszugkraft von 39 kN ausgelegt.

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PG Characteristic breaking strengths and design resistances
PG Charakteristische Bruchkräfte und Bemessungszugkräfte

Annex J2
Anhang J2

Deutsches Institut für Bautechnik DIBt

Size Größe	Nominal diameter of the rope Seil-Nenndurchmesser	Charact. breaking strength F_{uk} Charakteristische Bruchkraft F_{uk}	Design resistance F_{Rd} Bemessungszugkraft F_{Rd}
	mm	**kN**	**kN**
PE 3	6,1	26	17
PE 5	8,1	47	31
PE 7	10,1	73	49
PE 10	11,9	101	67
PE 15	14,1	141	94
PE 20	16,6	195	130
PE 30	20,5	298	199
PE 45	24,1	409	273
PE 60	28,6	578	385
PE 75	32,1	730	487
PE 100	36,6	945	630

All corresponding PE-cable end connectors are designed for the characteristic breaking strengths F_{uk} respectively for the design resistances F_{Rd} shown in the table.
Example:
Cable PE 3 with end connectors Type 981-PE 3, Type 983-PE 3, Type 985-PE 3 or Type 989-PE 3 is designed for the characteristic breaking strength 26 kN respectively for the design resistance of 17 kN.

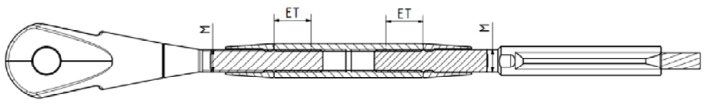
Alle dazugehörenden PE-Seilendbeschläge sind auf die in der Tabelle angegebenen charakteristischen Bruchkräfte F_{uk} bzw. auf die in der Tabelle angegebenen Bemessungszugkräfte F_{Rd} ausgelegt.
Beispiel:
Seil PE 3 mit den Endbeschlägen Typ 981-PE 3, Typ 983-PE 3, Typ 985-PE 3 oder Typ 989-PE 3 ist für eine charakteristische Bruchkraft von 26 kN bzw. für eine Bemessungszugkraft von 17 kN ausgelegt.

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PE Characteristic breaking strengths and design resistances
PE Charakteristische Bruchkräfte und Bemessungszugkräfte

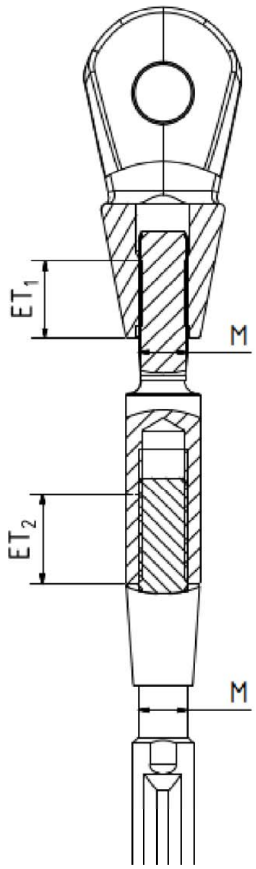
Annex J3
Anhang J3

Deutsches Institut für Bautechnik DIBt



PG UMIX 624
PG UMIX 626
PE UMIX 625
PE UMIX 627

ETmin= 1,05*M



PG UMIX 632
PG UMIX 634
PE UMIX 633
PE UMIX 635

ET_1min=1,33*M

ET_2min= 1,05*M

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PG/PE UMIX Screw-in depths
PG/PE UMIX Einschraubtiefen

Annex K1
Anhang K1

Deutsches Institut für Bautechnik DIBt

Size Größe	Nominal diameter of the rope Seil-Nenndurchmesser	Charact. breaking strength F_{uk} Charakteristische Bruchkraft F_{uk}	Design resistance F_{Rd} Bemessungszugkraft F_{Rd}
	mm	**kN**	**kN**
PG UMIX 008	5,5	28	19
PG UMIX 010	7,0	44	30
PG UMIX 012	8,4	65	43
PG UMIX 014	9,9	89	59
PG UMIX 016	11,5	120	80
PG UMIX 020	14,5	188	125
PG UMIX 024	17,4	270	180
PG UMIX 027	19,8	352	235
PG UMIX 030	21,9	430	286
PG UMIX 036	26,4	626	417
PG UMIX 042	30,9	859	573
PG UMIX 048	35,4	1129	753

All corresponding PG UMIX-cable end connectors are designed for the characteristic breaking strengths F_{uk} respectively for the design resistances F_{Rd} shown in the table.
Example:
Cable PG UMIX 008 with end connectors Type 620-PG UMIX 008, Type 622-PG UMIX 008, Type 624-PG UMIX 008 or Type 634 PG UMIX 008 is designed for the characteristic breaking strength 28 kN respectively for the design resistance 19 kN.

Alle dazugehörenden PG-Seilendbeschläge sind auf die in der Tabelle angegebenen charakteristischen Bruchkräfte F_{uk} bzw. auf die in der Tabelle angegebenen Bemessungszugkräfte F_{Rd} ausgelegt.
Beispiel:
Seil PG UMIX 008 mit den Endbeschlägen Type 620-PG UMIX 008, Type 622-PG UMIX 008, Type 624-PG UMIX 008 oder Type 634 PG UMIX 008 ist für eine charakteristische Bruchkraft von 28 kN bzw. für eine Bemessungszugkraft von 19 kN ausgelegt.

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PG UMIX Characteristic breaking strengths and design resistances
PG UMIX Charakteristische Bruchkräfte und Bemessungszugkräfte

Annex L1
Anhang L1

Deutsches Institut für Bautechnik DIBt

Size Größe	Nominal diameter of the rope Seil-Nenndurchmesser	Charact. breaking strength F_{uk} Charakteristische Bruchkraft F_{uk}	Design resistance F_{Rd} Bemessungszugkraft F_{Rd}
	mm	**kN**	**kN**
PE UMIX 008	6,3	28	19
PE UMIX 010	7,9	44	30
PE UMIX 012	9,5	65	43
PE UMIX 014	11,2	89	59
PE UMIX 016	13,0	120	80
PE UMIX 020	16,3	188	125
PE UMIX 024	19,5	270	180
PE UMIX 027	22,2	352	235
PE UMIX 030	24,7	430	286
PE UMIX 036	29,8	626	417
PE UMIX 042	34,9	859	573

All corresponding PE UMIX-cable end connectors are designed for the characteristic breaking strengths F_{uk} respectively for the design resistances F_{Rd} shown in the table.
Example:
Cable PE UMIX 008 with end connectors Type 621-PE UMIX 008, Type 623-PE UMIX 008, Type 629-PE UMIX 008, Type 633-PE UMIX 008 or Type 635-PE UMIX 008 is designed for the characteristic breaking strength 28 kN respectively for the design resistance of 19 kN.

Alle dazugehörenden PE UMIX-Seilendbeschläge sind auf die in der Tabelle angegebenen charakteristischen Bruchkräfte F_{uk} bzw. auf die in der Tabelle angegebenen Bemessungszugkräfte F_{Rd} ausgelegt.
Beispiel:
Seil PE UMIX 008 mit den Endbeschlägen Type 621-PE UMIX 008, Type 623-PE UMIX 008, Type 629-PE UMIX 008, Type 633-PE UMIX 008 or Type 635-PE UMIX 008 ist für eine charakteristische Bruchkraft von 28 kN bzw. für eine Bemessungszugkraft von 19 kN ausgelegt.

PFEIFER – Wire Ropes
PFEIFER – Seil-Zugglieder

PE UMIX Characteristic breaking strengths and design resistances
PE UMIX Charakteristische Bruchkräfte und Bemessungszugkräfte

Annex L2
Anhang L2