

PFEIFER

PH Reinforcement Connection System

for permanent reinforcement
connections or continuations

planning & installation

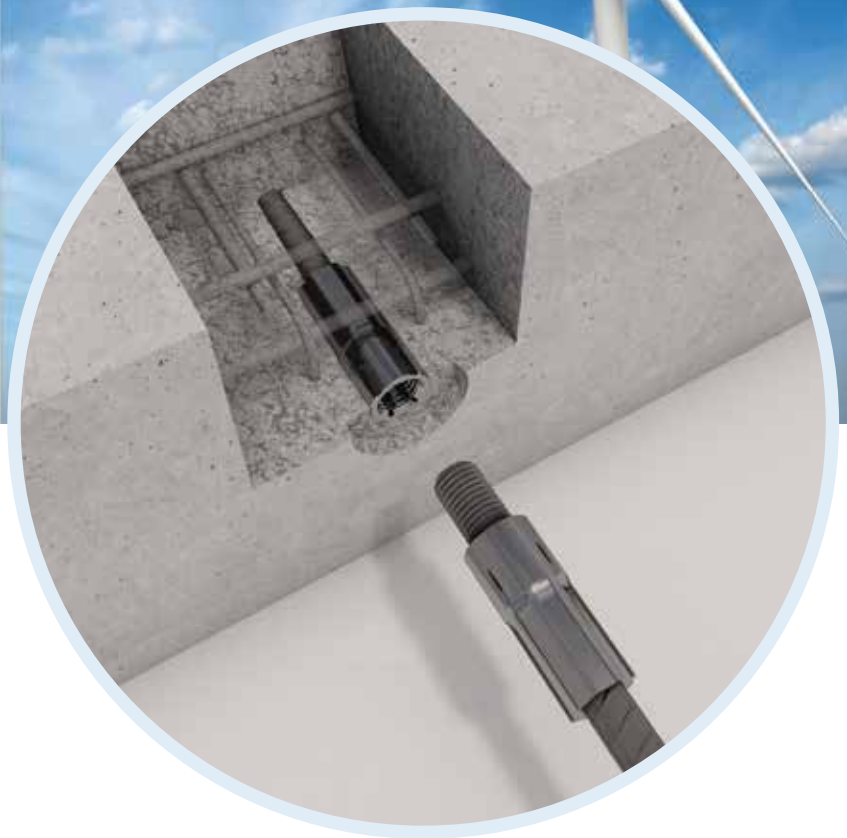


Table of contents/execution types	3
Products	4
Dimensioning	30
Installation	32



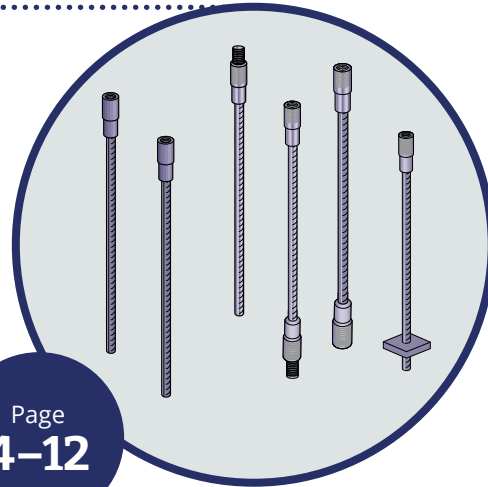
More information online:
PH Reinforcement Connection System

Table of contents/execution types

Products

Female Bars

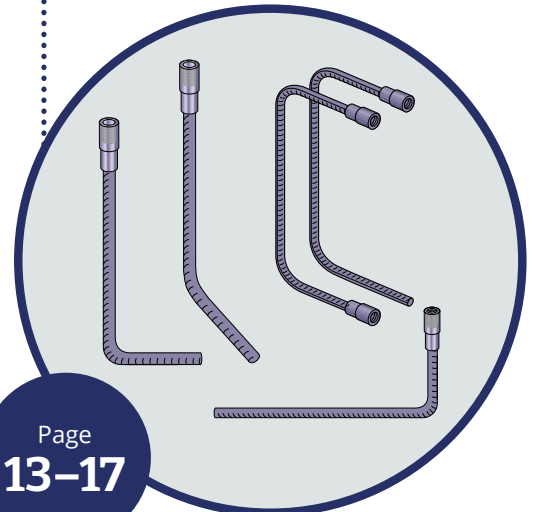
- ▶ Straight Female Bar
- ▶ Female Bar in special length
- ▶ Female Bar with Connection Bolt
- ▶ Female Bar with Connection Bolt in special length
- ▶ Reducing Female Bar
- ▶ Double Female Bar
- ▶ Double Female Bar with Connection Bolt
- ▶ Female Bar with welded anchor plate



Page
4-12

Bent Female Bars

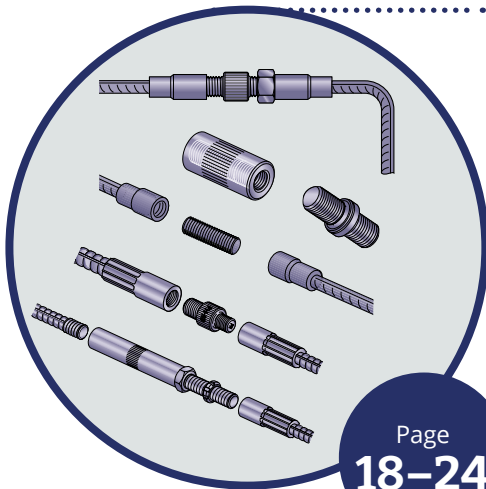
- ▶ Bent Female Bar
- ▶ Hooked Female Bar
- ▶ Female Bar with bent in Special Angle
- ▶ Female Bar as U-shaped Stirrup
- ▶ Double Female Bar as U-shaped Stirrup



Page
13-17

Connecting and reducing elements

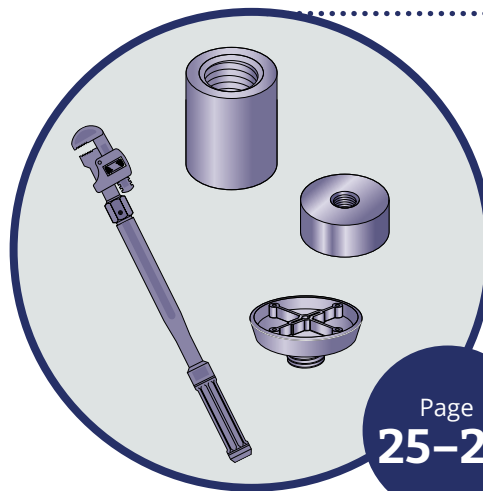
- ▶ Connection Bolt with torque control
- ▶ Connection Bolt
- ▶ Coupling Sleeve
- ▶ Right-left-thread Connection Bolt
- ▶ Reducing Bolt
- ▶ Reducing Socket
- ▶ Positioning Connector



Page
18-24

Adapter

- ▶ Welding Socket
- ▶ End Anchorage Plate
- ▶ Pin Plate PH Nail Plate
- ▶ Torque Wrench



Page
25-29

- ▶ Usability in earthquake zones on demand
- ▶ Practical through realization of safe construction stages – no predruding bars with risk of accidents
- ▶ No drilling of the formwork necessary
- ▶ European Technical Assessment (ETA)

Component recommendation

- ▶ pillar
- ▶ foundations
- ▶ beams
- ▶ downstand beam
- ▶ bridge construction components
- ▶ wind turbine tower

Technical data

- ▶ **material:** black steel

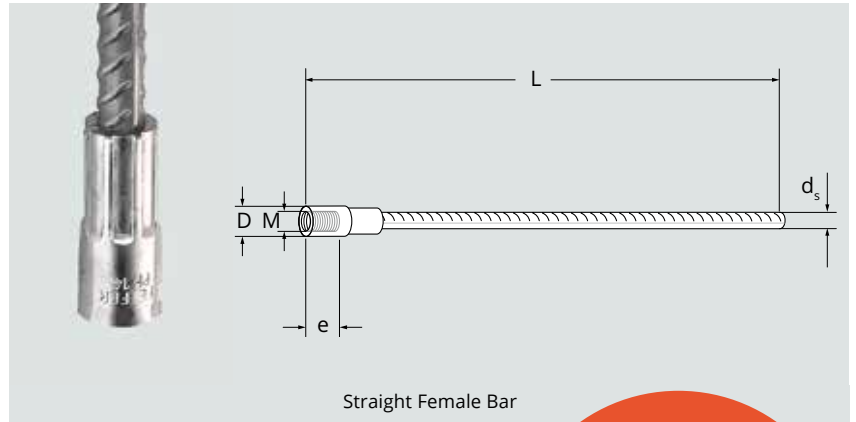
Options on request

- ▶ Other lengths; with left-hand thread (important when using Right-left-thread Connection Bolt); with Reducing Socket; with bending (also in special angles); with angled hook; as U-shaped stirrup; as Double Female Bar (also in U-shaped stirrup or with Connection Bolt, see page 21); with welded anchor plate



Straight Female Bar

- ▶ For screw connection of concrete elements
- ▶ Straight reinforcement bar with pressed-on socket and internal thread is used in combination with connecting or reducing elements and another Female Bar



Notice:
All variants also available with left-hand thread.
Order example:
PH-MU-12/800 LH

Straight Female Bar

Type designation			PH-MU-8/350	PH-MU-8/550	PH-MU-10/400	PH-MU-10/690	PH-MU-12/400	PH-MU-12/570	PH-MU-12/800	PH-MU-12/1500
Diameter concrete steel	d_s	mm	8	8	10	10	12	12	12	12
Total length	L	mm	350	550	400	690	400	570	800	1500
Thread type			M 12	M 12	M 14	M 14	M 16	M 16	M 16	M 16
Screw-in depth	e	mm	15	15	17	17	20	20	20	20
Outer diameter socket	D	mm	16	16	19,2	19,2	22,3	22,3	22,3	22,3
Ref. no.			135178	119055	135179	135181	119056	119057	119058	119059

Pin Plate PH (see page 27)

Colour		black	white	yellow					
Ref. no.		118515	118515	391648	391648	118516	118516	118516	118516

Straight Female Bar

Type designation			PH- MU-14/400	PH- MU-14/660	PH- MU-14/930	PH- MU-14/1500	PH- MU-16/400	PH- MU-16/1020	PH- MU-16/1440	PH- MU-16/2000
Diameter concrete steel	d _s	mm	14	14	14	14	16	16	16	16
Total length	L	mm	400	660	930	1500	400	1020	1440	2000
Thread type			M 18	M 18	M 18	M 18	M 20	M 20	M 20	M 20
Screw-in depth	e	mm	22	22	22	22	24	24	24	24
Outer diameter socket	D	mm	25,5	25,5	25,5	25,5	28,8	28,8	28,8	28,8
Ref. no.			119061	119062	119063	119064	119065	119067	119069	119070

Pin Plate PH (see page 27)

Colour	blue					white				
Ref. no.			118517	118517	118517	118517	118518	118518	118518	118518

Straight Female Bar

Type designation			PH- MU-20/400	PH- MU-20/1280	PH- MU-20/1800	PH- MU-20/3000	PH- MU-25/400	PH- MU-25/1600	PH- MU-25/2260	PH- MU-25/3600
Diameter concrete steel	d _s	mm	20	20	20	20	25	25	25	25
Total length	L	mm	400	1280	1800	3000	400	1600	2260	3600
Thread type			M 24	M 24	M 24	M 24	M 30	M 30	M 30	M 30
Screw-in depth	e	mm	32	32	32	32	40	40	40	40
Outer diameter socket	D	mm	35,3	35,3	35,3	35,3	44,1	44,1	44,1	44,1
Ref. no.			119071	119073	119075	119076	119078	119081	119082	119083

Pin Plate PH (see page 27)

Colour	grey				red					
Ref. no.			118519	118519	118519	118519	118520	118520	118520	118520

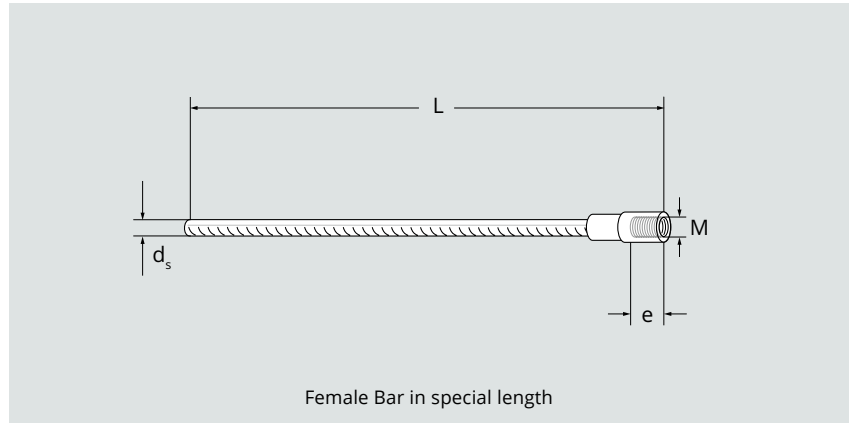
Straight Female Bar

Type designation			PH- MU-28/400	PH- MU-28/1790	PH- MU-28/2530	PH- MU-28/3600	PH- MU-32/2000	PH- MU-32/2900	PH- MU-40/2200	PH- MU-40/3500
Diameter concrete steel	d _s	mm	28	28	28	28	32	32	40	40
Total length	L	mm	400	1790	2530	3600	2000	2900	2200	3500
Thread type			M 36	M 36	M 36	M 36	M 42	M 42	M 52	M 52
Screw-in depth	e	mm	42	42	42	42	52	52	70	70
Outer diameter socket	D	mm	51	51	51	51	55,8	55,8	70	70
Ref. no.			119084	119088	119089	119090	135176	135363	149175	149176

Pin Plate PH (see page 27)

Colour	black				grey		yellow			
Ref. no.			118521	118521	118521	118521	391655	391655	391656	391656

Female Bar in special length



Female Bar in special length

Type designation			PH-MUL-8	PH-MUL-10	PH-MUL-12	PH-MUL-14	PH-MUL-16	PH-MUL-20	PH-MUL-25	PH-MUL-28	PH-MUL-32	PH-MUL-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Total length	$L^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	L_{min}	mm	160	192	223	255	288	353	441	510	558	700
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Ref. no.			020028	020029	020030	020031	020032	020033	020034	020035	020036	020037

Pin Plate PH (see page 27)

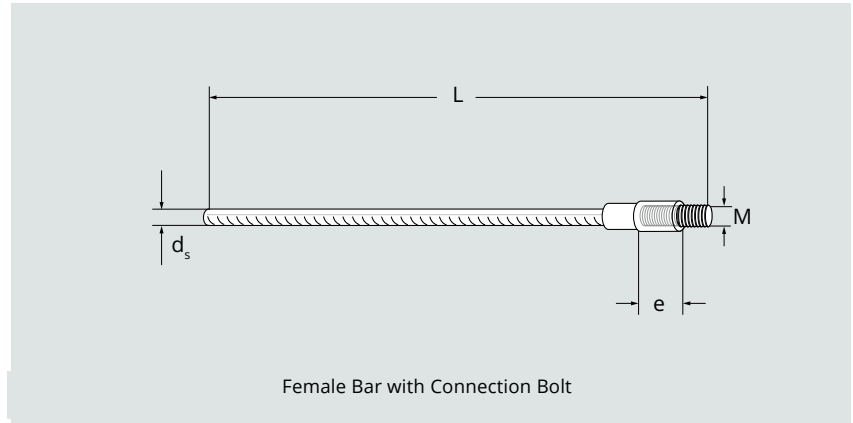
Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

Nail Plate (see page 28)

Type designation			-	NT-14	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

Female Bar with Connection Bolt



Female Bar with Connection Bolt

Type designation			PH-MUK-8	PH-MUK-8	PH-MUK-10	PH-MUK-10	PH-MUK-12	PH-MUK-12	PH-MUK-12	PH-MUK-12
Diameter concrete steel	d_s	mm	8	8	10	10	12	12	12	12
Total length	L	mm	364	564	417	707	420	590	820	1520
Thread type			M 12	M 12	M 14	M 14	M 16	M 16	M 16	M 16
Screw-in depth	e	mm	15	15	17	17	20	20	20	20
Outer diameter socket	D	mm	16	16	19,2	19,2	22,3	22,3	22,3	22,3
Ref. no.			544715	544716	544717	544718	571745	544722	544723	544724

Female Bar with Connection Bolt

Type designation			PH-MUK-14	PH-MUK-14	PH-MUK-14	PH-MUK-14	PH-MUK-16	PH-MUK-16	PH-MUK-16	PH-MUK-16	PH-MUK-20	PH-MUK-20
Diameter concrete steel	d_s	mm	14	14	14	14	16	16	16	16	20	20
Total length	L	mm	422	682	952	1522	425	1045	1465	2025	433	1313
Thread type			M 18	M 18	M 18	M 18	M 20	M 20	M 20	M 20	M 24	M 24
Screw-in depth	e	mm	22	22	22	22	24	24	24	24	32	32
Outer diameter socket	D	mm	25,5	25,5	25,5	25,5	28,8	28,8	28,8	28,8	35,3	35,3
Ref. no.			571746	544726	544727	544728	571747	544729	544730	544731	571748	544732

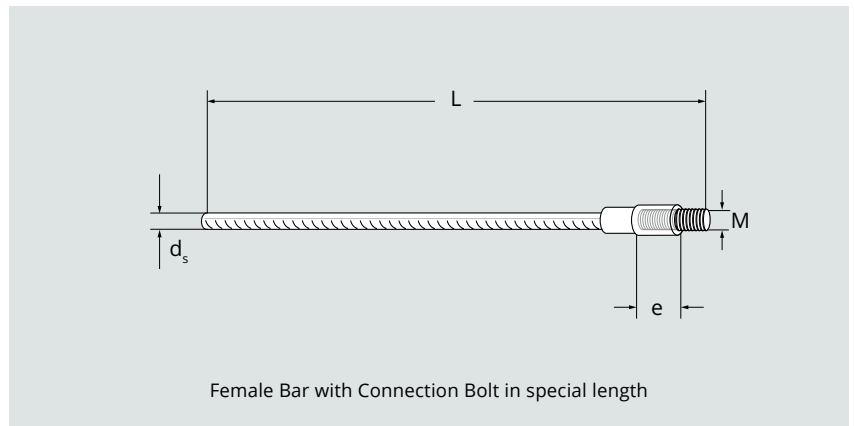
Female Bar with Connection Bolt

Type designation			PH-MUK-20	PH-MUK-20	PH-MUK-25	PH-MUK-25	PH-MUK-25	PH-MUK-25	PH-MUK-28	PH-MUK-28	PH-MUK-28	PH-MUK-28
Diameter concrete steel	d_s	mm	20	20	25	25	25	25	28	28	28	28
Total length	L	mm	1833	3033	440	1640	2300	3640	443	1833	2573	3643
Thread type			M 24	M 24	M 30	M 30	M 30	M 30	M 36	M 36	M 36	M 36
Screw-in depth	e	mm	32	32	40	40	40	40	42	42	42	42
Outer diameter socket	D	mm	35,3	35,3	44,1	44,1	44,1	44,1	51	51	51	51
Ref. no.			544734	544735	571750	544736	544737	544738	571751	544739	544744	544745

Female Bar with Connection Bolt

Type designation			PH-MUK-32	PH-MUK-32	PH-MUK-40	PH-MUK-40
Diameter concrete steel	d_s	mm	32	32	40	40
Total length	L	mm	2053	2953	2273	3573
Thread type			M 42	M 42	M 52	M 52
Screw-in depth	e	mm	52	52	70	70
Outer diameter socket	D	mm	55,8	55,8	70	70
Ref. no.			544746	544748	544749	544750

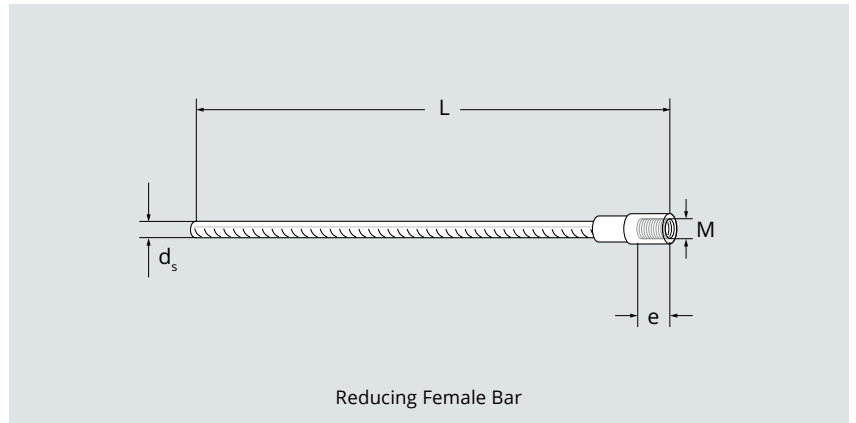
Female Bar with Connection Bolt in special length



Female Bar with Connection Bolt in special length

Type designation			PH-MUK-8	PH-MUK-10	PH-MUK-12	PH-MUK-14	PH-MUK-16	PH-MUK-20	PH-MUK-25	PH-MUK-28	PH-MUK-32	PH-MUK-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Total length	L	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	L_{min}	mm	160	192	223	255	288	353	441	510	558	700
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Outer diameter socket	D	mm	16	19,2	22,3	25,5	28,8	35,3	44,1	51	55,8	70
Ref. no.			020318	020319	020320	020321	020322	020323	020324	020325	020326	020327

Reducing Female Bar

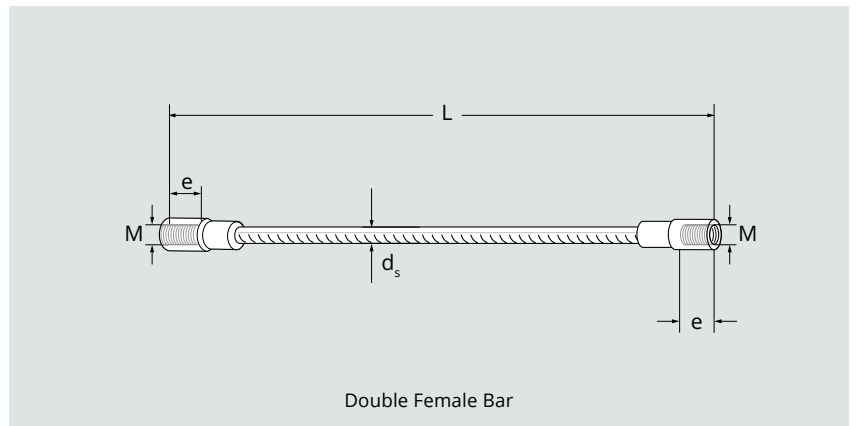


Reducing Female Bar

Type designation			PH-MUR-12/10	PH-MUR-14/12	PH-MUR-16/14	PH-MUR-20/16	PH-MUR-25/20	PH-MUR-28/25	PH-MUR-32/28	PH-MUR-40/32
Diameter concrete steel	d_s	mm	12	14	16	20	25	28	32	40
Thread type			M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42
Total length	L^1	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	L_{min}	mm	223	255	288	353	441	510	558	700
Screw-in depth	e	mm	20	22	24	32	40	42	52	70
Ref. no.			020203	020204	020205	020206	020207	020208	020209	020210
Pin Plate PH (see page 27)										
Type designation			-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-
Colour			-	yellow	blue	white	grey	red	black	-
Ref. no.			-	118516	118517	118518	118519	118520	118521	-
Nail Plate (see page 28)										
Type designation			NT-14	-	-	-	-	-	-	NT-42
Colour			white	-	-	-	-	-	-	grey
Ref. no.			391648	-	-	-	-	-	-	391655

¹⁾ Length without PH Pin Plate or Nail Plate

Double Female Bar



Double Female Bar

Type designation			PH-DM-8	PH-DM-10	PH-DM-12	PH-DM-14	PH-DM-16	PH-DM-20	PH-DM-25	PH-DM-28	PH-DM-32	PH-DM-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Total length	$L^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	$L_{min}^{2)}$	mm	190	200	205	210	225	240	295	315	330	400
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Ref. no.			020058	020059	020060	020061	020062	020063	020064	020065	020066	020067

Pin Plate PH (see page 27)

Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

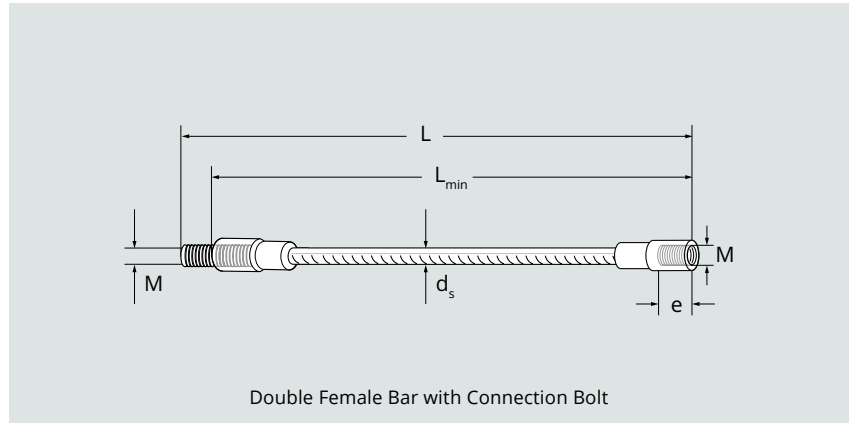
Nail Plate (see page 28)

Type designation			-	NT-140	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

²⁾ Shorter lengths are possible on request

Double Female Bar with Connection Bolt

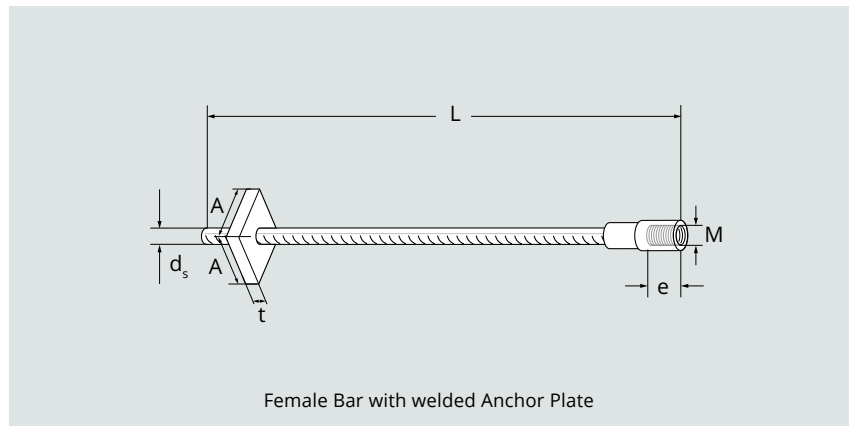


Double Female Bar with Connection Bolt

Type designation			PH-DMK-8	PH-DMK-10	PH-DMK-12	PH-DMK-14	PH-DMK-16	PH-DMK-20	PH-DMK-25	PH-DMK-28	PH-DMK-32	PH-DMK-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Total length	$L^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	L_{min}	mm	190	200	205	210	225	240	295	315	-	-
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Ref. no.			020308	020309	020310	020311	020312	020313	020314	020315	020316	020317
Pin Plate PH (see page 27)												
Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-
Nail Plate (see page 28)												
Type designation			-	NT-14	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

Female Bar with welded Anchor Plate



Female Bar with welded Anchor Plate

Type designation			PH-AP-12	PH-AP-14	PH-AP-16	PH-AP-20	PH-AP-25	PH-AP-28	PH-AP-32
Diameter concrete steel	d_s	mm	12	14	16	20	25	28	32
Thread type			M 16	M 18	M 20	M 24	M 30	M 36	M 42
Total length	$L^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Total length Minimum	L_{min}	mm	223	255	288	353	360	360	558
Screw-in depth	e	mm	20	22	24	32	40	42	52
Plate thickness	t	mm	10	10	12	12	20	20	20
Plate width	A	mm	50	50	70	70	90	100	110
Ref. no.			020080	020081	020082	020083	020084	020085	020086

Pin Plate PH (see page 27)

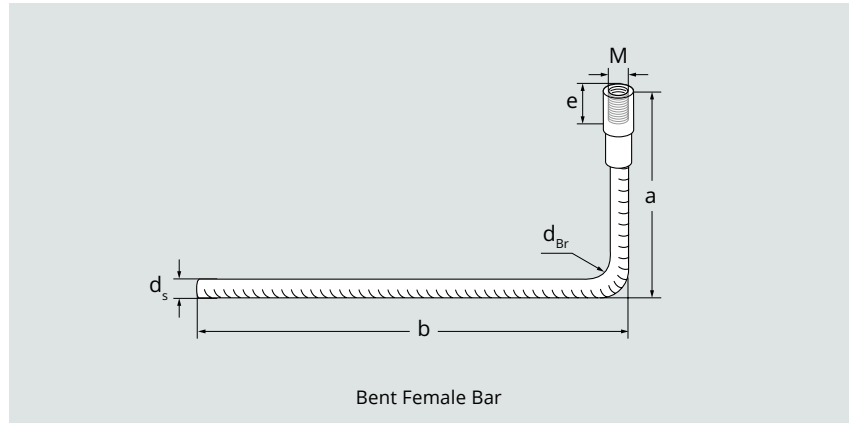
Type designation			PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-
Colour			yellow	blue	white	grey	red	black	-
Ref. no.			118516	118517	118518	118519	118520	118521	-

Nail Plate (see page 28)

Type designation			-	-	-	-	-	-	NT-42
Colour			-	-	-	-	-	-	grey
Ref. no.			-	-	-	-	-	-	391655

¹⁾ Length without PH Pin Plate or Nail Plate

Bent Female Bar



Bent Female Bar

Type designation			PH-MB-8	PH-MB-10	PH-MB-12	PH-MB-14	PH-MB-16	PH-MB-20	PH-MB-25	PH-MB-28	PH-MB-32	PH-MB-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Dimension 1	$a^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 1 minimum	a_{min}	mm	120	136	150	170	200	250	300	340	475	555
Dimension 2	b	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 2 minimum	b_{min}	mm	120	120	130	130	150	220	260	250	550	600
Bending roller diameter	$d_{Br}^{2)}$	mm	80	100	120	140	160	200	250	280	320	400
Ref. no.			020038	020039	020040	020041	020042	020043	020044	020045	020046	020047

Pin Plate PH (see page 27)

Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

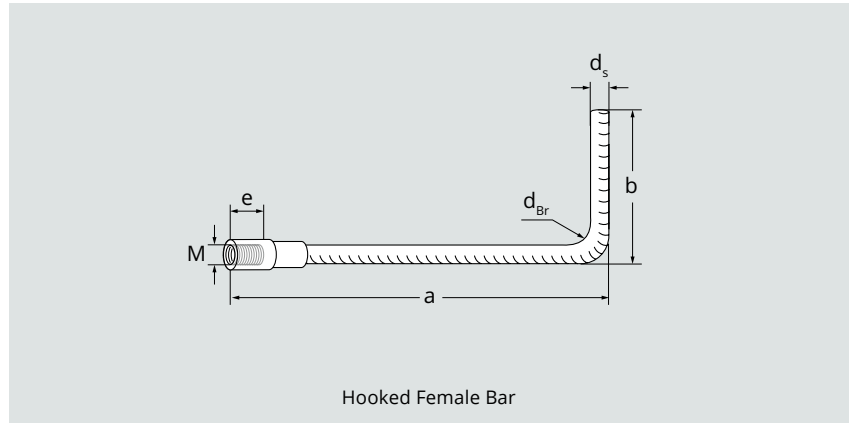
Nail Plate (see page 28)

Type designation			-	NT-14	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

²⁾ Bending roller diameter 10 d_s , deviating bending roller diameters on request

Hooked Female Bar



Hooked Female Bar

Type designation			PH-MW-8	PH-MW-10	PH-MW-12	PH-MW-14	PH-MW-16	PH-MW-20	PH-MW-25	PH-MW-28	PH-MW-32	PH-MW-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Dimension 1	$a^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 1 minimum	a_{min}	mm	85	85	120	125	140	210	260	280	355	380
Dimension 2	b	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 2 minimum	b_{min}	mm	85	85	110	130	140	190	210	220	500	500
Bending roller diameter	d_{Br}	mm	32	40	48	56	64	140	175	200	220	300
Ref. no.			020048	020049	020050	020051	020052	020053	020054	020055	020056	020057

Pin Plate PH (see page 27)

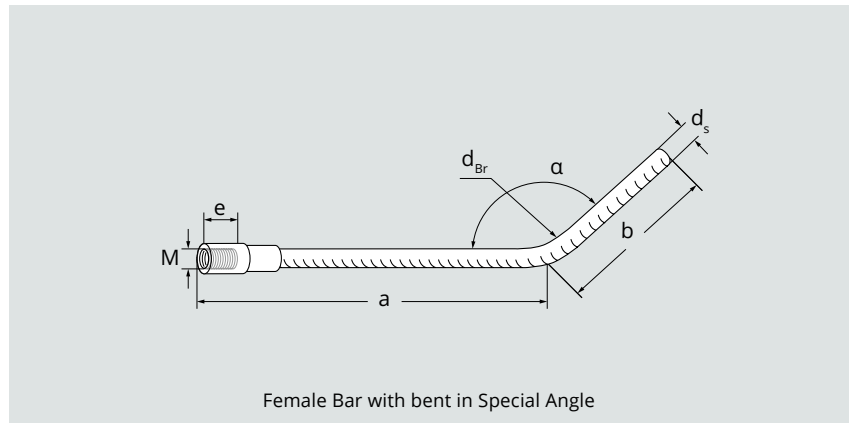
Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

Nail Plate (see page 28)

Type designation			-	NT-140	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

Female Bar with bent in Special Angle



Female Bar with bent in Special Angle

Type designation			PH-MB-8	PH-MB-10	PH-MB-12	PH-MB-14	PH-MB-16	PH-MB-20	PH-MB-25	PH-MB-28	PH-MB-32	PH-MB-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Dimension 1	a ¹⁾	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 2	b	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Bending roller diameter	d_{Br}	mm	80	100	120	140	160	200	250	280	320	400
Angle	α	°	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Ref. no.			020387	020388	020389	020390	020391	020392	020393	020394	020395	020396

Pin Plate PH (see page 27)

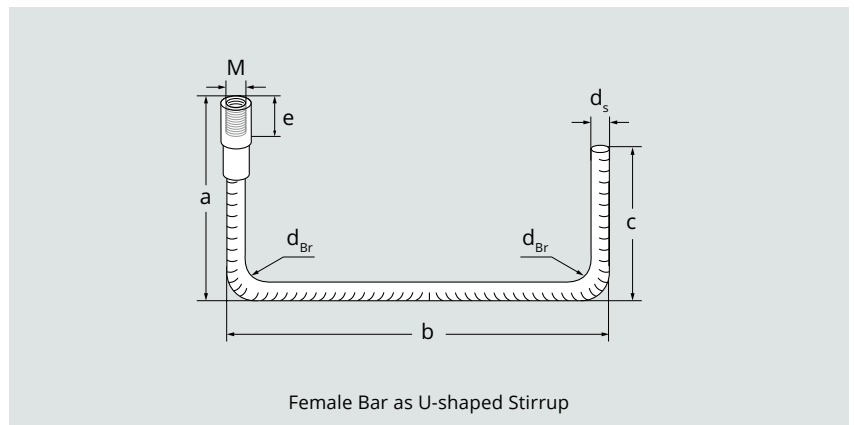
Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

Nail Plate (see page 28)

Type designation			-	NT-140	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

Female Bar as U-shaped Stirrup



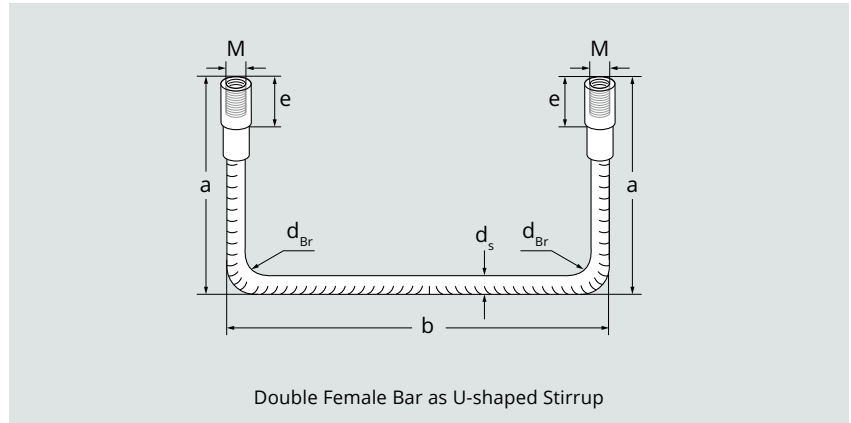
Female Bar as U-shaped Stirrup

Type designation	PH-U		
Diameter concrete steel	d_s	mm	Customer specification
Thread type ¹⁾			-
Dimension 1	$a^{1)}$	mm	Customer specification
Dimension 2	b	mm	Customer specification
Dimension 3	c	mm	Customer specification
Bending roller diameter	$d_{Br}^{2)}$	mm	Customer specification
Angle	α	°	Customer specification
Ref. no.	020328		

¹⁾ depending on the selected bar diameter d_s

²⁾ Length without PH Pin Plate or Nail Plate

Double Female Bar as U-shaped Stirrup



Double Female Bar as U-shaped Stirrup

Type designation			PH-DU-8	PH-DU-10	PH-DU-12	PH-DU-14	PH-DU-16	PH-DU-20	PH-DU-25	PH-DU-28	PH-DU-32	PH-DU-40
Diameter concrete steel	d_s	mm	8	10	12	14	16	20	25	28	32	40
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	15	17	20	22	24	32	40	42	52	70
Dimension 1	$a^{1)}$	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 1 minimum	a_{min}	mm	110	135	150	170	200	250	300	350	380	490
Dimension 2	b	mm	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification	Customer specification
Dimension 2 minimum	b_{min}	mm	280	280	280	280	280	620	630	640	650	680
Bending roller diameter	$d_{Br}^{2)}$	mm	80	100	120	140	160	200	250	280	320	400
Ref. no.			020068	020069	020070	020071	020072	020073	020074	020075	020076	020077

Pin Plate PH (see page 27)

Type designation			PH-ST-8	-	PH-ST-12	PH-ST-14	PH-ST-16	PH-ST-20	PH-ST-25	PH-ST-28	-	-
Colour			black	-	yellow	blue	white	grey	red	black	-	-
Ref. no.			118515	-	118516	118517	118518	118519	118520	118521	-	-

Nail Plate (see page 28)

Type designation			-	NT-140	-	-	-	-	-	-	NT-42	NT-52
Colour			-	white	-	-	-	-	-	-	grey	yellow
Ref. no.			-	391648	-	-	-	-	-	-	391655	391656

¹⁾ Length without PH Pin Plate or Nail Plate

²⁾ Bending roller diameter 10 d_s , deviating bending roller diameters on request

- ▶ High-strength material
- ▶ General type approval (abG)
- ▶ European Technical Assessment (ETA)
- ▶ Simple installation
- ▶ No torque wrench necessary
- ▶ Quality inspection through simple visual inspection

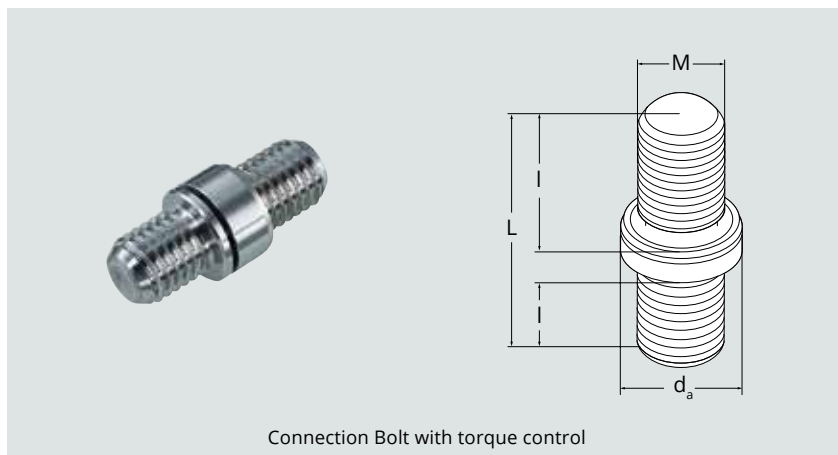
Technical data

- ▶ **Material:** black steel



Connection Bolt with torque control

- ▶ For connecting of two PH Female Bars
- ▶ Easiest assembly – no torque wrench necessary



Connection Bolt with torque control

Connection Bolt with torque control

Type designation			PH-KD-8/36	PH-KD-10/44	PH-KD-12/50	PH-KD-14/55	PH-KD-16/59	PH-KD-20/75	PH-KD-25/92	PH-KD-28/96	PH-KD-32/115	PH-KD-40/153
Thread type		mm	M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Für Diameter concrete steel		mm	8	10	12	14	16	20	25	28	32	40
Bolt length	L	mm	36	44	50	55	59	75	92	96	115	153
Thread length	l	mm	12	16	19	20,5	22,5	30,5	38	40	50	68
Outer diameter	d _a	mm	16	19	21,5	24	27,5	34	43	50	53,5	68
Ref. no.			535963	535964	535965	535966	535967	535968	535969	535970	535971	535972

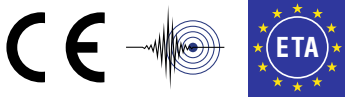
- ▶ Usability in earthquake zones on request
- ▶ High-strength material
- ▶ European Technical Assessment (ETA)

Technical data

- ▶ **Material:** black steel

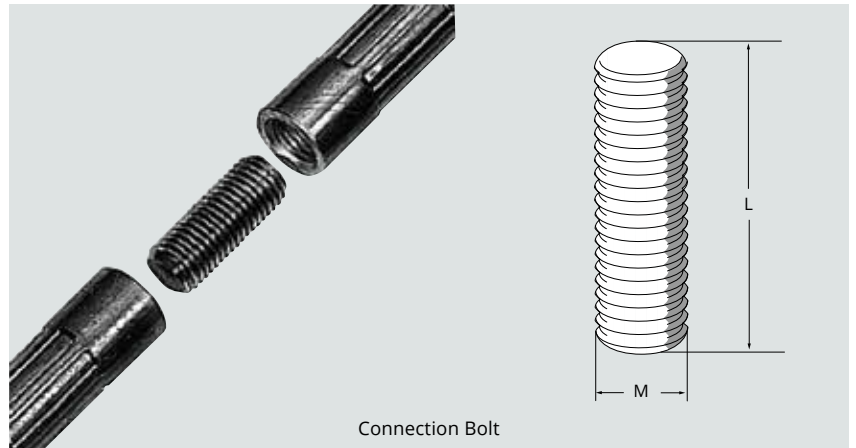
Options on request

- ▶ Connection Bolt PH-KD with torque control



Connection Bolt

- ▶ For connecting of two PH Female Bars
- ▶ Simply screw the Female Bars into the coupling socket from both sides.



Connection Bolt

Connection Bolt

Type designation			PH-K-8/28	PH-K-10/34	PH-K-12/40	PH-K-14/43	PH-K-16/50	PH-K-20/65	PH-K-25/80	PH-K-28/85	PH-K-32/106	PH-K-40/145
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
For Diameter concrete steel		mm	8	10	12	14	16	20	25	28	32	40
Bolt length	L	mm	28	34	40	43	50	65	80	85	106	145
Ref. no.			119263	135169	135170	119264	119265	119266	119267	119268	135171	149216

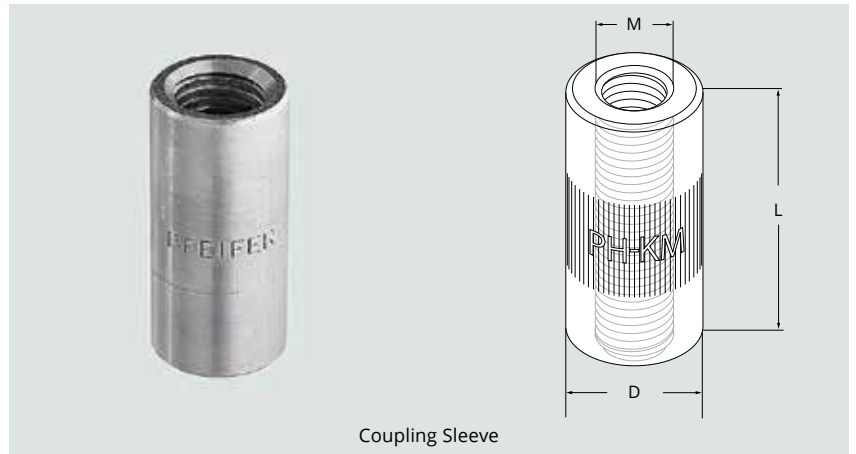
Technical data

► **Material:** black steel



Coupling Sleeve

► For connecting of two PH Female Bars with Connection Bolt



Coupling Sleeve

Coupling Sleeve

Type designation			PH-KM-12	PH-KM-14	PH-KM-16	PH-KM-20	PH-KM-25	PH-KM-28	PH-KM-32
For Diameter concrete steel		mm	12	14	16	20	25	28	32
Total length	L	mm	45	52	58	73	88	90	111
Thread type			M 16	M 18	M 20	M 24	M 30	M 36	M 42
Outer diameter socket	D	mm	22,3	25,5	28,8	35,3	44,1	51	55,8
Ref. no.			363511	363512	363513	363514	363515	363516	363517

- ▶ Innovative connection even with complicated reinforcement routing
- ▶ High-strength material
- ▶ European Technical Assessment (ETA)

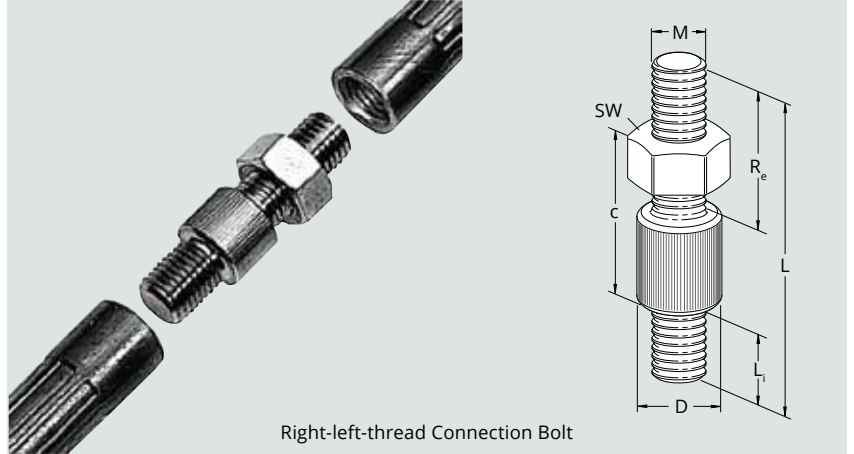
Technical data

- ▶ **Material:** black steel



Right-left-thread Connection Bolt

- ▶ For connecting angled PH Female Bars
- ▶ If angled Female Bars are placed next to each other a free re-rotation of the bars is not possible – due to the opposite threads of the coupler, the components can still be screwed together.
- ▶ Connection of PH Female Bar with left-hand thread and PH Female Bar with right-hand thread



Right-left-thread Connection Bolt

Type designation			PH-RL-8/61	PH-RL-10/71	PH-RL-12/79	PH-RL-14/84	PH-RL-16/90	PH-RL-20/109	PH-RL-25/131	PH-RL-28/145	PH-RL-32/170
For Diameter concrete steel		mm	8	10	12	14	16	20	25	28	32
Total length	L	mm	61	71	79	85	90	109	131	145	170
Thread type			M 12	M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 42
Wrench size	SW	mm	19	22	24	27	30	36	46	55	65
Outer diameter socket	D	mm	16,5	18,5	20,5	24	27	33,5	42	48,5	50,5
Length right-hand thread	Re	mm	24	30	35	39	42	53	67	74	90
Length left-hand thread	Li	mm	12	16	19	21	23	31	39	41	50
Minimum distance nut	C _{min}	mm	37	39	41	43	44	47	53	63	70
Ref. no.			119269	135172	135173	119270	119271	119272	119273	119274	135174

- ▶ Economic grading of the reinforcement cross-sections
- ▶ High-strength material
- ▶ European Technical Assessment (ETA)

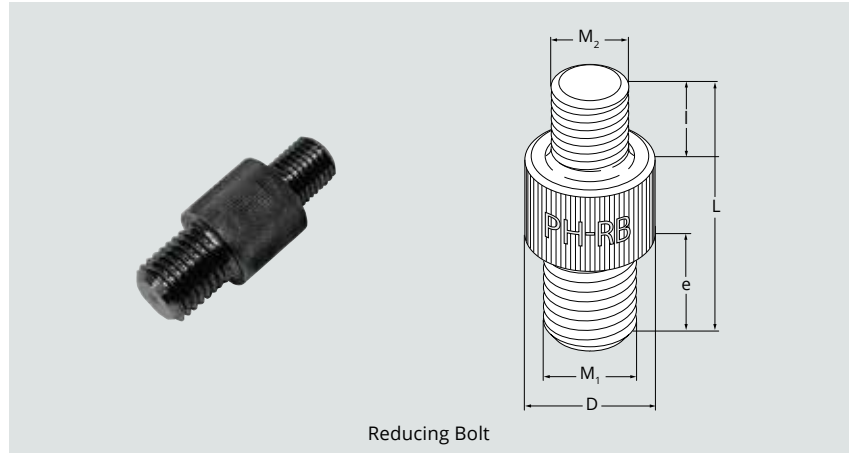
Technical data

- ▶ **Material:** black steel



Reducing Bolt

- ▶ For connecting two PH Female Bars with different diameters
- ▶ Use for ascending screw reinforcement over several floors where the statically necessary cross-sections are reduced floor by floor



Reducing Bolt

Reducing Bolt

Type designation			PH-RB-12/10	PH-RB-14/12	PH-RB-16/14	PH-RB-16/12	PH-RB-20/16	PH-RB-25/20
For Diameter concrete steel 1	d_{s1}	mm	12	14	16	16	20	25
Thread size site 1	M1		M 16	M 18	M 20	M 20	M 24	M 30
For Diameter concrete steel 2	d_{s2}	mm	10	12	14	12	16	20
Thread size site 2	M2		M 14	M 16	M 18	M 16	M 20	M 24
Total length	L	mm	60	65	69	67	79	95
Screw-in depth	e	mm	19	21	23	23	31	39
Thread length	l	mm	16	19	21	19	23	31
Outer diameter socket	D	mm	20,5	24	27	27	33,5	42
Ref. no.			211277	211278	211279	211285	211280	211281

Reduzierbolzen

Type designation			PH-RB-28/25	PH-RB-28/20	PH-RB-32/25	PH-RB-32/28	PH-RB-40/32
For Diameter concrete steel 1	d_{s1}	mm	28	28	32	32	40
Thread size site 1	M1		M 36	M 36	M 42	M 42	M 52
For Diameter concrete steel 2	d_{s2}	mm	25	20	25	28	32
Thread size site 2	M2		M 30	M 24	M 30	M 36	M 42
Total length	L	mm	110	102	119	121	160
Screw-in depth	e	mm	41	41	50	50	70
Thread length	l	mm	39	31	39	41	50
Outer diameter socket	D	mm	48,5	48,5	50,5	50,5	70,5
Ref. no.			211282	211286	211287	211283	211284

- ▶ Economic grading of the reinforcement cross-sections
- ▶ European Technical Assessment (ETA)

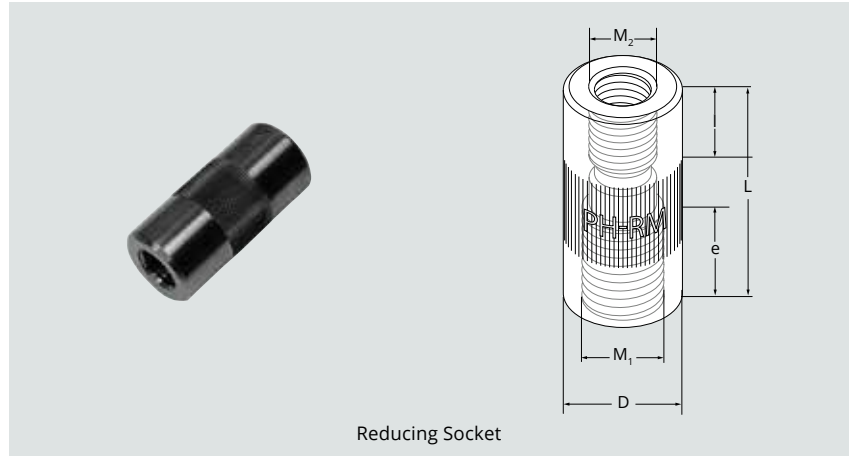
Technical data

- ▶ **Material:** black steel



Reducing Socket

- ▶ For connecting two PH Female Bars incl. Connection Bolts with different diameters
- ▶ Use for ascending screw reinforcement over several floors, where the statically necessary cross-sections are reduced floor by floor.



Reducing Socket

Reducing Socket

Type designation			PH-RM-12/10	PH-RM-14/12	PH-RM-16/14	PH-RM-20/16	PH-RM-25/20	PH-RM-28/25	PH-RM-32/28	PH-RM-16/12	PH-RM-28/20	PH-RM-32/25
For Diameter concrete steel 1	d_{s1}	mm	12	14	16	20	25	28	28	16	28	32
Thread size site 1	M1		M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 20	M 36	M 42
For Diameter concrete steel 2	d_{s2}	mm	10	12	14	16	20	25	32	12	20	25
Thread size site 2	M2		M 14	M 16	M 18	M 20	M 24	M 30	M 36	M 16	M 24	M 30
Total length	L	mm	50	55	60	75	90	105	115	60	95	115
Screw-in depth	e	mm	20	22	24	32	40	42	52	24	42	52
Thread length	l	mm	17	20	22	24	32	40	42	20	32	40
Outer diameter socket	D	mm	22	25	30	35	45	50	55	30	50	55
Ref. no.			211288	211289	211290	211291	211292	211293	211294	211296	211297	211298

- ▶ Flexible due to practical tolerance zones
- ▶ High-strength material
- ▶ European Technical Assessment (ETA)

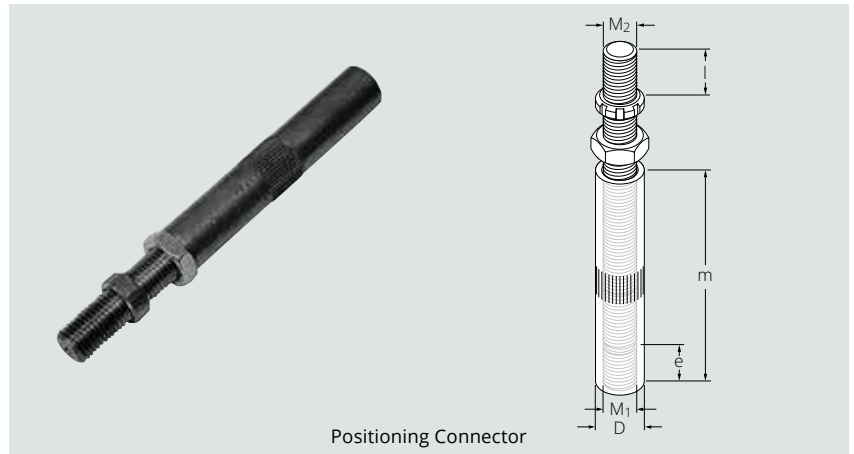
Technical data

- ▶ **Material:** black steel



Positioning Connector

- ▶ For connecting PH Female Bars that are not freely redatable
- ▶ Stepless adjustment of the installation length possible. Fixation via lock nut



Positioning Connector

Type designation			PH-PA-12	PH-PA-14	PH-PA-16	PH-PA-20	PH-PA-25	PH-PA-28	PH-PA-32	PH-PA-40
For Diameter concrete steel		mm	12	14	16	20	25	28	32	40
Thread size site 1	M1		M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Thread size site 2	M2		M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Screw-in depth	e	mm	20	22	24	32	40	42	52	70
Thread length	l	mm	30	32	36	44	58	60	72	90
Outer diameter socket	D	mm	22,3	25,5	28,8	35,3	44,1	51	55,8	70
Socket length	m	mm	115	125	130	180	210	220	260	320
Ref. no.			211299	211300	211301	211302	211303	211304	211305	211306

- ▶ Good weldable material
- ▶ European Technical Assessment (ETA)

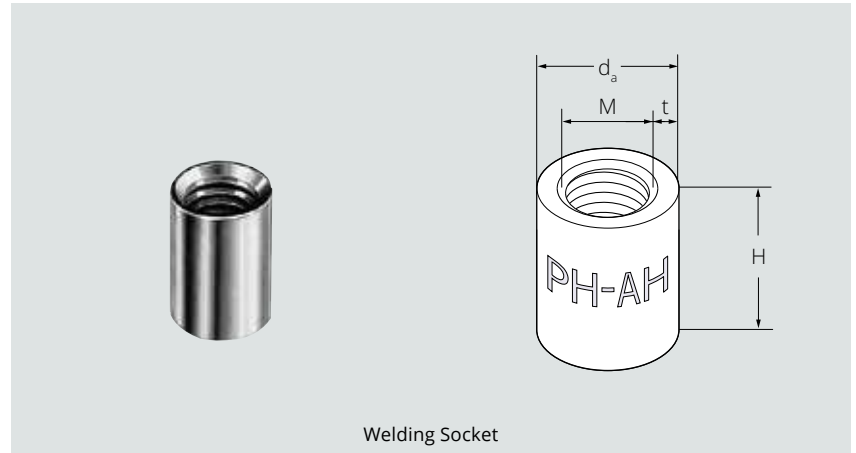
Technical data

- ▶ **Material:** black steel



Welding Socket

- ▶ For the connection of reinforcement screw connections and steel construction elements
- ▶ The socket is welded onto the steel component, into which a PH Female Bar with coupling/reducing element can be screwed in
- ▶ Side of the weld seam without thread, opposite side with defined screw-in depth for PH components



Welding Socket

Type designation			PH-AH-12	PH-AH-14	PH-AH-16	PH-AH-20	PH-AH-25	PH-AH-28	PH-AH-32	PH-AH-40
For Diameter concrete steel		mm	12	14	16	20	25	28	32	40
Thread type			M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 52
Socket height	H	mm	35	40	40	50	60	65	75	90
Outer diameter	d _a	mm	25	27	30	40	50	55	60	75
Wall thickness socket	t	mm	5,5	5,75	6,25	9,5	11,75	11,5	11,25	14
Ref. no.			211307	211308	211309	211310	211311	211312	211313	211314

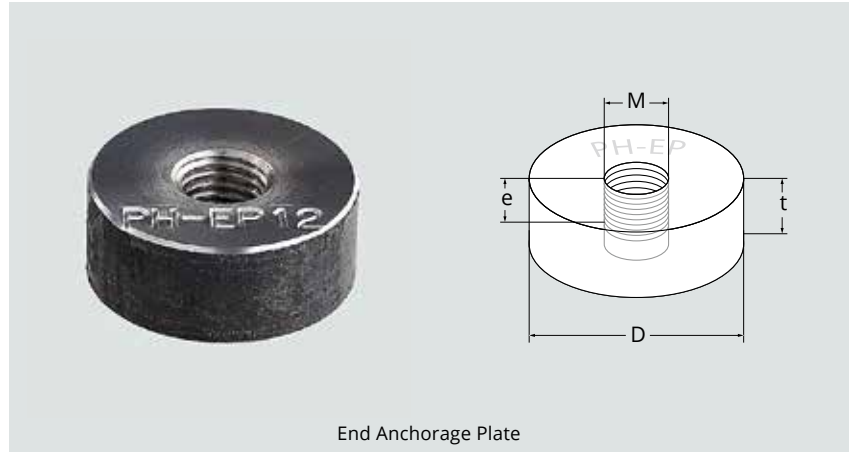
- Realization of an end anchorage according to standard IN EN 1992-1-1
- Dynamic stresses possible

Technical data

- **Material:** black steel

End Anchorage Plate

- For the realization of an end anchorage in the reinforcement guide
- The End Anchorage Plate is combined with PH Female Bars and Connection Bolts
- The products are simply screwed together via the internal thread of the plate. Thus, loads can be transferred from a PH screw connection or an overlap joint into the component



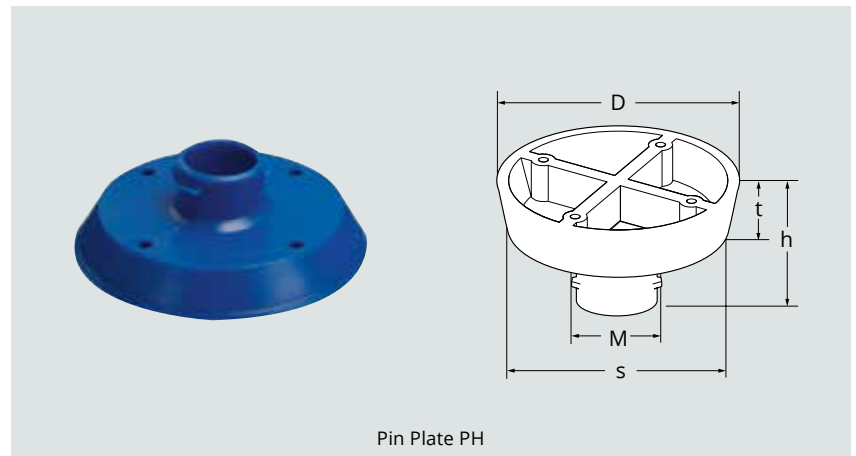
End Anchorage Plate

Type designation			PH-EP-12	PH-EP-14	PH-EP-16	PH-EP-20	PH-EP-25	PH-EP-28
For Diameter concrete steel		mm	12	14	16	20	25	28
Thread type			M 16	M 18	M 20	M 24	M 30	M 36
Screw-in depth	e	mm	16	18	20	24	30	36
Outer diameter socket	D	mm	45	55	60	75	95	105
Plate thickness	t	mm	19	21	23	27	33	39
Ref. no.			218365	218366	218367	218368	218369	218370

- ▶ Flexible formwork fastening – gluing, nailing, screwing
- ▶ Colour-coded Nail Plates for quick assignment of the system size

Pin Plate PH

- ▶ For formwork fixing of PH Female Bars
- ▶ Also protects the internal thread of the sleeves from contamination and damage



Pin Plate PH

Type designation			PH-ST-12	PH-ST-16	PH-ST-18	PH-ST-20	PH-ST-24	PH-ST-30	PH-ST-36
For Diameter concrete steel		mm	8	12	14	16	20	25	28
Type/Size			PH 8	PH 12	PH 14	PH 16	PH 20	PH 25	PH 28
Thread type			M 12	M 16	M 18	M 20	M 24	M 30	M 36
Colour			black	yellow	blue	white	grey	red	black
Outer diameter	d_0	mm	3	3	3	3	3	3	3
Screw-in depth	e	mm	10	10	10	12	12	15	15
Diameter lower edge, outside	s	mm	45	45	45	45	70	70	70
Total height	h	mm	18	18	18	20	20	23	25
Plate thickness	t	mm	8	8	8	8	8	8	8
Hole spacing	L	mm	39	39	39	39	61	61	61
Outer diameter socket	D	mm	55	55	55	55	80	80	80
Ref. no.			118515	118516	118517	118518	118519	118520	118521

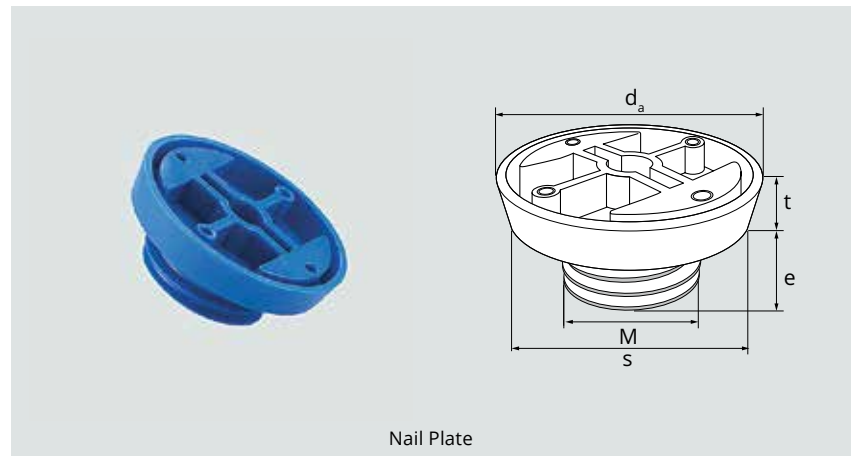
- ▶ Short threads save assembly time
- ▶ Particularly robust and dimensionally stable polyethylene plastic
- ▶ Predrilled nail holes facilitate nail insertion
- ▶ Two countersunk nail holes for a particularly smooth recess surface
- ▶ Colour coding for quick assignment in the thread system
- ▶ Various coordinated closure solutions available

Technische Daten

- ▶ **Material:** plastic
-

Nail Plate

- ▶ Simple formwork fastening of threaded anchors
- ▶ Screw the nail plate into the anchor and nail, screw or glue it to the formwork



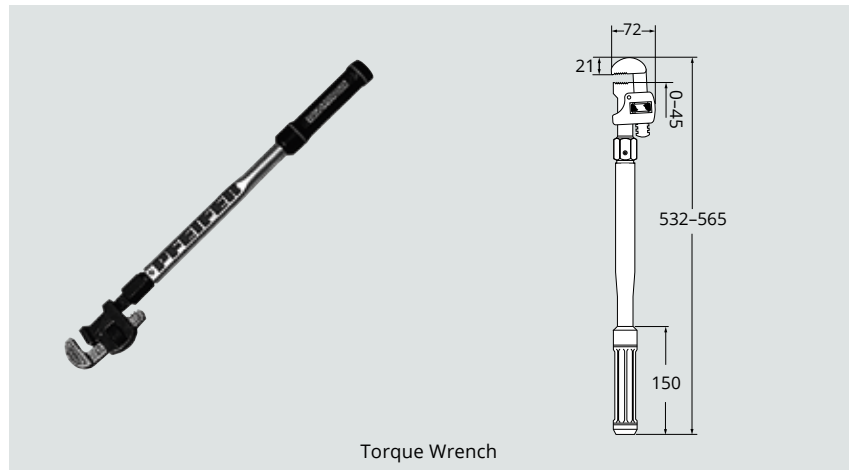
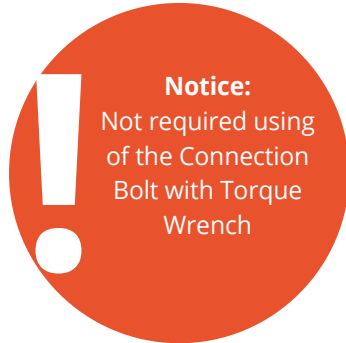
Nail Plate

Type designation			NT-14	NT-42	NT-52
Type/Size			Rd/M 14	Rd/M 42	Rd/M 52
Thread			M 14	M 42	M 52
Colour			white	grey	yellow
Outer diameter	d_a	mm	59	67,5	81
Diameter lower edge, outside	s	mm	55,5	63	76
Screw-in depth	e	mm	10	20	20
Plate thickness	t	mm	10	13	13
Ref. no.			391648	391655	391656

- ▶ **Controlled, approval-compliant torque**
- ▶ **Self-locking, serrated gripper jaws**
- ▶ **Wide torque range from 40 to 200 Nm**

Torque Wrench

- ▶ Tightening of connections (e. g. of the PH system) under a controlled torque in conformity with the approval



Torque Wrench

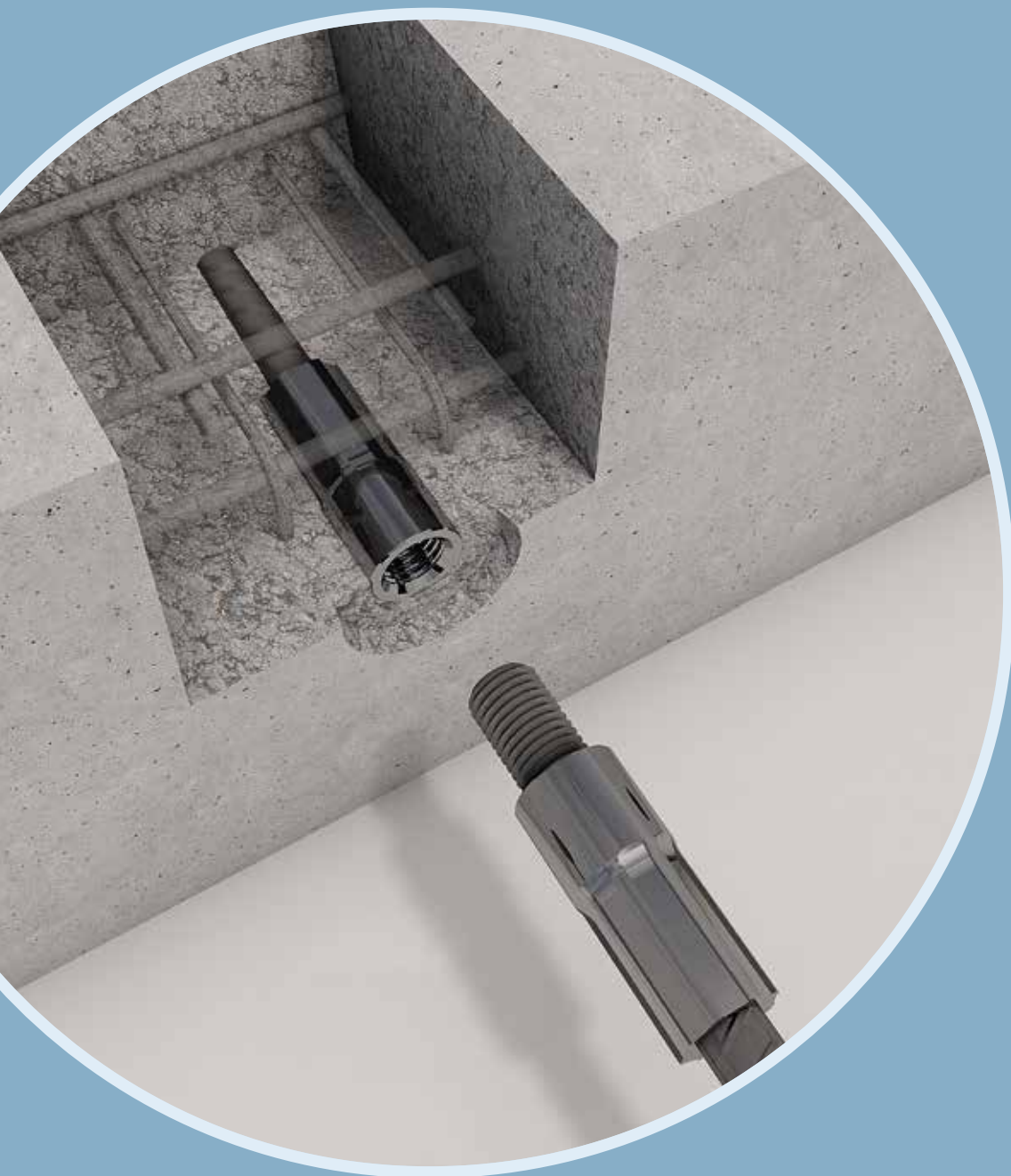
Type designation			DZ-14-40
For Diameter concrete steel min	d_s	mm	14
For Diameter concrete steel max	d_s	mm	40
Ref. no.	219272		

Assembly torques M_T PH-System

at type	M_T
PH-8	20
PH-10	25
PH-12	30
PH-14	40
PH-16	60
PH-20	80
PH-25	100
PH-28	140
PH-32	180
PH-40	200

Application area
Torque Wrench

CE marking





Europäische Technische Bewertung
European Technical Assessment

ETA-20/0259

Leistungserklärung
Declaration of Performance
320/321/PH/07-2023

Notifizierte Stelle / Kennnummer
Notified body / identification number

**Technische Universität München
TUM 1211
Instytut Techniki Budowlanej
ITB 1488**

PFEIFER Bewehrungsanschlussystem PH
Mechanisches Verbindungssystem für Betonstabstahl

PFEIFER Rebar Coupler System PH
Mechanical splices of reinforcing steel bars

PFEIFER Seil- und Hebeteknik GmbH
Dr.-Karl-Lenz-Straße 66
D-87700 Memmingen

www.pfeifer.info

Verbindung Connection	Leistung gemäß ETA-20/0259 Performance according to ETA-20/0259	
PH-MU + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C1, Tabelle C1+C2 Annex C1, Table C1+C2
PH-MU + PH-K/PH-KD + PH-MU	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C2, Tabelle C3+C4 Annex C2, Table C3+C4
PH-MU + PH-K + PH-MU	Widerstand Seismik Resistance to seismic action	NPD
PH-A + PH-KM + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C3, Tabellen C5+C6 Annex C3, Table C5+C6
PH-MU + PH-RL + PH-MU LH	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C4, Tabellen C7+C8 Annex C4, Table C7+C8
PH-MU + PH-RB + PH-MU	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C5, Tabellen C9+C10 Annex C5, Table C9+C10
PH-A + PH-RM + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C6, Tabellen C11+C12 Annex C6, Table C11+C12
PH-MUR + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C7, Tabellen C13+C14 Annex C7, Table C13+C14
PH-MU + PH-PA + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip, fatigue strength	Anhang C8, Tabellen C15+C16 Annex C8, Table C15+C16
PH-AH + PH-A	Länge Verbindung, Widerstand, Dehnung, Schlupf, Ermüdungsfestigkeit Length of connection, resistance, elongation, slip	Anhang C9, Tabellen C17+C18 Annex C9, Table C17+C18
allgemein general	Widerstand Brandbeanspruchung Reaction to fire	Baustoffklasse: A1 Material fire classification: A1

Dokument Nr. / Document No. 583481

Version 22.04.2024

You can find further information in the approvals or certificates available at:

www.pfeifer.info/ph-reinforcement

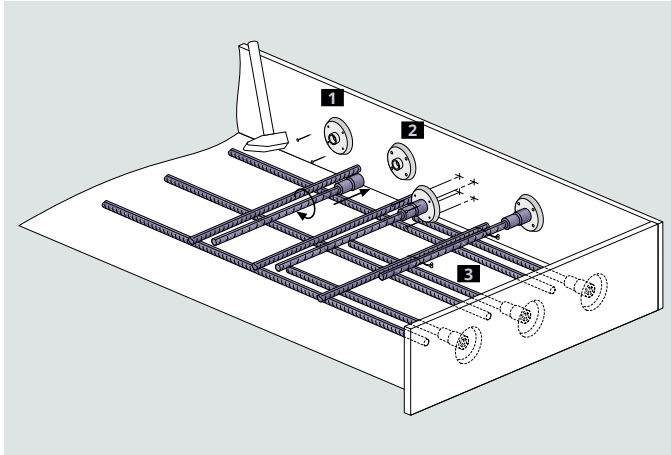


Installation



Installation instructions precast factory

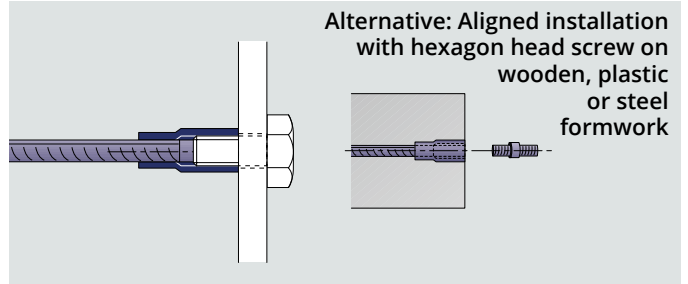
Female Bar PH-MU



- 1 Nailing the Pin Plate to the formwork
- 2 Press on Female Bar and turn 90°. Alternative: Plug the Pin Plate into the
- 3

Female Bar and nail it onto the formwork.

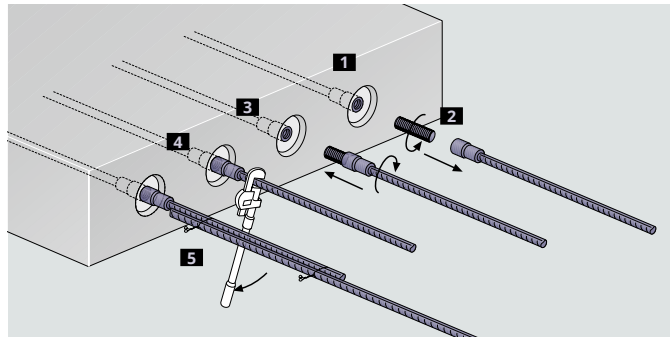
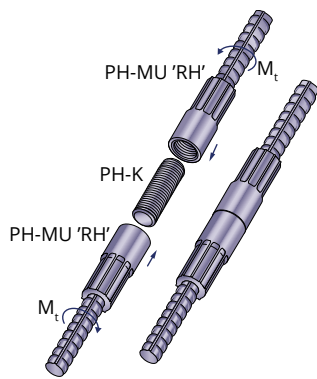
- 3 Install further reinforcement, connect Female Bar to the reinforcement and concreting



Alternative: Aligned installation with hexagon head screw on wooden, plastic or steel formwork

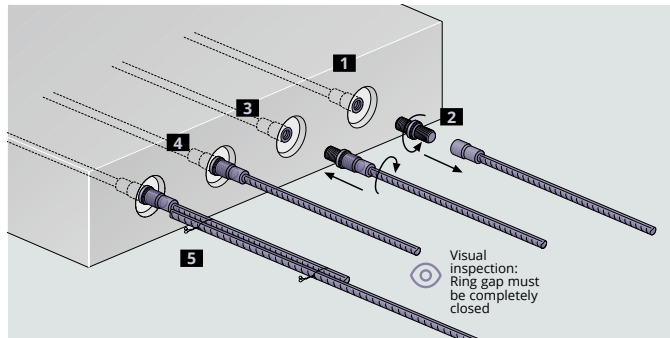
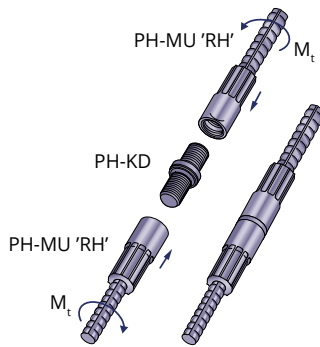
Assembly instructions construction site

Female Bar PH-MU with Connection Bolt PH-K



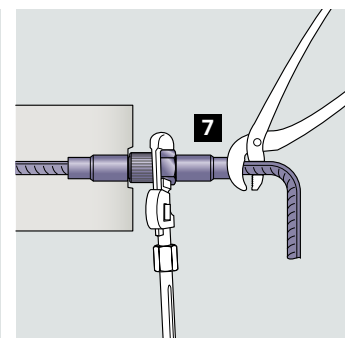
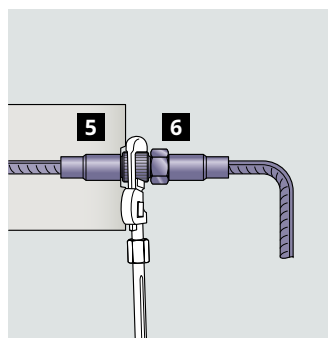
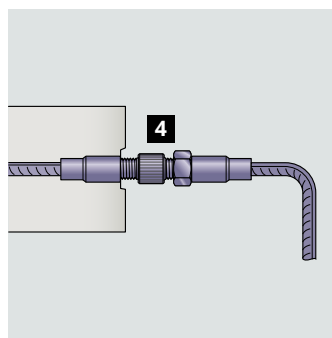
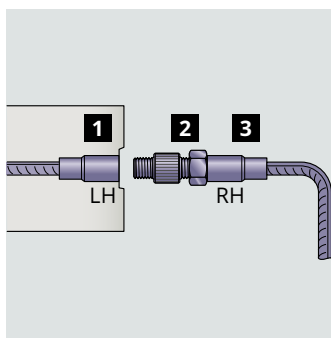
- 1 Unscrew colour-coded Pin Plate
- 2 Screwing in the Connection Bolt into the second Female Bar (normal right-hand thread) by hand (does not have to be tightened)
- 3 Screw together into embedded Female Bar with hand or pipe wrench
- 4 Apply torque with Torque Wrench
- 5 Anodising further reinforcement

Female Bar PH-MU with Connecting Bolt with torque control PH-KD



- 1 Unscrew colour-coded Pin Plate
- 2 Screwing in the Connection Bolt into the second Female Bar (normal right-hand thread) by hand (does not have to be tightened)
- 3 Screw together into embedded Female Bar with hand or pipe wrench
- 4 Anodising further reinforcement

Right-left-thread Connection Bolt PH-RL



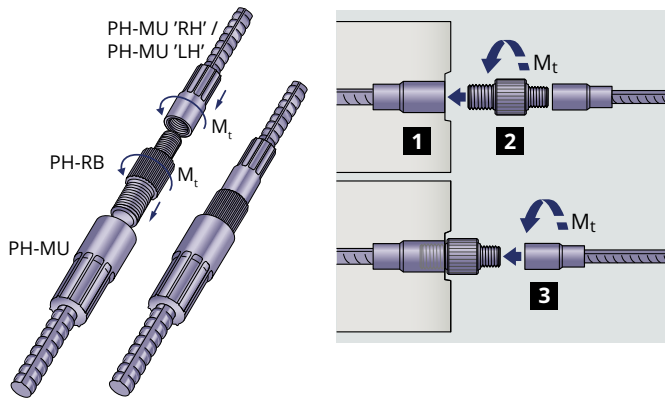
- 1 Left-hand threaded Female Bar set in concrete first.
- 2 Turn lock nut on the coupler against thickening by hand.
- 3 Turn Right-left-thread Connection Bolt once (no more!) into the right-hand threaded socket

- 4 Turn coupler with connection socket bar into concreted Female Bar clockwise by hand. First the knurled thickening of the coupler is at the left-hand threaded Connecting Bolt (set in concrete). If this is not the case, it should not be screwed too deep at step 3.

- 5 Tighten the coupler with Torque Wrench to the nominal torque as with for normal Male Bar.
- 6 Screw lock nut against coupler

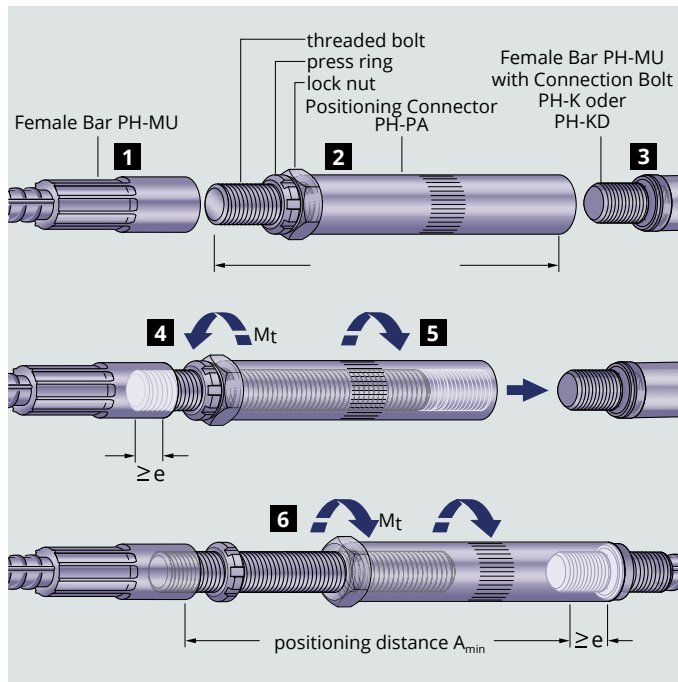
- 7 Hold right Female Bar with pliers and tighten lock nut with torque tongs to torque as for Male Bar.

Assembly instructions construction site



- 1 Concrete Female Bar with larger diameter.
- 2 Reducing Bolt with the larger thread is turned into the Female Bar set in concrete and tightened with the required tightening torque.
- 3 The Female Bar of the smaller diameter is screwed on the remaining threaded bolt, until the entire thread is screwed in. The bar is also tightened with the corresponding torque.

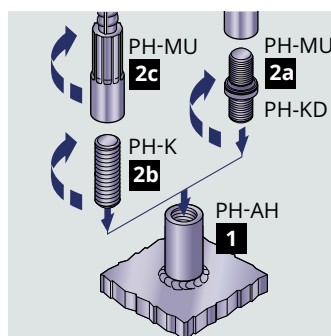
Positioning Connector PH-PA



- 1 Already installed Female Bar with right-hand thread. (Attention: Use only Positioning connection with right-hand thread socket or Connecting Bar!)
- 2 Positioning socket with completely screwed bolt is to be placed in between the connected bars.
- 3 Conditionally displaceable Male Bar (customary position tolerances must be observed in axial direction and transverse direction so that the threads meet).
- 4 The positioning connection is screwed into the Female Bar set in concrete with the threaded bolt and tightened with the diameter-related torque.
- 5 The socket part of the positioning connection is screwed out within the approval tolerances until the Male Bar is completely screwed in.
- 6 By tightening the socket and the lock nut with the diameter-related tightening torque the connection is secured.

A [mm]	A_{min} [mm]	A_{max} [mm]
163	166	182
176	178	194
190	190	210
250	254	287
299	302	332
314	318	354
373	382	427
456	482	527

Welding Socket PH-AP



- 1 The Welding Socket is attached to the steel component to be connected by means of a weld seam, which is to be dimensioned by the responsible planner.
- 2 The Male Bar (2a) or female bar with Connection Bolt (2b and 2c) is screwed completely into the socket and secured with the required tightening torque.

Assembly instructions construction site

End Anchorage Plate PH-EP

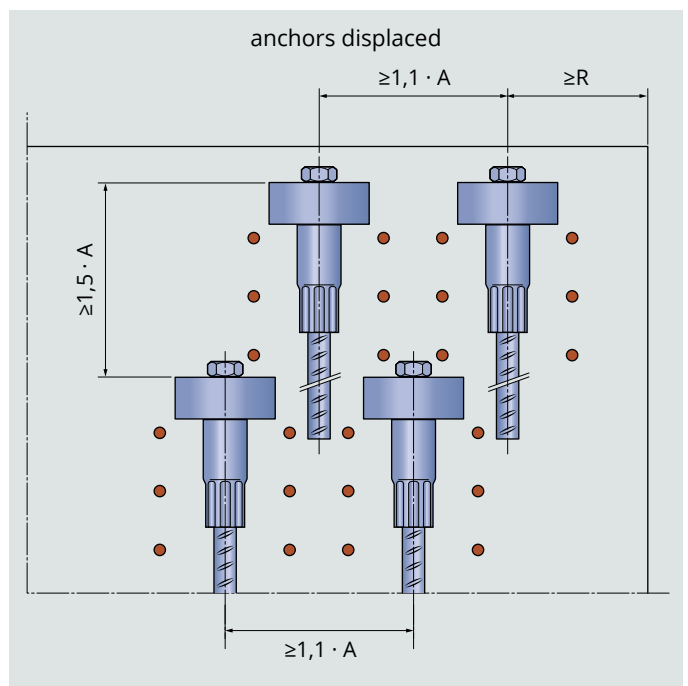
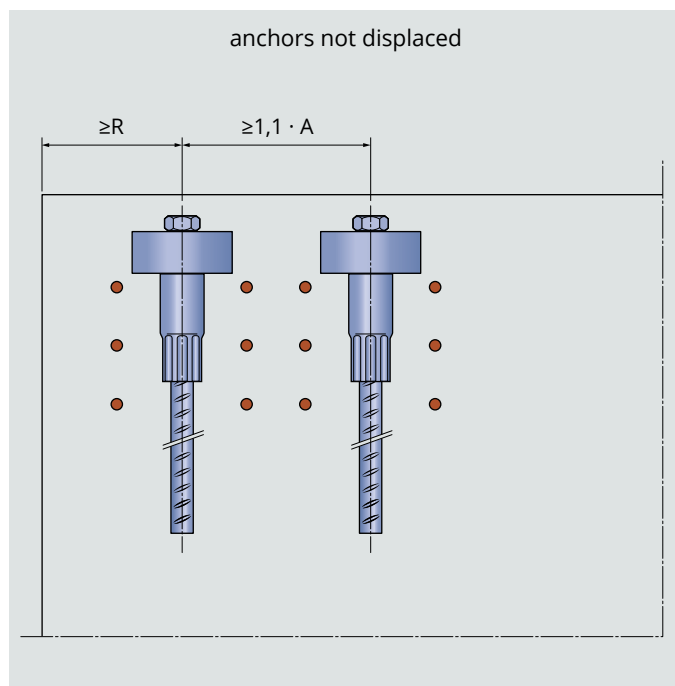
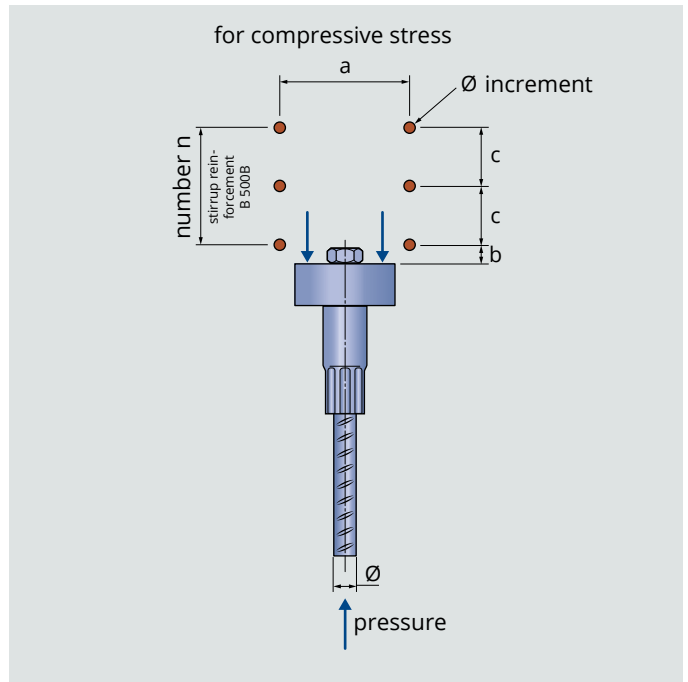
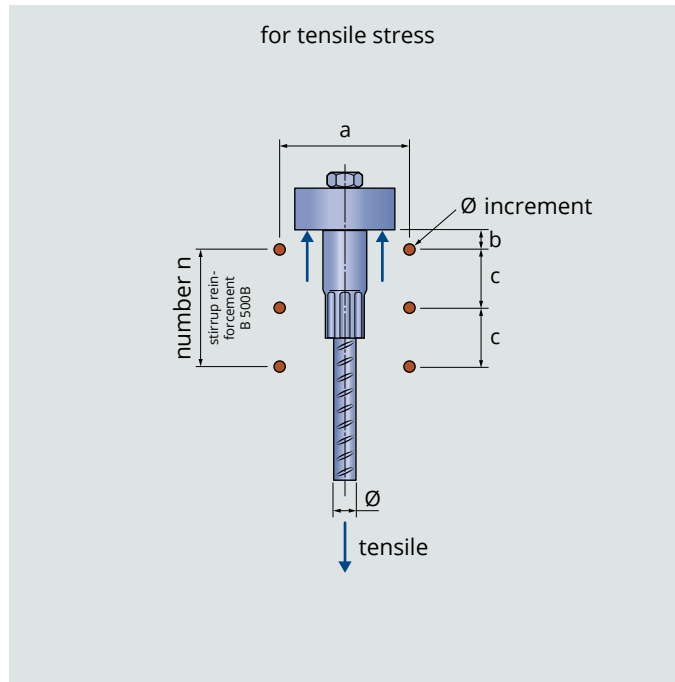


Table 1: End Anchorage Plate PH-EP – spacing and reinforcement

Type labelling	Center distance		Edge distance		Supplementary reinforcement B500A			
	A [mm]	R [mm]	Number n [-]	$\varnothing_{\text{increment}}$	a [mm]	b [mm]	c [mm]	
PH-EP 12	85	65	3	6	60	20	28	
PH-EP 14	85	65	3	6	60	20	28	
PH-EP 16	100	70	3	6	70	20	30	
PH-EP 20	130	85	4	6	100	20	32	
PH-EP 25	145	95	4	6	120	15	41	
PH-EP 28	170	105	3	6	140	10	41	

closed stirrups according to DIN EN 1992-1-1/Na, Figure NA.8.5 g or helical reinforcement made of reinforcing steel

$\geq a/2 + \varnothing/2 + c_{\text{nom}}$

Assembly instructions construction site

Other information:

Table 2: Torques

Type labelling	Nominal-Ø BSt Ø [mm]	Assembly torque M _T [Nm]
PH 8	8	20
PH 10	10	25
PH 12	12	30
PH 14	14	40
PH 16	16	60
PH 20	20	80
PH 25	25	100
PH 28	28	140
PH 32	32	180
PH 40	40	200

Torques not required for connection with Connection Bolt with torque control PH-KD

Table 3: Outer diameter sockets PH-MU and PH-KM

Type labelling	Sockets Ø [mm]
PH 8	16,0
PH 10	19,2
PH 12	22,3
PH 14	25,5
PH 16	28,8
PH 20	35,3
PH 25	44,1
PH 28	51,0
PH 32	55,8
PH 40	70,0

Table 4: Weight determination for special lengths

$$G_{\text{special bar}} = G_{\text{standard bar}} + (L_{\text{special bar}} - L_{\text{standard bar}}) \times g / 100$$

G in [kg]
L in [cm]

Where g is determined according to the table below:

Type	Ø _s [mm]	g [kg/100 cm]
PH 8	8	0,40
PH 10	10	0,61
PH 12	12	0,89
PH 14	14	1,21
PH 16	16	1,58
PH 20	20	2,47
PH 25	25	3,85
PH 28	28	4,83
PH 32	32	6,31
PH 40	40	9,86

Material used for PFEIFER Reinforcement Connection System PH

Generally approved reinforcing steel bars B500 B according to DIN 488, high ductility

Other types of reinforcing steel bars are available on request

Products of the PH system are supplied as standard without corrosion prediction delivered!

Notes



Notes





PFEIFER

International

Sales

+49 (0) 83 31-937-231

Technical Support

+49 (0) 83 31-937-345

export-bt@pfeifer.de

www.pfeifer.info/concrete-inserts

PFEIFER, VS®, HIT, MoFi®, Hybridbeam® are registered trademarks of PFEIFER Holding GmbH & Co. KG in the European Union.