

ArcelorMittal Europe - Long Products  
Bars & Rods



ArcelorMittal

# Threaded Bar Anchoring System



The **ArcelorMittal Threaded Bar** anchoring system is high quality material which contributes to an excellent stability of the sheet piles and can offer economical and technical advantages.

Indeed, the ArcelorMittal Threaded Bar can be supplied in one piece up to 24 Meters length and can also avoid handling and connection problems thanks to the presence of the thread over the presence of the thread over the entire length of the bar (bars can be cut or lengthened with couplers at any position).

Due to its reliability and ease of installation, the anchoring system is suitable for the most technical and complex applications. ArcelorMittal supplies a full range of subsidiary products and can satisfy customers requirements by holding a permanent stock of material.

With ArcelorMittal Threaded Bar flexible system, we can propose alternative solutions that remain compliant with the original design parameters.

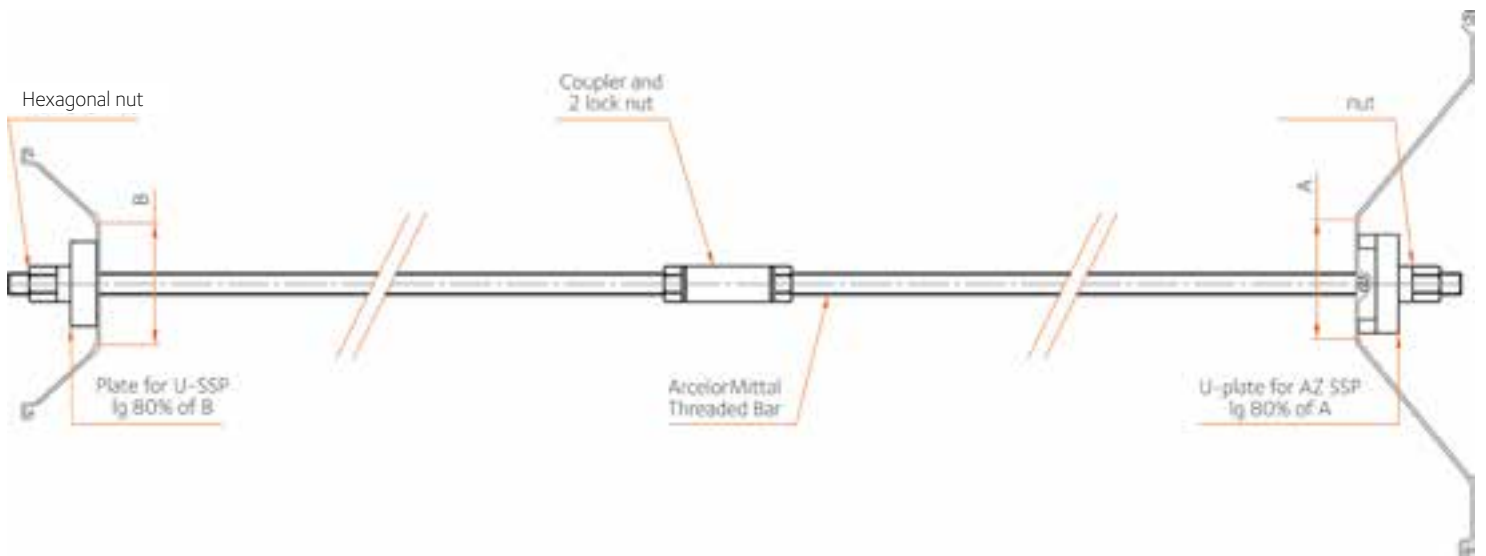
ArcelorMittal is certified to ISO 9001 (Quality Assurance) and 14001 standards (Environment Management). Our Quality Assurance system is the guarantee for continuous high quality standards and products.



## Threaded Bar 500, 555 – Left-hand Thread

Nominal Diameter d	mm	16	20	25	28	32	40	50	57,5	63,5	75
Maximal Diameter d	mm	19	24	28	32	36	45	56	63	70	83
R <sub>p0,2</sub> Min.	MPa	500						555		500	
Load at Yield Min.	kN	100	157	246	308	402	629	982	1441	1758	2209
R <sub>m</sub> Min.	MPa	550						700		550	
Ultimate Load Min.	kN	110	172	270	339	442	691	1078	1818	2217	2430
Elongation Min.	%	Agt 6						Agt 5			
Weight	Kg/m	1,58	2,47	3,85	4,83	6,31	9,87	15,41	20,38	24,86	34,68

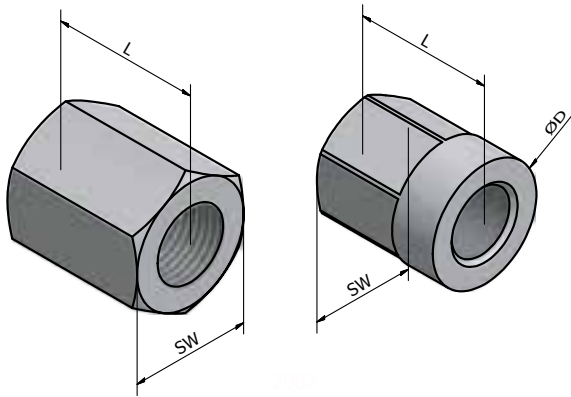
ArcelorMittal can supply a full system of anchorage, sample layout:



## Threaded Bar 670 – Right-hand Thread

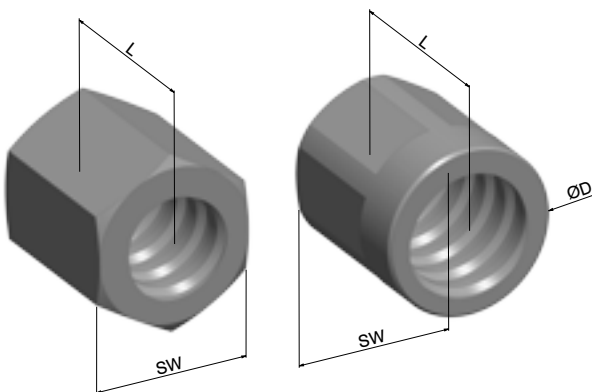
Nominal Diameter d	mm	18	22	25	28	30	35	43	50	57,5	63,5	75
Maximal Diameter d	mm	23	26	28	32	34	40	48	56	63	70	83
$R_{p0,2}$ Min.	MPa	670										
Load at Yield Min.	kN	170	255	329	413	474	645	973	1315	1740	2122	2960
$R_m$ Min.	MPa	800										
Ultimate Load Min.	kN	203	304	393	493	566	770	1162	1571	2078	2534	3535
Elongation Min.	%	$A_{gt}$ 5%, $A_{10d}$ 7%										
Weight	Kg/m	2,00	2,98	3,85	4,83	5,54	7,55	11,40	15,41	20,38	24,86	34,68

Hexagonal nut L2002



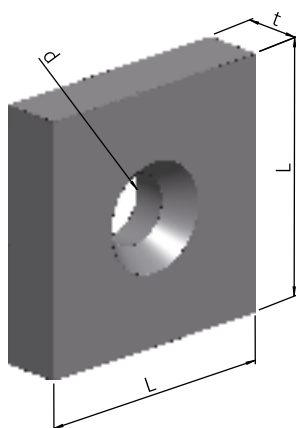
Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
16L	0,20	32	40	-
20L	0,26	36	45	-
25L	0,34	41	50	-
28L	0,48	46	55	-
32L	0,78	55	60	-
40L	1,18	65	70	-
50L	2,17	80	85	-
57L	3,65	90	100	102
63L	3,57	100	90	108
75L	2,90	100	100	108

Lock nut, long L2003



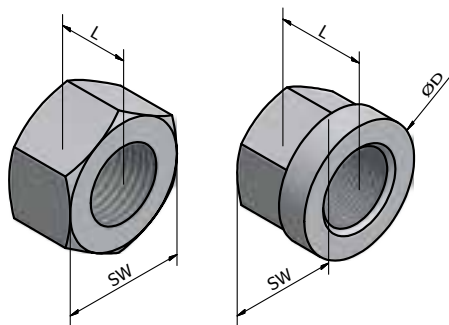
Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
16L	0,15	32	30	-
20L	0,16	32	40	-
25L	0,25	41	40	-
28L	0,26	41	45	-
32L	0,47	50	50	-
40L	0,85	60	65	-
50L	2,10	70	80	80
57L	2,87	90	80	102
63L	3,74	90	115	102
75L	2,37	100	80	108

Plate for spherical nut L2011



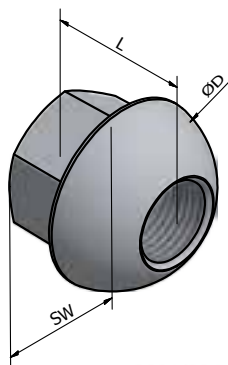
Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
16L	0,15	50	10	20
20L	0,37	70	12	25
25L	0,34	70	12	30
28L	1,33	100	20	33
32L	1,91	120	20	40
40L	4,48	150	30	47
50L	10,78	190	45	58
57L	16,25	220	50	67
63L	20,09	245	50	70
75L	32,60	275	65	88

Lock nut, short L2040



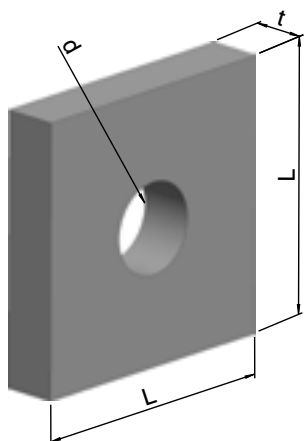
Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
16L	0,10	32	20	-
20L	0,08	32	20	-
25L	0,14	41	20	-
28L	0,15	41	25	-
32L	0,28	50	30	-
40L	0,45	60	35	-
50L	1,21	80	50	-
57L	2,16	90	60	102
63L	2,18	90	75	108
75L	2,35	100	80	108

Spherical nut, 55° L2044



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
16L	0,10	27	35	33
20L	0,26	36	49	41
25L	0,35	41	55	45
28L	0,45	41	62	54
32L	0,65	46	70	57
40L	1,25	60	88	70
50L	2,60	80	107	85
57L	4,15	90	120	100
63L	6,00	100	144	115
75L	9,69	120	165	120

Plate L2138



Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
16L	0,26	55	12	20
20L	0,52	70	15	25
25L	0,89	80	20	30
28L	1,14	90	20	33
32L	1,74	100	25	38
40L	3,27	125	30	47
50L	5,87	155	35	58
57L	9,13	180	40	65
63L	12,69	200	45	72
75L	20,33	230	55	86

# Accessories for Threaded Bars

## AMTB 500/550 & 555/700

### Left-hand thread

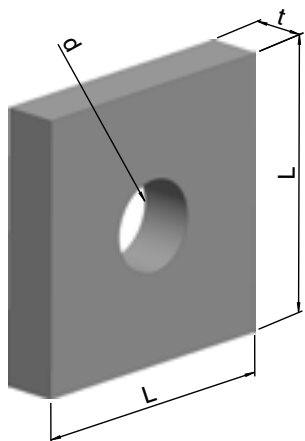


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## Plate

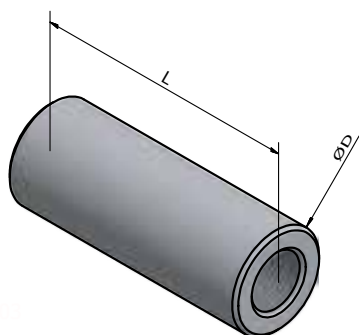
L2139



Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
16L	0,31	60	12	20
20L	0,70	80	15	25
25L	1,16	90	20	30
28L	1,79	100	25	33
32L	2,15	110	25	38
40L	4,91	140	35	47
50L	8,79	175	40	58
57L	12,96	200	45	65
63L	17,40	220	50	72
75L	29,10	260	60	86

## Coupler

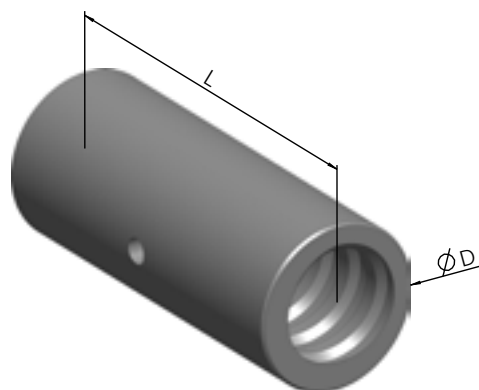
L3003



Ø [mm]	Weight [kg]	D [mm]	L [mm]
16L	0,70	32	90
20L	0,52	36	105
25L	0,61	40	115
28L	0,85	45	125
32L	1,26	52	140
40L	2,34	65	160
50L	4,23	80	200
57L	10,31	102	230
63L	9,55	102	260
75L	8,07	108	240

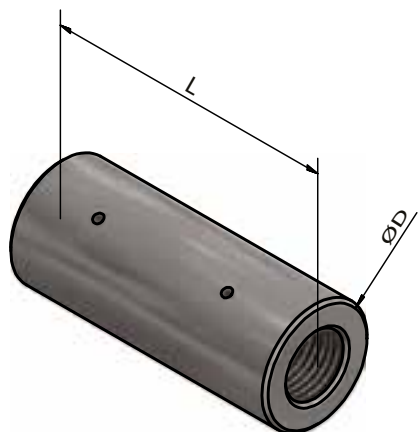
## Contact coupler

L3006



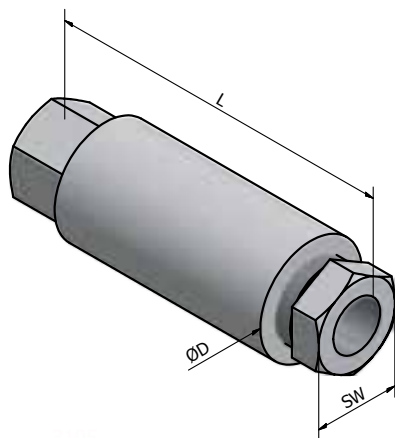
Ø [mm]	Weight [kg]	D [mm]	L [mm]
16L	0,17	27	65
20L	0,25	32	70
25L	0,30	36	80
28L	0,40	40	85
32L	0,50	45	90
40L	0,82	54	120
50L	1,09	63	160
57L	3,36	83	170
63L	4,28	90	200
75L	5,33	102	210

### Coupler with set screws L3020



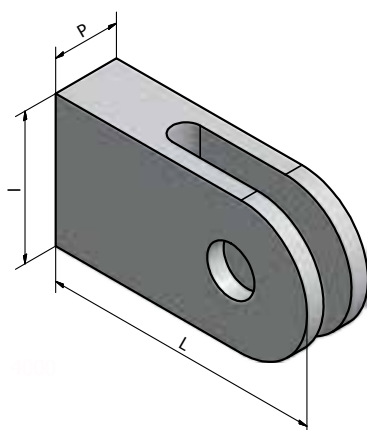
Ø [mm]	Weight [kg]	D [mm]	L [mm]
16L	0,70	32	90
20L	0,52	36	105
25L	0,61	40	115
28L	0,85	45	125
32L	1,26	52	140
40L	2,34	65	160
50L	4,23	80	200
57L	10,31	102	230
63L	9,55	102	260
75L	8,07	108	240

### Turnbuckle L3105



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
32L	3,60	60	225	-
40L	6,60	80	270	-
50L	14,30	100	305	-
57L	20,70	100	340	127
63L	22,00	100	390	127
75L	26,22	110	375	140

### Fork piece L4000



Ø [mm]	Weight [kg]	L [mm]	l [mm]	P [mm]
40L	13,60	140	305	65
50L	39,70	190	445	90
57L	44,60	210	435	100
63L	66,00	230	470	120
75L	94,80	260	510	140

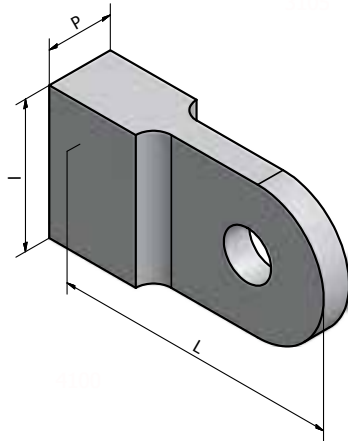
Accessories for Threaded Bars  
AMTB 500/550 & 555/700  
Left-hand thread



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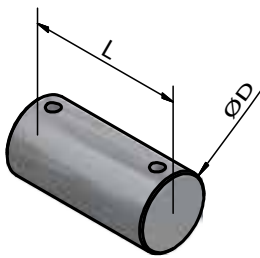
8

Eye piece **L4100**



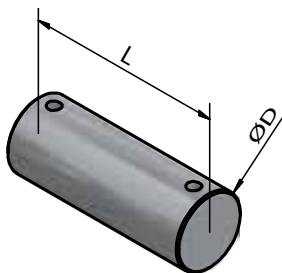
Ø [mm]	Weight [kg]	L [mm]	l [mm]	P [mm]
40L	1,70	50	115	65
50L	3,64	65	145	90
57L	5,20	75	155	100
63L	6,93	80	180	120
75L	10,30	90	210	140

Bolt eye piece **L4200**



Ø [mm]	Weight [kg]	D [mm]	L [mm]
40L	1,70	50	115
50L	3,64	65	145
57L	5,20	75	155
63L	6,93	80	180
75L	10,30	90	210

Bolt T-plates eye piece **L4220**



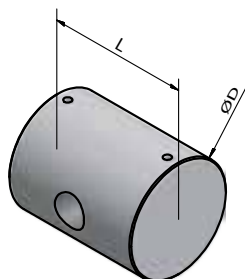
Ø [mm]	Weight [kg]	D [mm]	L [mm]
40L	2,17	50	145
50L	5,07	65	200
57L	5,73	75	170
63L	9,30	80	240
75L	11,05	90	225



# Accessories for Threaded Bars AMTB 500/550 & 555/700 Left-hand thread

## Joint nut

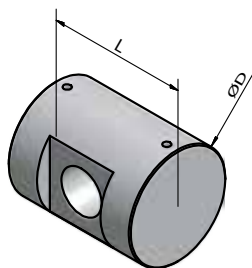
### L4230



Ø [mm]	Weight [kg]	D [mm]	L [mm]
32L	7,30	90	160
40L	13,80	120	170
50L	28,80	160	200
57L	23,80	140	220
63L	33,20	170	230
75L	50,40	180	280

## Joint bolt

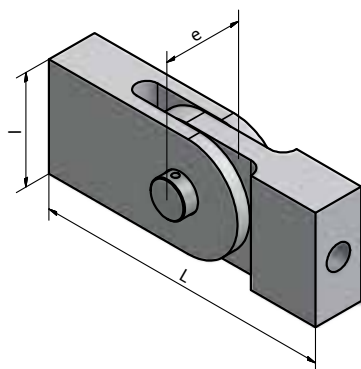
### L4240



Ø [mm]	Weight [kg]	D [mm]	L [mm]
32L	6,60	90	160
40L	12,60	120	170
50L	26,70	160	200
57L	20,70	140	220
63L	33,00	170	230
75L	44,20	180	280

## Clevis

### L4300



Ø [mm]	Weight [kg]	L [mm]	l [mm]	P [mm]
40L	27,50	445	140	115
50L	79,00	675	190	145
57L	89,30	625	210	155
63L	129,00	675	230	180
75L	182,80	735	260	210

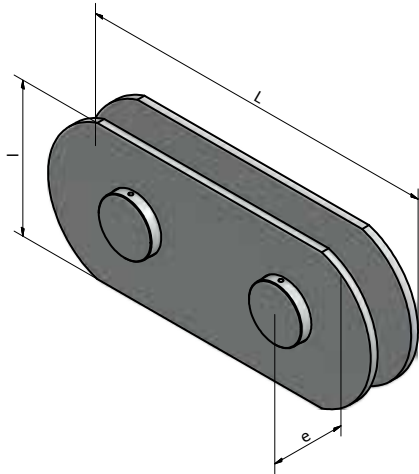
Accessories for Threaded Bars  
AMTB 500/550 & 555/700  
Left-hand thread



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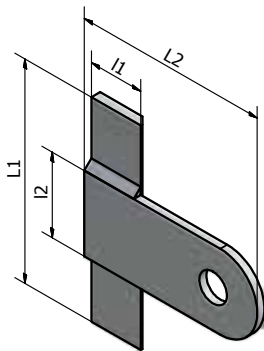
10

Hinged joint L4320



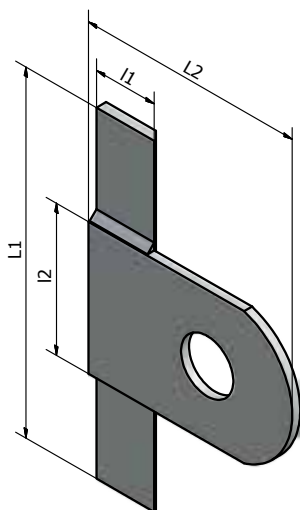
Ø [mm]	Weight [kg]	L [mm]	l [mm]	P [mm]
32L	32,10	500	235	160
40L	69,40	710	310	170
50L	156,00	950	410	200
57L	125,00	780	400	218
63L	234,00	1130	435	230
75L	260,00	1040	485	280

T-plate eye pieces L5100



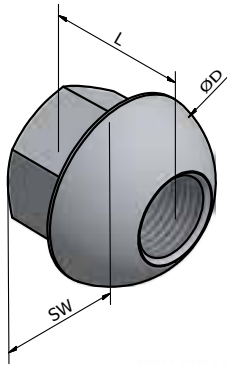
Ø [mm]	Weight [kg]	l1 [mm]	L1 [mm]	l2 [mm]	L2 [mm]
40L	12,50	120	370	140	390
50L	26,50	140	550	210	490
57L	28,90	140	540	190	460
63L	51,30	180	625	230	550
75L	54,00	180	680	260	580

T-plate joint nut L5110



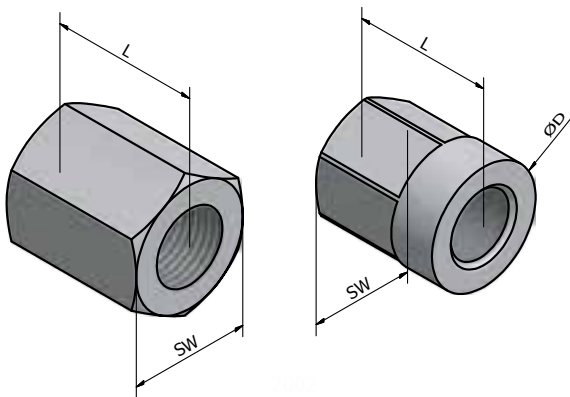
Ø [mm]	Weight [kg]	l1 [mm]	L1 [mm]	l2 [mm]	L2 [mm]
40L	29,35	120	800	310	480
50L	57,60	140	1000	410	585
57L	54,80	140	1000	400	540
63L	92,80	180	1100	435	670
75L	105,00	180	1250	485	680

Spherical nut, 55° R2001



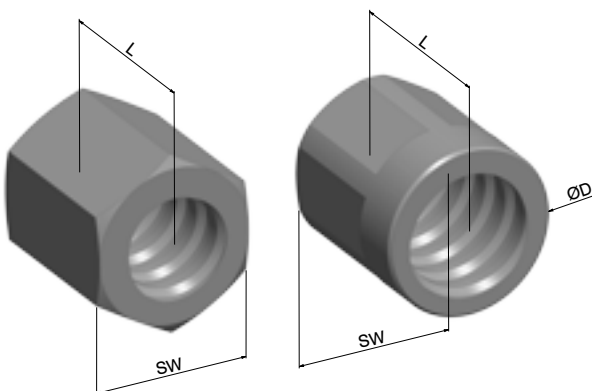
Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
18R	0,20	32	35	43
22R	0,31	36	45	53
25R	0,43	41	50	60
28R	0,60	46	55	67
30R	0,79	50	60	71
35R	1,30	60	70	83
43R	2,20	70	85	102
50R	3,59	80	100	116
57R	5,50	90	115	137
63R	7,30	100	125	151
75R	11,90	120	150	174

Hexagonal nut R2002



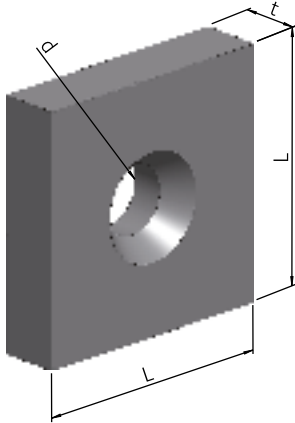
Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
18R	0,29	36	45	-
22R	0,39	41	50	-
25R	0,53	46	55	-
28R	0,67	50	60	-
30R	0,90	55	65	-
35R	1,37	65	70	-
43R	2,62	80	90	-
50R	2,80	80	100	-
57R	4,42	90	120	102
63R	4,41	100	110	108
75R	4,90	100	130	108

Lock nut, long R2003



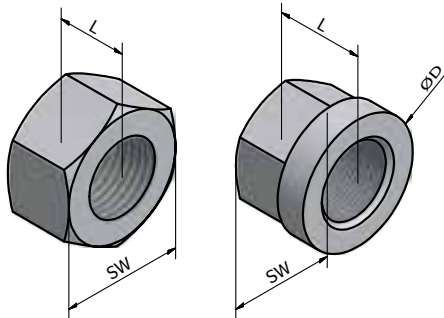
Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
18R	0,15	30	40	-
22R	0,24	36	45	-
25R	0,35	41	50	-
28R	0,49	46	55	-
30R	0,63	50	60	-
35R	0,77	55	65	-
43R	1,21	70	80	-
50R	2,38	80	90	-
57R	3,42	90	100	102
63R	5,05	100	115	114
75R	3,59	100	120	108

Plate for spherical nut R2011



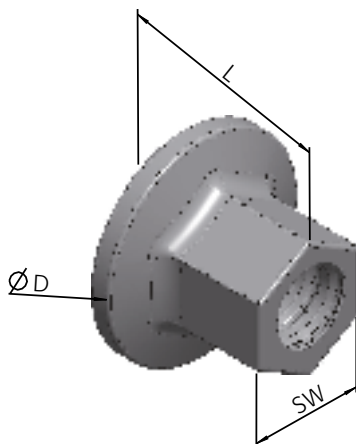
Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
18R	2,20	100	25	27
22R	2,62	110	30	32
25R	3,39	125	30	35
28R	4,59	135	35	40
30R	5,32	145	35	40
35R	8,36	170	40	47
43R	15,90	210	50	58
50R	22,59	240	55	70
57R	32,80	275	60	75
63R	45,20	300	65	82
75R	51,89	325	70	100

Lock nut, short R2040



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
18R	0,10	30	22	-
22R	0,12	36	22	-
25R	0,15	41	22	-
28R	0,26	46	30	-
30R	0,31	50	30	-
35R	0,47	55	40	-
43R	1,00	70	50	-
50R	1,39	80	50	-
57R	1,93	90	60	102
63R	3,03	100	70	114
75R	2,33	100	80	108

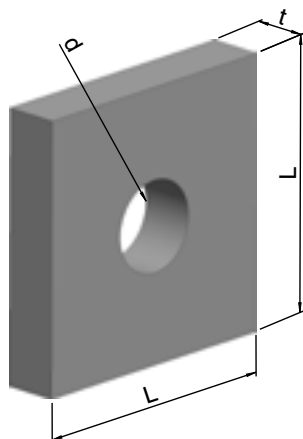
Anchor piece R2073



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
18R	0,28	32	35	55
22R	0,43	36	45	65
25R	0,67	41	50	75
28R	0,91	46	55	85
30R	1,10	50	60	90
35R	1,82	60	70	105
43R	2,95	70	85	130
50R	4,48	80	100	150
57R	7,42	90	115	175
63R	9,35	100	125	190
75R	16,82	120	150	230

Plate

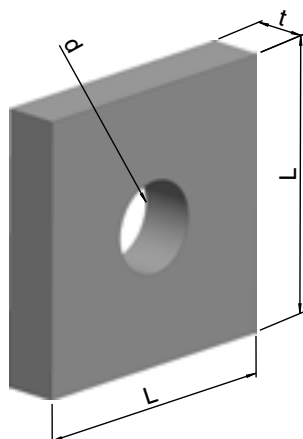
R2138



Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
18R	-	-	-	-
22R	0,91	80	20	27
25R	1,16	90	20	30
28R	1,41	100	20	34
30R	2,17	110	25	36
35R	2,79	125	25	42
43R	4,84	150	30	50
50R	7,64	175	35	60
57R	12,88	200	45	67
63R	17,31	220	50	74
75R	31,53	260	65	86

Plate

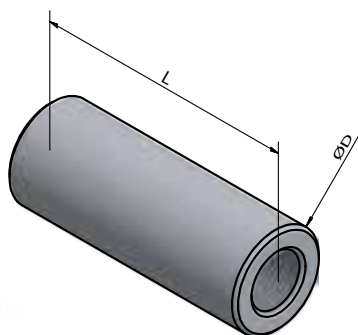
R2139



Ø [mm]	Weight [kg]	L [mm]	t [mm]	d [mm]
18R	-	-	-	-
22R	1,18	90	20	27
25R	1,46	100	20	30
28R	2,2	110	25	34
30R	2,63	120	25	36
35R	4,29	140	30	42
43R	7,4	170	35	50
50R	11,67	200	40	60
57R	19,38	230	50	67
63R	24,06	245	55	74
75R	43,02	290	70	86

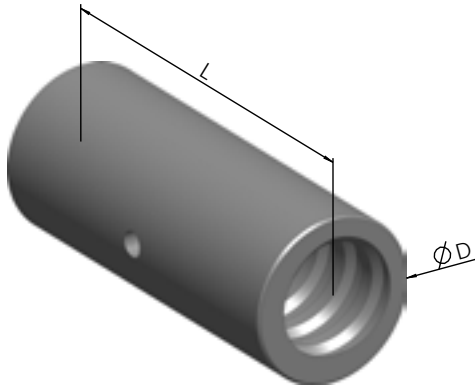
Coupler

R3003



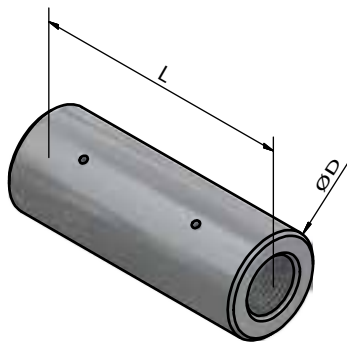
Ø [mm]	Weight [kg]	L [mm]	D [mm]
18R	0,56	36	100
22R	0,71	40	110
25R	0,94	45	120
28R	1,36	50	140
30R	1,84	55	150
35R	2,95	65	170
43R	5,42	80	200
50R	7,24	90	210
57R	10,31	102	250
63R	14,48	114	300
75R	8,74	108	260

Contact coupler R3006



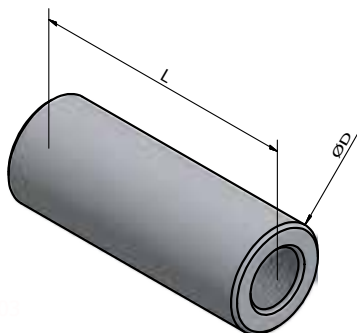
Ø [mm]	Weight [kg]	L [mm]	D [mm]
18R	0,15	27	70
22R	0,25	32	75
25R	0,43	40	80
28R	0,62	45	90
30R	0,55	45	90
35R	0,81	50	120
43R	2,09	65	160
50R	2,25	70	170
57R	3,60	83	180
63R	4,46	90	200
75R	5,95	102	230

Coupler with set screws R3020



Ø [mm]	Weight [kg]	L [mm]	D [mm]
18R	0,56	36	100
22R	0,71	40	110
25R	0,94	45	120
28R	1,36	50	140
30R	1,84	55	150
35R	2,95	65	170
43R	5,42	80	200
50R	7,24	90	210
57R	10,31	102	250
63R	14,48	114	300
75R	8,74	108	260

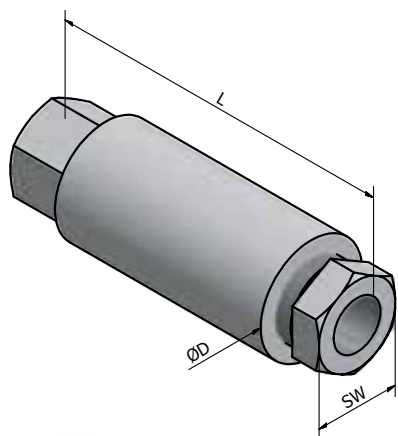
Reducing coupler R3102



Ø [mm]	Weight [kg]	L [mm]	D [mm]
18R	-	-	-
22R	0,84	40	135
25R	1,26	45	155
28R	1,63	50	165
30R	2,15	55	175
35R	2,57	60	185
43R	5,51	80	200
50R	7,65	85	270
57R	10,98	100	270
63R	15,24	110	315
75R	11,93	110	300

Turnbuckle

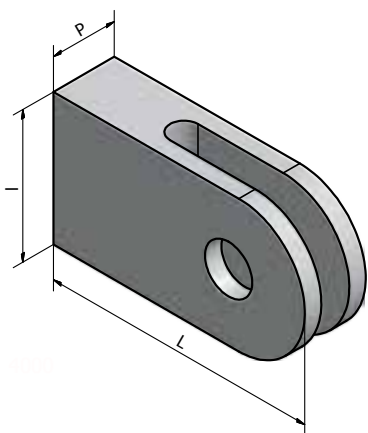
R3105



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
35R	8,90	80	275	-
43R	13,90	90	330	-
50R	16,77	100	350	-
57R	24,00	100	390	127
63R	25,50	100	405	133
75R	29,40	110	405	140

Fork piece

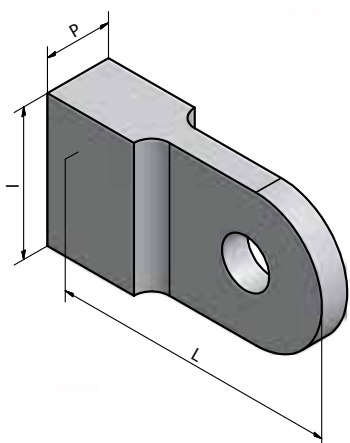
R4000



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
35R	13,70	140	305	65
43R	40,40	190	400	90
50R	39,90	185	470	90
57R	66,00	120	470	120
63R	74,00	160	495	120
75R	123,50	300	575	150

Eye piece

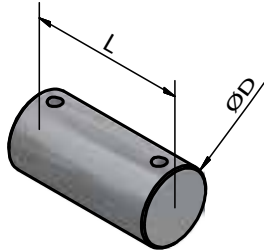
R4100



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
35R	12,30	140	310	65
43R	36,20	190	405	90
50R	37,90	185	475	90
57R	55,70	230	475	120
63R	67,50	260	505	120
75R	114,20	300	585	150

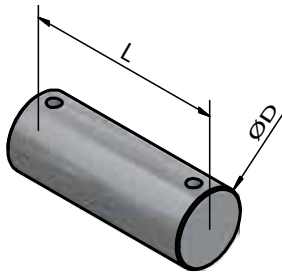
Bolt eye piece

R4200



Ø [mm]	Weight [kg]	D [mm]	L [mm]
35R	1,70	50	115
43R	3,64	65	145
50R	4,40	70	150
57R	6,93	80	180
63R	9,20	90	190
75R	14,95	105	225

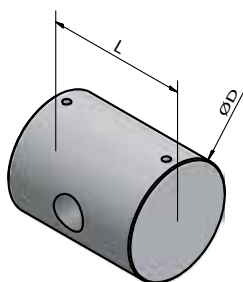
Bolt T-Plate eye pieces R4220



Ø [mm]	Weight [kg]	D [mm]	L [mm]
35R	2,17	50	145
43R	5,07	65	200
50R	5,14	70	175
57R	9,30	80	240
63R	11,70	90	240
75R	17,34	105	260

Joint nut

R4230

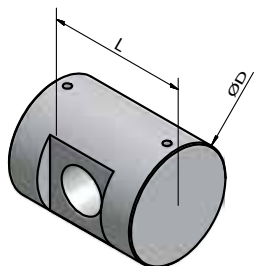


Ø [mm]	Weight [kg]	D [mm]	L [mm]
35R	11,80	110	170
43R	22,50	140	200
50R	31,90	160	220
57R	33,20	160	230
63R	49,20	190	240
75R	67,60	200	300



### Joint bolt

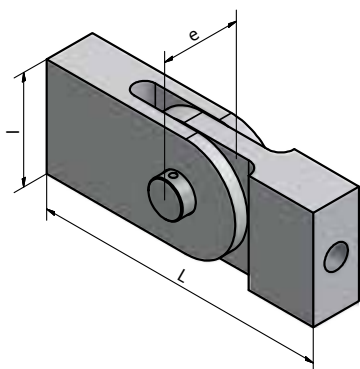
R4240



Ø [mm]	Weight [kg]	D [mm]	L [mm]
35R	10,50	110	170
43R	20,54	140	200
50R	29,80	160	220
57R	29,80	160	230
63R	44,50	190	240
75R	61,30	200	300

### Clevis

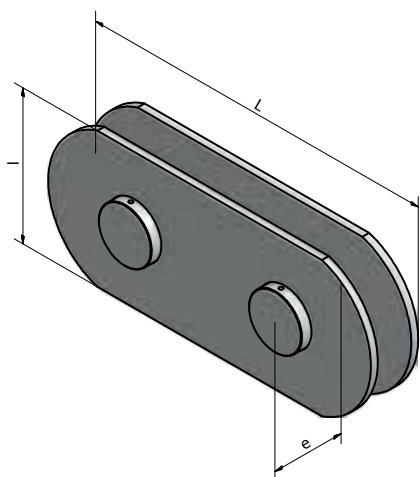
R4300



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
35R	27,80	4485	140	115
43R	80,30	585	190	145
50R	81,30	705	185	150
57R	129,00	675	230	180
63R	151,50	700	260	190
75R	258,00	810	300	225

### Hinged joint

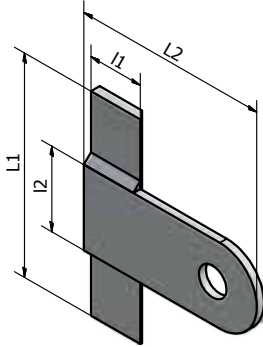
R4320



Ø [mm]	Weight [kg]	SW [mm]	L [mm]	D [mm]
35R	60,50	680	285	170
43R	123,10	850	360	200
50R	151,20	860	410	220
57R	194,70	980	410	230
63R	278,00	1160	485	240
75R	422,50	1250	510	300

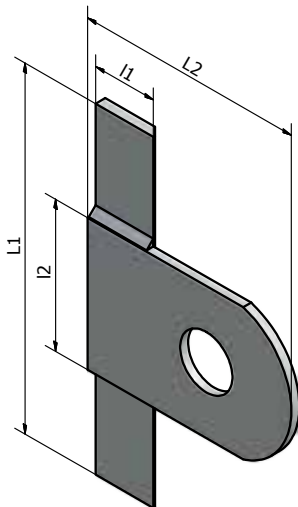


T-Plate eye pieces R5100



Ø [mm]	Weight [kg]	l1 [mm]	L1 [mm]	l2 [mm]	L2 [mm]
35R	12,50	120	370	140	390
43R	26,50	140	540	190	460
50R	28,80	170	480	185	510
57R	51,30	180	625	230	550
63R	59,10	200	700	260	600
75R	103,00	250	775	300	700

T-Plate joint nut R5110



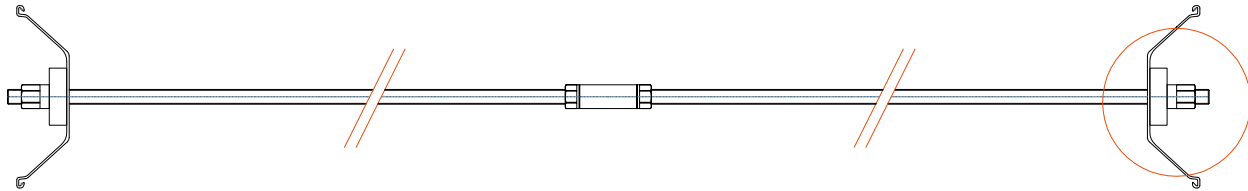
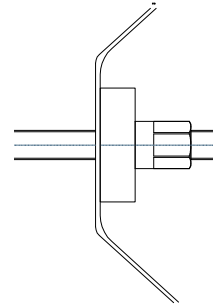
Ø [mm]	Weight [kg]	l1 [mm]	L1 [mm]	l2 [mm]	L2 [mm]
35R	26,30	120	720	285	460
43R	51,60	140	950	360	540
50R	67,10	170	1050	410	615
57R	83,70	180	1000	410	635
63R	114,60	200	1250	485	725
75R	185,00	250	1350	510	805

Accessories for Threaded Bars  
AMTB 670/800  
Right-hand thread



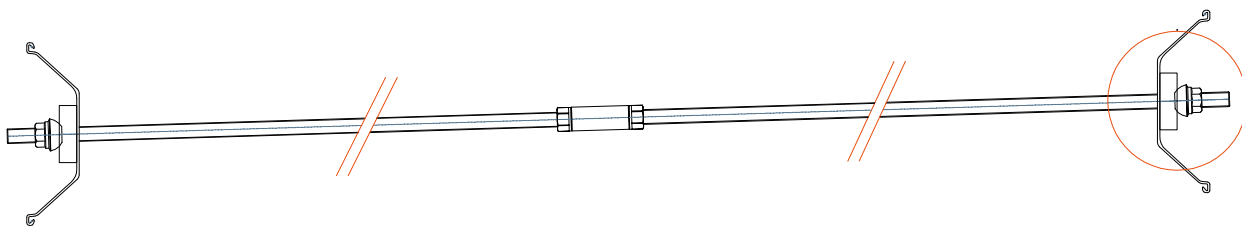
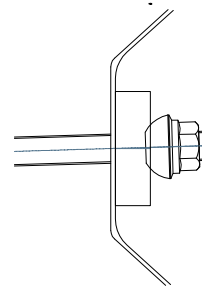
## 1 - Standard design for AU™, PU® and GU®

- 2x AMTB500 / AMTB670 Ø...
- 2x Hex nut Ø... L/R2002
- 1x Coupler Ø... L/R3003\*\*
- 2x Lock nut Ø... L/R2040\*\*
- 2x Plate L x l x e grade S...\*\*\*



## 2 - Inclined anchorage for AU™, PU® and GU®

- 2x AMTB500 / AMTB670 Ø...
- 2x Spherical nut Ø... L2044/R2001\*\*\*\*
- 1x Coupler Ø... L/R3003\*\*
- 2x Lock nut Ø... L/R2040\*\*
- 2x Plate for spherical nut L x l x e grade S...\*\*\*



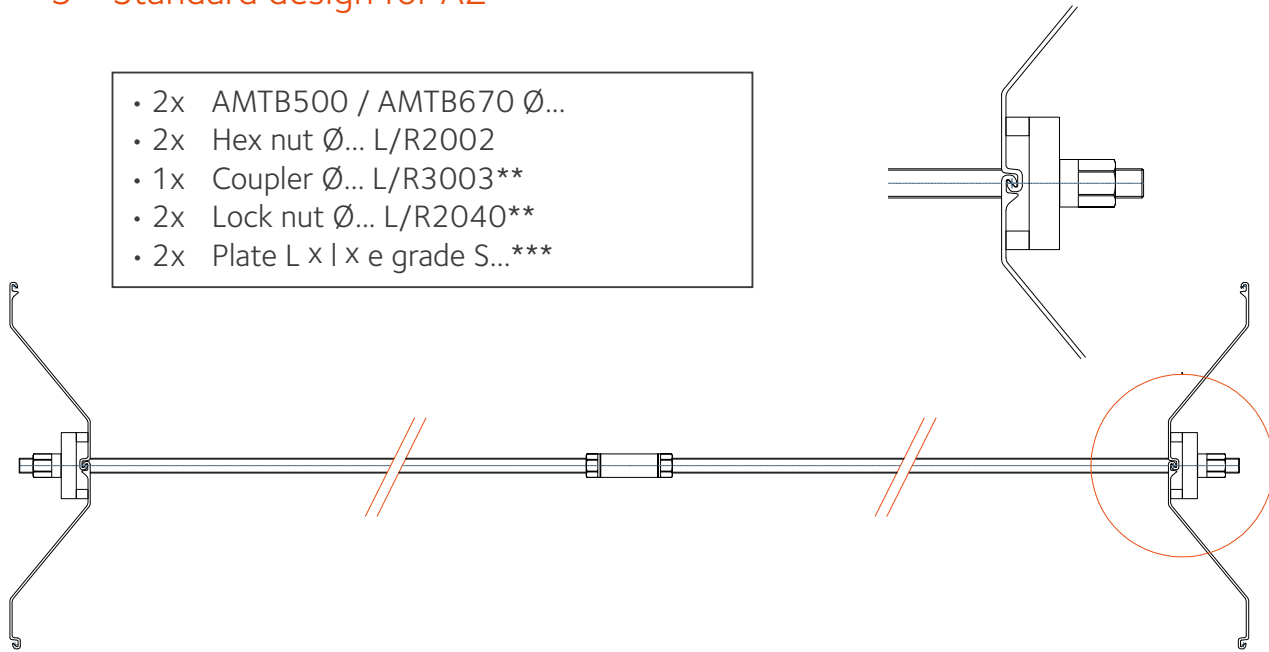
\*\* Used according to the total length of the tie rods.

\*\*\* The plate design is depending on diameter and grade of tie rods, type and grade of sheet piles and general design solutions.

\*\*\*\* Spherical nut can be used for misalignment max 5° without an inclined plate or to anticipate settlement.

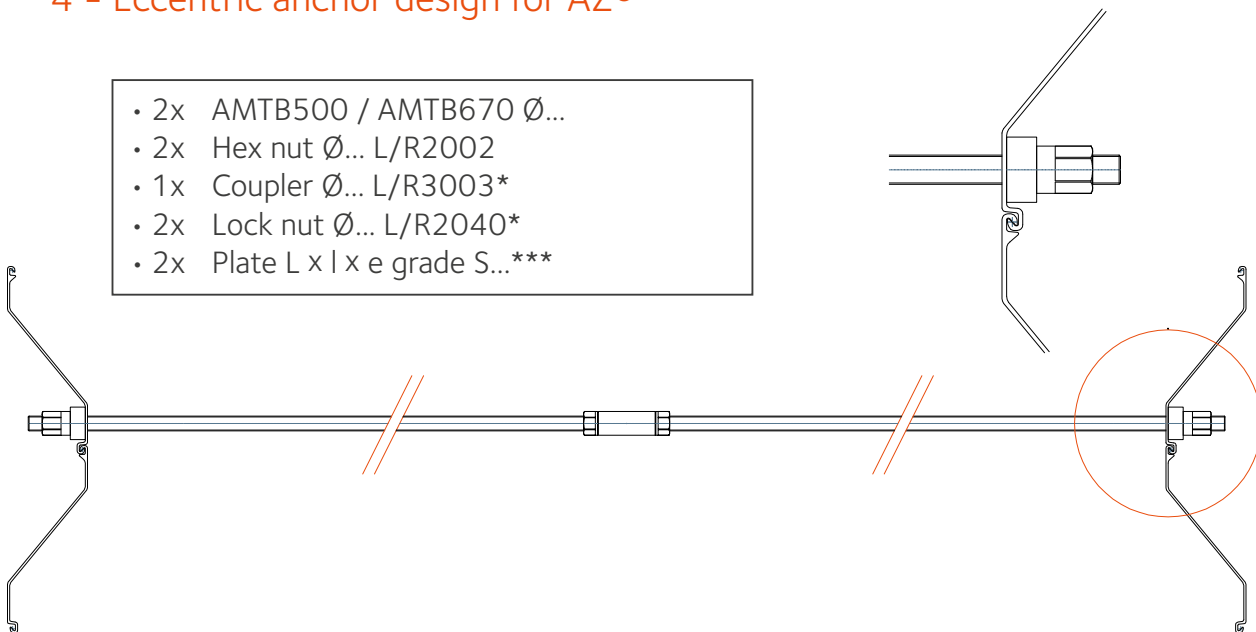
### 3 - Standard design for AZ®

- 2x AMTB500 / AMTB670 Ø...
- 2x Hex nut Ø... L/R2002
- 1x Coupler Ø... L/R3003\*\*
- 2x Lock nut Ø... L/R2040\*\*
- 2x Plate L x l x e grade S...\*\*\*



### 4 - Eccentric anchor design for AZ®

- 2x AMTB500 / AMTB670 Ø...
- 2x Hex nut Ø... L/R2002
- 1x Coupler Ø... L/R3003\*
- 2x Lock nut Ø... L/R2040\*
- 2x Plate L x l x e grade S...\*\*\*



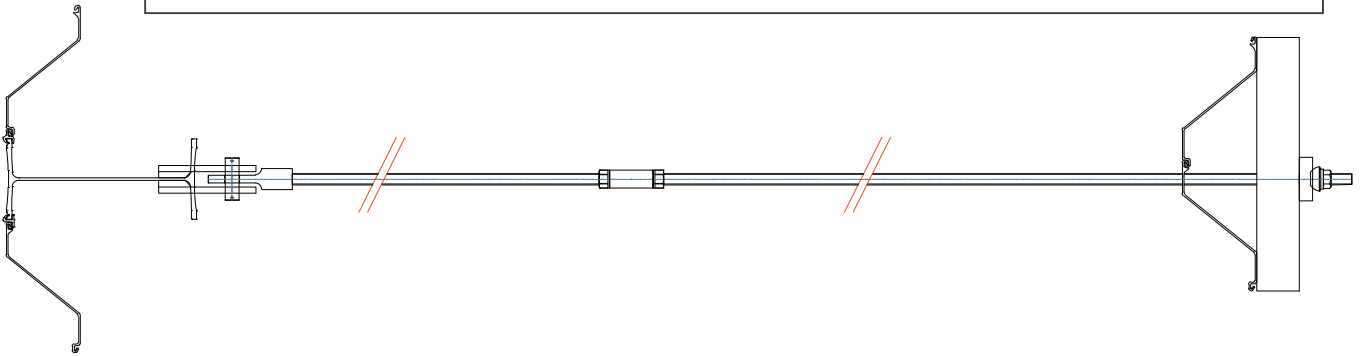
\*\* Used according to the total length of the tie rods.

\*\*\* The plate design is depending on diameter and grade of tie rods, type and grade of sheet piles and general design solutions.

\*\*\*\* Spherical nut can be used for misalignment max 5° without an inclined plate or to anticipate settlement.

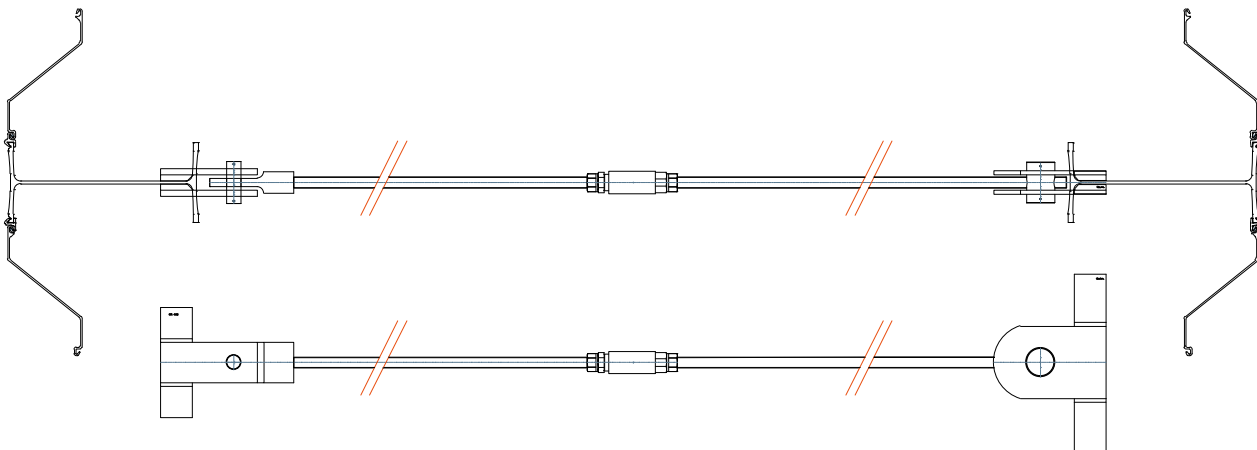
## 1 - Standard design for HZ<sup>®</sup> / AZ<sup>®</sup> on mainwall and AZ on anchor wall

- |   |   |
|---|---|
| • 2x AMTB500 / AMTB670 Ø...                 | • 2x Lock nut Ø... L/R2040**                            |
| • 2x T-Plate for eye piece Ø...<br>L/R5100* | • 1x Coupler Ø... L/R3003**                             |
| • 1x Pin for T-Plate Ø... L/R4220*          | • 1x Spherical nut Ø... L2044/R2001                     |
| • 1x Eye piece Ø... L/R4100*                | • 1x Plate for spherical nut<br>L x l x e grade S...*** |



## 2 - Design for double HZ<sup>®</sup> / AZ<sup>®</sup> combi-wall

- |  |  |
|--|--|
| • 2x AMTB500 / AMTB670 Ø...              | • 2x T-Plate for joint nut Ø... L/R5110* |
| • 2x T-Plate for eye piece Ø... L/R5100* | • 1x Joint nut Ø... L/R4230*             |
| • 1x Pin for T-Plate Ø... L/R4220*       | • 2x Lock nut Ø... L/R2040               |
| • 1x Eye piece Ø... L/R4100*             | • 1x Turnbuckle Ø... L/R3105             |

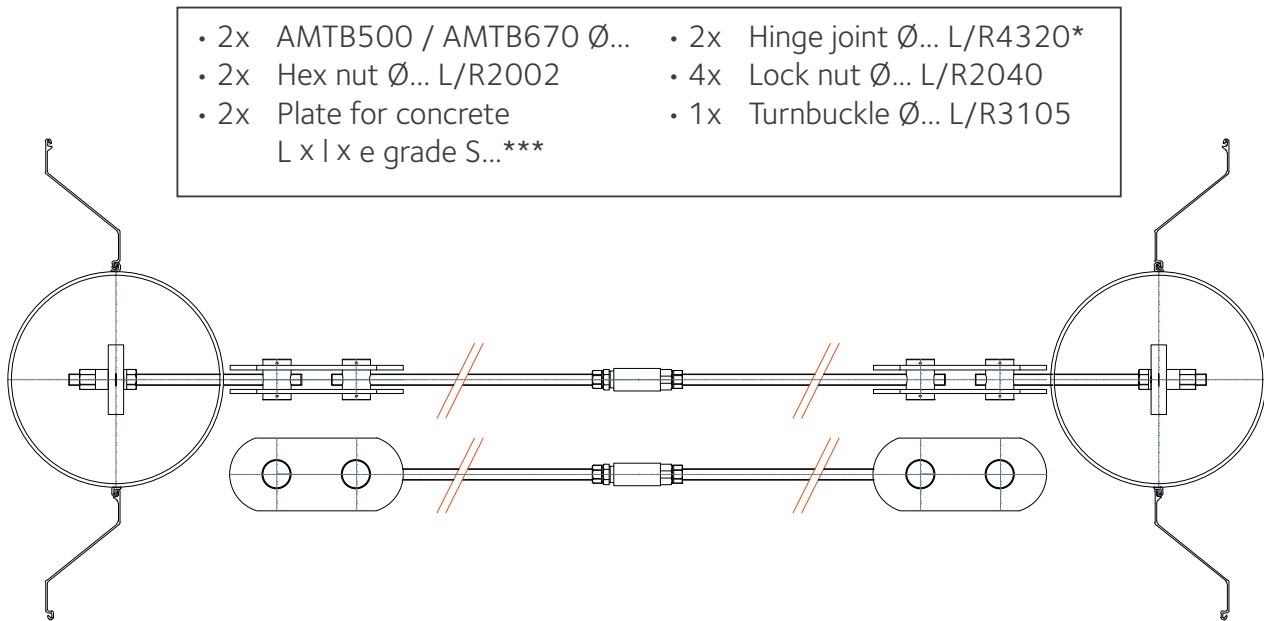


\* 2x Ø... L/R5100 + 1x Ø... L/R4220 + 1x Ø... L/R4100 can be replaced with 2x Ø... L/R5110 + 1x Ø... L/R4230 and conversely.

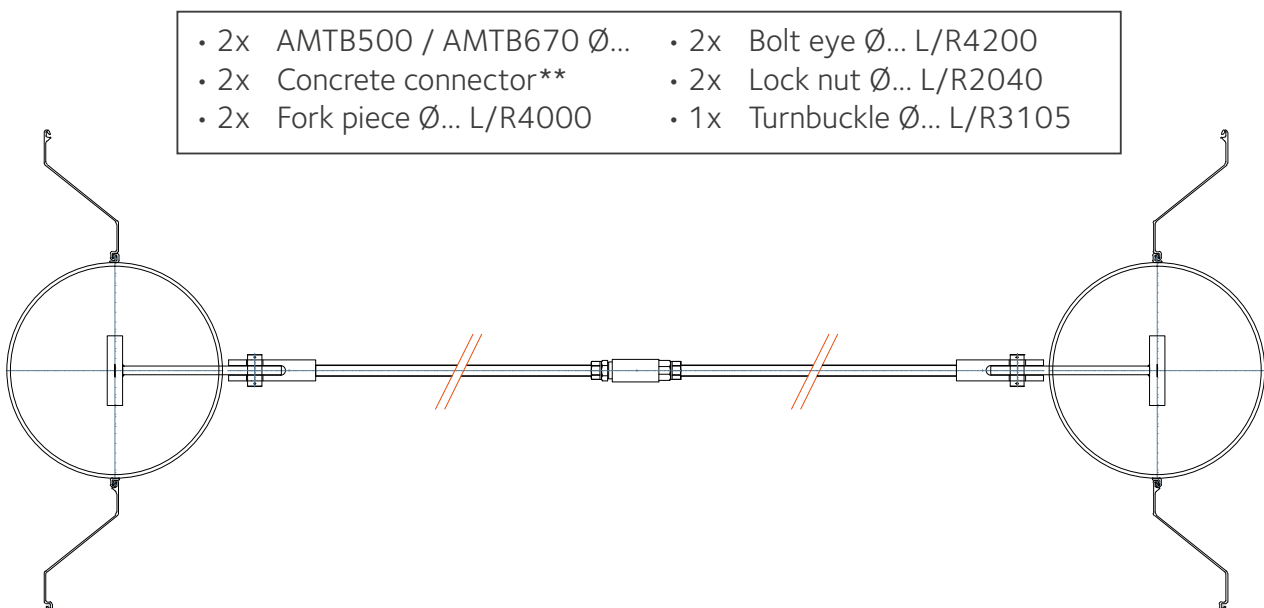
\*\* Used according to the total length of the tie rods.

\*\*\* The plate design is depending on diameter and grade of tie rods, type and grade of sheet piles and general design solutions.

## 1 - Standard design for pipe/AZ<sup>®</sup> combi-wall



## 4 - Alternative standard design for pipe/AZ<sup>®</sup> combi-wall



\* 2x Ø... L/R4320 can be replaced with 2x Ø... L/R4300 and conversely.

\*\* Design is depending on pipe and tie rods.

\*\*\* The plate design is depending on diameter and grade of tie rods, type and grade of sheet piles and general design solutions.



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