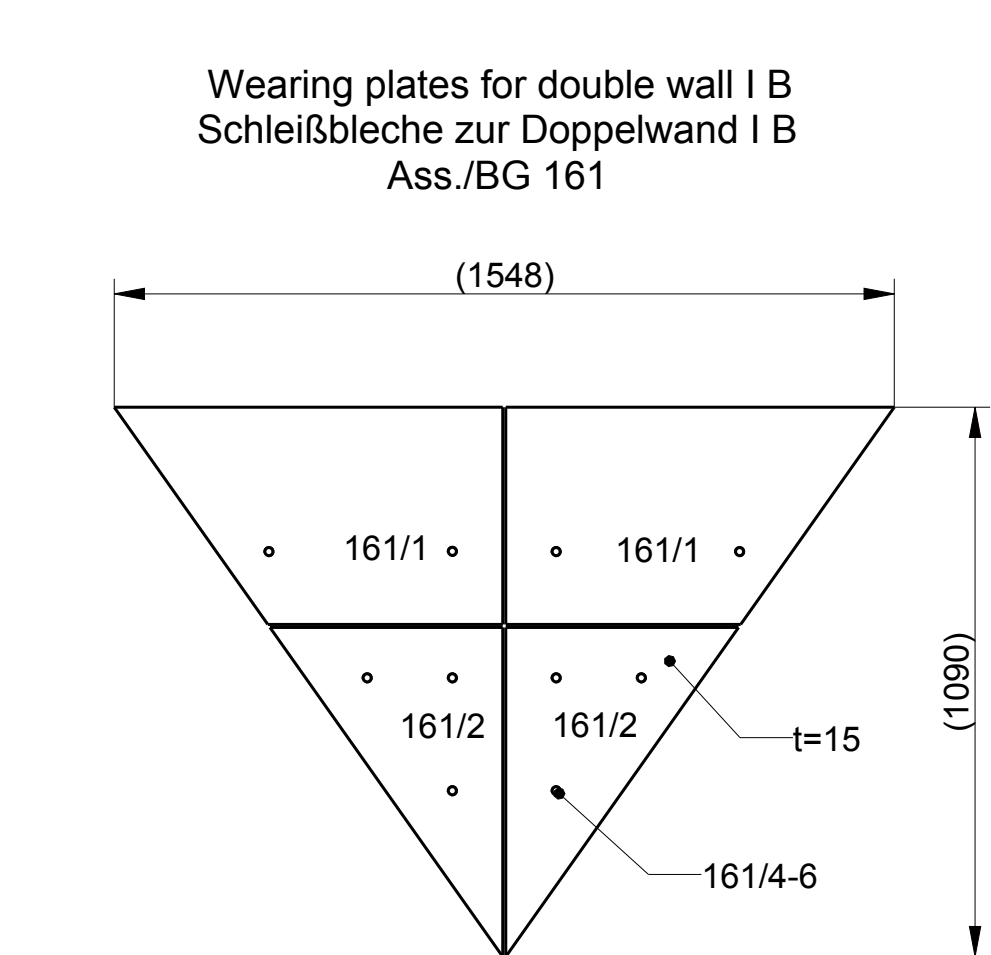
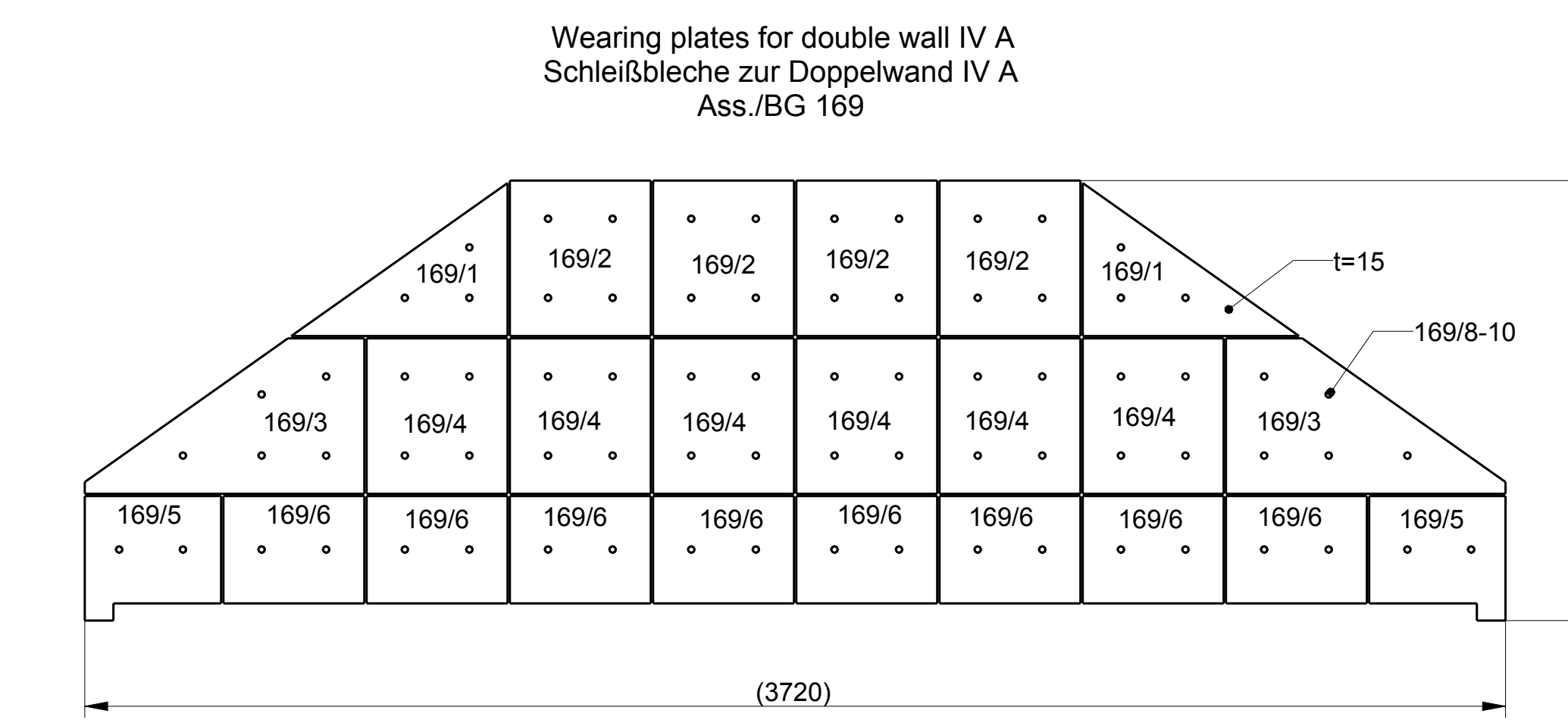
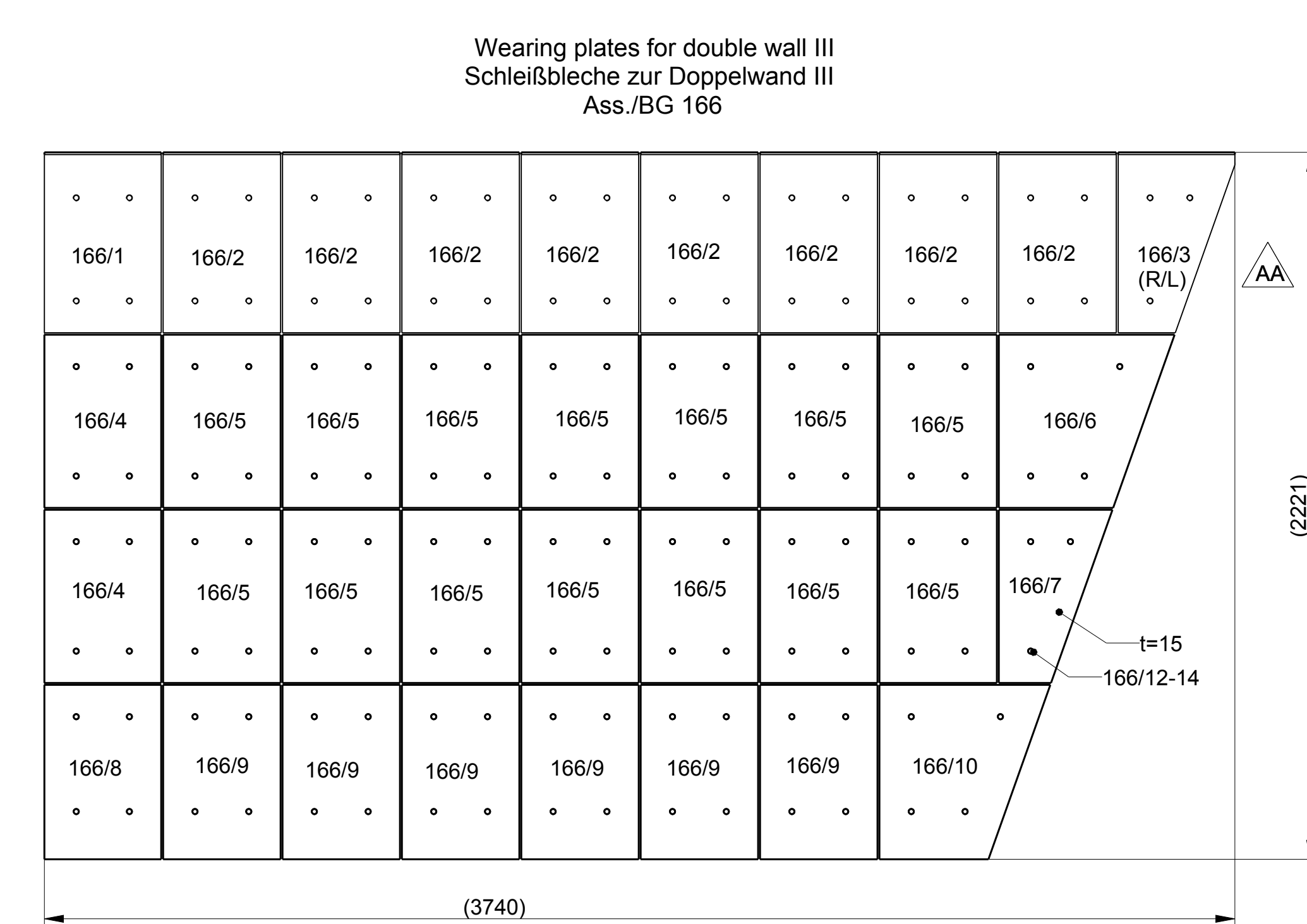
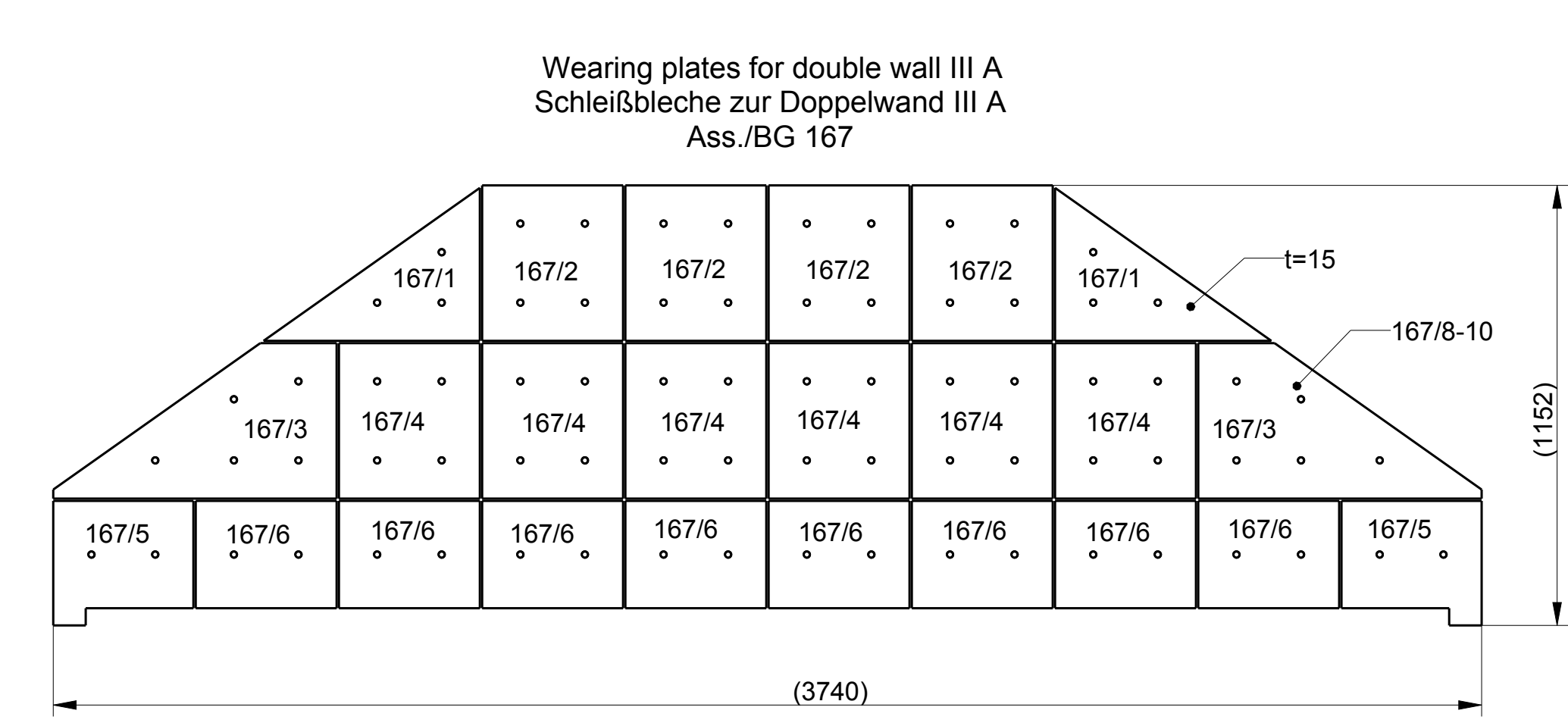
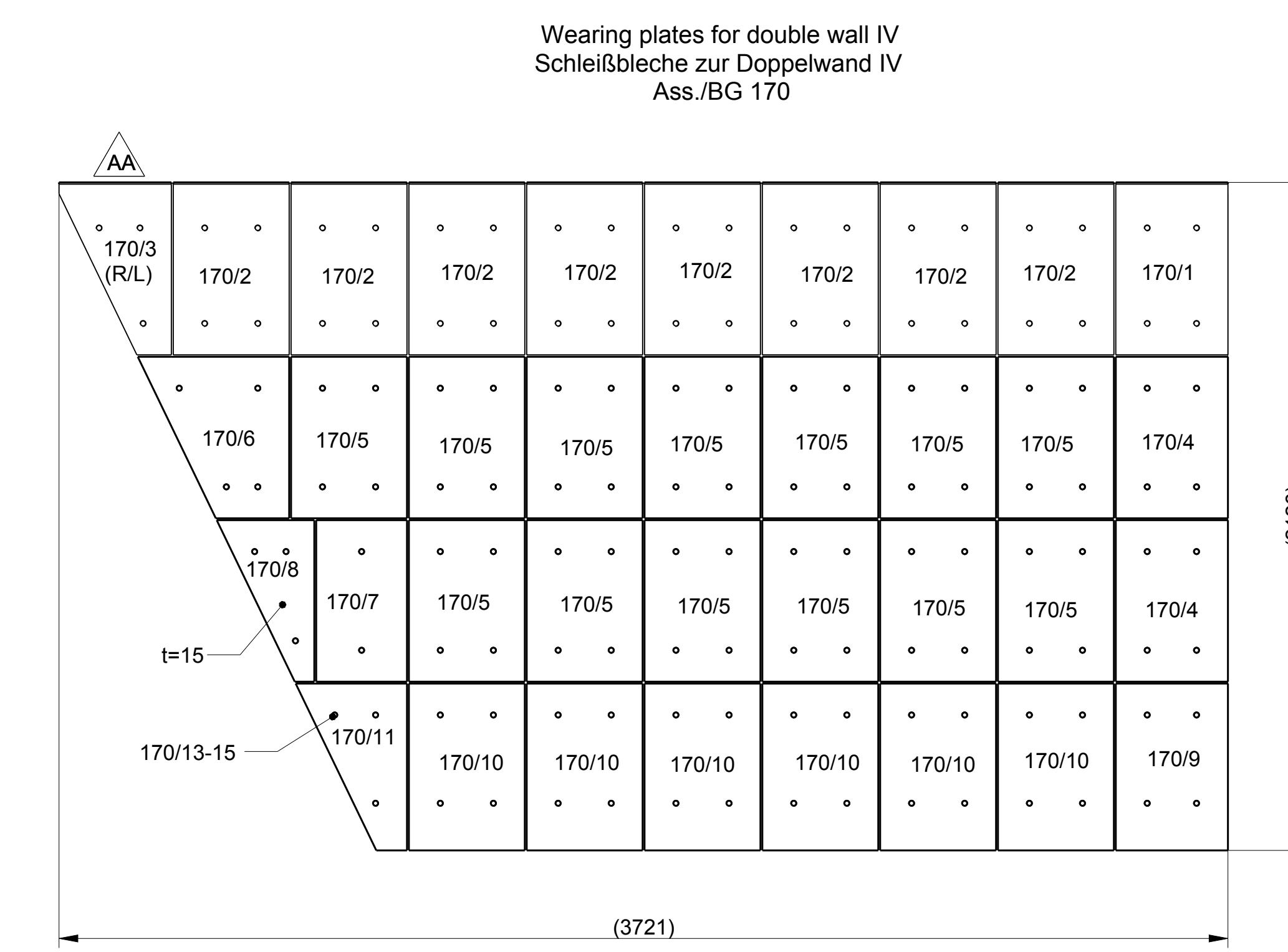
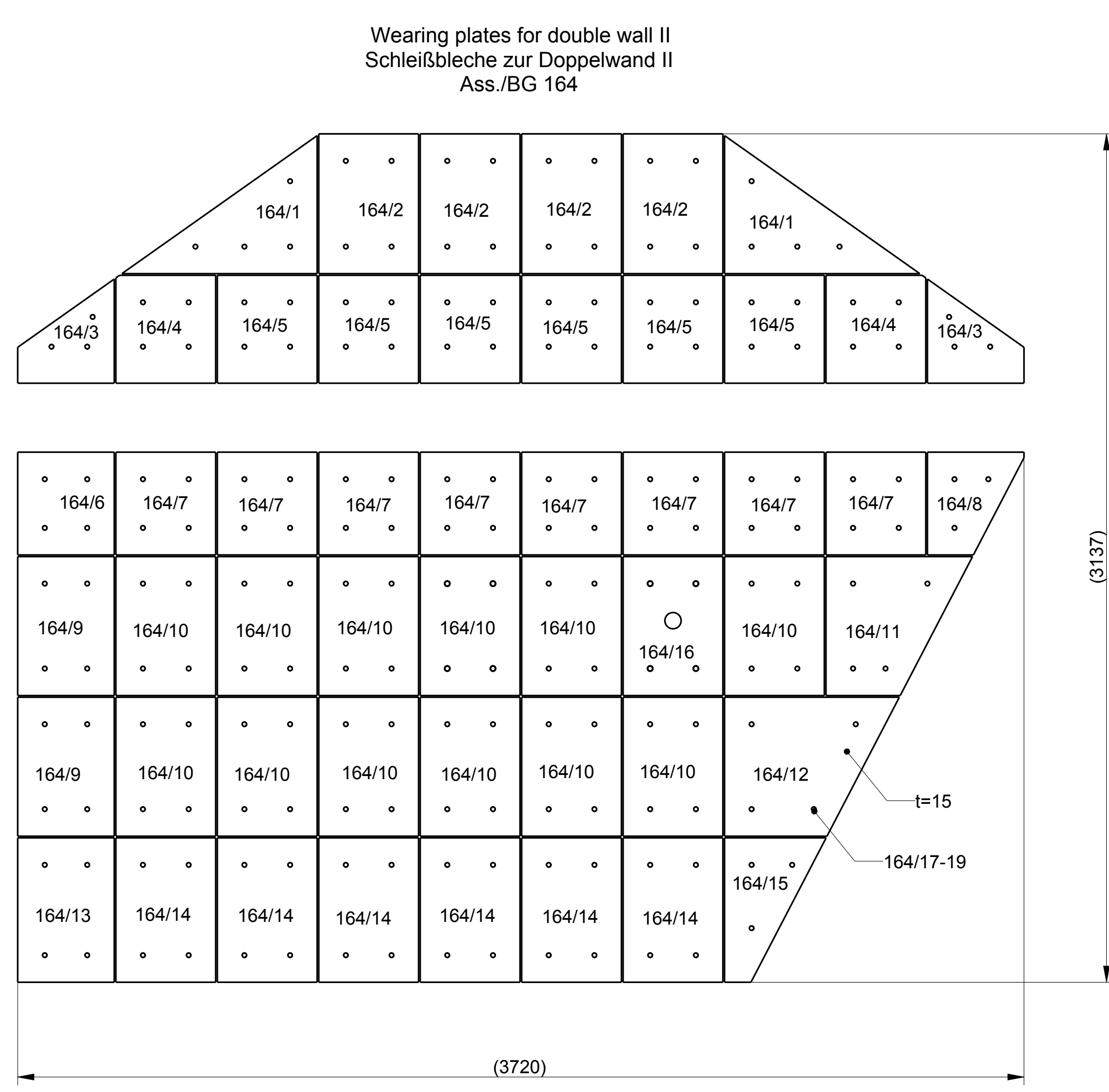
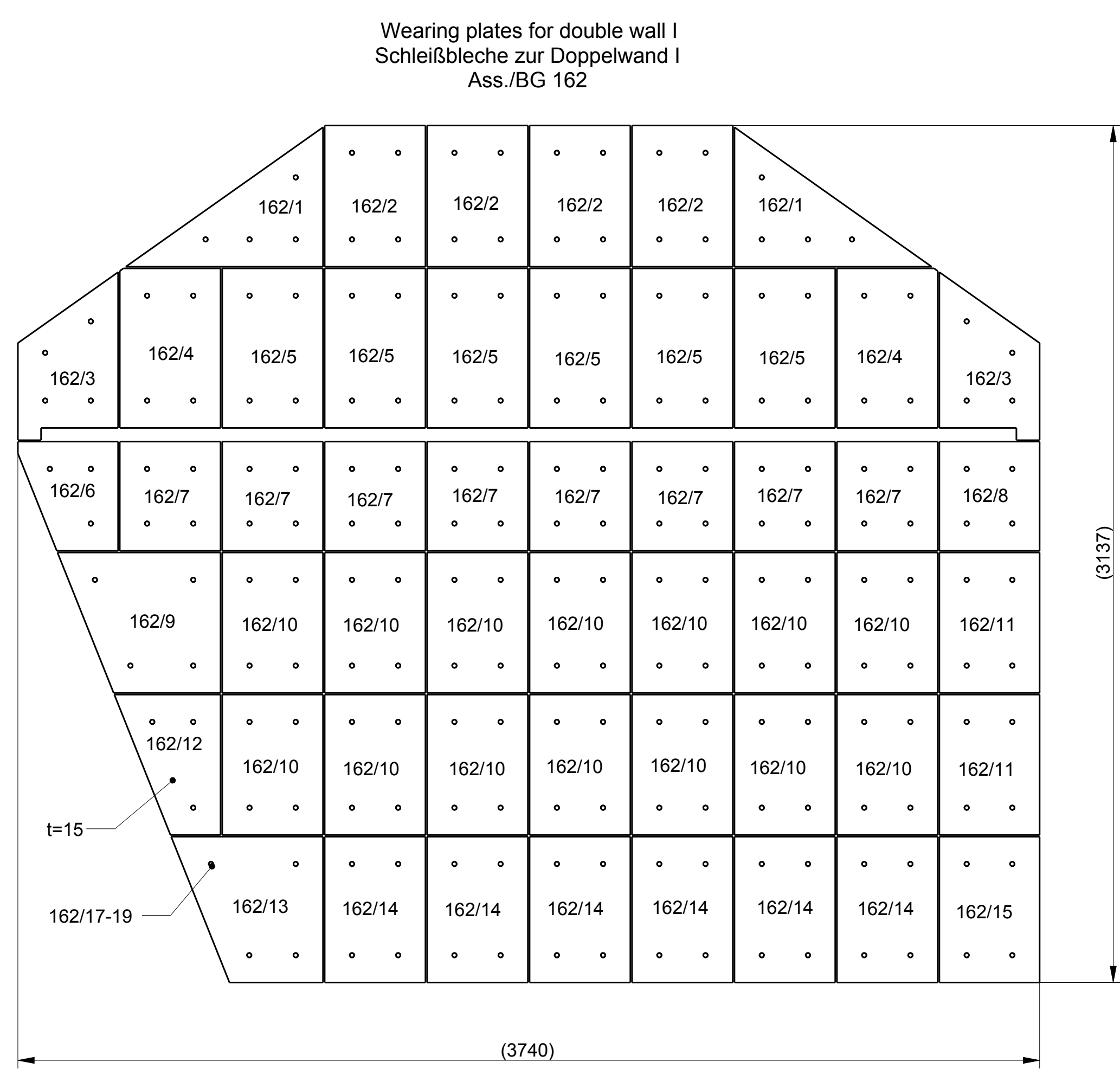
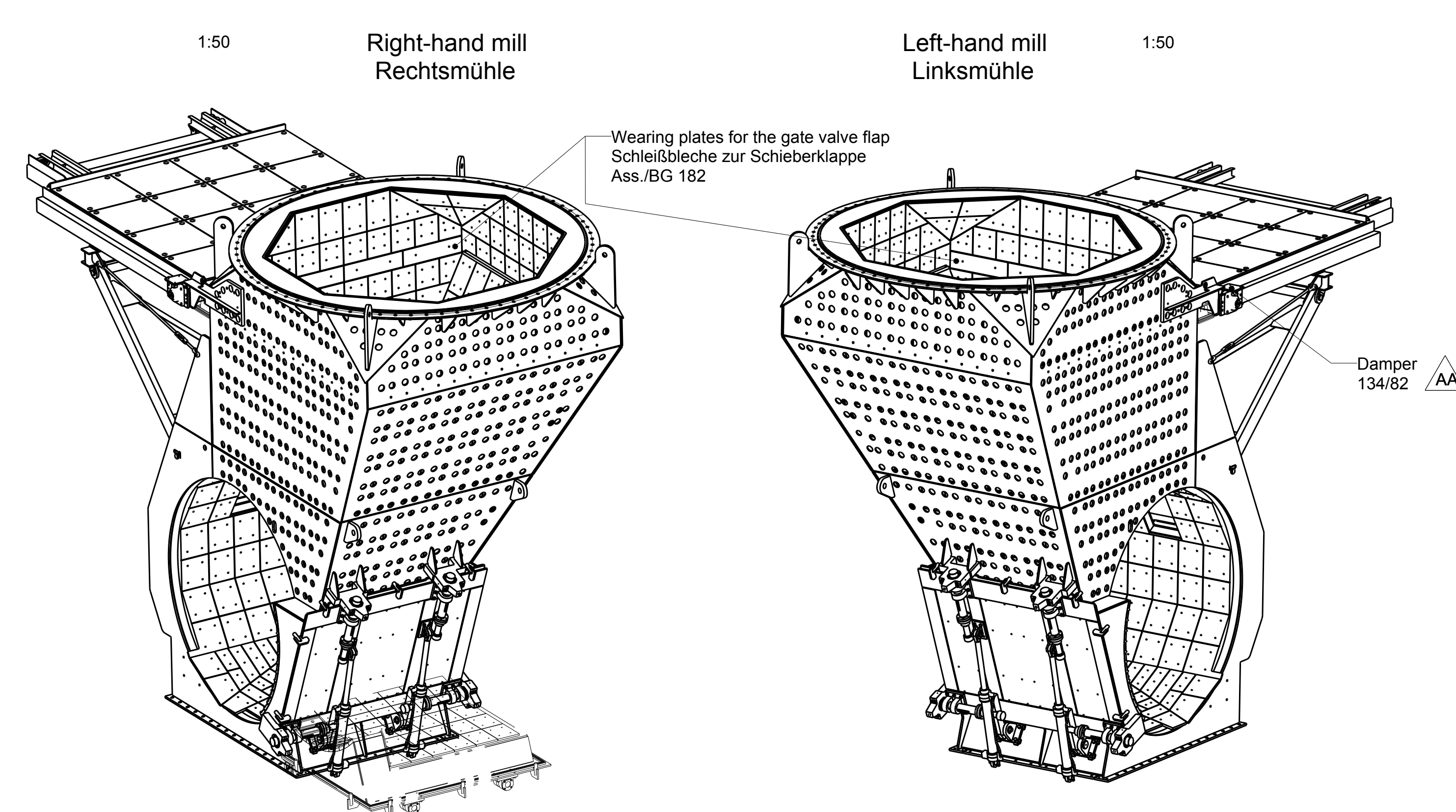
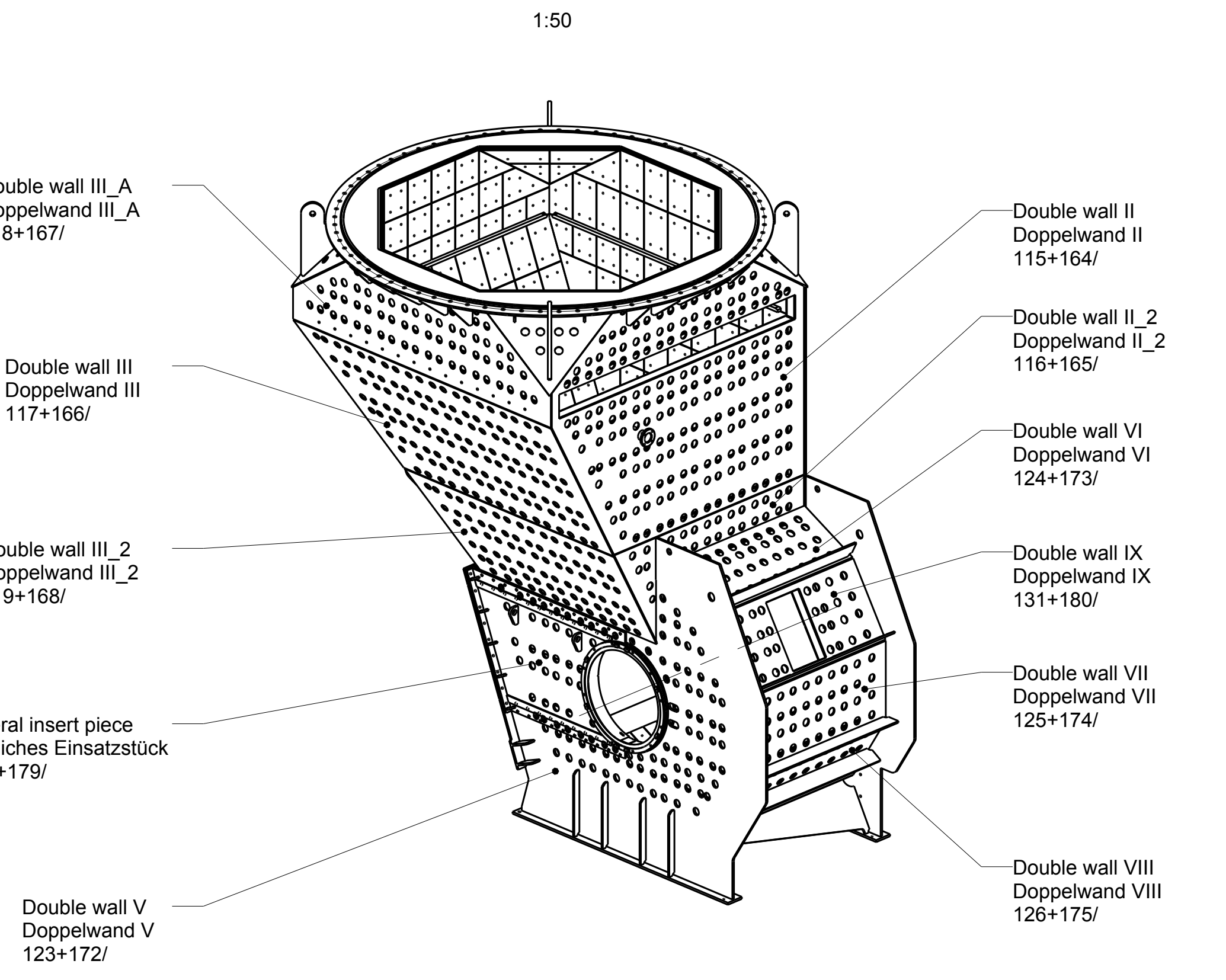
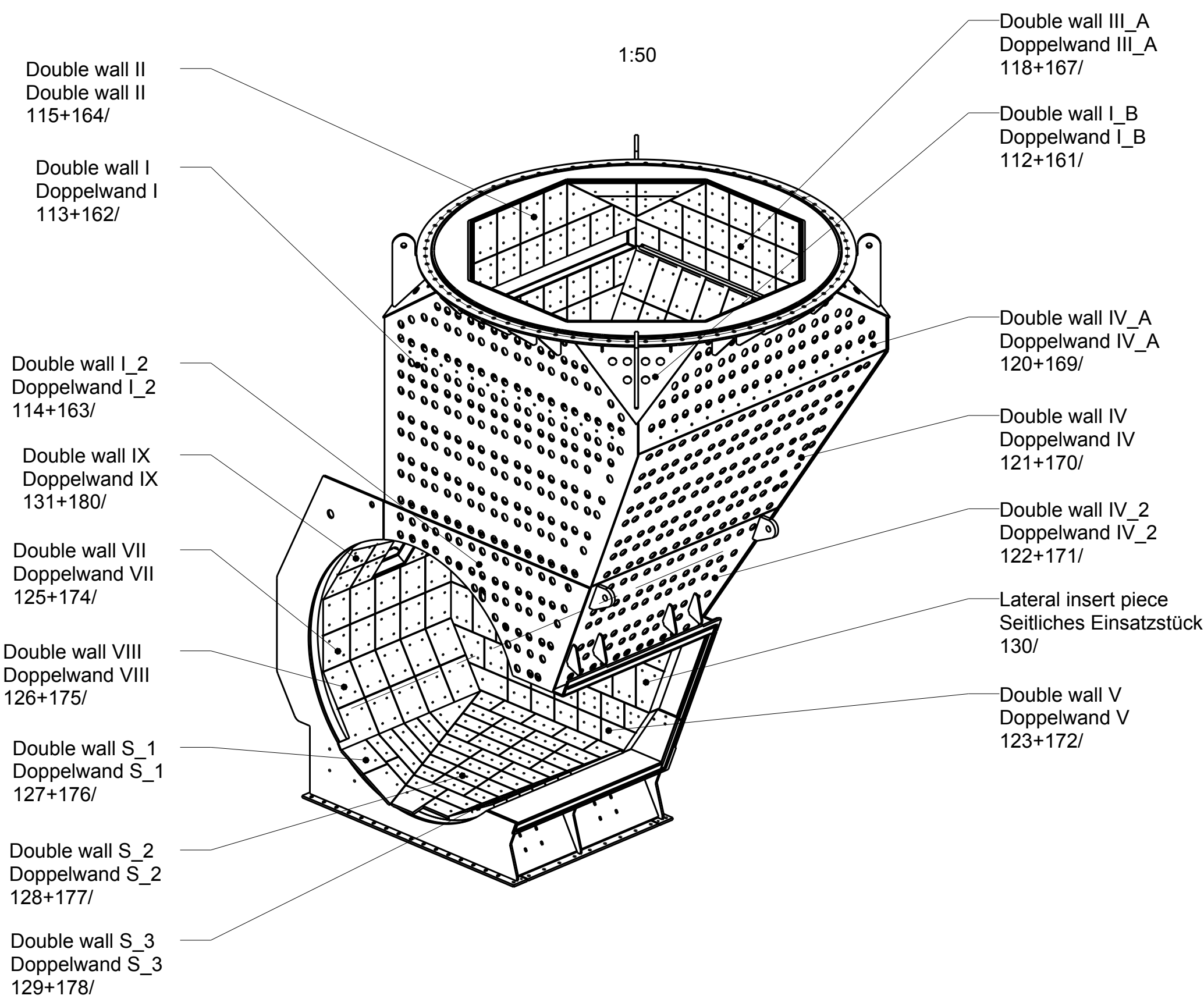
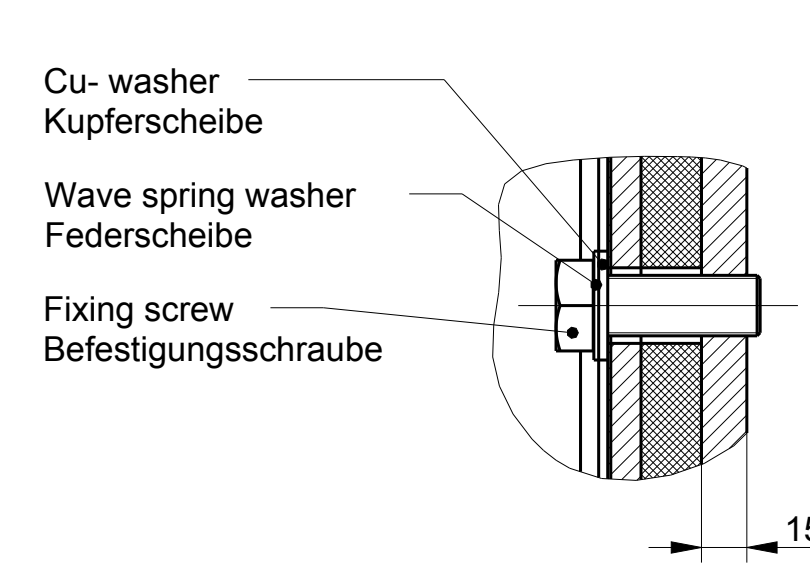




Fixing of wearing plates at double walls
Befestigung der Schleißbleche an Doppelwänden



B(S)/P - Code:
X/X
Baugruppe - Assembly
Stückliste - Part list
Pos.-Nr. - Item-No.

Right hand construction as drawn
Left hand construction mirror inverted

Non marked parts are equal for right and left turning mills
Marked parts (R/L) are shown for right turning mills, parts for left turning mills are mirror inverted

REV.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
00	07.11.2017	First issue			

PROJECT/OWNER

**PTOLEMAIS UNIT V
660 MW POWER PLANT**
CONTRACT DMKT - 11 09
5052

PUBLIC POWER CORPORATION S.A.

CONTRACTOR: **TERNA S.A.**
85 MESOGEION AVE., 115 26 ATHENS, GREECE
Tel.: +30 210 69 68 000, Fax: +30 210 69 68 099
e-mail: terna@terna.gr

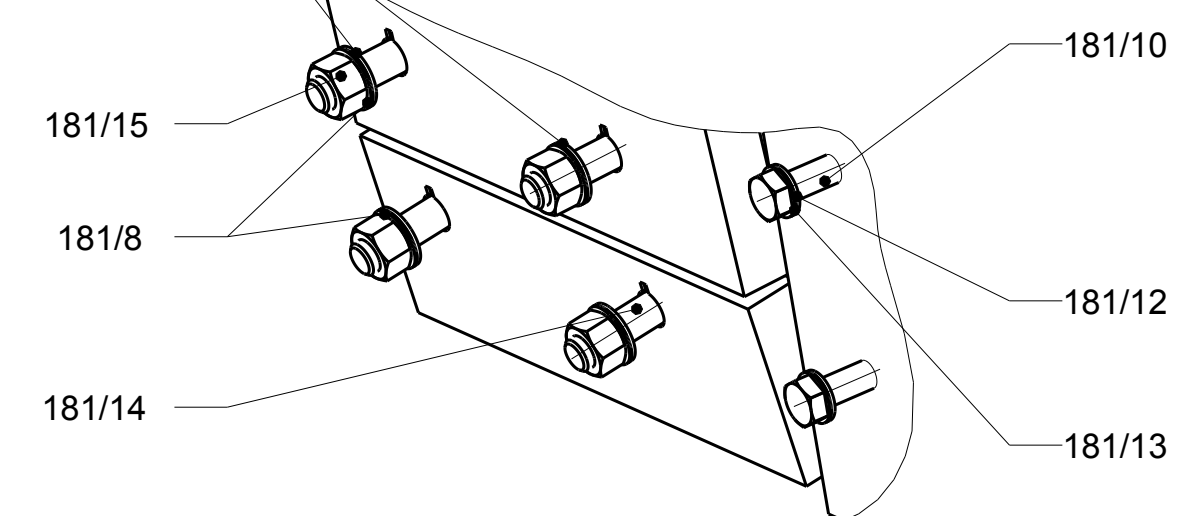
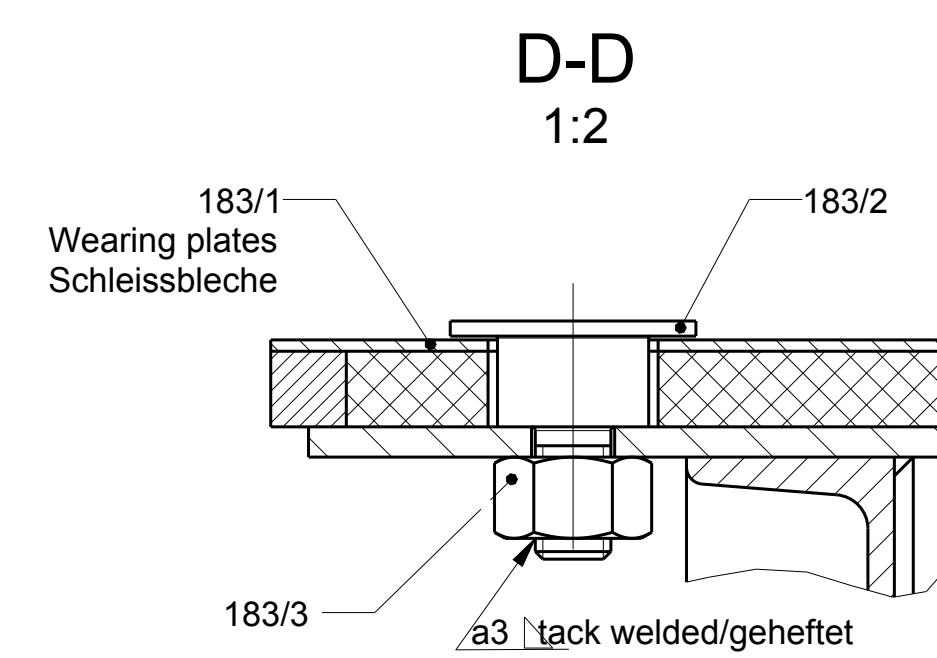
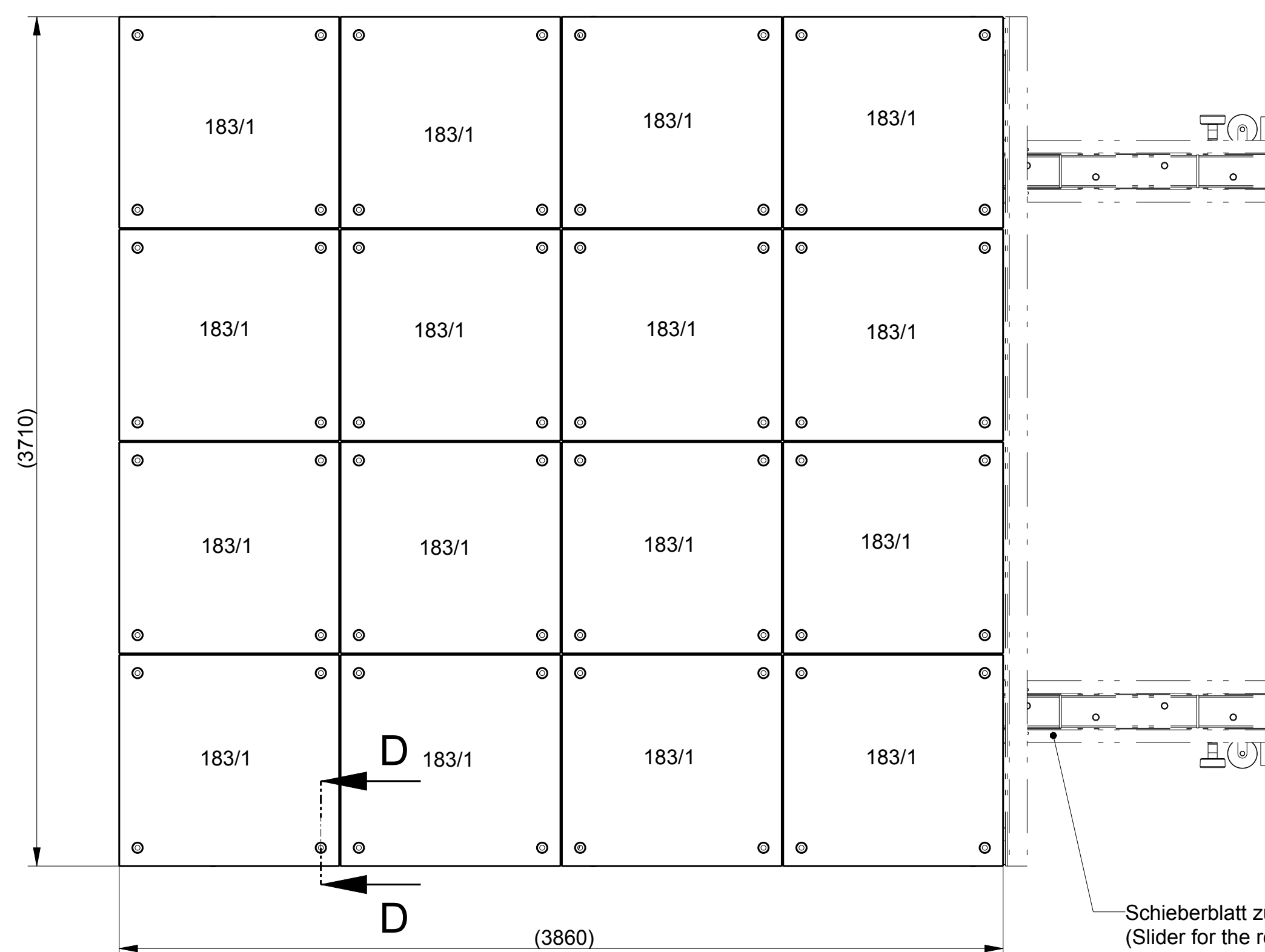
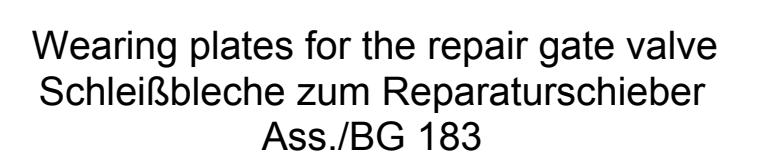
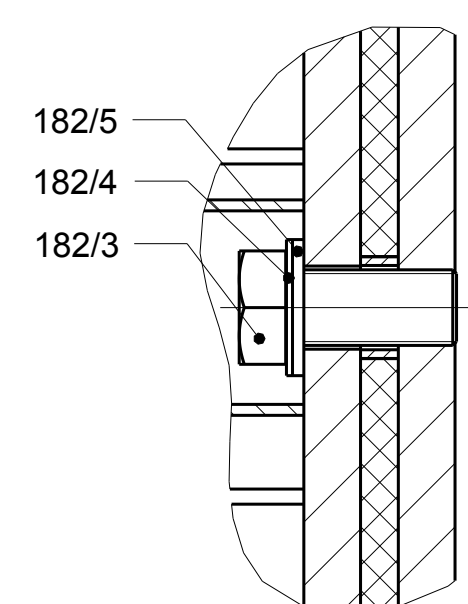
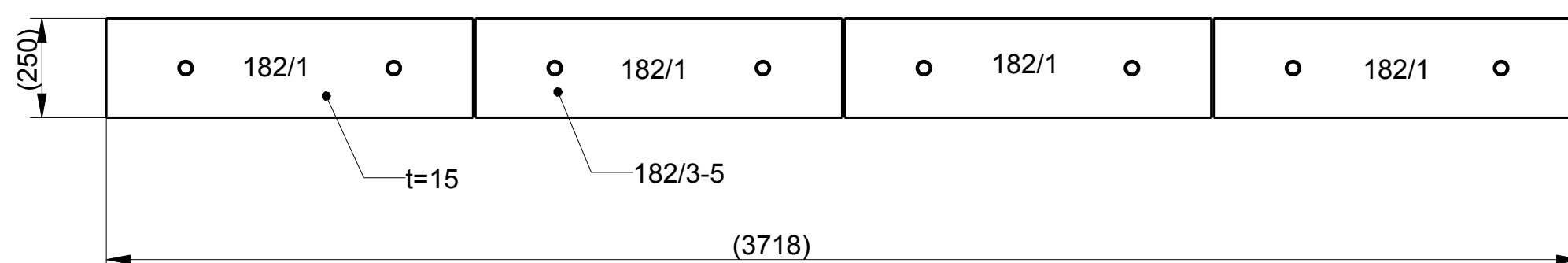
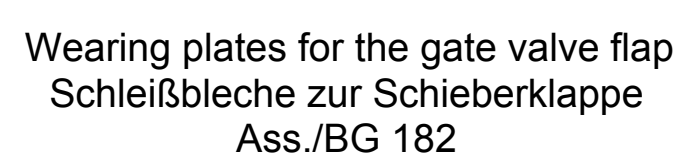
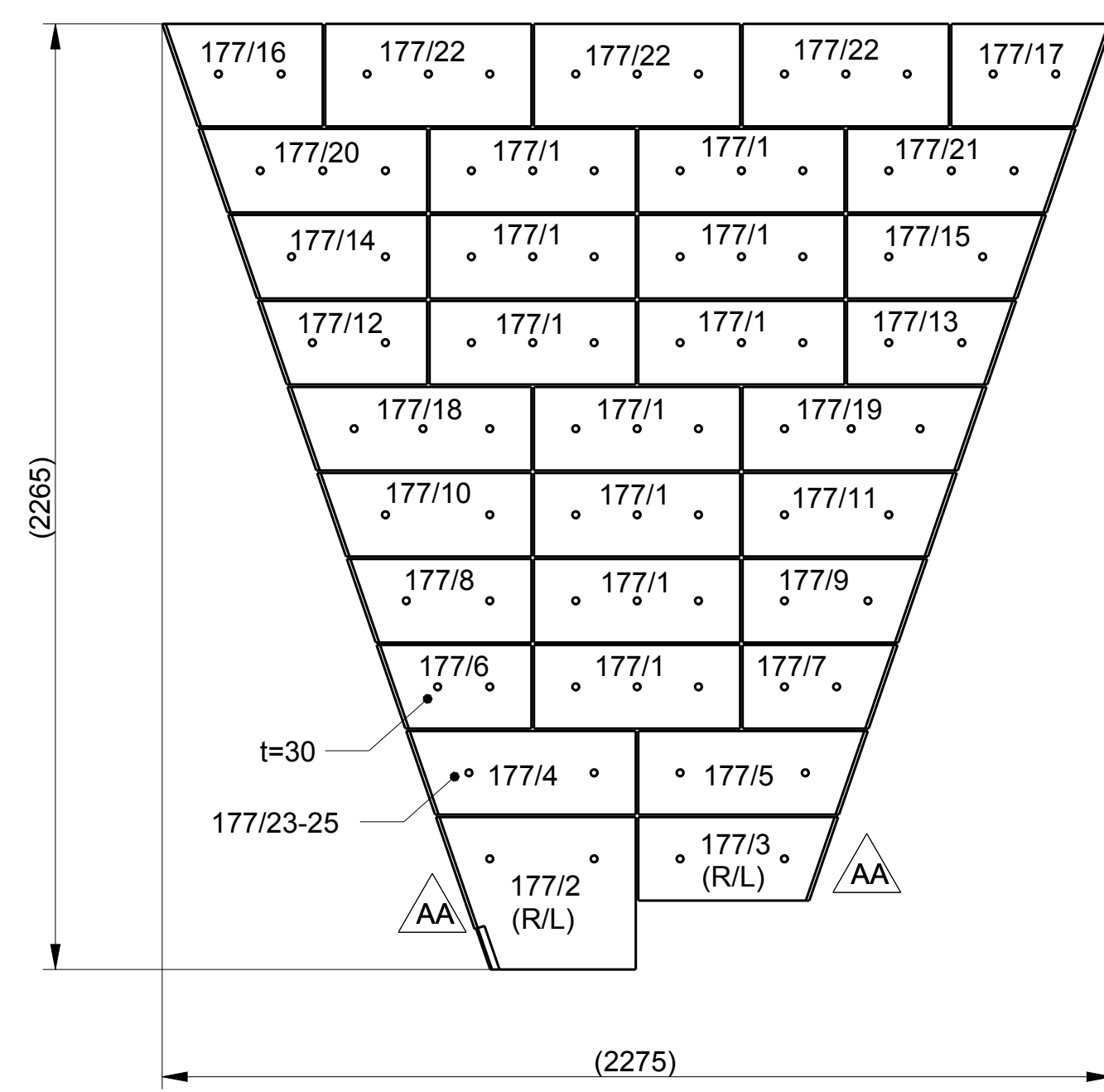
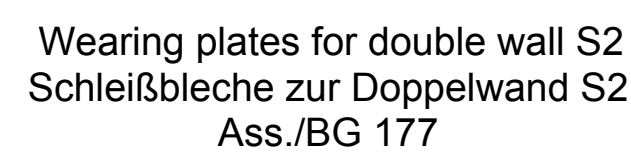
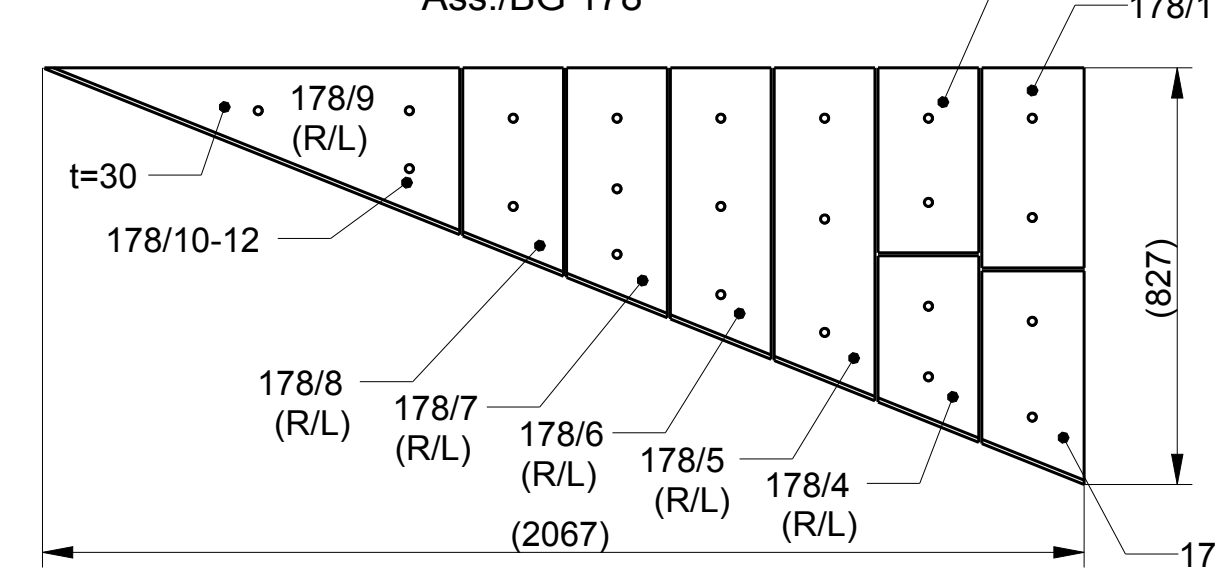
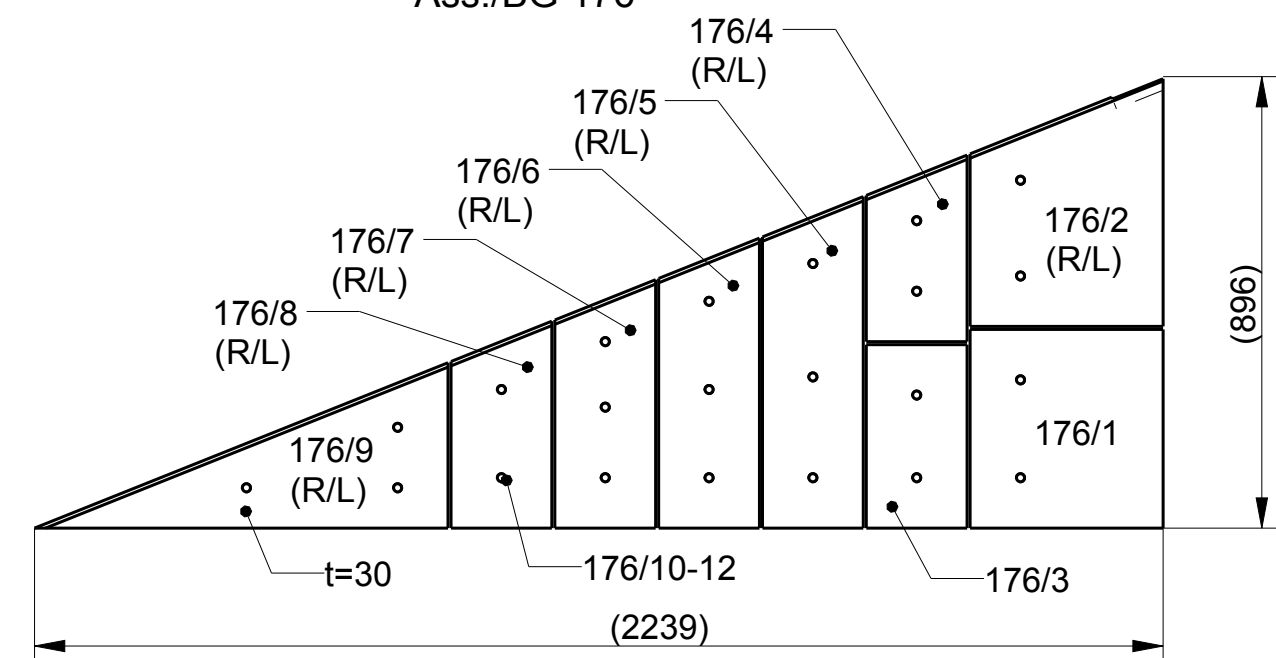
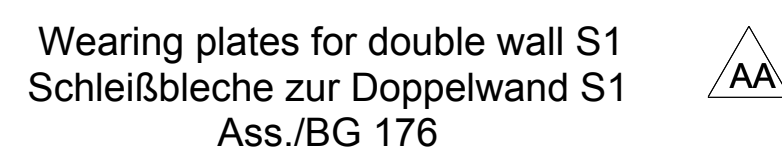
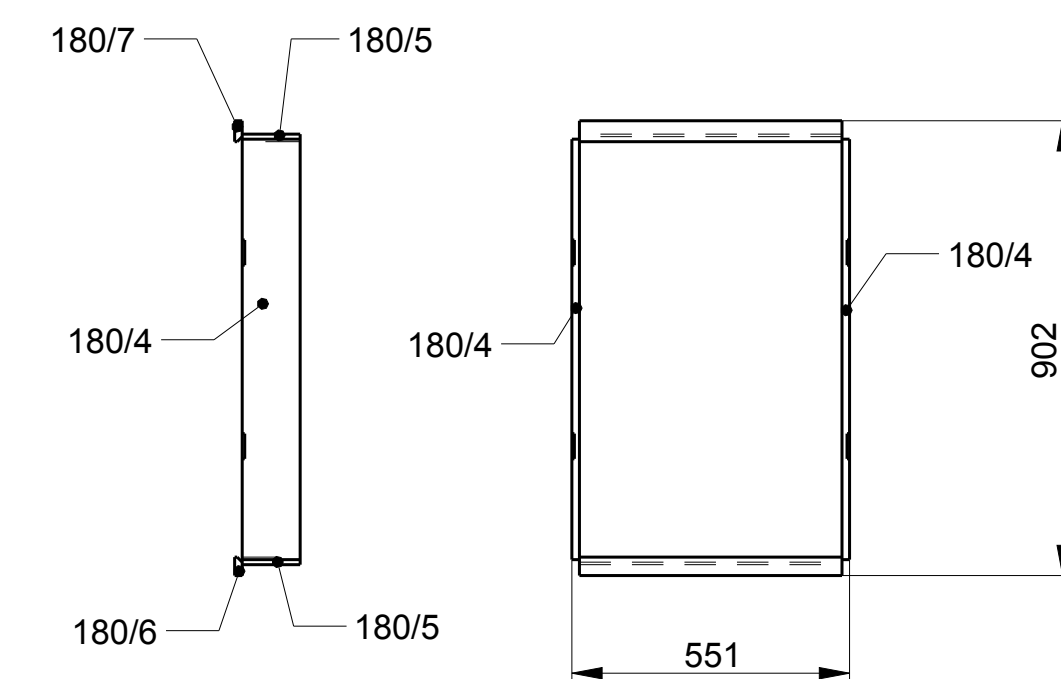
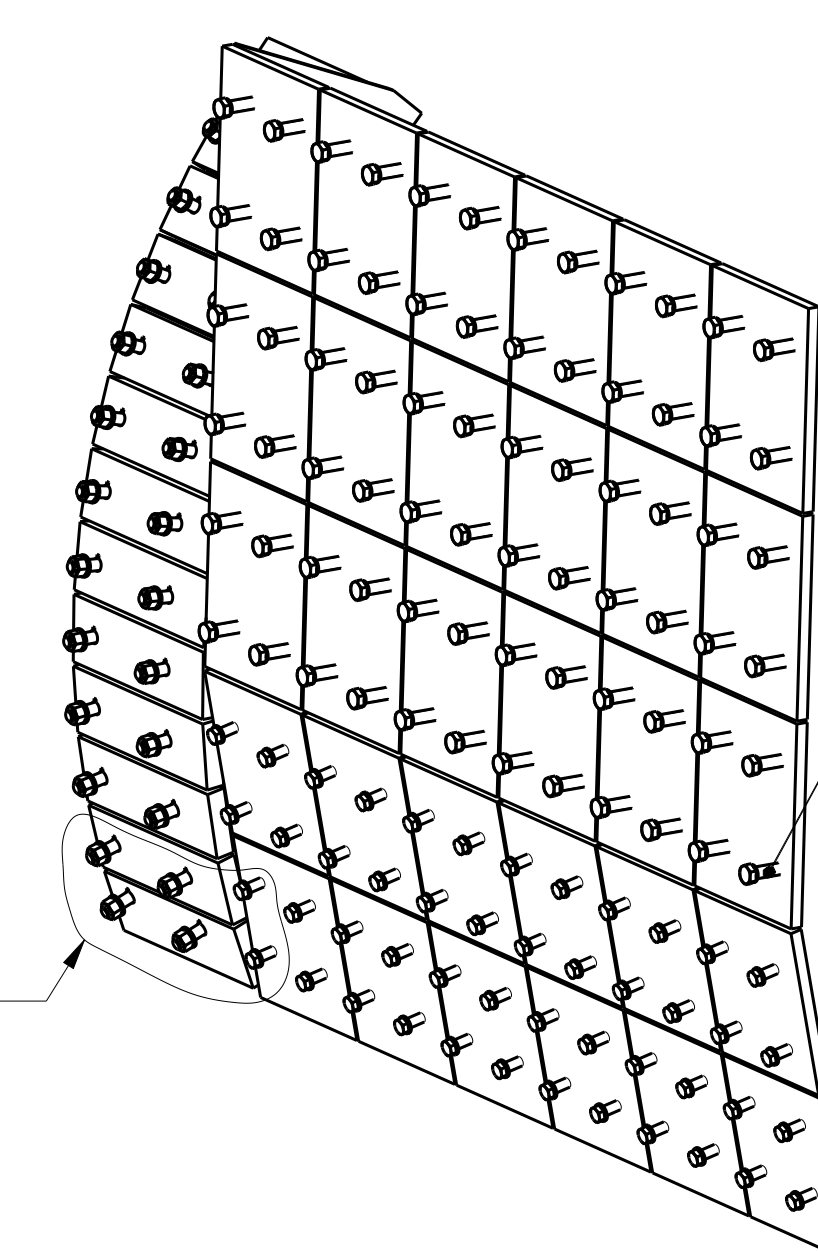
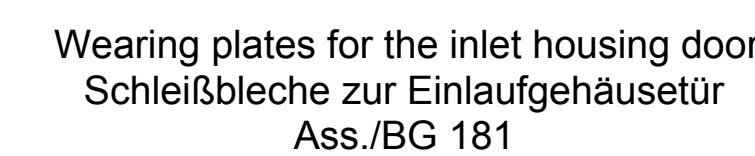
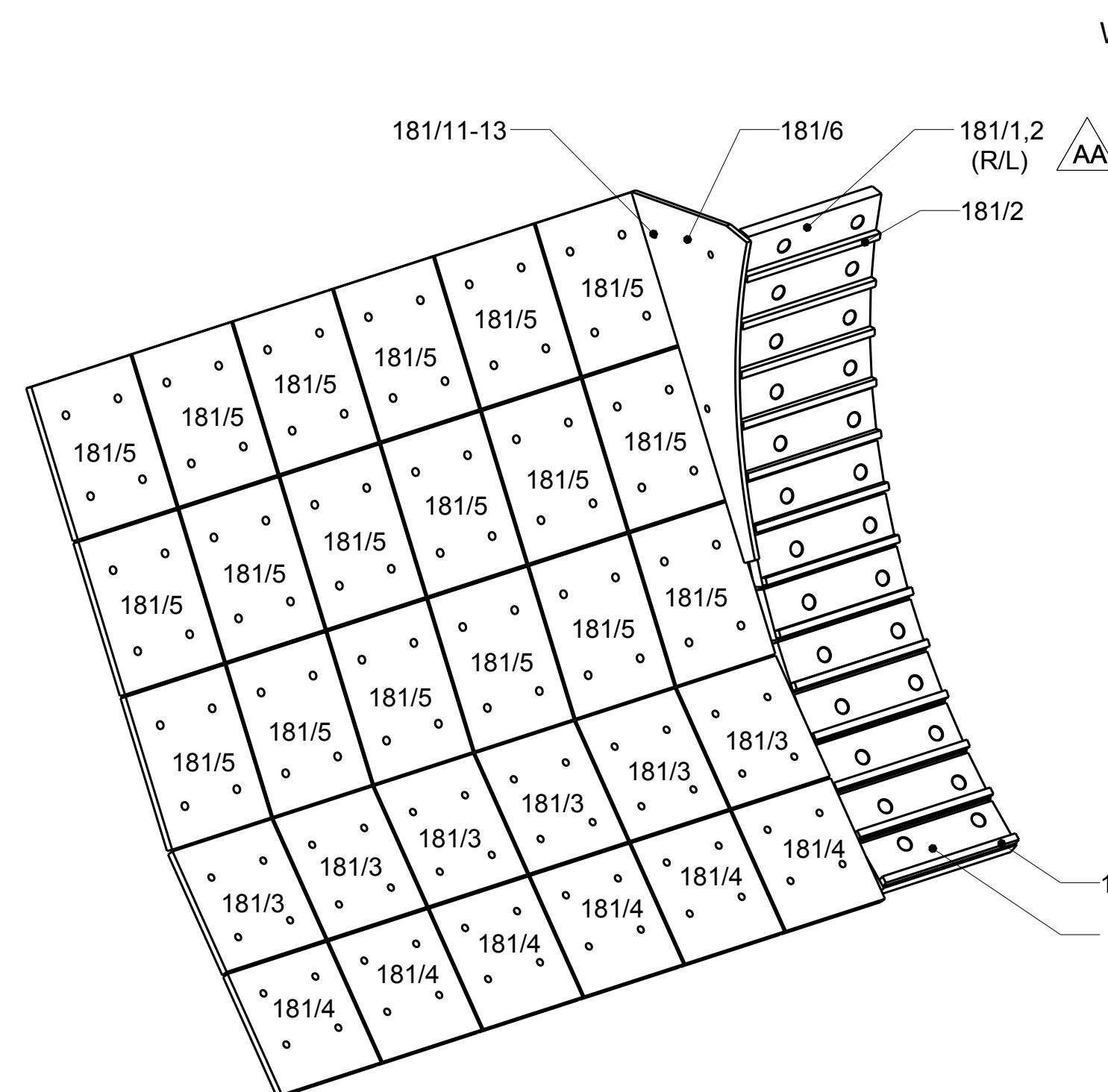
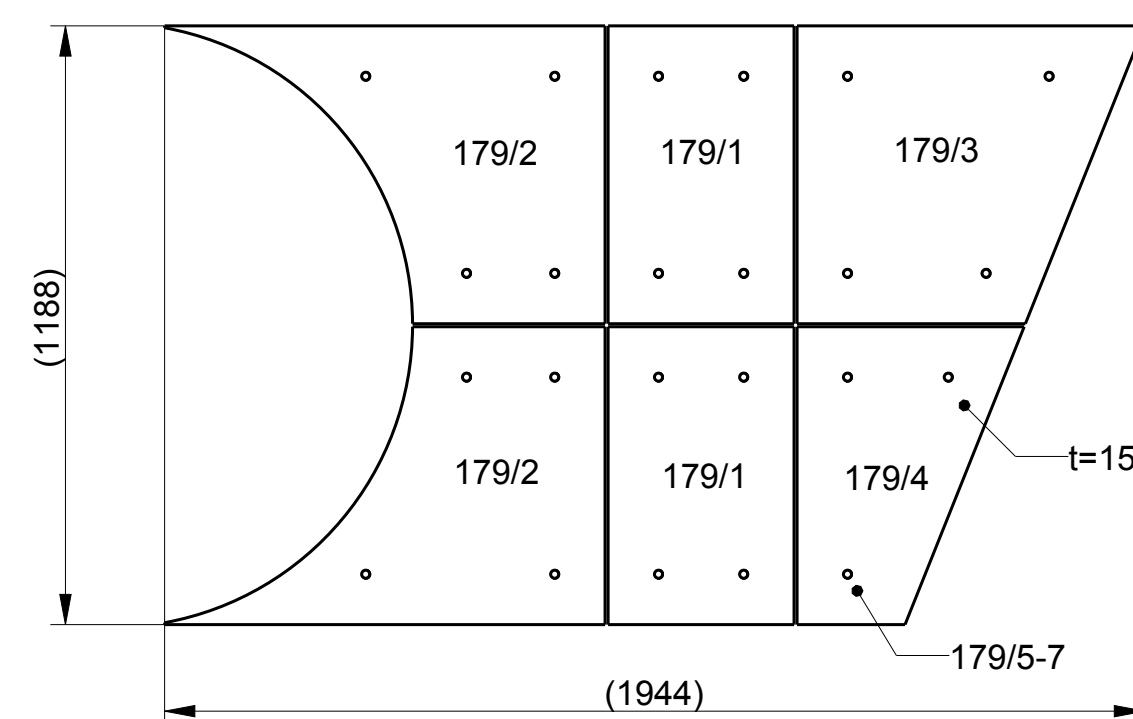
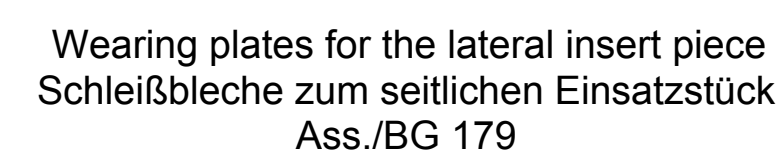
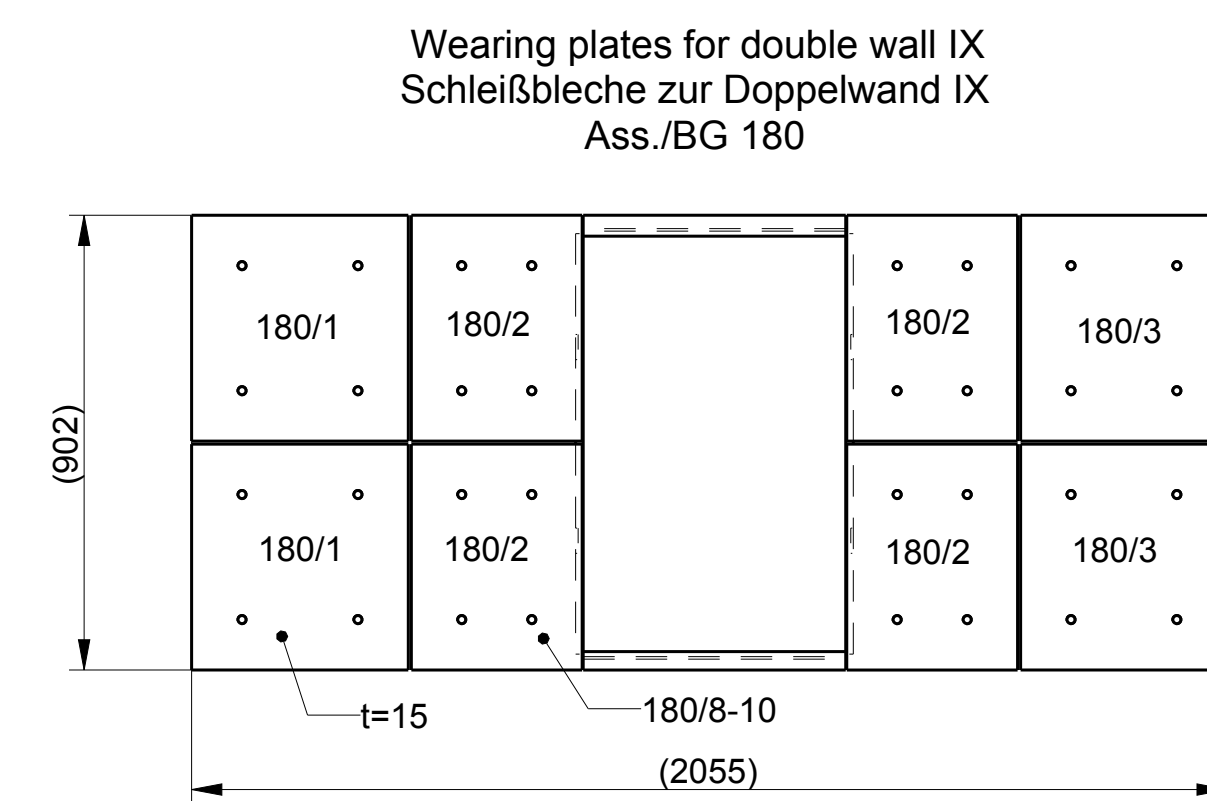
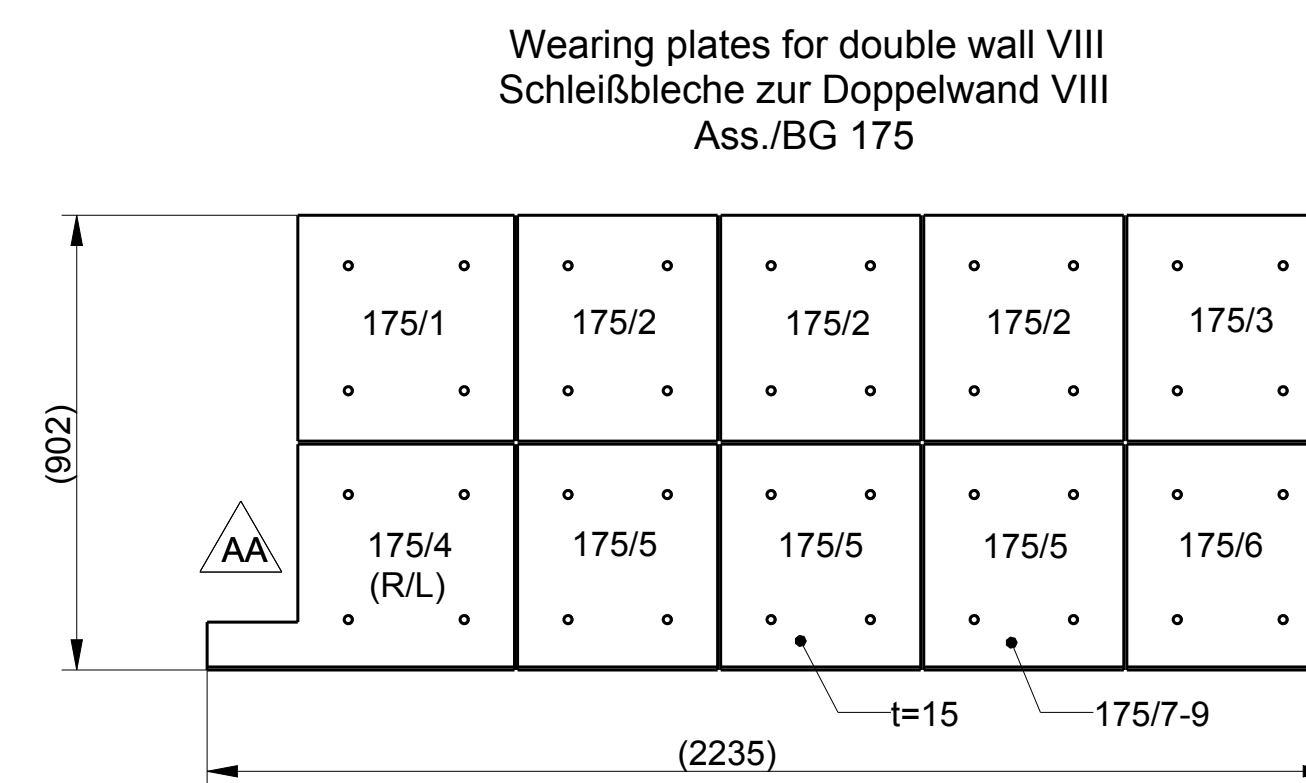
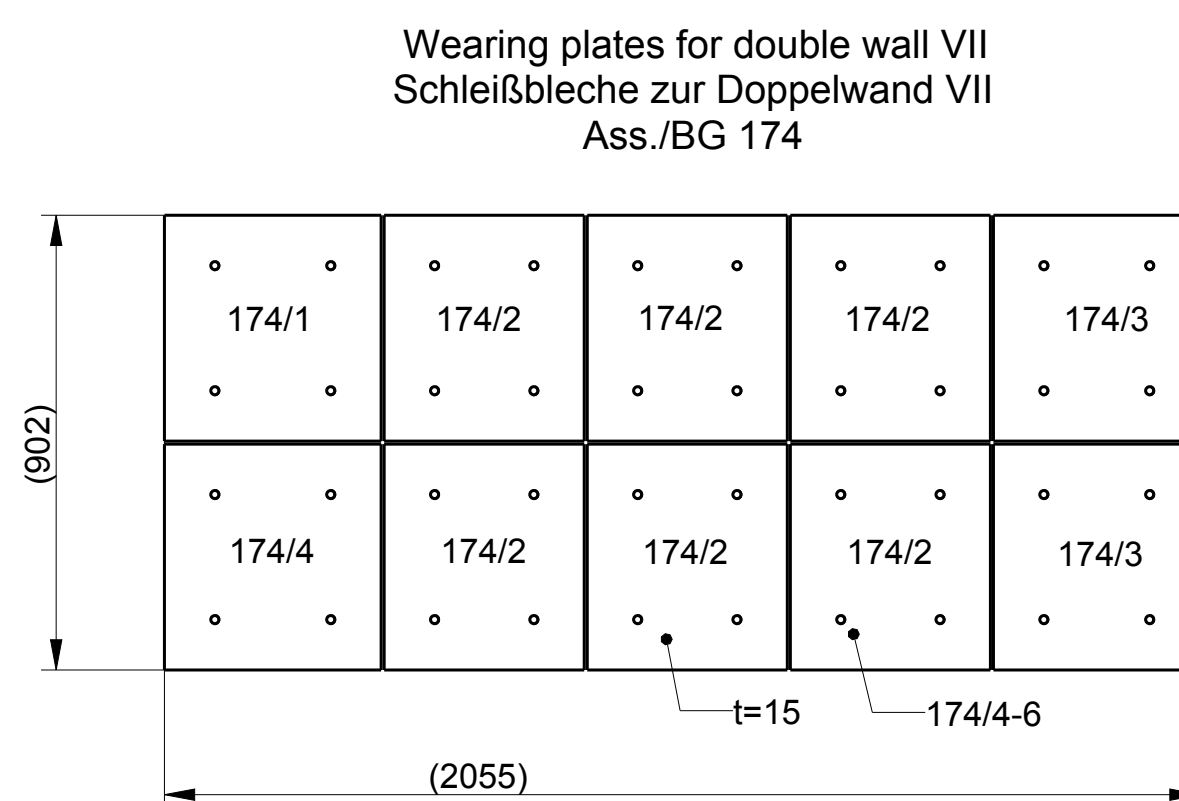
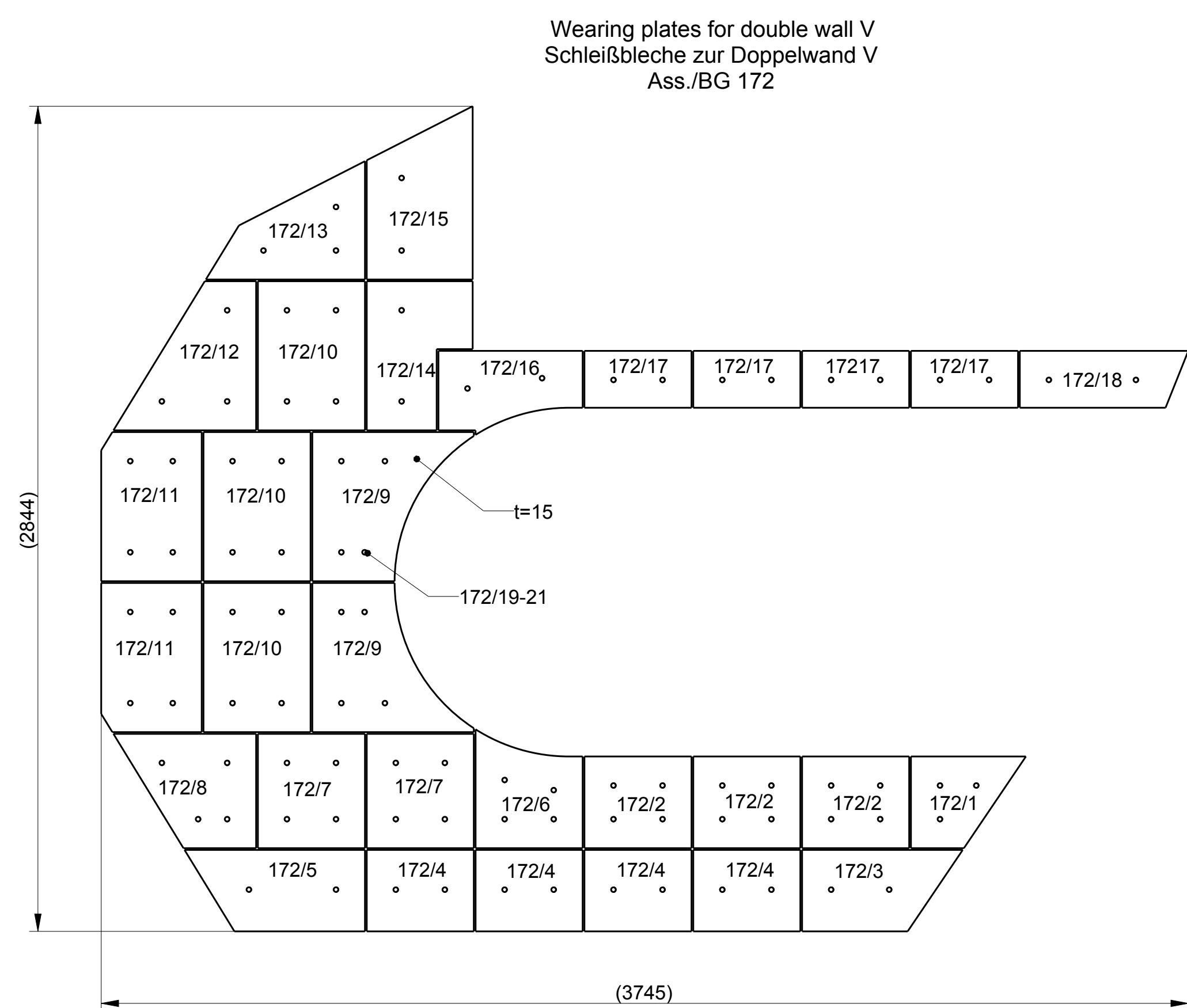
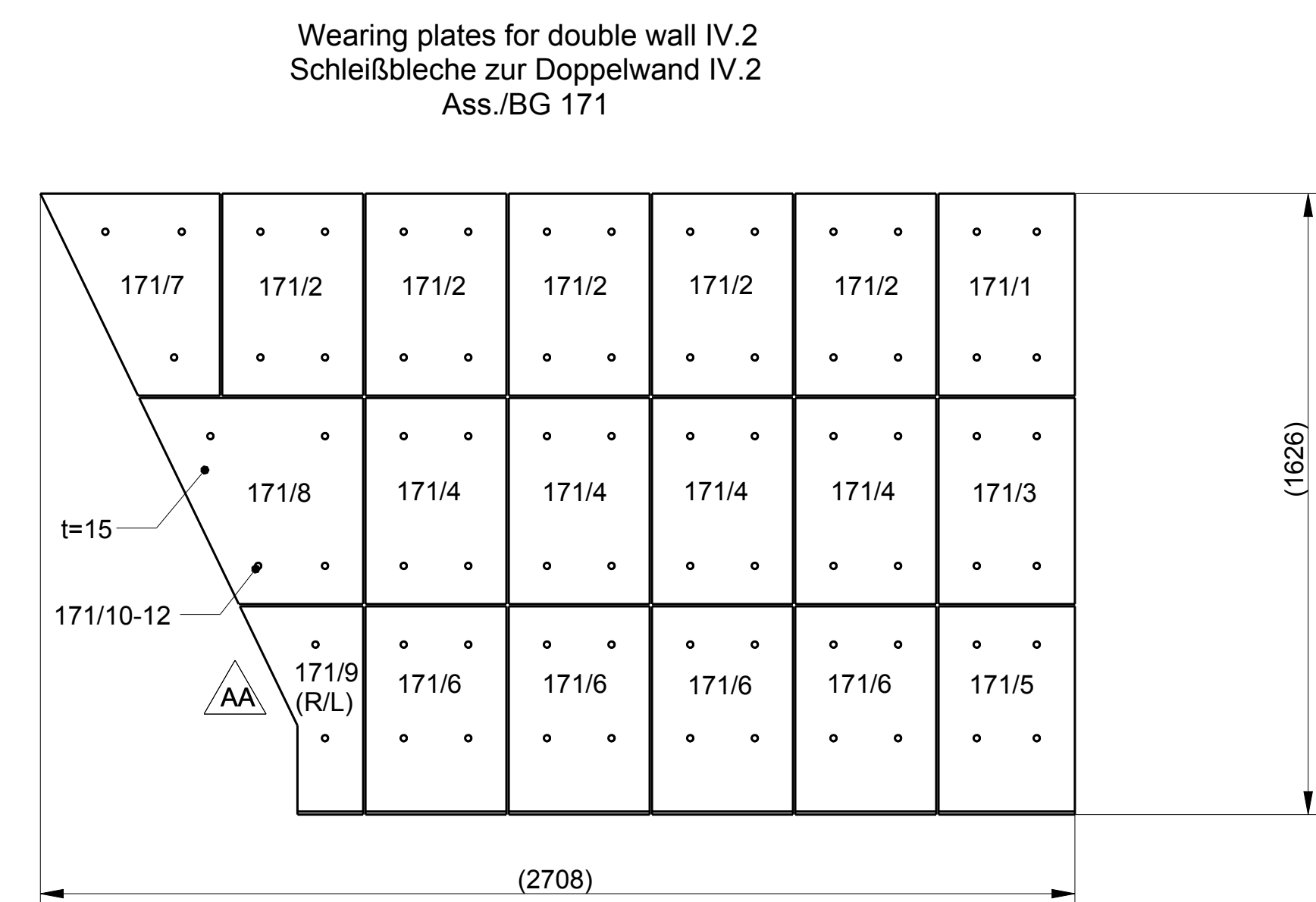
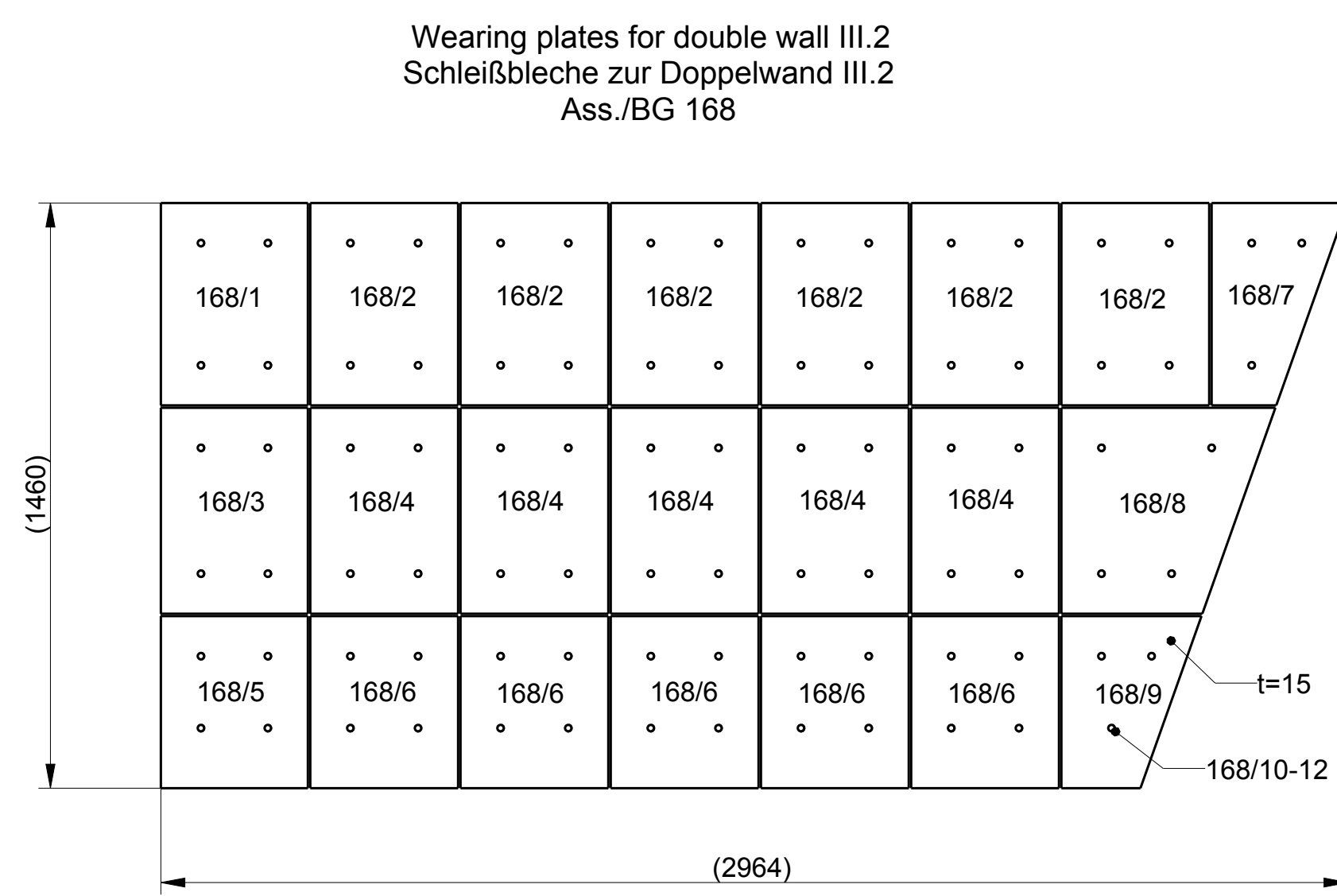
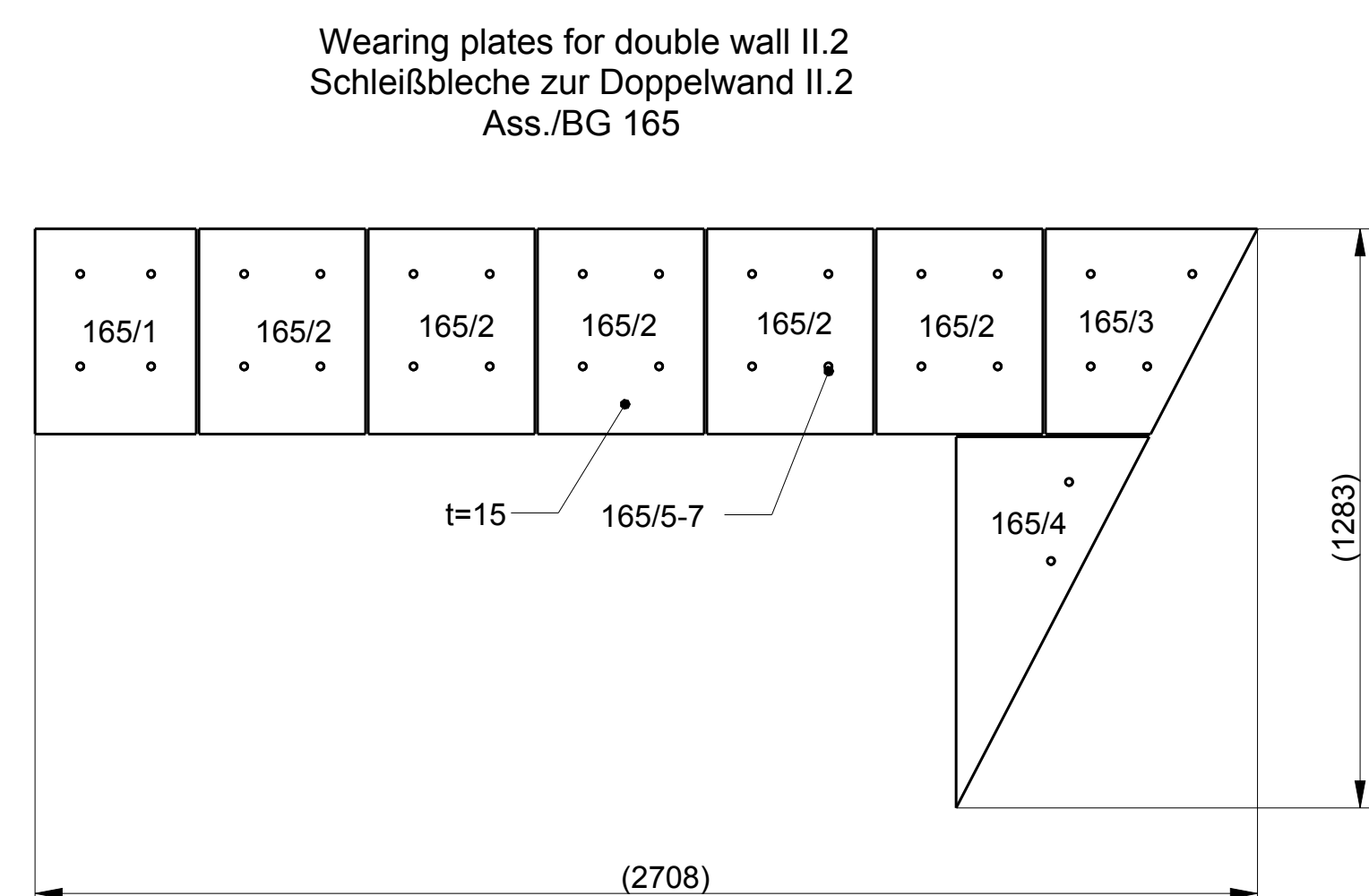
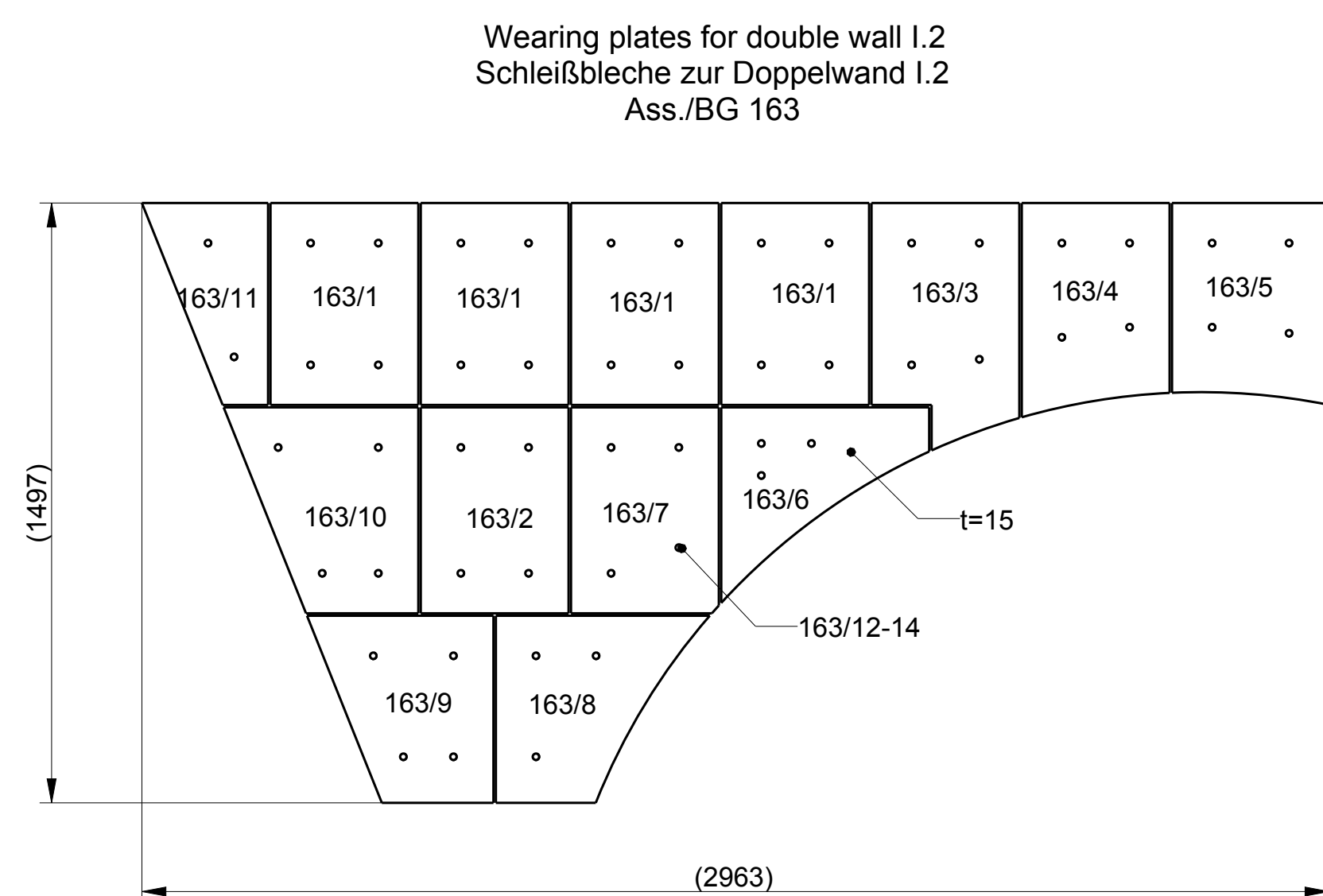
SUBCONTRACTOR: **MITSUBISHI HITACHI POWER SYSTEMS EUROPE**
SUBCONTRACTOR DWG. NO.: N-100170-M-D16-ID16-00001-AA

TITLE: DGS 180
Wearing parts for inlet housing, sheet 1
Schleißteile zum Einlaufgehäuse, Blatt 1

BG Ass.	SCALE	DRAWING NO.	SHEET	REV. NO.
160	1:20	4311-M-D16-ID16-00001	01 of 01	AA

Format: A0

IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES ANY AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URRG) AND GERMAN ACT AGAINST UNFAIR PRACTICES (UWG) SHALL REMAIN UNAFFECTED.



A

Right hand construction as drawn
Left hand construction mirror inverted

Non marked parts are equal for right and left turning mills
Marked parts (R/L) are shown for right turning mills, parts
for left turning mills are mirror inverted.

AA	06.09.2018	Test added, different parts for right left turning masts marked.		Checked	Used	Tested
00	07.11.2017	Final issue		Checked	Used	Tested
REV. NO.	DATE	DESCRIPTION		DESIGNED	CHECKED	APPROVED
PROJECTOWNER						
PTOLEMAIS UNIT V 660 MW POWER PLANT CONTRACT DMKT - 11 09 5052				 PUBLIC POWER CORPORATION S.A.		
CONTRACTOR						
 85 MESOGEOION AV., 115 26 ATHENS, GREECE Tel. : +30 210 69 69 000 Fax: +30 210 69 69 099 e-mail : terna@terna.gr						
SUBCONTRACTOR				SUBCONTRACTOR DWG. NO.		
 MITSUBISHI HITACHI POWER SYSTEMS EUROPE				N-100170-M-D16-ID-16-00002-AA		
TITLE						
DGS 180 Wearing parts for inlet housing, sheet 2 Schleifsteile zum Einlaßgehäuse, Blatt 2						
SCALE		DRAWING NO.		SHEET		REV. NO.
1:20		4311-M-D16-ID-16-00002		01 of 01		AA
THIS DRAWING SHALL NOT BE DUPLICATED, TRANSFERRED OR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URRG) AND GERMAN ACT AGAINST UNFAIR PRACTICES (UWG) SHALL REMAIN UNIMPEACHED.						

Dust barrage step
Staustufe

[illegible]

	211/16,19,20 (R/L)	
	211/17,19,20 (R/L)	
	211/16,19,20 (R/L)	
	211/16,19,20 (R/L)	
	211/18,19,20 (R/L)	
	211/19	
	211/16,19,20 (R/L)	

[illegible]

211/5
211/1,5 (R/L) 
211/29
Washer
Scheibe
211/26
Hex. head screw
Skt.-Schraube
211/28
Wave spring washer
Federscheibe

Grinding track 1
Mahlbahn 1

Dust barrage step 1
Staufstufe 1

Inlet and outlet
Ein- und Auslass

[illegible]

B(S)/P - Code:
X/X
Baugruppe - Assembly
Stückliste - Part list
Pos.-Nr. - Item-No.

20	DGS 180			
21	Amour plating for the beater part			
22	Schlägerteilpanzerung			
23	SCALE	DRAWING NO.	SHEET	REV. NO.
24	1:1	4311-M-D21-ID16-00001	01 of 01	AA
25	THIS DRAWING SHALL NEITHER BE DUPLICATED, TRANSFERRED NOR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN ACT ON INTELLECTUAL PROPERTY RIGHTS (PATG) SHALL REMAIN UNAFFECTED.			

Wearing plates for the side walls
(fixed bearing side)
Schleißbleche zu den Seitenwänden
(Festlagerseite)
Ass./BG 251

Corner cladding
Eckpanzer
Ass./BG 253

(n)
Se
(L
As

Wearing plates for the side walls
(movable bearing side)
Schleißbleche zu den Seitenwänden
(Loslagerseite)
Ass./BG 251

Corner cladding
Eckpanzer
Ass./BG 253

252/11,33 —
252/11,32 —
252/11,31 —
252/11,30 —
252/11,29 —
252/11,28 —
252/11,27 —
252/11,26 —
252/11,25 —
252/11,24 —

252/11,23_(99x)

252/2 —
(16x)

252/1 —

252/7 (9x)

252/8,9,10

- 252/3,4,5
Compensation bar
Ausgleichsstab
- 252/2 (83x)

252/11,22_(242x)

252/11,12
252/11,13
252/11,14
252/11,15
252/11,16
252/11,17
252/11,18
252/11,19
252/11,20
252/11,21

Technical drawing of a wall section. The drawing shows a series of vertical studs or columns. The top horizontal line is labeled (50) and the bottom horizontal line is labeled (1500).

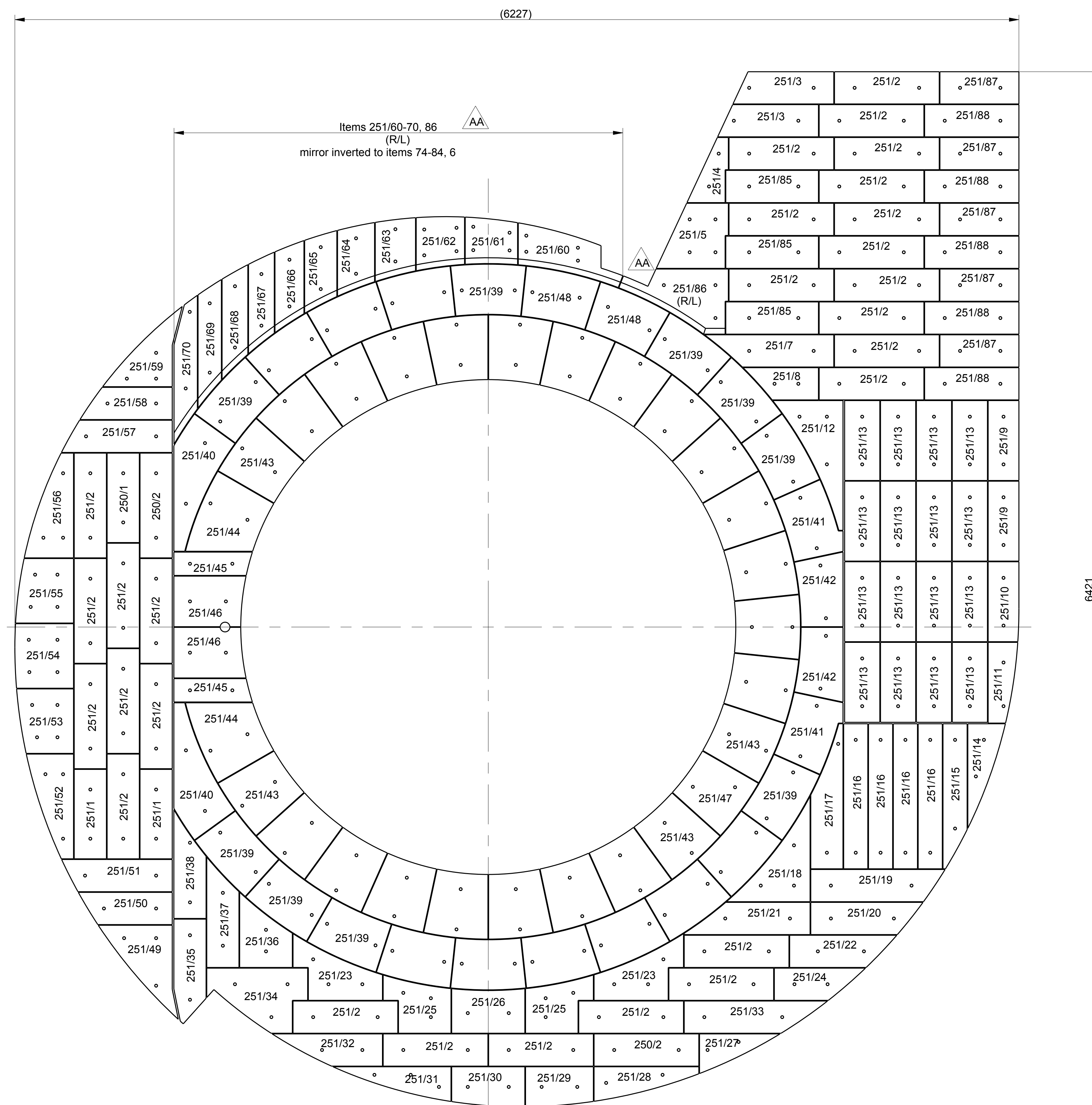
Baugruppe - *Assembly*
 Stückliste - *Part list*
 Pos.-Nr. - *Item-No.*

BC Ass
25
...
...
...
Form
...

THIS DRAWING SHALL NEITHER BE DUPLICATED, TRANSFERRED NOR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES. ANY AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN ACT AGAINST UNFAIR PRACTISES (UWG) SHALL REMAIN UNAFFECTED.

[illegible]

Wearing plates for the fan housing side wall (fixed bearing side)
Schleißbleche zur Ventilatorgehäuseseitenwand (Festlagerseite)
Ass./BG 251



251/89
Copper disk
Kupferscheibe

251/91
(for wearing plates t=20)
(für Schleißbleche t=20)

251/92
(for wearing plates t=30)
(für Schleißbleche t=30)
Hexagon head bolts
Sechskantschraube

251/90
Spring washer

Insulating plate
Isolierplatte

Wearing plates
Schleißbleche
251/1-3,7-59,71-73,85,87,88 (t=20)

M20

25 10 20(30)

Wearing plates
Schleißbleche
251/4-6,60-70,74-84,86 (t=30)

Non marked parts are equal for right and left turning mills
Marked parts (R/L) are shown for right turning mills, parts
for left turning mills are mirror inverted.
Right and left version in one mill !

AA	06.08.2018	Text added, different parts for right left turning mills marked. Assembly- No. changed	Czech.	Liss	Textore
00	08.11.2017	First issue	Czech.	Liss	Textore
REV. NO.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED
PROJECT OWNER					

CONTRACTOR

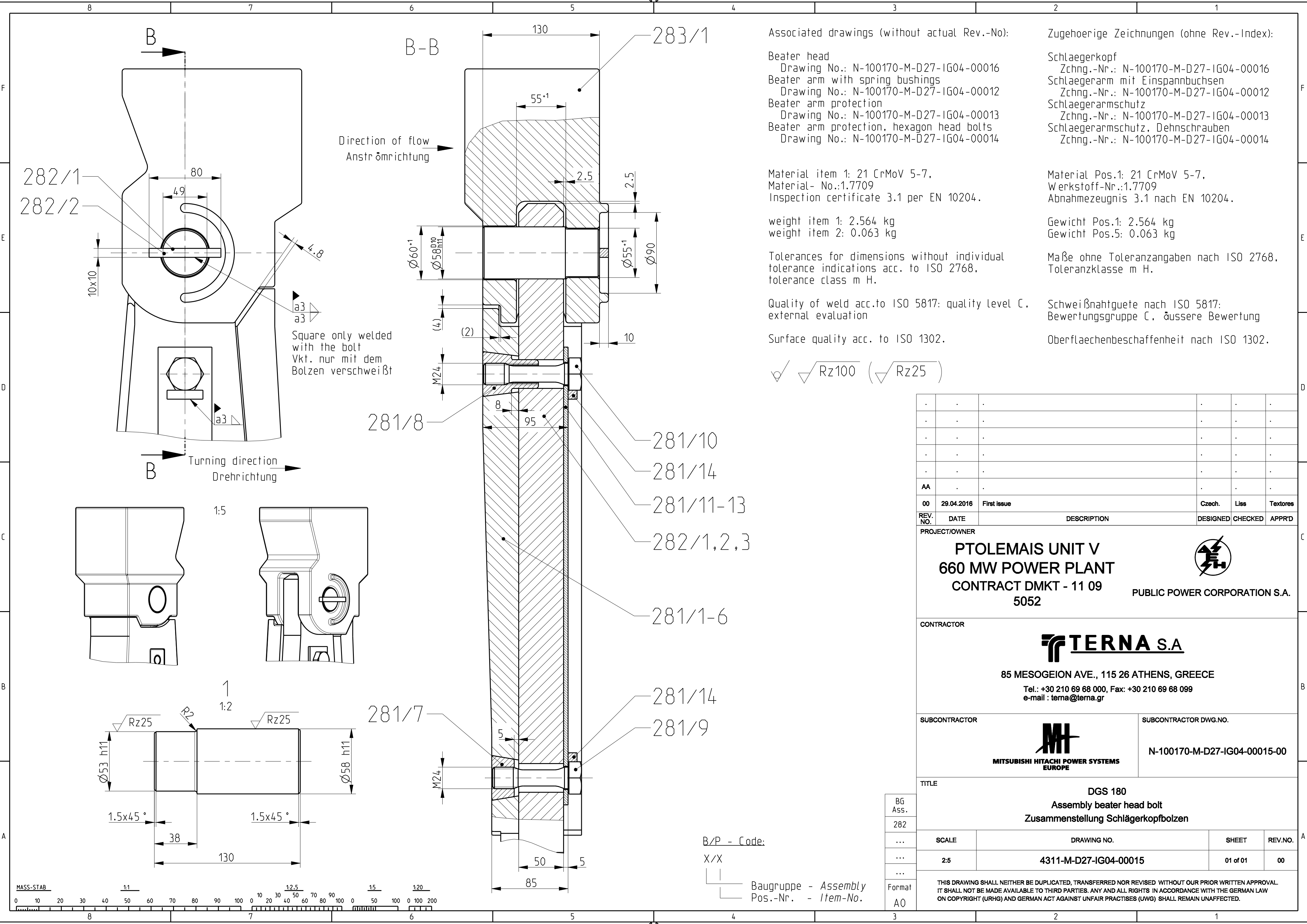
 **TERNA S.A.**

85 MESOGEION AVE., 115 26 ATHENS, GREECE

Tel.: +30 210 69 68 000, Fax: +30 210 69 68 099
e-mail : terna@terna.gr

TITLE	DGS 180 Wearing parts for the fan housing, sheet 2 Schleißteile zum Ventilatorgehäuse, Blatt 2
-------	--

BG Ass. 250	Wearing parts for the fan housing, sheet 2 Schleifsteile zum Ventilatorgehäuse, Blatt 2			
...	SCALE	DRAWING NO.	SHEET	REV. NO.
...	1:5	4311-M-D25-ID16-00002	01 of 01	AA
Format	THIS DRAWING SHALL REMAIN UNCHANGED, TRANSFERRED OR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES AND ALL RIGHTS RESERVED IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN LAW ON PATENTS (PTEG). IN THE EVENT OF VIOLATION, DAMAGES WILL BE INCURRED.			



Associated drawings (without actual Rev.-No):
Beater head
Drawing No.: N-100170-M-D27-IG04-00016
Beater arm with spring bushings
Drawing No.: N-100170-M-D27-IG04-00012
Beater arm protection
Drawing No.: N-100170-M-D27-IG04-00013
Beater arm protection, hexagon head bolts
Drawing No.: N-100170-M-D27-IG04-00014

Zugehoerige Zeichnungen (ohne Rev.-Index):
Schlaegerkopf
Zchnng.-Nr.: N-100170-M-D27-IG04-00016
Schlaegerarm mit Einspannbuchsen
Zchnng.-Nr.: N-100170-M-D27-IG04-00012
Schlaegerarmschutz
Zchnng.-Nr.: N-100170-M-D27-IG04-00013
Schlaegerarmschutz, Dehnschrauben
Zchnng.-Nr.: N-100170-M-D27-IG04-00014

Material item 1: 21 CrMoV 5-7,
Material- No.:1.7709
Inspection certificate 3.1 per EN 10204.

Material Pos.1: 21 CrMoV 5-7,
Werkstoff-Nr.:1.7709
Abnahmezeugnis 3.1 nach EN 10204.

weight item 1: 2.564 kg
weight item 2: 0.063 kg

Gewicht Pos.1: 2.564 kg
Gewicht Pos.5: 0.063 kg

Tolerances for dimensions without individual
tolerance indications acc. to ISO 2768,
tolerance class m H.

Maße ohne Toleranzangaben nach ISO 2768,
Toleranzklasse m H.

Quality of weld acc.to ISO 5817: quality level C,
external evaluation

Schweißnahtguete nach ISO 5817:
Bewertungsgruppe C, äussere Bewertung

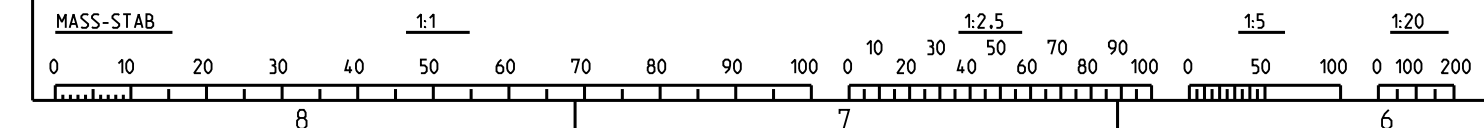
Surface quality acc. to ISO 1302.

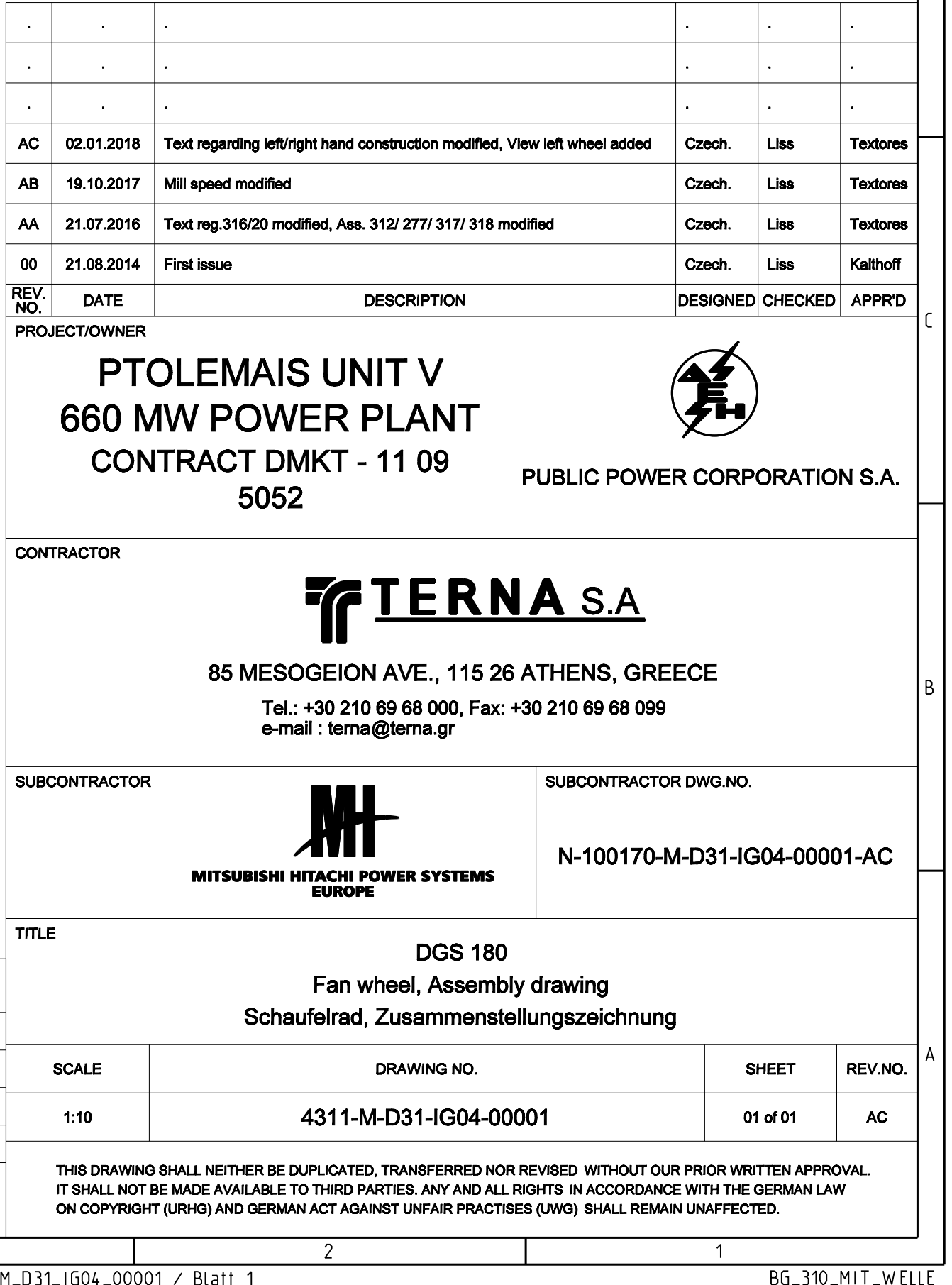
Oberflaechenbeschaffenheit nach ISO 1302.

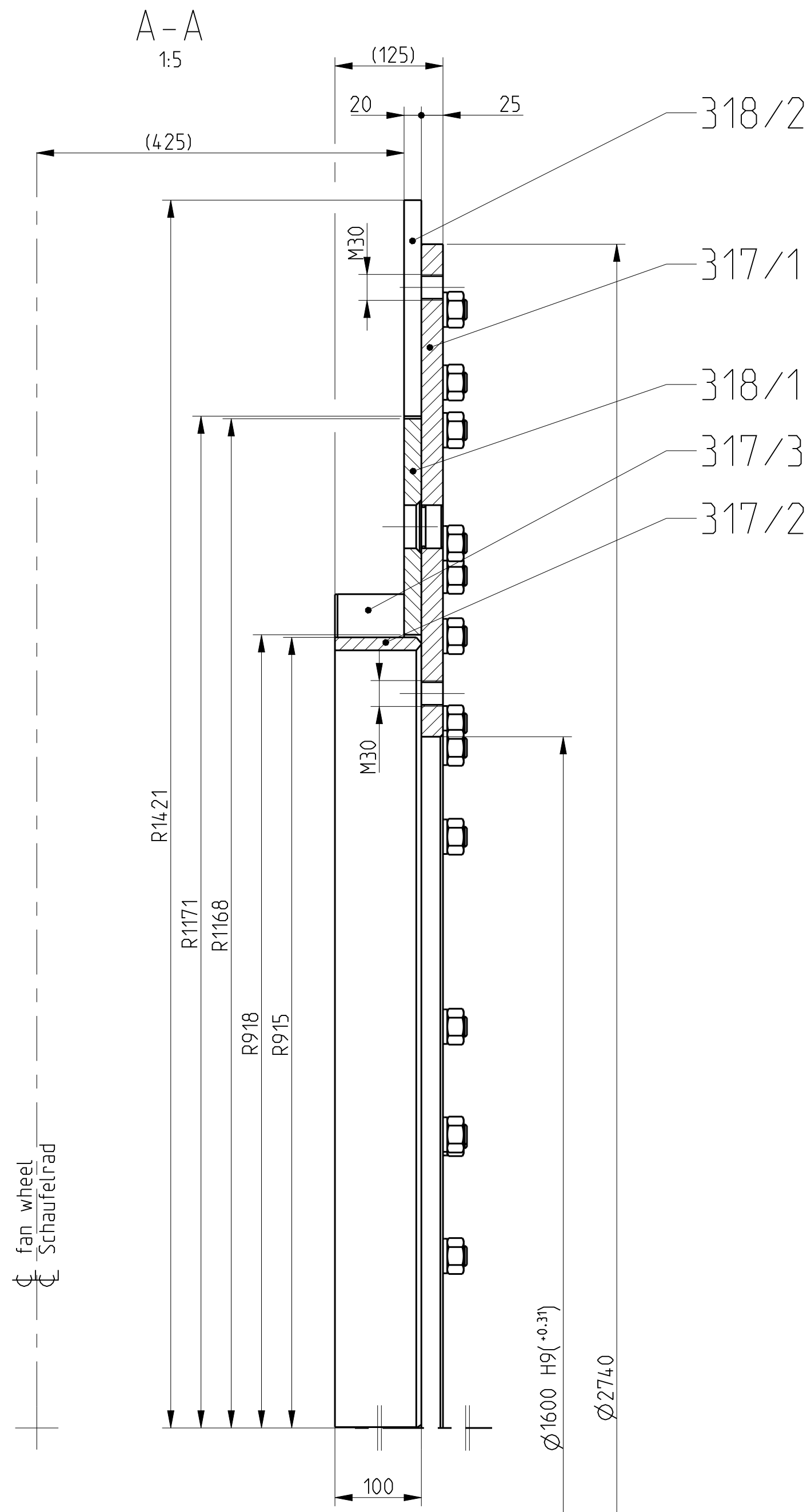
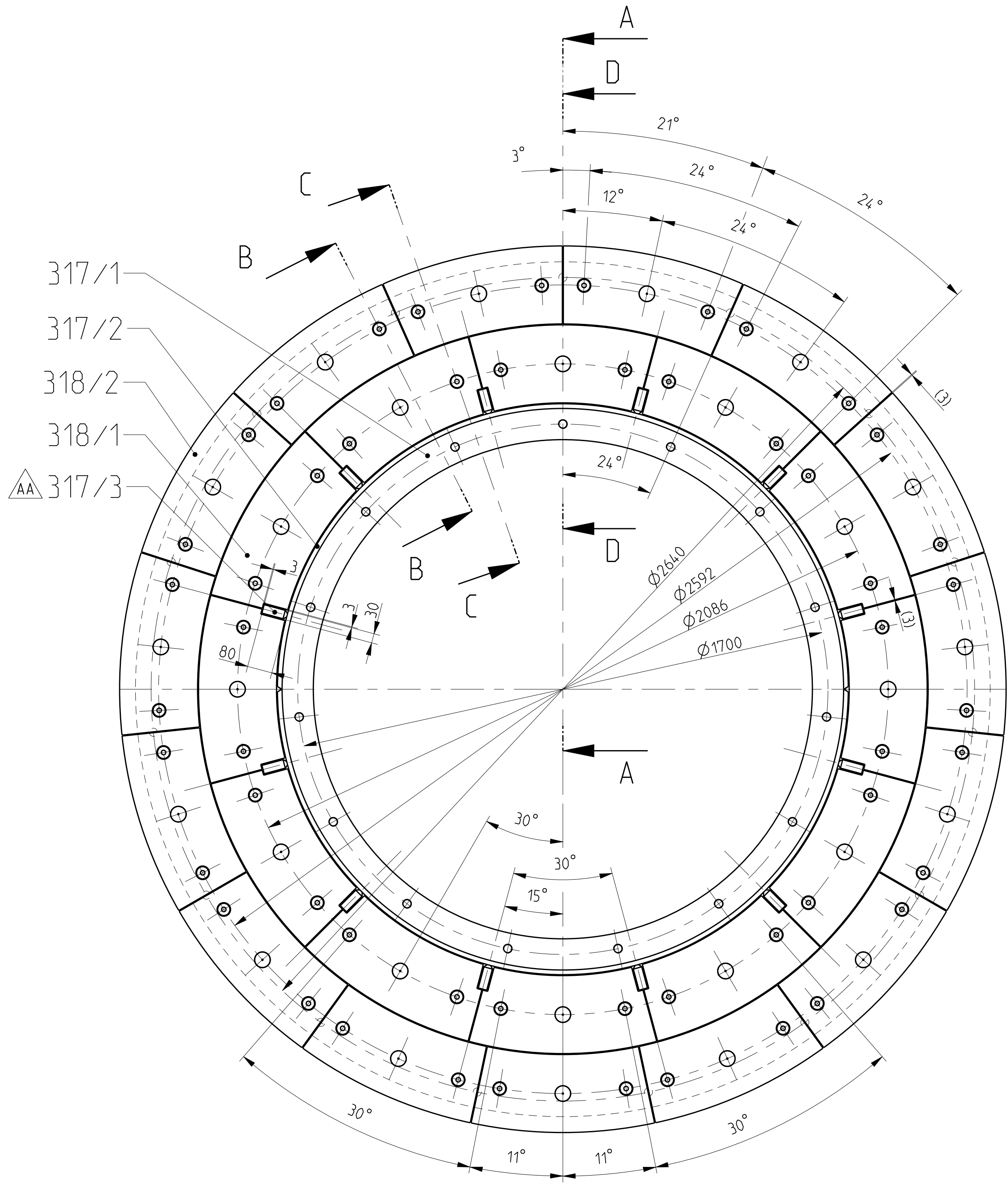
✓ ✓ Rz100 (✓ Rz25)

.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
AA	.	.	.	.	.
00	29.04.2016	First issue	Czech.	Liss	Textores
REV. NO.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPR'D
PROJECT/OWNER					
PTOLEMAIS UNIT V 660 MW POWER PLANT CONTRACT DMKT - 11 09 5052			 PUBLIC POWER CORPORATION S.A.		
CONTRACTOR					
 85 MESOGEION AVE., 115 26 ATHENS, GREECE Tel.: +30 210 69 68 000, Fax: +30 210 69 68 099 e-mail : terna@terna.gr					
SUBCONTRACTOR			SUBCONTRACTOR DWG.NO.		
 MITSUBISHI HITACHI POWER SYSTEMS EUROPE			N-100170-M-D27-IG04-00015-00		
TITLE					
DGS 180 Assembly beater head bolt Zusammenstellung Schlägerkopfbolzen					
SCALE	DRAWING NO.		SHEET	REV.NO.	
2:5	4311-M-D27-IG04-00015		01 of 01	00	
THIS DRAWING SHALL NEITHER BE DUPLICATED, TRANSFERRED NOR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES. ANY AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN ACT AGAINST UNFAIR PRACTISES (UWG) SHALL REMAIN UNAFFECTED.					

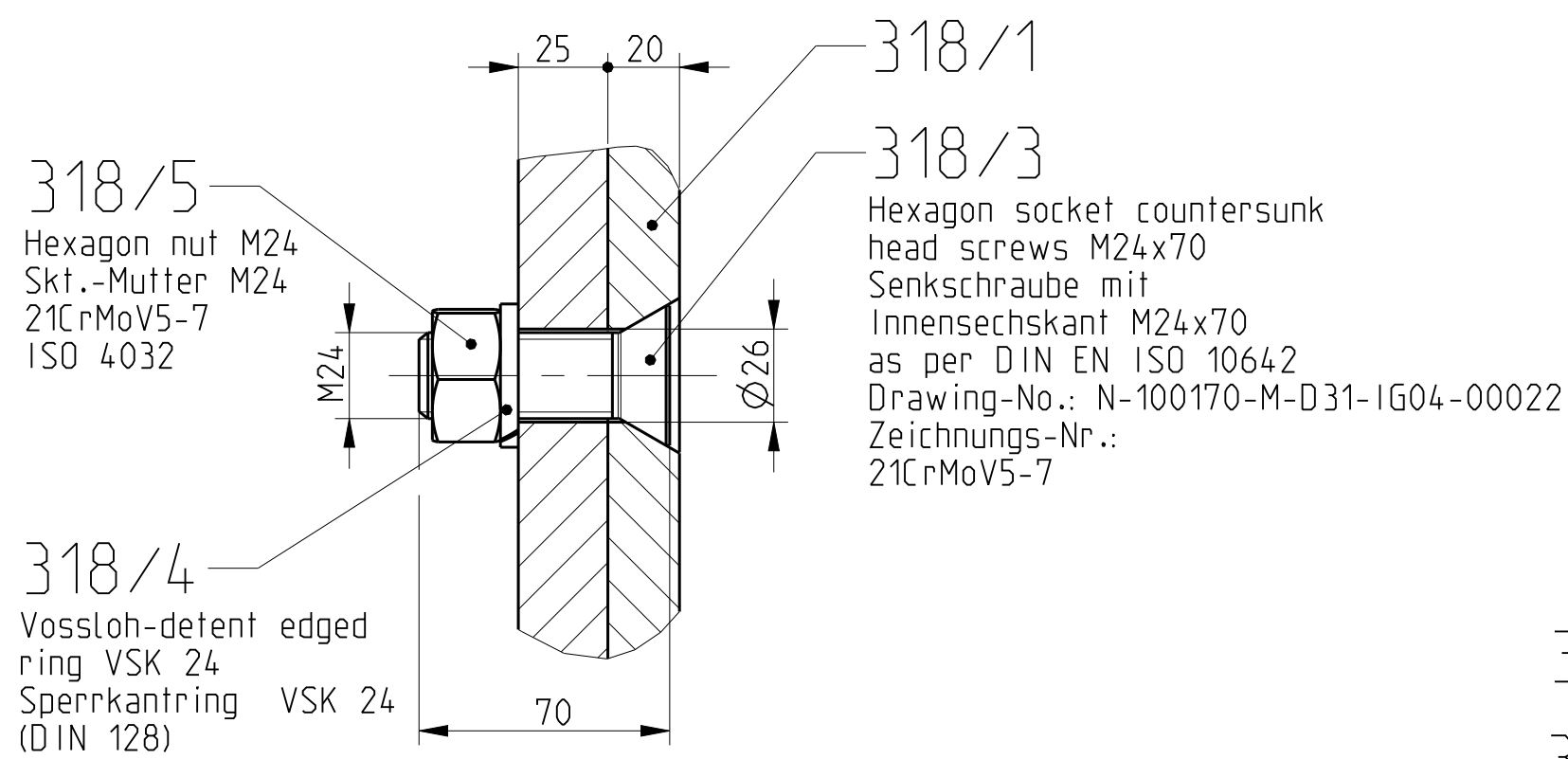
B/P - Code:
X/X
Baugruppe - Assembly
Pos.-Nr. - Item-No.



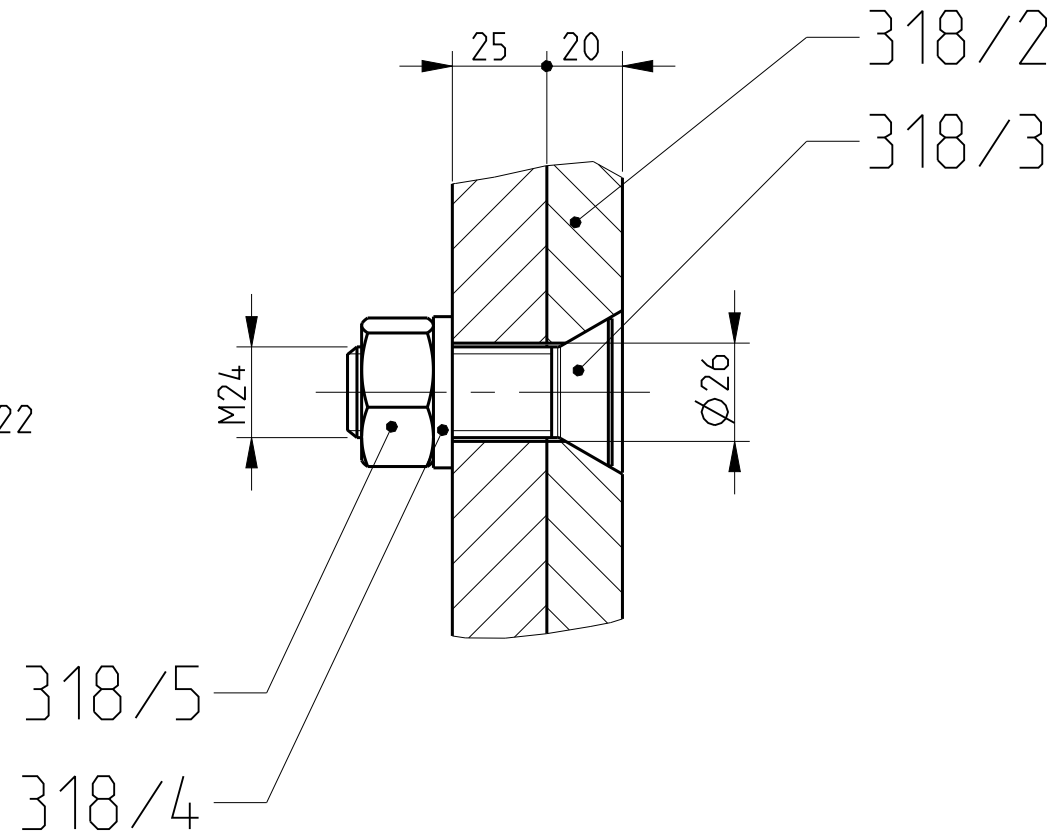




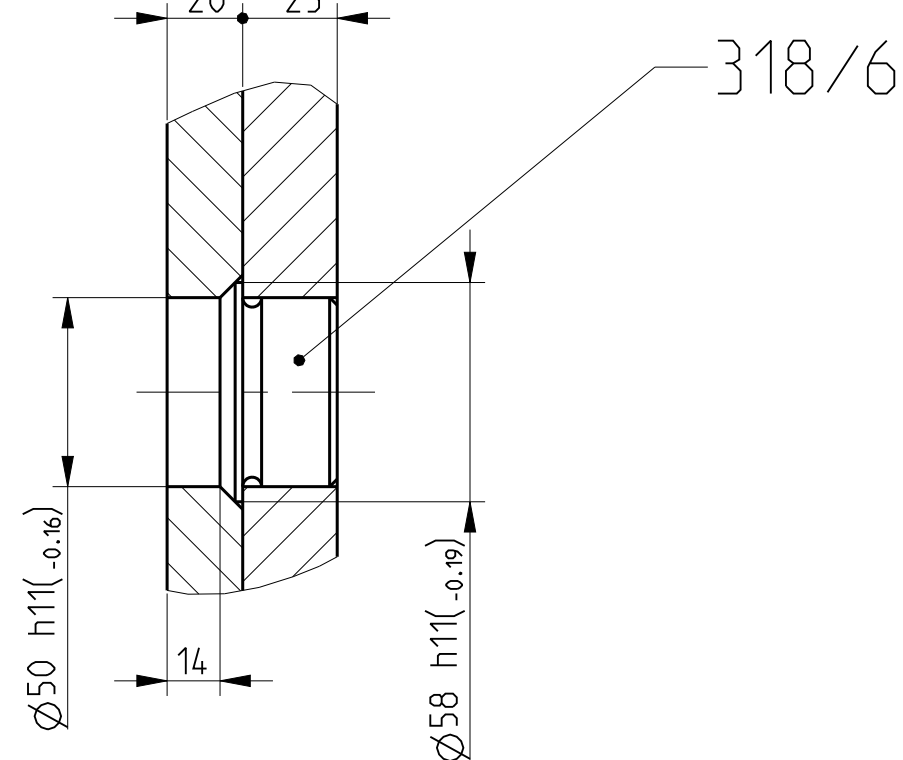
B-B
1:2



C-C
1:2



D-D
1:2



Associated drawings (without actual Rev.-No):

Fan wheel, baffle disc - carrier plate
Drawing-No: N-100170-M-D31-IG04-00020

Fan wheel, baffle disc - wearing plates
Drawing-No: N-100170-M-D31-IG04-00021

Fan wheel, baffle disc wearing plates - fixing material
Drawing-No: N-100170-M-D31-IG04-00022

Overall weight baffle disc with wearing parts: 1423.1 kg

Zugehoerige Zeichnungen (ohne akt. Rev.-Index):

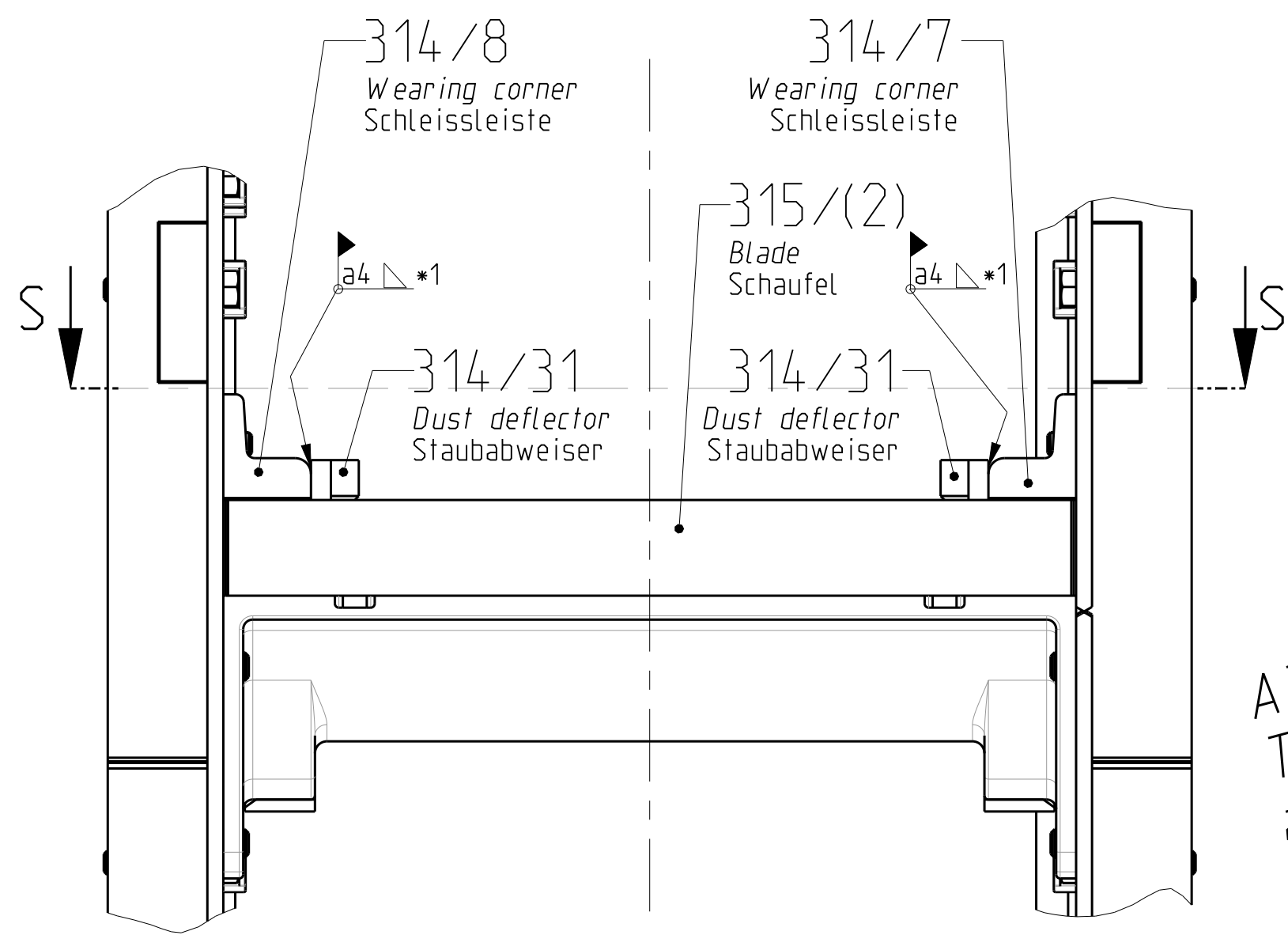
Schaufelrad, Prallscheibe - Tragblech
Zeichnungs-Nr.: N-100170-M-D31-IG04-00020

Schaufelrad, Prallscheibe - Schleißbleche
Zeichnungs-Nr.: N-100170-M-D31-IG04-00021

Schaufelrad, Prallscheibenschleißbleche - Befestigungsmaterial
Zeichnungs-Nr.: N-100170-M-D31-IG04-00022

Gesamtgewicht der Prallscheibe komplett: 1423.1 kg

AA	20.07.2016	Item 3 added	Czech.	Liss	Textores
00	20.08.2014	First issue	Czech.	Liss	Kalthoff
REV. NO.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPRD
PROJECT/OWNER					
PTOLEMAIS UNIT V 660 MW POWER PLANT CONTRACT DMKT - 11 09 5052			 PUBLIC POWER CORPORATION S.A.		
CONTRACTOR					
 85 MESOGEION AVE., 115 26 ATHENS, GREECE Tel.: +30 210 69 68 000, Fax: +30 210 69 68 099 e-mail : terna@terna.gr					
SUBCONTRACTOR			SUBCONTRACTOR DWG.NO.		
 MITSUBISHI HITACHI POWER SYSTEMS EUROPE			N-100170-M-D31-IG04-00019-AA		
TITLE					
DGS 180 Fan wheel, baffle disc - assembly drawing Schaufelrad, Prallscheibe - Zusammenstellungszeichnung					
SCALE		DRAWING NO.		SHEET	REV.NO.
1:10		4311-M-D31-IG04-00019		01 of 01	AA
THIS DRAWING SHALL NEITHER BE DUPLICATED, TRANSFERRED NOR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES. ANY AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN ACT AGAINST UNFAIR PRACTISES (UWG) SHALL REMAIN UNAFFECTED.					

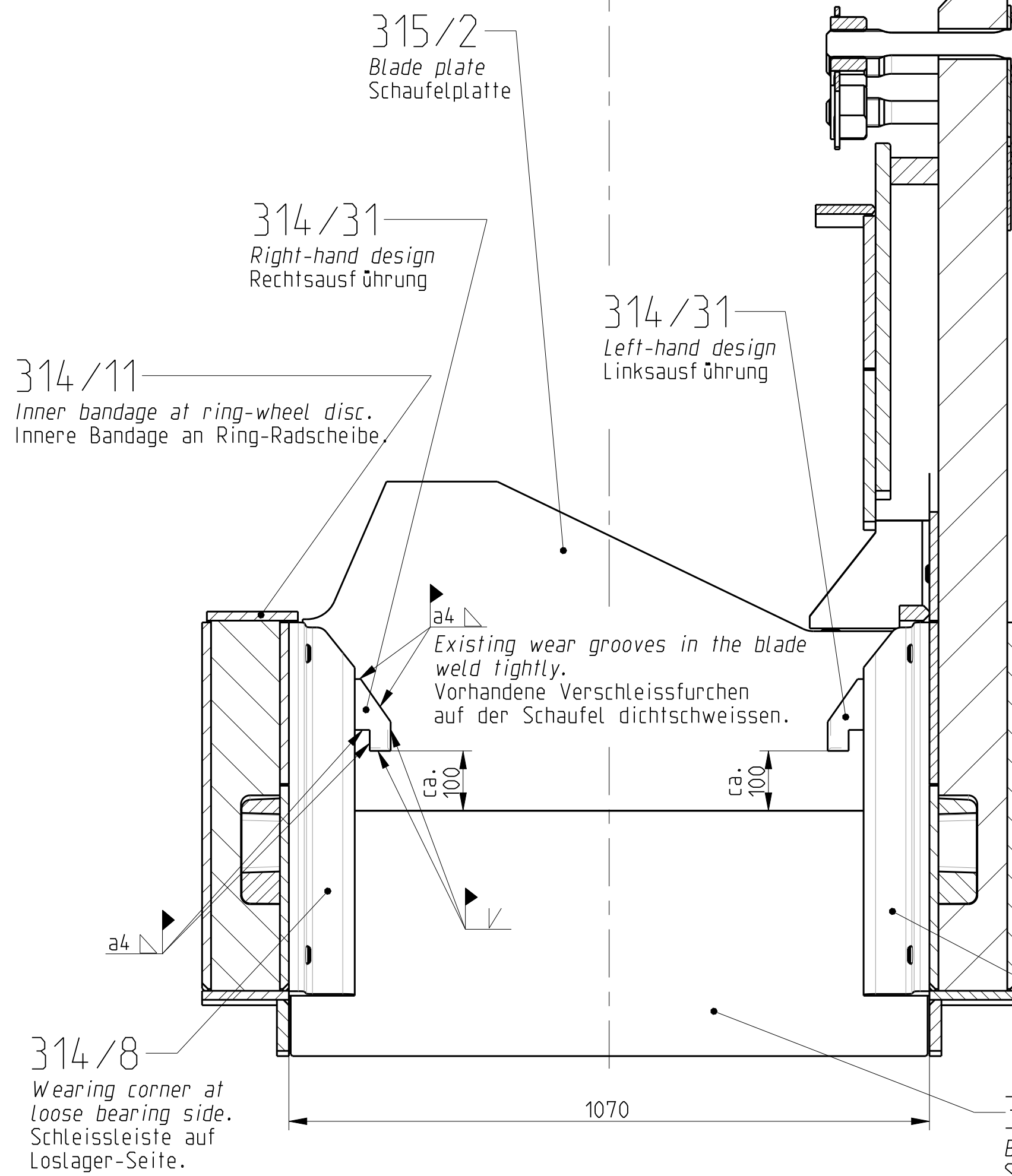


ATTENTION:
The location and number of dust deflectors
are defined during the commissioning.
ACHTUNG:
Lage und Anzahl der Staubabweiser werden
während der IBS festgelegt.

S-S
2:15

Fan wheel, right-hand mill shown
Schaufelrad, Rechtsmühle dargestellt

Shaft / Welle



314/11
Inner bandage at ring-wheel disc.
Innere Bandage an Ring-Radscheibe.

Existing wear grooves in the blade
weld tightly.
Vorhandene Verschleissfurchen
auf der Schaufel dichtschweißen.

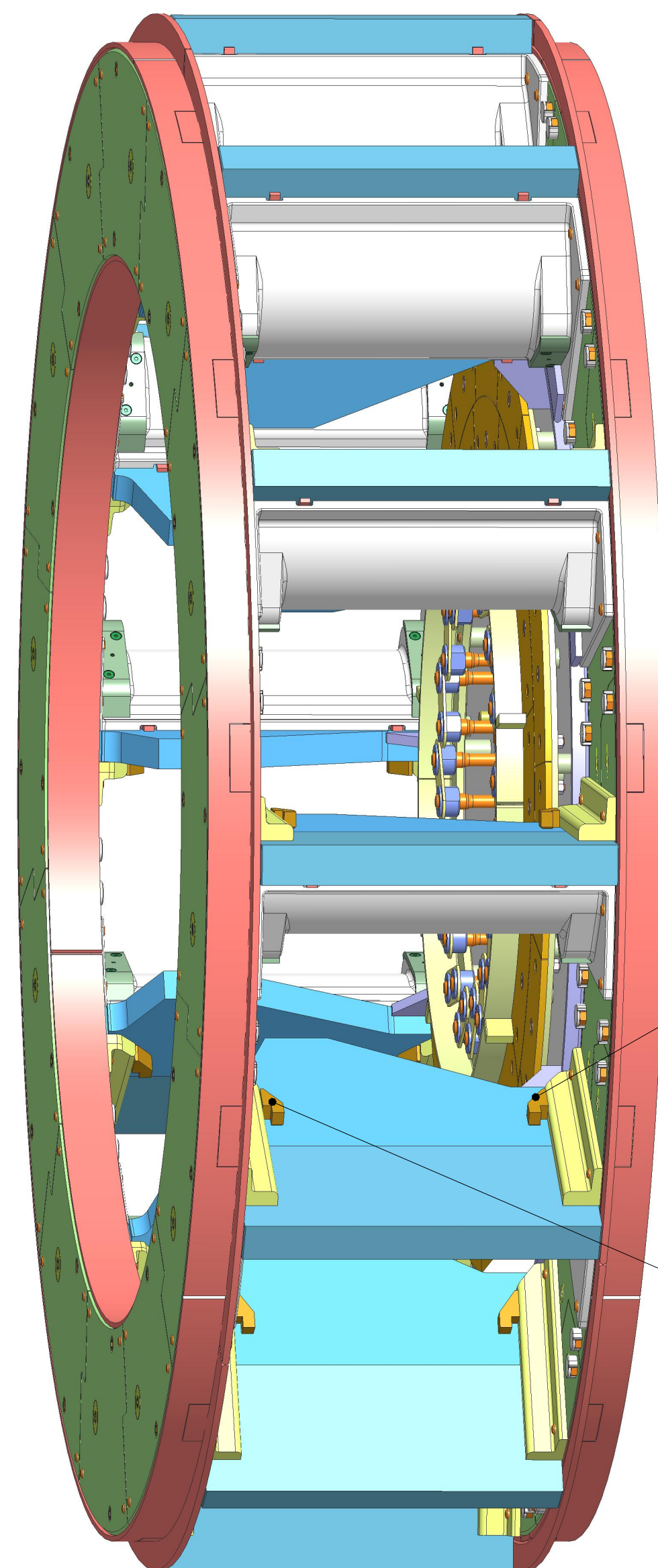
314/8
Wearing corner at
loose bearing side.
Schleissleiste auf
Loslager-Seite.

315/1
Blade rod
Schaufelstab

314/7
Wearing corner at
fixed bearing side.
Schleissleiste auf
Festlagerseite.

Fan wheel, right-hand mill shown
Schaufelrad, Rechtsmühle dargestellt

1:15



314/31
Left-hand design on fixed bearing side (FL).
Linksausführung auf Festlagerseite (FL).

314/31
Right-hand design on loose bearing side (LL).
Rechtsausführung auf Loslagerseite (LL).

B(S)/P - Code:

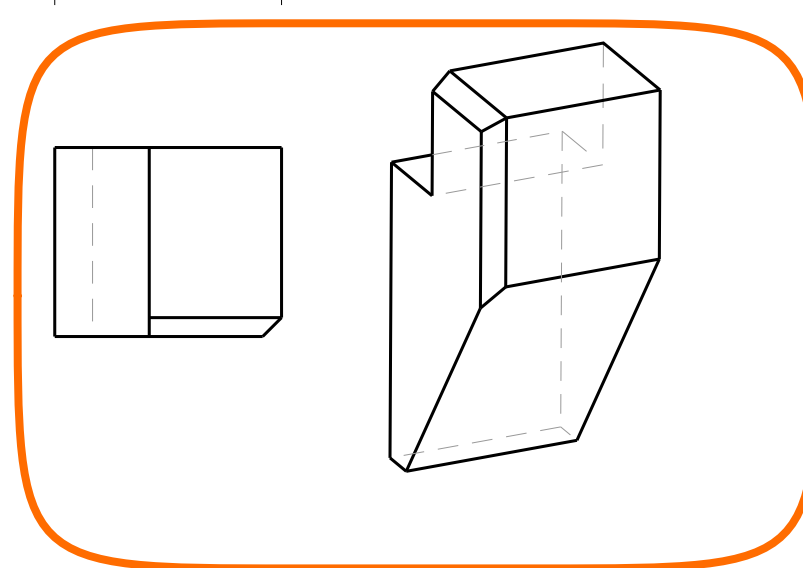
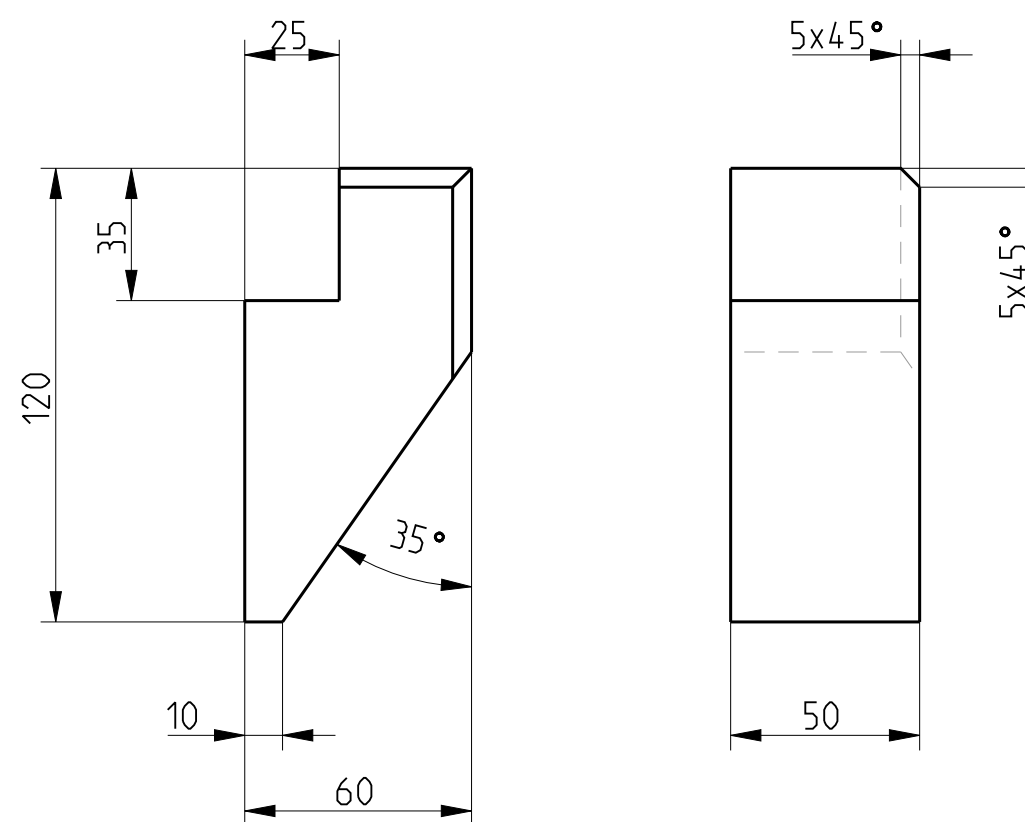
X/X

Baugruppe - Assembly
Stückliste - Part list
Pos.-Nr. - Item-No.

1:2

31

Right-hand design
Rechtsausführung
Material: S235JRG2 (RSt37-2), 1.0038
weight/ Gewicht: 1.77 kg/ pcs./Stück

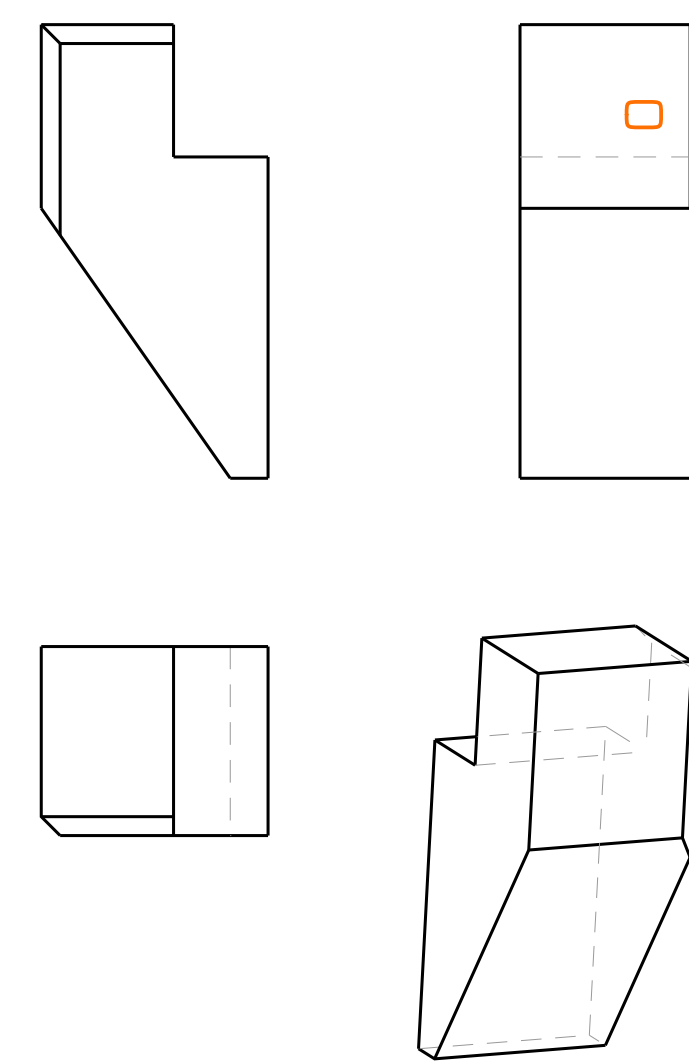


1:2

31

Left-hand design
Linksausführung

For missing dimensions and details see right-hand design.
Fehlende Maße und Angaben siehe Rechtsausführung.



■1:
If there are already large wear grooves on the blade,
additionally weld the dust deflector to the wearing corner.

Sind bereits große Verschleissfurchen auf der Schaufel vorhanden,
den Staubabweiser zusätzlich an der Schleissleiste anschweißen.

Quantity per wheel:
For right-hand turning mills:
12 pieces item 31 in right-hand design for loose bearing (LL) side
12 pieces item 31 in left-hand design for fixed bearing (FL) side
For left-hand turning mills:
12 pieces item 31 in left-hand design for loose bearing (LL) side
12 pieces item 31 in right-hand design for fixed bearing (FL) side

Anzahl je Rad:
Für Rechtsmühlen:
12 Stück Pos. 31 in Rechtsausführung für Loslager (LL)-Seite
12 Stück Pos. 31 in Linksausführung für Festlager (FL)-Seite
Für Linksmühlen:
12 Stück Pos. 31 in Linksausführung für LL-Seite
12 Stück Pos. 31 in Rechtsausführung für FL-Seite

.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
AA	.	.	.	.	.	.
00	02.08.2022	First issue	Liss	Westphal	Krause	
REV. NO.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPROV.	
PROJECT/OWNER						
PTOLEMAIS UNIT V 660 MW POWER PLANT CONTRACT DMKT - 11 09 5052			 PUBLIC POWER CORPORATION S.A.			
CONTRACTOR						
 TERNA S.A. 85 MESOGEION AVE., 115 26 ATHENS, GREECE Tel.: +30 210 69 68 000, Fax: +30 210 69 68 099 e-mail : terna@terna.gr						
SUBCONTRACTOR			SUBCONTRACTOR DWG.NO.			
 MITSUBISHI HITACHI POWER SYSTEMS EUROPE			N-100170-M-D31-IG04-00023-00			
TITLE						
DGS 180 Fan wheel, dust deflector for the blades Schaufelrad, Staubabweiser für die Schaufeln						
SCALE		DRAWING NO.		SHEET		REV. NO.
1:15		4311-M-D31-IG04-00023		01 of 01		00
THIS DRAWING SHALL NEITHER BE DUPLICATED, TRANSFERRED NOR REVISED WITHOUT OUR PRIOR WRITTEN APPROVAL. IT SHALL NOT BE MADE AVAILABLE TO THIRD PARTIES. ANY AND ALL RIGHTS IN ACCORDANCE WITH THE GERMAN LAW ON COPYRIGHT (URHG) AND GERMAN ACT AGAINST UNFAIR PRACTISES (UWG) SHALL REMAIN UNAFFECTED.						

