



**NATIONAL  
TECHNICAL  
APPROVAL**

**ALBLITZ MODUL**

# Notification

Approval Body for Construction Products & Types of Construction

Bautechnisches Prüfamt (Structural Engineering Testing Body)

A public agency managed jointly by the Federal and Länder (State)

Governments

Member of the EOTA, UEAtc and WFTAO

of amendments and the extension of the period of validity of  
the national technical approval of 7 May 2017

Date:  
26 May 2017

Reference number:  
| 37-1-1.8.22-10/17

Approval number:

Z-8.22-913

Period of validity

from: 8 May 2017

to: 8 May 2022

Applicant:

**Alfix GmbH**

Langhennersdorfer Straße 15

D-09603 Großschirma

Germany

Subject to be approved:

"ALBLITZ MODUL" Modular System

This notification shall change and extend the period of validity of national technical approval no. Z-8.22-913 of 7 May 2012. This national technical approval includes 6 pages and 4 annexes. It shall only be valid in connection with the above mentioned national technical approval and shall only be used in conjunction with it.

[Seal Deutsches Institut für Bautechnik]

**Ref. to I GENERAL PROVISIONS**

The general provisions of the national technical approval shall be replaced by the following:

- 1 The national technical approval shall serve as the verification of the usability or applicability of the subject to be approved as defined by the Buildings Regulations of the Land.
- 2 The national technical approval shall not replace the statutory approvals, permits and certificates required for executing building projects.
- 3 The national technical approval shall be granted without prejudice to any third party rights, in particular private protective property rights.
- 4 The manufacturer and the distributor of the approval subject shall provide the users of the approval subject, without prejudice of any further extensive regulations outlined in the "Special Provisions", with copies of the national technical approval and indicate that this approval must be available at the site of use. On request, copies of the national technical approval shall be made available to the authorities involved.
- 5 Only complete sets of the national technical approval may be reproduced. A publication in extracts shall be subject to the prior consent of Deutsches Institut für Bautechnik. Any wording and drawings of advertising material shall not be contradictory to the national technical approval. Translations of such approval must be marked with "Translation of the German original not reviewed by Deutsches Institut für Bautechnik".
- 6 The national technical approval will be granted revocably. The provisions of this national technical approval may be amended or changed subsequently, especially if new technological findings require this.

## Ref. to II SPECIAL PROVISIONS

The special provisions of the national technical approval shall be replaced by the following:

1. Section 1 shall be replaced by the following:

### 1 Subject and Scope of Application

The subject of this national technical approval is the modular system "ALBLITZ MODUL" to be used as working and safety scaffolding s, supporting scaffolding s as well as other temporary constructions. The assembly, modification and dismantling of scaffolding s shall not be part of this national technical approval.

The modular system consists of uprights (standards), ledgers, vertical and horizontal diagonal braces and decks as basic components and of system components for side protection, as well as access and supplementary components. The uprights, ledgers and diagonal braces are interconnected by special scaffolding connectors (nodes) of different design.

The manufacturing of the scaffolding connector's (nodes') individual parts is regulated by national technical approvals Z-8.22-64 and Z-8.22-906, the manufacturing of the scaffolding components by national technical approvals Z-8.1-16.2, Z-8.22-64, Z-8.1-862 or Z-8.22-906.

The scaffolding connectors (nodes) consist of a connecting or perforated disc that is welded to an upright tube, and connecting heads that are welded to tubular ledgers or flexibly attached to vertical diagonal braces. The connecting heads embrace the connecting or perforated disc and are pressed to the connecting or perforated disc by driving in a captive wedge so that the connecting heads are pressed against the upright tube.

A maximum of eight tubes can be connected to each connecting or perforated disc.

For stability proof of working and safety scaffolding s, the DIN EN 12811-1:2004-03 requirements shall apply in connection with the "Application guideline for working scaffolding s according to DIN EN 12811-1"<sup>1</sup>. For stability proof of supporting scaffolding s the DIN EN 12812:2008-12 requirements shall apply in connection with the "Application guideline for supporting scaffolding s according to DIN EN 12812"<sup>2</sup>. The characteristic values to be used for the stability proof are given in this national technical approval.

For applications of scaffolding components in façade scaffolding, standard designs are described for which stability proofs of the fully assembled scaffolding configurations have been provided. Deviating designs require separate proof. The standard designs are applicable for façade scaffolding with erection heights of up to 24 m above ground plus spindle jack extension length. The scaffolding system can be utilized in the standard designs with a system width of  $b = 0.732$  m and with bay widths of  $\ell \leq 3.07$  m for working scaffolding s belonging to the load classes  $\leq 3$  in accordance with DIN EN 12811-1:2004-03, and as safety and roof safety scaffolding in accordance with DIN 4420-1:2004-03.

<sup>1</sup> see DIBt-Mitteilungen, Issue 2/2006, p. 66 et seq.

<sup>2</sup> see DIBt-Mitteilungen, Issue 6/2009, pages 227-230

2. Table 1 shall be replaced by table 1a:

**Table 1a:** Individual parts of the scaffolding connectors

Part	Type / Design	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Connecting disc	ALFIX MODUL MULTI	2	pursuant to Z-8.22-906
Perforated disc	K2000+	117	pursuant to Z-8.22-64
Wedge	ALFIX MODUL MULTI	3	pursuant to Z-8.22-906
	K2000+	122	pursuant to Z-8.22-64
Tube ledger connection	ALFIX MODUL MULTI	4	pursuant to Z-8.22-906
Connecting head for O-ledger	K2000+	118	pursuant to Z-8.22-64
U-ledger connection	ALFIX MODUL MULTI	5	pursuant to Z-8.22-906
Connecting head for U-ledger	K2000+	119	pursuant to Z-8.22-64
Connecting head for U-bracket		120	
V-diagonal brace connection	ALFIX MODUL MULTI	6	pursuant to Z-8.22-906
Connecting head for diagonal brace	K2000+	121	pursuant to Z-8.22-64
H-diagonal brace connection	ALFIX MODUL MULTI	7	pursuant to Z-8.22-906

3. In table 2 the following rows shall be replaced:

**Table 2:** Scaffolding components to be used in the "ALBLITZ MODUL" modular system

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
U-toe board, wood 0.73-3.07 m	130a	pursuant to Z-8.22-939
U-toe board, steel 0.73-3.07 m	131a	
Stair guardrail 2.57; 3.07 m	142a	
Stair guardrail holder	143a	

4. In table 2 the following rows shall be deleted:

**Table 2:** Scaffolding components to be used in the "ALBLITZ MODUL" modular system

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Horizontal diagonal brace	136	pursuant to Z-8.22-64
O-ledger with half coupler	145	
O-ledger HD	147	

5. The third paragraph of section 3.2.1 shall be replaced by the following:

In the connection of a ledger, normal forces as well as bending moments and lateral forces may be transferred on the level of the upright tube/ledger and the level at a right angle to it. For the verification calculation of the scaffolding system it is important that the bending moment of the connection of ledger and upright tube refers to the outer edge of the upright tube. For short ledgers  $L < 0.60$  m, the connections must be assumed pin-jointed. In this case, only normal forces and lateral forces may be transferred.

6. Section 3.3.6 shall be replaced by the following:

### 3.3.6 Scaffolding spindles

The equivalent cross-section values for the stress or interaction analyses, and the calculations of distortion according to DIN 4425:1990-11 (Annex B of DIN EN 12811-1:2004-03) shall be assumed as follows for scaffolding spindles (base jacks):

for the scaffolding spindles according to Annex B, page 83:

$$\begin{aligned} A = A_S &= 3.52 \text{ cm}^2 \\ I &= 4.00 \text{ cm}^4 \\ W_{el} &= 2.68 \text{ cm}^3 \\ W_{pl} &= 1.25 \cdot 2.68 = 3.35 \text{ cm}^3 \end{aligned}$$

for the scaffolding according to Annex B, page 151:

$$\begin{aligned} A = A_S &= 3.84 \text{ cm}^2 \\ I &= 3.74 \text{ cm}^4 \\ W_{el} &= 2.61 \text{ cm}^3 \\ W_{pl} &= 1.25 \cdot 2.61 = 3.26 \text{ cm}^3 \end{aligned}$$

For the proof of the load-bearing capacities of the spindles the cosine-interaction according to DIN 4420-1:1990-12, table 7 may be applied.

7. Section 3.3.7 shall be replaced by the following:

### 3.3.7 Couplers

For the proof of the half couplers attached to the various components, the load capacities and stiffnesses for class B half couplers shall be applied according to the specifications of the DIN EN 74-2:2009-01 standard.

8. Section 4.1 shall be replaced by the following:

#### 4.1 General

The execution and inspection of the scaffolding s is not the subject matter of this National Technical Approval.

The assembly, modification and dismantling of scaffolding s shall be in accordance with the instructions for erection and use<sup>3</sup>.

9. Section 4.3.7 shall be replaced by the following:

#### 4.3.7 Couplers

Threaded joint couplers must be fixed to the uprights with a tightening torque of 50 Nm; deviations of  $\pm 10\%$  are admissible. The screws must be maintained in accordance with the manufacturer's instructions for use so that they can be easily moved.

#### Ref. to ANNEX B

10. In annex B, pages 130, 131, 142 and 143 shall be replaced by pages 130a, 131a, 142a, and 143 a.

11. Pages 136, 145, and 147 shall be deleted from annex B.

#### Ref. to ANNEX C

12. In table C.1, the following rows shall be replaced:

**Table C.1:** Components of standard design

Designation	Annex B, page
U-toeboard, wood 0.73-3.07 m	130a
U-toeboard, steel 0.73-3.07 m	131a

13. In table C.1, the following rows shall be deleted:

**Table C.1:** Components of standard design

Designation	Annex B, page
Horizontal diagonal brace	136

BD Dipl.-Ing. Andreas Kummerow  
Head of Department

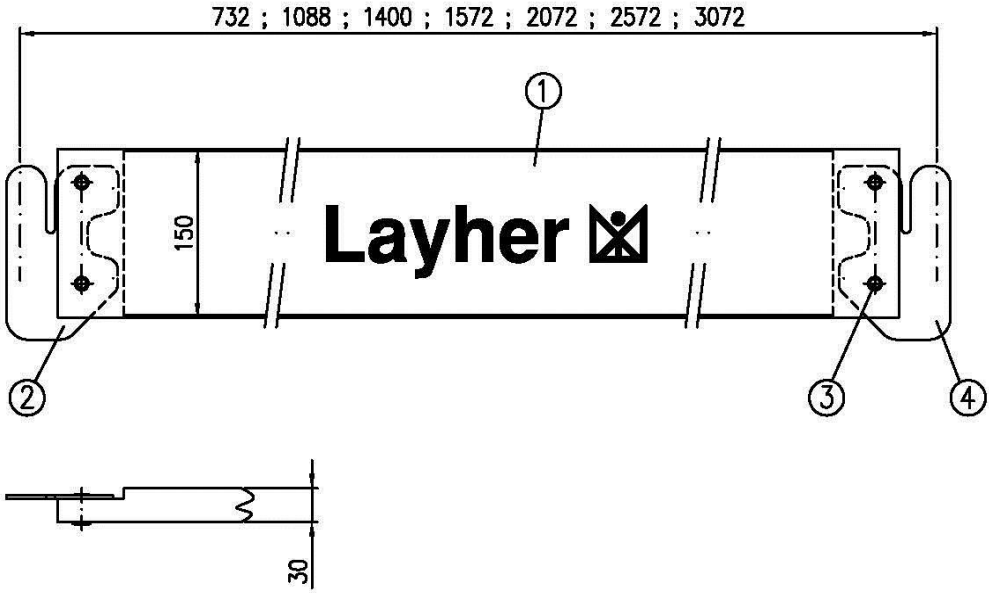
Authorized

>Seal: Deutsches Institut  
für Bautechnik<

>signed<

<sup>3</sup> The instructions for erection and use shall be in accordance with the specifications of the "Application guideline for working scaffolding s according to DIN EN 12811-1", to be obtained from the DIBT-Mitteilungen, Issue 2/2006

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- ① Wood                    30x150                    DIN 4074-S10-Fi
- ② Fitting                    t=2.5                    EN 10326-S250GD
- ③ Truss-head rivet    ø8x30                    EN 10263-2
- ④ Marking

Dim. [m]	Weight [kg]
0.73	1.5
1.09	2.5
1.40	3.4
1.57	3.5
2.07	4.3
2.57	5.7
3.07	6.3

ALBLITZ MODUL	Annex B, page 130a
"U"-toeboard, wood 0.73-3.07 m pursuant to Z-8.22-939 ABM710-B038a	

05.2017



Notification of 26.May 2017 of amendments and the extension of the period of validity of the national technical approval No. Z-8.22-913 of 7. May 2012

732 ; 1088 ; 1400 ; 1572 ; 2072 ; 2572 ; 3072

Layher. Lay

B-B

150

① ② ③ ④

Dim. [m]	Weight [kg]
0.73	1.8
1.09	2.5
1.40	3.1
1.57	3.4
2.07	4.4
2.57	5.4
3.07	6.3

① Profiled sheet plate 30x150 EN 10326-S250  
 ② Fitting t=2.5 EN 10326-S250  
 ③ Platsic cap 151x31  
 ④ Tubular rivet A 10x1x35 EN 10305-1-E235

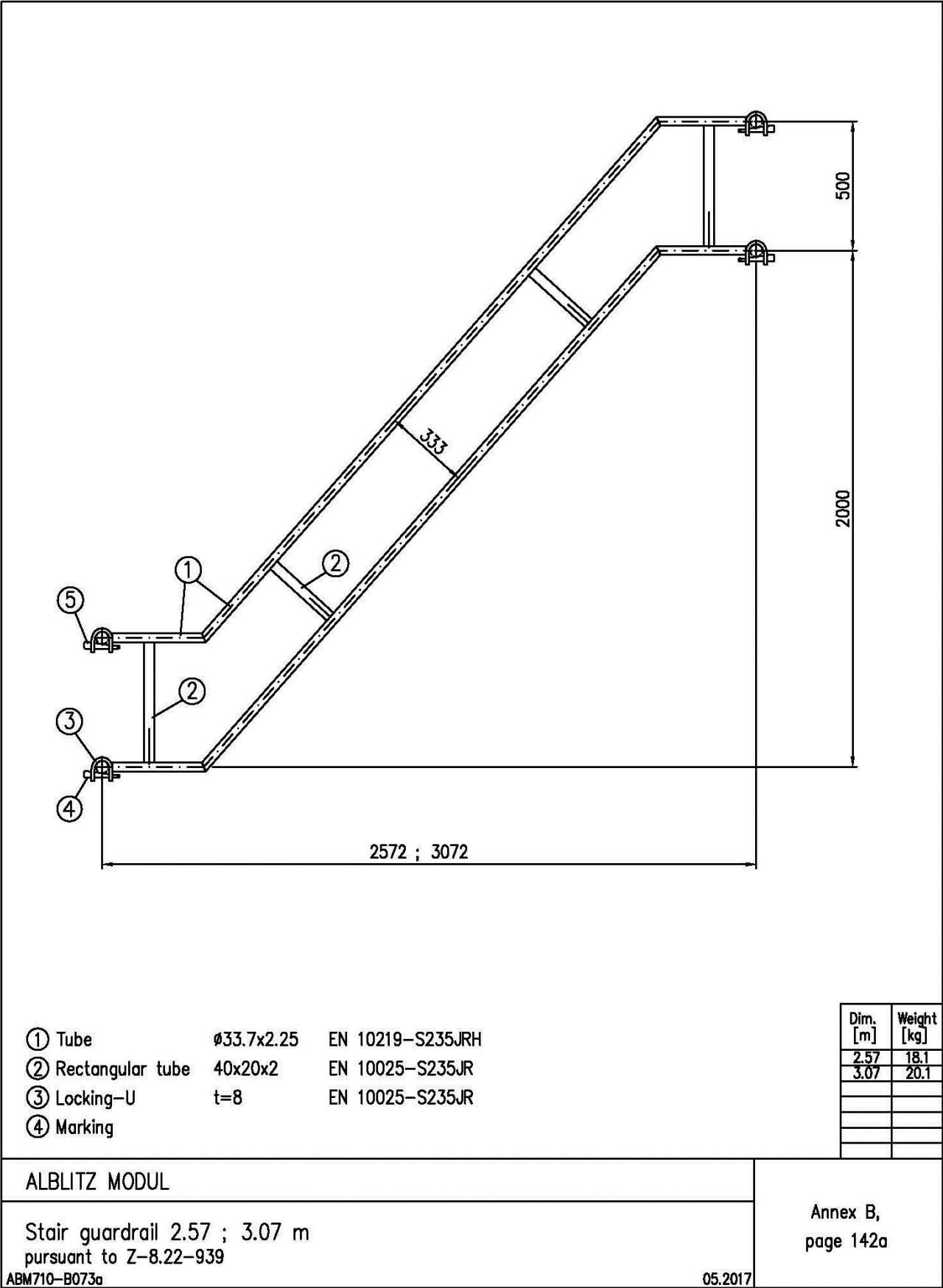
**ALBLITZ MODUL**

"U"-toeboard, steel 0.73-3.07 m pursuant to Z-8.22-939

ABM710-B039a 05.2017

Annex B, page 131a

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- ① Tube                    ø33.7x2.25    EN 10219-S235JRH
- ② Rectangular tube    40x20x2        EN 10025-S235JR
- ③ Locking-U            t=8            EN 10025-S235JR
- ④ Marking

ALBLITZ MODUL

Stair guardrail 2.57 ; 3.07 m  
pursuant to Z-8.22-939

ABM710-B073a 05.2017

Annex B,  
page 142a

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① Head piece                    EN 1562-GJMW-450-7  
 ② Wedge                            (see Annex B, page 122)  
 ③ Marking

Dim. [m]	Weight [kg]
	0.7

ALBLITZ MODUL		Annex B, page 143a
Stair guardrail holder pursuant to Z-8.22-939 ABM710-B074a		
		05.2017

# National Technical Approval

**Approval Body for Construction Products & Types of Construction**  
**Bautechnisches Prüfam (Structural Engineering Testing Body)**  
An institution managed jointly by the Federal and Länder Governments  
**Member of the European Organisation for Technical Approvals (EOTA)**  
**and of the European Union of Agrément (UEAtc) and the World Federation**  
**of Technical Assessment Organisations**

**Date:**  
**7 May 2012**

**Reference number:**  
**| 33-1.8.22-28/11**

**Approval number:**

**Z-8.22-913**

**Period of validity**

from: **7 May 2012**  
to: **7 May 2017**

**Applicant:**

**ASB Produktions GmbH**  
Langhennersdorfer Straße 15  
D-09603 Großschirma  
Germany

**Subject to be approved:**

**"ALBLITZ MODUL" Modular System**

The above mentioned subject is hereby granted national technical approval. This national technical approval includes 23 pages as well as Annex A (pages 1 to 2), Annex B (pages 1 to 165), Annex C (pages 1 to 8).

This national technical approval replaces national technical approval no. Z-8.1-913 of 10 April 2007, last amended by notification of 9 November 2009. On 10 April 2007, the above mentioned subject was granted national technical approval for the first time.

## I GENERAL PROVISIONS

- 1 The national technical approval shall serve as the verification of the usability or applicability of the subject to be approved as defined by the Buildings Regulations of the Land<sup>1</sup>.
- 2 Provided that within the national technical approval particular demands are placed on the expertise and experience of people involved in the manufacturing of construction products and system according to the respective regulations of the Land pursuant to Section 17 paragraph 5 Model Building Code<sup>2</sup>, it must be observed that said expertise and experience can also be verified through equal evidences of other Member States of the European Union. This shall also apply to equal evidences provided within the framework of the Agreement on the European Economic Area (EEA)<sup>3</sup> or other bilateral agreements, if applicable.
- 3 The national technical approval shall not replace the statutory approvals, permits and certificates required for executing building projects.
- 4 The national technical approval shall be granted without prejudice to any third party rights, in particular private protective property rights.
- 5 The manufacturer and the distributor of the approval subject shall provide the users of the approval subject, without prejudice of any further extensive regulations outlined in the "Special Provisions", with copies of the national technical approval and indicate that this approval must be available at the site of use. On request, copies of the national technical approval shall be made available to the authorities involved.
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- 7 The national technical approval will be granted revocably. The provisions of this approval may be amended or changed subsequently, especially if new technological findings require this.

<sup>1</sup> Landesbauordnungen

<sup>2</sup> Musterbauordnung

<sup>3</sup> Abkommen über den Europäischen Wirtschaftsraum (EWR)

## II SPECIAL PROVISIONS

### 1 Subject and Scope of Application

The subject of this national technical approval is the modular system "ALBLITZ MODUL" for the erection of working and safety scaffolds, supporting scaffolds as well as other temporary constructions.

The modular system consists of uprights (standards), ledgers, vertical and horizontal diagonal braces and decks as basic components and of system components for side protection, of access and supplementary components. The uprights, ledgers and diagonal braces are interconnected by special scaffold connectors (nodes) of different design.

The manufacturing of the scaffold connector's individual parts is regulated by national technical approvals Z-8.22-64 and Z-8.22-906, the manufacturing of the scaffold components - by national technical approvals Z-8.1-16.2, Z-8.22-64, Z-8.1-862 or Z-8.22-906.

The scaffold connectors (nodes) consist of a connecting or perforated disc that is welded to an upright tube, and connecting heads that are welded to tubular ledgers or flexibly attached to vertical diagonal braces. The connecting heads embrace the connecting or perforated disc and are pressed to the connecting or perforated disc by driving in a captive wedge so that the connecting heads are pressed against the upright tube.

A maximum of eight members can be connected to each connecting or perforated disc.

For stability proof of working and safety scaffolds, the DIN 12811-1:2004-03 requirements shall apply in connection with the "Application guideline for working scaffolds according to DIN EN 12811-1"<sup>1</sup>, and for stability proof of supporting scaffolds the DIN 12812:2008-12 requirements shall apply in connection with the "Application guideline for supporting scaffolds according to DIN EN 12812"<sup>2</sup>. The connector load and stiffness to be used for the stability proof are given in this national technical approval.

For applications of scaffold components in façade scaffolding, standard designs are described for which stability proof has been provided. Deviating designs require separate proof. The standard designs are applicable for façade scaffolding with erection heights of up to 24 m above ground plus base jack extension length. The scaffolding system can be utilized in the standard designs with a system width of  $b = 0.732$  m and with bay widths of  $\ell \leq 3.07$  m for working scaffolds belonging to the load classes  $\leq 3$  in accordance with DIN EN 12811-1:2004-03, and as safety and roof safety scaffolding in accordance with DIN 4420-1:2004-03.

### 2 Scaffold Component Requirements

#### 2.1 Features

##### 2.1.1 General

The individual parts of scaffold connector as per Table 1 and the scaffolding components as per Table 2 shall comply with the specifications given in Annex B.

For manufacturing, marking and proof of compliance/conformity of both the individual parts of scaffold connector and of scaffolding components, the national technical approvals stated in Tables 1 and 2 shall be authoritative.

<sup>1</sup> see DIBt-Mitteilungen, Issue 2/2006, p. 66 et seq.

<sup>2</sup> see DIBt-Mitteilungen, Issue 6/2009, pages 227-230

**Table 1:** Individual parts of scaffold connectors

Part	Type / Design	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Connecting disc	ALFIX MODUL plus II	2	pursuant to Z-8.22-906
Perforated disc	K2000+	117	pursuant to Z-8.22-64
Wedge	ALFIX MODUL plus II	3	pursuant to Z-8.22-906
	K2000+	122	pursuant to Z-8.22-64
Tube ledger connection	ALFIX MODUL plus II	4	pursuant to Z-8.22-906
Connecting head for O-ledger	K2000+	118	pursuant to Z-8.22-64
U-ledger connection	ALFIX MODUL plus II	5	pursuant to Z-8.22-906
Connecting head for U-ledger	K2000+	119	pursuant to Z-8.22-64
Connecting head for U-bracket		120	
Connection for vertical diagonal brace	ALFIX MODUL plus II	6	pursuant to Z-8.22-906
Connecting head for vertical diagonal brace	K2000+	121	pursuant to Z-8.22-64
Connection for horizontal diagonal brace	ALFIX MODUL plus II	7	pursuant to Z-8.22-906
Connecting head for horizontal diagonal brace	K2000+	123	pursuant to Z-8.22-64

**Table 2:** Scaffold components to be used in the "ALBLITZ MODUL" modular system

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Vertical diagonal braces	8	pursuant to Z-8.22-906
Horizontal diagonal braces	9	
Vertical starter piece	10	
Vertical upright with spigot fitting 200	11	
Vertical upright with detachable spigot fitting 520	12	
Tube ledger	13	
Tube ledger, reinforced	14	
U-transom 0.73 m	15	
U-transom, reinforced 1.09 m, 1.40 m	16	
Aluminium frame platform RE 1.57 m, 2.07 m	17	
Aluminium frame platform RE 2.57 m, 3.07 m	18	
Aluminium frame platform with access hatch RE 2.57 m	20	
Aluminium frame platform with access hatch RE 3.07 m	21	

**Table 2:** (continued)

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Steel plank AF RE 0.32 m	23	pursuant to Z-8.22-906
Steel plank RE	24	
Intermediate deck RE	25	
Steel plank AF RE 0.30 m; 0.34 m	26	
Intermediate deck AF RE 0.16 m; 0.19 m	27	
Modular toeboard	28	
Bracket 0.39 m RE	29	
Modular bracket 0.39 m	30	
Modular safety net	31	
Wedge head coupler, turnable	32	
Modular deck retainer	33	
Modular gap cover RE	34	
Modular lattice girder 6.14 m	35	
Modular lattice girder 4.14 m / 5.14 m	36	
Modular lattice girder with spigot fitting 6.14 m	37	
Modular lattice girder with spigot fitting 4.14 m / 5.14 m	38	
Modular spigot fitting U	39	
U-transom GT 0.73 m / 1.09 m V	40	
Tube transom GT 0.73 m / 1.09 m V	41	
Modular spigot fitting	42	
Base jack, swivelling	43	
Head spindle U	44	
Locking device for base jack	45	
Intermediate deck ledger RE – M	46	
Intermediate deck ledger RE – R	47	
Decking and planking ledger RE	48	
Intermediate deck ledger – M	49	
Intermediate deck ledger – R	50	
Decking and planking ledger	51	
Wedge head coupler, fixed	52	
Modular safety door	53	
U-bridging ledger 1.57 m	54	
U-bridging ledger 2.07 m	55	
U-bridging ledger 2.57 m	56	



**Table 2:** (continued)

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
U-bridging ledger 3.07 m	57	pursuant to Z-8.22-906
Double tube ledger 1.57 m	58	
Double tube ledger 2.07 m	59	
Double tube ledger 2.57 m	60	
Double tube ledger 3.07 m	61	
Aluminium frame platform with plywood 1.57 m; 2.07 m	62	
Aluminium frame platform with plywood 2.57 m; 3.07 m	63	
Aluminium frame platform with access hatch 2.57 m	65	
Aluminium frame platform with access hatch 3.07 m	66	
Modular toeboard 4.14 m	68	
Vertical starter piece	69	
Surface scaffolding upright	70	
Vertical upright 0.50 m with detachable spigot fitting 500	71	
Modular gap cover	72	
Modular aluminium toeboard	73	
Spindle coupler	74	
Horizontal ledger	75	
Bracket ledger	76	
Bracket RE 0.50 m	77	
Suspended scaffolding connector	78	
Modular bracket 0.73 m	79	
Modular double-end guardrail	80	pursuant to Z-8.1-862
Scaffold retainer	81	
Quick-release anchor	82	
Base jack	83	
Steel planking AF 0.32 m	84	
Steel deck	85	
Steel planking AF 0.30 m, 0.34 m	86	
Intermediate deck AF 0.16 m, 0.19 m	87	
Intermediate deck	88	
Aluminium deck with plywood 2.57 m; 3.07 m	89	
Aluminium deck with plywood 1.57 m; 2.07 m	90	
Aluminium hatch-type access deck 3.07 m with ladder	92	
Aluminium hatch-type access deck 2.57 m with ladder	93	

**Table 2:** (continued)

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
Integrated ladder	95	pursuant to Z-8.1-862
Aluminium deck with plywood 3.07 m	96	
Aluminium deck with plywood 1.57 m, 2.07 m, 2.57 m	97	
Aluminium hatch-type access deck 3.07 m with ladder	99	
Aluminium hatch-type access deck 2.57 m with ladder	100	
Toeboard, end toeboard	102	
Aluminium toeboard, aluminium end toeboard	103	
Wooden toeboard 4.14 m	104	
Gap cover	105	
Transom	106	
Guardrail coupler AF	107	
Toeboard coupler, halfcoupler with hook	108	
Coupler for square-shaped timber	109	
Toeboard holder	110	
Locking clip	111	
Claw coupler, tilting pin lock coupler	112	
Diagonal cross brace	113	
Advancing guardrail post 2.00 m	114	
Telescopic guardrail 2.0 – 3.07 m	115	
Starter piece	124	
AR upright with spigot fitting	125	
O-ledger 0.73 – 3.07 m	126	
U-ledger 0.73 m	127	
Diagonal brace	128	
U-plank/deck retainer	129	
AR U-toeboard, wood, design I; AR U-toeboard, wood, design II	130	
U-toeboard, steel	131	
U-bracket	132	
O-lattice girder	133	
Spigot fitting for lattice girder	134	
Safety side meshguard	135	
Horizontal diagonal brace	136	
Post with wedge heads	137	

**Table 2:** (continued)

Designation	Annex B, page	Regulations for manufacturing, marking and proof of compliance / conformity
U-bracket 0.73 m	138	pursuant to Z-8.22-64
Bracket brace	139	
O-lattice girder	140	
U-passage girder	141	
Handrail/guardrail	142	
Handrail/guardrail fastener	143	
U-protective shelter bracket T7	144	
O-ledger with halfcoupler	145	
O-ledger HD	146	
O-ledger HD	147	
AR TG-60 frame 0.50 x 1.09 m	148	
AR TG-60 frame 0.71 x 1.09 m	149	
AR TG-60 frame 1.00 x 1.09 m	150	
Base jack 60	151	
Locking clip, red	152	
Scaffold retainer	153	
U-lattice girder - ledger 0.73 m	154	
U-aluminium platform stairs T4 2.57 m, 3.07 m	155	
Aluminium assembly guardrail 1.57/2.07m, 2.57/3.07m	156	
Assembly post T5	157	
U-steel deck T4 0.73-3.07m x 0.32 m, spot-welded, with holes for bridging decks	158	
U-steel deck T4 0.73-3.07m x 0.32 m, hand-welded, with holes for bridging decks	159	
U-steel deck 0.73-3.07m x 0.32 m, spot-welded	160	
U-steel deck 0.73-3.07m x 0.32 m, hand-welded	161	
U-robust plank 0.73-2.57m x 0.61 m	162	
U-robust plank 3.07m x 0.61 m	163	
U-robust plank 0.73-2.57m x 0.32 m	164	
U-robust access 2.57-3.07m x 0.61 m with ladder	165	

## 3.2 Proof of scaffold connectors

### 3.2.1 System assumptions

The provisions of the following sections shall be applicable for the connector (node) connections including the connections between connecting heads and the members (ledgers and diagonal braces) listed in the Annexes.

The static systems for the calculation shall be modelled according to Annex A, page 2. The listed short members from the upright tube axis to the joints can be considered as stiff. The indexes listed in the following sections refer to a local coordinate system in which the x-axis describes the ledger axis and the z-axis describes the upright tube axis (cf. Annex A, page 2).

In the connection of a ledger, normal forces as well as bending moments and lateral forces may be transferred on the level of the upright tube/ledger and the level at a right angle to it. For the verification calculation of the scaffold system it is important that the bending moment of the connection of ledger and upright tube refers to the outer edge of the upright tube.

Normally only normal forces may be transferred in the connection of a vertical diagonal brace. The vertical component in the vertical diagonal brace connection has to be taken into account with the connection eccentricities as given in Annex A, page 2. The moments resulting from the diagonal force must be absorbed by the standard and ledgers.

Normally only normal forces may be transferred in the connection of a horizontal diagonal brace.

The specifications for stiffness and stresses of the connections are applicable for the connection using the "small" and "big" hole of the connecting or perforated disc.

In all formulas of the following sections, the cutting forces  $N$  and  $V$  in kN and the bending and torsional moments  $M$  in kNcm shall be entered.

### 3.2.2 Connection of ledger

#### 3.2.2.1 Load/deformation behaviour

##### 3.2.2.1.1 Bending at the upright tube/ledger level (vertical level)

If no jointed connection is assumed, it is necessary for the verification calculation of scaffolding to take into account the ledger connections at the level formed of upright tube and ledger (vertical level) with a torsion spring clamp according to the moment/angle of rotation ( $M_y/\varphi$ )- relation as given in Figure 1 of Annex A, page 1.

##### 3.2.2.1.2 Bending at the level rectangular to the upright tube/ledger level (horizontal level)

For the verification calculation of scaffolding, the ledger connection must be considered, if subject to bending stress at a level rectangular to the upright tube/ledger level (horizontal level), using a torsion spring clamp in accordance with Figure 2 of Annex A, page 1.

##### 3.2.2.1.3 Vertical lateral force rectangular to the ledger axis

For ledger lengths  $> 0.7$  m in connection with vertical lateral forces  $V_d \leq 10$  kN, the formulation of an additional clearance in the direction of lateral force can be neglected. Otherwise, an additional clearance in the direction of lateral force of  $f_0 = 0.175$  cm must be taken into account.

#### 3.2.2.2 Proof of load-bearing capacity

##### 3.2.2.2.1 General proofs

It must be proved for the ledger connection that the stresses are not higher than the resistance values as per Table 3.

**Table 3:** Resistance values in a ledger connection

Connection stress resultant		Resistance
Bending moment $M_{y,R,d}$ [kNcm]		$\pm 101.0$
Vertical lateral force $V_{z,R,d}$ [kN]		$\pm 26.4$
Bending moment $M_{z,R,d}$ [kNcm]		$\pm 37.2$
Horizontal lateral force $V_{y,R,d}$ [kN]	for O-ledger/tube ledger	$\pm 10.0$
	for U-ledger	$\pm 5.9$
Normal force $N_{R,d}$ [kN]		$\pm 31.0$

3.2.2.2.2 Upright tube/ledger connection interaction

In the area of loaded connecting or perforated discs, it must be verified that the respective interaction condition is fulfilled.

- If the connection is made to a vertical upright, AR upright, vertical starter piece or starter piece, the following interaction condition must be complied with:

$$0.316 \cdot I_A + I_S \leq 1.0$$

- If the connection is made to an AR TG-60 frame, the following interaction condition must be complied with:

$$0.280 \cdot I_A + I_S \leq 1.0$$

Where:

$I_A$  Coefficient of utilization in the ledger connection

$$I_A = \frac{M_y}{M_{y,R,d}}$$

with:  $M_y$  bending moment in ledger connection  
 $M_{y,R,d}$  resistance against bending moments in the ledger connection as per Table 3

$I_S$  Vector coefficient of utilization in upright tube in the area of loaded connecting or perforated discs.

- For  $v_{act} \leq 1/3$  it holds:  

$$I_S = \frac{a}{b}$$
 (a, b see Fig. 1, where b is to be determined from the interaction relationship according to Fig. 1).
- For  $1/3 < v_{act} \leq 0.9$  the vector coefficient of utilization must be determined considering the interaction relationship as shown by the left part of the equation, Column 4 of Table 7, DIN 4420-1:1990-12.

with:

$v_{act}$  the coefficient of utilization to lateral force in upright tube

$$v_{act} = \frac{V_{St}}{V_{St,R,d}}$$

$V_{St}$  lateral force in upright tube

$V_{St,R,d}$  resistance against lateral force in upright tube,

$$V_{St,R,d} = V_{pl,d} = 48.5 \text{ kN}$$

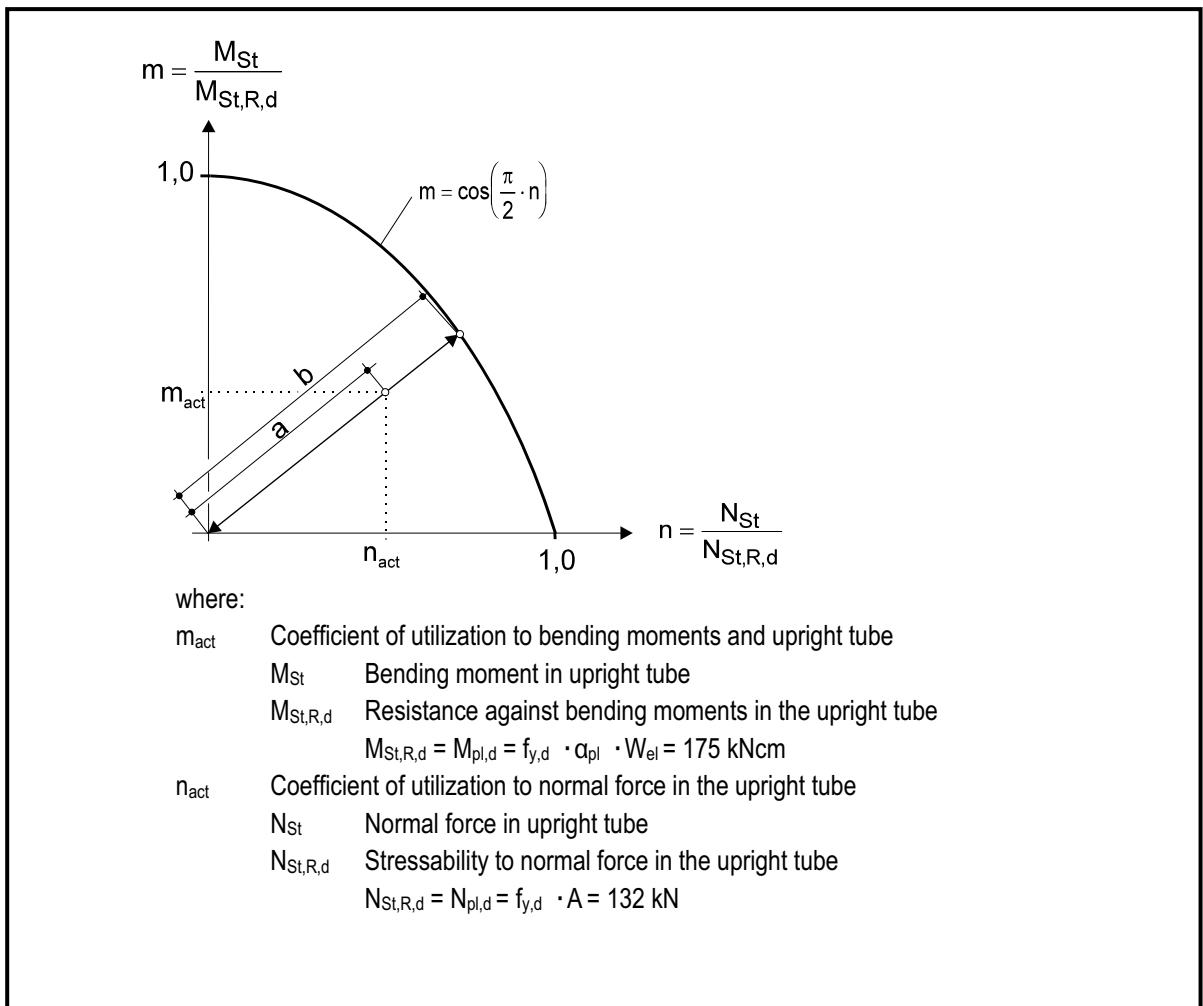


Fig. 1: Vector coefficient of utilization in upright tube

3.2.2.2.3 Combined stress resultants

For combined stress resultants in a ledger connection, the following conditions must be fulfilled:

$$\frac{N^{(+)}}{N_{R,d}} + \frac{M_y}{M_{y,R,d}} + \frac{\max(V_x - 21, 0)}{V_{y,R,d}} + \frac{V_x}{27,1} \leq 1$$

$$\frac{N^{(+)}}{N_{R,d}} + \frac{M_y}{M_{y,R,d}} + \frac{M_z}{M_{z,R,d}} + \frac{V_x}{V_{y,R,d}} \leq 1$$

$$\frac{N^{(+)}}{N_{R,d}} + \frac{V_x}{V_{y,R,d}} + \frac{M_z}{M_{z,R,d}} + \frac{V_z}{V_{z,R,d}} \leq 1$$

- For the weld seam between the ledger tube (O-ledger) and the connecting head, it is necessary to provide the following additional verification for the "Variante K 2000+" version:

$$\frac{|M_y| - 6,4}{70,8} + \frac{M_z}{110,3} + \frac{\sqrt{(V_{x,w})^2 + (V_{z,w})^2}}{48,9} \leq 1$$

- For the weld seam between the U-ledger profile and the connecting head, it is necessary to provide the following additional verification for the "Variante K 2000+" version:

$$\frac{|N_w|}{71,9} + \frac{M_{y,w}}{110,4} + \max\left(\frac{V_{x,w}}{38,5}; \frac{V_{z,w}}{18,0}\right) \leq 1$$

Where:

$M_y, V_y, V_z, M_x$	stresses in ledger connection
$N^{(+)}$	tensile normal force in ledger connection
$N_{R,d}, M_{y,R,d}, V_{y,R,d}, V_{z,R,d}, M_{z,R,d}$	resistances according to Table 4
$N_{w}, M_{y,w}, V_{z,w}, V_{y,w}$	stresses in the weld seam

3.2.3 Connection of vertical diagonal brace

3.2.3.1 Load/deformation behaviour

In the entire system the vertical diagonal braces including their connections have to be calculated as a function of the stress direction (tensile force or thrust) and the diagonal brace length with the equivalent stiffness ( $E_d \cdot A_{eff}$ ) according to Table 5 and a clearance of  $f_0 = 0.25$  cm (see Annex A, page 2).

3.2.3.2 Proof of load-bearing capacity

The following must be verified for the vertical diagonal braces as a function of stress direction:

$$\frac{N_V}{N_{V,R,d}} \leq 1$$

Where:

$N_V$  tensile force or thrust in vertical diagonal braces  
 $N_{V,R,d}$  resistance of vertical diagonal braces to tensile force or thrust according to Table 4

**Table 4:** Characteristics of vertical diagonal braces

Bay length L [m]	Bay height H [m]	Stress by thrust		Stress by tensile force	
		$E_d \cdot A_{eff}$ [kN]	$N_{V,R,d}^{(-)}$ [kN]	$E_d \cdot A_{eff}$ [kN]	$N_{V,R,d}^{(+)}$ [kN]
3.07	2.0	1980	8.3	4630	17.9
2.57		1910	10.2	3600	
2.07		1870	12.4	2930	
1.57		1910	14.8	2300	
1.40		1950	15.5	2170	
1.29		1990	16.2	2030	
1.09		2110	16.8	1850	
1.36		2100	16.5	1800	
0.73		1990	16.1	1670	
3.07	1.5	1690	9.4	4100	17.9
2.57		1720	11.9	3700	
2.07		1600	14.9	3020	
1.57		1510	17.9	2210	
1.09		1630	17.9	1640	
0.73		1710	16.6	1250	
3.07	1.0	1680	10.5	3590	17.9
2.57		1500	13.5	3160	
2.07		1360	17.2	2730	
1.57		1220	17.9	2370	
1.29		1130	17.9	1800	
1.09		1090	17.9	1490	
0.73		1170	17.9	1040	
3.07	0.5	1520	11.2	3300	17.9
2.57		1350	14.6	2790	
2.07		1200	16.0	2320	
1.57		960	16.4	1820	
1.29		810	17.1	1570	
1.09		730	17.6	1380	
0.73		590	17.6	930	



**3.2.4 Connection of horizontal diagonal brace**

**3.2.4.1 Load/deformation behaviour**

In the entire system the horizontal diagonal braces including their connections must be calculated as a function of the diagonal brace length and independently of the stress direction (tensile or thrust) with the equivalent stiffness ( $E_d \cdot A_{eff}$ ) according to Table 5 as well as a travel limiting spring in diagonal direction according to the data given in Figure 3 of Annex A, page 1.

**3.2.4.2 Proof of load-bearing capacity**

The following shall be proved for the horizontal diagonal braces:

$$\frac{N_H}{N_{H,R,d}} \leq 1$$

Where:

- $N_H$                       tensile force or thrust in the horizontal diagonal brace
- $N_{H,R,d}$                 resistance of horizontal diagonal brace according to Table 5

**Table 5:**                      Characteristics of horizontal diagonal braces

Bay length L [m]	Bay width B [m]	$N_{H,R,d}$ [kN]	$E_d \cdot A_{eff}$ [kN]
0.73	0.73	3.10	2760
1.09	1.09	3.07	2970
1.57	1.57	3.03	2780
2.07	2.07	2.98	2240
2.57	2.57	2.91	1530
3.07	3.07	2.81	830
1.09	0.73	3.08	3160
1.40		3.07	3210
1.57		3.06	3200
2.07		3.03	3070
2.57		3.00	2850
3.07		2.96	2530
1.40	1.09	3.06	3210
1.57		3.05	3190
2.07		3.03	3040
2.57		2.99	2790
3.07		2.95	2460
1.40	1.57	3.04	3140
2.07		3.01	2910
2.57		2.98	2650
3.07		2.93	2330
1.40	2.07	3.02	2970
2.57		2.95	2450
3.07		2.90	2130
1.40	2.57	2.99	2900
3.07		2.86	1880
1.40	3.07	2.94	2380

**3.2.5 Connecting or perforated disc**

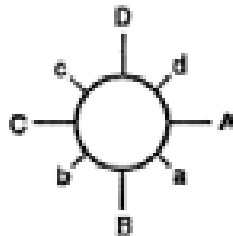
**3.2.5.1 Connection in directly neighbouring holes of connecting or perforated disc**

If two ledgers or one ledger and one vertical diagonal brace or one ledger and a horizontal diagonal brace are connected in directly neighbouring holes, the following must be proved:

$$(n^A + n^a)^2 + (v^A + v^a)^2 \leq 1$$

with:

- n, v interaction portions as per Table 6
- A ledger A
- a ledger or vertical or horizontal diagonal brace between A and B according to Fig. 2



**Figure 2:** Occupancy of connecting or perforated disc

**Table 6:** Interaction portions

Interaction portion	Connection: ledger A / ledger a	Connection: ledger A / vertical diagonal brace a	Connection: ledger A / horizontal diagonal brace a
$n^A$	$\frac{N^{A(+)} +  M_y^A  / e}{N_{R,d}}$	$\frac{N^{A(+)} +  M_y^A  / e}{1,16 \cdot N_{R,d}}$	$\frac{N^{A(+)} +  M_y^A  / e}{N_{R,d}}$
$n^a$	$\frac{N^{a(+)} +  M_y^a  / e}{N_{R,d}}$	$\frac{0,707 N_V^{(+)} \sin \alpha + 1,883 \cdot  N_V  \cos \alpha}{1,41 \cdot N_{R,d}}$	$\frac{N_H^{(+)}}{N_{R,d}}$
$v^A$		$\frac{V_z^A}{V_{z,R,d}}$	
$v^a$	$\frac{V_z^a}{V_{z,R,d}}$	$\frac{ N_V  \cos \alpha}{V_{z,R,d}}$	---

Where:

$N^{A(+)}; N^{a(+)}$  Normal force (tensile forces to be calculated only) in ledger connection (ledger A and ledger a respectively)

$M_y^A; M_y^a$  Bending in ledger connection (ledger A and ledger a respectively)

$V_z^A; V_z^a; V_z^B$  Vertical lateral force in ledger connection (ledger A, ledger B, vertical diagonal brace a)

- $N_V$  Normal force in vertical diagonal brace
- $N_V^{(+)}$  Tensile force in vertical diagonal brace
- $N_H^{(+)}$  Tensile force in horizontal diagonal brace
- $e$  Moment arm ledger connection  $e = 3.3$  cm
- $N_{R,d}, V_{z,R,d}$  Resistances as per Table 3

The proof shall always be furnished in pairs around the connector (node).

3.2.5.2 Connection of ledgers and/or diagonal braces at any hole of the connecting or perforated discs

$$\frac{\sum V_z}{\sum V_{z,R,d}} \leq 1$$

Where:

- $\sum V_z$  the total of all vertical lateral forces acting on the connecting or perforated disc (incl. vertical components of vertical diagonal braces)
- $\sum V_{z,R,d}$  the resistance of the connecting or perforated discs against vertical lateral forces  $\sum V_{z,R,d} = 105.6$  kN

3.2.6 Wedge head coupler

The wedge head coupler can only be used for the connection of "free" scaffold tubes  $\varnothing 48.3 \times 3.2$  mm at the upright tubes of the scaffolding system in connection with the roof edge protection wall (see e.g. Annex C, page 7)

3.3 Proof of the complete system

3.3.1 Vertical stress of decks

Proof has been furnished for the decks of the modular system "ALBLITZ MODUL" as per Table 7 for the working loads of the load classes according to DIN EN 12811-1:2004-03, Table 3 and for the use of safety and roof safety scaffolds fall heights of up to 2 m according to DIN 4420-1:2004-03 (Class D according to DIN EN 12810-1:2004-03).

**Table 7:** Classification of decks to the load classes

Designation	Annex B, page	Bay width $\ell$ [m]	Use in load class
Aluminium frame platform RE	17 and 18	$\leq 3.07$	$\leq 3$
Aluminium frame platform with access hatch RE	20 and 21	$\leq 3.07$	$\leq 3$
Steel plank AF RE	23 and 26	4.14	$\leq 3$
		3.07	$\leq 4$
		2.57	$\leq 5$
		$\leq 2.07$	$\leq 6$
Steel plank	24	3.07	$\leq 4$
		2.57	$\leq 5$
		$\leq 2.07$	$\leq 6$

**Table 7:** (continued)

Designation	Annex B, page	Bay width $\ell$ [m]	Use in load class
Intermediate deck RE	25	3.07	$\leq 4$
		2.57	$\leq 5$
		$\leq 2.07$	$\leq 6$
Intermediate deck AF RE 0.19 m	27	4.14	$\leq 3$
		3.07	$\leq 4$
		2.57	$\leq 5$
		$\leq 2.07$	$\leq 6$
Intermediate deck AF RE 0.16 m	27	3.07	$\leq 4$
		2.57	$\leq 5$
		$\leq 2.07$	$\leq 6$
Aluminium frame platform	62 and 63	$\leq 3.07$	$\leq 3$
Aluminium frame platform with access hatch	65 and 66	$\leq 3.07$	$\leq 3$
Steel plank AF 0.32 m	84	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
		4.14	$\leq 3$
Steel deck	85	$\leq 3.07$	$\leq 4$
Steel plank AF 0.30 m, 0.34 m	86	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
		4.14	$\leq 3$
Intermediate deck AF 0.19 m	87	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
		4.14	$\leq 3$
Intermediate deck AF 0.16 m	87	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
Intermediate deck	88	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
Aluminium deck with plywood	89 and 90, 96 and 97	$\leq 3.07$	$\leq 3$
Aluminium hatch-type access deck with ladder	92 and 93, 99 and 100	$\leq 3.07$	$\leq 3$

**Table 7:** (continued)

Designation	Annex B, page	Bay width $\ell$ [m]	Use in load class
U-steel deck T4 0.32 m	158 and 159	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
U-steel deck 0.32 m	160 and 161	$\leq 2.07$	$\leq 6$
		2.57	$\leq 5$
		3.07	$\leq 4$
U robust plank 0.61 m	162 and 163	$\leq 3.07$	$\leq 3$
U robust plank 0.32 m	164	$\leq 1.57$	$\leq 6$
		2.07	$\leq 5$
		2.57	$\leq 4$
		3.07	$\leq 3$
U robust plank, access with ladder	165	$\leq 3.07$	$\leq 3$

**3.3.2 Elastic support of vertical frame series**

Provided that the horizontally adjacent connectors are anchored, the non-fixed connectors of frame rows shall be considered elastically supported at the level rectangular to the tensioning direction of the decks (with façade scaffoldings, rectangular to the façade) when connecting the ledgers in the “small hole” of the connecting or perforated disc through the horizontal levels (decking elements). This elastic support can be allowed for in the calculation due to the assumption of a travel limiting spring with the rated values specified in Table 8.

**Table 8:** Rated values of the horizontal travel limiting springs

Deck	as per Annex B, page	Scaffold width b [m]	Bay width $\ell$ [m]	$f_0$ [cm]	Stiffness $c_{\perp,d}$ [kN/cm]		Stress of spring load $F_{R\perp,d}$ [kN]	
					$0 < F_{\perp} \leq 1.50$ [kN]	$1.50 < F_{\perp} \leq F_{R\perp,d}$ [kN]		
Steel plank AF RE 0.32 m	23	0.73	$\leq 3.07$	3.96	0.58	0.46	2.50	
Steel plank RE	24							
Steel plank AF 0.32 m	84							
Steel deck	85			3.40	0.78	0.78		1.71
Aluminium frame platform RE	17, 18							
Aluminium frame platform	62, 63							
Aluminium deck with plywood	89, 90, 96, 97							

**Table 8:** (continued)

Deck	as per Annex B, page	Scaffold width b [m]	Bay width $\ell$ [m]	$f_o$ [cm]	Stiffness $c_{\perp,d}$ [kN/cm]		Stress of the spring load $F_{R\perp,d}$ [kN]
					$0 < F_{\perp} \leq 1.50$ [kN]	$1.50 < F_{\perp} \leq F_{R\perp,d}$ [kN]	
U-steel plank T4	158, 159	0.73	$\leq 3.07$	4.41	0.54	0.54	2.33
U-steel plank	160, 161						
U robust plank 0.61 m	162, 163			4.90	0.58	0.48	
Steel plank AF RE 0.32 m	23	1.09	$\leq 3.07$	4.39	0.79	0.79	2.46
Steel plank RE	24						
Steel plank AF 0.32 m	84						
Steel deck	85						

### 3.3.3 Elastic coupling of the vertical levels

The inner and outer vertical levels of a scaffold can be considered elastically coupled to each other in the direction of these levels (with façade scaffoldings parallel to the façade) when connecting the ledgers in the “small hole” of the connecting or perforated disc through the decks. Due to the assumption of coupling springs with the parameters specified in Table 9, this elastic coupling can be allowed for in the calculation, regardless of the bay width.

**Table 9:** Rated values of the horizontal coupling springs

Deck	as per Annex B, page	Scaffold width b [m]	Bay width $\ell$ [m]	$f_o$ [cm]	Stiffness $c_{  ,d}$ [kN/cm]		Strength of spring load $F_{R  ,d}$ [kN]
					$0 < F_{  } \leq 3.0$ [kN]	$3.0 < F_{  } \leq F_{R  ,d}$ [kN]	
Steel plank AF RE 0.32 m	23	0.73	$\leq 3.07$	1.40	2.58	2.58	4.50
Steel plank RE	24						
Steel plank AF 0.32 m	84						
Steel deck	85						
Aluminium frame platform RE	17,18		$\leq 3.07$	0.50	1.86	1.12	3.86
Aluminium frame platform	62,63						
Aluminium deck with plywood	89,90, 96,97						
U-steel plank T4	158, 159						
U-steel plank	160, 161						
U-robust plank 0.61 m	162, 163		0.71	1.56	1.26	5.00	
Steel plank AF RE 0.32 m	23	1.09	$\leq 3.07$	1.95	1.67	1.67	3.94
Steel plank RE	24						
Steel plank AF 0.32 m	84						
Steel deck	85						
Steel plank AF RE 0.32 m	23	1.09	$\leq 2.57$	1.95	1.39	1.39	3.28
Steel plank RE	24						
Steel plank AF 0.32 m	84						
Steel deck	85						

### 3.3.4 Material characteristics

For components made from steel S235JRH with an extended yield point of ( $R_{eH} \geq 320 \text{ N/mm}^2$ ) – these components are marked correspondingly in the drawings in Annex B – it is permissible to take a rated value of  $f_{y,d} = 291 \text{ N/mm}^2$  of the yield point as a calculation basis.

### 3.3.5 Welding seams

For the proof of the welding seams of components made from steel S235JRH with an extended yield point of ( $R_{eH} \geq 320 \text{ N/mm}^2$ ) - these components are marked correspondingly in the drawings in Annex B – the utilization of the extended yield points of  $f_{y,d} = 291 \text{ N/mm}^2$  is permissible for butt welds (welding seams) that are subject to pressure/bending pressure. For all other welding seams proof shall be furnished taking into account the yield point of the base materials of the components.

### 3.3.6 Cross-section values of the scaffold spindles

The equivalent cross-section values for the stress analyses and calculation of distortion according to DIN 4425:1990-11 (Annex B of DIN EN 12811-1:2004-03) shall be assumed as follows:

for scaffold base jacks according to Annex B, page 83:

$$\begin{aligned} A = AS &= 3.52 \text{ cm}^2 \\ I &= 4.00 \text{ cm}^4 \\ W_{el} &= 2.68 \text{ cm}^3 \\ W_{pl} &= 1.25 \cdot 2.68 = 3.35 \text{ cm}^3 \end{aligned}$$

for scaffold base jacks according to Annex B, page 151:

$$\begin{aligned} A = AS &= 3.84 \text{ cm}^2 \\ I &= 3.74 \text{ cm}^4 \\ W_{el} &= 2.61 \text{ cm}^3 \\ W_{pl} &= 1.25 \cdot 2.61 = 3.26 \text{ cm}^3 \end{aligned}$$

### 3.3.7 Couplers

For the proof of the half couplers attached to the various components, the load-bearing capacities and stiffnesses for class B half couplers shall be applied according to the specifications in the "Zulassungsgrundsätze für den Verwendbarkeitsnachweis von Halbkupplungen an Stahl- and Aluminiumrohren"<sup>3</sup> (Approval principles for the proof of applicability of half couplers on steel and aluminium tubes).

## 4 Design Provisions

### 4.1 General

The execution and inspection of the scaffolds is not the subject matter of this National Technical Approval.

### 4.2 Condition of components

Before installation, all components shall be inspected for their proper condition; damaged components must not be used.

### 4.3 Design and structure

#### 4.3.1 Components

Scaffolds governed by this approval shall be erected using only the scaffold components listed in Table 2. Only components shall be used which are marked according to the regulations of national technical approvals stated in Table 2.

3 to be obtained from *Deutsches Institut für Bautechnik*



In individual cases, steel tubes and couplers according to DIN EN 12811-1:2004-03 as well as scaffold decks and planks according to DIN 4420-1:2004-03 may also be used.

In derogation of the scaffolding base jack specified in Annex B, pages 83 and 151, also other light scaffolding spindles complying with DIN 4425:1990-11 or base jacks in accordance with Annex B of DIN EN 12811-1:2004-03 can be used in conformity with the required load-bearing capacities.

In terms of the scaffold connector use, the following shall apply:

A maximum of eight members may be connected to each connecting or perforated disc.

To fix the captive wedges of the connecting heads, they must be hammered tight with a 500 g-hammer in top-to-bottom direction until the blow bounces off.

#### **4.3.2 Base area**

On top of the scaffolding base jacks, the lower assembly frames or vertical starter pieces are to be mounted and adjusted so that the scaffold layers are positioned horizontally. Measures have to be taken to the effect that the plates of the scaffolding spindles rest horizontally and solidly on the ground to absorb and transmit the forces generated by the scaffolding.

#### **4.3.3 Decks and planks**

The decks and planks are to be secured from accidental lift-off.

#### **4.3.4 Side protection**

The DIN EN 12811-1:2004-03 provisions are applicable for side protection. The components designed for side protection shall be given priority over components such as steel tubes and couplers according to DIN EN 12811-1:2004-03 as well as wooden decks and planks according to DIN 4420-1:2004-03, which shall only be used in exceptional cases.

#### **4.3.5 Bracing**

Scaffolds must be braced.

Vertical levels must be braced using longitudinal ledgers or longitudinal ledgers in combination with vertical diagonal braces. System decks in combination with transoms can be considered as longitudinal ledgers for the proof of stability.

The stiffness of the horizontal levels must be ensured by ledgers and horizontal diagonals or by system decks in combination with transoms.

Design and positioning of the individual bracing levels follow from the particulars of proof of stability.

#### **4.3.6 Anchoring**

The anchoring pattern and the anchoring forces shall be based on the specifications in the proof of stability.

The anchoring of the scaffold retainer to the façade or to any other part of the building is not the subject-matter of this approval. The user shall ensure that they are capable of absorbing and transmitting the forces emanating from the scaffold retainer safely. Vertical forces must not be transferred in this process.

#### **4.3.7 Couplers**

Threaded joint couplers must be fixed to the uprights with a tightening torque of 50 Nm; deviations of  $\pm 10\%$  are admissible. The screws must be maintained so that they can be easily moved, e.g. by applying an oil-grease-mixture.

## 5 Provisions for use and maintenance

### 5.1 General

The use of the scaffolds is not the subject-matter of this National Technical Approval.

### 5.2 Wooden scaffold components

In order to avoid damages to the wooden scaffold components due to dampness, they are to be stored in a dry and adequately aerated place with no ground contact.

Georg Feistel  
Head of Department

Authorized  
>signed<

>Seal: Deutsches Institut  
für Bautechnik<

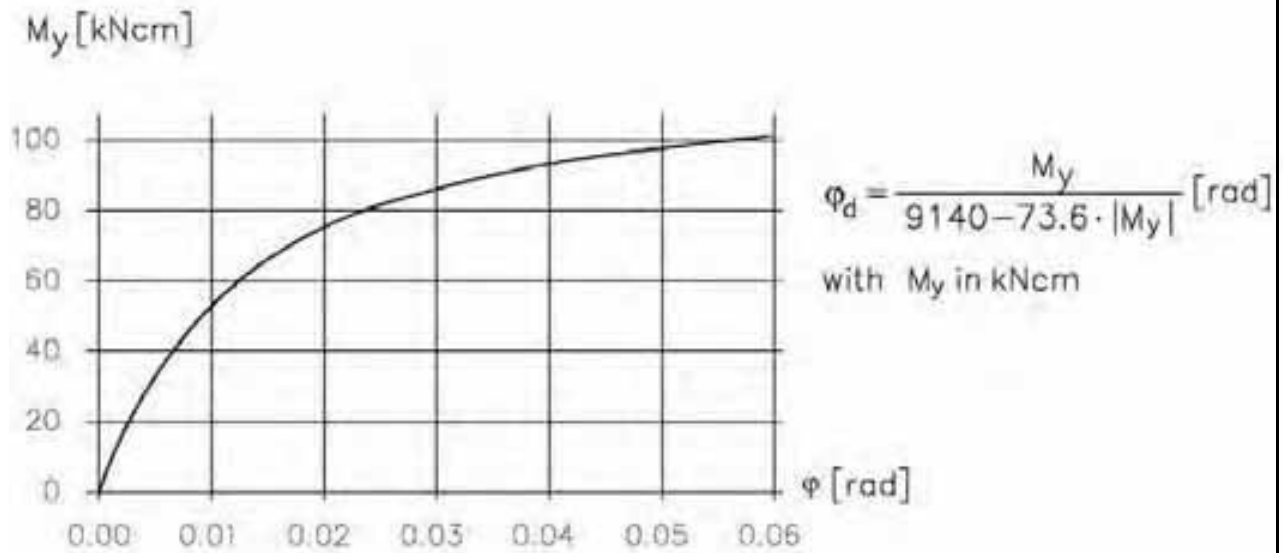


Figure 1: Torsion spring rigidity in the ledger connection at the upright tube / ledger level.

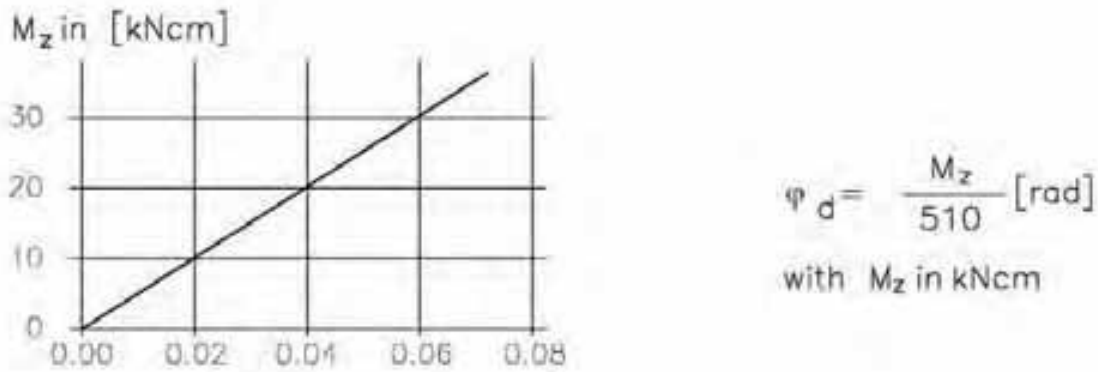


Figure 2: Torsion spring rigidity in the ledger connection at the level rectangular to the upright tube / ledger level.

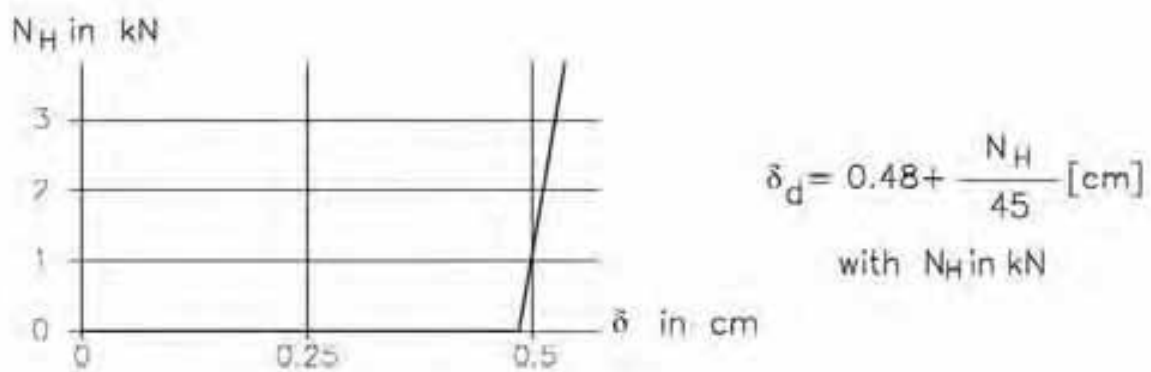
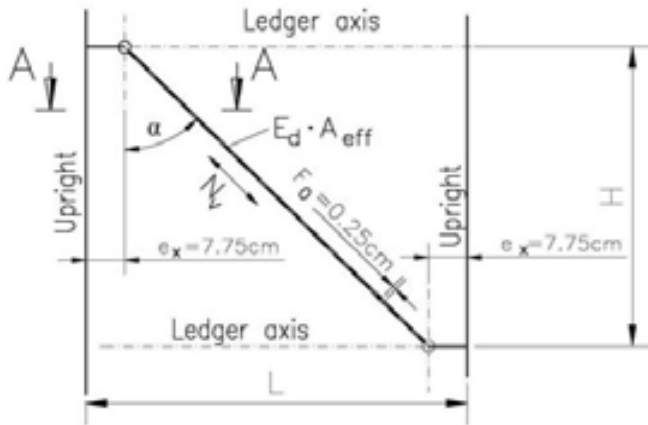
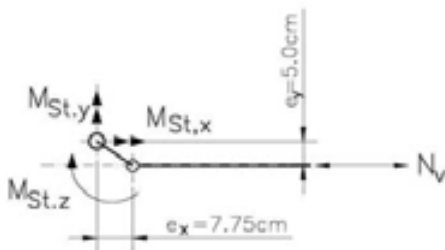


Figure 3: Travel limiting spring rigidity in the horizontal diagonal brace connection.

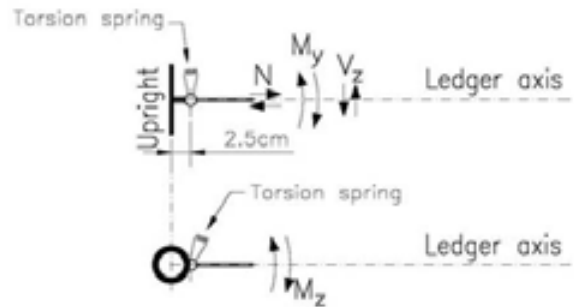
## Static system Vertical diagonal brace



## Section A-A



## Static system Ledger connection



Connector torques due to diagonal force  $N_v$

$$M_{St,x} = N_v \cdot \cos \alpha \cdot 5.0 \text{ cm}$$

$$M_{St,y} = N_v \cdot \cos \alpha \cdot 7.75 \text{ cm}$$

$$M_{St,z} = N_v \cdot \sin \alpha \cdot 5.0 \text{ cm}$$

The connector torques must be absorbed by both the vertical upright and the ledgers.

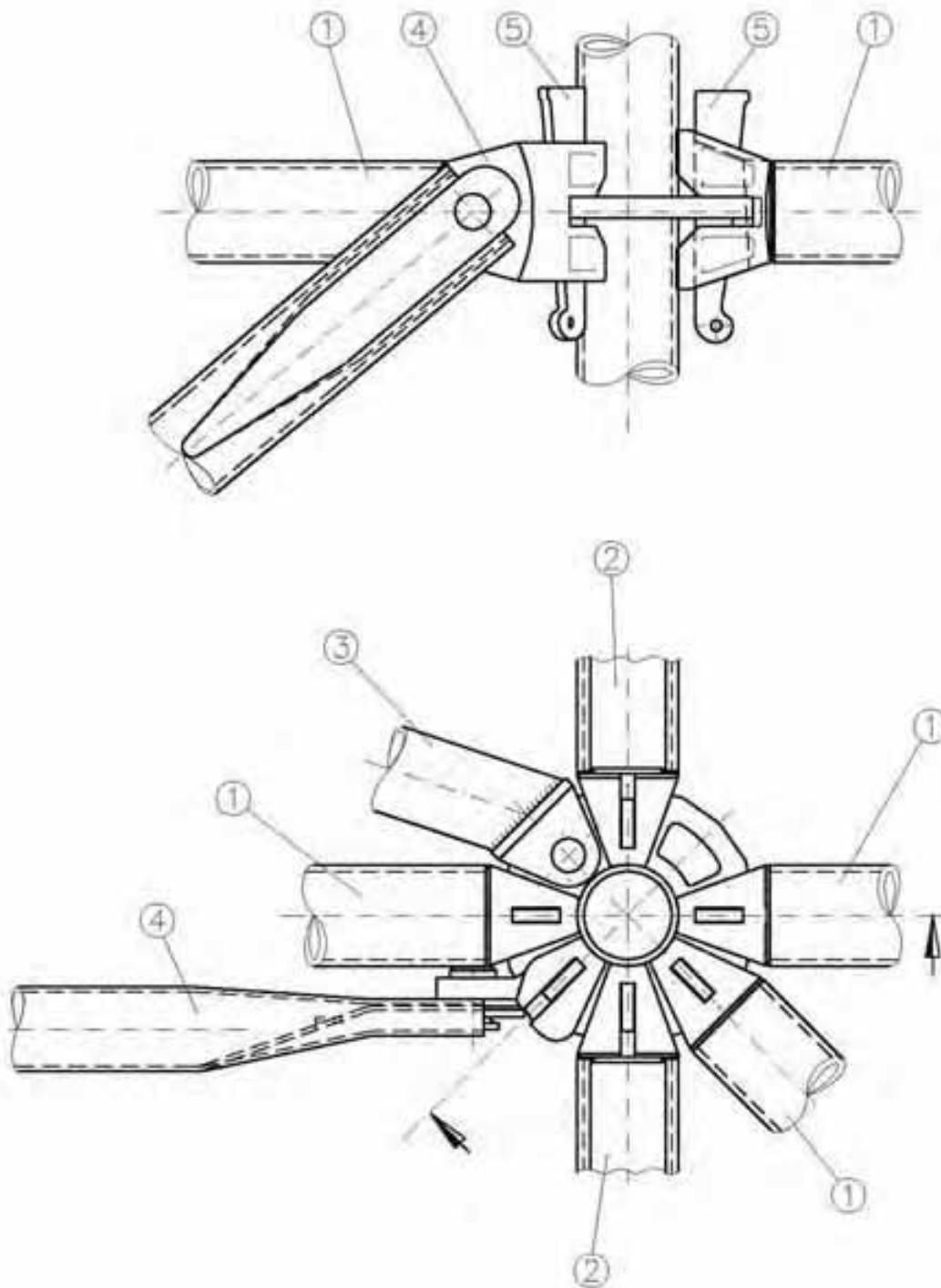


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## ALBLITZ MODUL

Static system  
Vertical diagonal brace  
Ledger connection

Annex A, page 2 to  
the national technical  
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of 7. May 2012  
Deutsches Institut für Bautechnik



- (1) Tube ledger
- (2) U-ledge
- (3) Horizontal diagonal brace
- (4) Vertical diagonal brace
- (5) Wedge 6mm



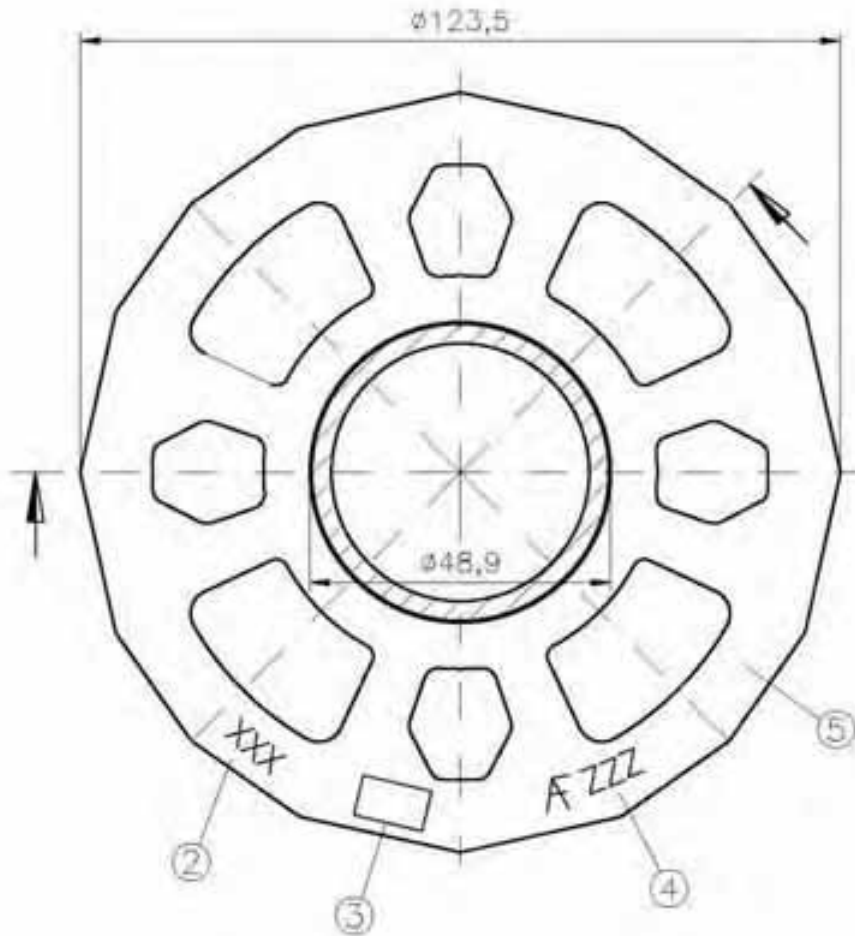
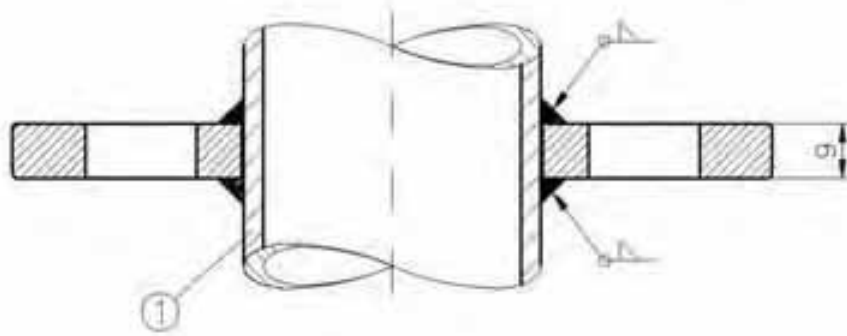
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**ALBLITZ MODUL**  
**Scaffold connector**  
**Overview**

ALFIX MODUL plus II  
according to Z-8.22-906

Annex B, page 1 to  
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M710-B101\_ABM



- |                               |                |   |
|-------------------------------|----------------|---|
| (1) R48.3x3.2                 | S235JRH        | $ReH \geq 320 N/mm^2$                     |
| (2) Batch number / week, year |                | embossed 0,4                              |
| (3) Foundry logo              |                | embossed 0,4                              |
| (4) F short approval number   |                | embossed 0,4                              |
| (5) G20Mn5                    | DIN EN 10293   | $ReH \geq 360 N/mm^2, Rm \geq 500 N/mm^2$ |
| alternatively: S355J2         | DIN EN 10025-2 |   |

Material thickness = 9mm



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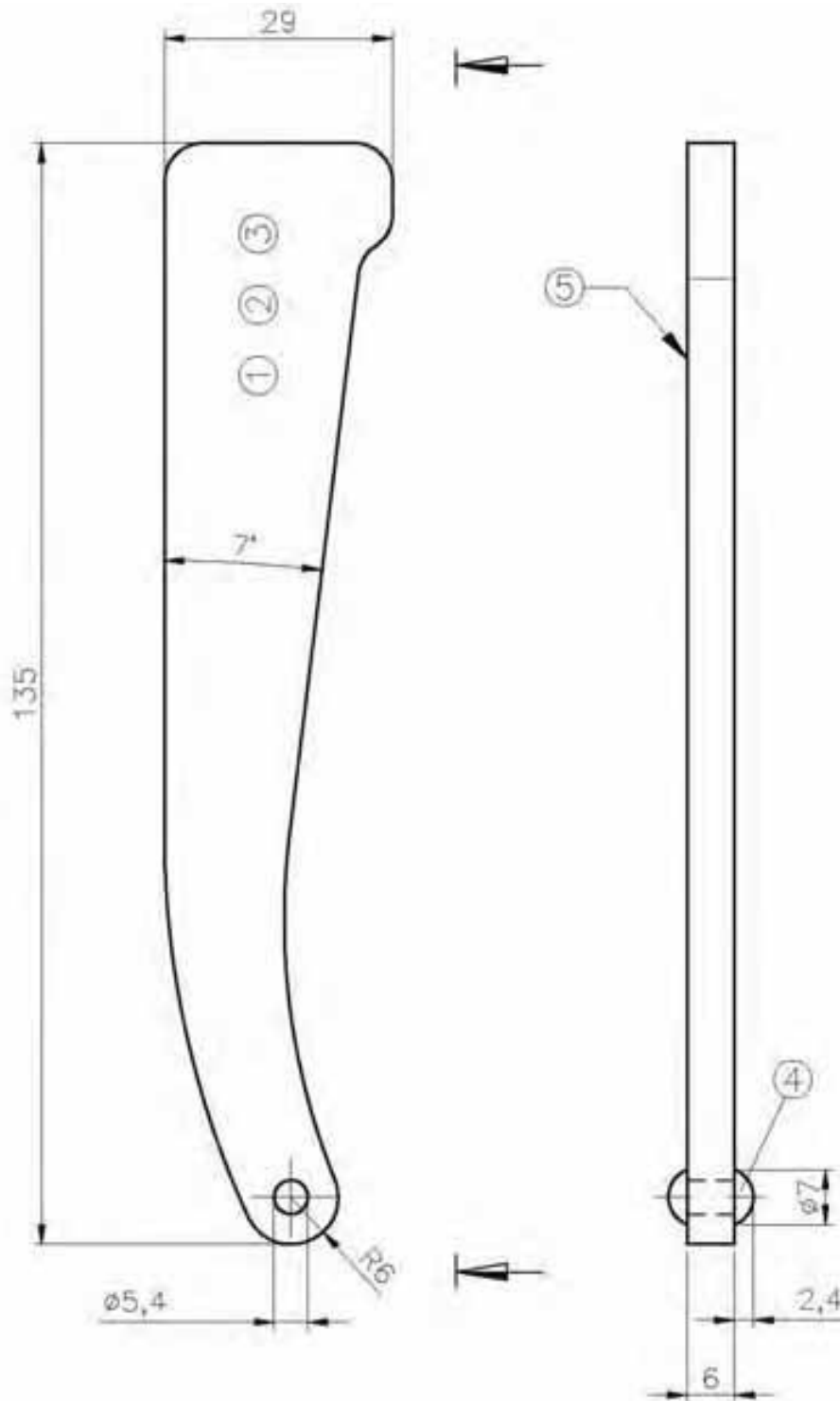
## ALBLITZ MODUL

### Connecting disc

ALFIX Modul plus II  
according to Z-8.22-906

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of 7. May 2012  
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M710-B102\_ABM



- (1) ZZZ = Short approval number
- (2) F = Manufacturer's mark ALFIX
- (3) YY = Year of manufacture (e.g. 08 = 2008)
- (4) Button-head rivet  $\varnothing$  5x10 with rivet head of rivet  $\varnothing$  4 DIN 660 QSt 32-2, zinc-plated
- (5) Marking

galvanized; S550MC



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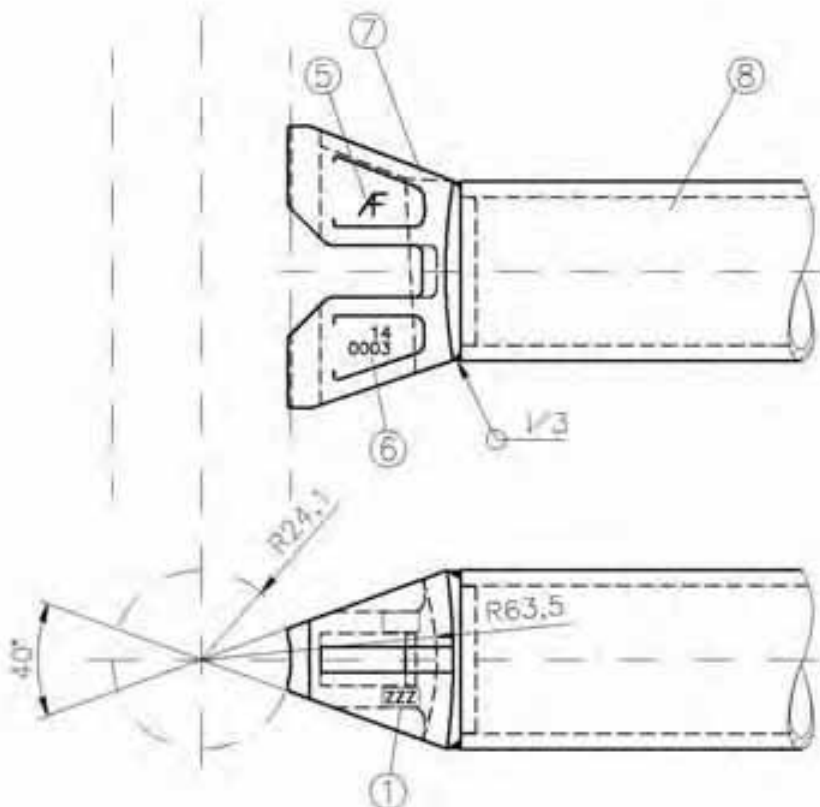
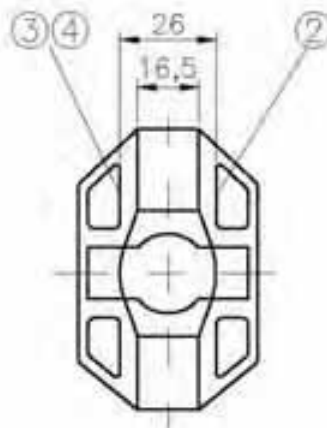
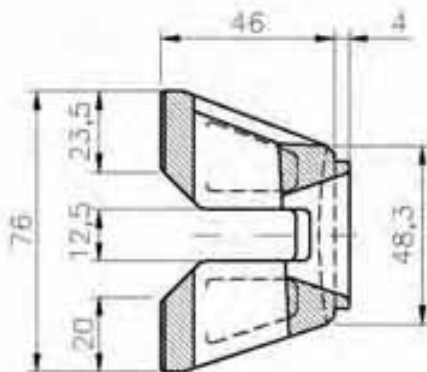
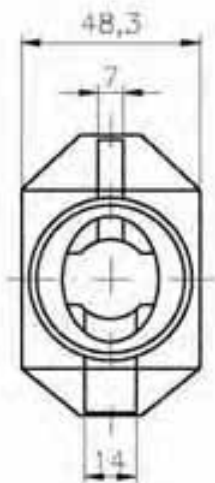
**ALBLITZ MODUL**




**Wedge**

ALFIX Modul plus II  
according to Z-8.22-906

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M710-B103\_ABM



- (1)  = Short approval number  
 (2)  = Foundry marking  
 (3) XX = Calendar week and  
 (4) YY = Year of manufacture (e.g. 4005 = CW 40/2005)  
 (5)  = Manufacturer's mark ALFIX  
 (6) 0003 = Drawing number  
 (7) G20Mn5  
 (8) R 48.3x3.2
- DIN EN 10293  
 S235JRH ReH≥320N/mm<sup>2</sup>



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 09603 Großschirma

## ALBLITZ MODUL

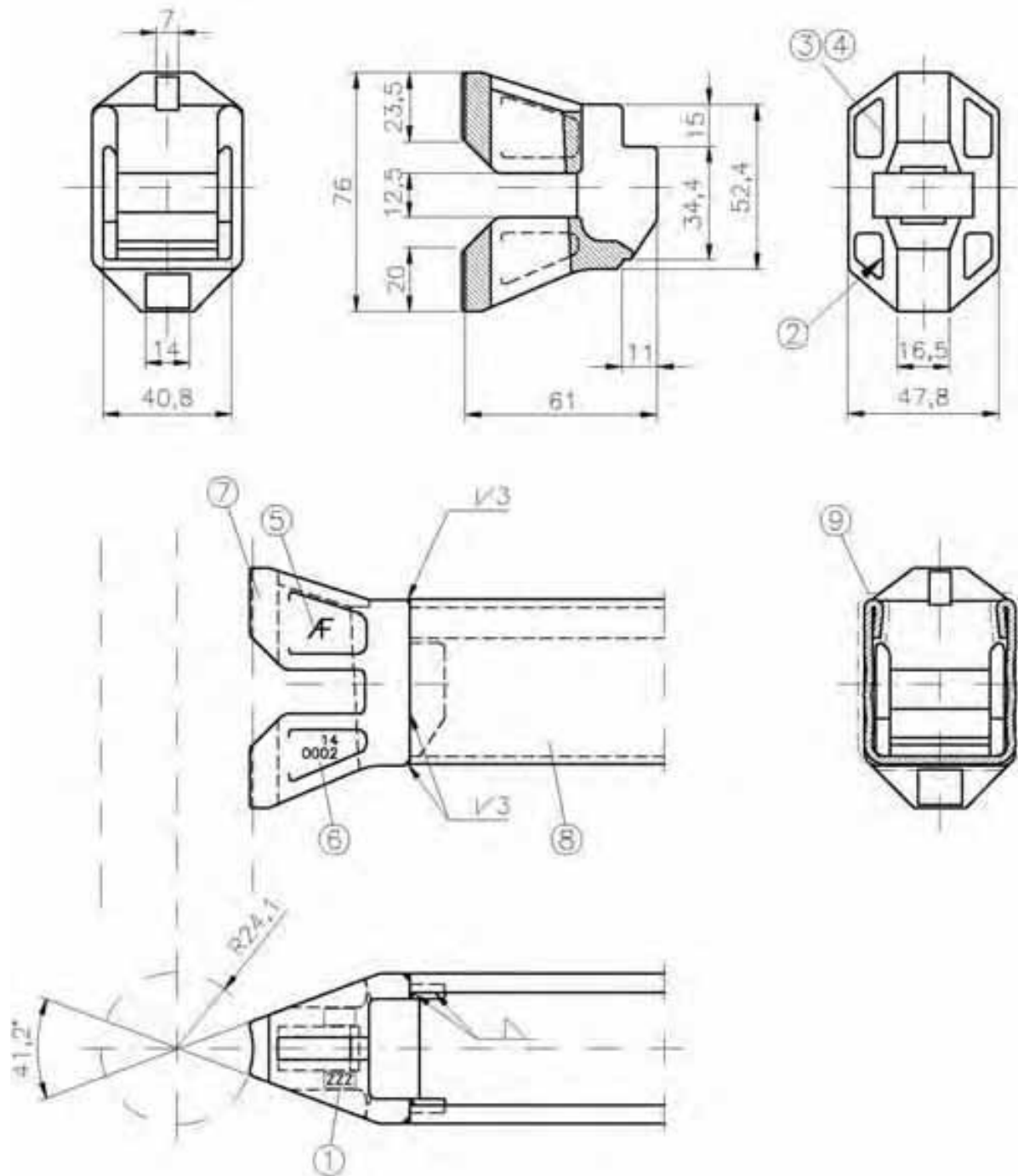
### Tube ledger connection




ALFIX MODUL plus II  
 according to Z-8.22-906

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M710-B104\_ABM





- (1)  = Short approval number  
 (2)  = Foundry marking  
 (3) XX = Calendar week and  
 (4) YY = Year of manufacture (e.g. 4005 = CW 40/2005)  
 (5)  = Manufacturer's mark ALFIX  
 (6) 0002 = Drawing number  
 (7) G20Mn5                      DIN EN 10293  
 (8) U-profile 48x52x2.5      S235JRH  
 (9) Welded area



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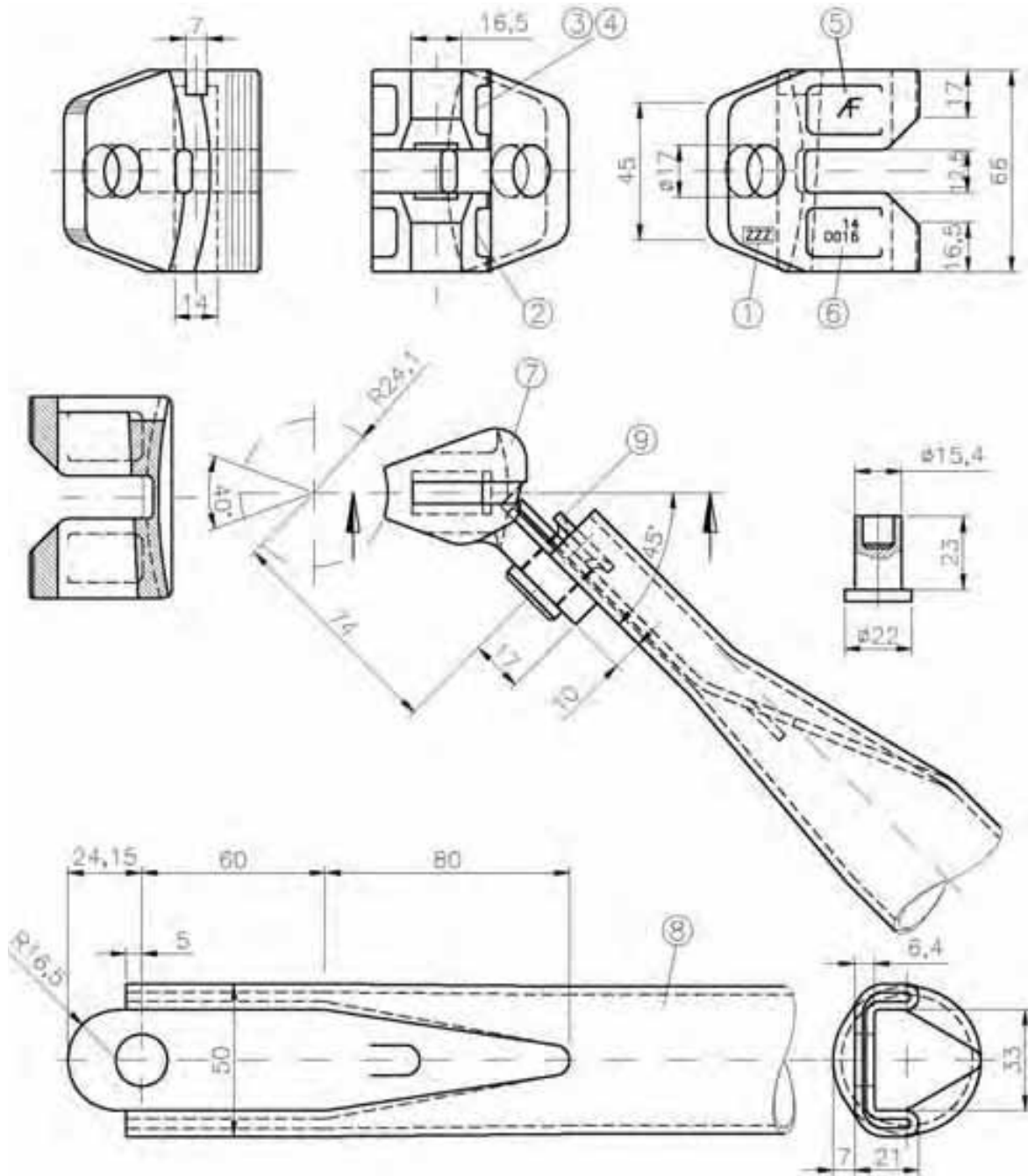
## ALBLITZ MODUL




### U-ledge connection

ALFIX MODUL plus II  
according to Z-8.22-906

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the national technical  
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M710-B105\_ABM



- (1)  = Short approval number  
 (2)  = Foundry marking  
 (3) XX = Calendar week and  
 (4) YY = Year of manufacture (e.g. 4005 = CW 40/2005)  
 (5)  = Manufacturer's mark ALFIX  
 (6) 0016 = Drawing number  
 (7) G20Mn5 DIN EN 10293  
 (8) R 48.3x2.7 S235JRH ReH≥320N/mm<sup>2</sup>  
 (9) Rivet modular diagonal braces QSt 36-3 blank drawn, zinc-plated

**Diagonal brace head – right hand**

Diagonal brace head – left hand, inversely



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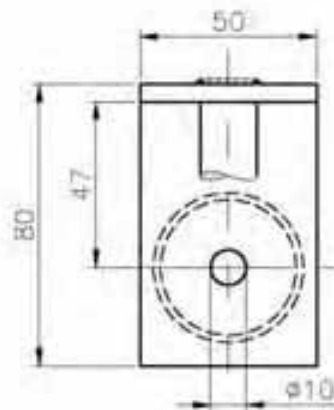
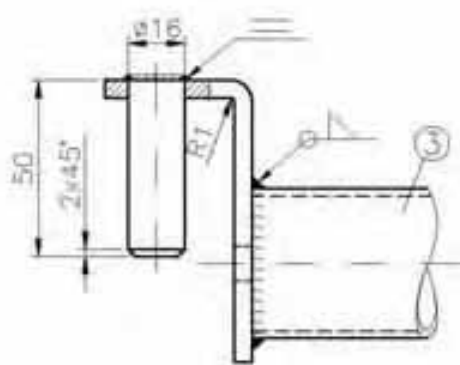
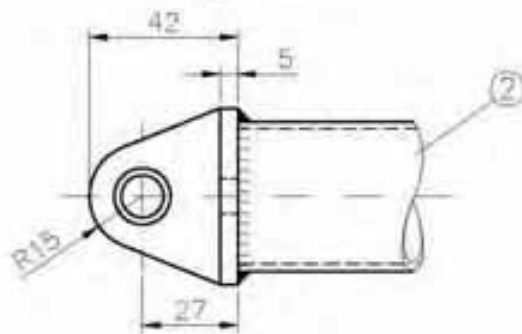
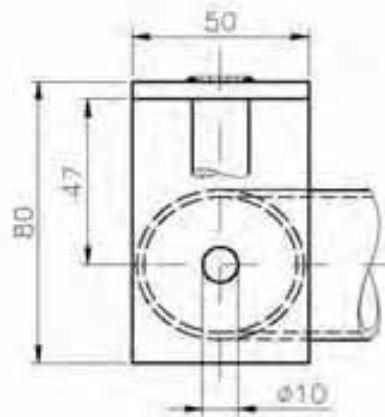
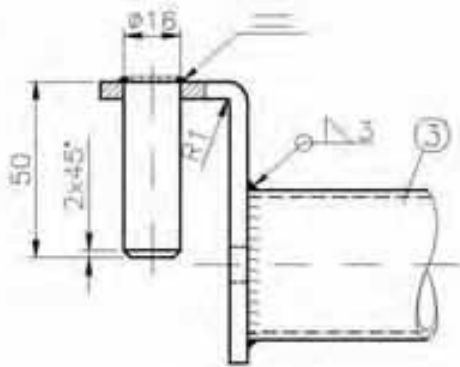
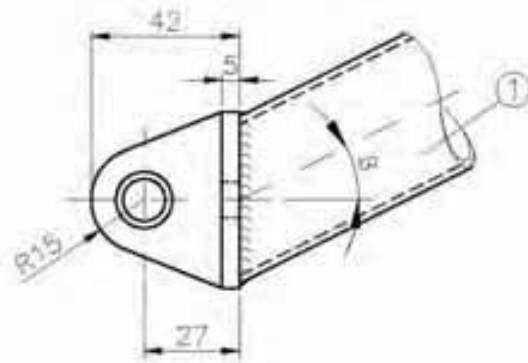
**ALBLITZ MODUL**

**V-diagonal brace connection**

ALFIX MODUL plus II  
according to Z-8.22-906

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M710-B106\_ABM



- (1) Form "A" S235JR
- (2) Form "B" S235JR
- (3) R 42.4x2 S235JRH



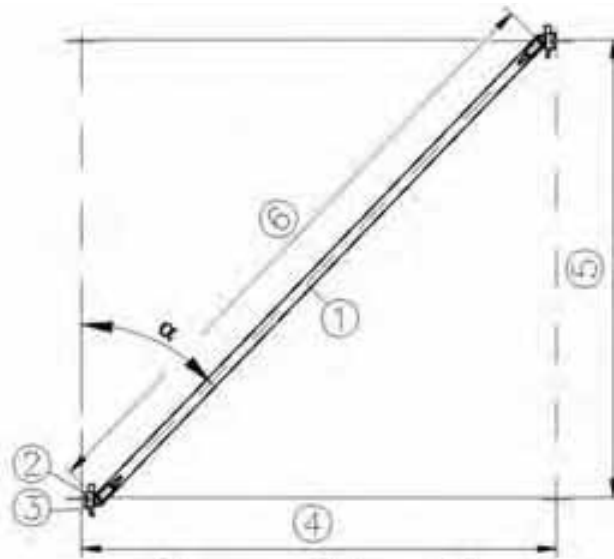
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**ALBLITZ MODUL**  
**H-diagonal brace connection**

ALFIX MODUL plus II  
according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B107\_ABM



(4)	(5)	(6)	$\alpha$
732	500	769	49,5
1088	500	1065	62,0
1286	500	1243	66,3
1400	500	1348	68,2
1572	500	1509	70,7
2072	500	1988	75,5
2572	500	2475	78,4
3072	500	2966	80,3
732	1000	1158	30,3
1088	1000	1372	43,3
1286	1000	1515	48,7
1400	1000	1602	51,4
1572	1000	1740	55,0
2072	1000	2168	62,6
2572	1000	2622	67,6
3072	1000	3090	71,2
732	1500	1610	21,3
1088	1500	1770	32,1
1286	1500	1883	37,2
1400	1500	1954	39,8
1572	1500	2068	43,5
2072	1500	2440	52,1
2572	1500	2851	58,3
3072	1500	3286	62,9
732	2000	2084	16,3
1088	2000	2210	25,2
1286	2000	2301	29,7
1400	2000	2360	32,1
1572	2000	2455	35,5
2072	2000	2775	43,9
2572	2000	3143	50,5
3072	2000	3543	55,7

- (1) R 48.3x2.7
- (2) V-diagonal brace connection
- (3) Wedge 6 mm
- (4) Bay length L
- (5) Bay height H
- (6) Rivet spacing l

S235JRH ReH $\geq$ 320N/mm<sup>2</sup>

S550MC



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09603 Großschirma

### ALBLITZ MODUL

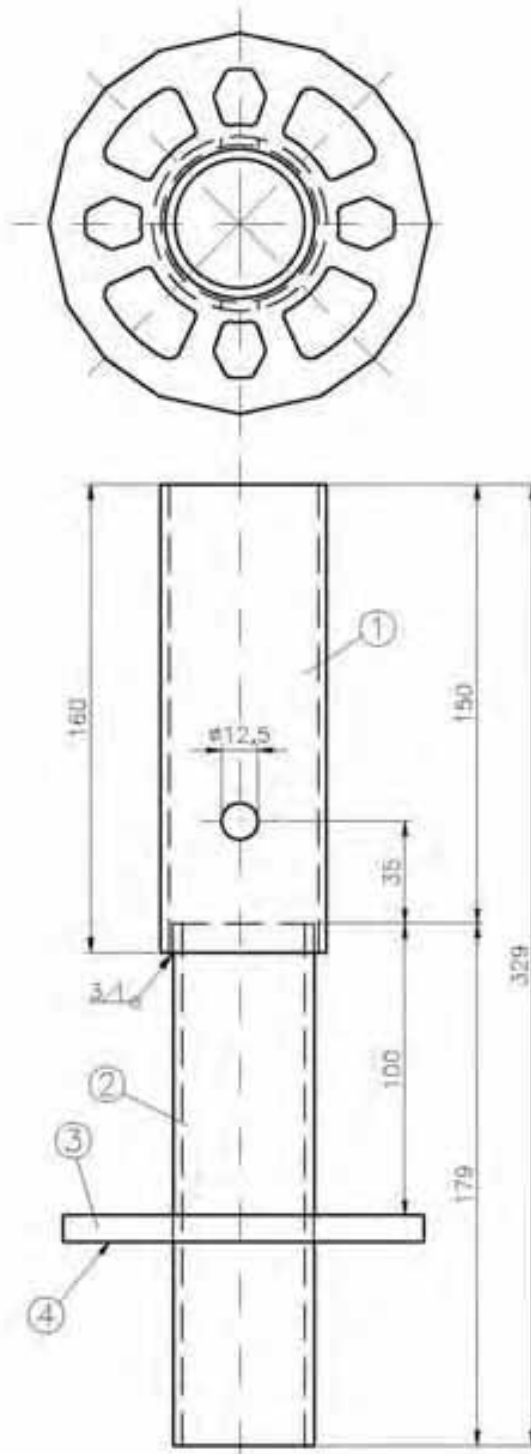
#### Vertical diagonal braces

according to Z-8.22-906

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M710-B108\_ABM





- |                     |   |
|---------------------|---|
| (1) R 57x2.9        | S235H                                   |
| (2) R 48.3x3.2      | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Connecting disc |   |
| (4) Marking         |   |

galvanized



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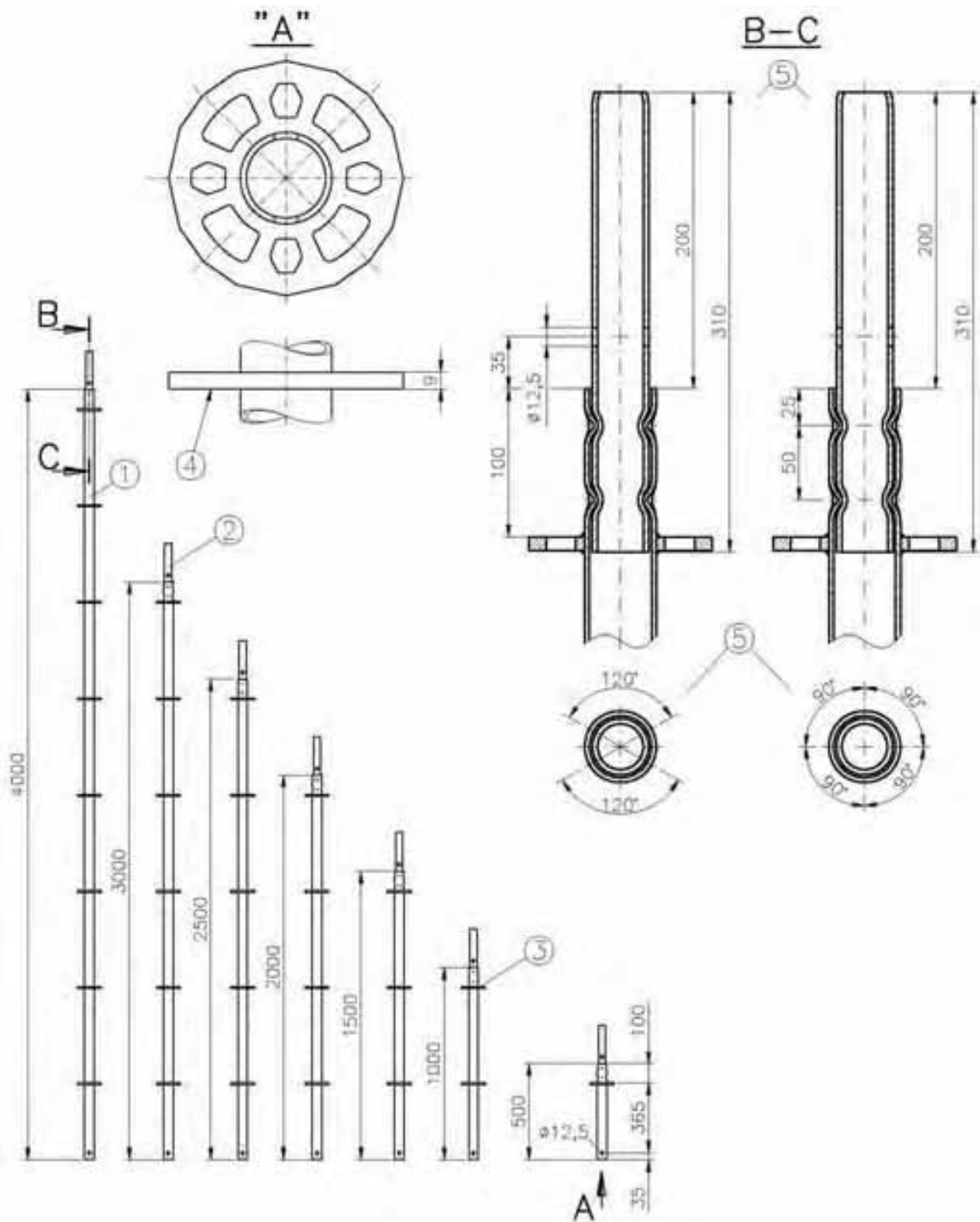
**ALBLITZ MODUL**

**Vertical starter piece**

according to Z-8.22-906

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M710-B110\_ABM



- |                     |   |
|---------------------|---|
| (1) R 48.3x3.2      | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 38x3.6        | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Connecting disc |   |
| (4) Marking         |   |
| (5) Linear pressing | alternatively: 4x point pressing        |

galvanized



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09603 Großschirma

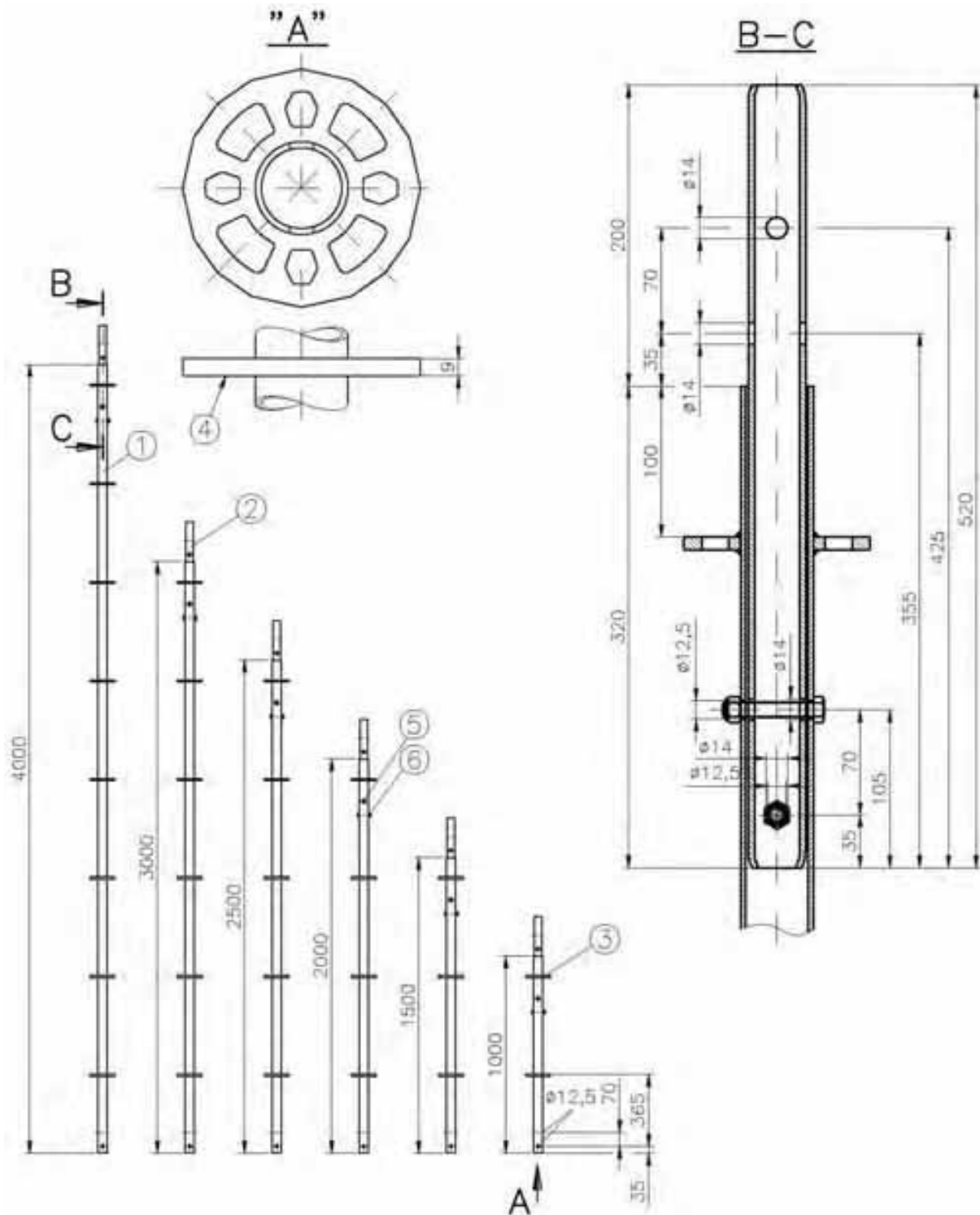
## ALBLITZ MODUL

**Vertical upright  
with spigot fitting 200**

according to Z-8.22-906

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M710-B111\_ABM



- |                           |         |                                 |
|---------------------------|---------|---------------------------------|
| (1) R 48.3x3.2            | S235JRH | ReH $\geq$ 320/mm <sup>2</sup>  |
| (2) R 38x4                | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Connecting disc       |         |                                 |
| (4) Marking               |         |                                 |
| (5) Hexagon screw         | DIN 931 | M10x60-8.8-galvanized           |
| (6) Hex nut, self-locking | DIN 985 | M10-8-galvanized                |

galvanized



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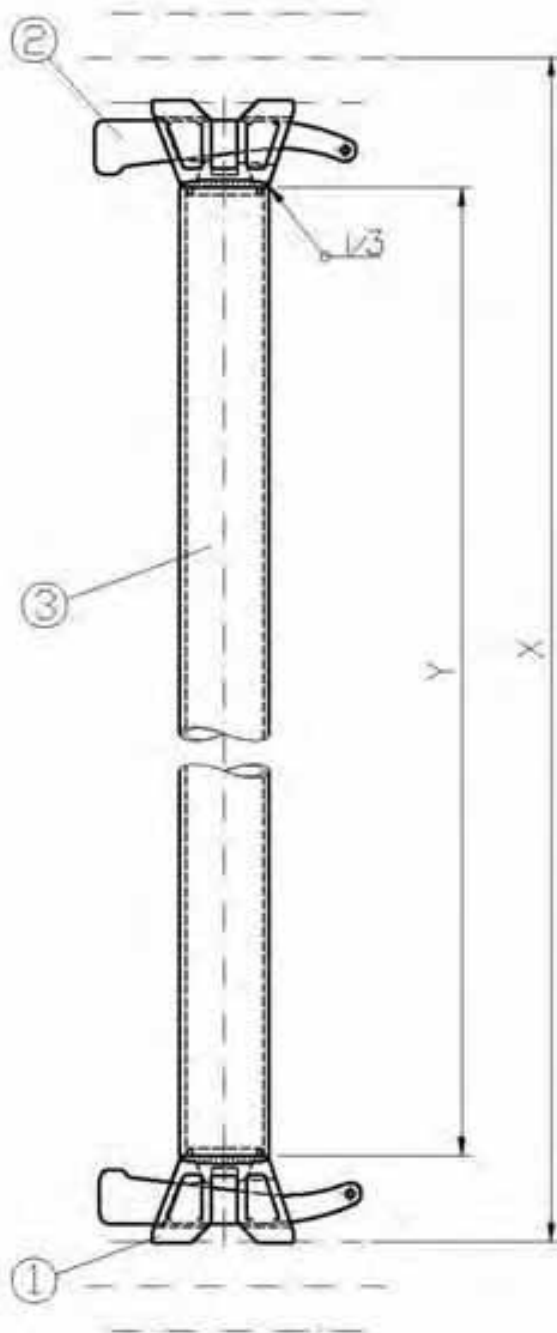
**ALBLITZ MODUL**  
**Vertical upright with**  
**detachable spigot fitting 520**

according to Z-8.22-906

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M710-B112\_ABM





X	Y
390	249
500	359
732	591
1088	947
1286	1145
1400	1259
1572	1431
2072	1931
2572	2431
3072	2931
4144	4003

- (1) Tube ledger connection  
 (2) Wedge 6mm S550MC  
 (3) R 48.3x3.2 S235JRH ReH $\geq$ 320N/mm<sup>2</sup>

galvanized



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 09603 Großschirma

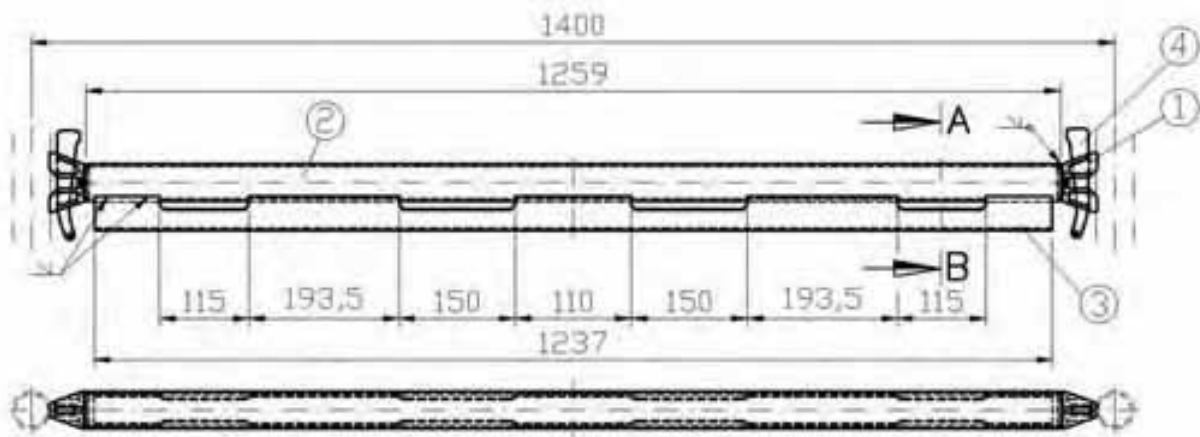
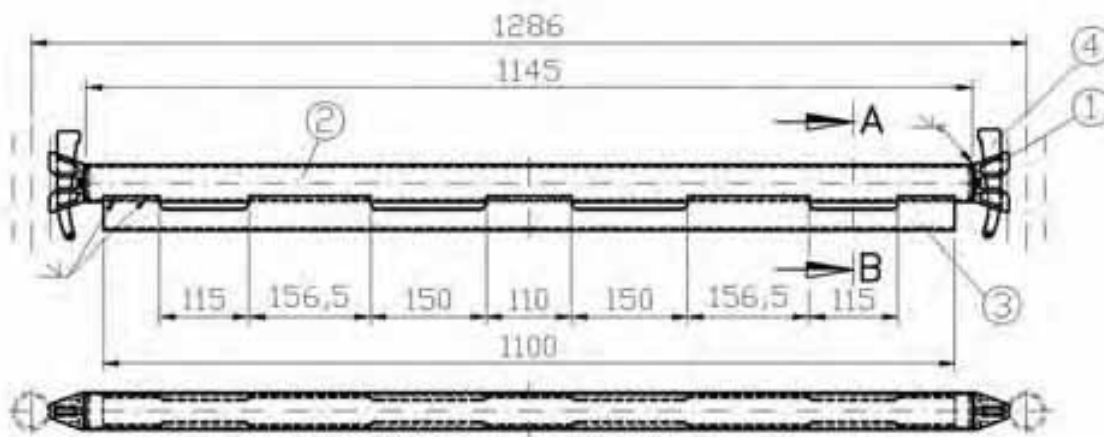
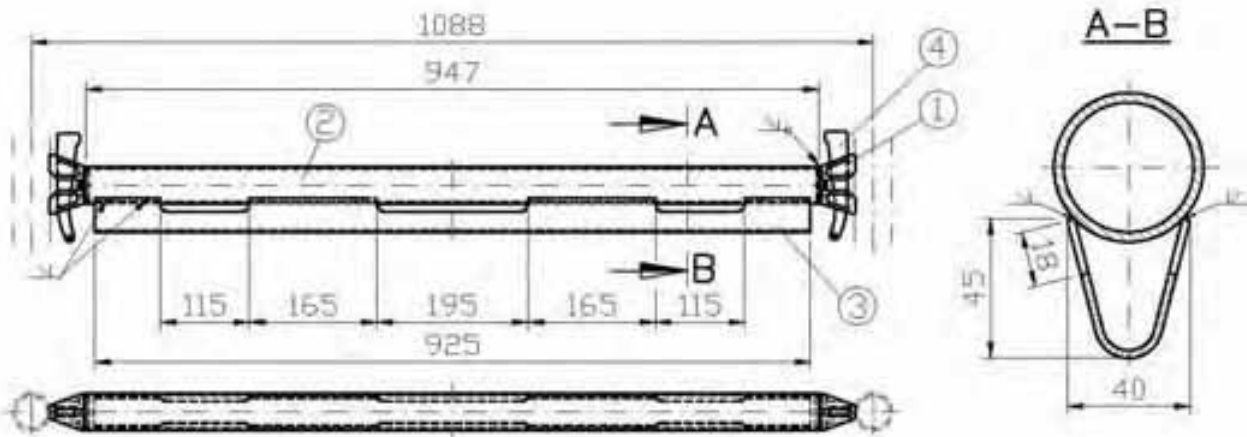
## ALBLITZ MODUL

### Tube ledger

according to Z-8.22-906

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M710-B113\_ABM



- (1) Tube ledger connection
- (2) R 48.3x3.2                    S235JRH    ReH≥320N/mm<sup>2</sup>
- (3) BI 3                                S235JR
- (4) Wedge 6 mm                    S550MC

galvanized; all welds a=3mm



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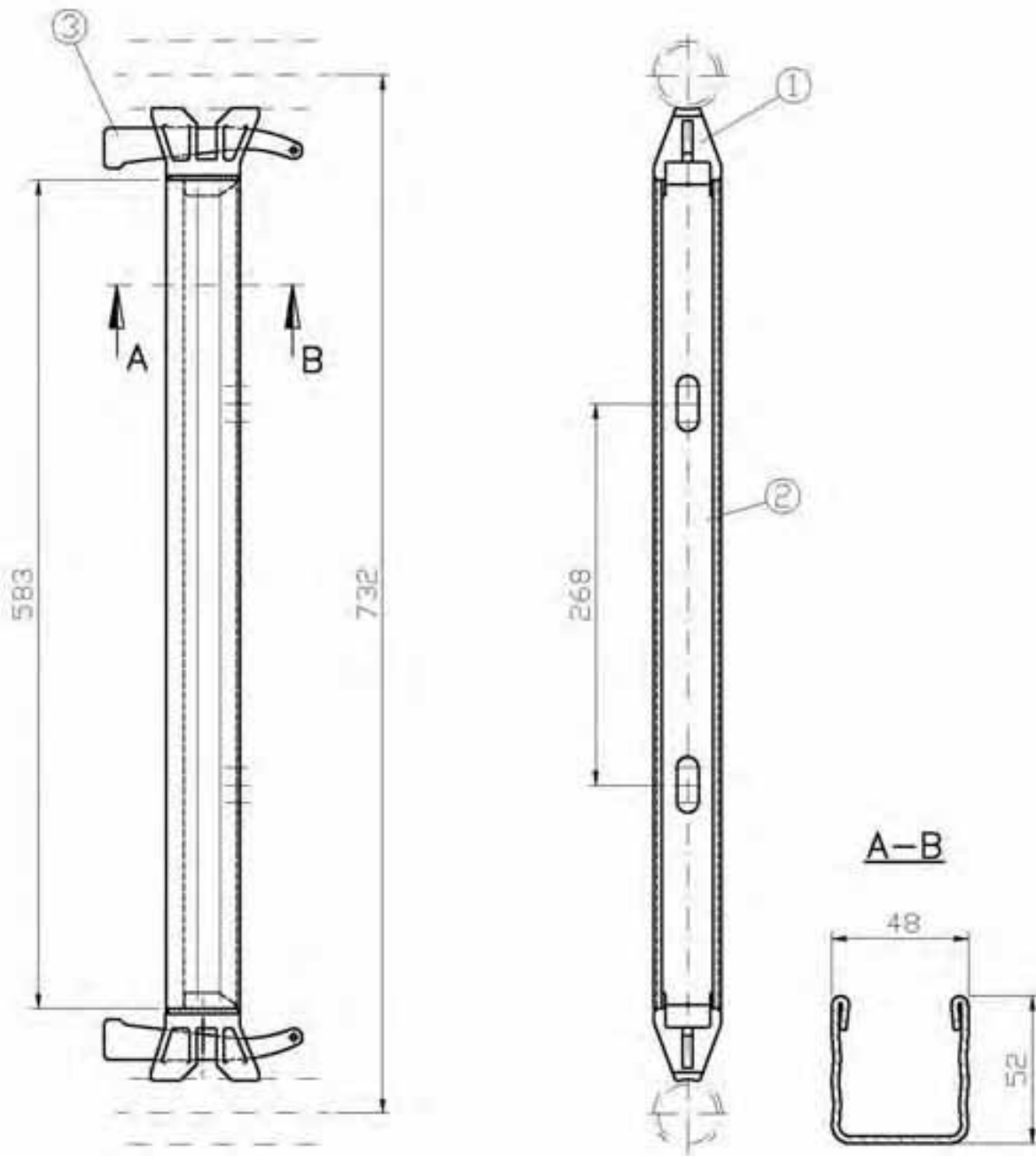
### ALBLITZ MODUL

**Tube ledger reinforced**

according to Z-8.22-906

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the national technical  
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M710-B114\_ABM



- (1) U-ledge connection
- (2) U-profile 48x52x2.5 S235JR
- (3) Wedge 6mm S550MC

galvanized; all welds a=3mm



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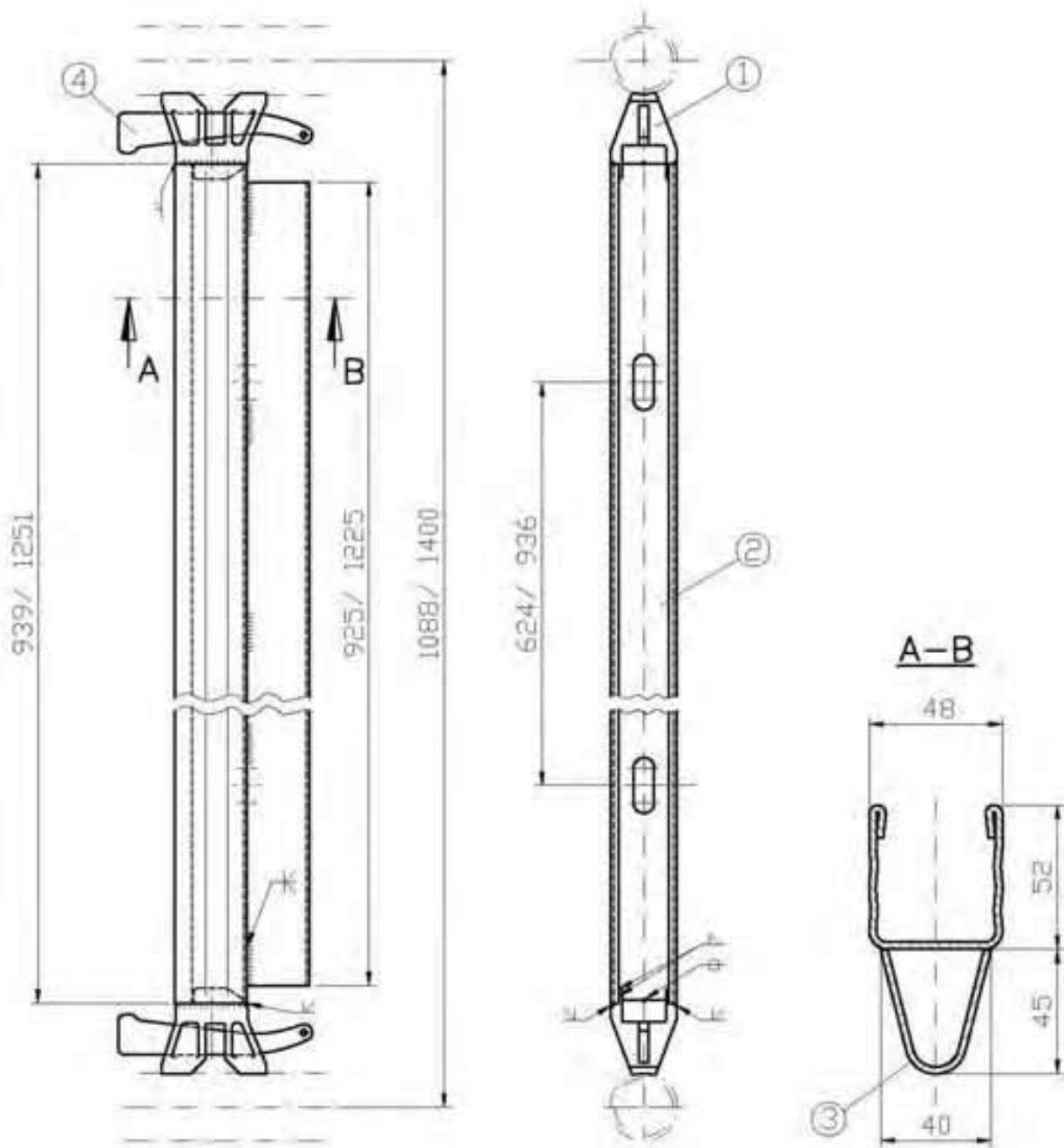
## ALBLITZ MODUL

**U-transom 0.73m**

according to Z-8.22-906

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M710-B115\_ABM



- |                         |        |
|-------------------------|--------|
| (1) U-ledger connection |        |
| (2) U-profile 48x52x2.5 | S235JR |
| (3) BI 3                | S235JR |
| (4) Wedge 6mm           | S550MC |

galvanized



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## ALBLITZ MODUL

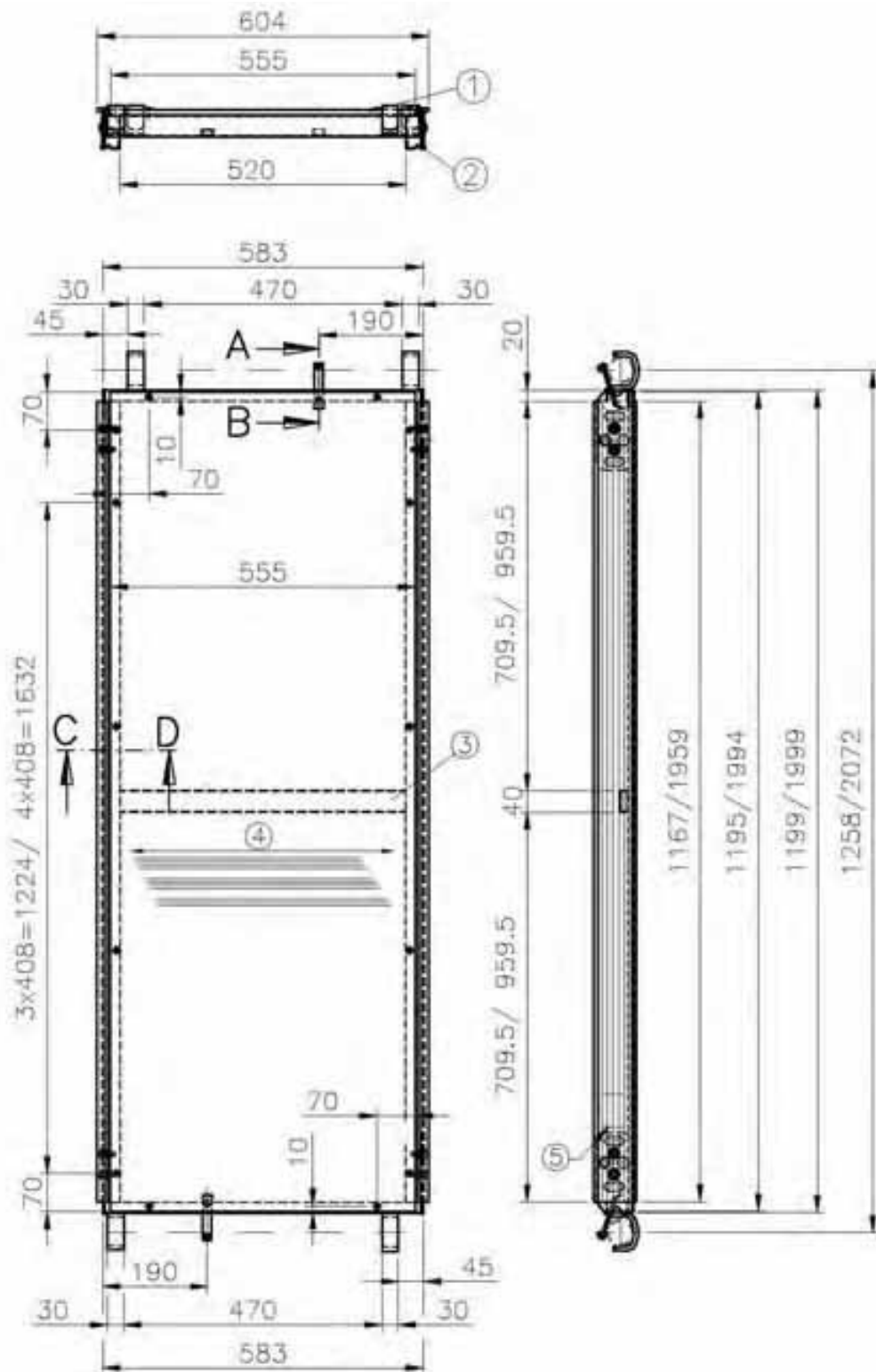
**U-transom reinforced**

**1.09m and 1.40m**

according to Z-8.22-906

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of 7. May 2012  
Deutsches Institut für Bautechnik

M710-B116\_ABM



- (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 BFU100-G
- (2) Brace profile 78x42 EN AW-6063-T66
- (3) RHP 40x15x2 EN AW-6063-T66
- (4) Fibre direction
- (5) Marking

all welds a=2mm Sections and details, see Annex M710-B119

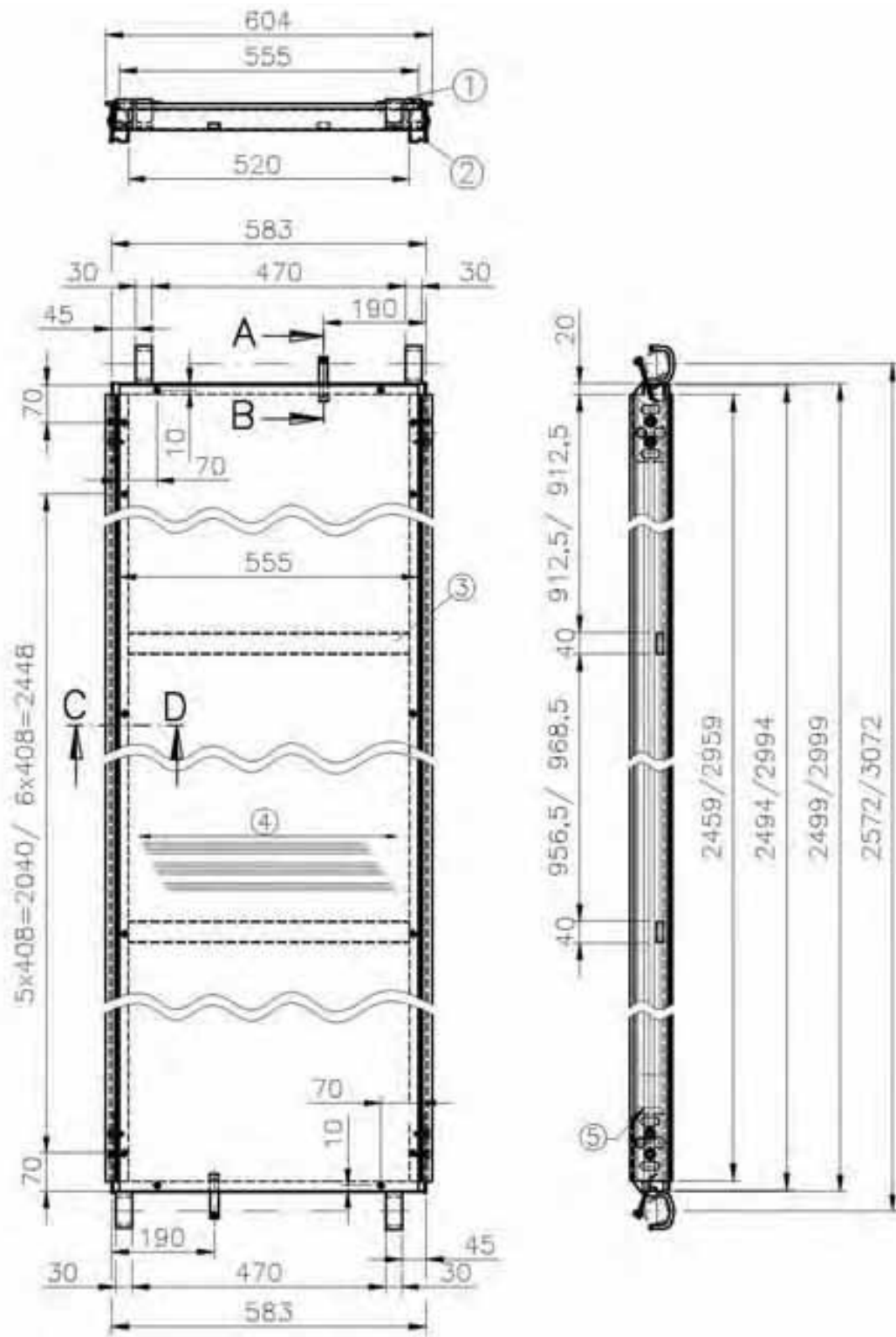
Load class 3



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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium frame deck RE**  
**1.57m and 2.07m**  
according to Z-8.22-906

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Deutsches Institut für Bautechnik  
M710-B117\_ABm



- (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 BFU 100-G
- (2) Brace profile 78x42 EN AW-6063-T66
- (3) RV 40x15x2 EN AW-6063-T66
- (4) Fibre direction
- (5) Marking

all welds a=2mm Sections and details, see Annex M710-B119

Load class 3



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09603 Großschirma

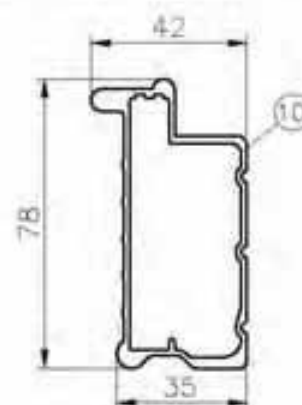
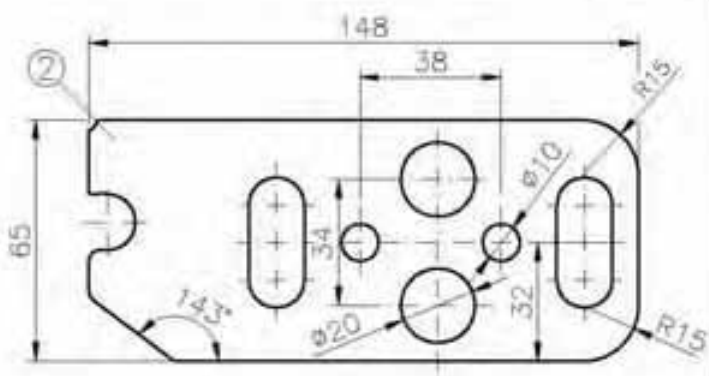
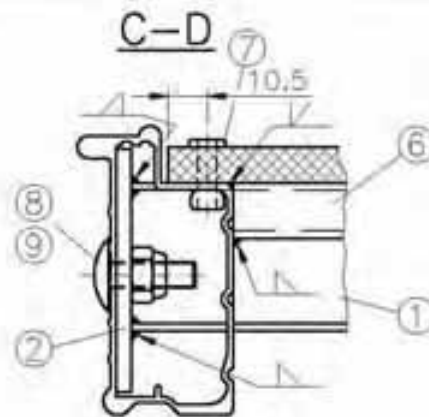
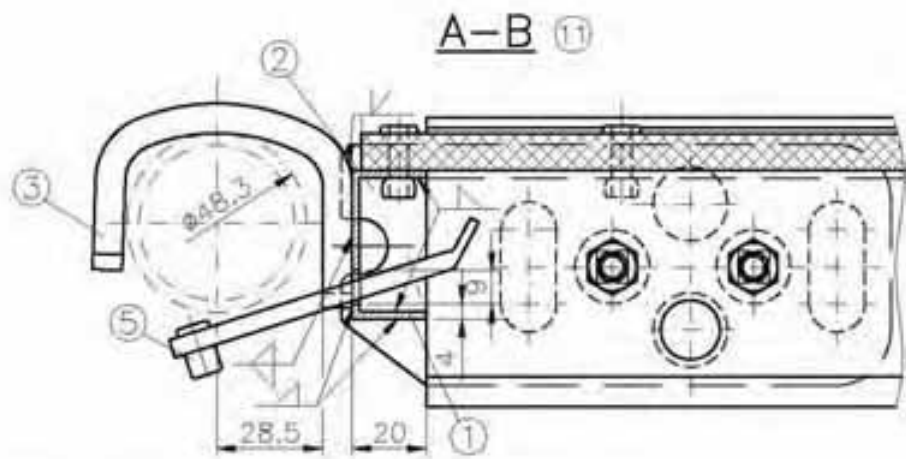
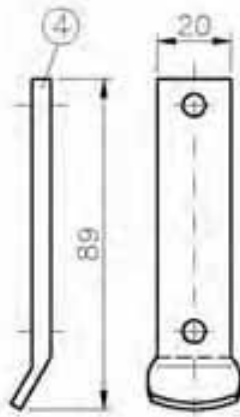
**ALBLITZ MODUL**  
**Aluminium frame deck RE**

**2.57m and 3.07m**

according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B118\_ABM



- |      |                               |                               |
|------|-------------------------------|-------------------------------|
| (1)  | U 40x20x2                     | S235JR                        |
| (2)  | Mounting claw BI 4x65x148     | S235JR                        |
| (3)  | Bd 30x8                       | S355J2; alternatively: S355MC |
| (4)  | Lock against lift-off FI 20x5 | S235JR; galvanized            |
| (5)  | Blind rivet 4.8x16            | DIN 7337                      |
| (6)  | RV 40x15x2                    | EN AW-6063-T66                |
| (7)  | Blind rivet 5x20              | DIN 7337 EN AW-5754 H112      |
| (8)  | Round-head bolt               | DIN 603-M8x20                 |
| (9)  | Nut, self-locking             | DIN 980-M8                    |
| (10) | Aluminium brace profile       | EN AW-6063-T66                |
| (11) | Head piece, galvanized        | EN AW-6063-T66                |



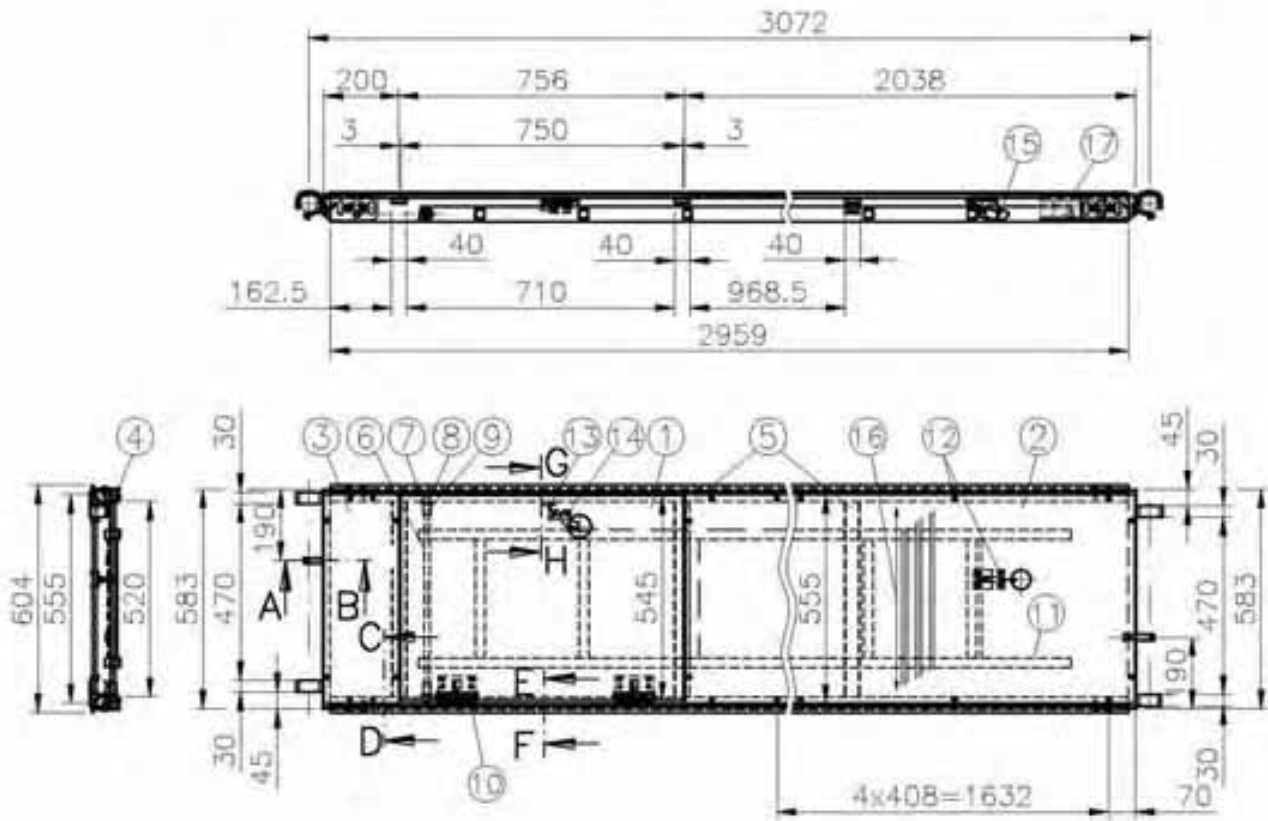
63828 Edelbach  
09603 Großschirma

**ALBLITZ MODUL**  
**Details**  
**Aluminium frame deck RE**

according to Z-8.22-906

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M710-B119\_ABm



- |      |   |                     |
|------|---|---------------------|
| (1)  | WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 | BFU 100-G           |
| (2)  | WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G           |
| (3)  | WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G           |
| (4)  | Brace profile 78x42                                     | EN AW-6063-T66      |
| (5)  | RV 40x15x2  | EN AW-6063-T66      |
| (6)  | R 15x2  | S235JRH             |
| (7)  | Disc Ø17  | DIN 125             |
| (8)  | Cotter pin Ø4x25  | DIN 94              |
| (9)  | Distance sleeve Ø20x2                                   | PEHD                |
| (10) | Scissor hinge 100x116x3                                 | S235JR, galvanized  |
| (11) | Ladder,   | see Annex A709-A115 |
| (12) | Blind rivet Ø5x20                                       | EN AW-5754 H112     |
| (13) | Blind rivet Ø4.8 x10                                    | EN AW-5754 H112     |
| (14) | Blind rivet Ø4.8x16                                     | EN AW-5754 H112     |
| (15) | Ladder holder   |                     |
| (16) | Fibre direction   |                     |
| (17) | Marking   |                     |

Sections and details, see Annex M710-B119 and M710-B122

Load class 3



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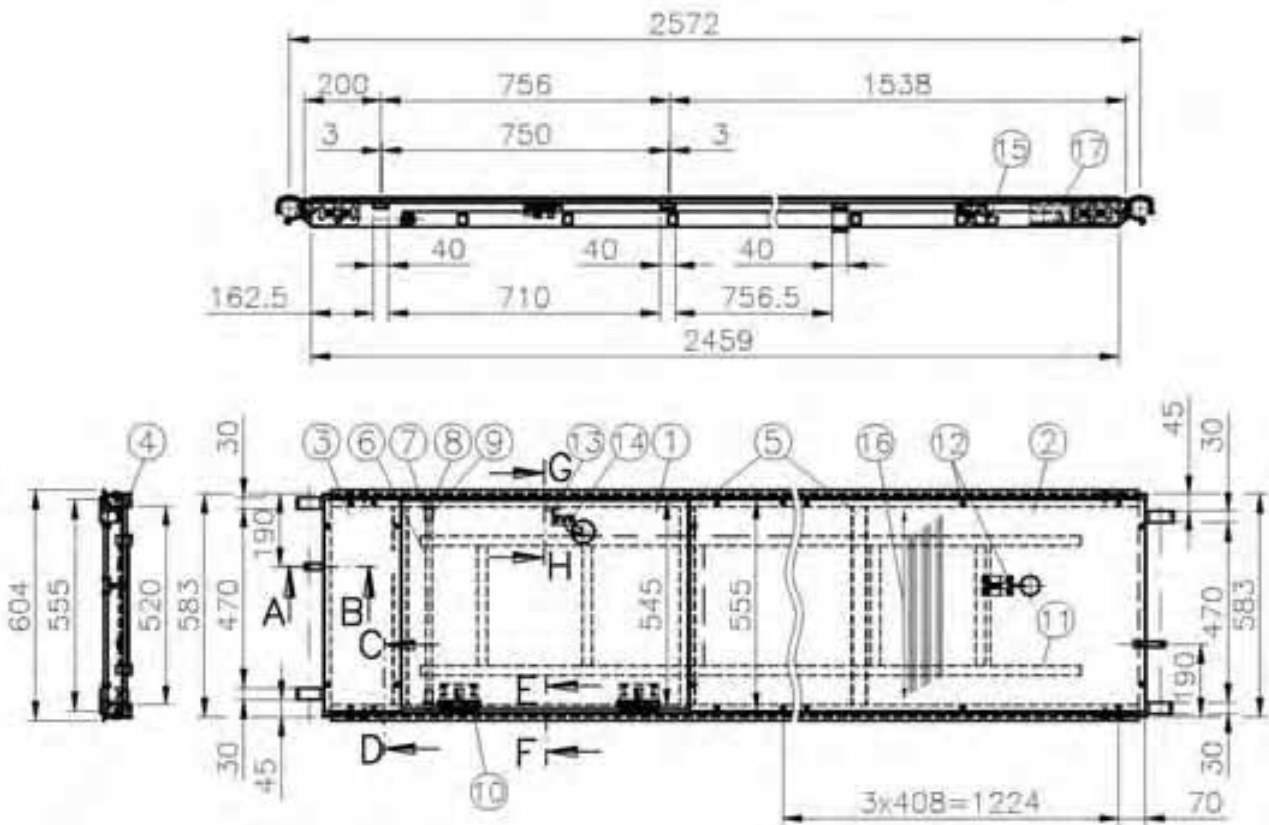
**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with access hatch RE 3.07m**

according to Z-8.22-906

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M710-B120\_ABM





- |   |                     |
|---|---------------------|
| (1) WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 | BFU 100-G           |
| (2) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G           |
| (3) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G           |
| (4) Brace profile 78x42                                     | EN AW-6063-T66      |
| (5) RV 40x15x2  | EN AW-6063-T66      |
| (6) R 15x2  | S235JRH             |
| (7) Disc Ø17  | DIN 125             |
| (8) Cotter pin Ø4x25  | DIN 94              |
| (9) Distance sleeve Ø20x2                                   | PEHD                |
| (10) Scissor hinge 100x116x3                                | S235JR, galvanized  |
| (11) Ladder,  | see Annex A709-A115 |
| (12) Blind rivet Ø5x20                                      | EN AW-5754 H112     |
| (13) Blind rivet Ø4.8 x10                                   | EN AW-5754 H112     |
| (14) Blind rivet Ø4.8x16                                    | EN AW-5754 H112     |
| (15) Ladder holder  |                     |
| (16) Fibre direction  |                     |
| (17) Marking  |                     |

Sections and details, see Annex M710-B119 and M710-B122

Load class 3



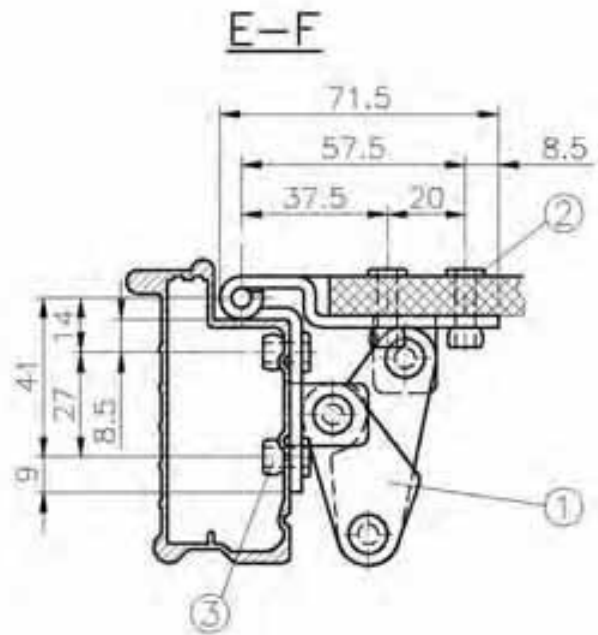
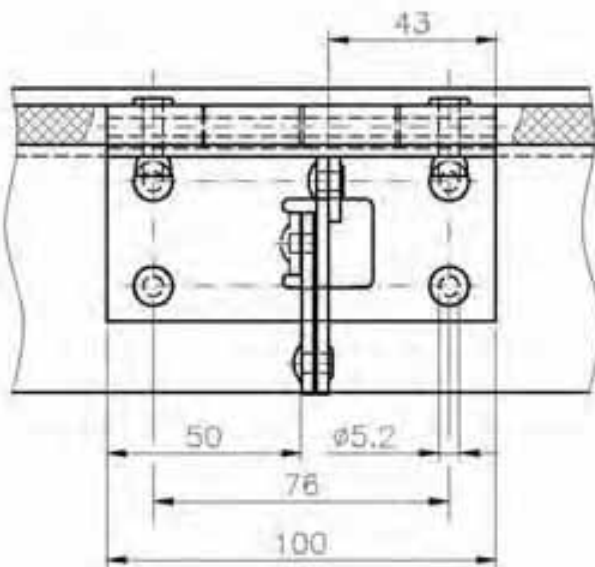
63828 Edelbach  
09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with access hatch RE 2.57m**

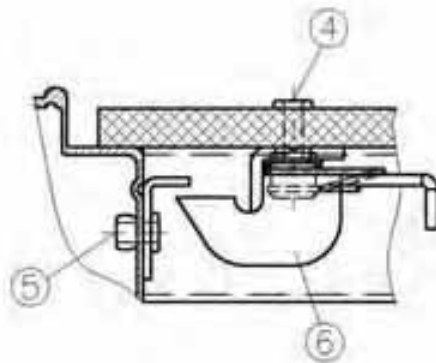
according to Z-8.22-906

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M710-B121\_ABM



### G-H



- |                        |                          |
|------------------------|--------------------------|
| (1) Hinge 100x100x3    |                          |
| (2) Blind rivet 5x20   | DIN 7337 EN AW-5754 H112 |
| (3) Blind rivet 5x12   | DIN 7337 EN AW-5754 H112 |
| (4) Blind rivet 5x18   | DIN 7337 EN AW-5754 H112 |
| (5) Blind rivet 4.8x10 | DIN 7337 EN AW-5754 H112 |
| (6) Ledger             |                          |



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09603 Großschirma

### ALBLITZ MODUL

#### Details

#### Aluminium frame deck

#### with access hatch RE

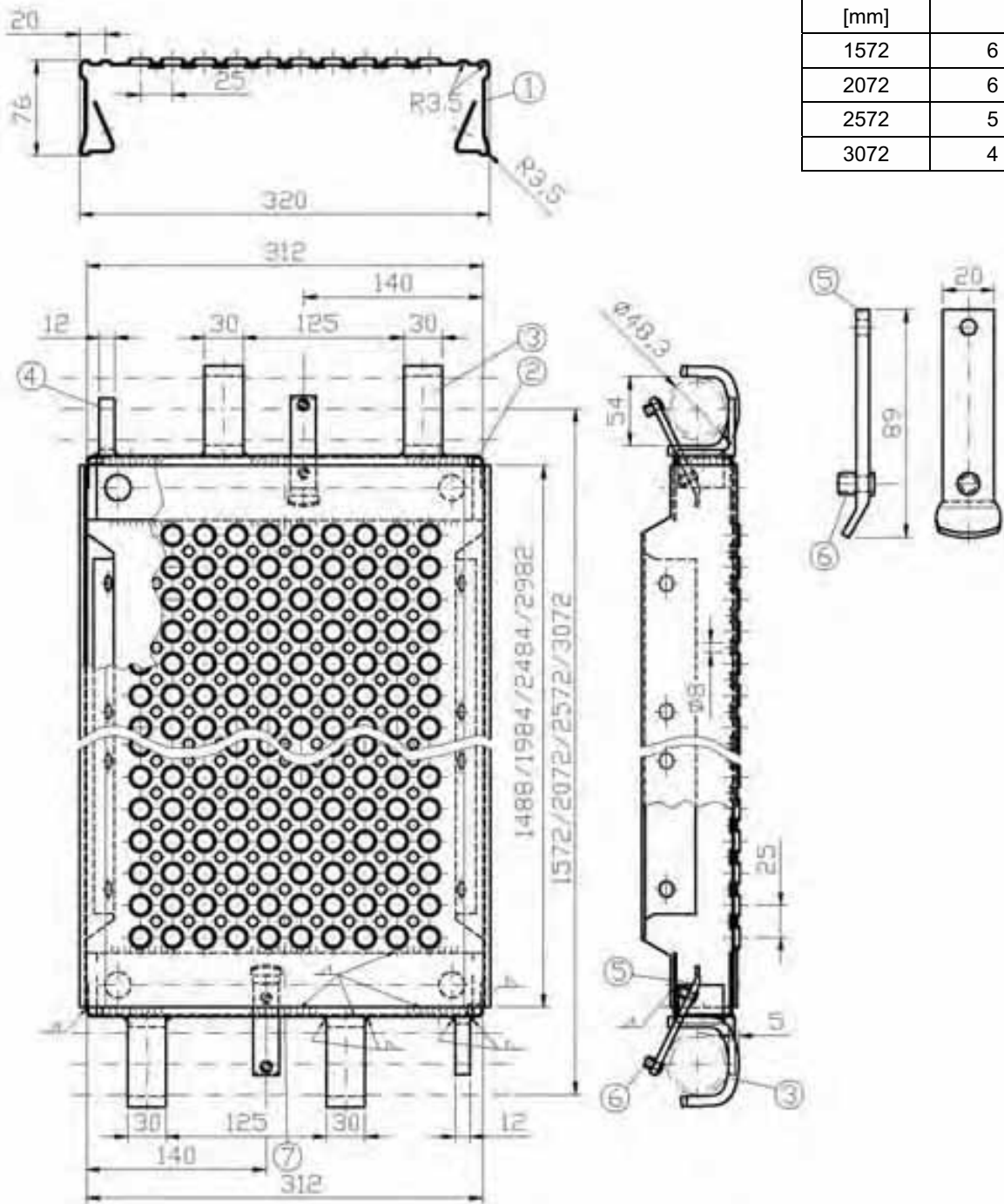
according to Z-8.22-906

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M710-B122\_ABM



Bay length	Load class
[mm]	
1572	6
2072	6
2572	5
3072	4



- (1) Bd 590x1,5      DIN EN 10111- DD11       $ReH \geq 280N/mm^2$
- (2) Bd 140x2      DIN EN 10111- DD11       $ReH \geq 280N/mm^2$
- (3) Bd 30x8      S355J2 alternatively: S355MC
- (4) L 45x45x5      S235JR
- (5) FI 20x5      S235JR
- (6) Blind rivet  $\varnothing 4.8 \times 16$       DIN 7337
- (7) Marking:      manufacturer's mark – AF XX – year of manufacture

galvanized; all welds a=2mm



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09603 Großschirma

### ALBLITZ MODUL

#### Steel plank RE

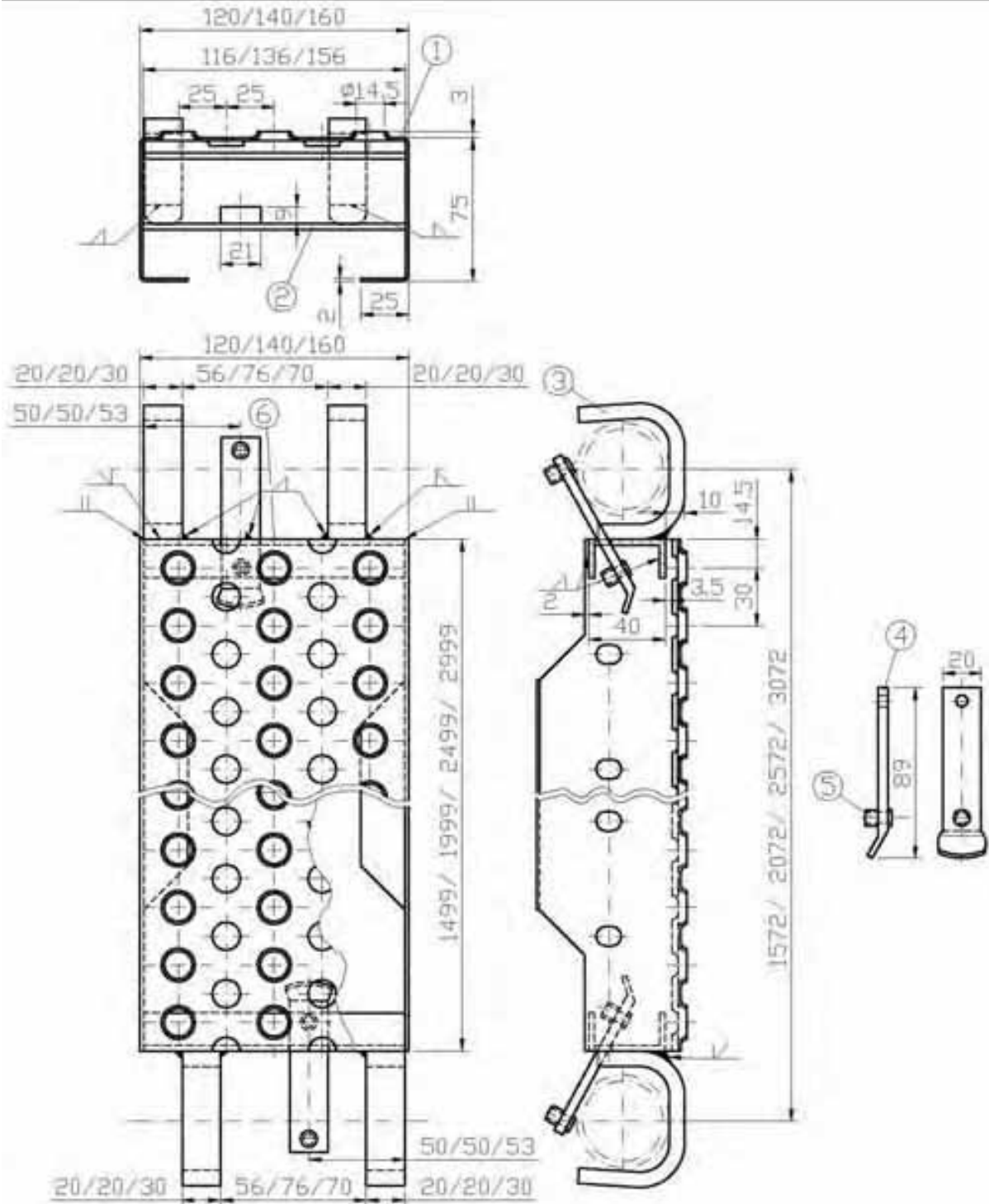
according to Z-8.22-906

#### Former design

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M709-B023\_ABM



- (1) Profiled safety grating, round
- (2) U 40x20x3 S235JR
- (3) Bd 20x8/30x8 S355J2 alternatively S355MC
- (4) FI 20x5 S235JR
- (5) Blind rivet Ø4.8x16 DIN 7337
- (6) Marking: manufacturer's mark – AF XX – year of manufacture

galvanized; all welds a=3mm



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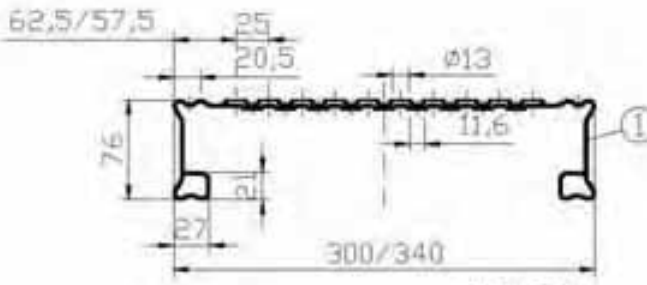
### ALBLITZ MODUL

#### Intermediate deck RE

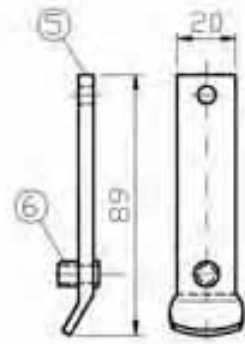
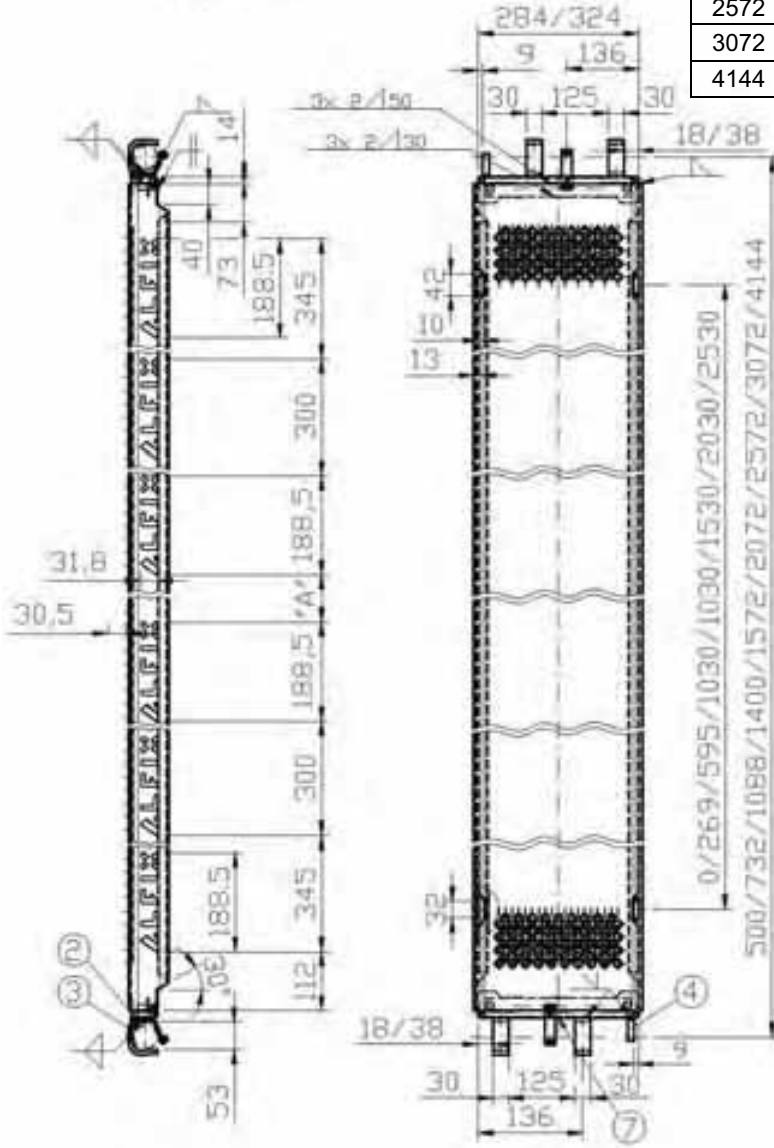
according to Z-8.22-906

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M710-B124\_ABM



Bay length	Number of lettering(s)	Size "A"	Load class
[mm]	[left/right]	[mm]	
500	1/-	-	6
732	1/1	36	6
1088	1/1	392	6
1400	1/1	704	6
1572	1/1	876	6
2072	2/2	686	6
2572	2/2	1186	5
3072	3/3	1086	4
4144	3/3	2203	3



- (1) Bd 1,5mm                      DIN EN 10111-DD11                      ReH≥280N/mm<sup>2</sup>                      Rm≥360N/mm<sup>2</sup>  
     alternatively:                      DIN EN 10025-2 S235JR                      ReH≥280N/mm<sup>2</sup>                      Rm≥360N/mm<sup>2</sup>
- (2) Bd 2mm                      DIN EN 10111-DD11                      ReH≥240N/mm<sup>2</sup>                      Rm≥360N/mm<sup>2</sup>
- (3) Bd 30x8                      S355J2 alternatively: S355MC
- (4) L 45x45x5                      S235JR
- (5) FI 20x5                      S235JR
- (6) Blind rivet Ø4.8x16                      DIN 7337
- (7) Marking

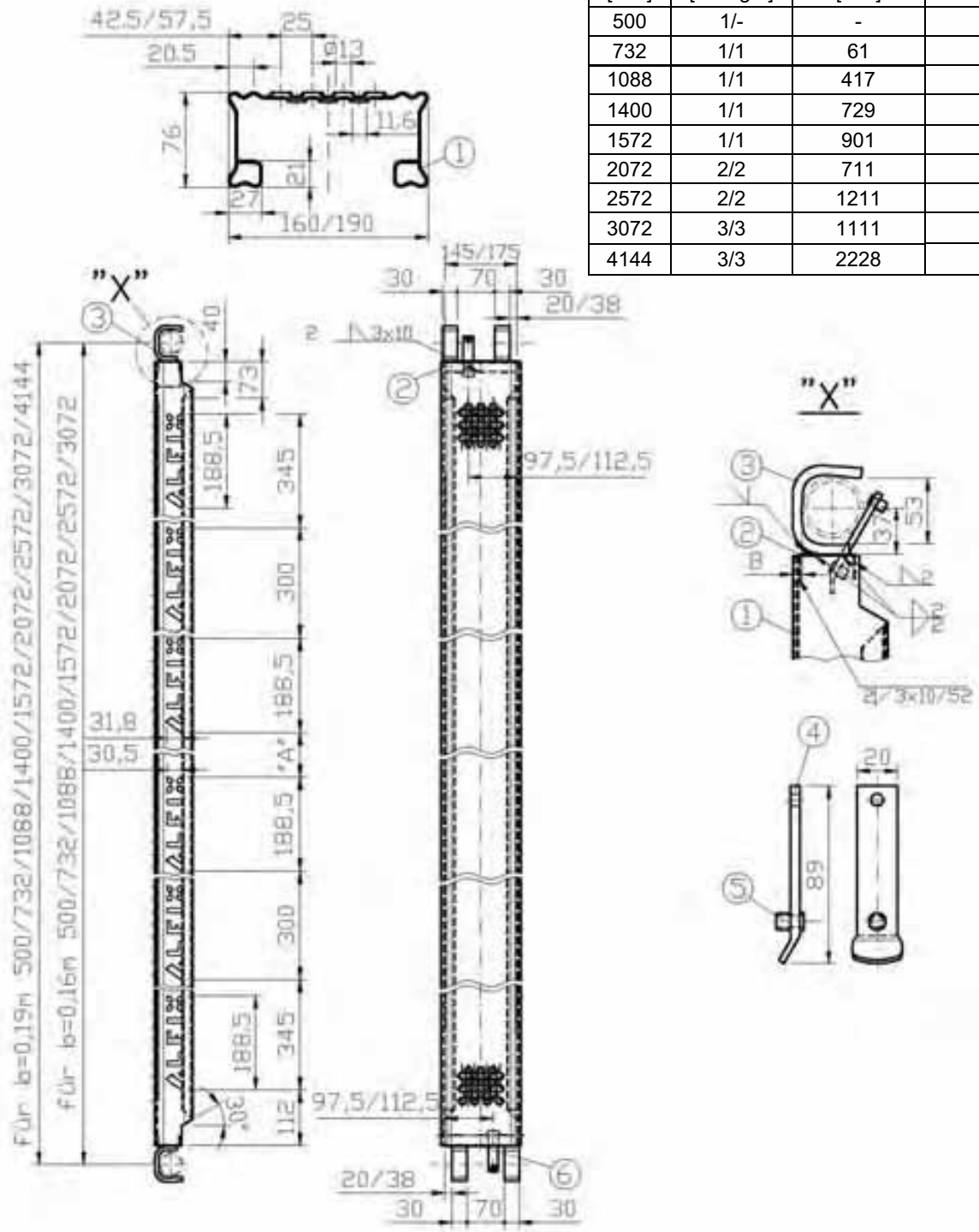
galvanized; all welds a=2mm

63828 Edelbach  
09603 Großschirma

**ALBLITZ MODUL**  
**Steel plank AF RE 0.30m, 0.34m**  
 according to Z-8.22-906


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 M711-B206

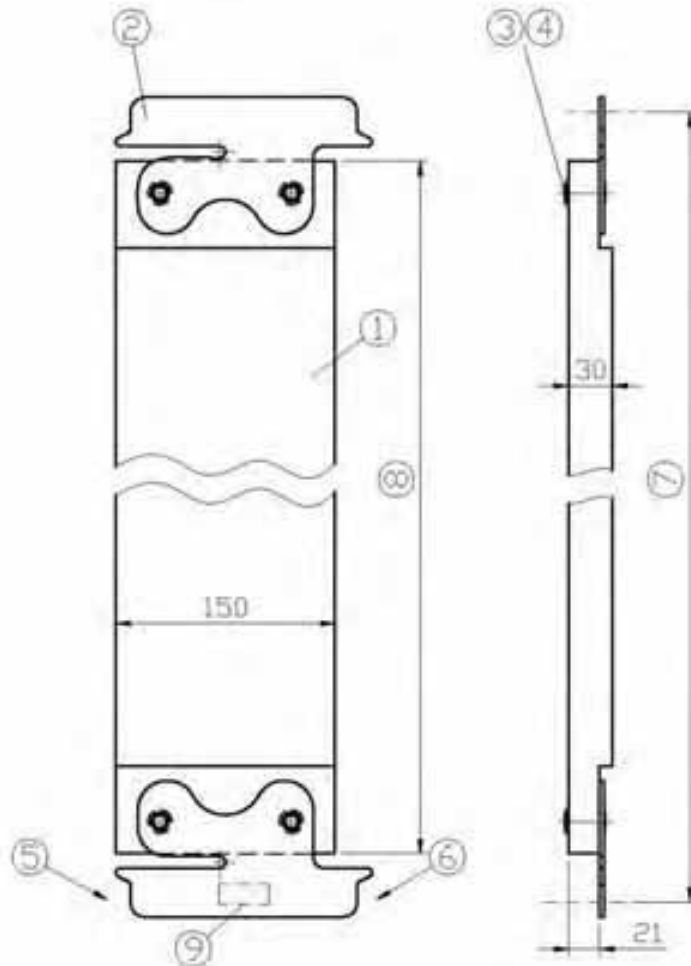
Bay length	Number of lettering(s)	Size "A"	Load class
[mm]	[left/right]	[mm]	
500	1/-	-	6
732	1/1	61	6
1088	1/1	417	6
1400	1/1	729	6
1572	1/1	901	6
2072	2/2	711	6
2572	2/2	1211	5
3072	3/3	1111	4
4144	3/3	2228	3



- (1) Bd 1,5mm                      DIN EN 10111-DD11                      ReH $\geq$ 280N/mm<sup>2</sup>                      Rm $\geq$ 360N/mm<sup>2</sup>  
alternatively:                      DIN EN 10025-2 S235JR                      ReH $\geq$ 280N/mm<sup>2</sup>                      Rm $\geq$ 360N/mm<sup>2</sup>
- (2) U 45x20x2                      S235JR
- (3) Bd 30x8                      S355J2 alternatively: S355MC
- (4) FI 20x5                      S235JR
- (5) Blind rivet  $\varnothing$ 4.8x16                      DIN 7337
- (6) Marking

galvanized; all welds a=2mm

 <p>63828 Edelbach 09603 Großschirma</p>	<p><b>ALBLITZ MODUL</b></p> <p><b>Intermediate deck AF RE</b></p> <p><b>0.16m, 0.19m</b></p> <p>according to Z-8.22-906</p>	<p>Annex B, page 27 to the national technical approval Z-8.22-913 of 7. May 2012 Deutsches Institut für Bautechnik</p> <p>M710-B131_ABM</p>
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⑦	⑧
390	323
732	665
1088	1021
1400	1333
1572	1505
2072	2005
2572	2505
3072	3005

- (1) Board                                   DIN 4074 – S10-Fi
- (2) Slit strip 175x2                   DIN EN 10111-DD11 galvanized
- (3) Tube rivet                           DIN 7340 – A8x0.75x28-steel, zinc-plated
- (4) Disc                                    DIN 125 – A8.4–steel, galvanized
- (5) Tube ledger connection
- (6) U-ledger connection
- (7) Bay length
- (8) Length L
- (9) Marking



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09603 Großschirma

## ALBLITZ MODUL

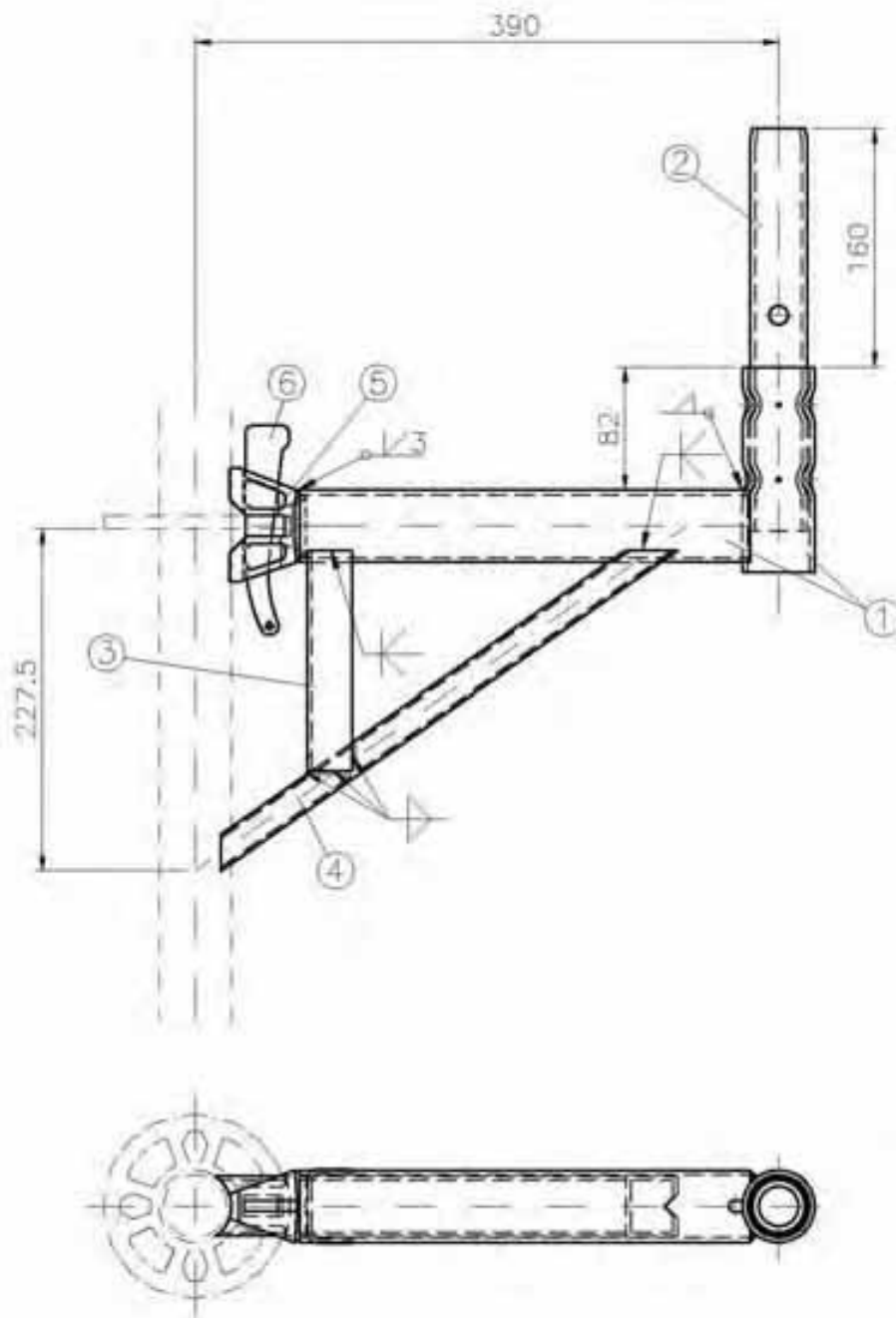
### Modular toeboard

according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B125\_ABM





- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 38x3.6               | S235JR  | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) U 50x30x3; L=147       | S235JR  |                                 |
| alternatively: U 47x30x3   | S235JR  |                                 |
| (4) RV 40x20x2             | S235JRH |                                 |
| (5) Tube ledger connection |         |                                 |
| (6) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm



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09603 Großschirma

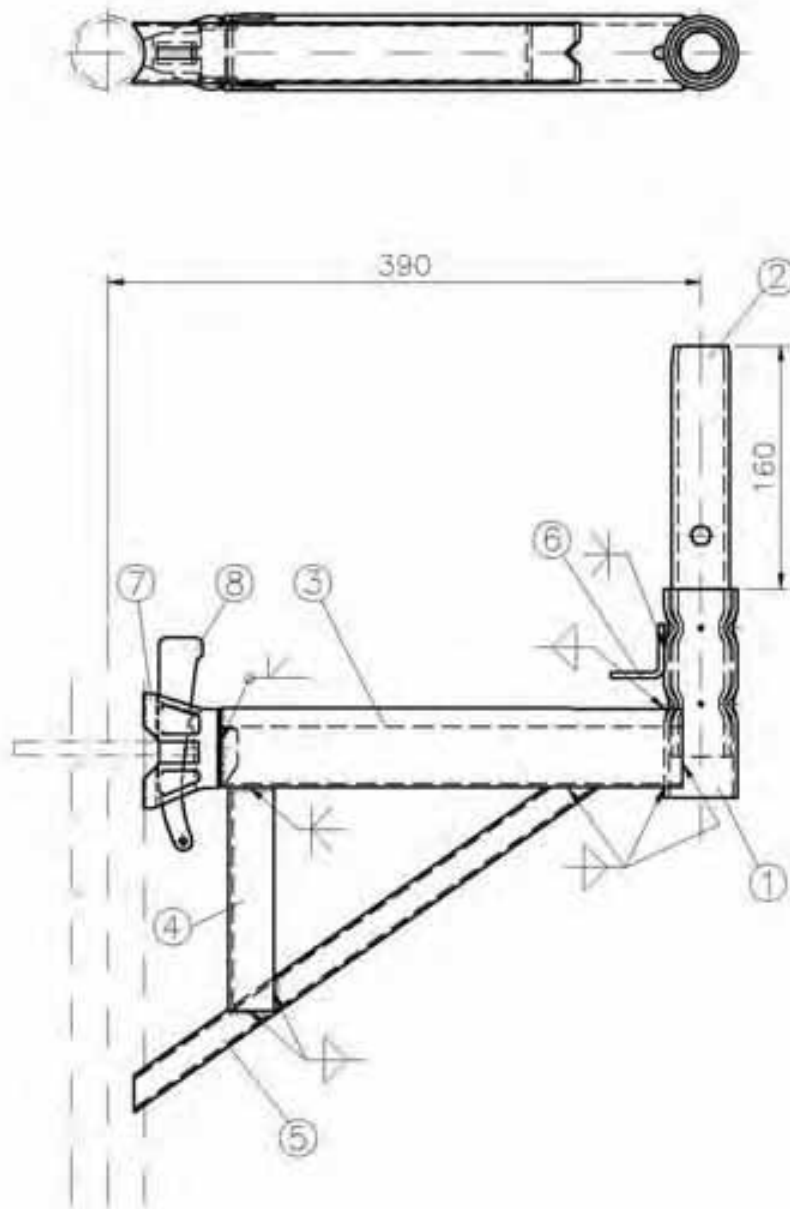
## ALBLITZ MODUL

### Bracket 0.39m RE

according to Z-8.22-906

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M710-B126\_ABM



- |                          |         |                                 |
|--------------------------|---------|---------------------------------|
| (1) R 48.3x3.2           | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 38x3.6             | S235JR  | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) U-profile 48x52x2.5  | S235JR  |                                 |
| (4) U 50x30x3; L=147     | S235JR  |                                 |
| alternatively: U 47x30x3 | S235JR  |                                 |
| (5) RV 40x20x2           | S235JRH |                                 |
| (6) FI 35x4              | S235JR  |                                 |
| (7) U-ledger connection  |         |                                 |
| (8) Wedge 6mm            | S550MC  |                                 |

galvanized; all welds a=2.5mm



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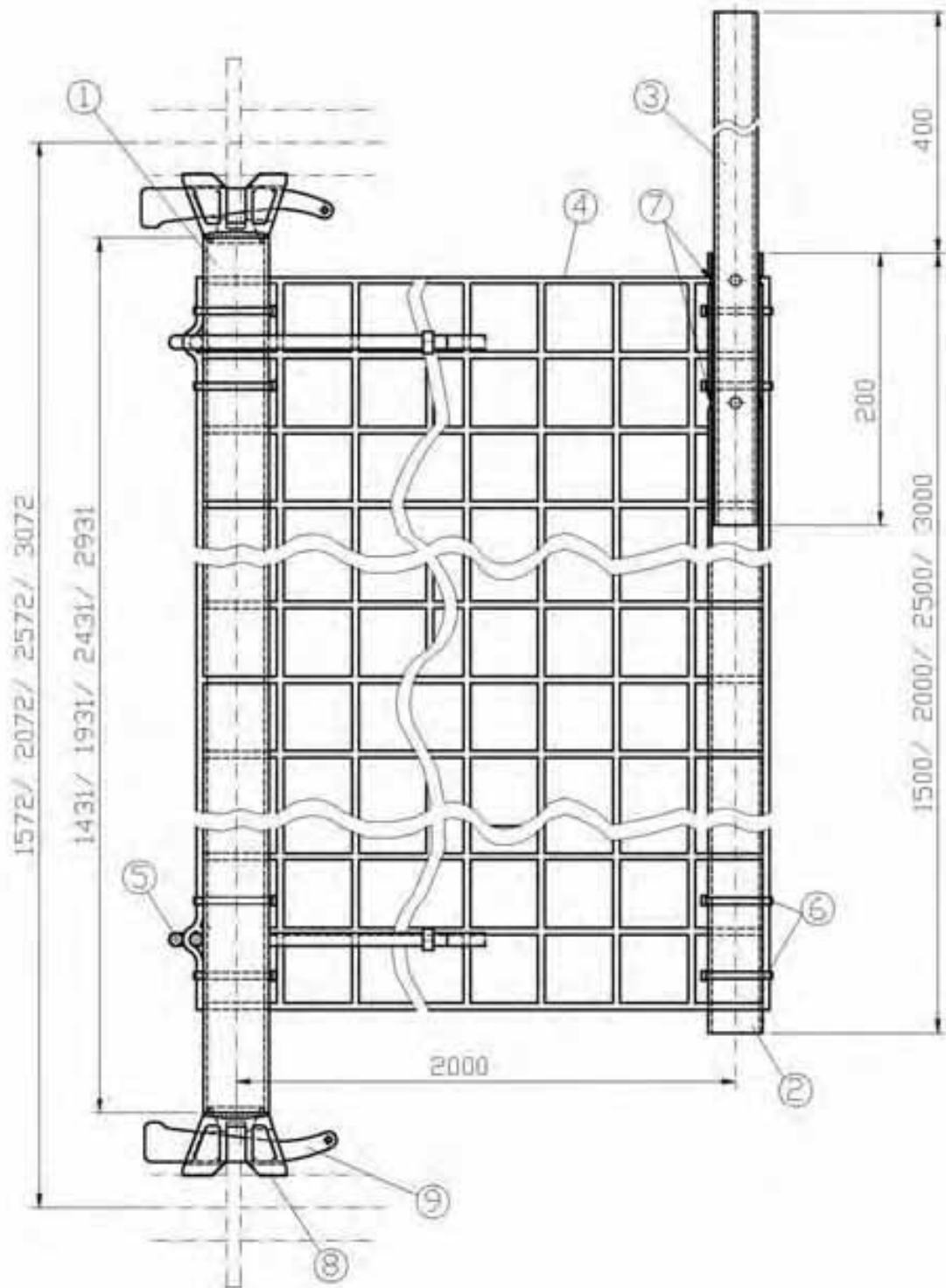
## ALBLITZ MODUL

**Modular bracket 0.39m**

according to Z-8.22-906

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M710-B127\_ABM



- |                                  |                           |
|----------------------------------|---------------------------|
| (1) Tube ledger                  |                           |
| (2) R 40x2.5                     | EN AW-6060-T66            |
| (3) R 32x3                       | EN AW-6060-T66            |
| (4) Safety mesh guard            | DIN EN 1263-1-U-A2-M100-Q |
| (5) Rope Ø10x3500                | Polyamide                 |
| (6) Cable tie 5x270              |                           |
| (7) 4x circumferentially pressed |                           |
| (8) Tube ledger connection       |                           |
| (9) Wedge 6mm                    | S550MC                    |



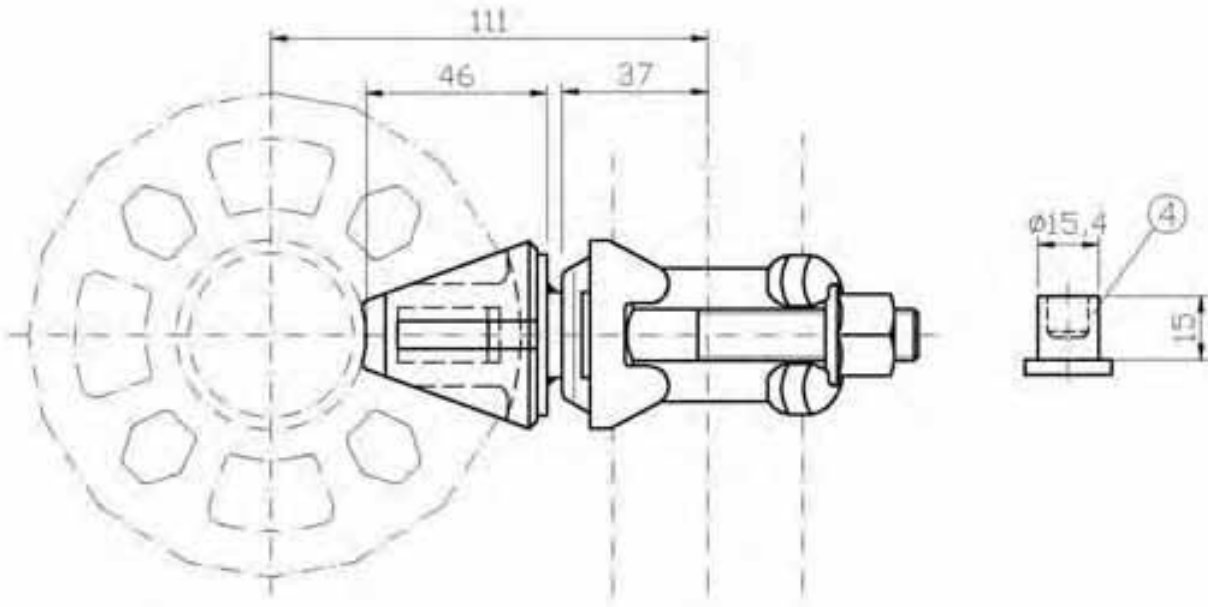
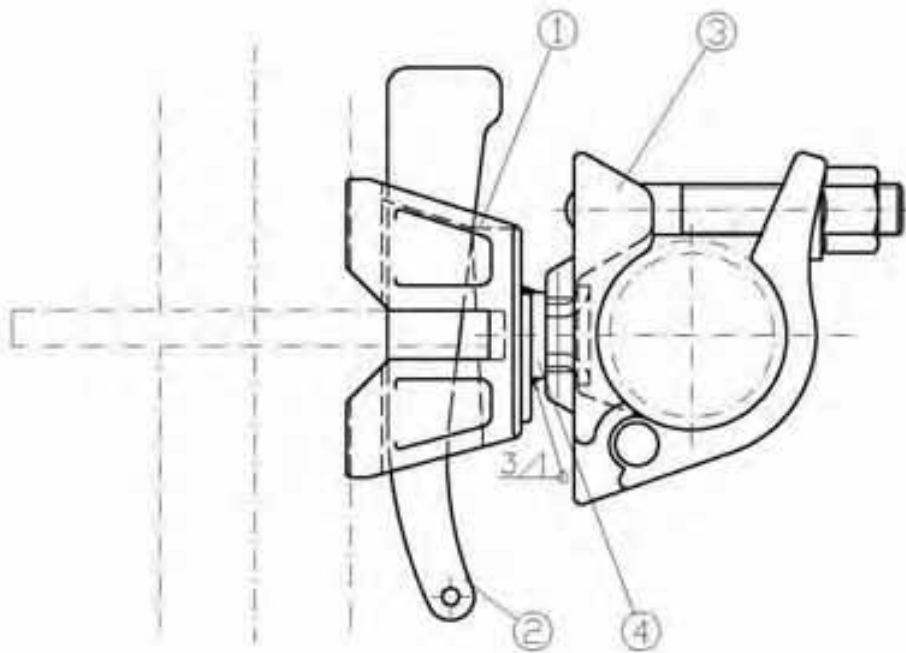
63828 Edelbach  
09603 Großschirma

**ALBLITZ MODUL**  
**Modular safety mesh guard**

according to Z-8.22-906

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M710-B128\_ABM



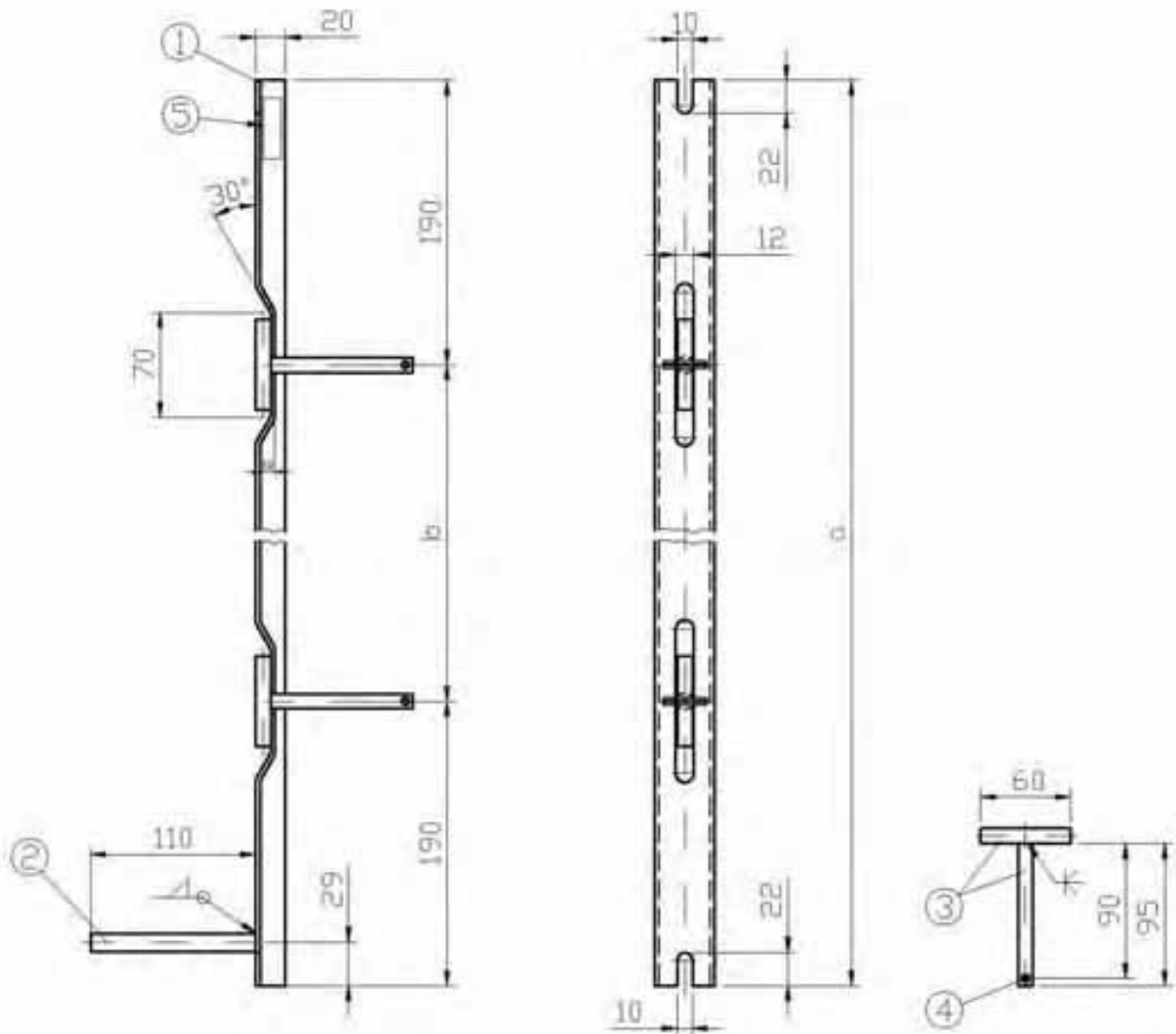
- (1) U-ledge connection
- (2) Wedge 6mm S550MC
- (3) Halfcoupler, class B
- (4) Rivet, wedge head coupler QST 36

galvanized

**LFIX** GmbH  
 63828 Edelbach  
 09603 Großschirma

**ALBLITZ MODUL**  
**Wedge head coupler, swivelling**  
 according to Z-8.22-906

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(6)	a (mm)	b (mm)
732	548	268
1088	1004	624
1400	1316	936
1572	1488	1108
2072	1988	1608
2572	2488	2108
3072	2988	2608

- |  |                                 |
|--|---------------------------------|
| (1) U 40x20x3                                | S235JR                          |
| (2) Rd 12 (alternatively for ALFIX toeboard) | S235JR                          |
| (3) Rd 10                                    | S235JR                          |
| (4) Straight grooved pin                     | DIN 1473-5x30-steel, galvanized |
| (5) Marking                                  |                                 |
| (6) Length L (mm)                            |                                 |

galvanized



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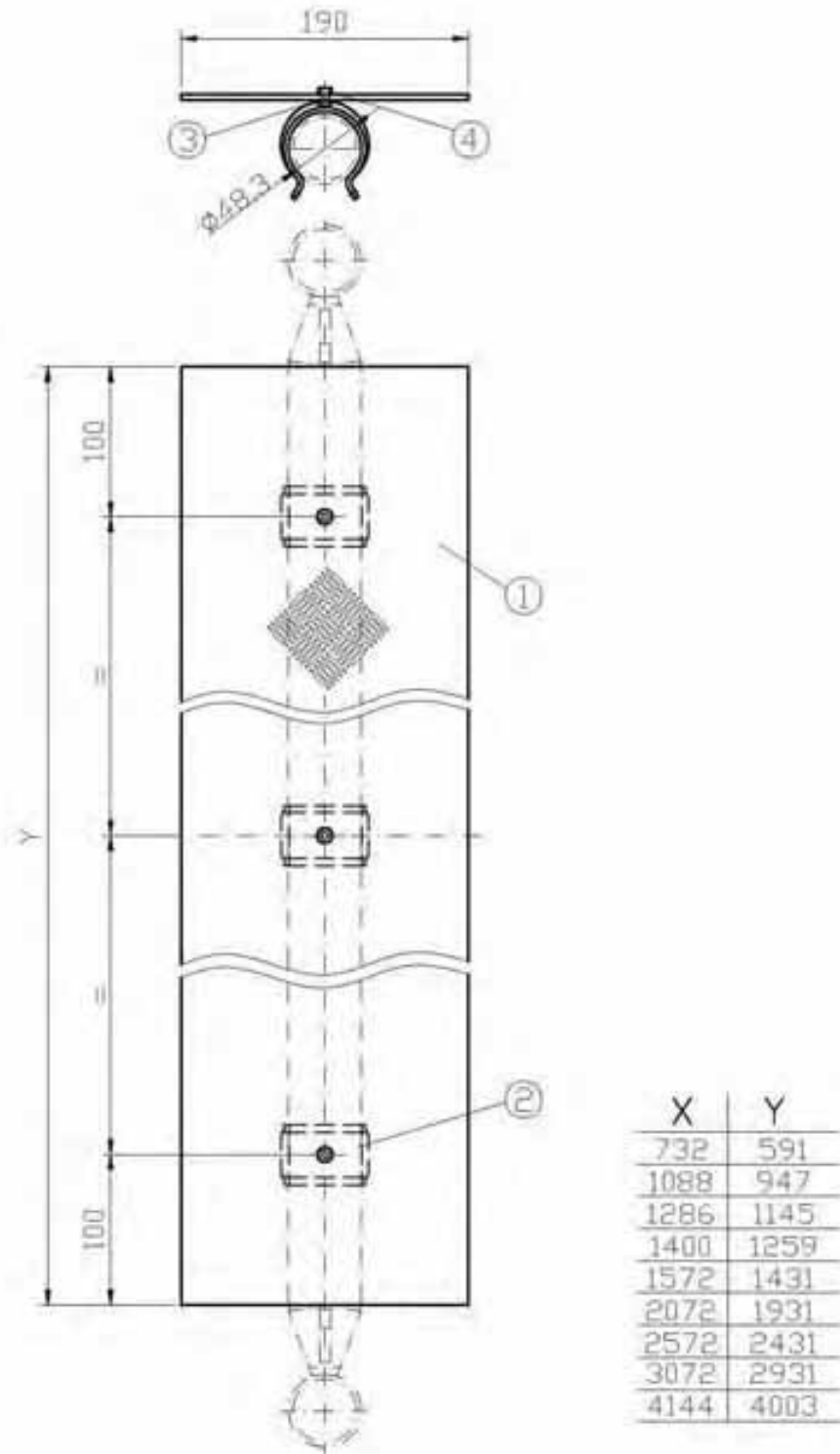
## ALBLITZ MODUL

Modular deck retainer

according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B130\_ABM



- (1) Checker plate, quintet W5 2.5/3.3x190    DIN EN 1386    EN AW-5083 H224  
 (2) Pipe clamp, galvanized  
 (3) Disc 5.3    DIN 125  
 (4) Blind rivet Ø5x12    DIN 7337    EN AW-5754 H112



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 09603 Großschirma

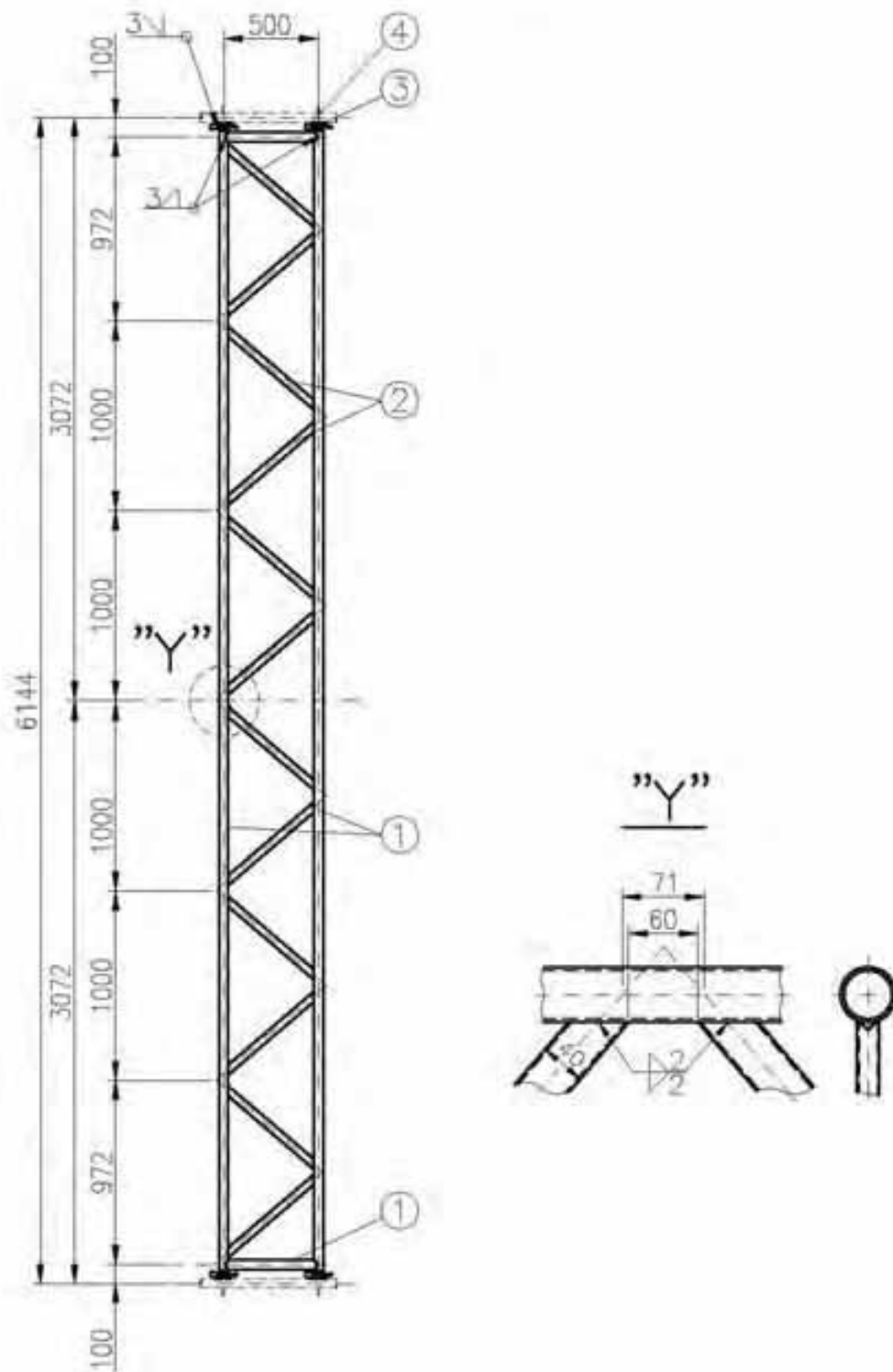
## ALBLITZ MODUL

### Modular gap cover RE

according to Z-8.22-906

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M170-B132\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 40x20x2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Tube ledger connection |         |                                 |
| (4) Wedge 6mm              | S550MC  |                                 |

galvanized



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09603 Großschirma

## ALBLITZ MODUL

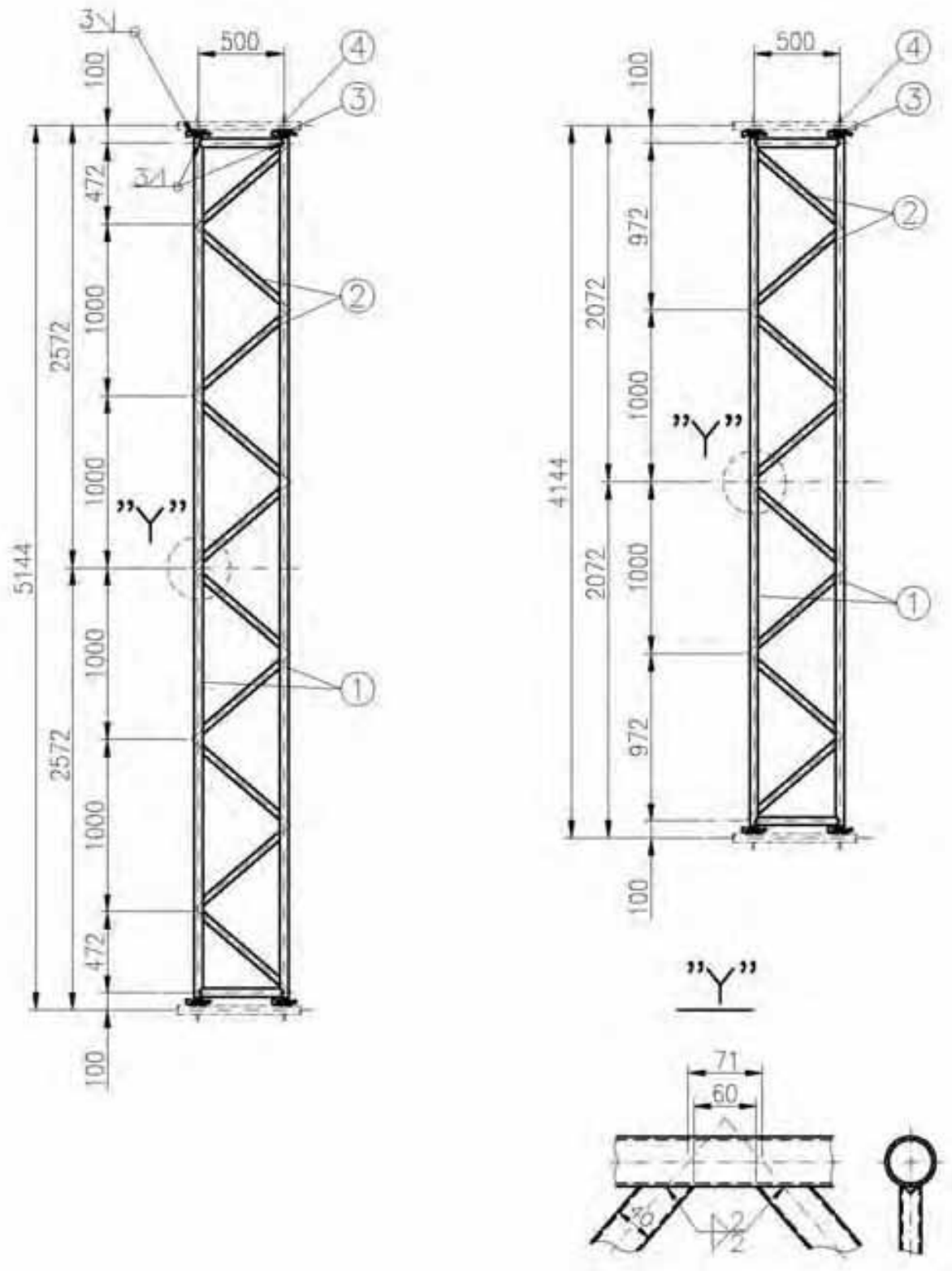
Modular lattice girder

6.14m

according to Z-8.22-906

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M710-B133\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 40x20x2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Tube ledger connection |         |                                 |
| (4) Wedge 6mm              | S550MC  |                                 |

galvanized



63828 Edelsbach  
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## ALBLITZ MODUL

Modular lattice girder

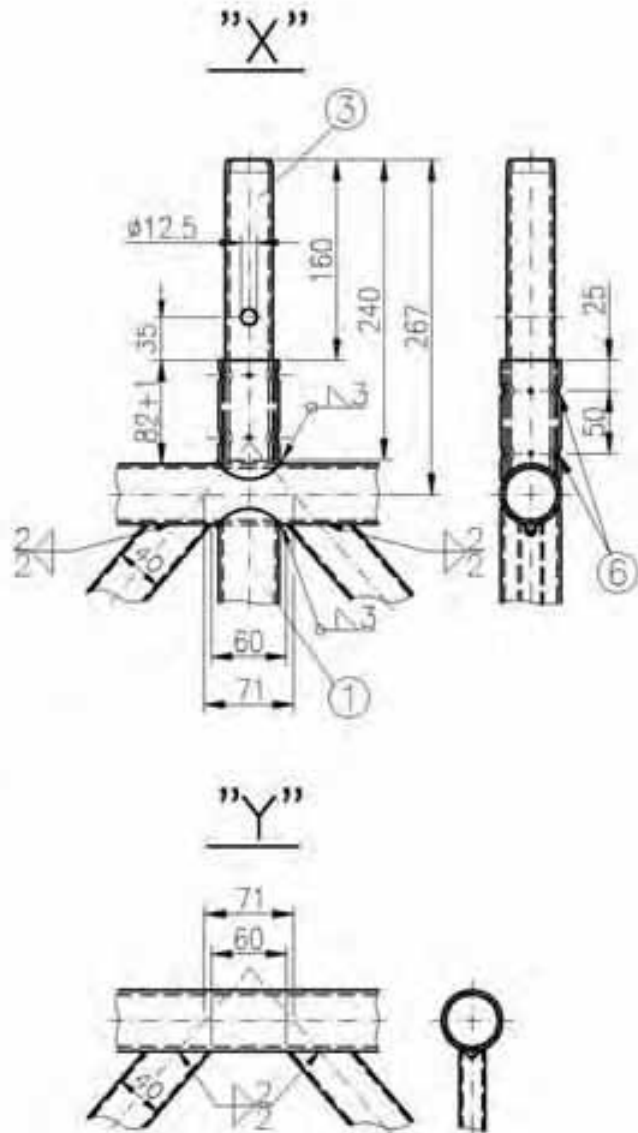
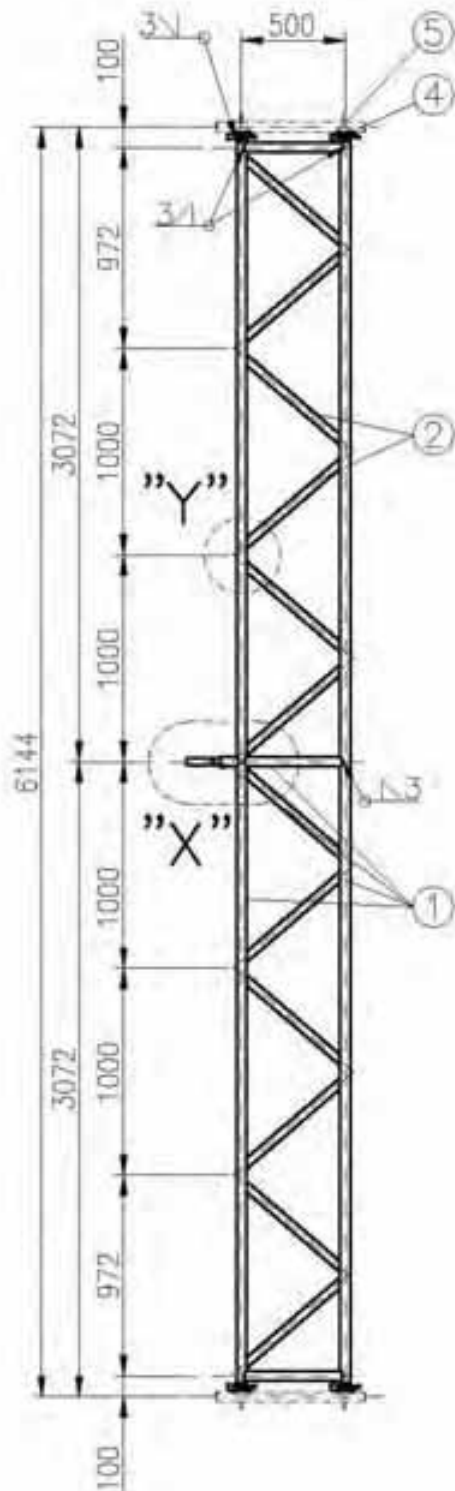
5.14m/ 4.14m

according to Z-8.22-906

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the national technical  
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M170-B134\_ABM





- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 40x20x2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) R 38x3.6               | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |
| (6) 4x point pressing      |         |                                 |

galvanized



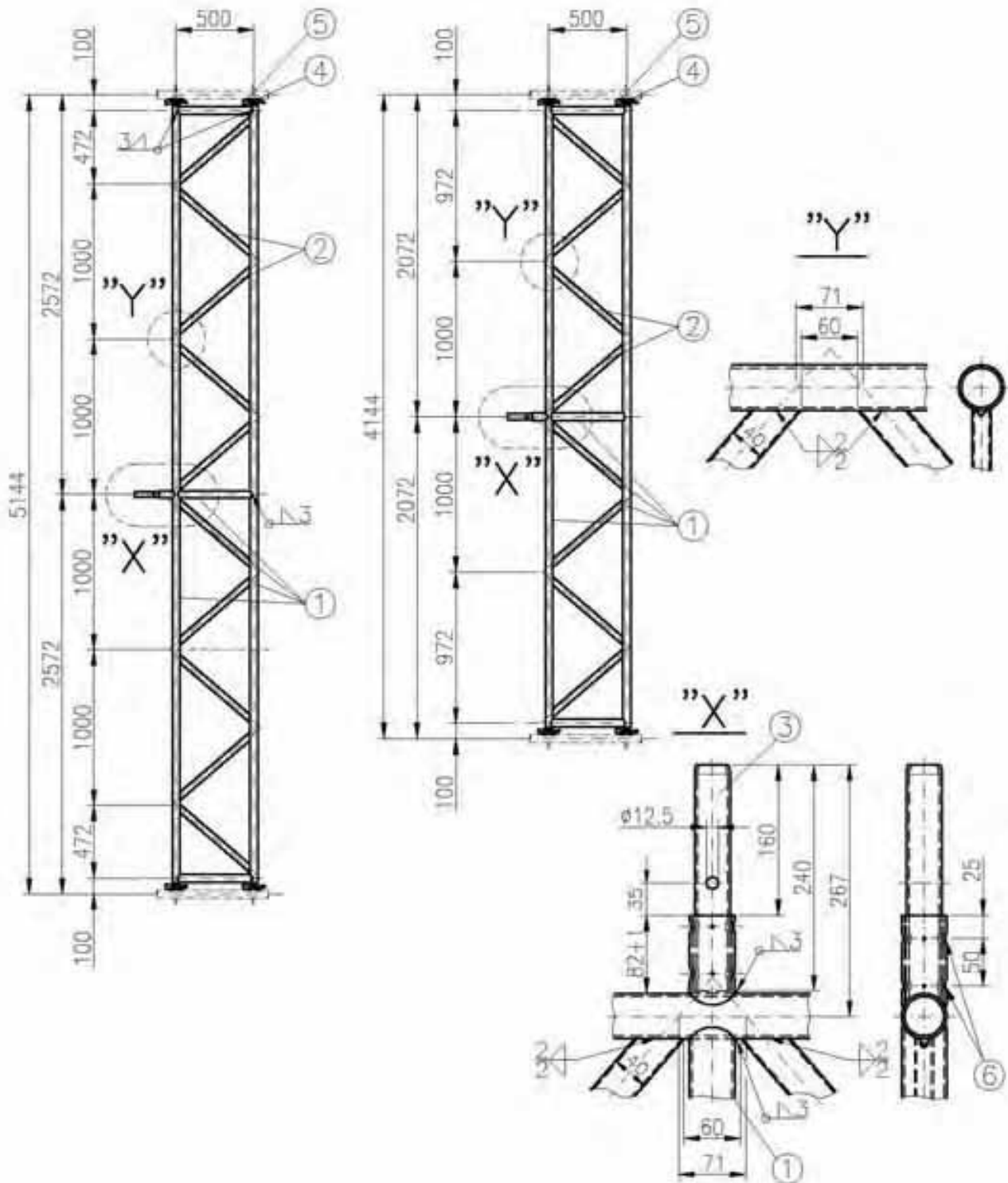
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09603 Großschirma

**ALBLITZ MODUL**  
**Modular lattice girder**  
**with spigot fitting 6.14m**

according to Z-8.22-906

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the national technical  
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M710-B135\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 40x20x2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) R 38x3.6               | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |
| (6) 4x point pressing      |         |                                 |

galvanized



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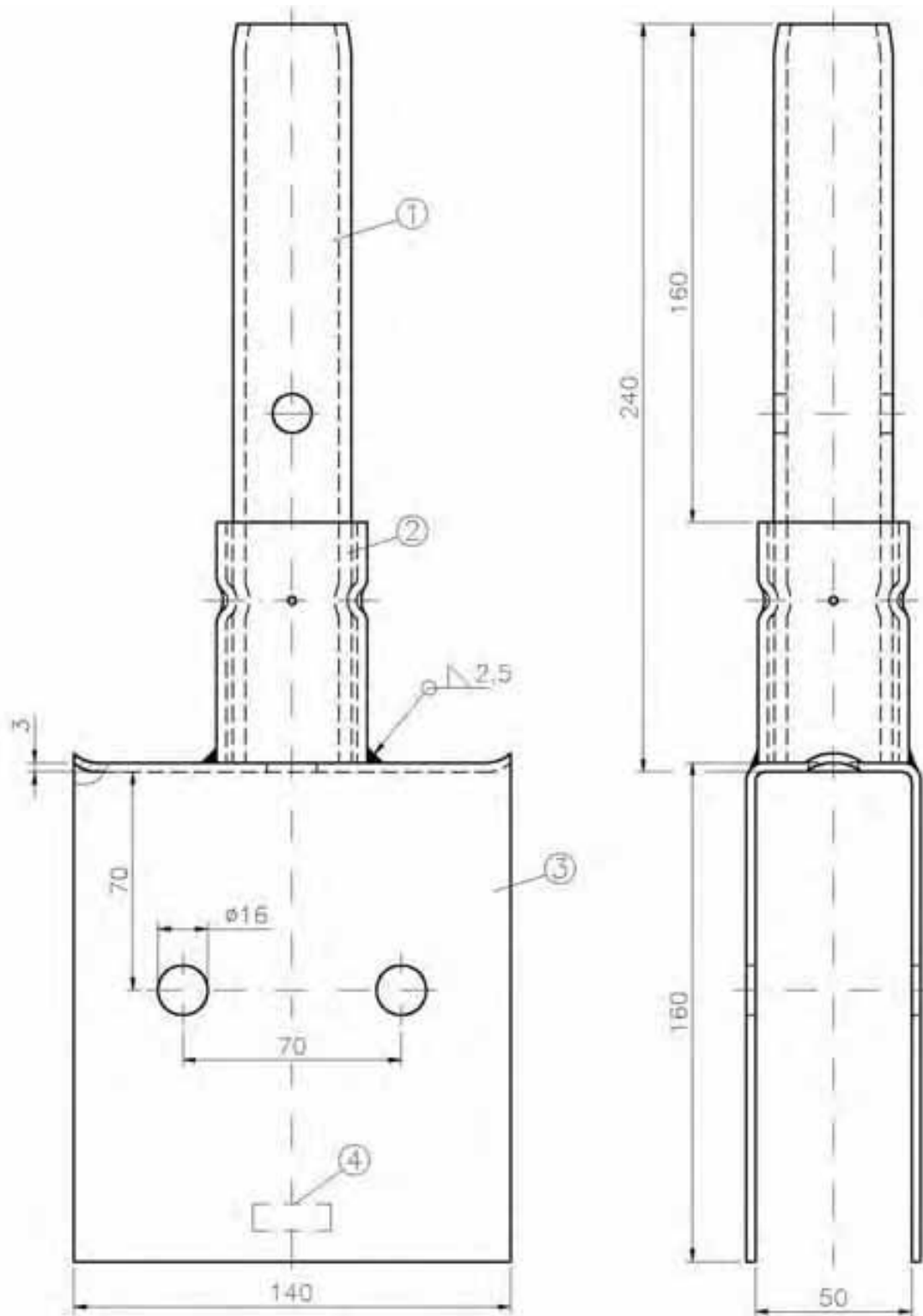
## ALBLITZ MODUL

**Modular lattice girder with  
spigot fitting 4.14m/ 5.14m**

according to Z-8.22-906

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the national technical  
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M710-B136\_ABM



- (1) R 38x3.6      S235JRH      ReH≥320N/mm<sup>2</sup>
- (2) R 48.3x3.2      S235JRH      ReH≥320N/mm<sup>2</sup>
- (3) BI 3              S235JRH
- (4) Marking

galvanized



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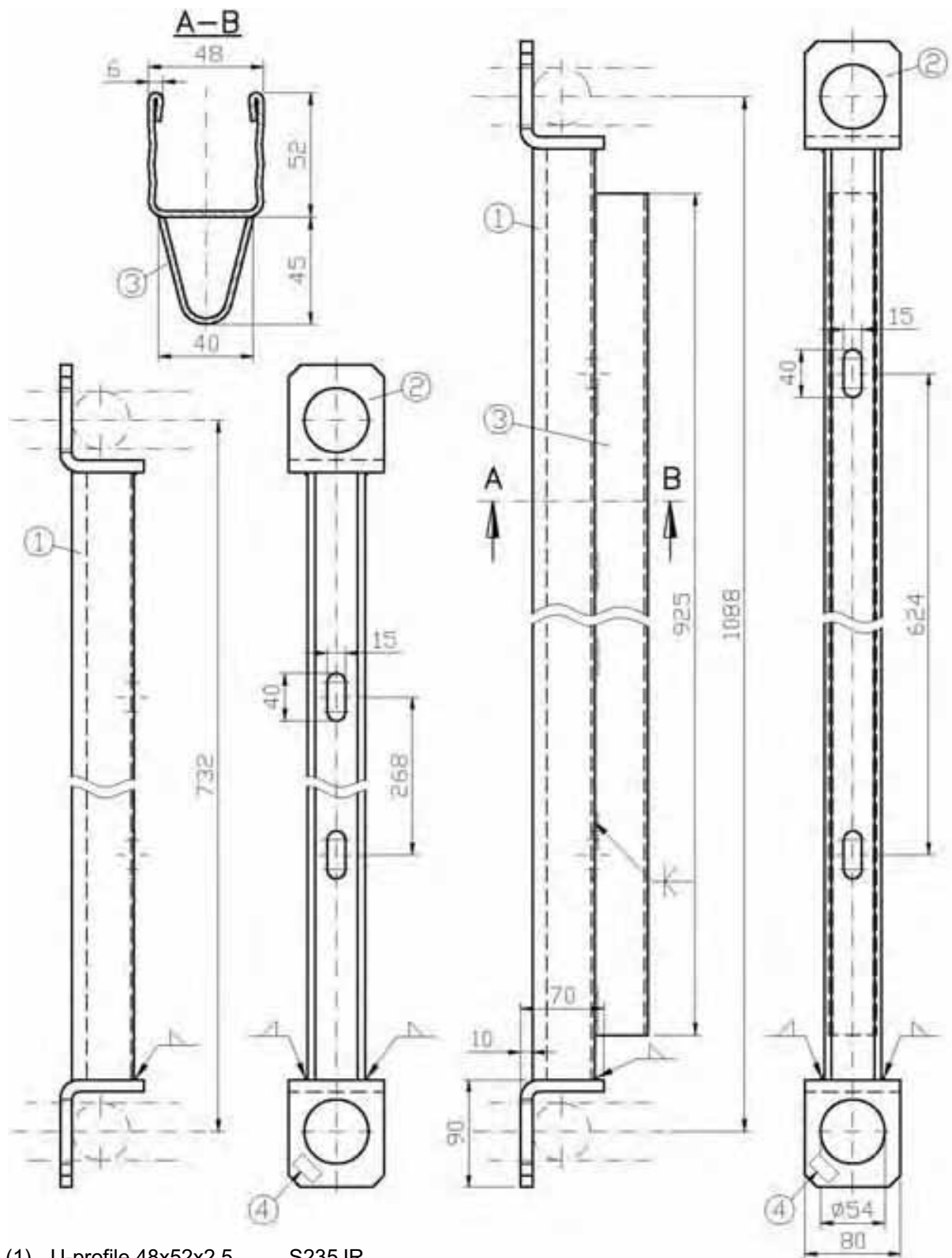
**ALBLITZ MODUL**

**Modular spigot fitting U**

according to Z-8.22-906

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M709-B137\_ABM



- |                         |        |
|-------------------------|--------|
| (1) U-profile 48x52x2.5 | S235JR |
| (2) FI 80x10            | S235JR |
| (3) BI 3                | S235JR |
| (4) Marking             |        |

galvanized; all welds a=3mm



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### ALBLITZ MODUL

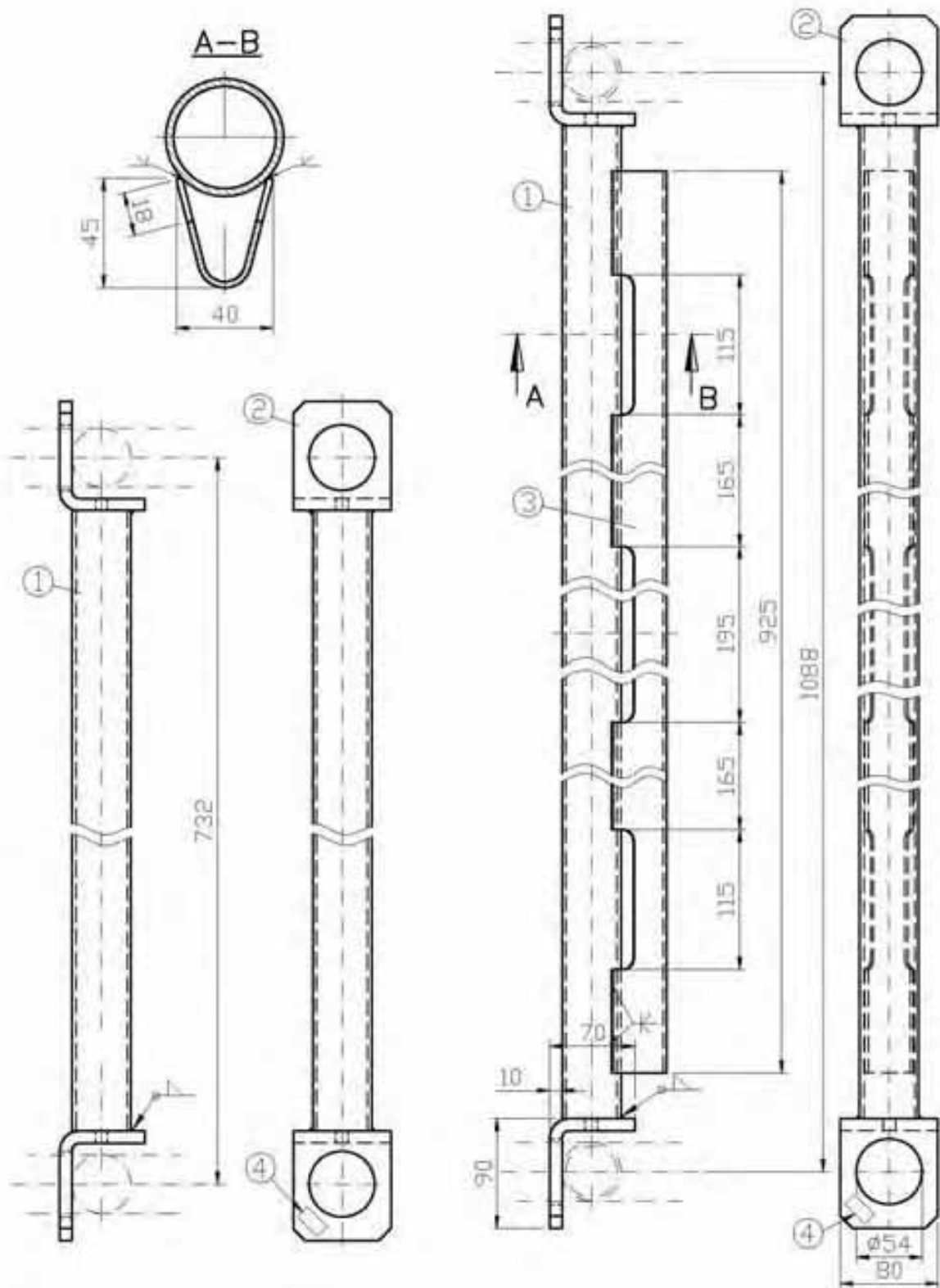
**U-transom GT 0.73m**

**U-transom GT 1.09m V**

according to Z-8.22-906

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the national technical  
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- (1) R 48.3x3.2      S235JRH      ReH $\geq$ 320N/mm<sup>2</sup>
- (2) FI 80x10        S235JR
- (3) BI 3            S235JR
- (4) Marking

galvanized; all welds a=3mm

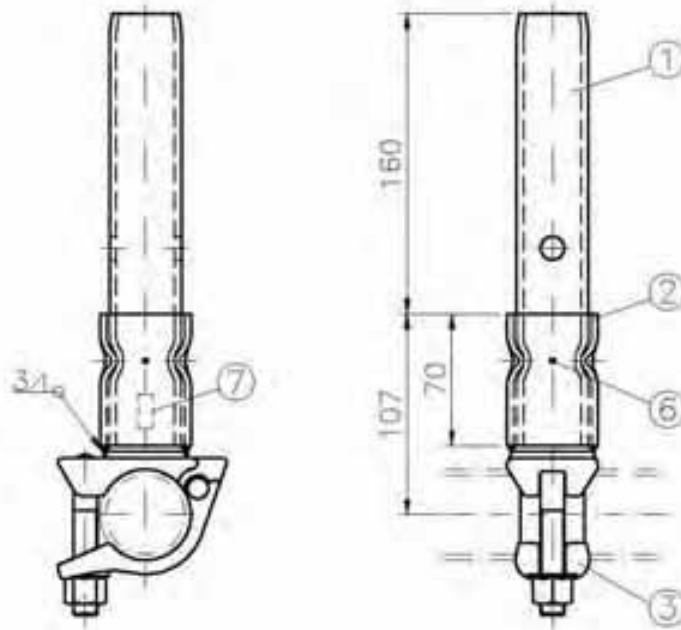


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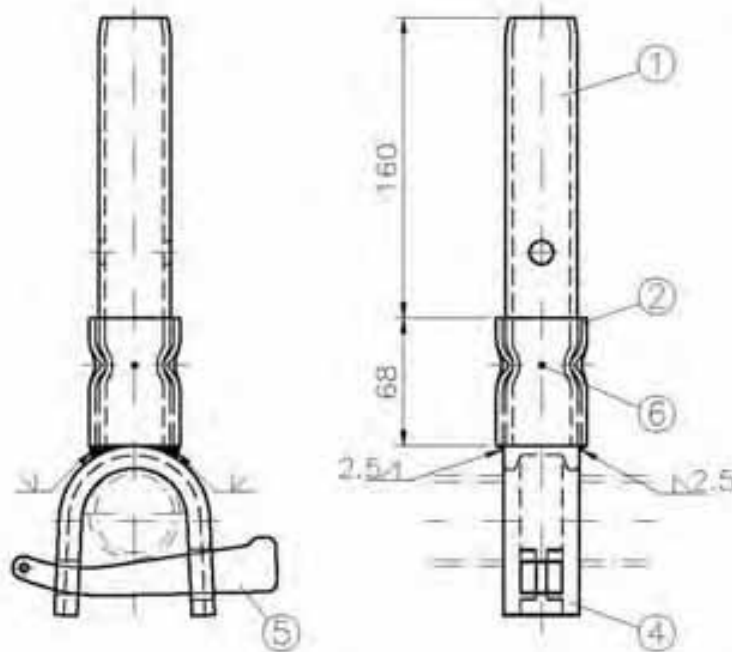
**ALBLITZ MODUL**  
**Tube transom GT 0.73m**  
**Tube transom GT 1.09m V**  
 according to Z-8.22-906

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 M710-B139\_ABm

with halfcoupler



with wedge



- |                                   |  |                                 |
|-----------------------------------|--|---------------------------------|
| (1) R 38x3.6                      | S235JRH                                  | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 48.3x3.2                    | S235JRH                                  | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Halfcoupler, class B          |  |                                 |
| (4) Double bead profile 40x12x5x7 | S235JR                                   |                                 |
| (5) Wedge 6mm                     | S550MC                                   |                                 |
| (6) 4x point pressing             | <u>alternatively:</u> 2x spot welding 12 |                                 |
| (7) Marking                       |  |                                 |

galvanized



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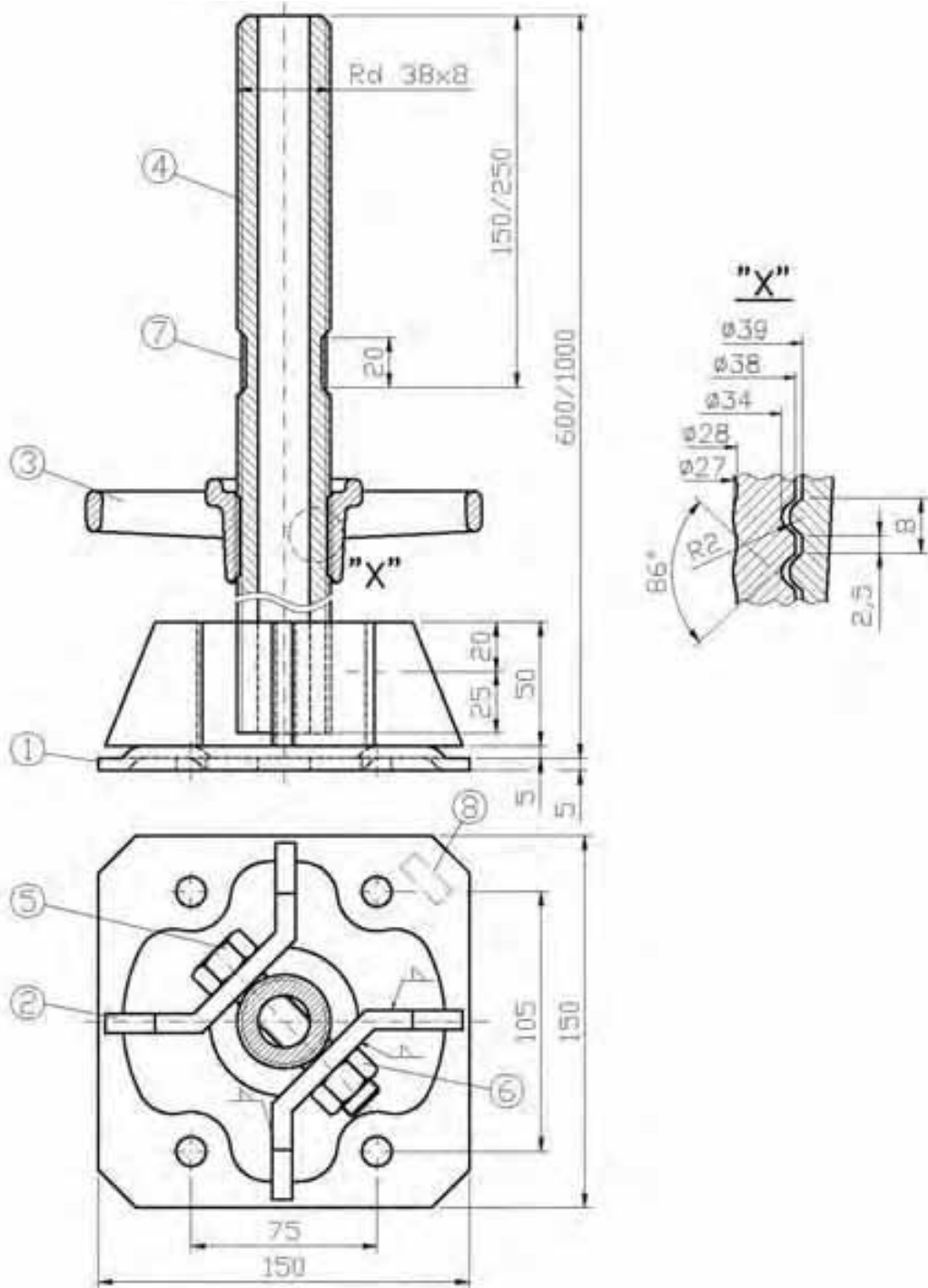
**ALBLITZ MODUL**

**Modular spigot fitting**

according to Z-8.22-906

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M709-B140\_ABM



- |   |                                |
|---|--------------------------------|
| (1) Bl t=5mm  | S235JR                         |
| (2) Fl 50x8   | S235JR                         |
| (3) Adjusting nut, zinc-plated                        | G20Mn5 DIN EN 10293            |
| (4) Thread rolled on tube $\varnothing 38 \times 4.5$ | S355J2H                        |
| (5) Hex nut, self-locking                             | DIN 985-M16-8- galvanized      |
| (6) Hexagon screw                                     | DIN 931-M16x75-8.8- galvanized |
| (7) Thread damaged by two dents                       |                                |
| (8) Marking   |                                |

galvanized; all welds a=3mm



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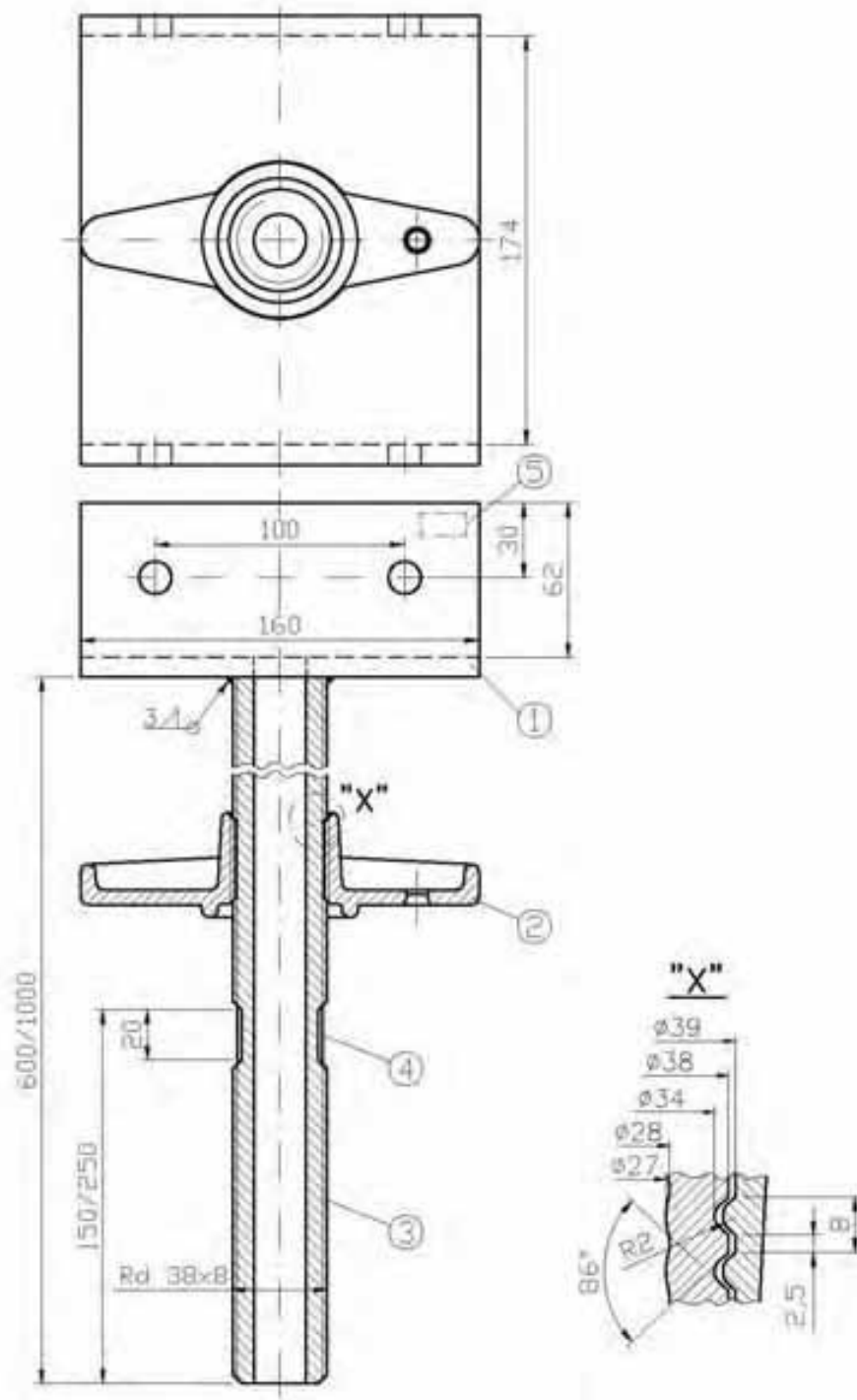
## ALBLITZ MODUL

**Base jack,  
swivelling**

according Z-8.22-906

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M710-B141\_ABM



- |   |                     |
|---|---------------------|
| (1) Bl t=8mm  | S235JR              |
| (2) Adjusting nut, zinc-plated                        | G20Mn5 DIN EN 10293 |
| (3) Thread rolled on tube $\varnothing 38 \times 4.5$ | S355J2H             |
| (4) Thread damaged by two dents                       |                     |
| (5) Marking   |                     |

galvanized



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## ALBLITZ MODUL

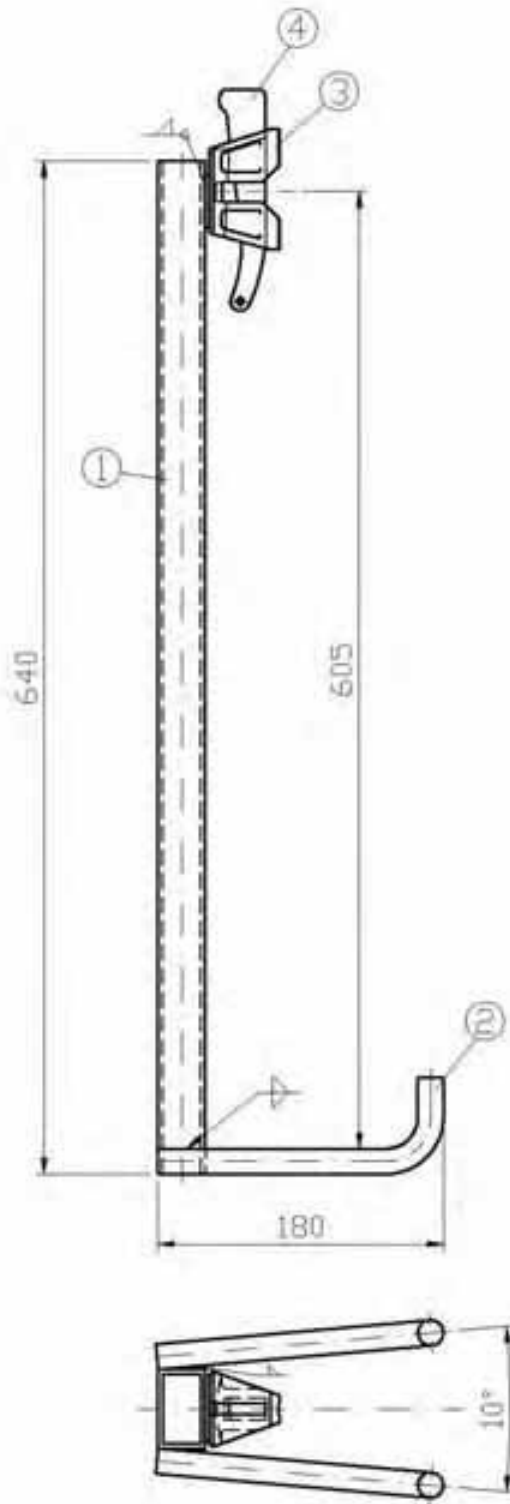
### Head spindle U

according to Z-8.22-906

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M710-B142\_ABM





- |                         |         |
|-------------------------|---------|
| (1) RV 50x30x3          | S235JRH |
| (2) Rd 16               | S235JR  |
| (3) U-ledger connection |         |
| (4) Wedge 6mm           | S550MC  |

galvanized; all welds a=3mm



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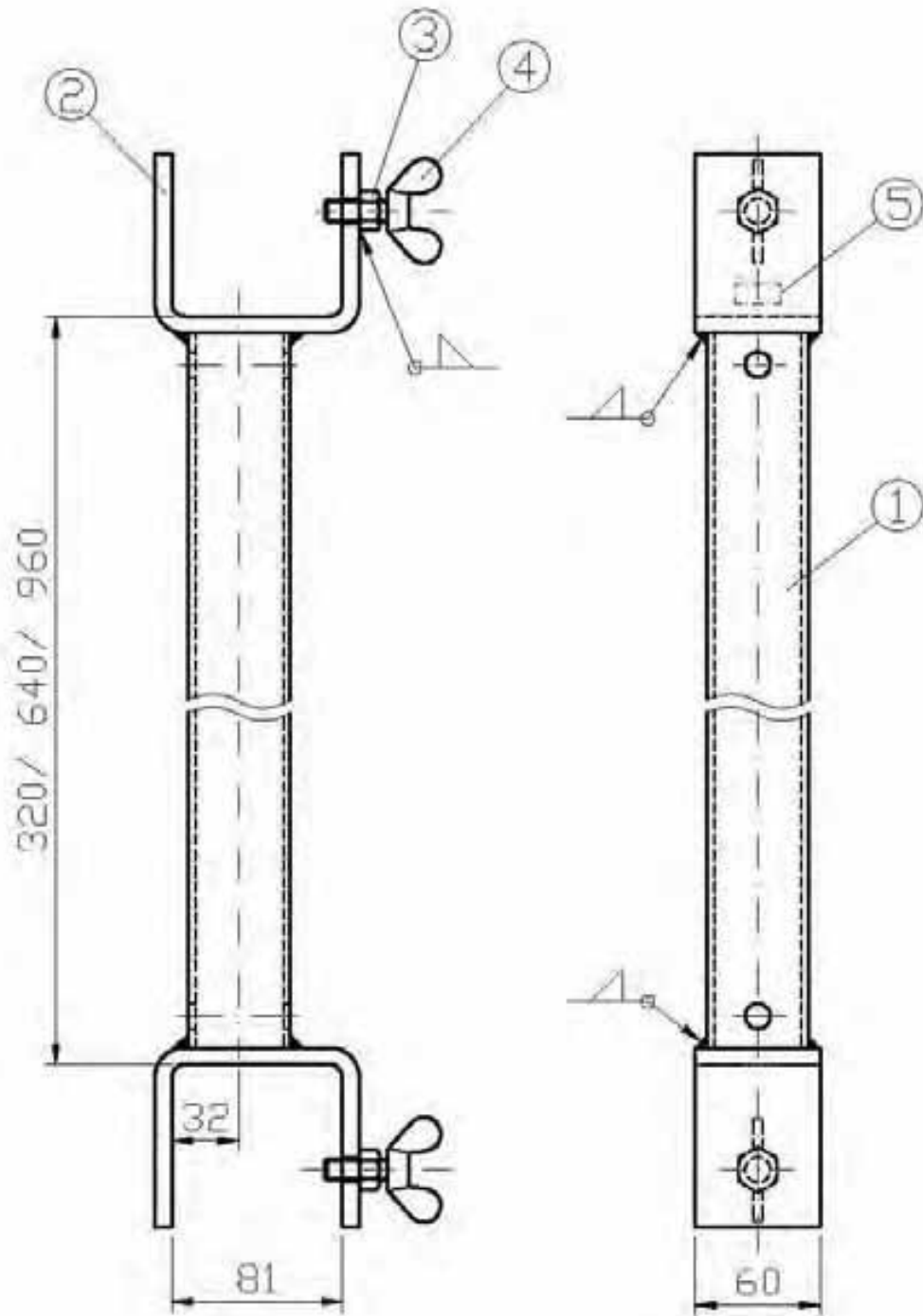
## ALBLITZ MODUL

Locking device for  
base jack

according to Z-8.22-906

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M710-B143\_ABM



- |                      |                                    |                                 |
|----------------------|------------------------------------|---------------------------------|
| (1) R 48.3x3.2       | S235JRH                            | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) Bl t=8mm         | S355MC                             |                                 |
| (3) Hexagon weld nut | DIN 929 – M10-steel                |                                 |
| (4) Wing screw       | DIN 316 – M10x30-steel, galvanized |                                 |
| (5) Marking          |                                    |                                 |

galvanized; all welds a=3mm



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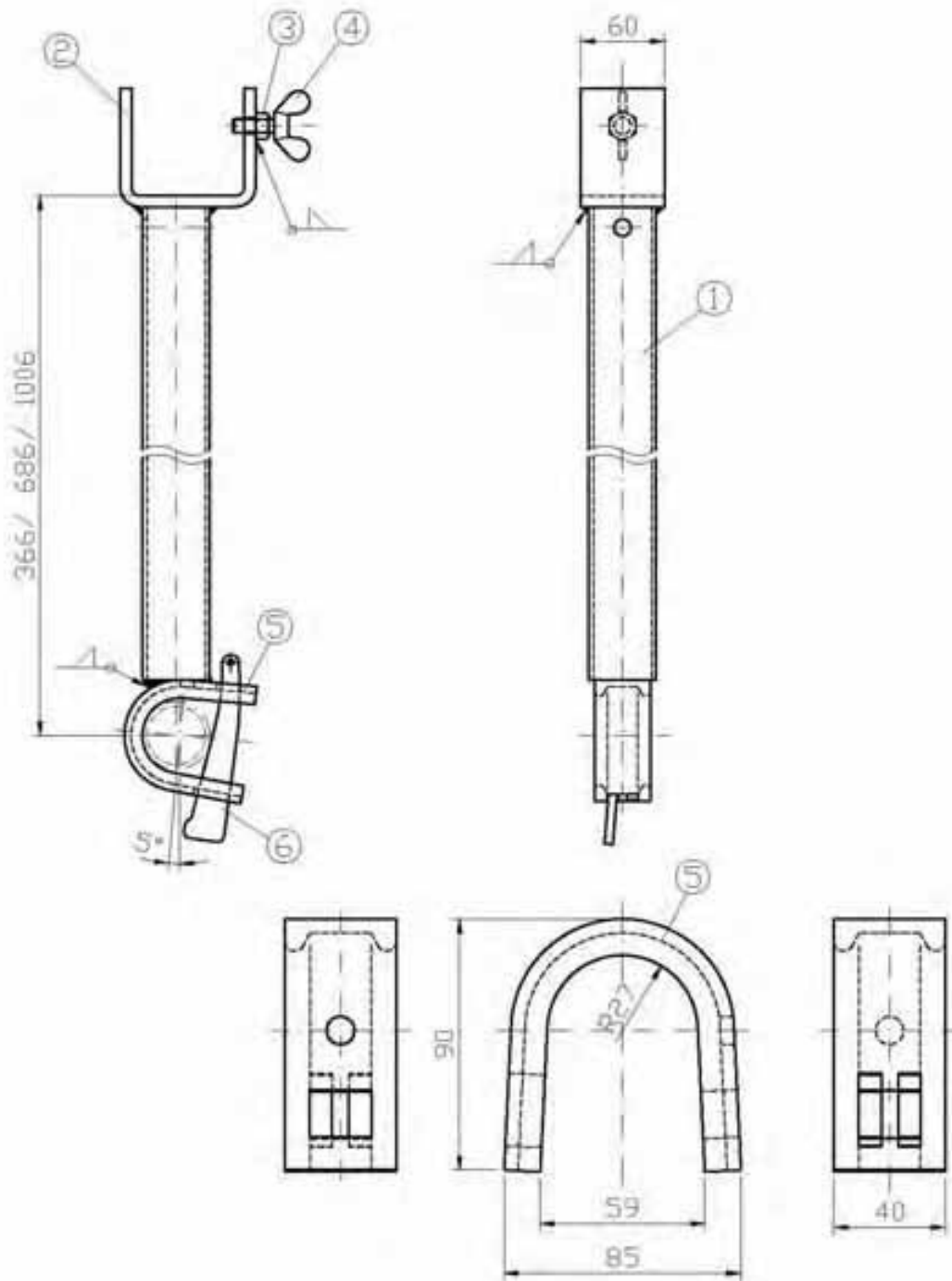
## ALBLITZ MODUL

Intermediate deck ledger RE –M

according to Z-8.22-906

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M710-B144\_ABM



- |                                     |                                    |                                 |
|-------------------------------------|------------------------------------|---------------------------------|
| (1) R 48.3x3.2                      | S235JRH                            | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) Bl t=8mm                        | S355MC                             |                                 |
| (3) Hexagon weld nut                | DIN 929 - M10-steel                |                                 |
| (4) Wing screw                      | DIN 316 - M10x30-steel, galvanized |                                 |
| (5) Double bead profile 40x13x5x6.5 | S235JR                             |                                 |
| (6) Wedge 6mm                       | S550MC                             |                                 |

galvanized; all welds a=3mm



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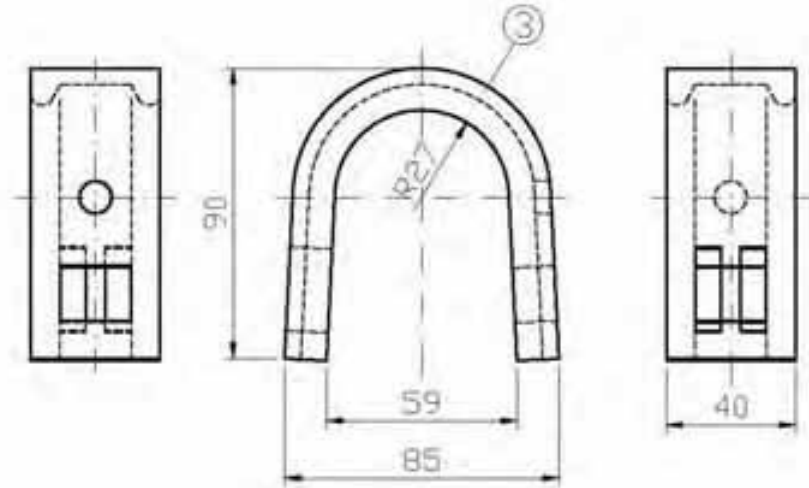
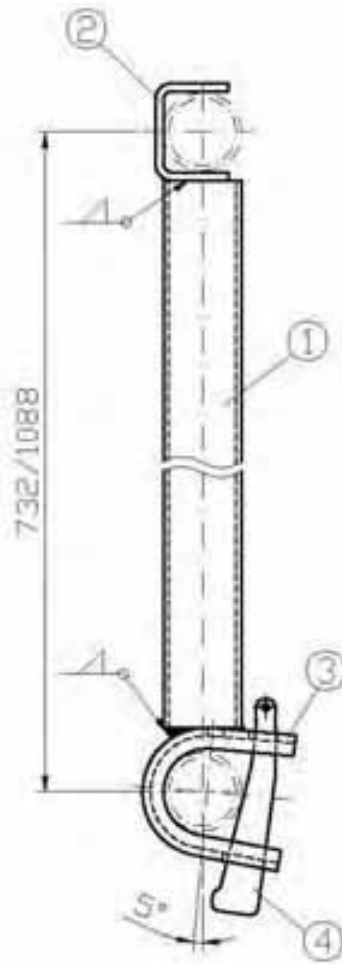
## ALBLITZ MODUL

Intermediate deck ledger RE -R

according to Z-8.22-906

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M710-B145\_ABM



- (1) R 48.3x3.2
- (2) Bd 50x5
- (3) Double bead profile 40x13x5x6.5
- (4) Wedge 6mm

S235JRH     $ReH \geq 320 N/mm^2$   
 S235JR  
 S235JR  
 S550MC

galvanized; all welds a=3mm



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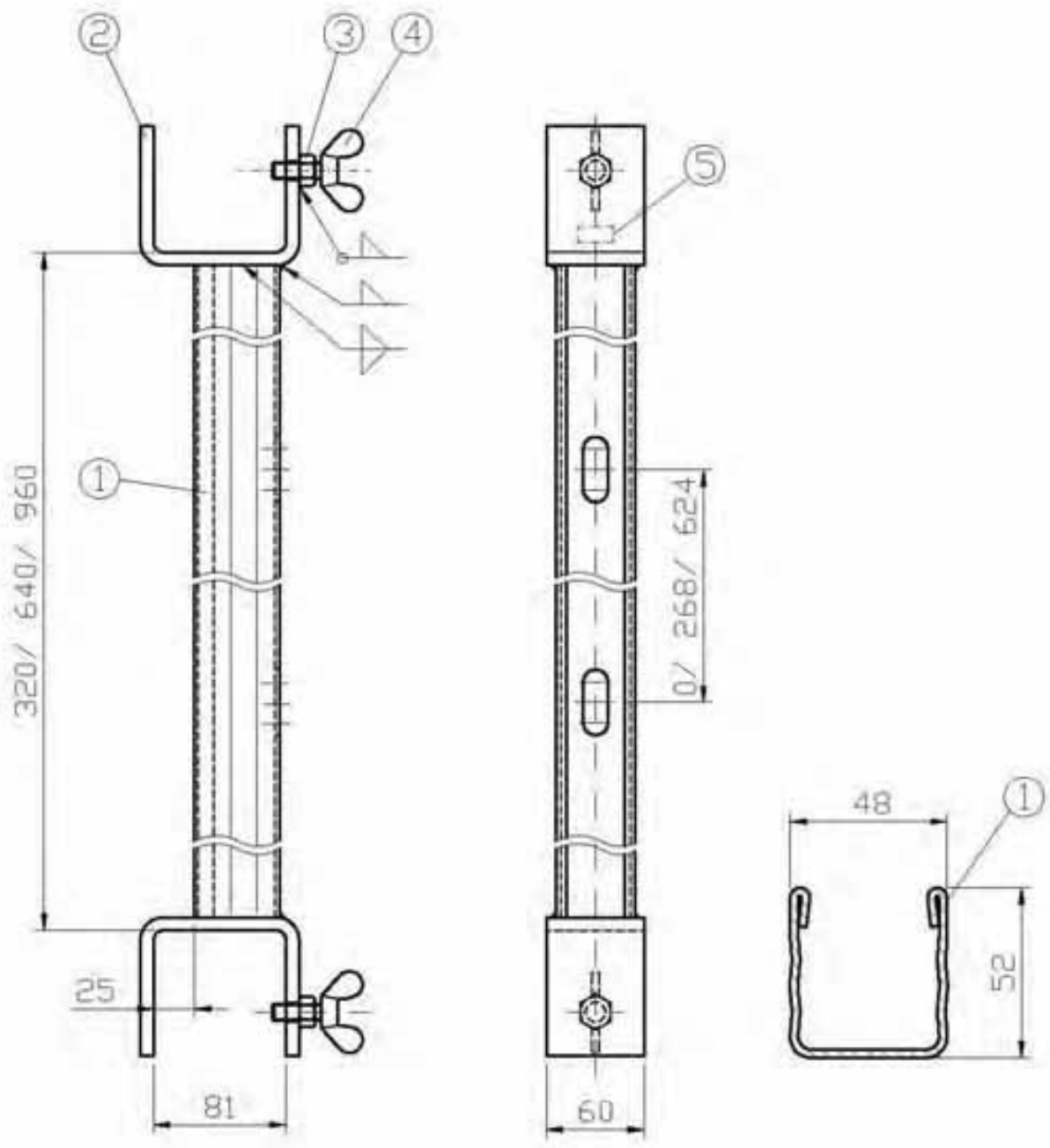
### ALBLITZ MODUL

Decking and planking  
 ledger RE

according to Z-8.22-906


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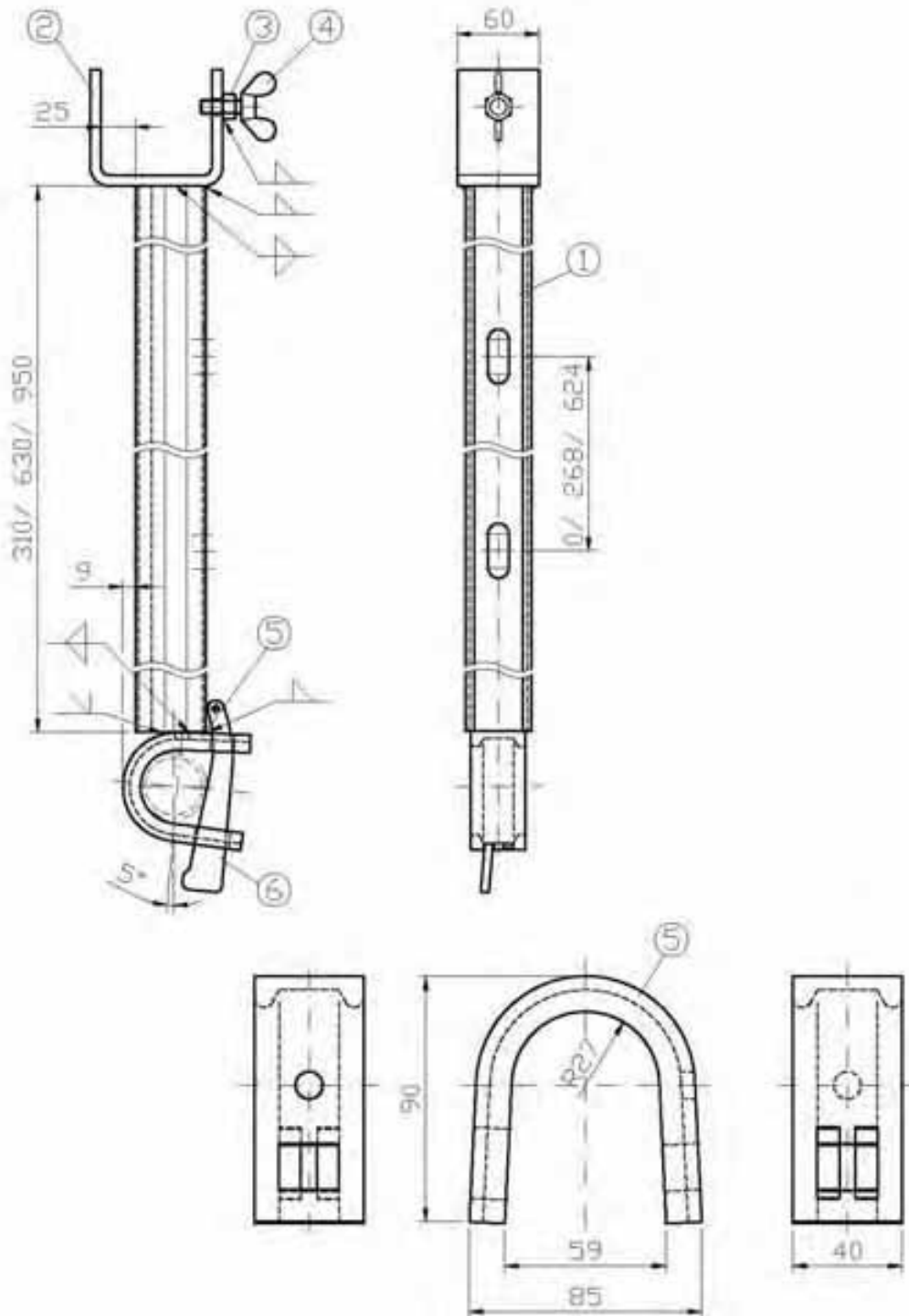
M710-B146\_ABM



- (1) U-profile 48x52x2.5      S235JR
- (2) BL t=8mm                S235JR
- (3) Hexagon weld nut        DIN 929 – M10-steel
- (4) Wing screw                DIN 316 - M10x30-steel, galvanized
- (5) Marking

galvanized; all welds a=3mm

 <p style="font-size: small;">63828 Edelbach 09603 Großschirma</p>	<p><b>ALBLITZ MODUL</b></p> <p><b>Intermediate deck ledger –M</b></p> <p>according to Z-8.22-906</p>	<p style="font-size: x-small;">Annex B, page 49 to the national technical approval Z-8.22-913 of 7. May 2012 Deutsches Institut für Bautechnik</p> <p style="font-size: small;">M710-B147_ABM</p>
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- |                                     |                                    |
|-------------------------------------|------------------------------------|
| (1) U-profile 48x52x2.5             | S235JR                             |
| (2) Bl t=8mm                        | S235JR                             |
| (3) Hexagon weld nut                | DIN 929 – M10-steel                |
| (4) Wing screw                      | DIN 316 – M10x39-steel, galvanized |
| (5) Double bead profile 40x13x5x6.5 | S235JR                             |
| (6) Wedge 6mm                       | S550MC                             |

galvanized; all welds a=3mm



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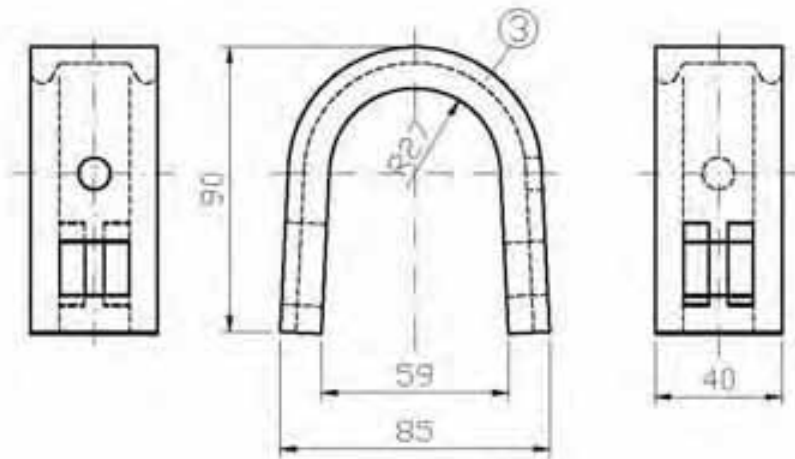
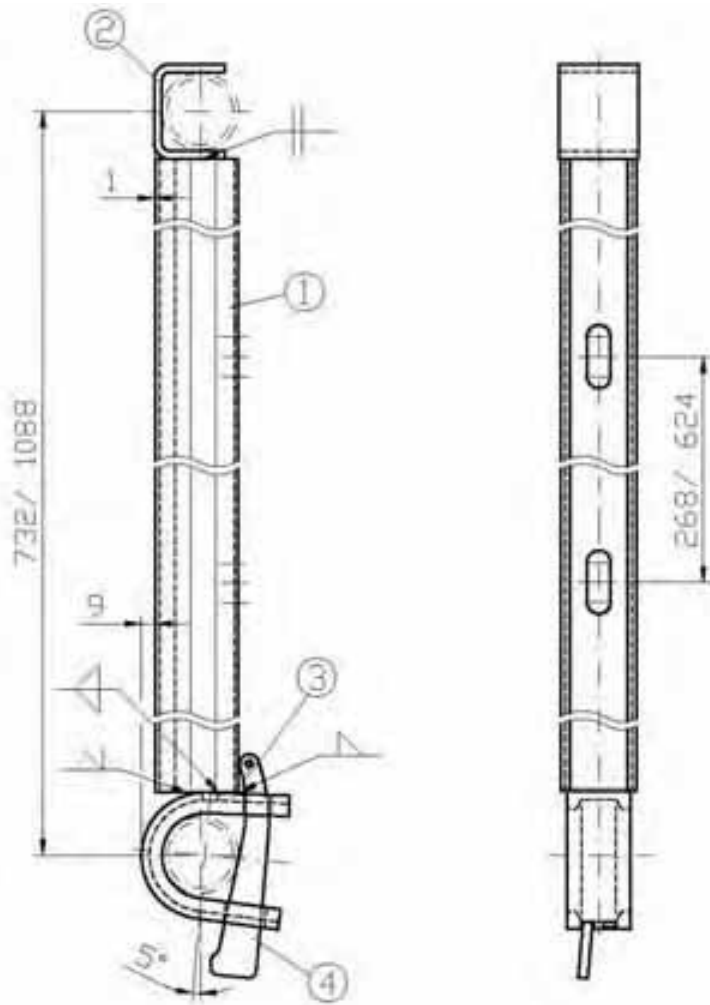
## ALBLITZ MODUL

### Intermediate deck ledger –R

according to Z-8.22-906

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M710-B148\_ABM



- |                                     |        |
|-------------------------------------|--------|
| (1) U-profile 48x52x2.5             | S235JR |
| (2) Bd 50x5                         | S235JR |
| (3) Double bead profile 40x13x5x6.5 | S235JR |
| (4) Wedge 6mm                       | S550MC |

galvanized; all welds a=3mm



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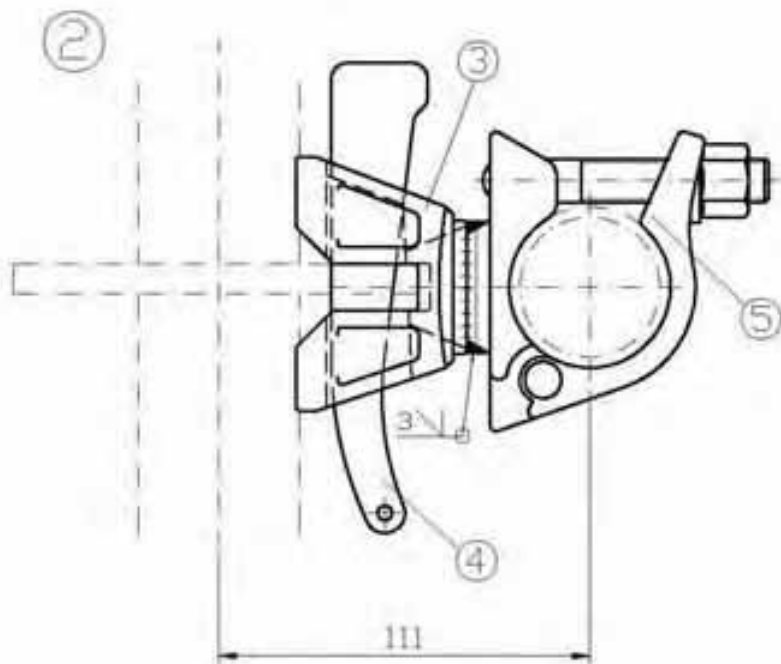
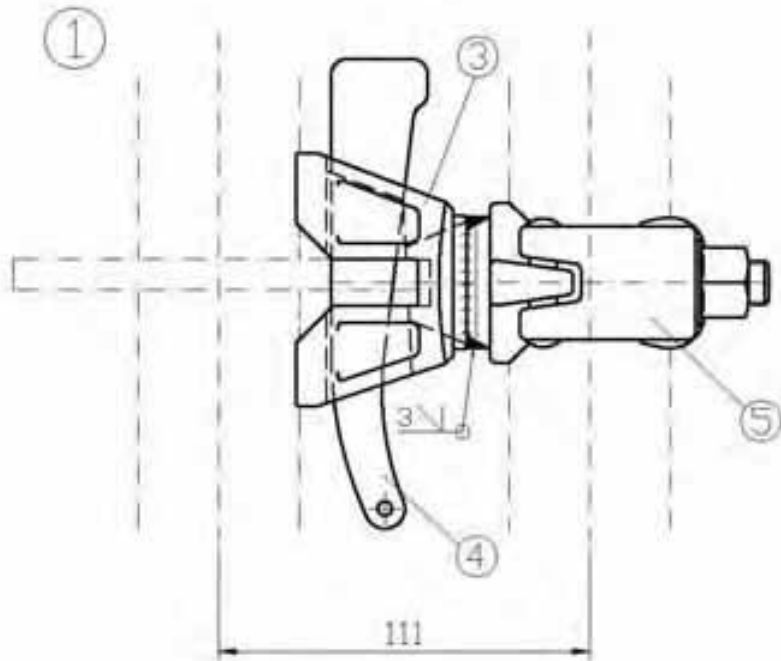
### ALBLITZ MODUL

Decking and planking ledger

according to Z-8.22-906

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M710-B149\_ABM



- (1) Wedge head coupler, fixed parallel
- (2) Wedge head coupler, fixed rectangular
- (3) Tube ledger connection
- (4) Wedge 6mm S550MC
- (5) Halfcoupler, class B

galvanized



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### ALBLITZ MODUL

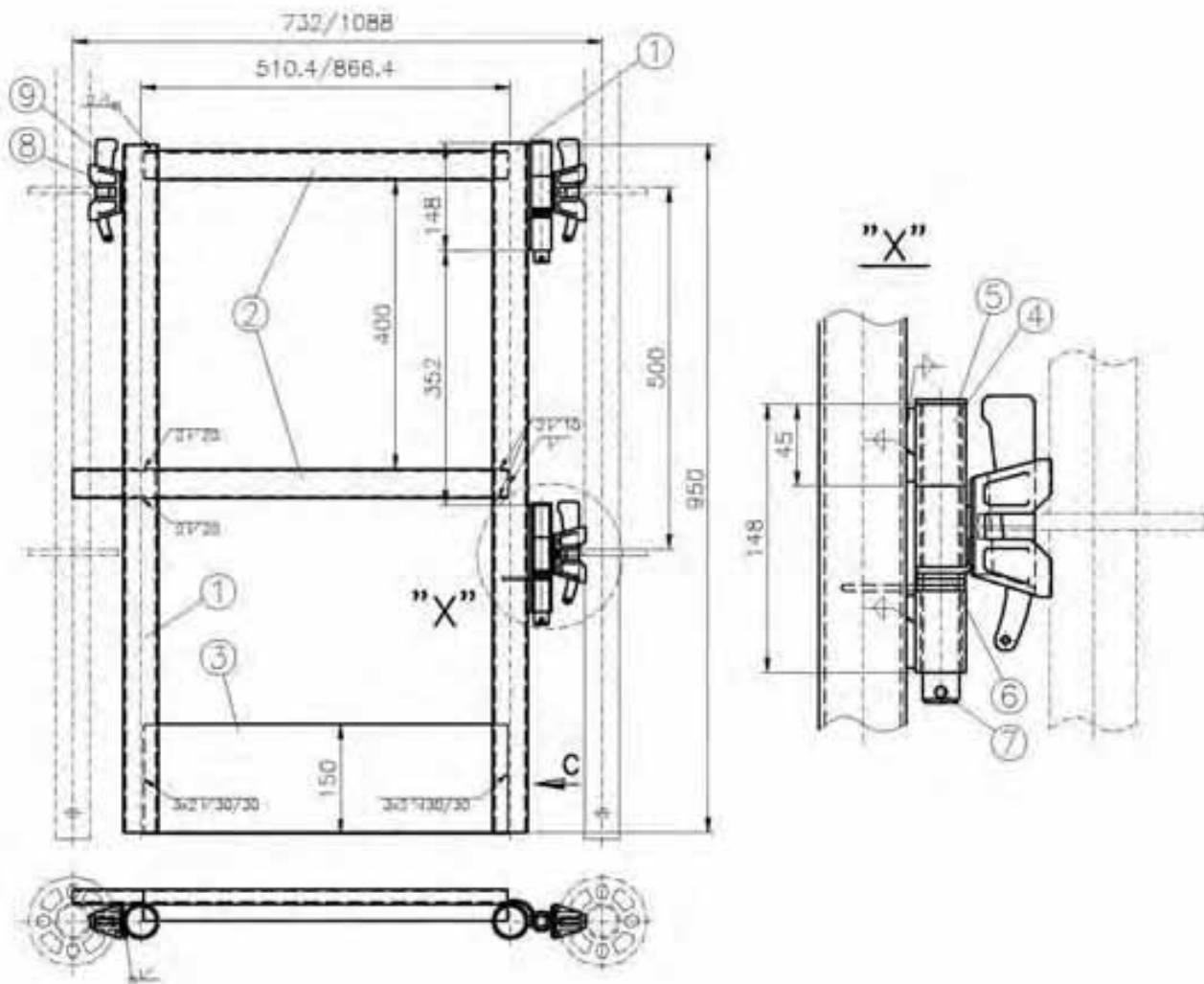
**Wedge head coupler, fixed**

according to Z-8.22-906

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M710-B150\_ABM





- |                         |         |                                 |
|-------------------------|---------|---------------------------------|
| (1) R 48.3x2.7          | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 40x20x2          | S235JRH |                                 |
| (3) BI 1.5              | S235JR  |                                 |
| (4) R 28x2.5            | S235JRH | DIN 2394                        |
| (5) Hinge pin           |         |                                 |
| (6) Spring              |         |                                 |
| (7) Cotter pin          | DIN 94  | 4x40-steel, galvanized          |
| (8) U-ledger connection |         |                                 |
| (9) Wedge 6mm           | S550MC  |                                 |

galvanized



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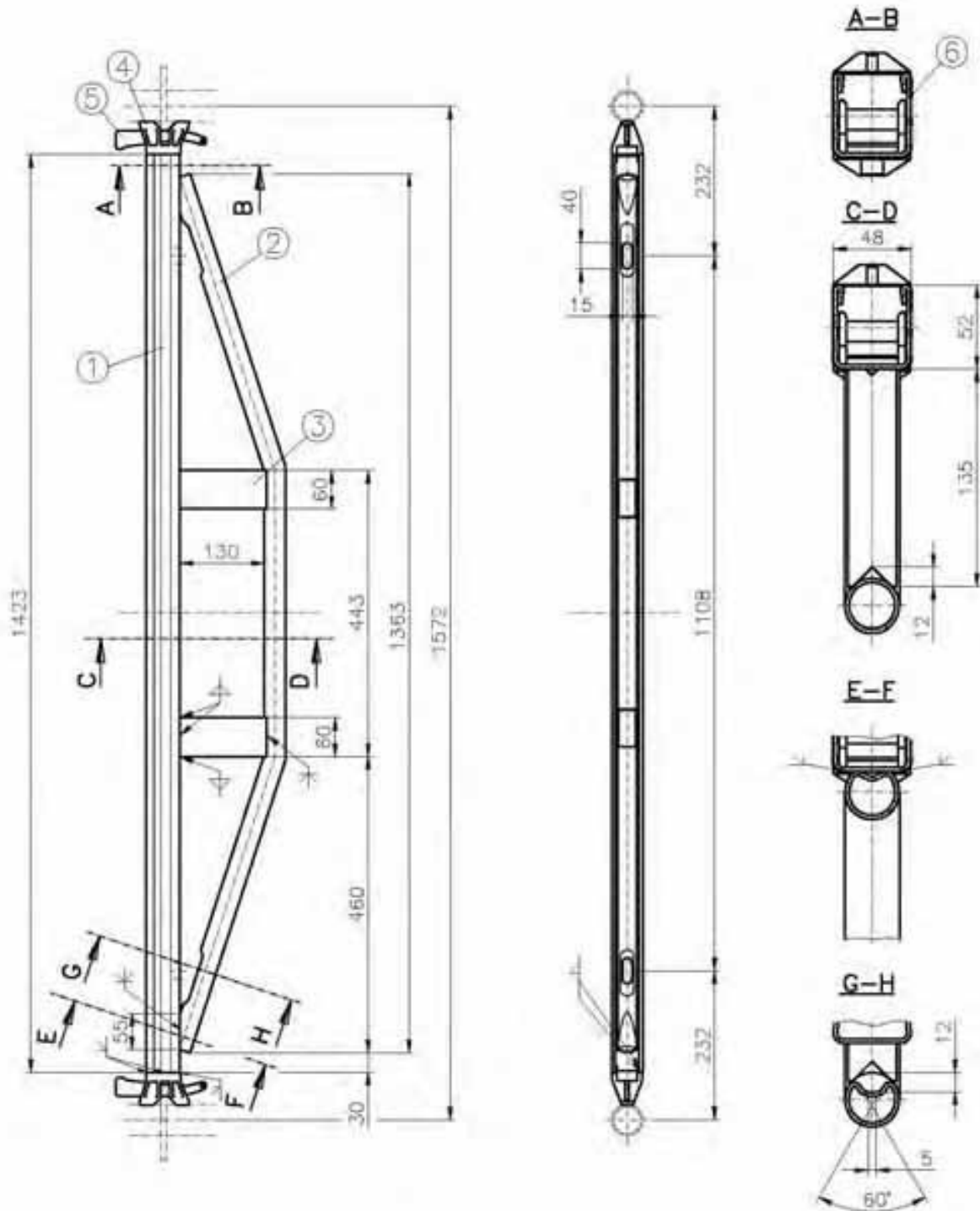
**ALBLITZ MODUL**

**Modular safety door**

according to Z-8.22-906

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M710-B151\_ABM



- (1) U-profile 48x52x2.5    S235JR
- (2) R 33.7x2.6            S235JRH    ReH $\geq$ 320N/mm<sup>2</sup>
- (3) RV 60x30x2            S235JR
- (4) U-ledger connection
- (5) Wedge 6mm            S550MC
- (6) Welded area

galvanized; all fillet welds a=2.5mm; all single-V butts a=3mm



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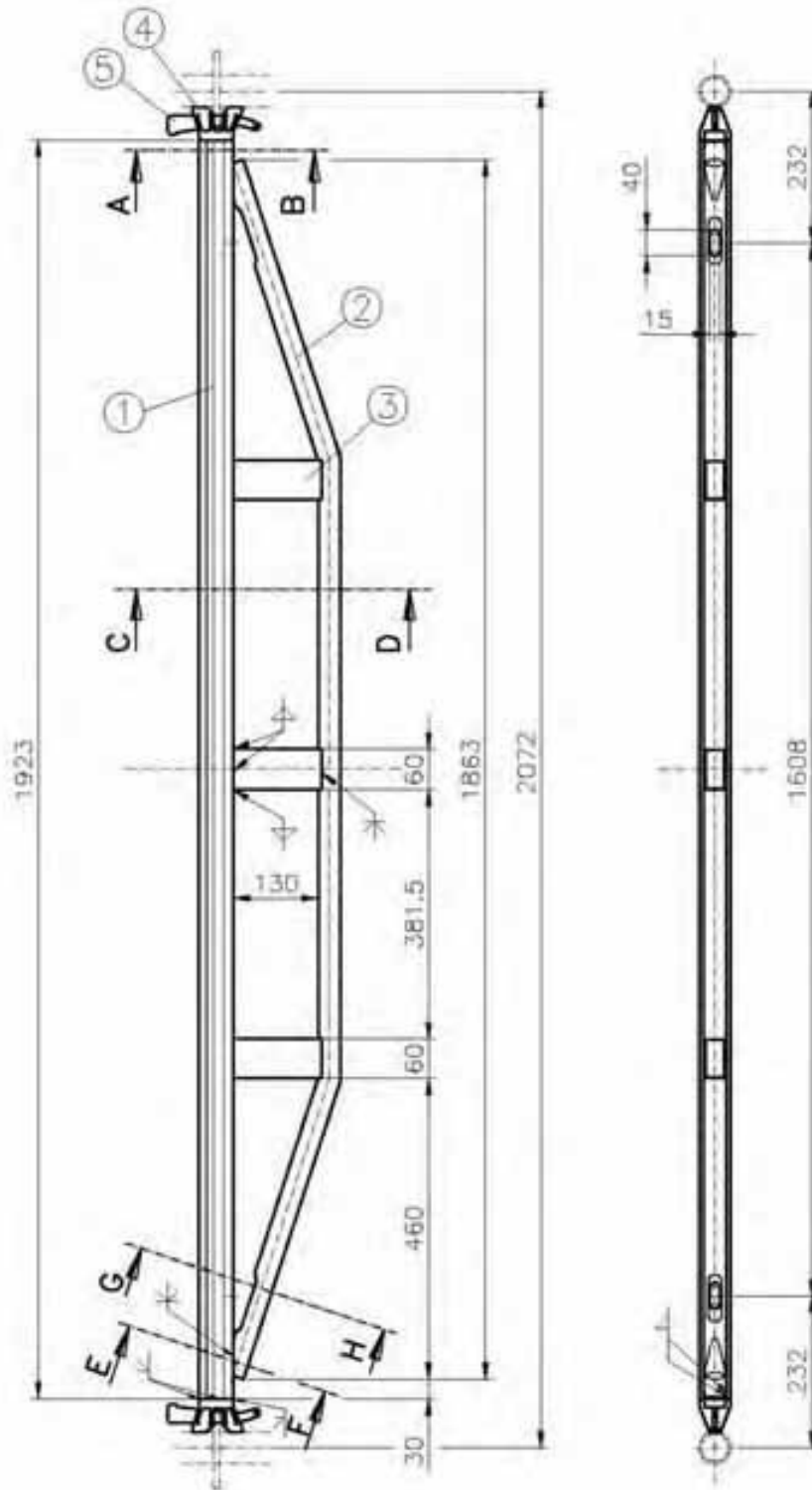
### ALBLITZ MODUL

#### U-bridging ledger 1.57m

according to Z-8.22-906

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M710-B152\_ABM



- |     |                     |   |
|-----|---------------------|---|
| (1) | U-profile 48x52x2.5 | S235JR                                  |
| (2) | R 33.7x2.6          | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) | RV 60x30x2          | S235JR                                  |
| (4) | U-ledger connection |   |
| (5) | Wedge 6mm           | S550MC                                  |

galvanized; all fillet welds a=2.5mm; all single-V butts



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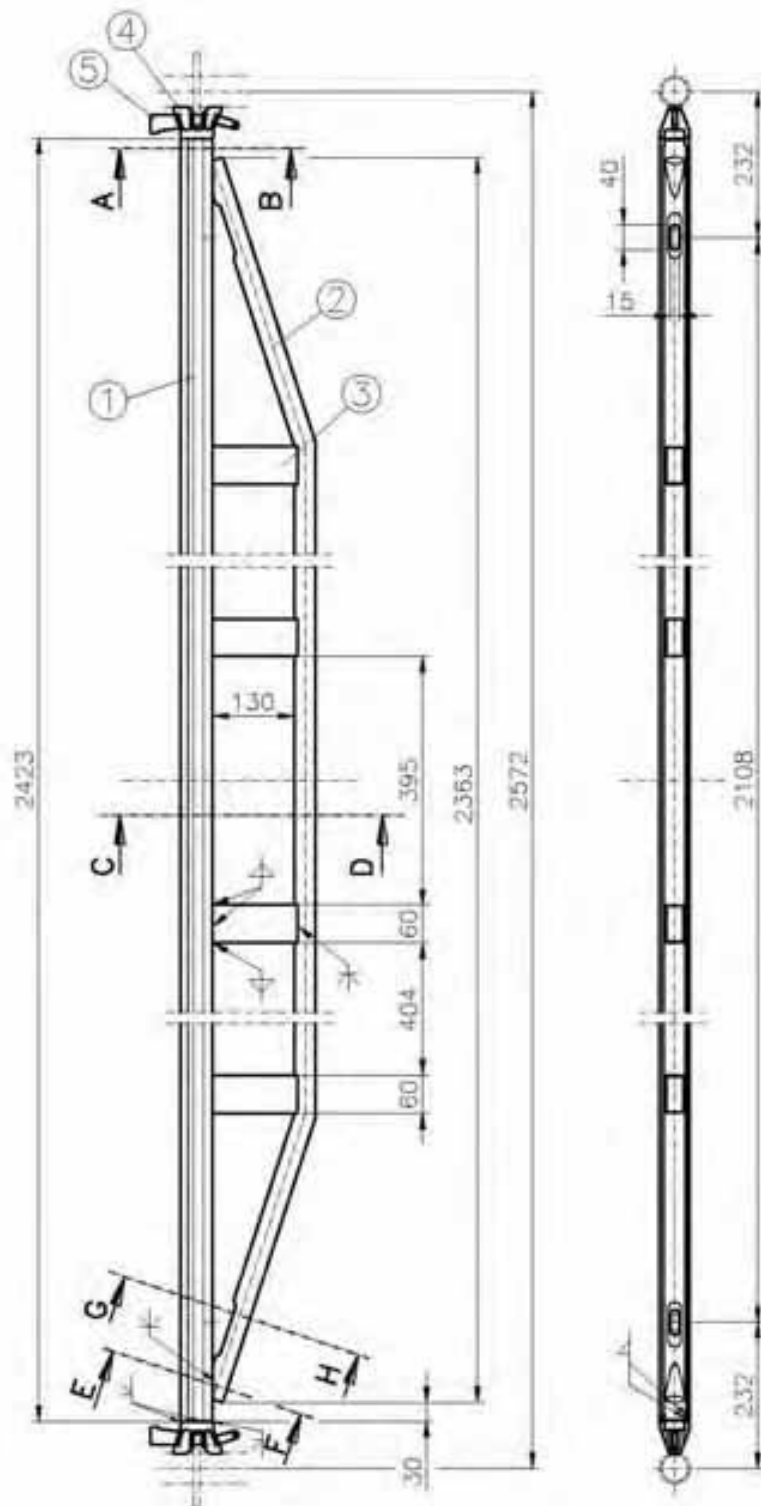
## ALBLITZ MODUL

### U-bridging ledger 2.07m

according to Z-8.22-906

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M710-B153\_ABM



- |                         |   |
|-------------------------|---|
| (1) U-profile 48x52x2.5 | S235JR                                  |
| (2) R 33.7x2.6          | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) RV 60x30x2          | S235JR                                  |
| (4) U-ledger connection |   |
| (5) Wedge 6mm           | S550MC                                  |

galvanized; all fillet welds a=2.5mm; all single-V butts a=3mm



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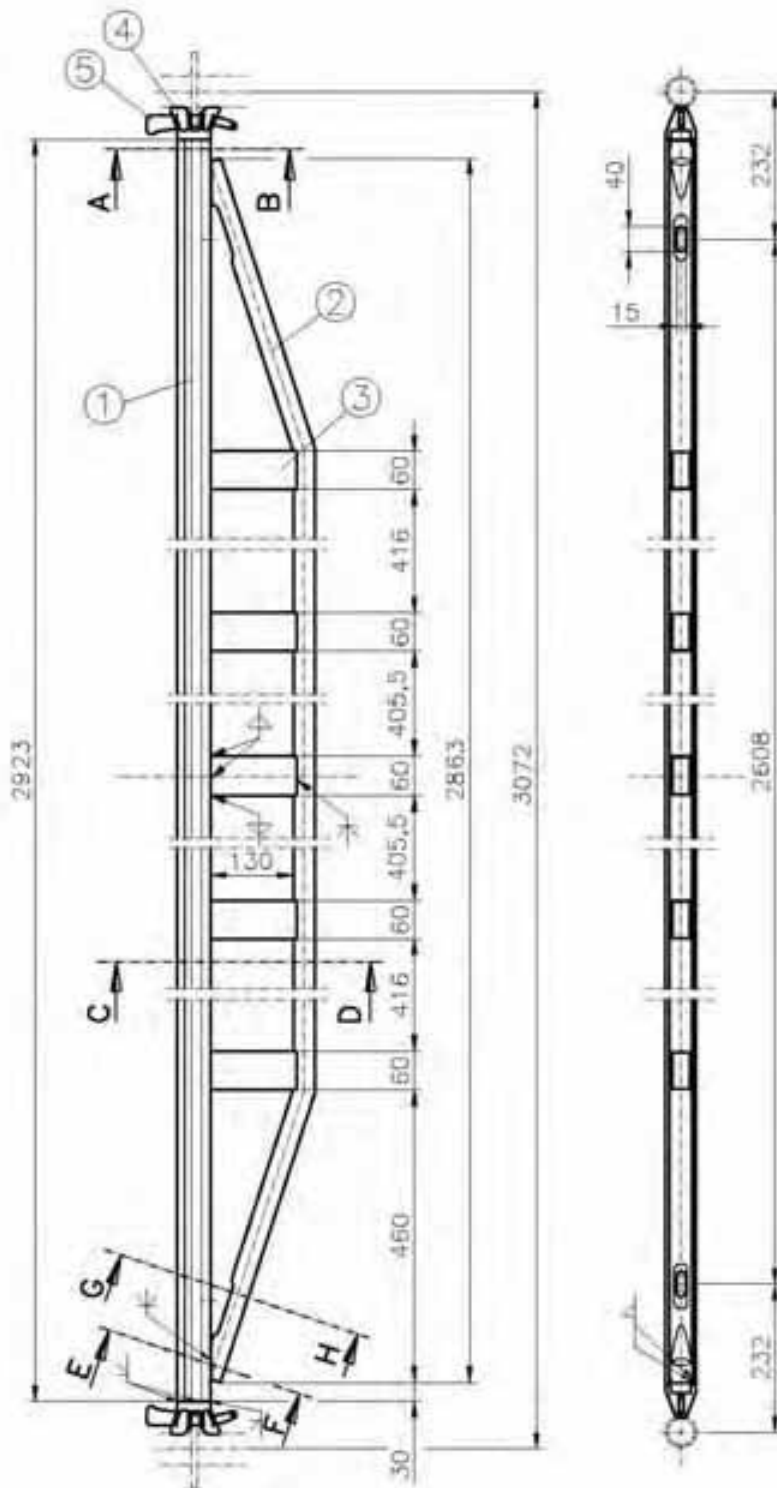
## ALBLITZ MODUL

### U-bridging ledger 2.57m

according to Z-8.22-906

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M710-B154\_ABM



- |     |                     |   |
|-----|---------------------|---|
| (1) | U-profile 48x52x2.5 | S235JR                                  |
| (2) | R 33.7x2.6          | S235JRH ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) | RV 60x30x2          | S235JR                                  |
| (4) | U-ledger connection |   |
| (5) | Wedge 6mm           | S550MC                                  |

galvanized; all fillet welds a=2.5mm; all single-V butts a=3mm



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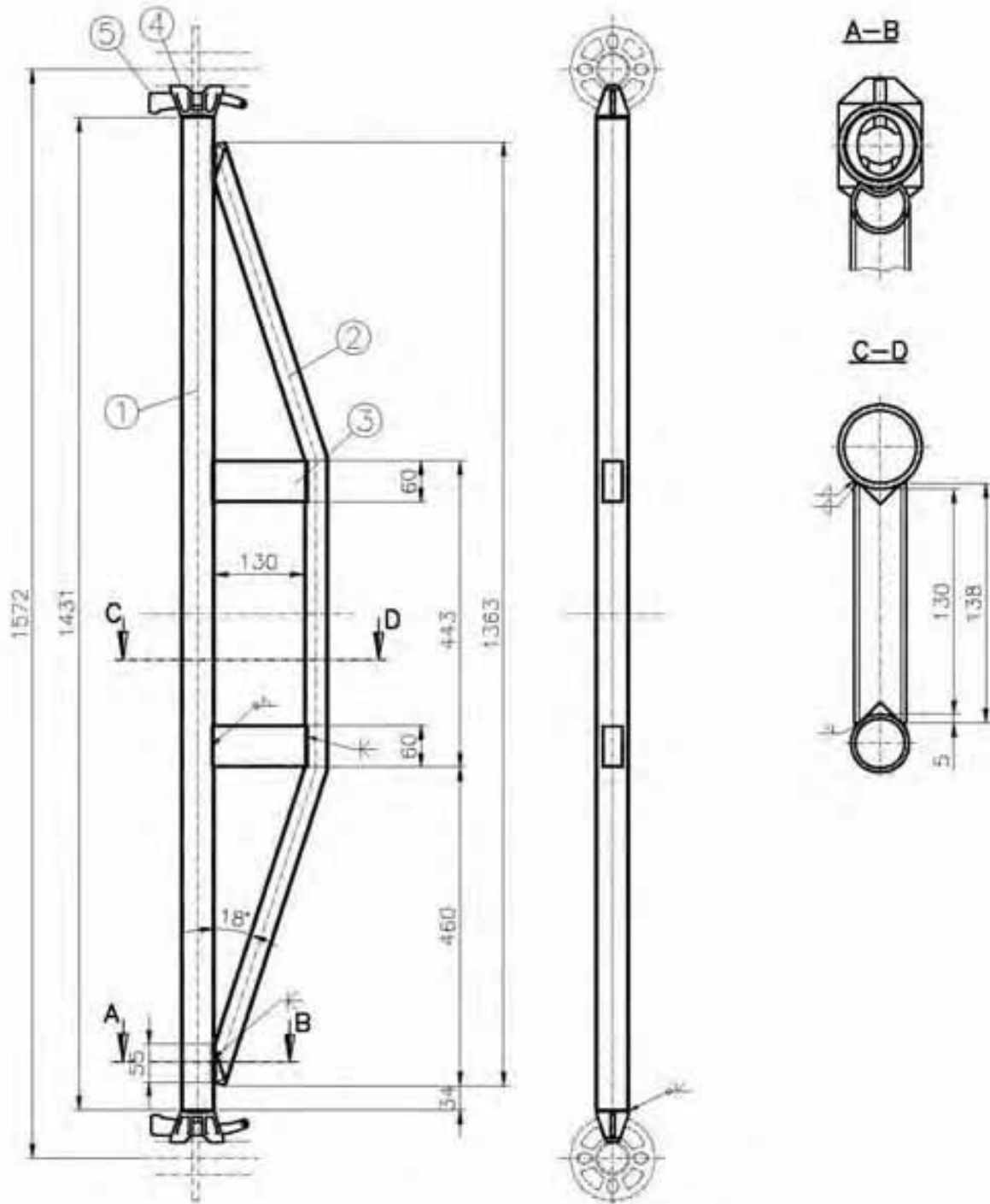
## ALBLITZ MODUL

### U-bridging ledger 3.07m

according to Z-8.22-906

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M710-B155\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 33.7x2.6             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) RV 60x30x2             | S235JR  |                                 |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm



63828 Edlbach  
09603 Großschirma

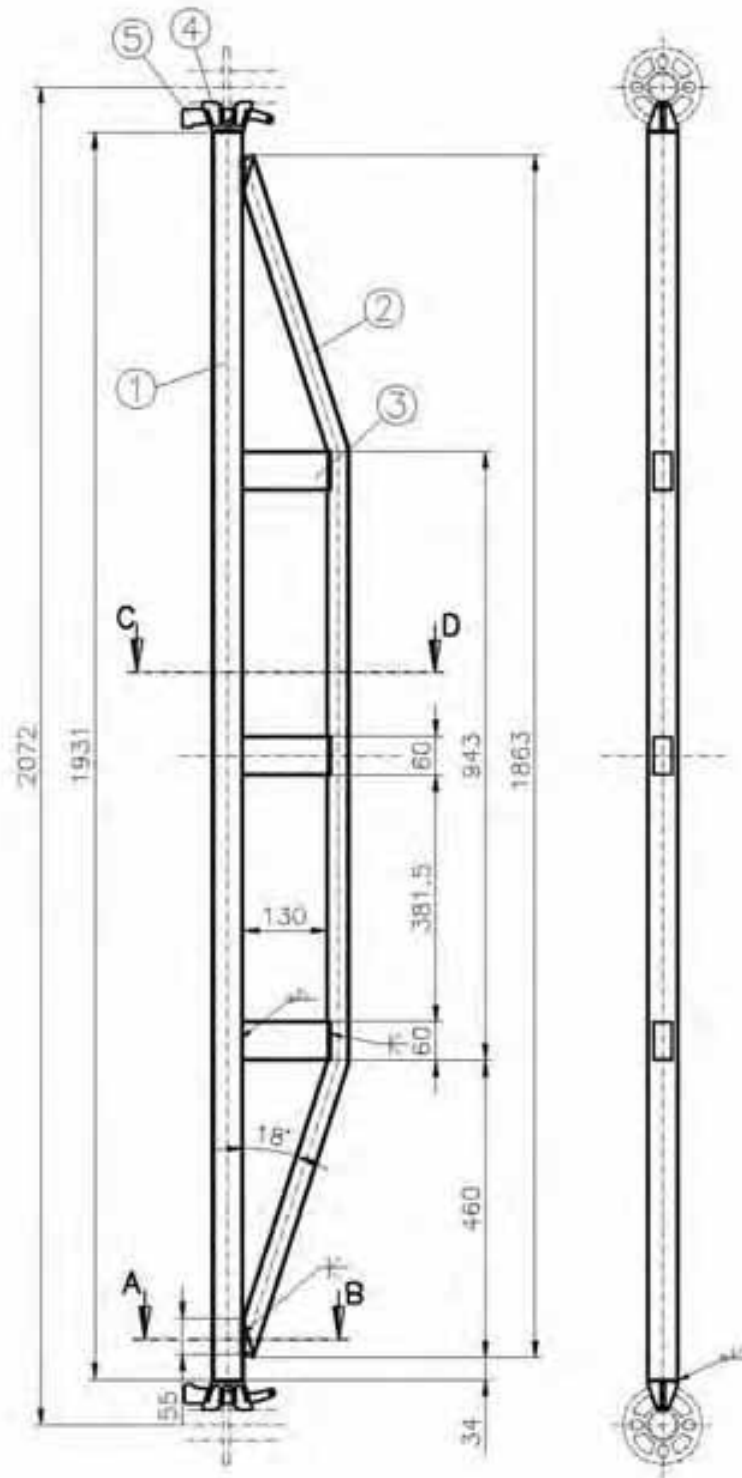
## ALBLITZ MODUL

**Double tube ledger 1.57m**

according to Z-8.22-906

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the national technical  
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of 7. May 2012  
Deutsches Institut für Bautechnik

M710-B156\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 33.7x2.6             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) RV 60x30x2             | S235JR  |                                 |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm



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09603 Großschirma

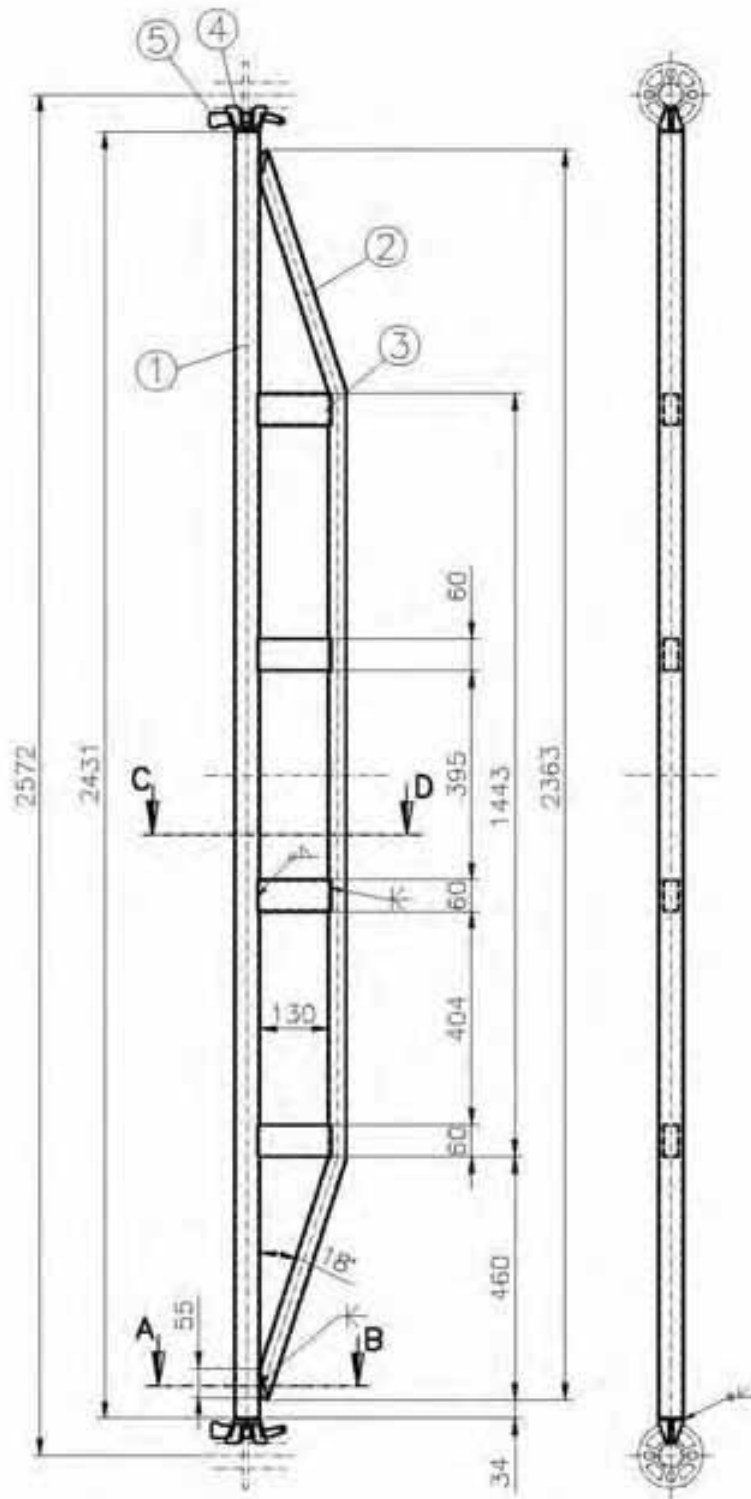
## ALBLITZ MODUL

Double tube ledger 2.07m

according to Z-8.22-906

Annex B, page 59 to  
the national technical  
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Deutsches Institut für Bautechnik

M710-B157\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 33.7x2.6             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) RV 60x30x2             | S235JR  |                                 |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm



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09603 Großschirma

## ALBLITZ MODUL

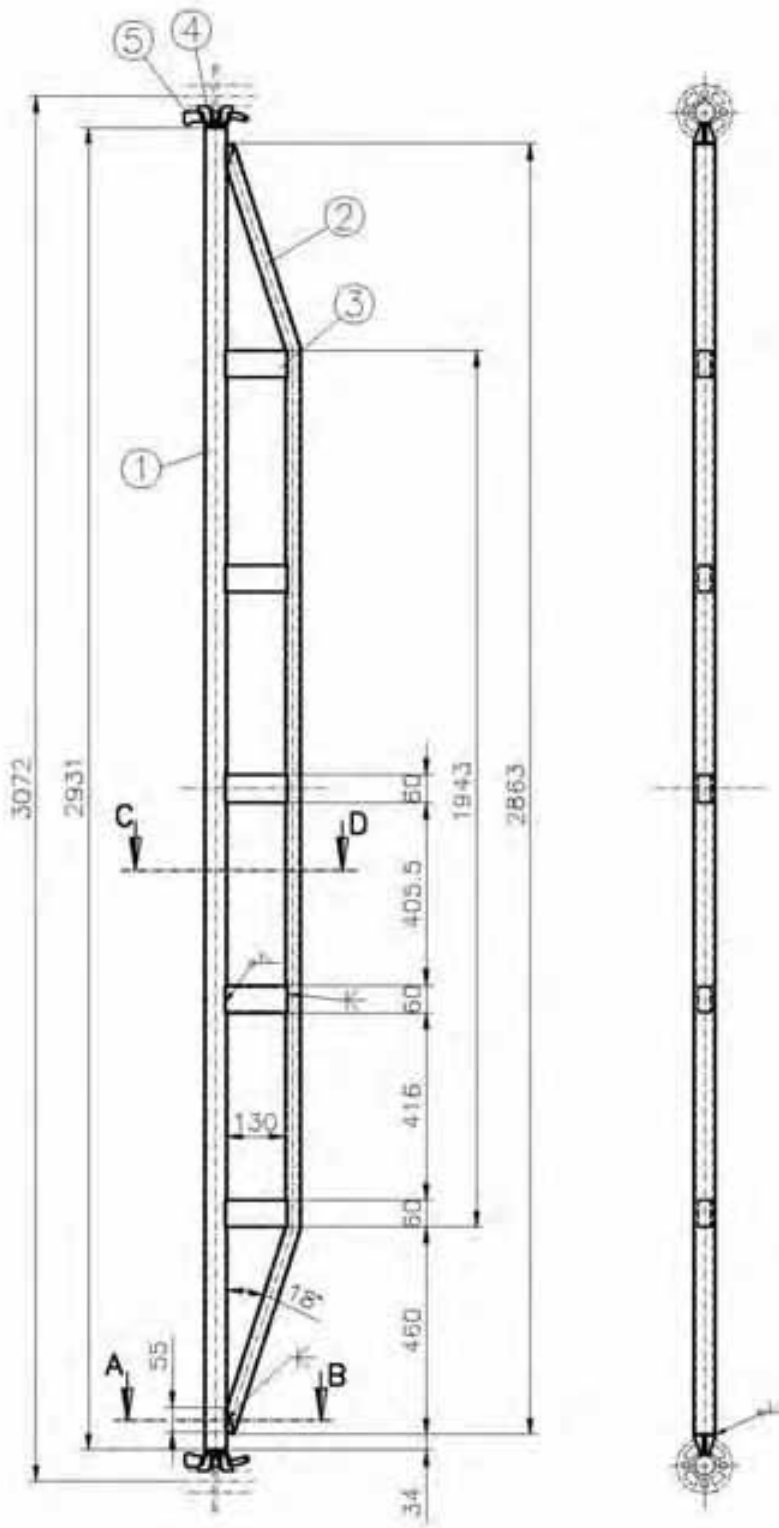
Double tube ledger 2.57m

according to Z-8.22-906

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the national technical  
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M710-B158\_ABM





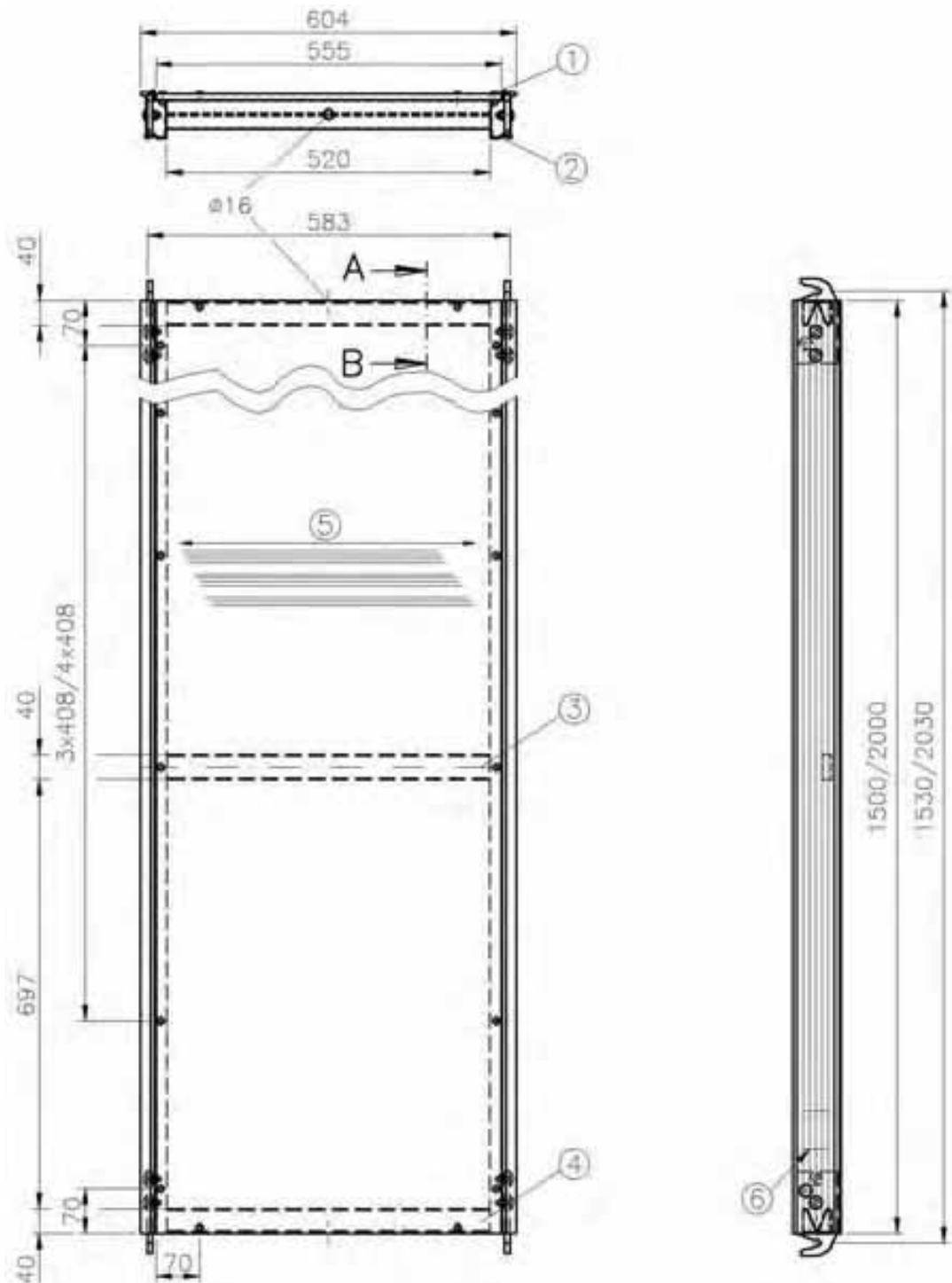
- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 33.7x2.6             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) RV 60x30x2             | S235JR  |                                 |
| (4) Tube ledger connection |         |                                 |
| (5) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm

**LFIX** GmbH  
 63828 Edelbach  
 09603 Großschirma

**ALBLITZ MODUL**  
**Double tube ledger 3.07m**  
 according to Z-8.22-906

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 M710-B159\_ABM



- (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 BFU 100-G
- (2) Brace profile 78x42  
EN AW-6063-T66
- (3) RV 40x15x2  
EN AW-6063-T66
- (4) Gripping profile  
EN AW-6063-T66
- (5) Fibre direction
- (6) Marking

Details, see M709-B162

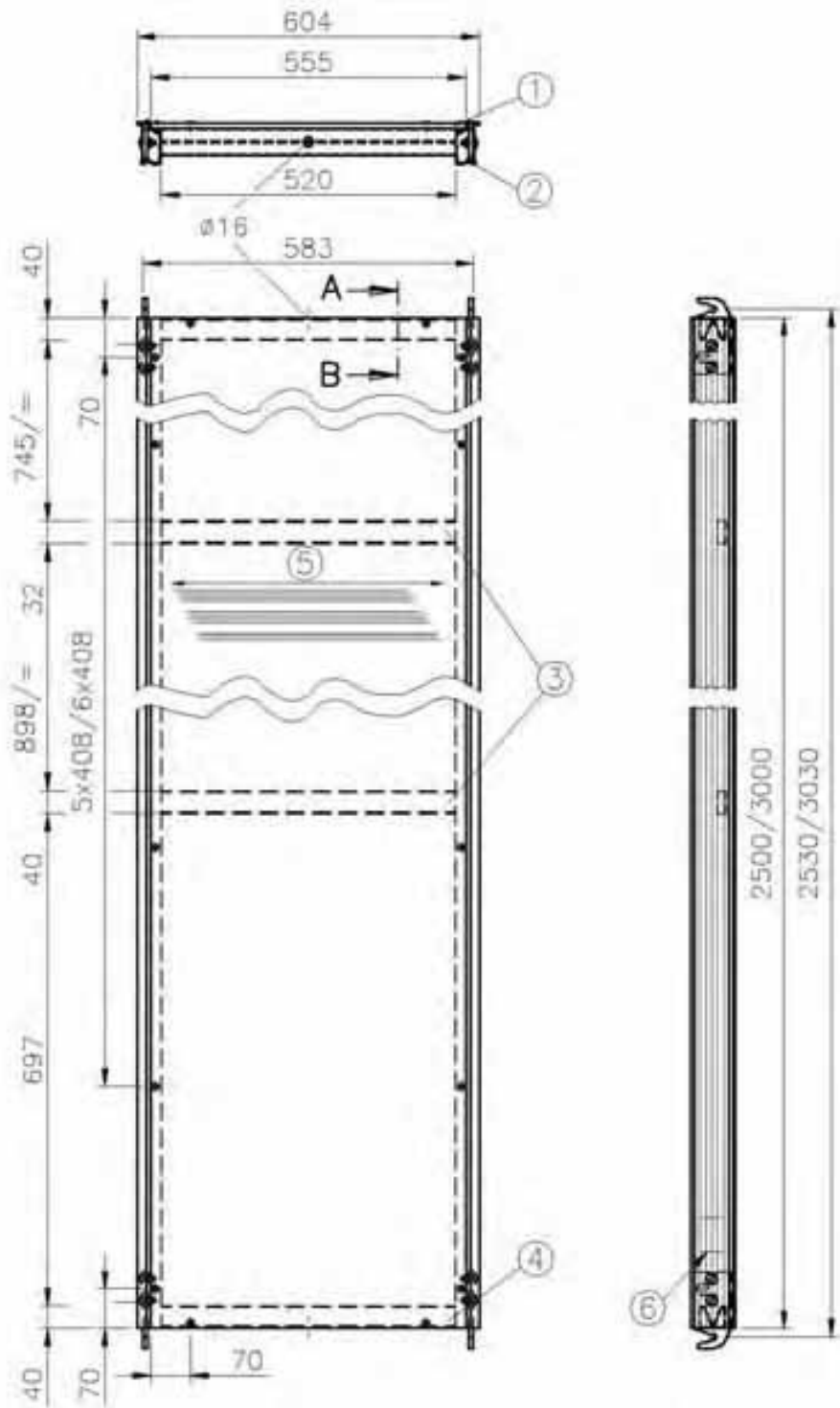
Load class 3



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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with plywood**  
**1.57m; 2.07m**  
 according to Z-8.22-906

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 M709-B160\_ABM



- (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 BFU 100-G
- (2) Brace profile 78x42 EN AW-6063-T66
- (3) RV 40x15x2 EN AW-6063-T66
- (4) Gripping profile EN AW-6063-T66
- (5) Fibre direction
- (6) Marking

Details, see M709-B162

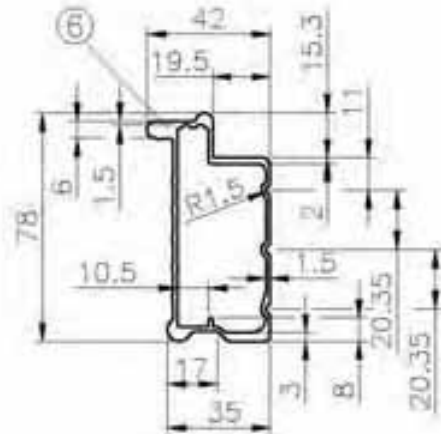
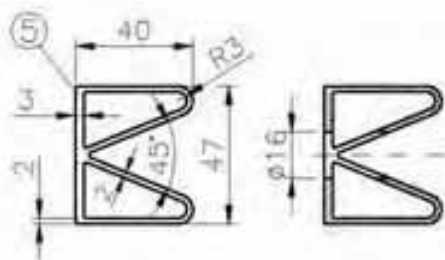
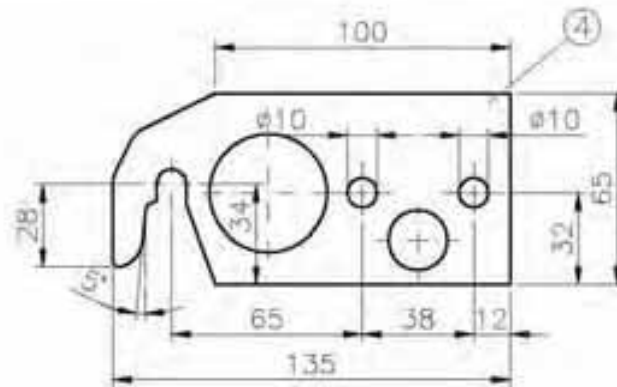
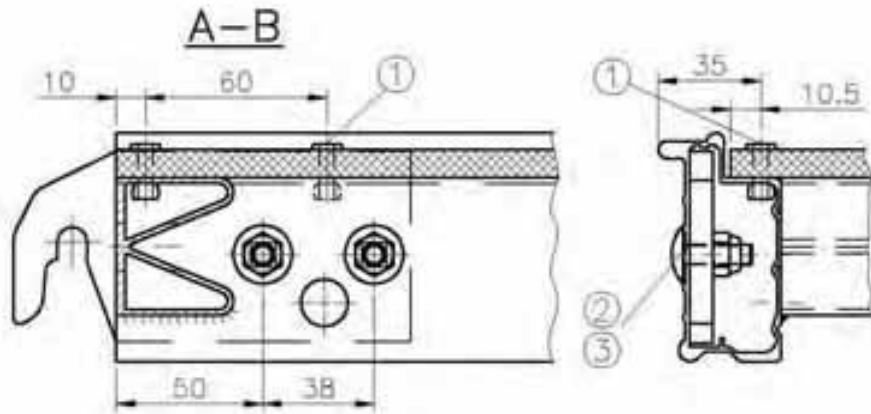
Load class 3



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**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with plywood**  
**2.57m; 3.07m**  
 according to Z-8.22-906

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 M709-B161\_ABM



- (1) Blind rivet  $\varnothing 5 \times 20$
- (2) Round-head bolt
- (3) Nut, self-locking
- (4) Mounting claw
- (5) Gripping profile; web thickness 2mm
- (6) Aluminium brace profile

DIN 7337  
M8x20 DIN 603  
M8 DIN 980  
BI 8

EN AW-5754 H112  
  
S235JR, galvanized  
EN AW-6063-T66  
EN AW-6063-T66



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## ALBLITZ MODUL

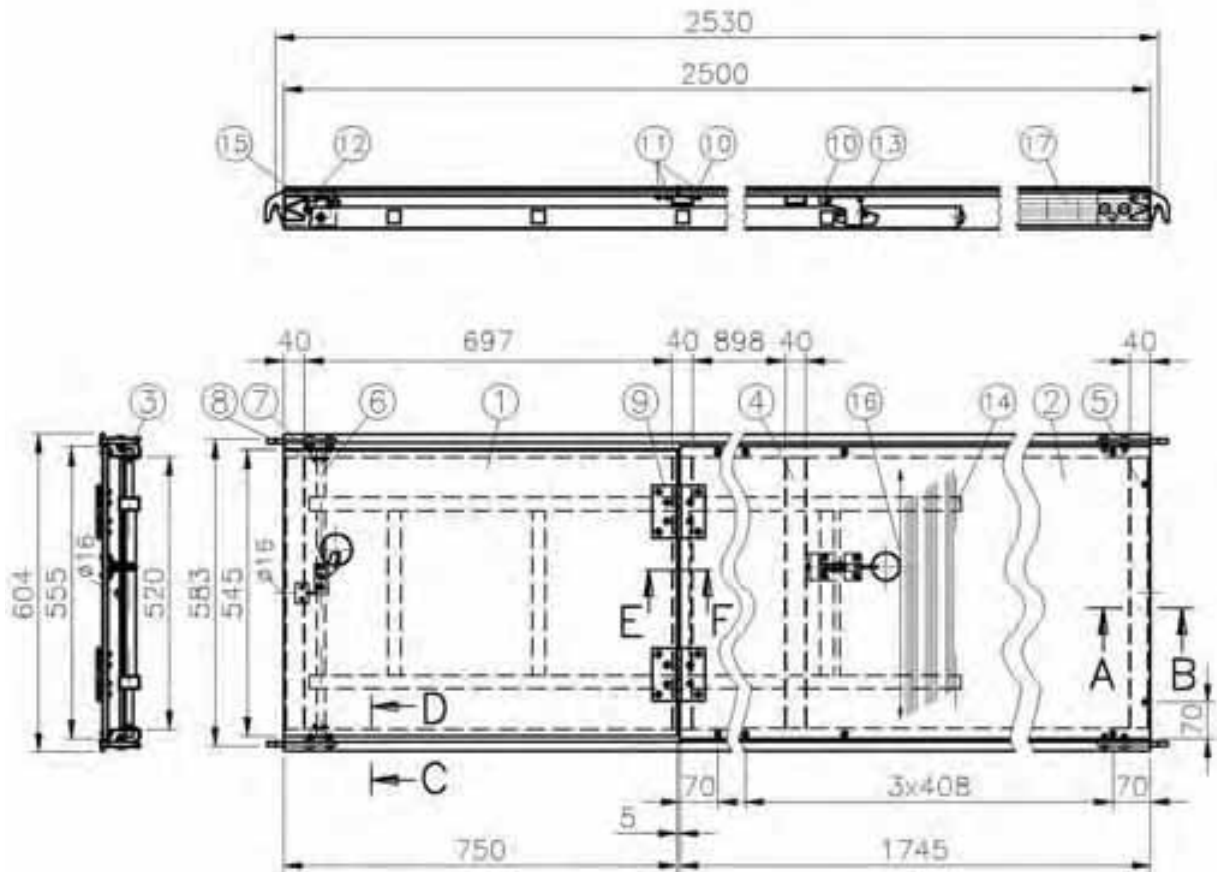
### Details

#### Aluminium frame deck

according to Z-8.22-906

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M710-B162\_ABM



- |      |   |                 |
|------|---|-----------------|
| (1)  | WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 | BFU 100-G       |
| (2)  | WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G       |
| (3)  | Brace profile 78x42                                     | EN AW-6063-T66  |
| (4)  | RV 40x15x2  | EN AW-6063-T66  |
| (5)  | Gripping profile  | EN AW-6063-T66  |
| (6)  | Tube 15x2   | S235JRH         |
| (7)  | Disc Ø17  | DIN 125         |
| (8)  | Cotter pin Ø4x25  | DIN 94          |
| (9)  | Hinge 100x100x1.6                                       |                 |
| (10) | Blind rivet Ø5x20                                       | EN AW-5754 H112 |
| (11) | Blind rivet Ø5x18                                       | EN AW-5754 H112 |
| (12) | Blind rivet Ø4.8x16                                     | EN AW-5754 H112 |
| (13) | Ladder holder   |                 |
| (14) | Ladder,   | see A709-A115   |
| (15) | Ledger  |                 |
| (16) | Fibre direction   |                 |
| (17) | Marking   |                 |

Details, see M709-B162 and M709-B165

Load class 3



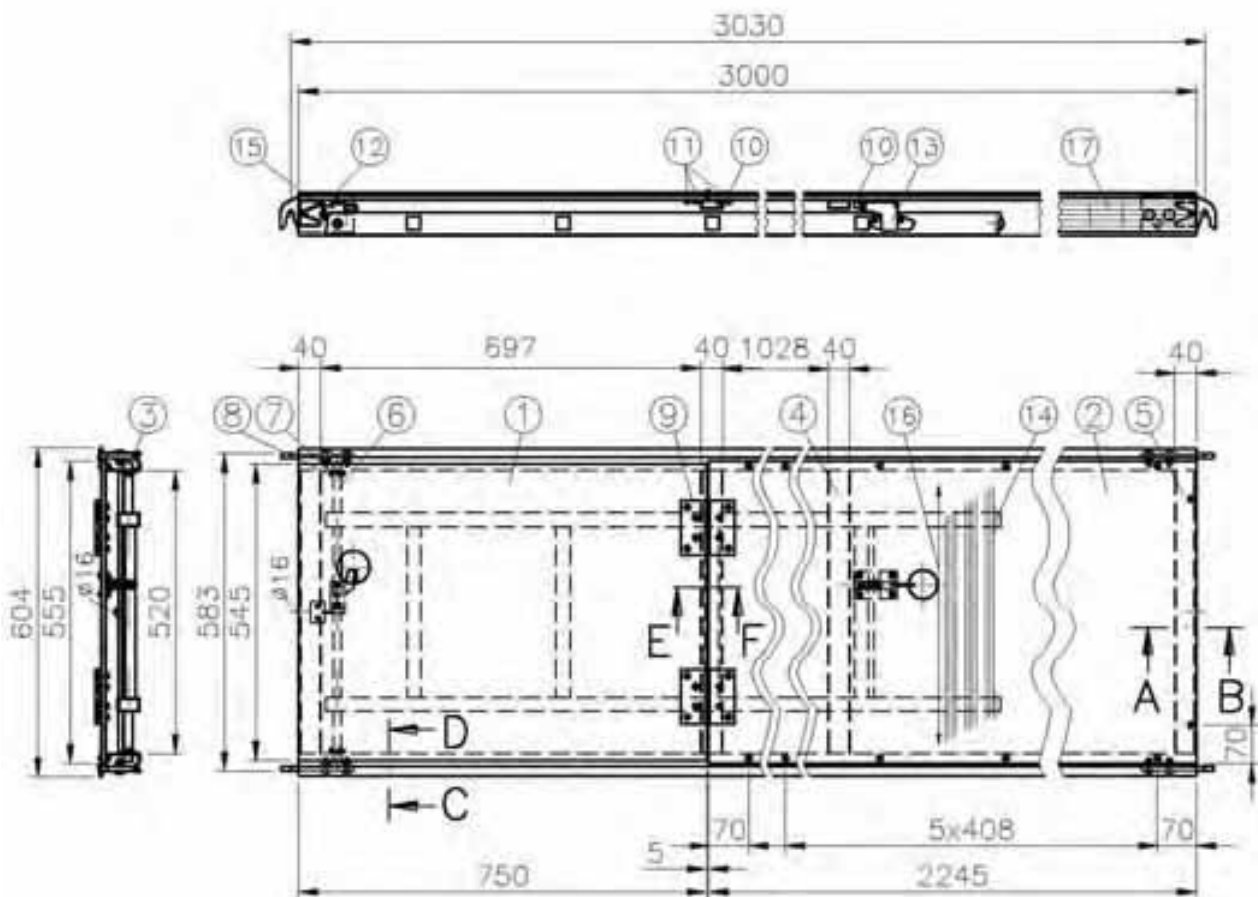
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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with hatch-type access 2.57m**

according to Z-8.22-906

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M710-B163\_ABM



- |      |   |                 |
|------|---|-----------------|
| (1)  | WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 BFU 100-G |                 |
| (2)  | WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 BFU 100-G |                 |
| (3)  | Brace profile 78x42   | EN AW-6063-T66  |
| (4)  | RV 40x15x2  | EN AW-6063-T66  |
| (5)  | Gripping profile  | EN AW-6063-T66  |
| (6)  | Tube 15x2   | S235JRH         |
| (7)  | Disc $\varnothing 17$   | DIN 125         |
| (8)  | Cotter pin $\varnothing 4 \times 25$                              | DIN 94          |
| (9)  | Hinge 100x100x1.6   |                 |
| (10) | Blind rivet $\varnothing 5 \times 20$                             | EN AW-5754 H112 |
| (11) | Blind rivet $\varnothing 5 \times 18$                             | EN AW-5754 H112 |
| (12) | Blind rivet $\varnothing 4.8 \times 16$                           | EN AW-5754 H112 |
| (13) | Ladder holder   |                 |
| (14) | Ladder,   | see A709-A115   |
| (15) | Ledger  |                 |
| (16) | Fibre direction   |                 |
| (17) | Marking   |                 |

Details, see M709-B162 and M709-B165

Load class 3



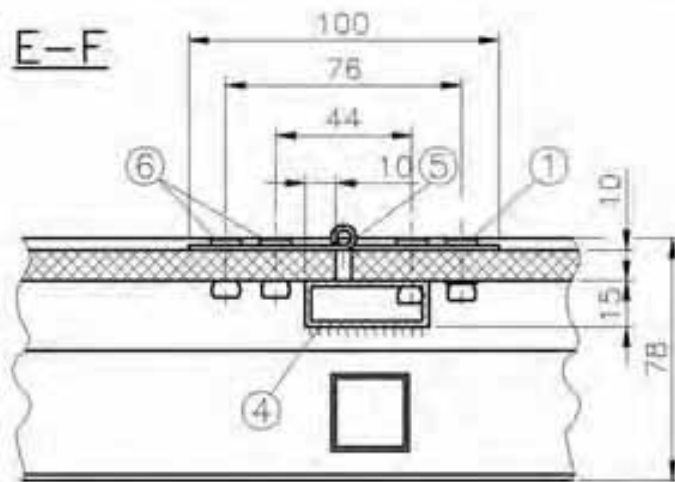
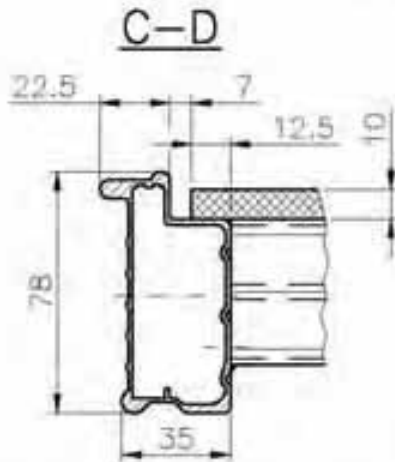
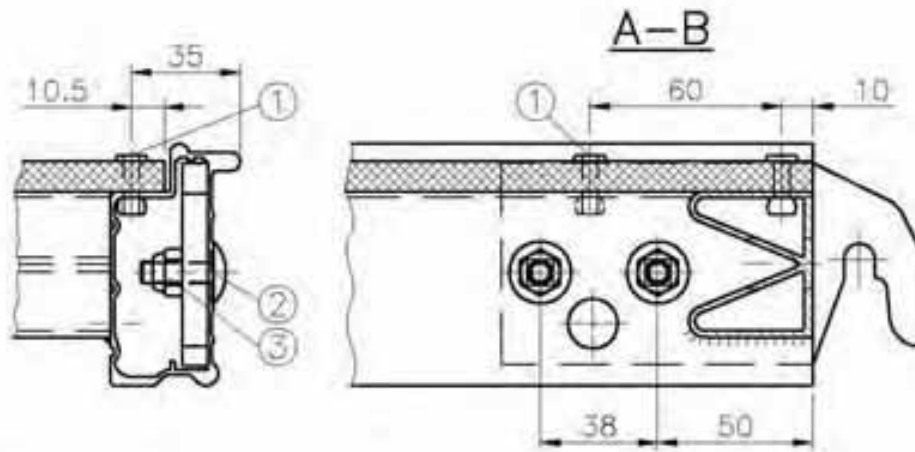
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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium frame deck**  
**with hatch-type access 3.07m**

according to Z-8.22-906

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M710-B164\_ABM



- |   |          |                 |
|---|----------|-----------------|
| (1) Blind rivet $\varnothing 5 \times 20$ | DIN 7337 | EN AW-5754 H112 |
| (2) Round-head bolt                       | M8x20    | DIN 603         |
| (3) Nut, self-locking                     | M8       | DIN 980         |
| (4) RV 40x15x2                            |          | EN AW-6063-T66  |
| (5) Hinge 100x100x1.6                     |          |                 |
| (6) Blind rivet $\varnothing 5 \times 20$ | DIN 7337 | EN AW-5754 H112 |

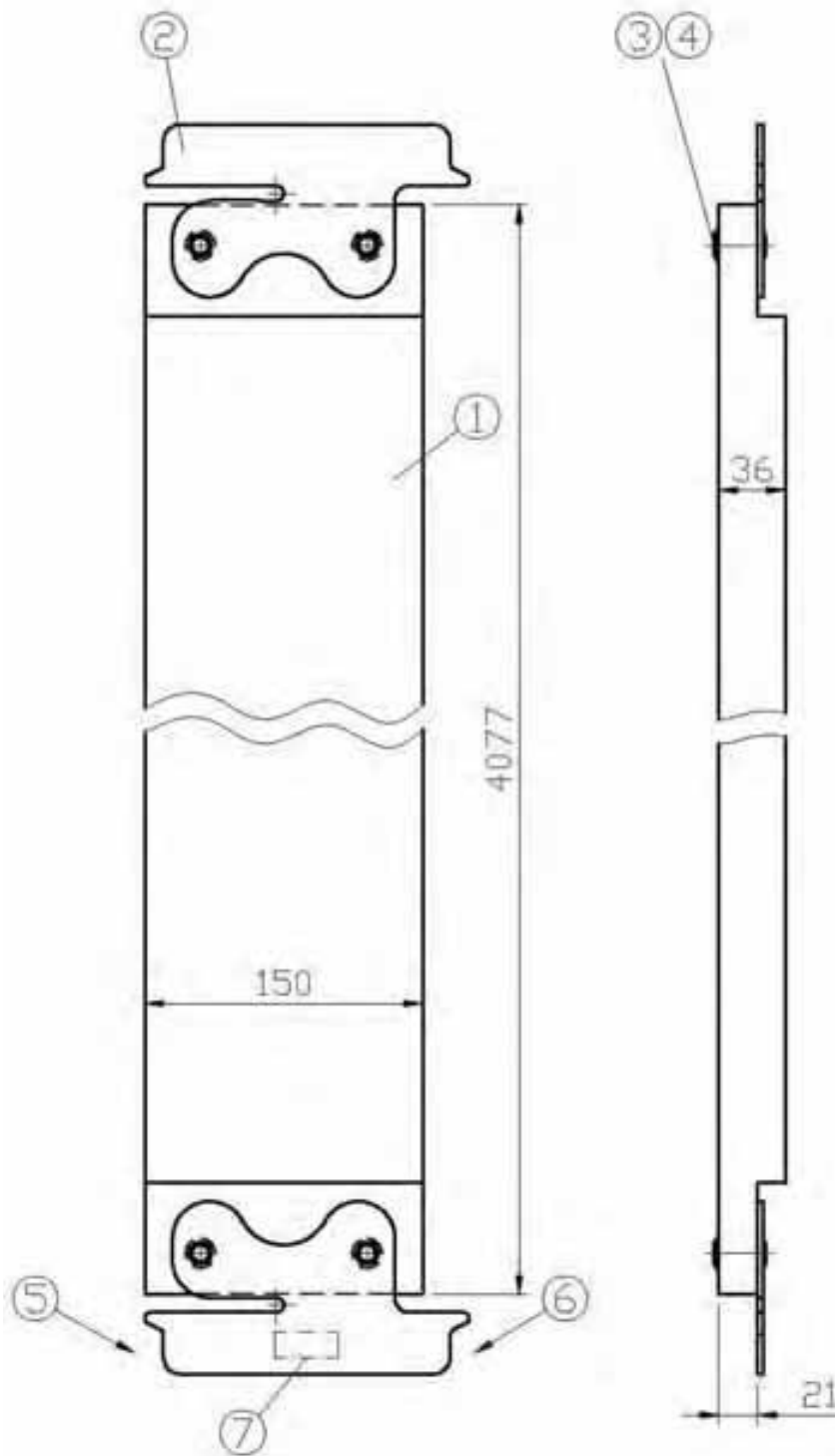


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**ALBLITZ MODUL**  
Sections for  
**Aluminium frame deck**  
**with hatch-type access**  
according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B165\_ABM



- (1) Board
- (2) Slit strip 175x2
- (3) Tube rivet
- (4) Disc
- (5) Tube ledger connection
- (6) U-ledger connection
- (7) Marking

DIN 4074 – S10-FI  
 DIN EN 10111-DD11, galvanized  
 DIN 7340 – A8x0.75x28-steel, zinc-plate  
 DIN 125 – A8.4-steel, galvanized



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09603 Großschirma

## ALBLITZ MODUL

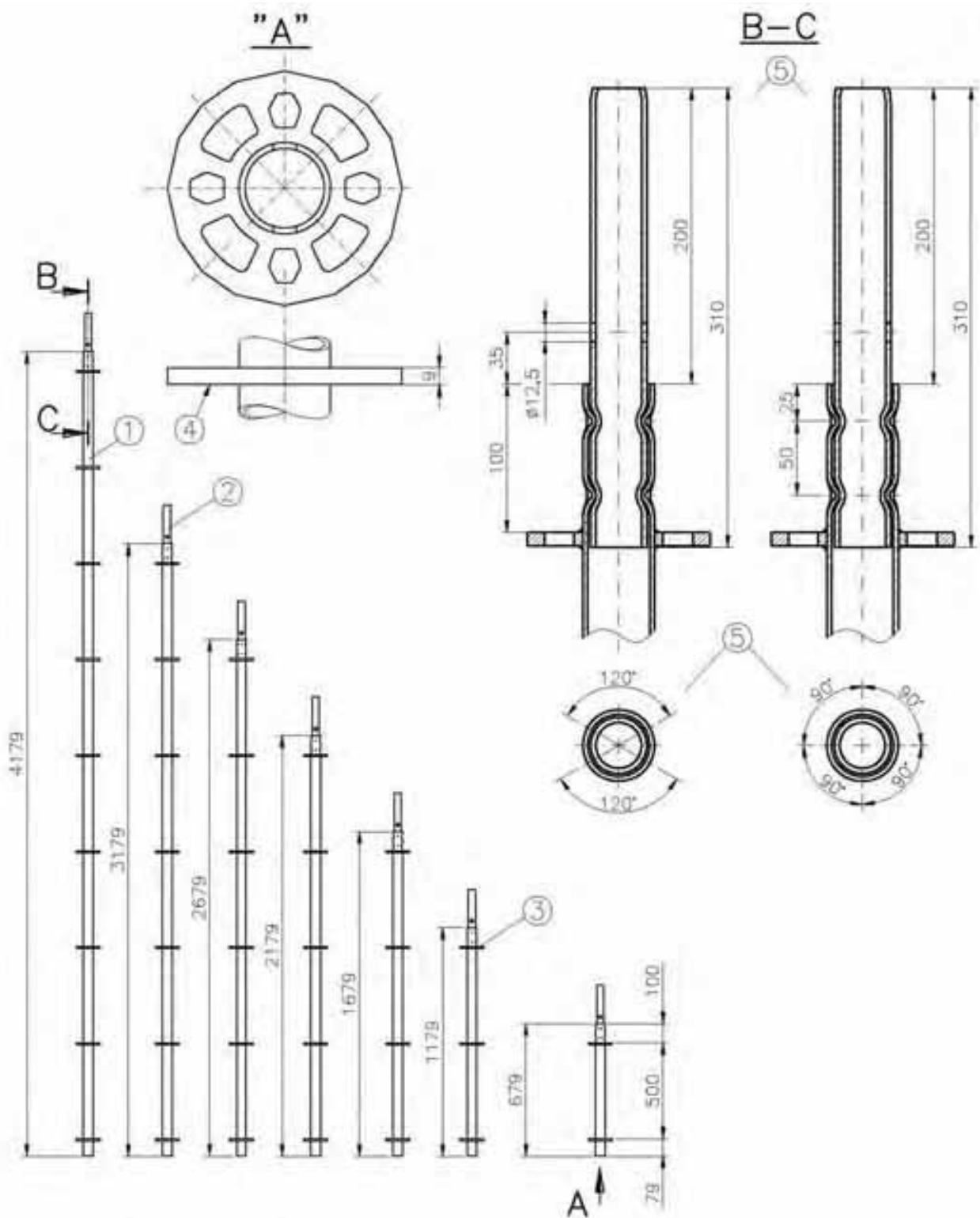
**Modular toeboard 4.14m**

according to Z-8.22-906

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M710-B166\_ABM





- (1) R 48.3x3.2                    S235JRH    ReH≥320N/mm<sup>2</sup>
- (2) R 38x3.6                     S235JRH    ReH≥320N/mm<sup>2</sup>
- (3) Connecting disc
- (4) Marking
- (5) Linear pressing            alternatively: 4x point pressing

galvanized



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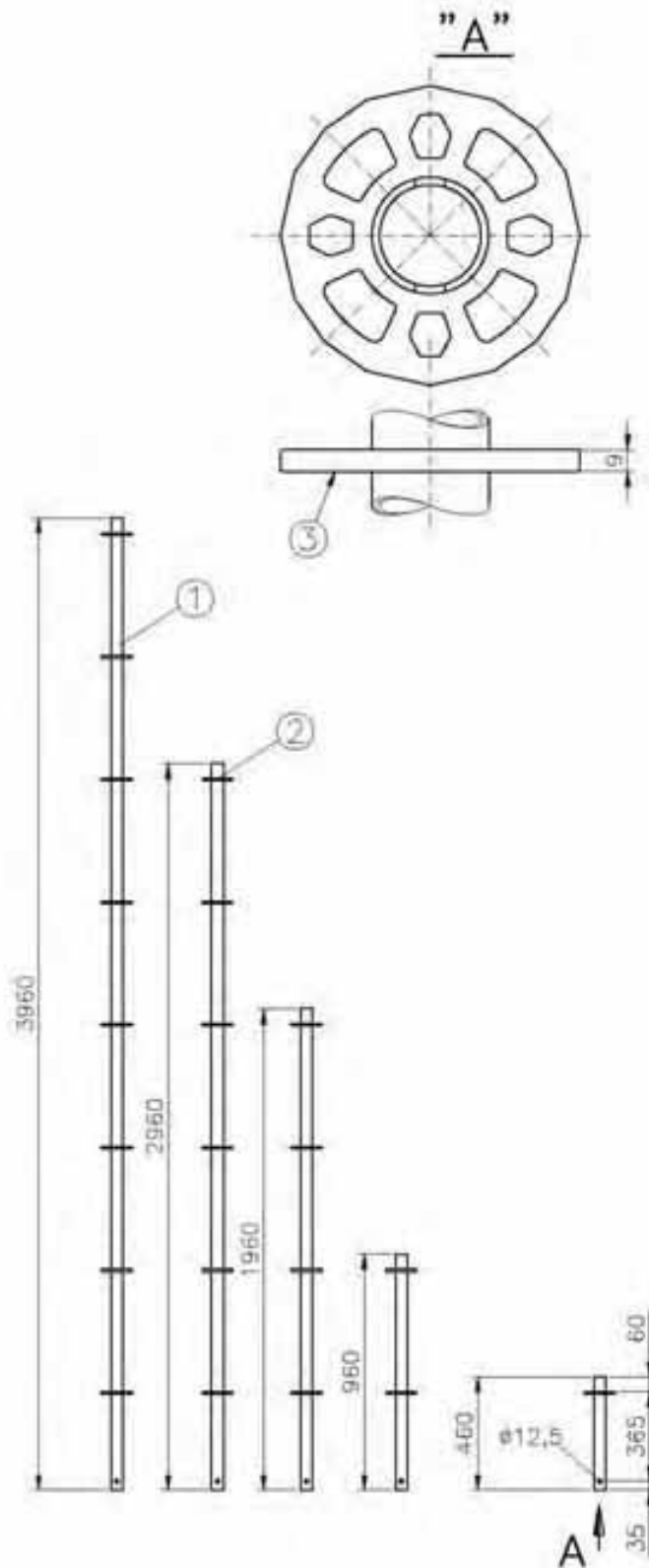
### ALBLITZ MODUL

Starting vertical upright

according to Z-8.22-906

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Deutsches Institut für Bautechnik

M710-B167\_ABM



- (1) R 48.3x3.2 S235JRH       $ReH \geq 320 N/mm^2$
- (2) Connecting disc
- (3) Marking

galvanized



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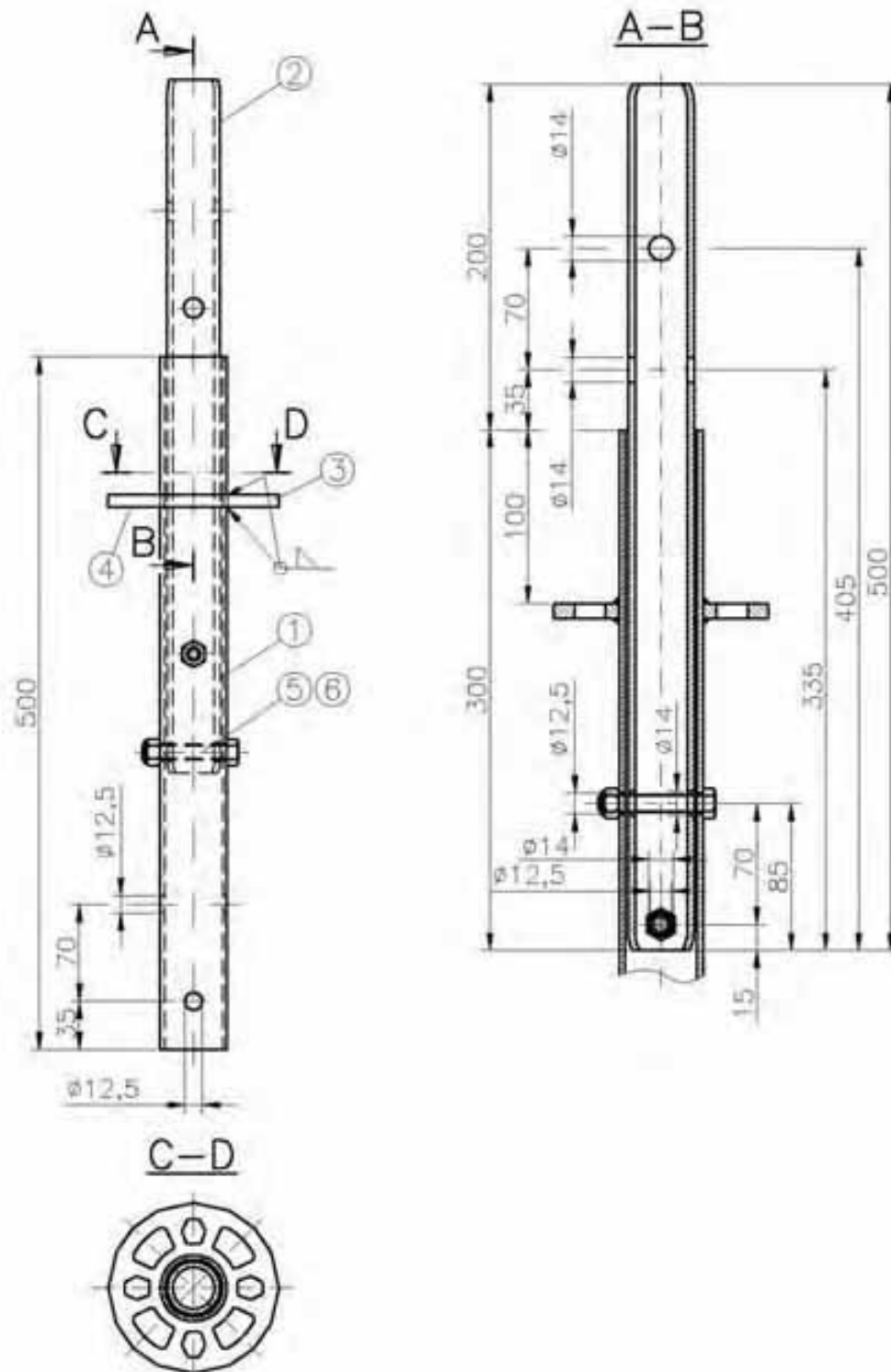
### ALBLITZ MODUL

Scaffold assembly post

according to Z-8.22-906

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M710-B168\_ABM



- |                          |                                 |                                 |
|--------------------------|---------------------------------|---------------------------------|
| (1) R 48.3x3.2           | S235JRH                         | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 38x4               | S235JRH                         | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) Connecting disc      |                                 |                                 |
| (4) Marking              |                                 |                                 |
| (5) Hexagon screw        | DIN 931 – M10x60-8.8-galvanized |                                 |
| (6) Hexnut, self-locking | DIN 985 – M10-8-galvanized      |                                 |

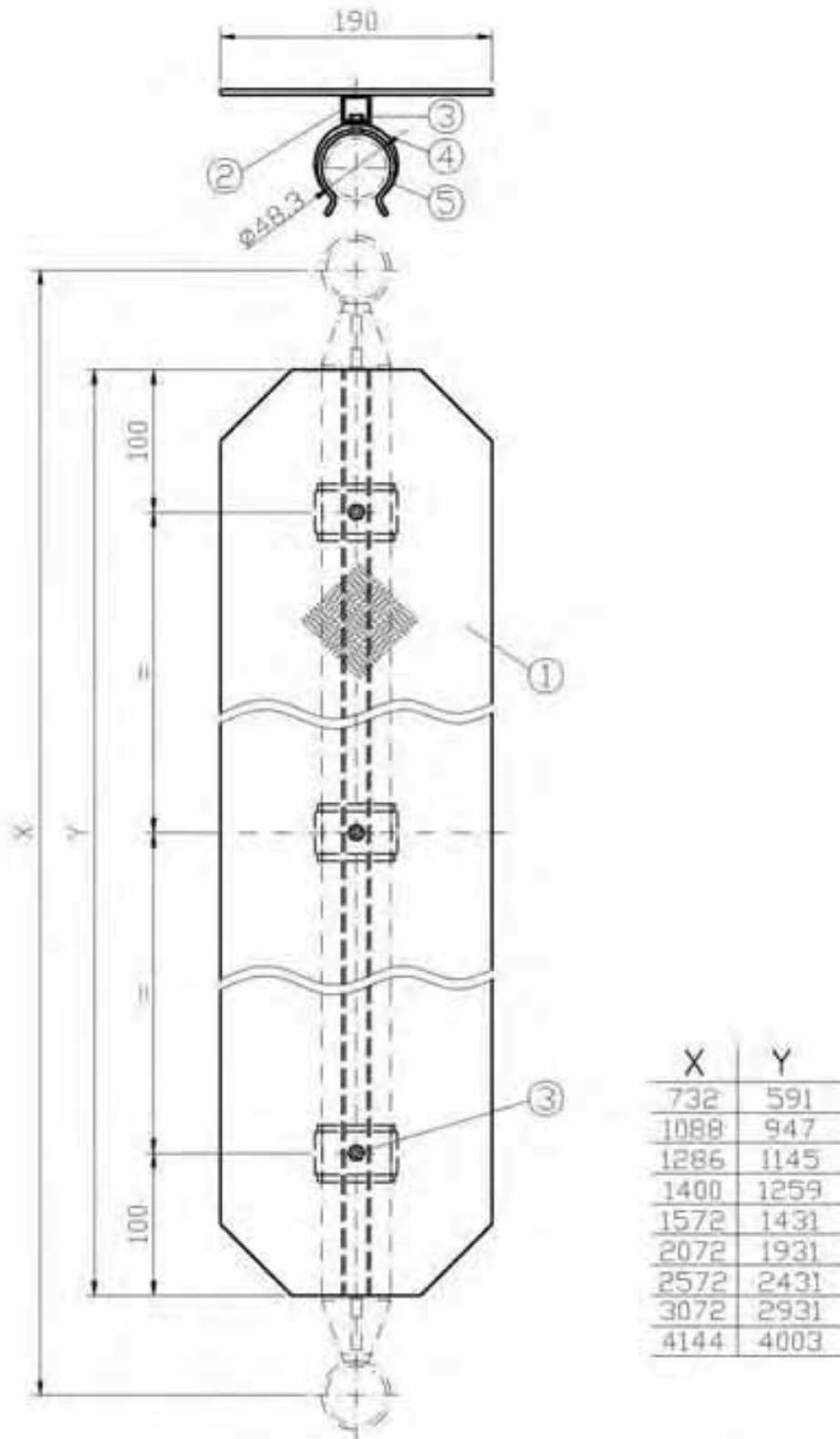
galvanized



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**ALBLITZ MODUL**  
**Vertical upright 0.50m**  
**with detachable spigot**  
**fitting 500**  
 according to Z-8.22-906

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 M710-B169\_ABM



- (1) Checker plate, quintet W5 2.5/3.3x190    DIN EN 1386    EN AW-5083 H224
- (2) RV 20x20x2    EN AW-6060-T66
- (3) Blind rivet Ø5x12    DIN 7337    EN AW-5754 H112
- (4) Disc 5.3    DIN 125
- (5) Clamp pipe, galvanized



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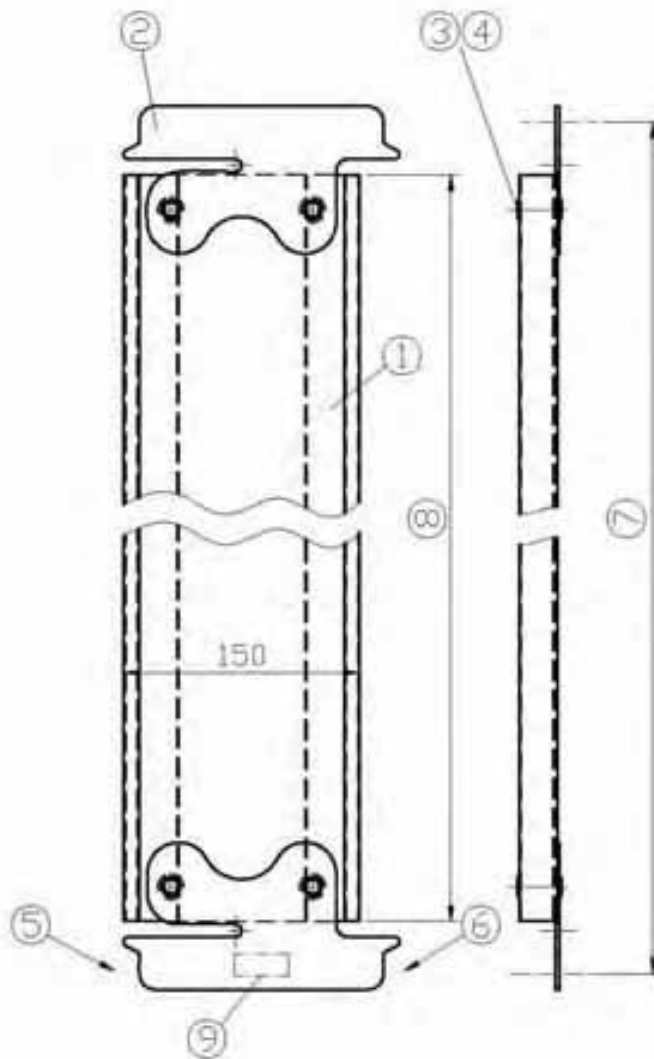
### ALBLITZ MODUL

#### Modular gap cover

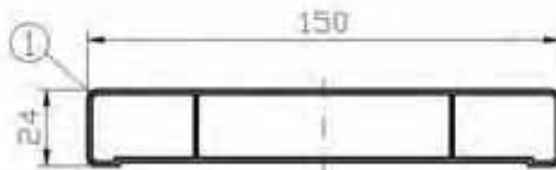
according to Z-8.22-906

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M710-B170\_ABM



⑦	⑧
390	323
732	665
1088	1021
1400	1333
1572	1505
2072	2005
2572	2505
3072	3005



- |  |  |
|--|--|
| (1) Aluminium profile toeboard; s=1.25mm | EN AW-6063-T66                           |
| (2) Slit strip 175x2                     | DIN EN 10111-DD11, galvanized            |
| (3) Disc                                 | DIN 125 – A8.4-steel, galvanized         |
| (4) Tube rivet                           | DIN 7340 – A8x0.75x29-steel, zinc plated |
| (5) Tube ledger connection               |  |
| (6) U-ledger connection                  |  |
| (7) Bay length                           |  |
| (8) Length L                             |  |
| (9) Marking                              |  |



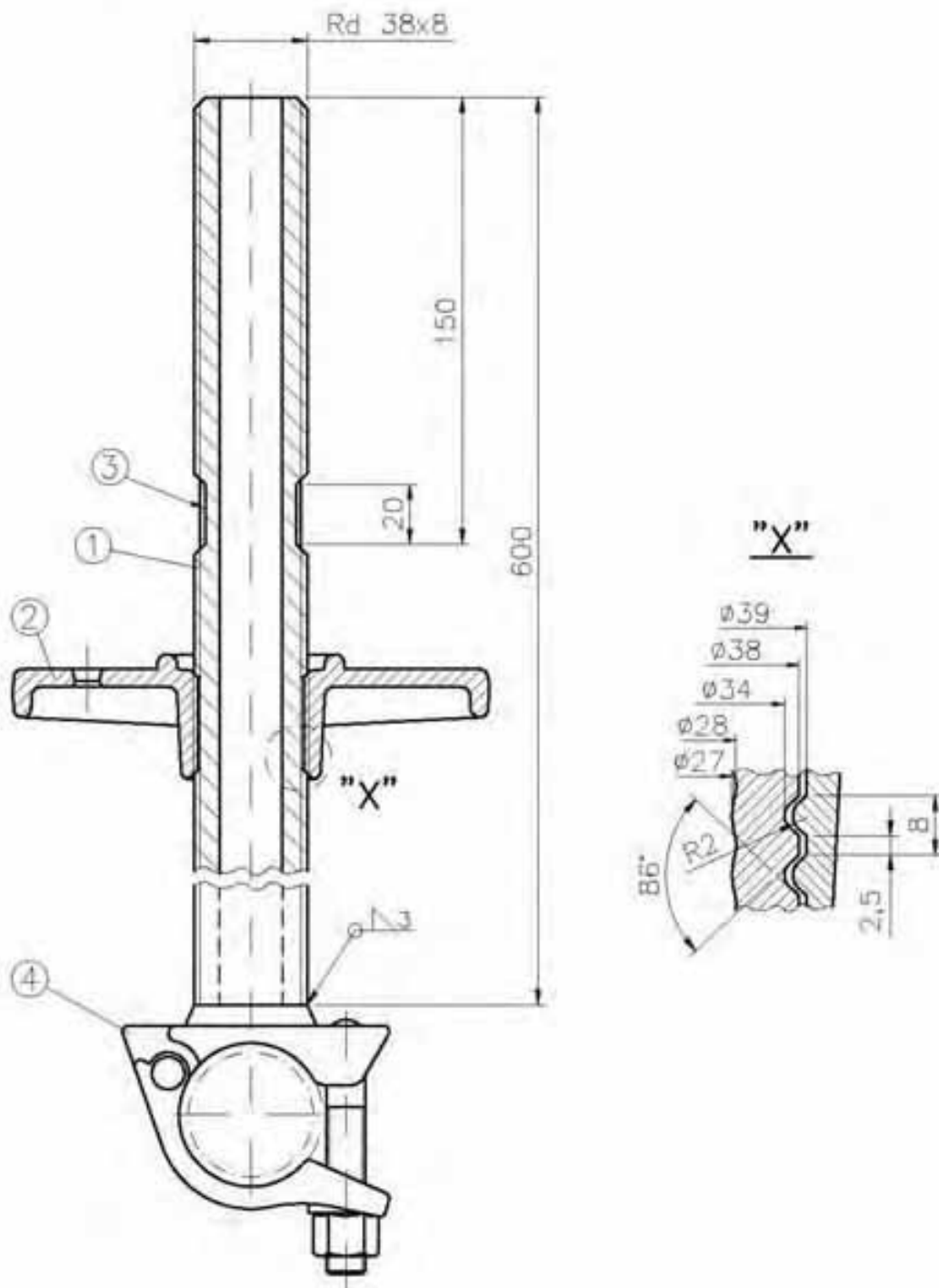
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09603 Großschirma

**ALBLITZ MODUL**  
**Modular aluminium toeboard**

according to Z-8.22-906

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M710-B171\_ABM



- (1) Thread rolled on tube  $\varnothing 38 \times 4.5$  S355J2H
- (2) Adjusting nut G20Mn5, zinc-plated
- (3) Thread damaged by two dents
- (4) Halfcoupler, class B

galvanized



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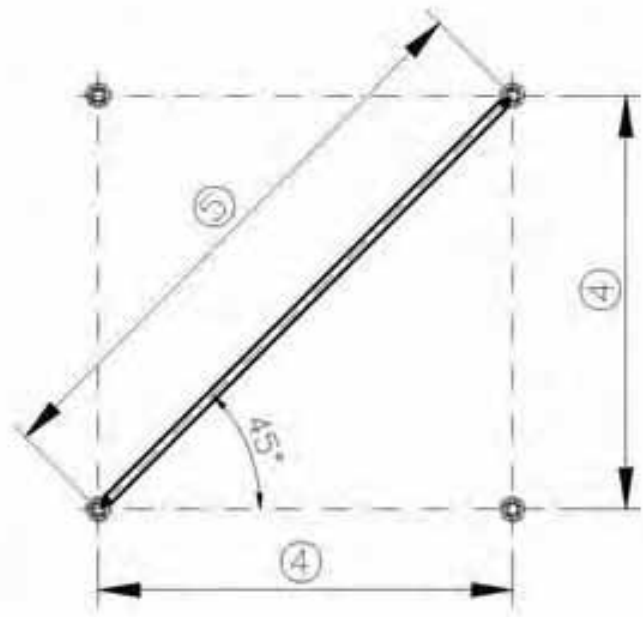
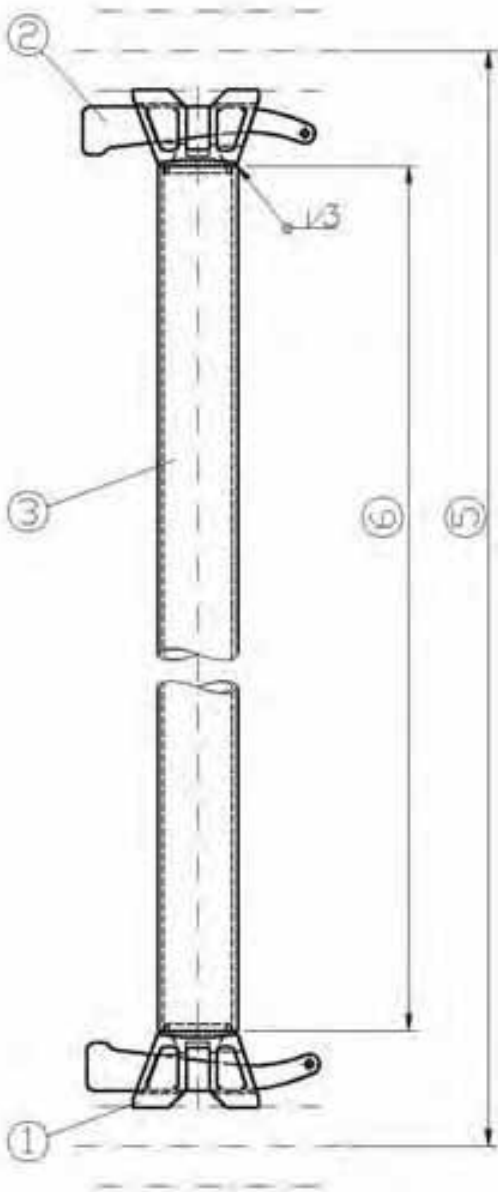
### ALBLITZ MODUL

#### Spindle coupling

according to Z-8.22-906

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M711-B201\_ABM



(4)	(5)	(6)
732	1035	894
1088	1539	1398
1286	1819	1678
1400	1980	1839
1572	2223	2082
2072	2930	2789
2572	3637	3496
3072	4344	4203

- (1) Tube ledger connection
- (2) Wedge 6mm S550MC
- (3) R 48.3x3.2 S235JRH ReH≥320N/mm<sup>2</sup>
- (4) Bay width
- (5) Bay diagonal brace
- (6) Length, item 3

galvanized



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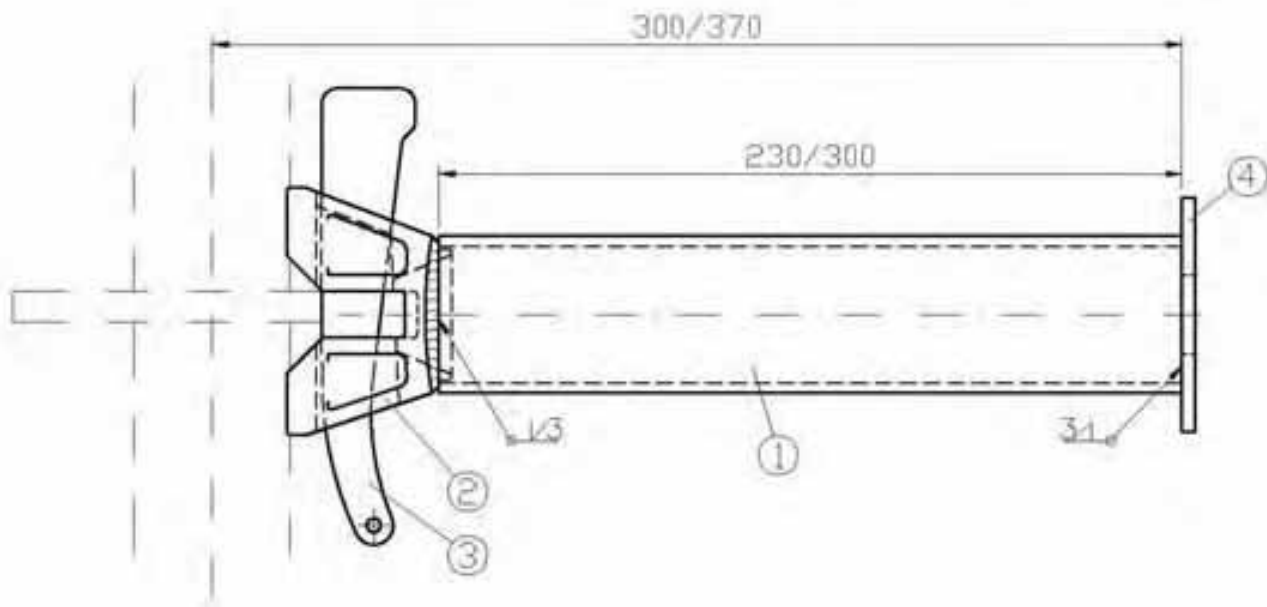
### ALBLITZ MODUL

#### Horizontal ledger

according to Z-8.22-906

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M711-B202\_ABM



- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) Tube ledger connection |         |                                 |
| (3) Wedge 6mm              | S550MC  |                                 |
| (4) BI 4                   | S235JR  |                                 |

galvanized



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09603 Großschirma

## ALBLITZ MODUL

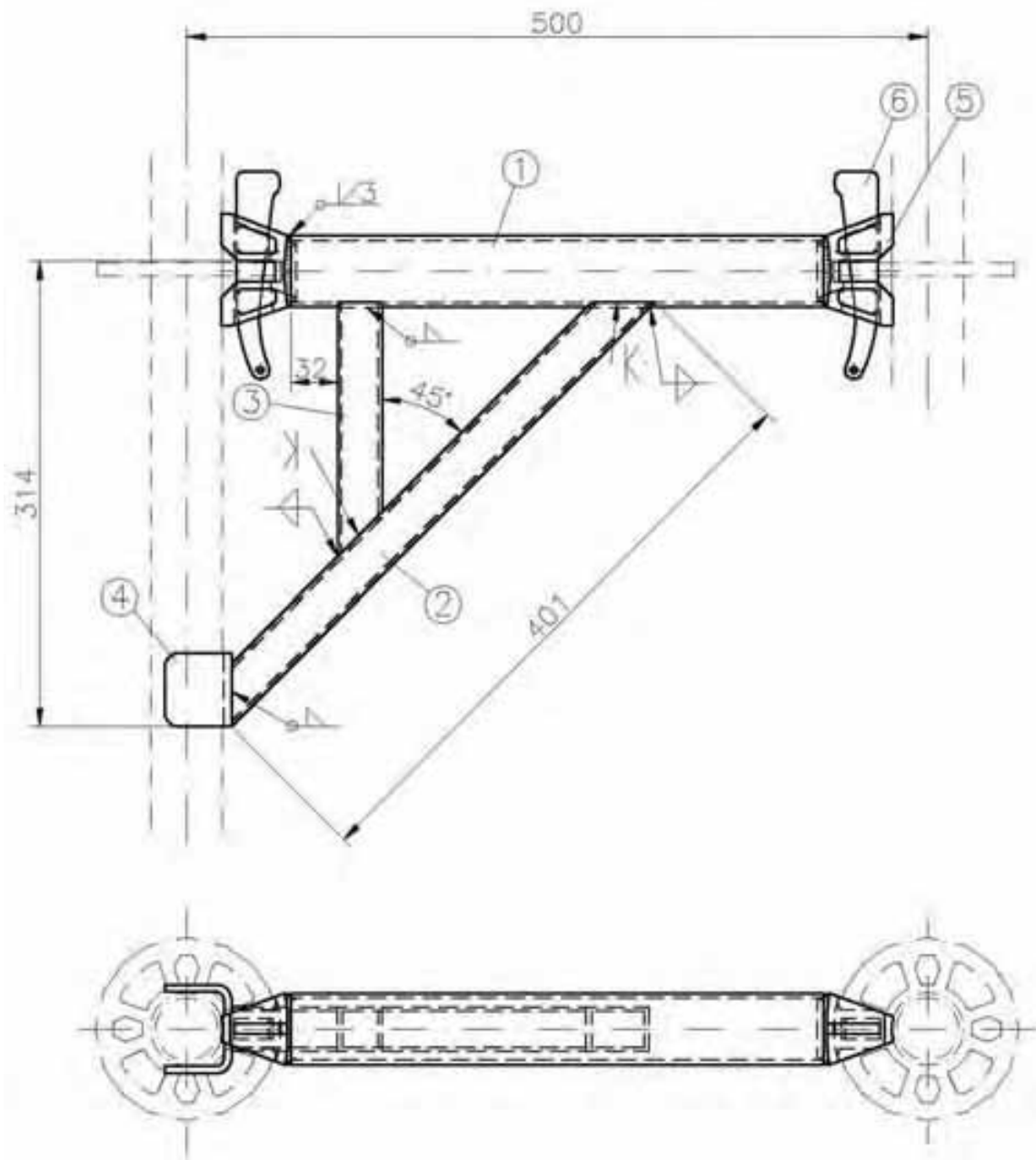
### Bracket ledger

according to Z-8.22-906

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of 7. May 2012  
Deutsches Institut für Bautechnik

M711-B203\_ABM





- |                            |         |                                 |
|----------------------------|---------|---------------------------------|
| (1) R 48.3x3.2             | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) RV 30x30x2.5           | S235JRH |                                 |
| (3) RV 30x30x2.5           | S235JRH |                                 |
| (4) Bd 50x5                | S235JR  |                                 |
| (5) Tube ledger connection |         |                                 |
| (6) Wedge 6mm              | S550MC  |                                 |

galvanized; all welds a=3mm



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09603 Großschirma

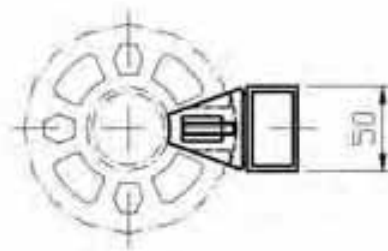
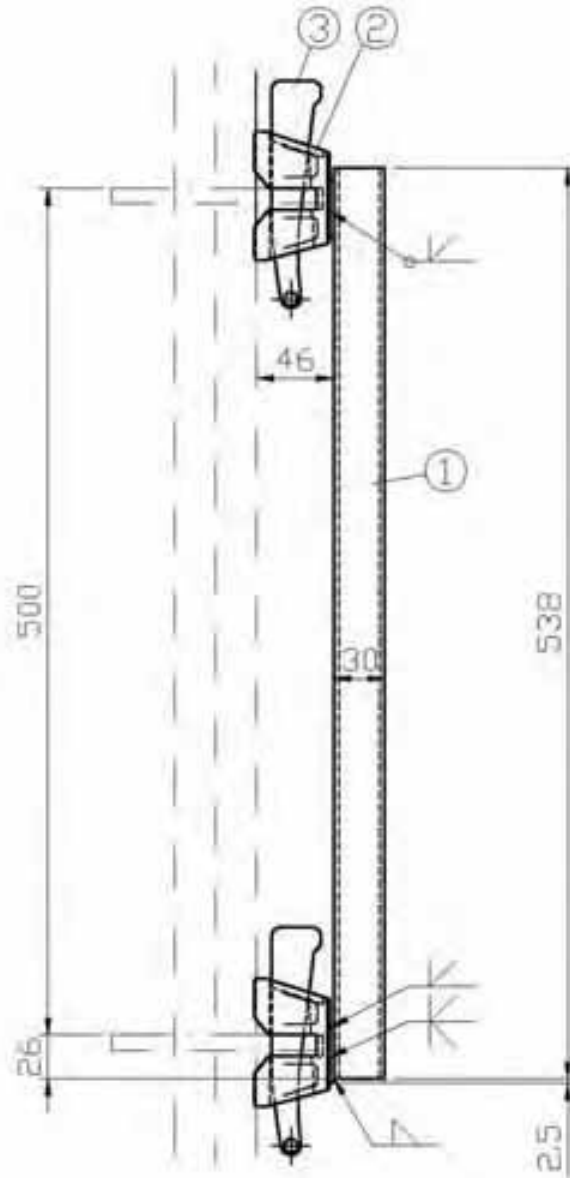
## ALBLITZ MODUL

### Bracket RE 0.50m

according to Z-8.22-906

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M711-B204\_ABM



- (1) RV 50x30x3
- (2) U-ledger connection plus
- (3) Wedge 6mm

S235JRH

S550MC

galvanized



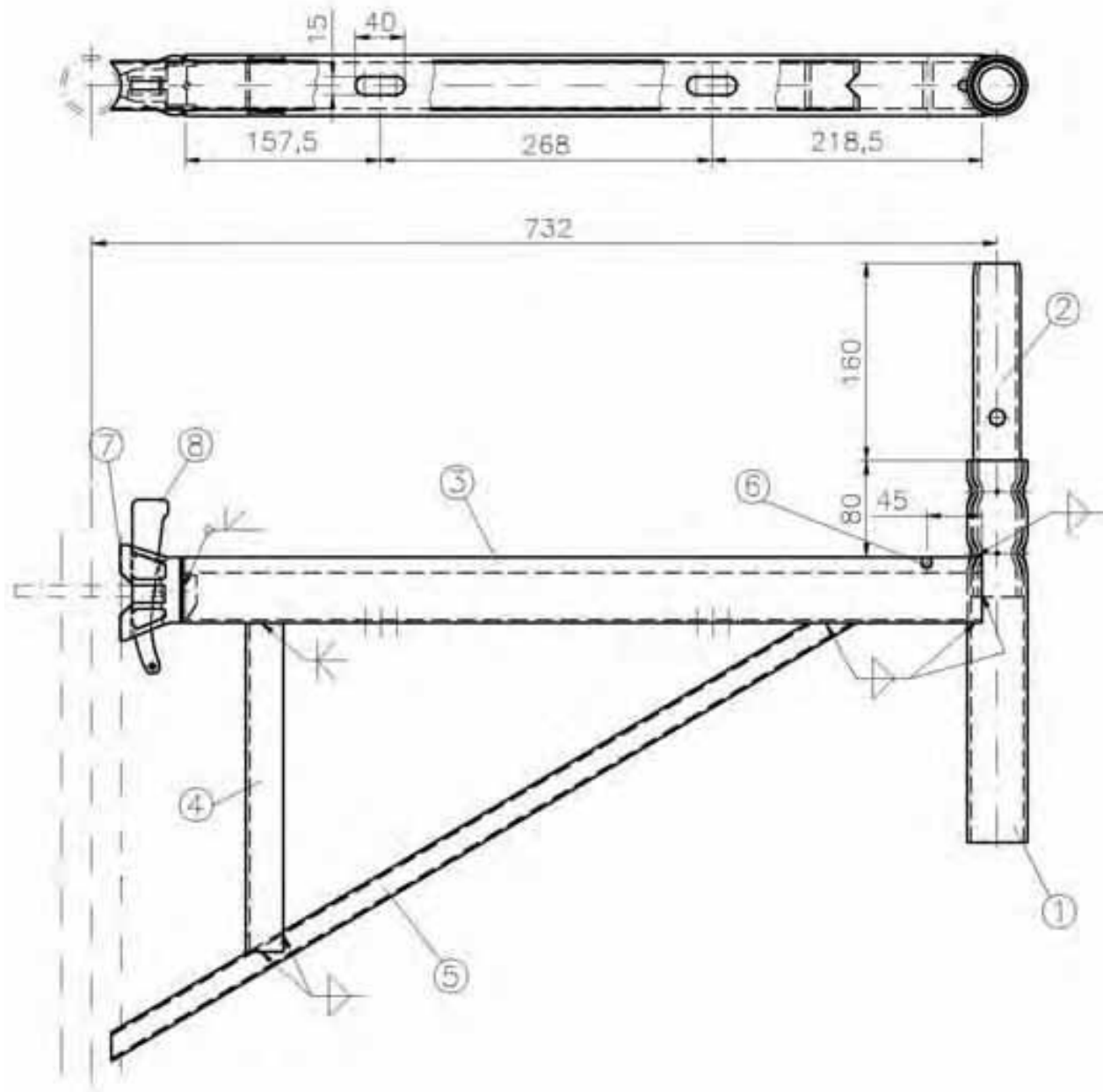
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09603 Großschirma

**ALBLITZ MODUL**  
**Suspended scaffold connector**

according to Z-8.22-906

Annex B, page 78 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik

M711-B205\_ABM



- |                          |         |                                 |
|--------------------------|---------|---------------------------------|
| (1) R 48.3x3.2           | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| (2) R 38x3.6             | S235JR  | ReH $\geq$ 320N/mm <sup>2</sup> |
| (3) U-profile 48x52x2.5  | S235JR  |                                 |
| (4) U 50x30x3; L=147     | S235JR  |                                 |
| alternatively: U 47x30x3 | S235JR  |                                 |
| (5) RV 40x20x2           | S235JRH |                                 |
| (6) Rd 8                 | S235JR  |                                 |
| (7) U-ledger connection  |         |                                 |
| (8) Wedge 6mm            | S550MC  |                                 |

galvanized; all welds a=2.5mm



63828 Edelbach  
09603 Großschirma

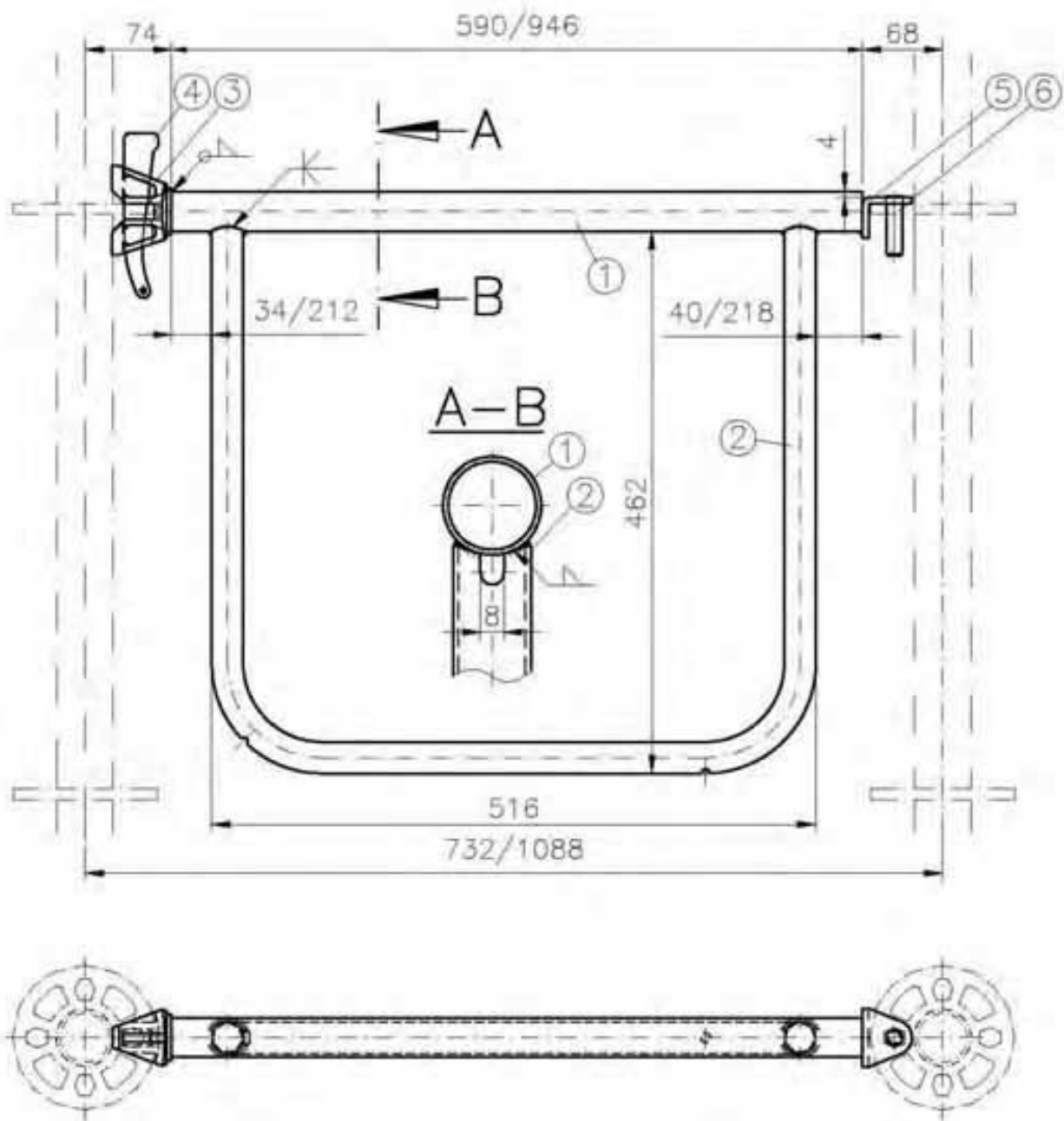
## ALBLITZ MODUL

### Modular bracket 0.73m

according to Z-8.22-906

Annex B, page 79 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik

M711-B207\_ABM



- |                              |         |                                 |
|------------------------------|---------|---------------------------------|
| (1) R 33.7x1.8               | S235JRH | ReH $\geq$ 320N/mm <sup>2</sup> |
| alternatively: tube 33.7x2.0 | S235JR  |                                 |
| (2) Tube 26.9x2              | S235JR  |                                 |
| (3) Tube ledger connection   |         |                                 |
| (4) Wedge 6mm                | S550MC  |                                 |
| (5) FI 50x5                  | S235JR  |                                 |
| (6) Rd 14                    | S235JR  |                                 |

galvanized; all welds a=2.5mm



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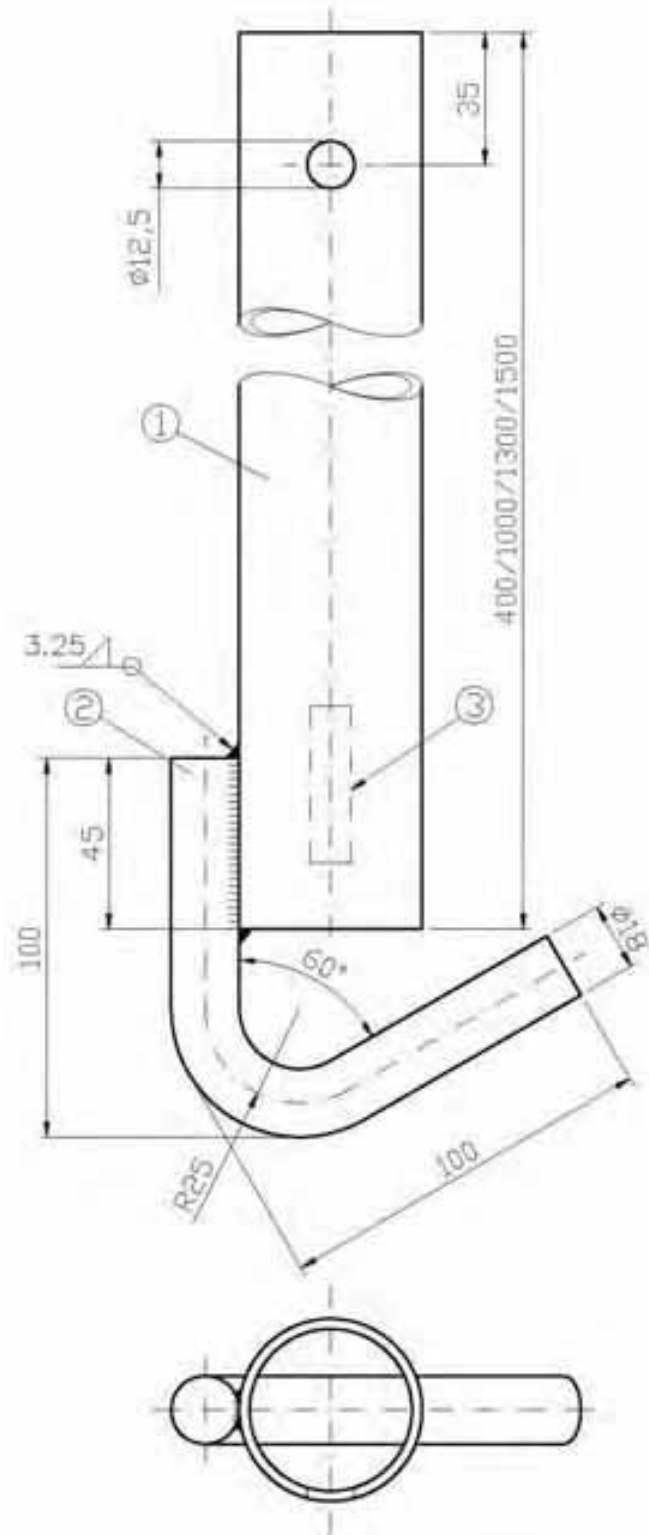
## ALBLITZ MODUL

**Modular double-end guardrail**

according to Z-8.22-906

Annex B, page 80 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik

M711-B208\_ABM



- (1) R 48,3xt S235JRH  $ReH \geq 320 N/mm^2$   
 $t=2.7mm$ ; alternatively 3.2mm  
 (2) Rd 18 S355J2  
 (3) Marking

galvanized



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 09603 Großschirma

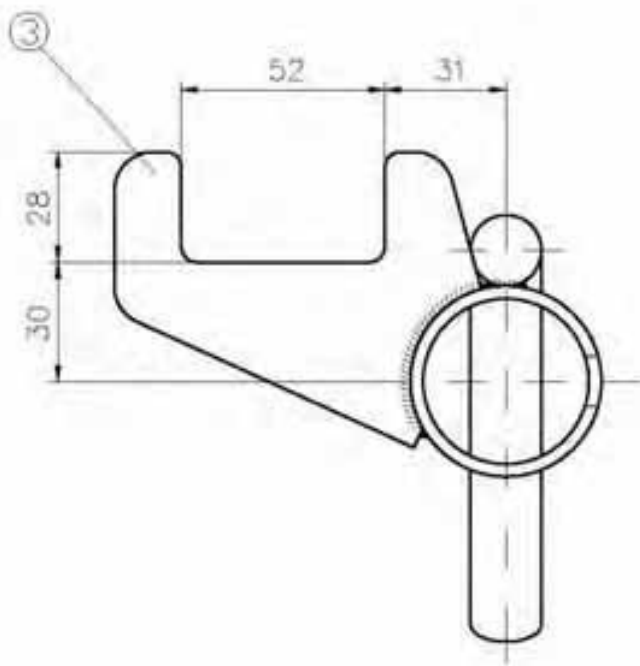
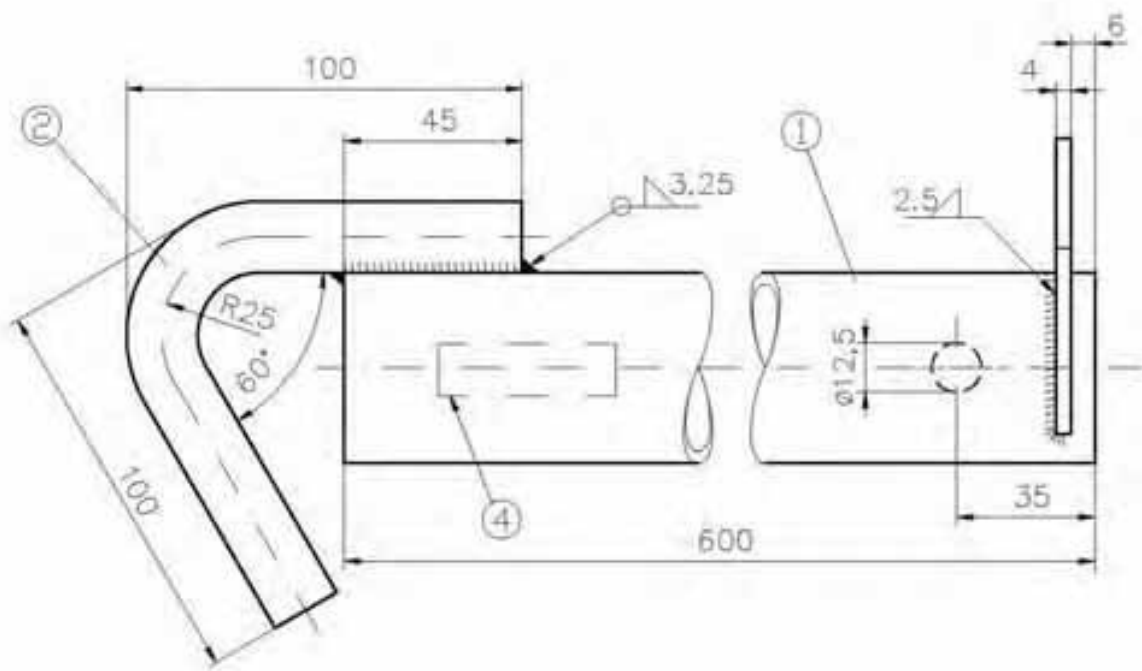
## ALBLITZ MODUL

Scaffold retainer

according to Z-8.1-862

Annex B, page 81 to  
 the national technical  
 approval Z-8.22-913  
 of 7. May 2012  
 Deutsches Institut für Bautechnik

A709-A129\_ABM



- (1) R 48.3xt  
t=2.7mm; alternatively 3.2mm
- (2) Rd 18
- (3) Bl 4
- (4) Marking

S235JRH ReH $\geq$ 320N/mm<sup>2</sup>

S355J2  
S235JR

galvanized



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09603 Großschirma

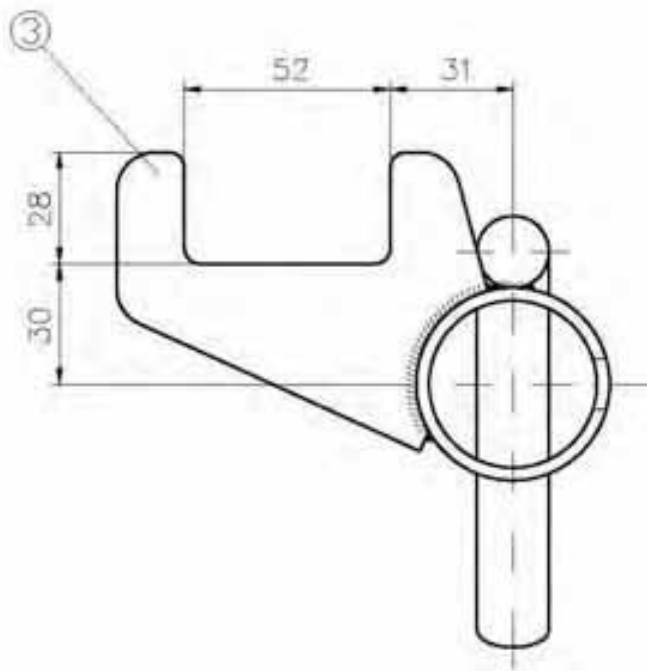
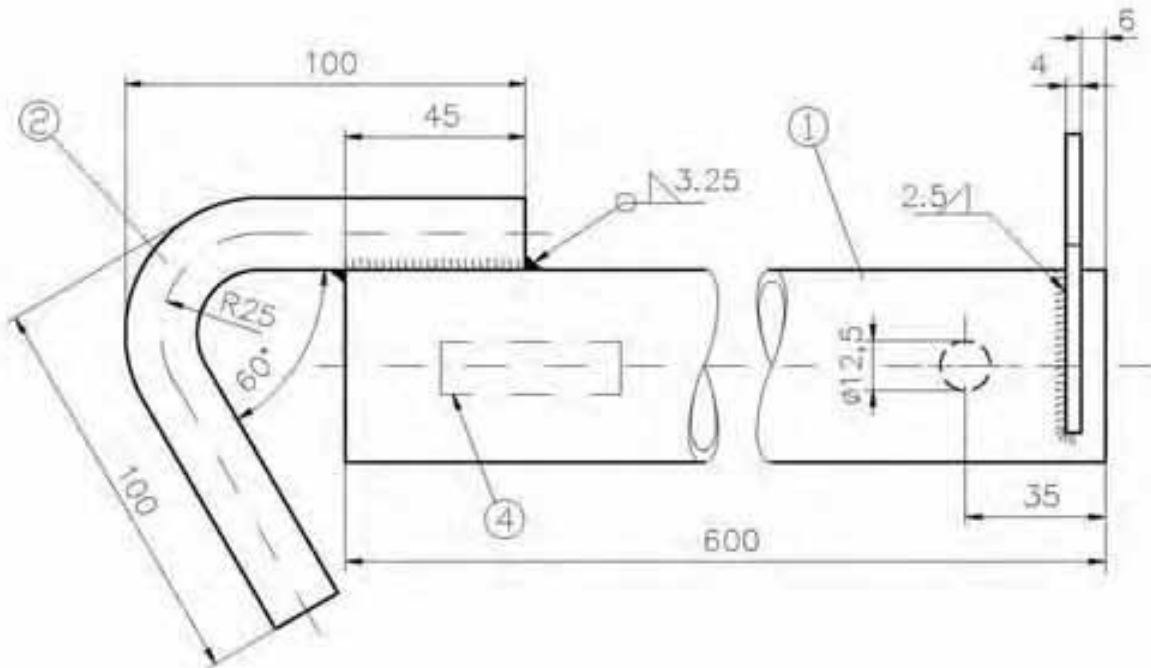
**ALBLITZ MODUL**

**Quick-release anchor**

according to Z-8.1-862

Annex B, page 82 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik

A709-A130\_ABM



- (1) Thread rolled on tube  $\varnothing 38 \times 4.5$  S355J2H
- (2) Adjusting nut G20Mn5, zinc-plated
- (3) BI  $t=5\text{mm}$  S235JR
- (4) Thread damaged by two dents
- (5) Marking

galvanized



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**ALBLITZ MODUL**

**Base jack**

according to Z-8.1-862

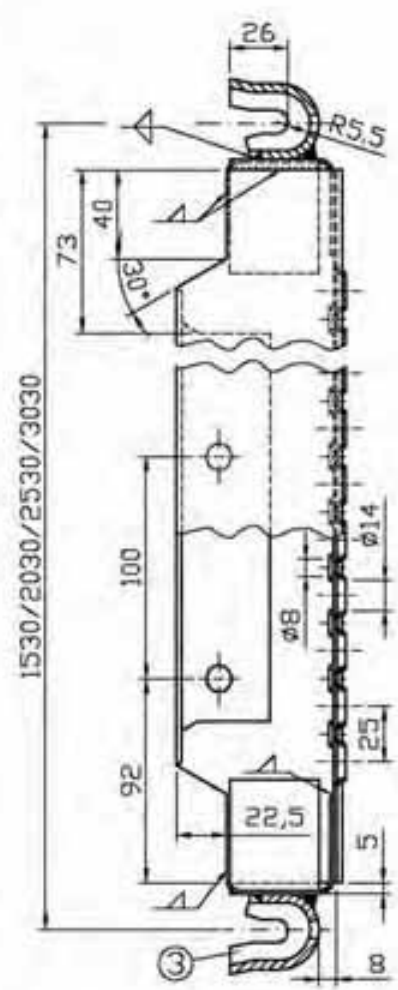
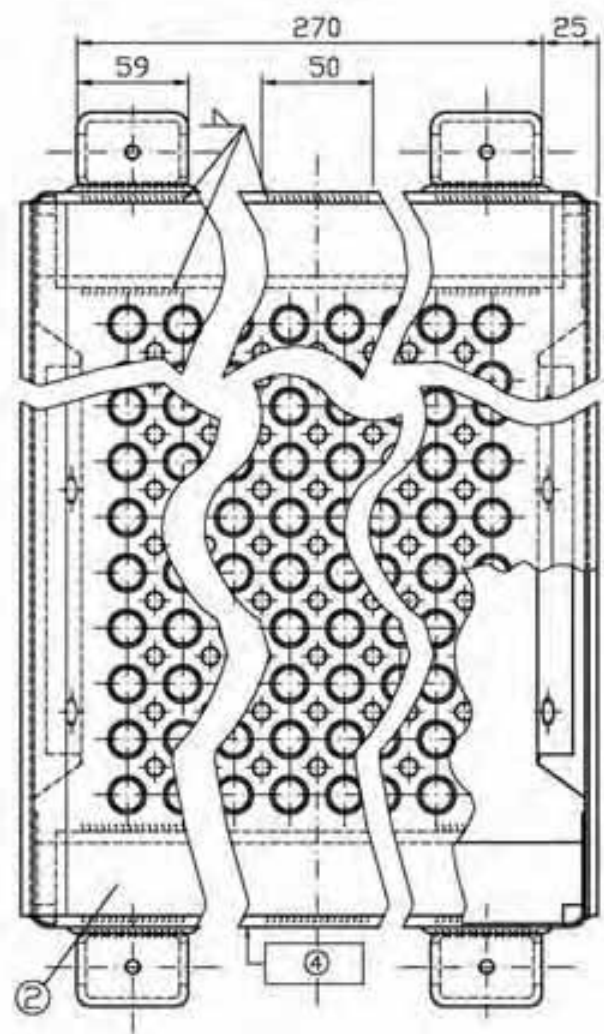
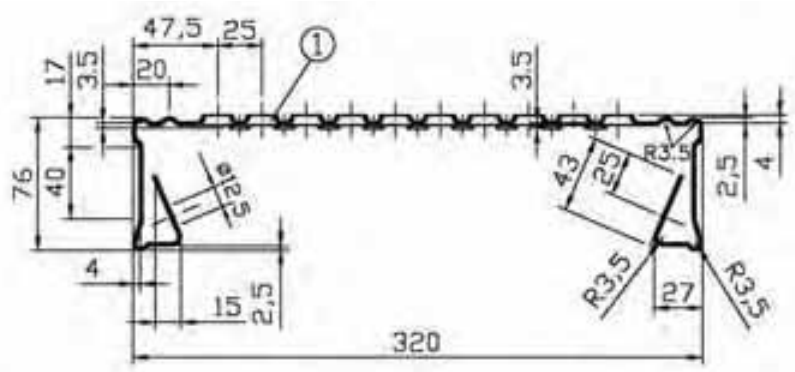
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the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik

A709-A031\_ABM





Bay length	Load class
[mm]	
1572	6
2072	6
2572	5
3072	4



- (1) Bd 590x1.5
- (2) Bd 120x2; altern. Bd 120x1.5
- (3) Bd 70x4
- (4) Marking

DIN EN 10111-DD11  
DIN EN 10111-DD11  
DIN EN 10111-DD13

ReH≥280N/mm<sup>2</sup>  
ReH≥240N/mm<sup>2</sup>  
ReH≥240N/mm<sup>2</sup>

galvanized; all welds a=3mm



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**ALBLITZ MODUL**

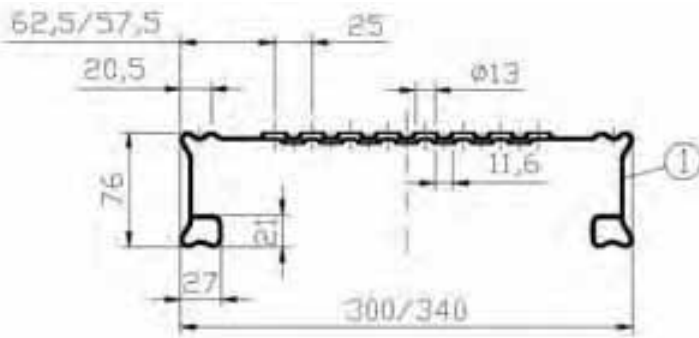
**Steel deck**

according to Z-8.1-862

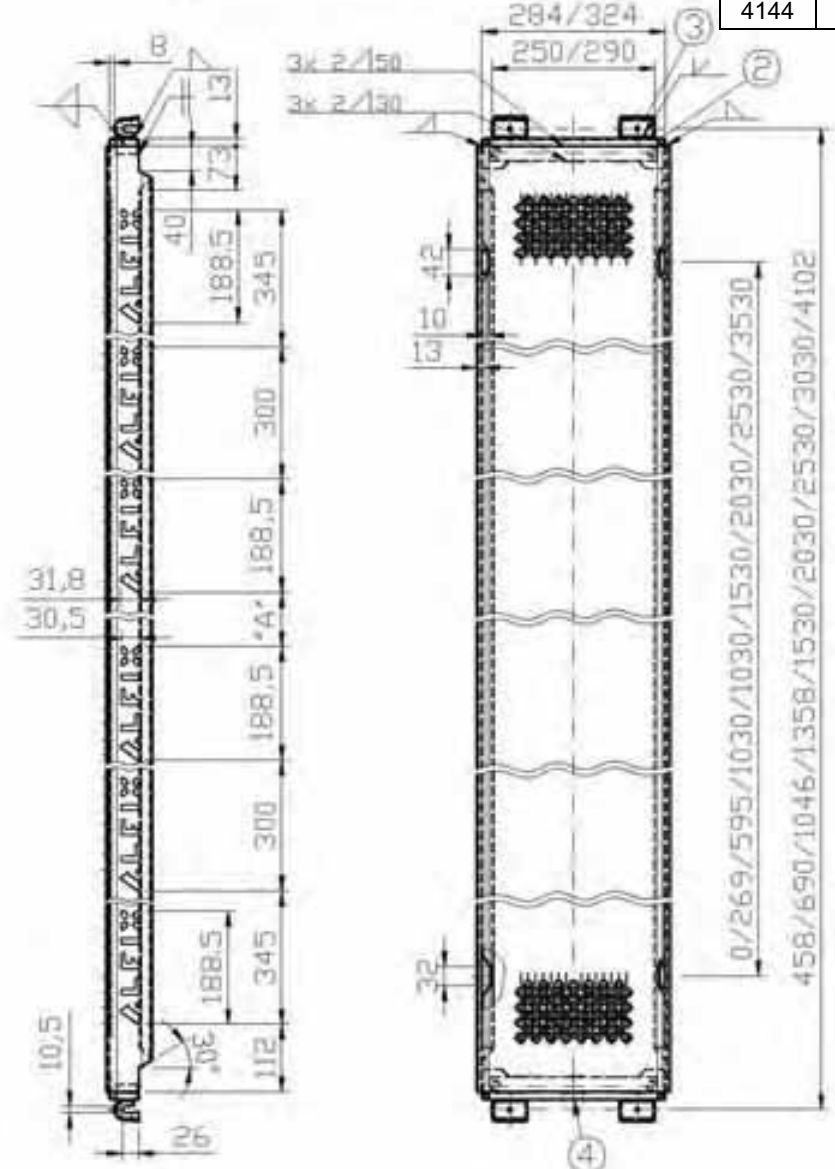
Former design

Annex B, page 85 of  
general national technical  
approval Z-8.22-913  
as of May 07, 2012  
Deutsches Institut für Bautechnik

A705-A007\_ABM




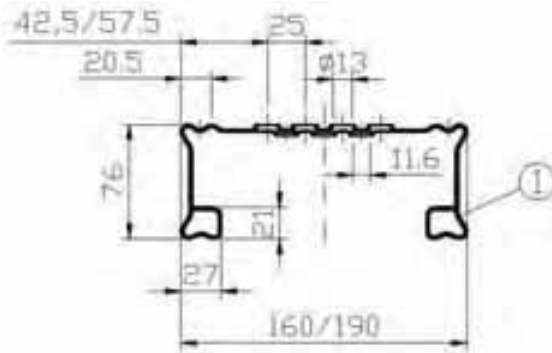
Bay length	Number of lettering(s)	Size "A"	Load class
[mm]	[left/right]	[mm]	
500	1/-	-	6
732	1/1	36	6
1088	1/1	392	6
1400	1/1	704	6
1572	1/1	876	6
2072	2/2	686	6
2572	2/2	1186	5
3072	3/3	1086	4
4144	3/3	2203	3



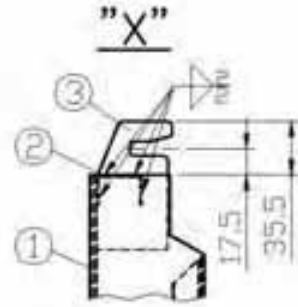
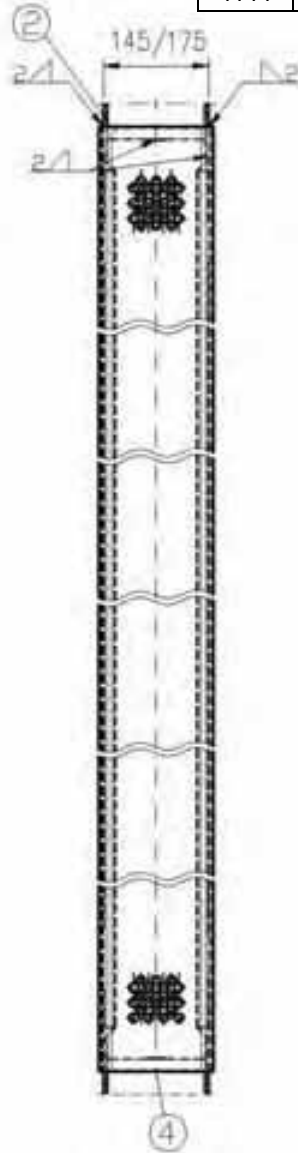
- (1) Bd 1.5mm alternatively: DIN EN 10111-DD11 ReH≥280N/mm<sup>2</sup> Rm≥360N/mm<sup>2</sup>
- (2) Bd 1.5mm DIN EN 10025-2 S235JR ReH≥280N/mm<sup>2</sup> Rm≥360N/mm<sup>2</sup>
- (3) Bd 4mm DIN EN 10111-DD11 ReH≥240N/mm<sup>2</sup> Rm≥360N/mm<sup>2</sup>
- (4) Marking DIN EN 10111-DD13 ReH≥240N/mm<sup>2</sup> Rm≥360N/mm<sup>2</sup>

galvanized; all welds a=2mm

 <p>63828 Edelbach 09603 Großschirma</p>	<p><b>ALBLITZ MODUL</b></p> <p><b>Steel plank AF 0.30m; 0.34m</b></p> <p>according to Z-8.1-862</p>	<p>Annex B, page 86 to the national technical approval Z-8.22-913 of 7. May 2012 Deutsches Institut für Bautechnik</p> <p>A709-A167_ABM</p>
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Bay length [mm]	Number of lettering(s) [left/right]	Size "A" [mm]	Load class
500	1/-	-	6
732	1/1	36	6
1088	1/1	392	6
1400	1/1	704	6
1572	1/1	876	6
2072	2/2	686	6
2572	2/2	1186	5
3072	3/3	1086	4
4144	3/3	2203	3



- (1) Bd 1.5mm      DIN EN 10111-DD11      ReH≥280N/mm<sup>2</sup>      Rm≥360N/mm<sup>2</sup>  
     alternatively:      DIN EN 10025-2 S235JR      ReH≥280N/mm<sup>2</sup>      Rm≥360N/mm<sup>2</sup>
- (2) U 30x20x1.5      S235JR
- (3) FI 50x6      S235JR
- (4) Marking

galvanized; all welds a=2mm



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### ALBLITZ MODUL

Intermediate deck AF

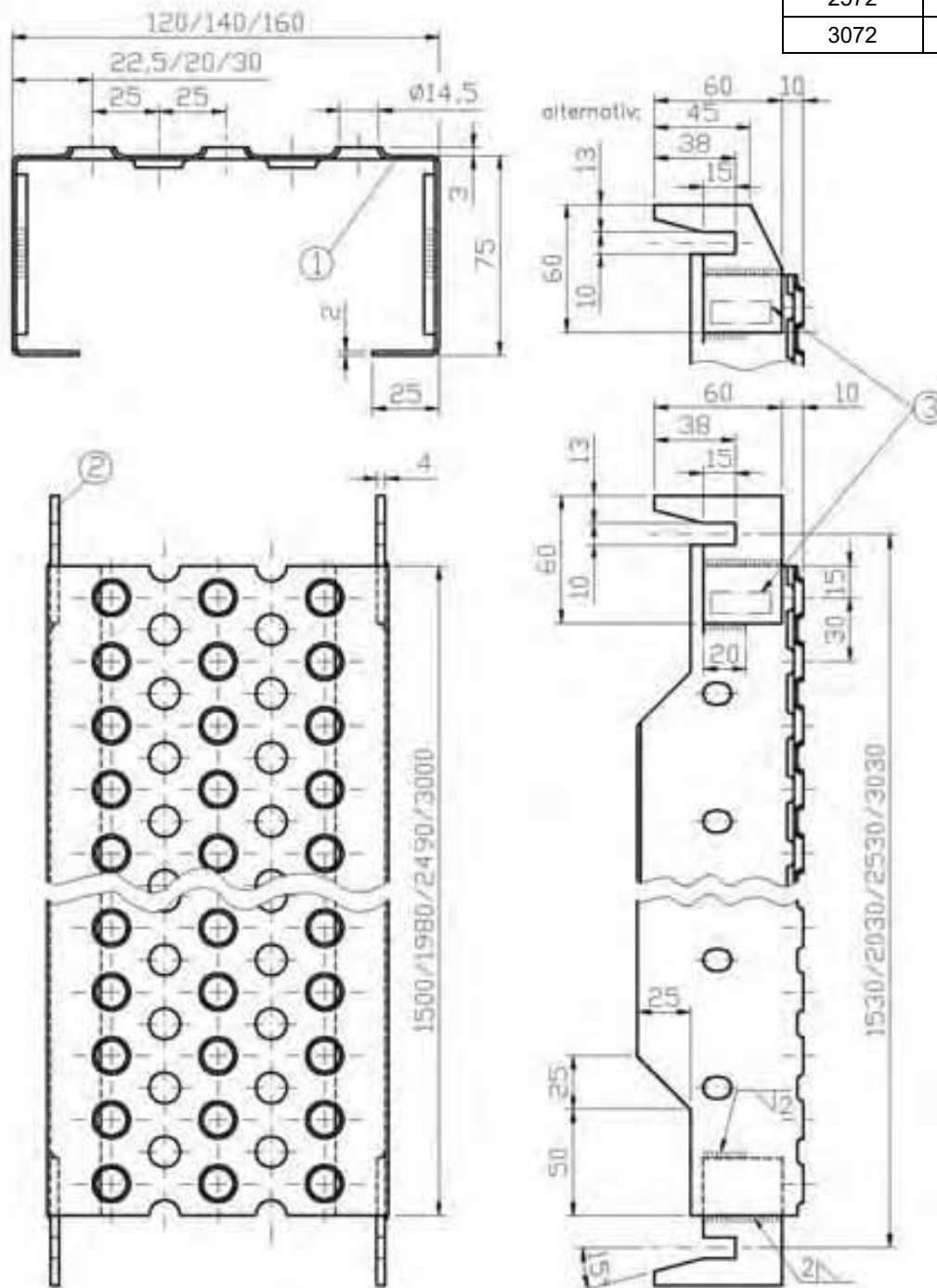
0.16m; 0.19m

according to Z-8.1-862

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of 7. May 2012  
Deutsches Institut für Bautechnik

A709-A181\_ABM

Bay length [mm]	Load class
1572	6
2072	6
2572	5
3072	4



- (1) Profiled safety grating, 2mm round (Graepel) DIN EN 10025-2 S235JR  
 alternatively: DIN EN 10111-DD11  $ReH \geq 240N/mm^2$   $Rm \geq 360N/mm^2$   
 (2) BI 4x60x60 DIN EN 10025-2 S235JR  
 (3) Marking

galvanized; all welds  $a=2mm$



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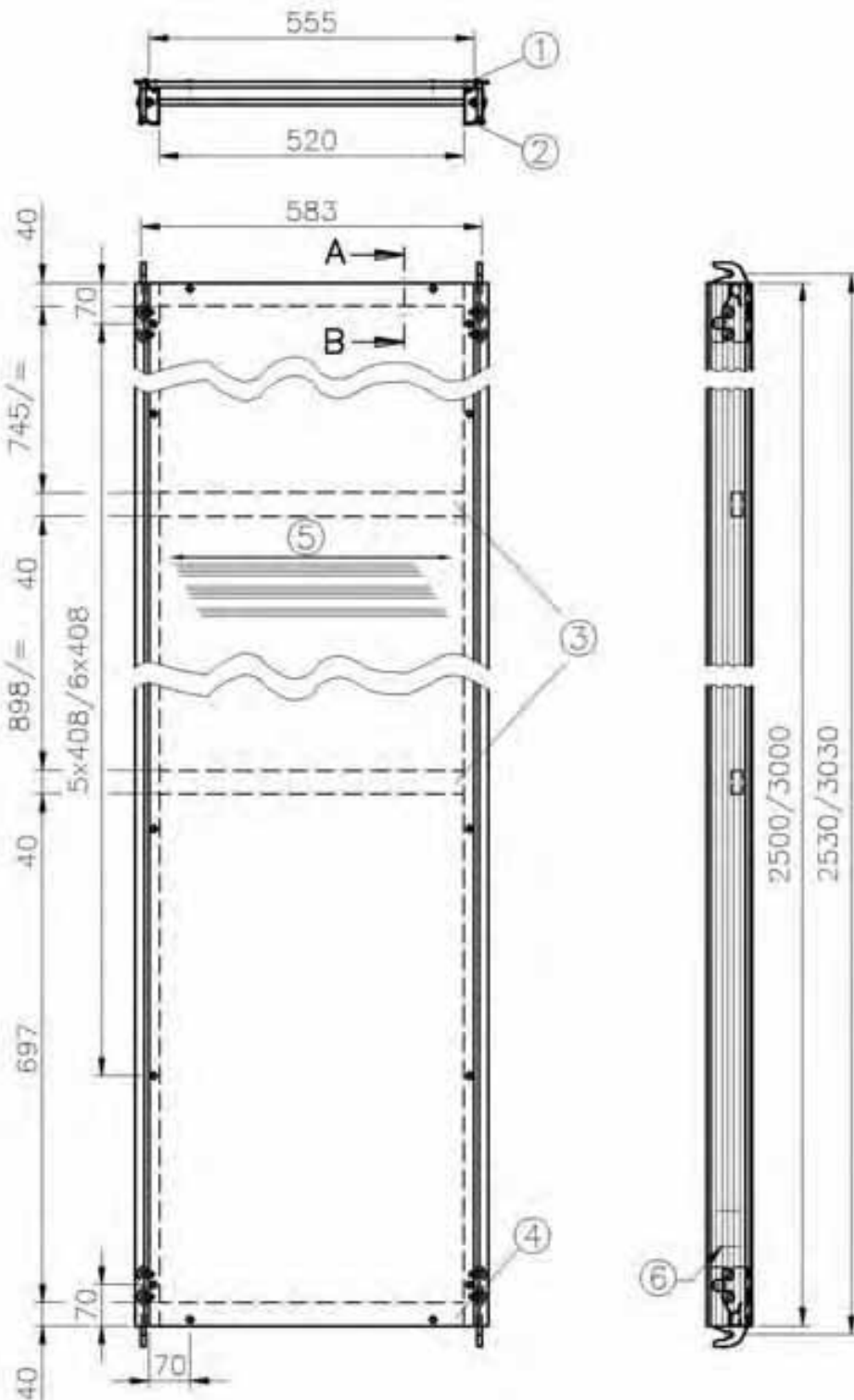
## ALBLITZ MODUL

### Intermediate deck

according to Z-8.1-862

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 the national technical  
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 of 7. May 2012  
 Deutsches Institut für Bautechnik

A709-A108\_ABM



- |   |                               |
|---|-------------------------------|
| (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G                     |
| (2) Brace profile 78x42                                     | EN AW-6063-T66 (AlMgSi0.5F25) |
| (3) RV 40x20x2  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (4) Gripping profile  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (5) Fibre direction   |                               |
| (6) Marking   |                               |

Details, see A705-A011

Load class 3

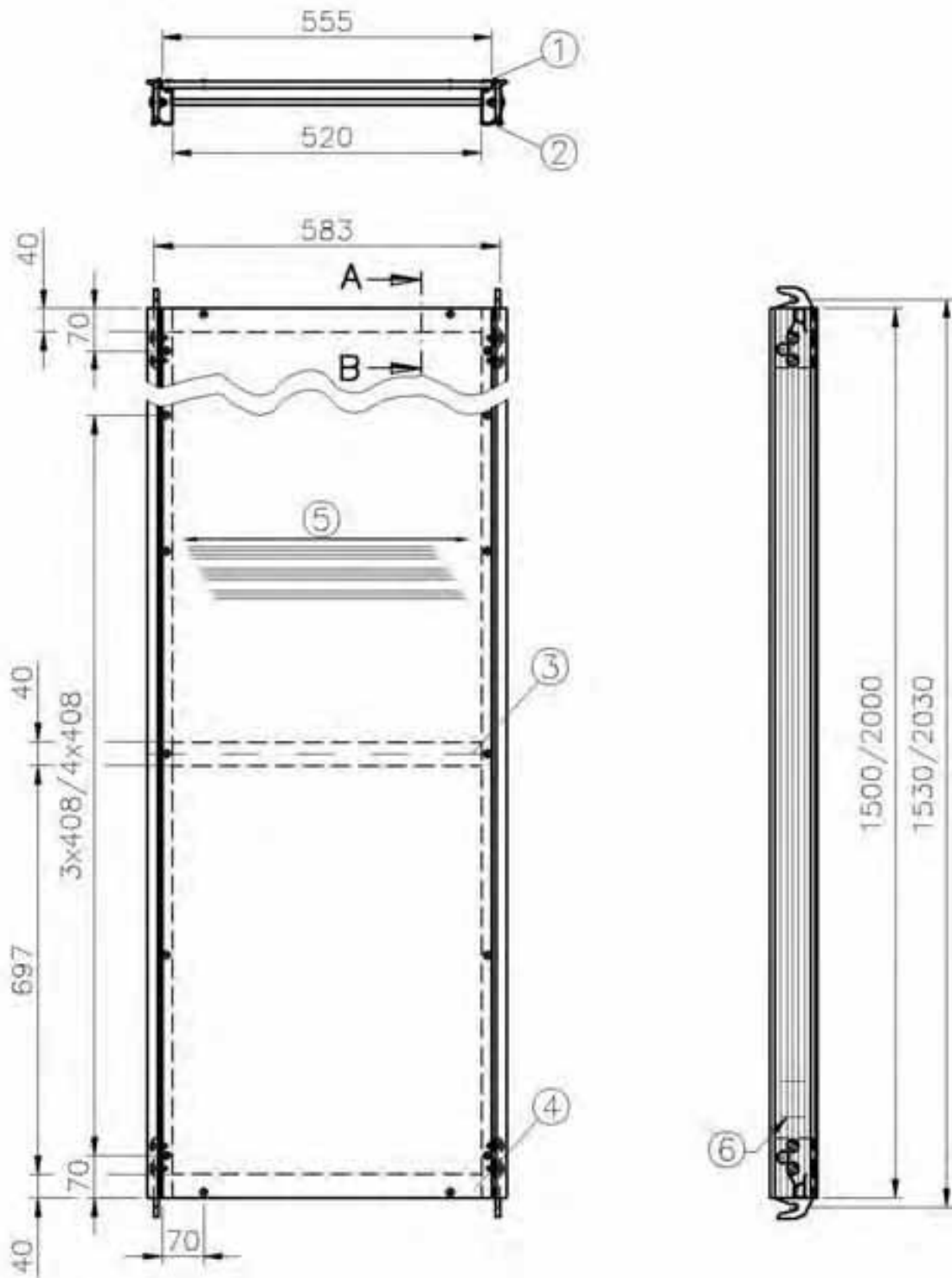


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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium deck with plywood**  
**2.57m; 3.07m**

according to Z-8.1-862

Former design  
Annex B, page 89 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik  
A705-A009\_ABM



- |   |                               |
|---|-------------------------------|
| (1) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G                     |
| (2) Brace profile 78x42                                     | EN AW-6063-T66 (AlMgSi0.5F25) |
| (3) RHP 40x20x2   | EN AW-6063-T66 (AlMgSi0.5F25) |
| (4) Gripping profile  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (5) Fibre direction   |                               |
| (6) Marking   |                               |

Details, see A705-A011

Load class 3

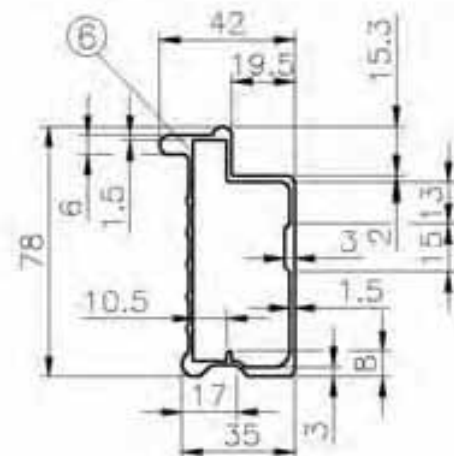
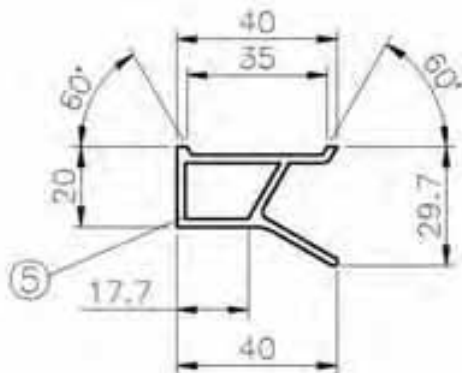
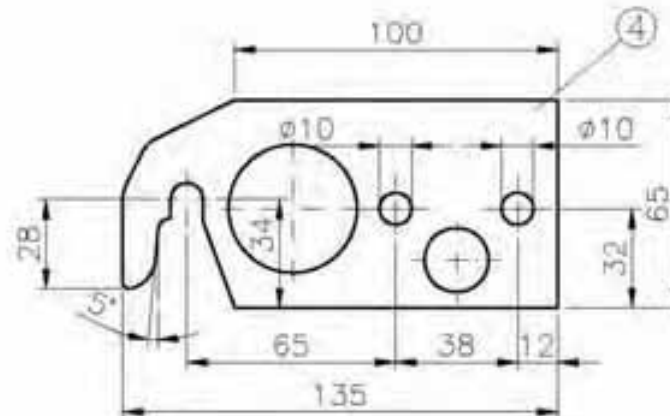
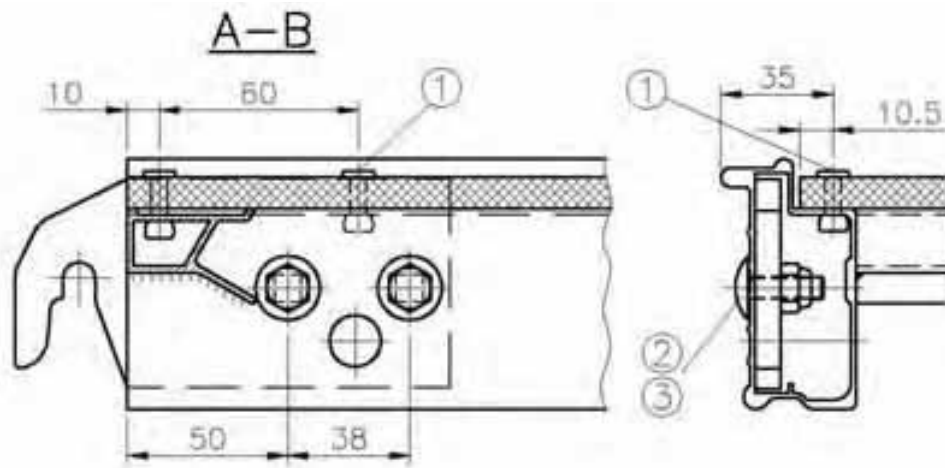


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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium deck with plywood**  
**1.57m; 2.07m**

according to Z-8.1-862

Former design  
Annex B, page 90 to  
the national technical  
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A705-A010\_ABM



- (1) Blind rivet  $\varnothing 5 \times 20$
- (2) Round-head bolt
- (3) Nut, self-locking
- (4) Mounting claw
- (5) Gripping profile; web thickness 2mm
- (6) Aluminium brace profile

M8x20 DIN 603  
M8 DIN 980  
BI 8

EN AW-5754 H112 (AlMg3)

S235JRG2 galvanized  
EN AW-6063-T66 (AlMgSi0.5F25)  
EN AW-6063-T66 (AlMgSi0.5F25)



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09603 Großschirma

## ALBLITZ MODUL

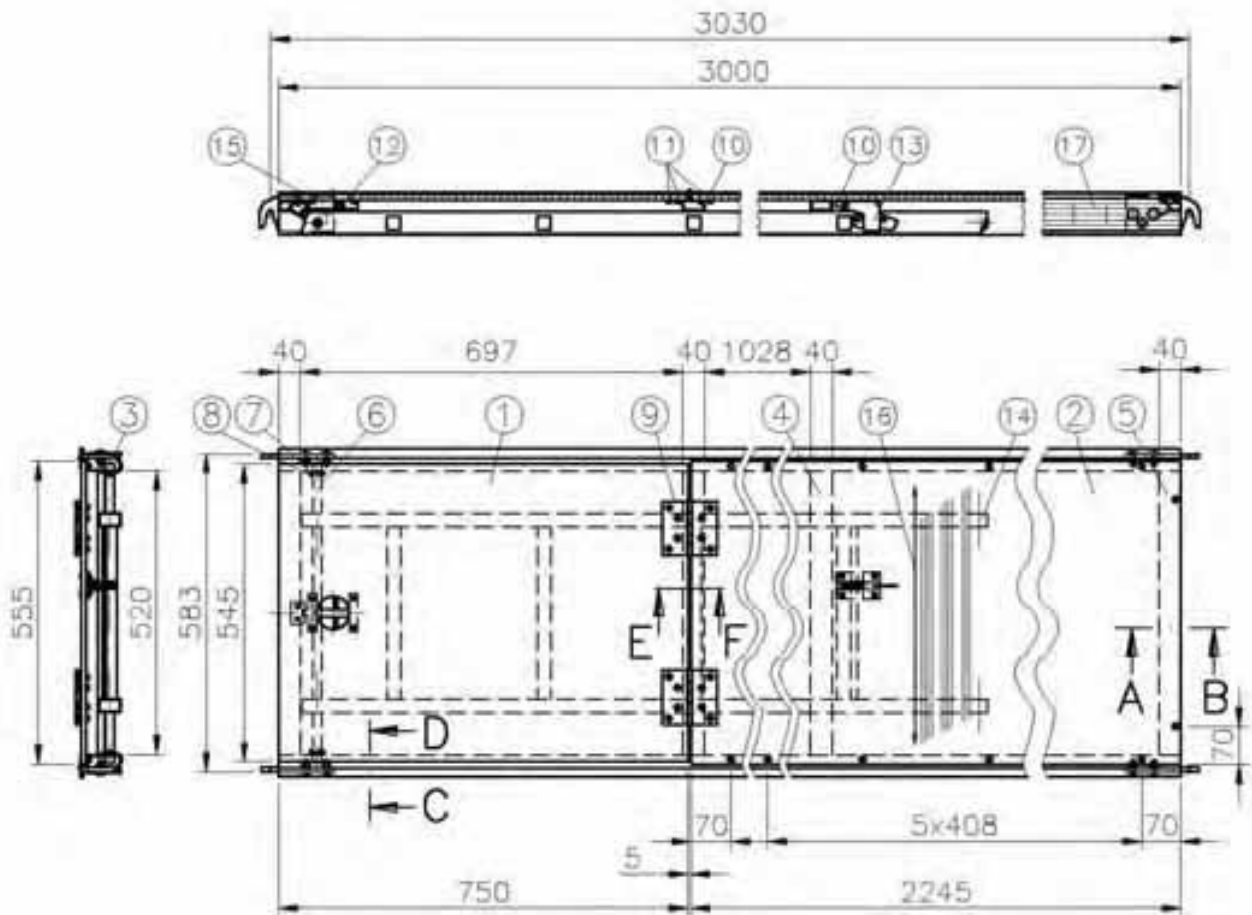
### Details Aluminium deck

according to Z-8.1-862

#### Former design

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the national technical  
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of 7. May 2012  
Deutsches Institut für Bautechnik

A705-A011\_ABM



- |   |                               |
|---|-------------------------------|
| (1) WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 | BFU 100-G                     |
| (2) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G                     |
| (3) Brace profile 78x42                                     | EN AW-6063-T66 (AlMgSi0.5F25) |
| (4) RV 40x20x2  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (5) Gripping profile  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (6) Tube $\varnothing 15 \times 2$                          | S235JRH                       |
| (7) Disc $\varnothing 17$                                   | DIN 125                       |
| (8) Cotter pin $\varnothing 4 \times 25$                    | DIN 94                        |
| (9) Hinge 100x100x1.6                                       |                               |
| (10) Blind rivet $\varnothing 5 \times 20$                  | EN AW-5754 H112 (AlMg3)       |
| (11) Blind rivet $\varnothing 4.8 \times 18$                | EN AW-5754 H112 (AlMg3)       |
| (12) Blind rivet $\varnothing 4.8 \times 16$                | EN AW-5754 H112 (AlMg3)       |
| (13) Ladder holder  |                               |
| (14) Ladder,  | see A709-A115                 |
| (15) Ledger   |                               |
| (16) Fibre direction  |                               |
| (17) Marking  |                               |

Details, see A705-A011 and A705-014

Load class 3



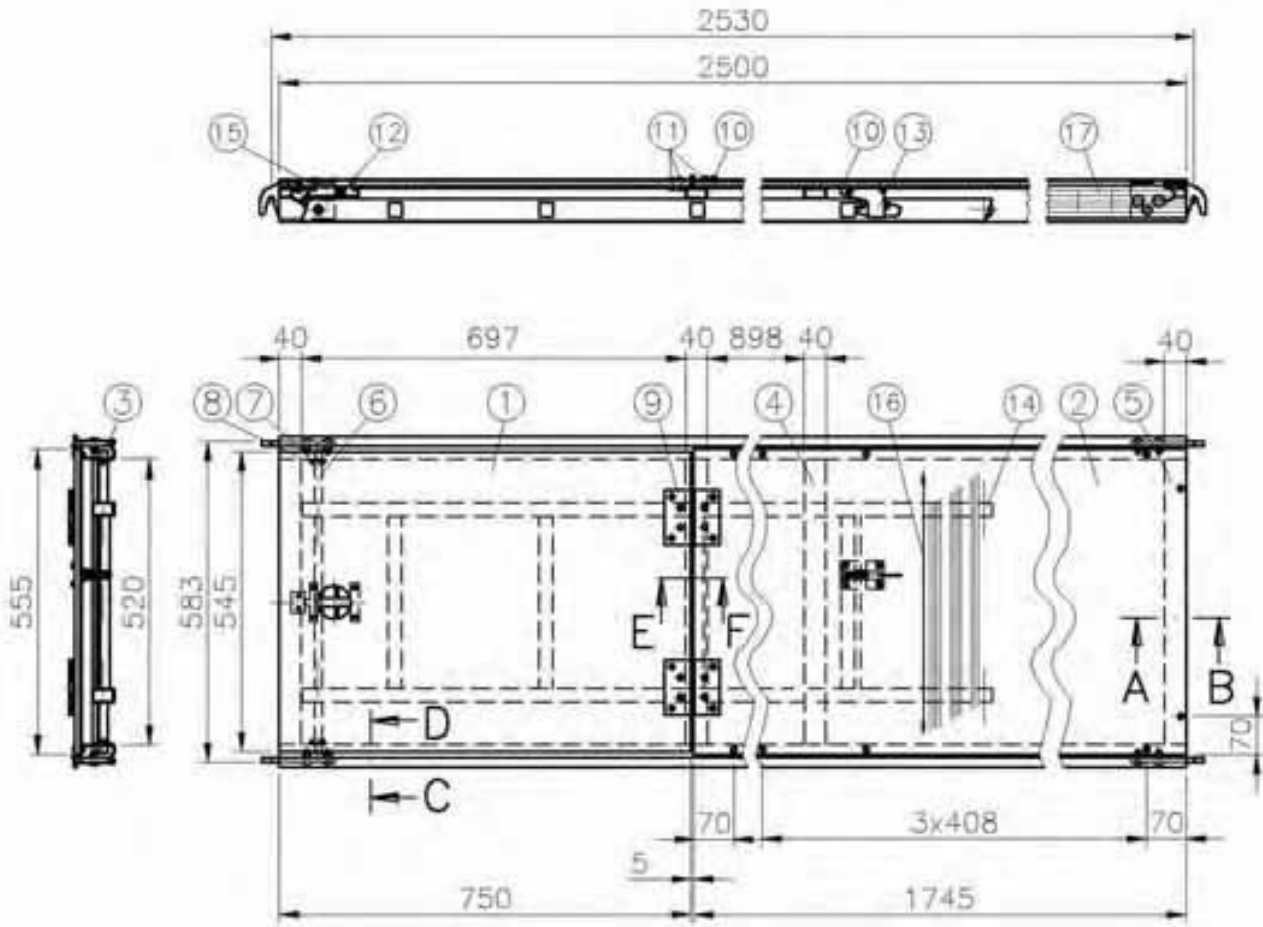
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09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium hatch-type access**  
**deck 3.07m with ladder**

according to Z-8.1-862

Former design  
Annex B, page 92 to  
the national technical  
approval Z-8.22-913  
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Deutsches Institut für Bautechnik  
A705-A012\_ABM





- |   |                               |
|---|-------------------------------|
| (1) WISA Combi Mirror plywood 10x545 in acc. with Z-9.1-430 | BFU 100-G                     |
| (2) WISA Combi Mirror plywood 10x555 in acc. with Z-9.1-430 | BFU 100-G                     |
| (3) Brace profile 78x42                                     | EN AW-6063-T66 (AlMgSi0.5F25) |
| (4) RV 40x20x2  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (5) Gripping profile  | EN AW-6063-T66 (AlMgSi0.5F25) |
| (6) Tube $\varnothing$ 15x2                                 | S235JRH                       |
| (7) Disc $\varnothing$ 17                                   | DIN 125                       |
| (8) Cotter pin $\varnothing$ 4x25                           | DIN 94                        |
| (9) Hinge 100x100x1.6                                       |                               |
| (10) Blind rivet $\varnothing$ 5x20                         | EN AW-5754 H112 (AlMg3)       |
| (11) Blind rivet $\varnothing$ 4.8x18                       | EN AW-5754 H112 (AlMg3)       |
| (12) Blind rivet $\varnothing$ 4.8x16                       | EN AW-5754 H112 (AlMg3)       |
| (13) Ladder holder  |                               |
| (14) Ladder,  | see A7059-A115                |
| (15) Ledger   |                               |
| (16) Fibre direction  |                               |
| (17) Marking  |                               |

Details, see A705-A011 and A705-A014

Load class 3

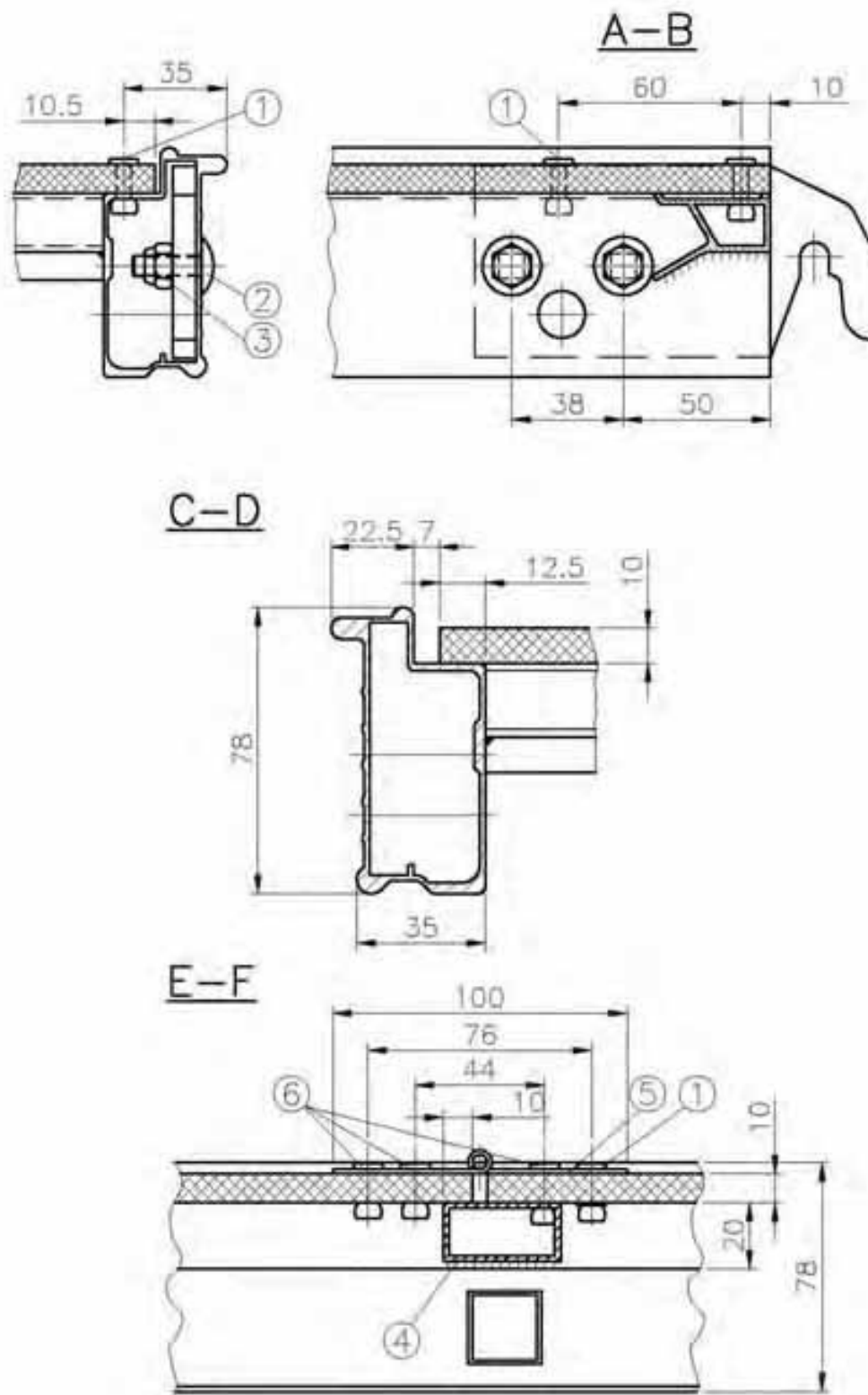


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**ALBLITZ MODUL**  
**Aluminium hatch-type access**  
**deck 2.57m with ladder**

according to Z-8.1-862

Former design  
Annex B, page 93 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik  
A705-A013\_ABM



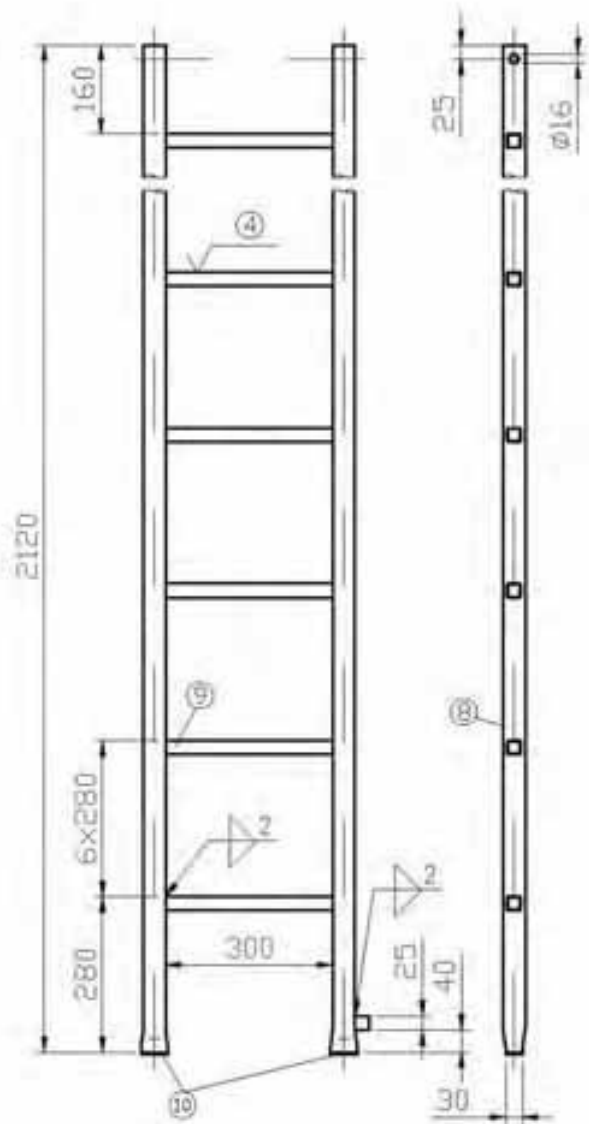
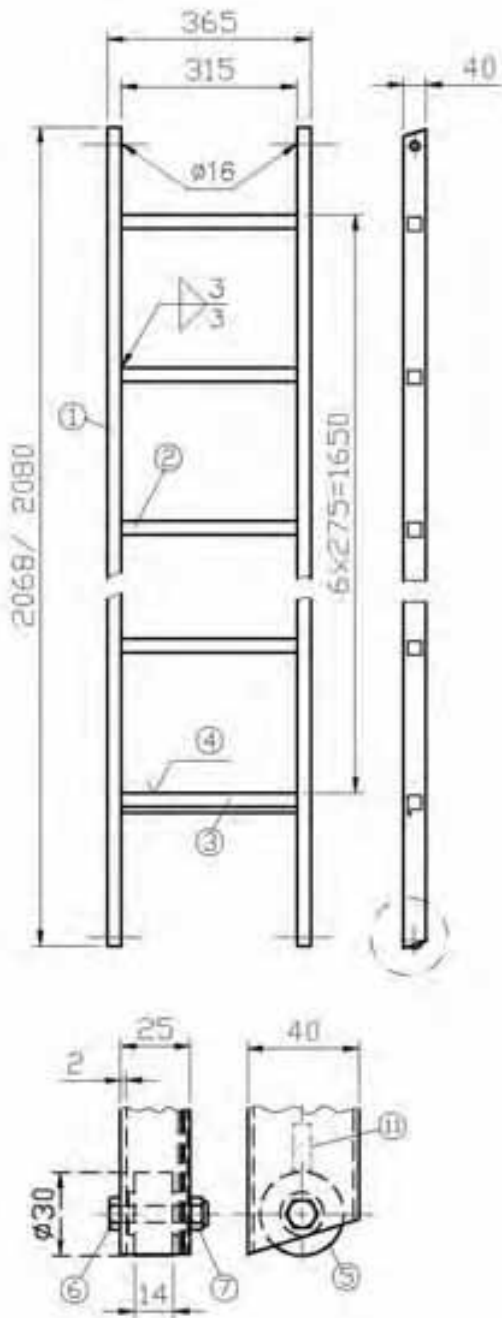
- |   |                               |
|---|-------------------------------|
| (1) Blind rivet $\varnothing 5 \times 20$   | EN AW-5754 H112 (AlMg3)       |
| (2) Round-head bolt                         | M8x20 DIN 603                 |
| (3) Nut, self-locking                       | M8 DIN 980                    |
| (4) Box 40x20x2                             | EN AW-6063-T66 (AlMgSi0.5F25) |
| (5) Hinge 100x100x1.6                       |                               |
| (6) Blind rivet $\varnothing 4.8 \times 18$ | EN AW-5754 H112 (AlMg3)       |



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**ALBLITZ MODUL**  
Sections  
**Aluminium hatch-type**  
access deck  
according to Z-8.1-862

Former design  
Annex B, page 94 to  
the national technical  
approval Z-8.22-913  
of 7. May 2012  
Deutsches Institut für Bautechnik  
A705-A014\_ABM



Former design  
-for use only-

- |   |                   |
|---|-------------------|
| (1) Brace profile 25x40x2                     | EN AW-6060-T66    |
| (2) Rung profile 25x25x1.5                    | EN AW-6060-T66    |
| (3) Interlocking rung profile 25x25x1.5       | EN AW-6060-T66    |
| (4) Grooving                                  |                   |
| (5) Castor Rd 30x18                           | 130PA/030/011/1/6 |
| (6) Hexagon screw M6x30-8.8-galvanized        | DIN 931           |
| (7) Hexagon nut, self-locking M6-8-galvanized | DIN 985           |
| (8) Tube Ø40x2                                | AlMgSiF28         |
| (9) Rung profile 25x25x1.5                    | AlMgSiF28         |
| (10) Tube shoe PVC                            |                   |
| (11) Marking                                  |                   |



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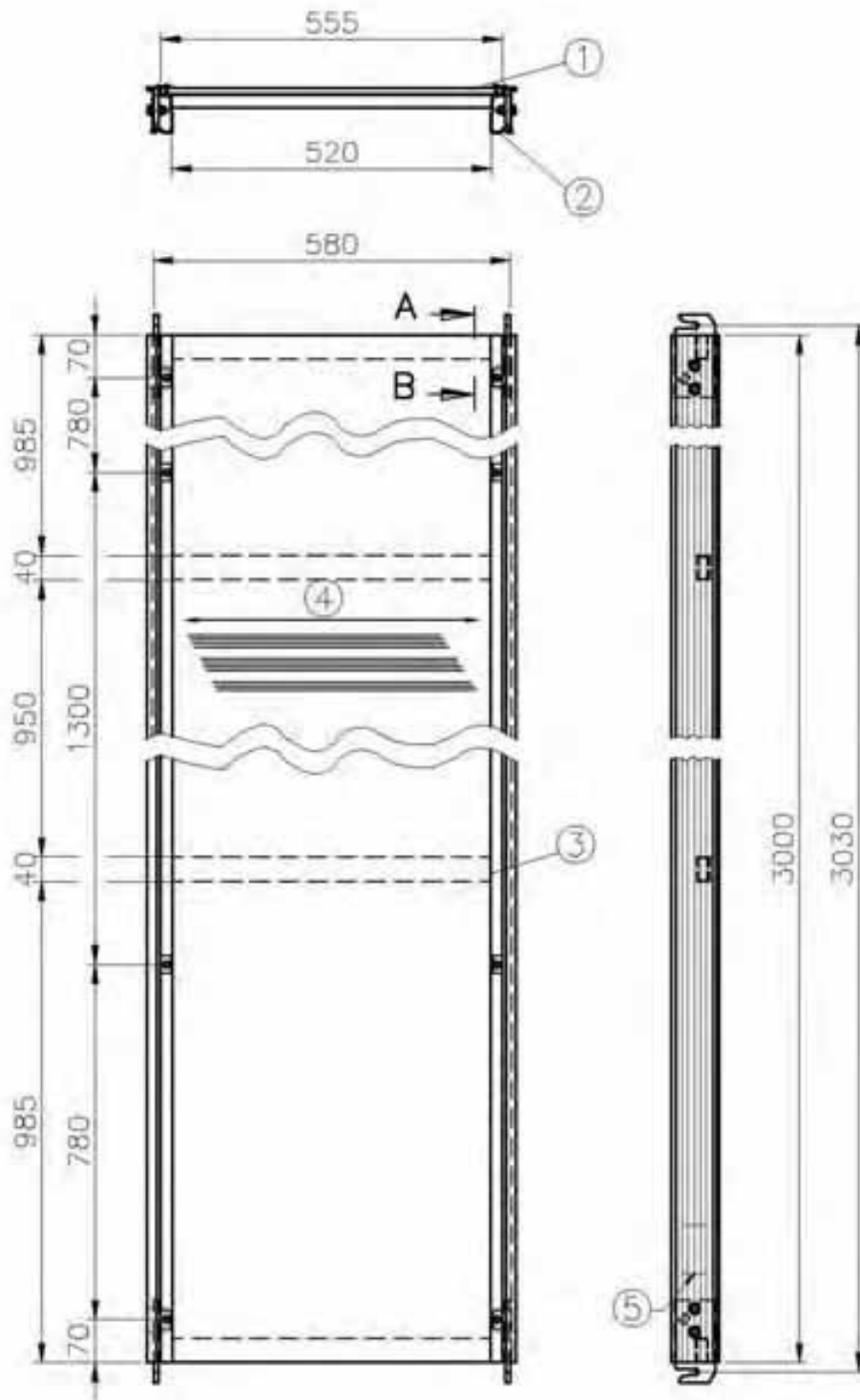
## ALBLITZ MODUL

### Integrated ladder

according to Z-8.1-862

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of 7. May 2012  
Deutsches Institut für Bautechnik

A709-A115\_ABM



- (1) Screen-printed plywood 10x555 (BFU 100-10 DIN 68705 Bl.3) until '97  
BFU 100G-10 DIN 68705 Bl.3
- (2) Aluminium brace 78x42(35) Form A AlMgSi0.5F25
- (3) K 40x20x2 AlMgSi0.5F25
- (4) Fibre direction
- (5) Marking

( ) = former design with marking: manufacturer's mark, year of manufacture, Z-8.1-310, Ü  
 Details, see A705-A018 Load class 3

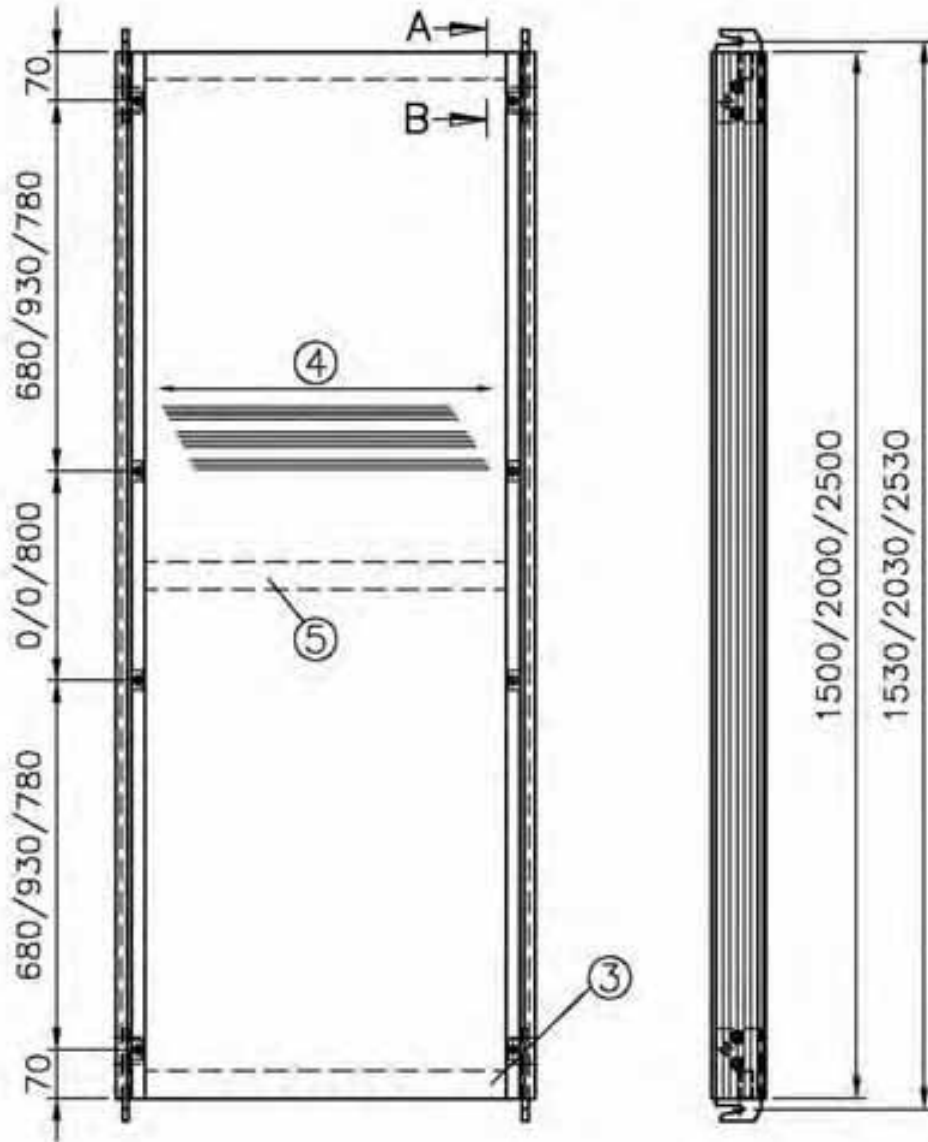
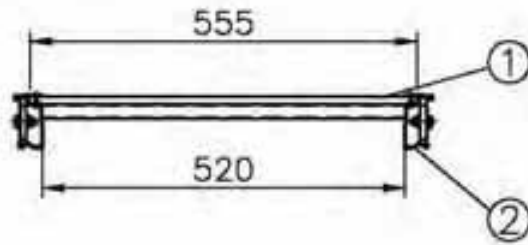


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 09603 Großschirma

**ALBLITZ MODUL**  
**Aluminium deck with plywood**  
**3.07m**  
 according to Z-8.1-862

Production of component has been terminated  
 -for use only-

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 of 7. May 2012  
 Deutsches Institut für Bautechnik  
 A705-A016\_ABM



- (1) Screen-printed plywood 10x555 (BFU 100-10 DIN 68705 Bl.3) until '97  
BFU 100G-10 DIN 68705 Bl.3
- (2) Aluminium brace 78x42(35), Form A AlMgSi0.5F25
- (3) K 40x20x2 AlMgSi0.5F25
- (4) Fibre direction
- (5) Bay length 2.5m only

( ) = former design with marking: manufacturer's mark, year of manufacture, Z-8.1-310, Ü  
Details, see A705-A018 Load class 3

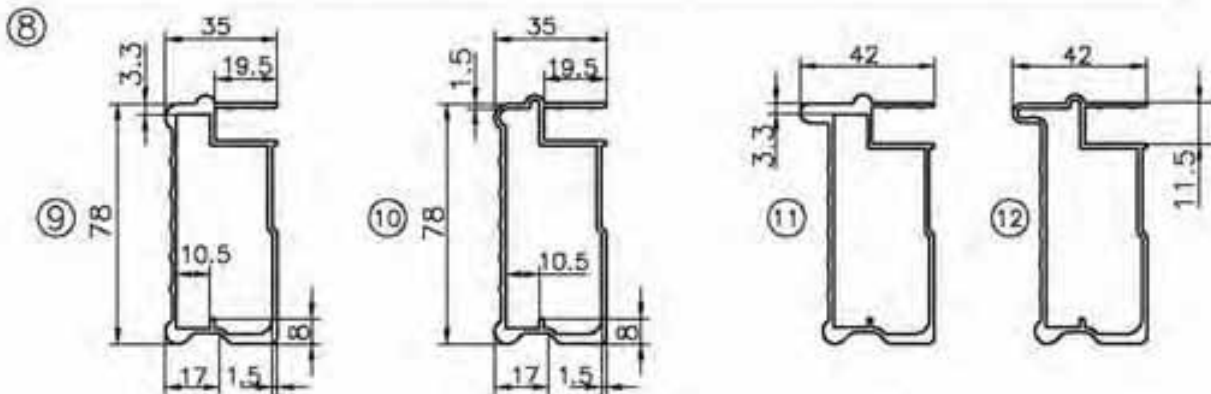
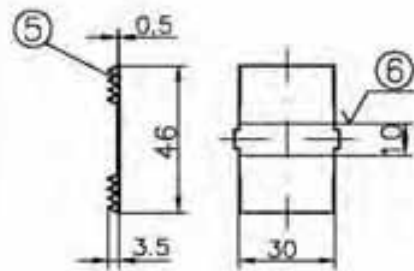
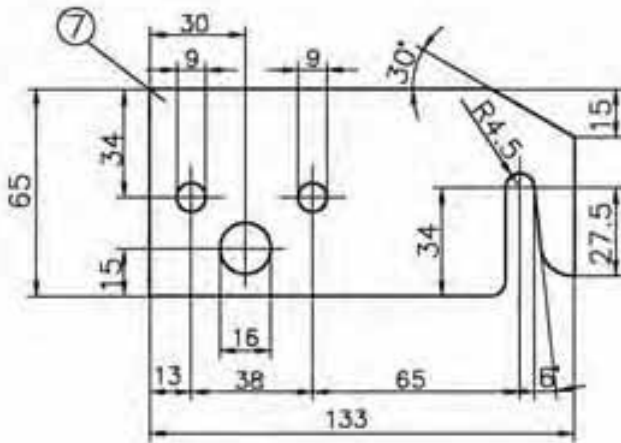
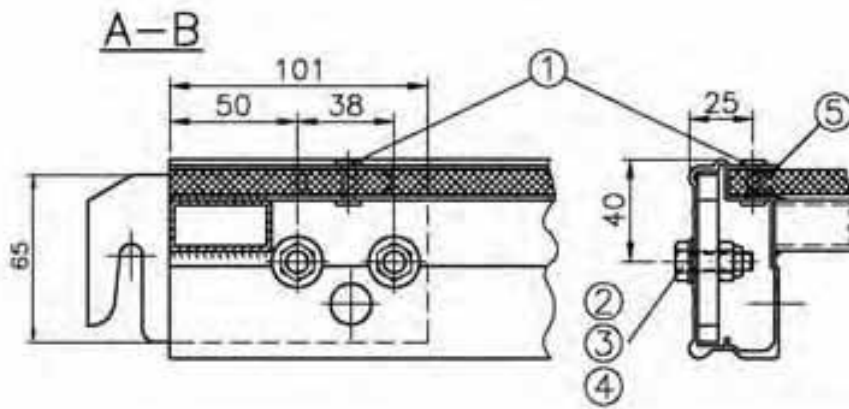


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**ALBLITZ MODUL**  
**Aluminium deck with plywood**  
**1.57m; 2.07m; 2.57m**  
according to Z-8.1-862

Production of component has been terminated  
for use only

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Deutsches Institut für Bautechnik  
A705-A017\_ABM



- |  |                               |          |
|--|-------------------------------|----------|
| (1) Rivet $\varnothing 5 \times 21$                | AlMg3                         | DIN 7337 |
| (2) Screw M8x25                                    | DIN 933                       |          |
| (3) Disc $\varnothing 8.4$                         | DIN 125                       |          |
| (4) Nut, self-locking M8                           | DIN 982                       |          |
| (5) Cramp; Bl. t=0.5; from year of manufacture '92 | S235JR galvanized             |          |
| (6) Embossment for subsequent bending              | EN AW-6063-T66 (AlMgSi0.5F25) |          |
| (7) Mounting claw; Bl. t=8                         | S235JRG2 galvanized           |          |
| (8) Aluminium brace                                | AlMgSi0.5F25                  |          |
| (9) Form A (former design)                         |                               |          |
| (10) Form B (former design)                        |                               |          |
| (11) Form A from 01/95                             |                               |          |
| (12) Form B from 01/95                             |                               |          |



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## ALBLITZ MODUL

### Details

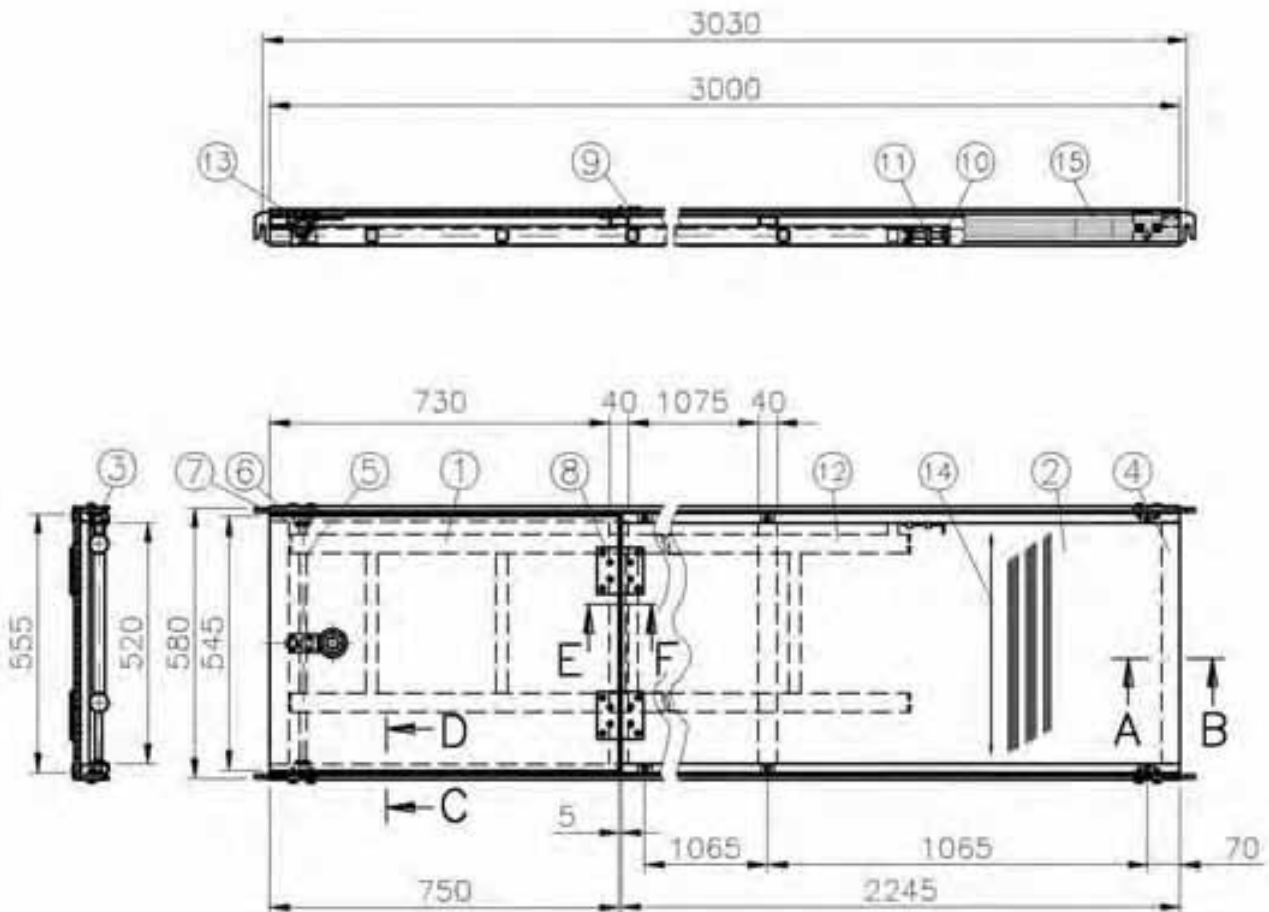
#### Aluminium deck

according to Z-8.1-862

Production of component has been terminated  
-for use only-

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of 7. May 2012

Deutsches Institut für Bautechnik  
A705-A018\_ABM



- |      |                                    |   |
|------|------------------------------------|---|
| (1)  | Screen-printed plywood 10x545      | (BFU100-12 DIN 68705 Bl.3) until '97<br>BFU100G-12 DIN 68705 Bl. 3  |
| (2)  | Screen-printed plywood 10x555      | (BFU100-10 DIN 68705 Bl. 3) until '97<br>BFU100G-10 DIN 68705 Bl. 3 |
| (3)  | Aluminium brace 78x42(35) /A       | AlMgSi0.5F25  |
| (4)  | K 40x20x2                          | AlMgSi0.5F25  |
| (5)  | (Tube 15x1<br>Rd. $\varnothing$ 15 | AlMgSi0.5F25) until '97<br>AlMgSi0.5F22                             |
| (6)  | Disc $\varnothing$ 15              | DIN 125   |
| (7)  | Cotter pin $\varnothing$ 4x32      | DIN 94  |
| (8)  | Hinge 100x100x1.6                  |   |
| (9)  | Rivet $\varnothing$ 5x16           | DIN 7337  |
| (10) | Rivet $\varnothing$ 5x8            | DIN 7337  |
| (11) | Ledger 100mm                       |   |
| (12) | Ladder,                            | see A709-A115   |
| (13) | Ledger, cranked, with ring 100mm   |   |
| (14) | Fibre direction                    |   |
| (15) | Marking                            |   |

( ) = former design with marking: manufacturer's mark, year of manufacture, Z-8.1-310, Ü  
Details, see A705-A018 and A705-A021 Load class 3



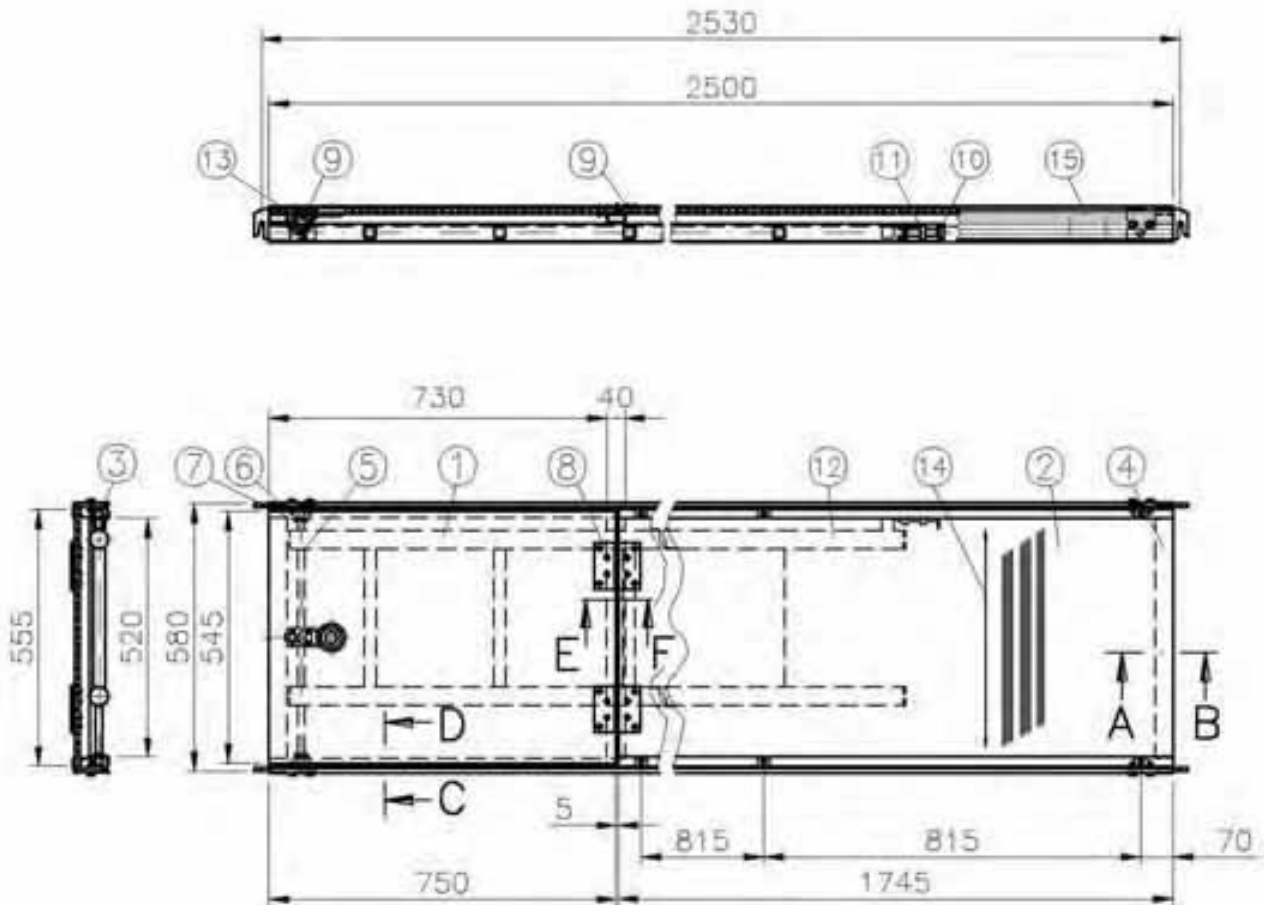
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**ALBLITZ MODUL**  
**Aluminium hatch-type access**  
**deck 3.07m with ladder**

according to Z-8.1-862

Production of component has been terminated  
-for use only-

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general national technical  
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Deutsches Institut für Bautechnik  
A705-A019\_ABM



- |      |                                    |  |
|------|------------------------------------|--|
| (1)  | Screen-printed plywood 10x545      | (BFU100-12 DIN 68705 Bl.3) until '97<br>BFU100G-12 DIN 68705 Bl.3  |
| (2)  | Screen-printed plywood 10x555      | (BFU100-10 DIN 68705 Bl.3) until '97<br>BFU100G-10 DIN 68705 Bl. 3 |
| (3)  | Aluminium brace 78x42(35) /A       | AlMgSi0.5F25   |
| (4)  | K 40x20x2                          | AlMgSi0.5F25   |
| (5)  | (Tube 15x1<br>Rd. $\varnothing$ 15 | AlMgSi0.5F25) until '97<br>AlMgSi0.5F22                            |
| (6)  | Disc $\varnothing$ 15              | DIN 125  |
| (7)  | Cotter pin $\varnothing$ 4x32      | DIN 94   |
| (8)  | Hinge 100x100x1.6                  |  |
| (9)  | Rivet $\varnothing$ 5x16           | DIN 7337   |
| (10) | Rivet $\varnothing$ 5x8            | DIN 7337   |
| (11) | Ledger 100mm                       |  |
| (12) | Ladder,                            | see A709-A115  |
| (13) | Ledger, cranked, with ring 100mm   |  |
| (14) | Fibre direction                    |  |
| (15) | Marking                            |  |

( ) = former design with marking: manufacturer's mark, year of manufacture, Z-8.1-310, Ü  
 Details, see A705-A08 and A705-A021 Load class 3



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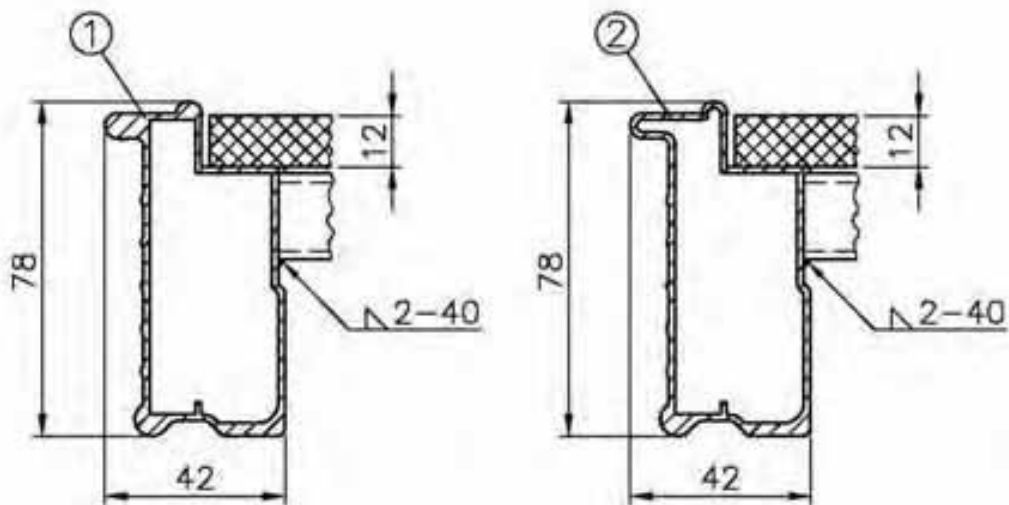
**ALBLITZ MODUL**  
**Aluminium hatch-type access**  
**2.57m with Ladder**  
 according to Z-8.1-862

Production of component has been terminated  
 -for use only-

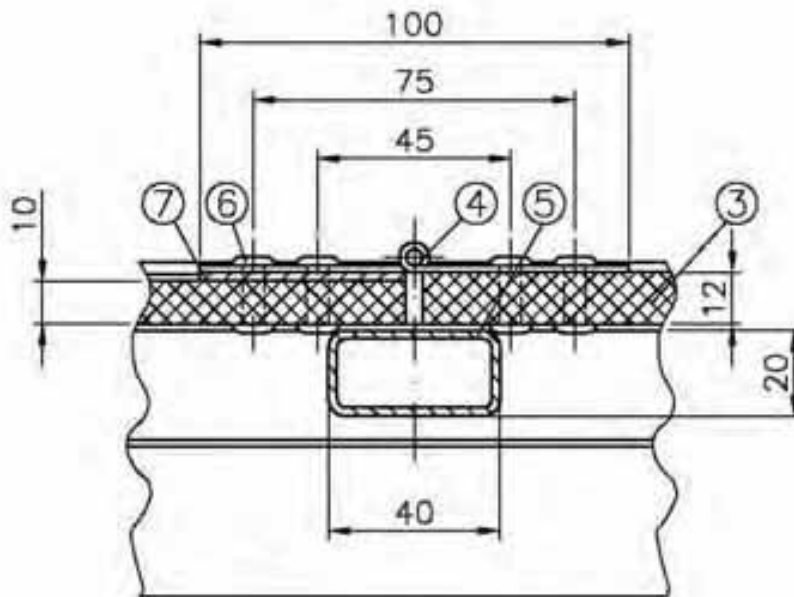
Annex B, page 100 of  
 general national technical  
 approval Z-8.22-913  
 as of May 07, 2012  
 Deutsches Institut für Bautechnik  
 A705-A020\_ABM



C-D



E-F



- (1) Form A
- (2) Form B
- (3) Hatch
- (4) Hinge 100x100x1.6
- (5) K 40x20x2
- (6) Aluminium blind rivet
- (7) Thickness levelling

AlMgSi0.5F25  
DIN 7340

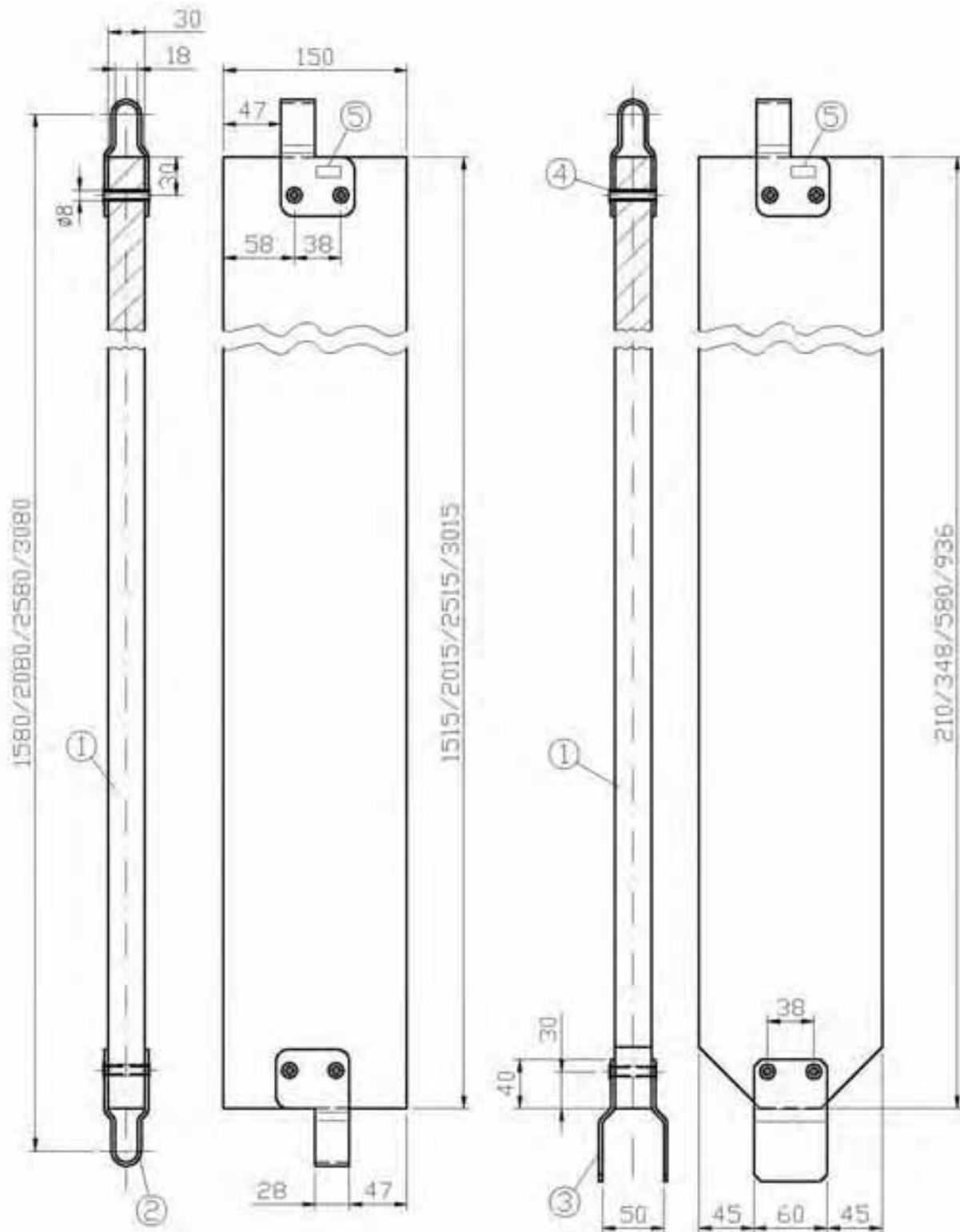


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**ALBLITZ MODUL**  
**Sections**  
**Aluminium hatch-type**  
**access deck**  
according to Z-8.1-862

Production of component has been terminated  
-for use only-

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Deutsches Institut für Bautechnik  
A705-A021\_ABM



- (1) Softwood quality class S10
- (2) Slit strip 60x3
- (3) Slit strip 60x3
- (4) Tube rivet
- (5) Marking

DIN EN 10111-DD11 galvanized  
 DIN EN 10111-DD11 galvanized  
 DIN 7340 – A8x0.75x39-steel, zinc-plated



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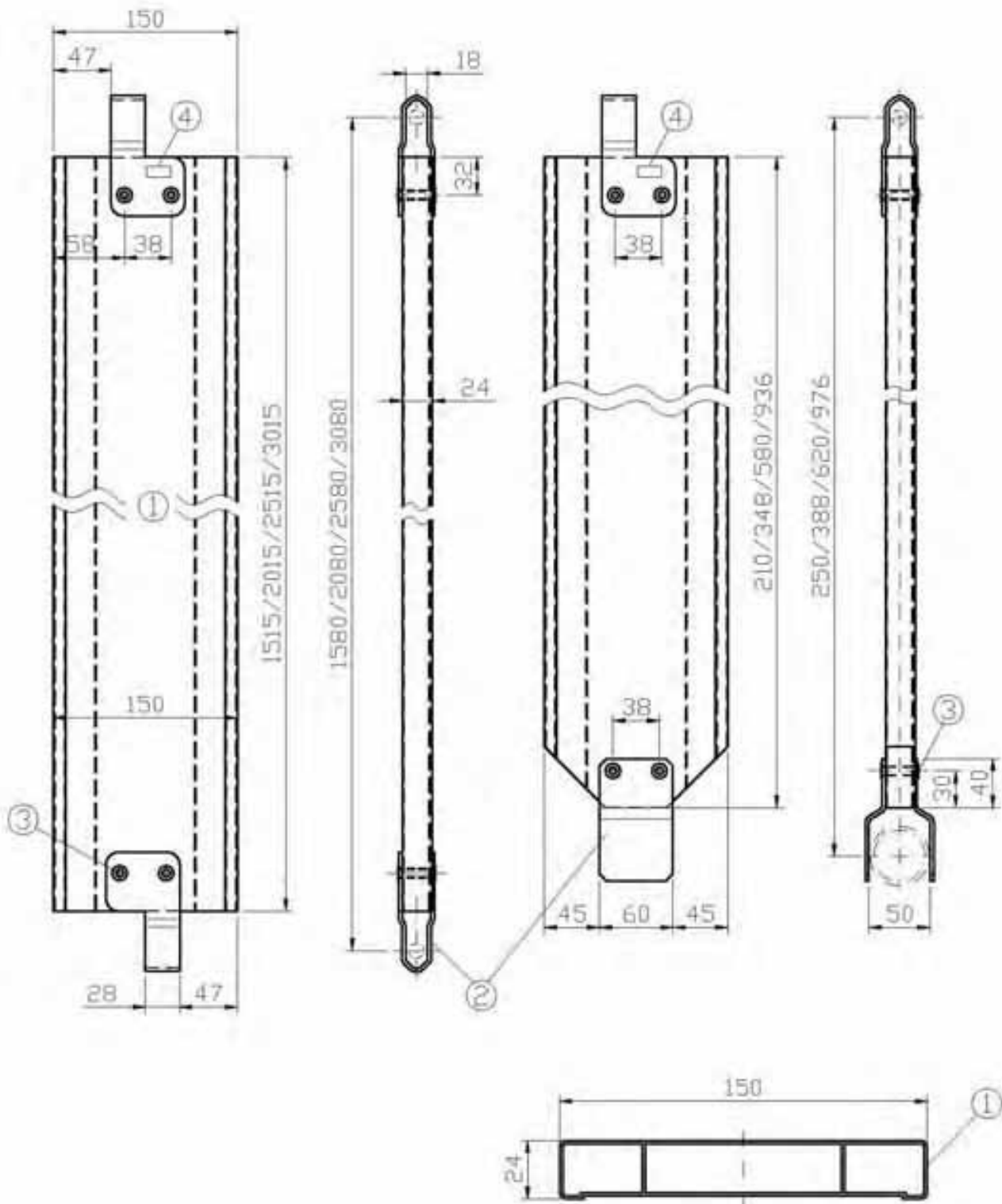
## ALBLITZ MODUL

### Toeboard End toeboard

according to Z-8.1-862

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 the national technical  
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 Deutsches Institut für Bautechnik

A709-A137\_ABM



- (1) Aluminium toeboard profile; s=1.25mm EN AW-6063-T66  
 (2) Slit strip 60x3 DIN EN 10111-DD11 galvanized  
 (3) Tube rivet DIN 7340 – A8x0.75x32-steel, zinc-plated  
 (4) Marking



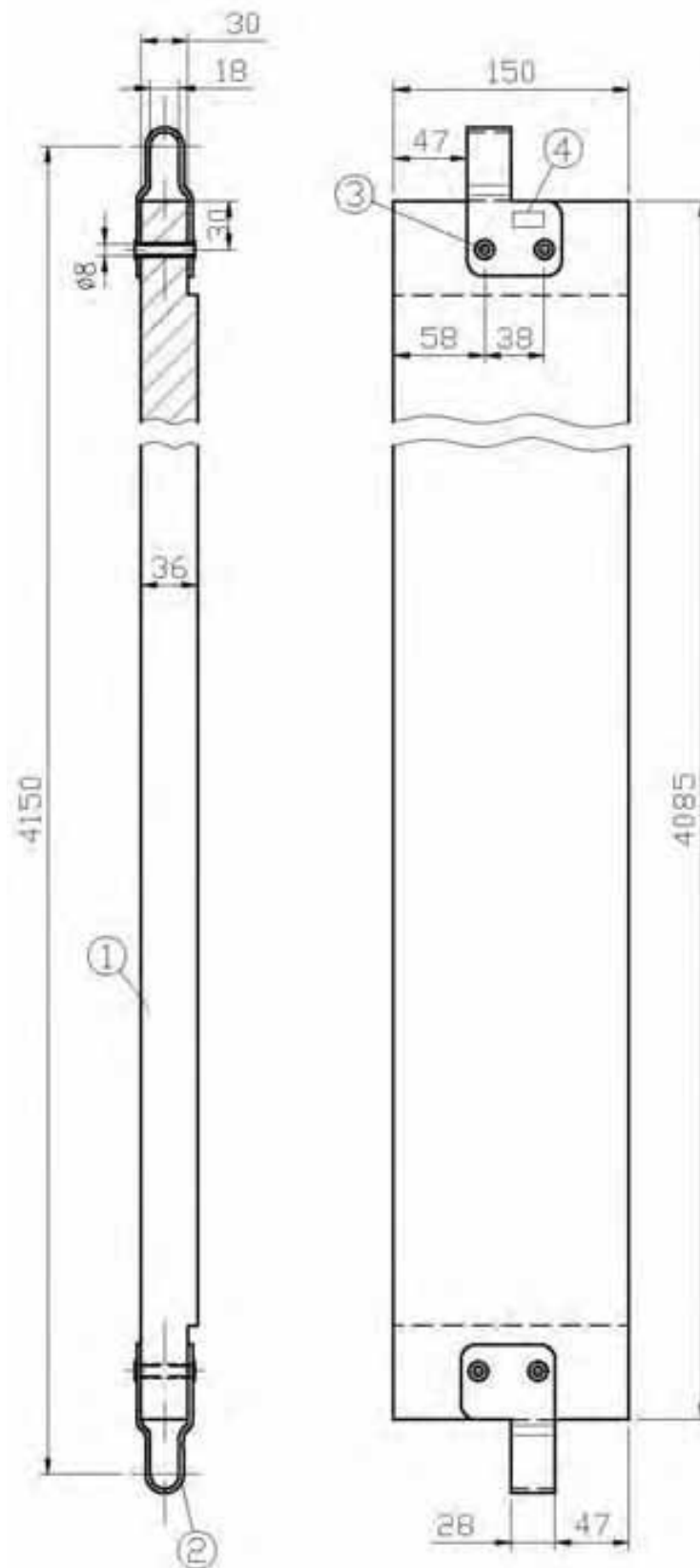
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**ALBLITZ MODUL**  
**Aluminium toeboard**  
**Aluminium end toeboard**

according to Z-8.1-862

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 Deutsches Institut für Bautechnik

A709-A170\_ABM



- (1) Softwood quality class S10
- (2) Slit strip 60x3
- (3) Tube rivet
- (4) Marking

DIN EN 10111-DD11 galvanized  
 DIN 7340 –A8x0.75x39-steel, zinc-plated



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## ALBLITZ MODUL

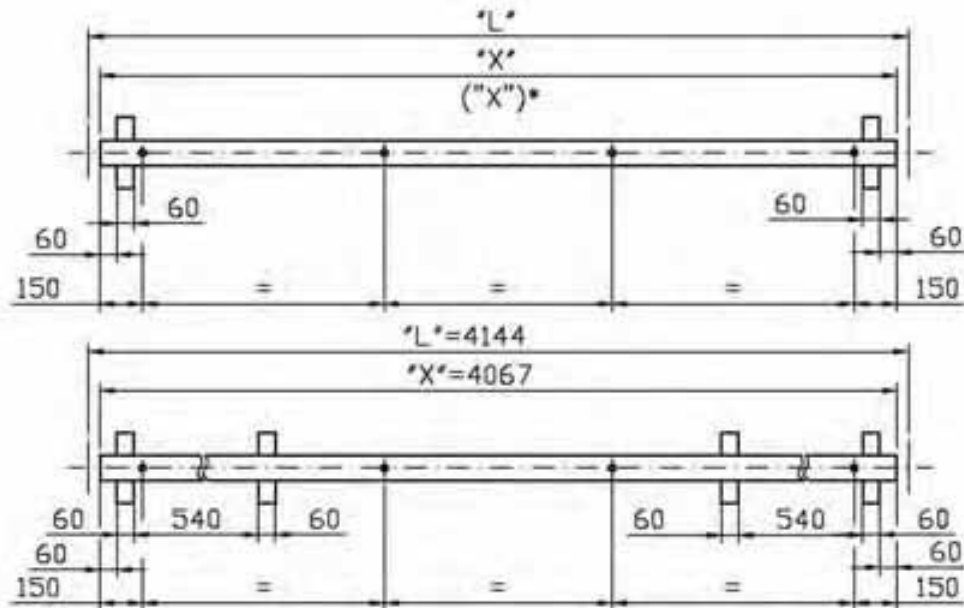
Wooden toeboard 4.14m

according to Z-8.1-862

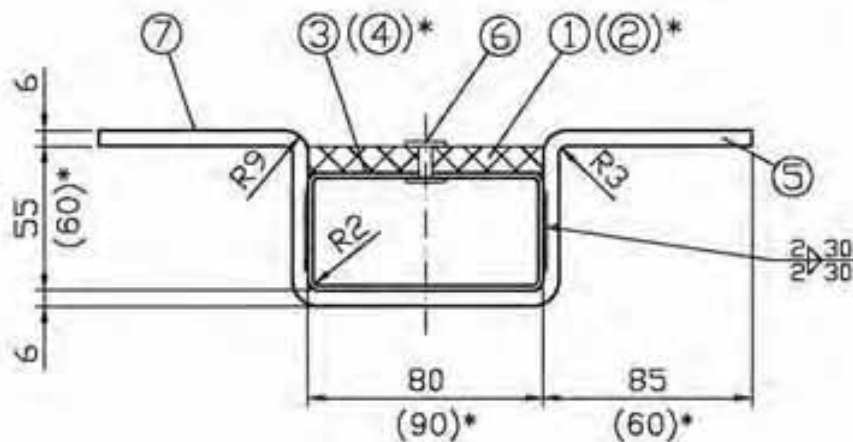
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A709-A169\_ABM

Bay length "L"	Length "X"	Length ("X")*	Load class
[mm]			
1572	1495	1500	6
2072	1995	2000	6
2572	2495	2500	5
3072	2995	3000	4
4144	4067	-	3



### Cross-section



- |  |             |                  |
|--|-------------|------------------|
| (1) Screen-printed plywood 10x80         | BFU 100G-10 | DIN 68705 BI.3   |
| ((2)) Screen-printed plywood 10x90       | BFU 100G-10 | DIN 68705 BI.3)* |
| (3) Rectangular hollow section 80x40x2   | S235JRH     |                  |
| ((4)) Rectangular hollow section 90x45x1 | S235JRH     | DIN 59411)*      |
| (5) BI 60x6                              | S235JRG2    |                  |
| (6) Rivet Ø5x20                          | AlMg3       | DIN 7337         |
| (7) Marking                              |             |                  |

( ) \* alternatively

galvanized



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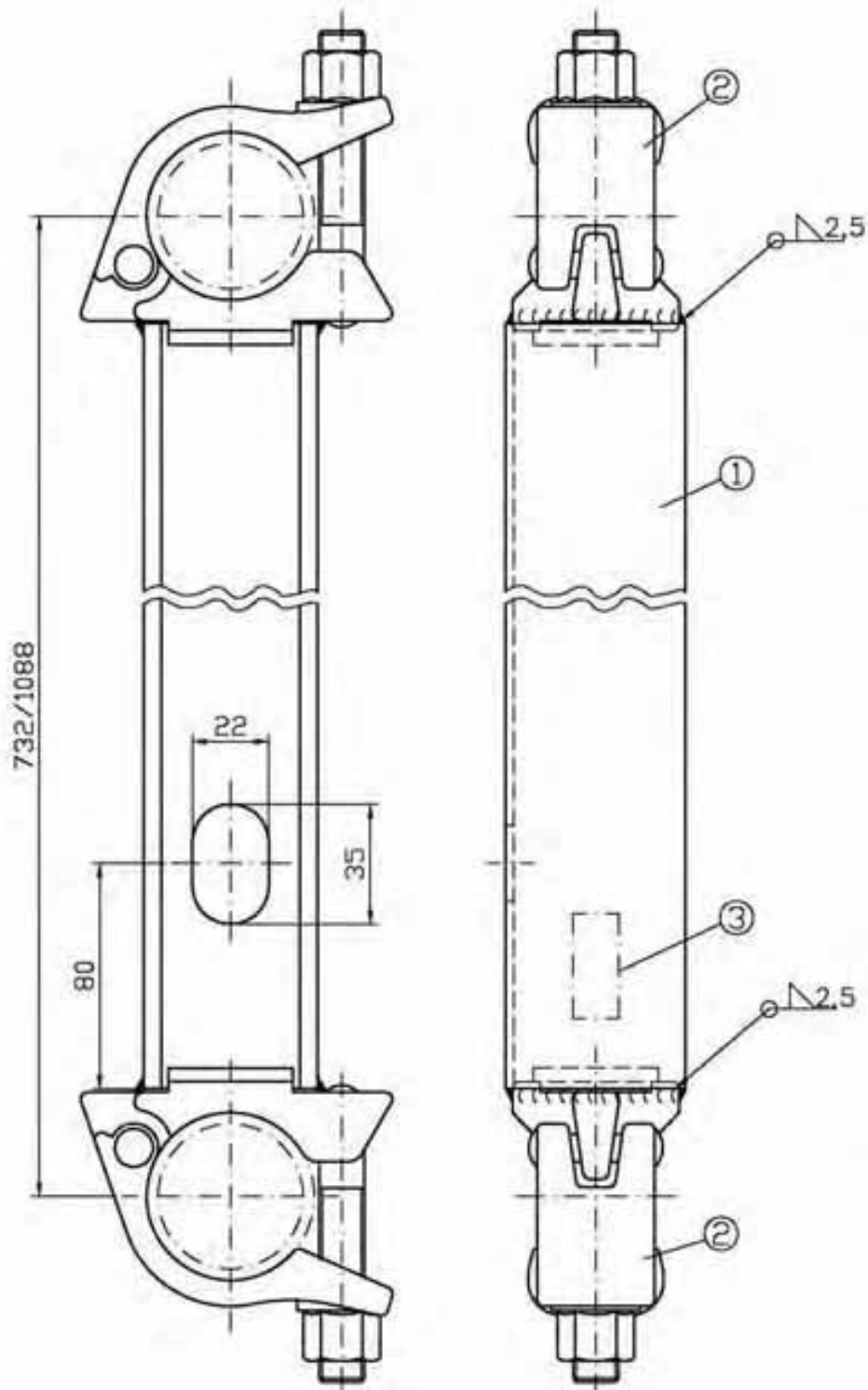
### ALBLITZ MODUL

#### Gap cover

according to Z-8.1-862

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approval Z-8.22-913  
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Deutsches Institut für Bautechnik

A709-A160\_ABM



- (1) U-profile 48x52x2.5 made of BI 169x2.5 S235JR/  
U-profile 48x60x3 made of BI 196x3 S235JR
- (2) Halfcoupler, class B
- (3) Marking

galvanized



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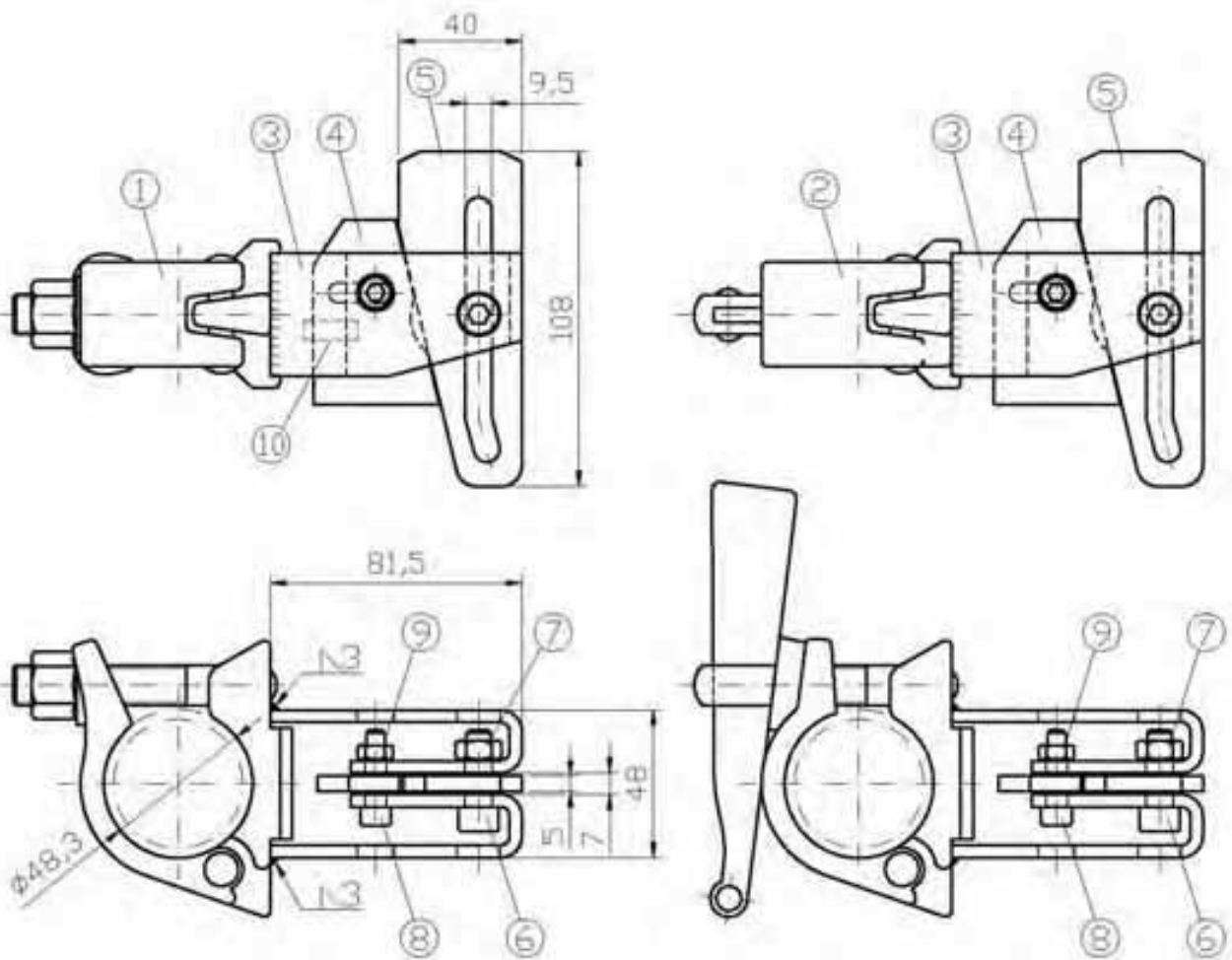
## ALBLITZ MODUL

### Transom

according to Z-8.1-862

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Deutsches Institut für Bautechnik

A705-A054\_ABM



- |   |                                 |
|---|---------------------------------|
| (1) Halfcoupler, class B                |                                 |
| (2) <u>alternatively:</u> wedge coupler |                                 |
| (3) FI 40x4                             | S235JR                          |
| (4) Bd 70x5                             | S235JR                          |
| (5) Bd 80x5                             | S235JR                          |
| (6) Hexagon socket head screw           | DIN 7984 – M8x25-8.8-galvanized |
| (7) Hex nut, self-locking               | DIN 985 – M8-8-galvanized       |
| (8) Hexagon socket head screw           | DIN 912 – M6x25-8.8-galvanized  |
| (9) Hex nut, self-locking               | DIN 985 – M6-8-galvanized       |
| (10) Marking                            |                                 |

galvanized



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**ALBLITZ MODUL**

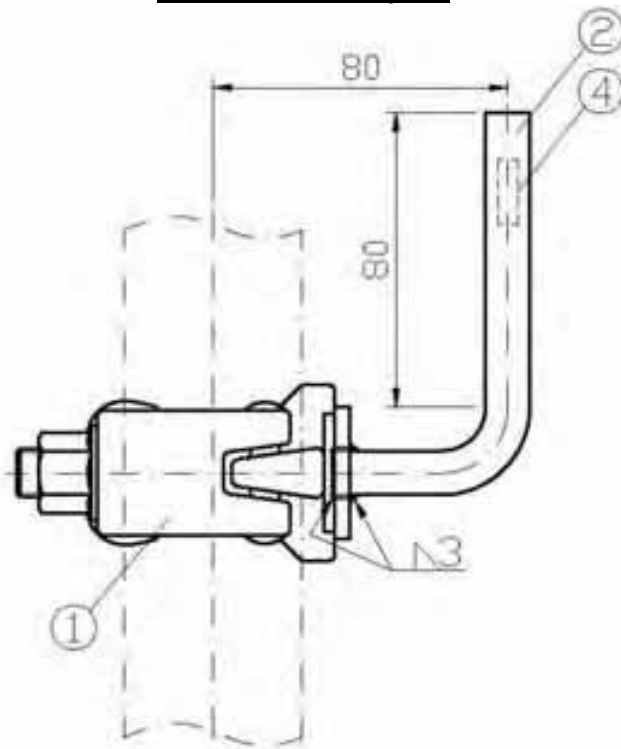
**Guardrail coupler AF**

according to Z-8.1-862

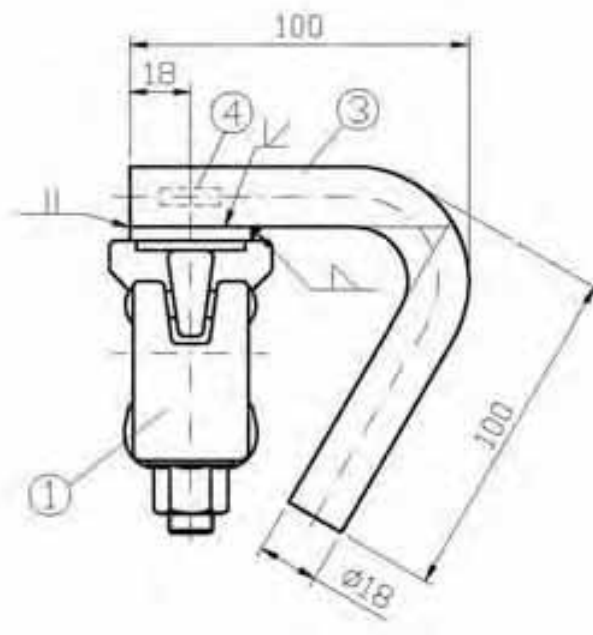
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Deutsches Institut für Bautechnik

A709-A190\_ABM

## Toeboard coupler



## Halfcoupler with hook



- (1) Halfcoupler, class B
- (2) Rd 12
- (3) Rd 18
- (4) Marking

S235JR  
S235JR

galvanized



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**ALBLITZ MODUL**

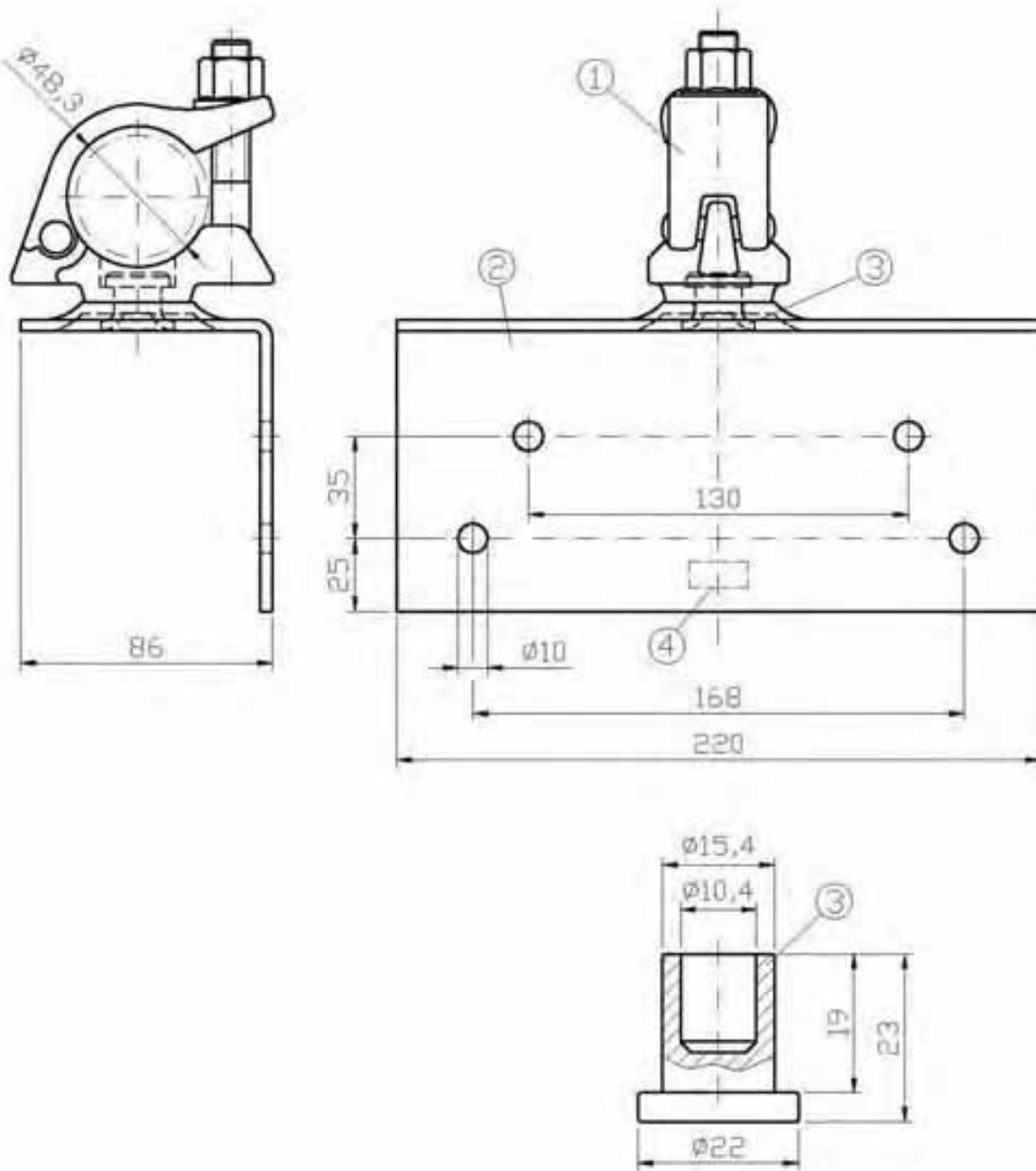
**Toeboard coupler  
Halfcoupler with hook**

according to Z-8.1-862

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A709-A191\_ABM





- (1) Halfcoupler, class B
  - (2) BI 4
  - (3) Rivet, squared timber coupler
  - (4) Marking
- S235JR  
QST36; blank drawn, zinc-plated

galvanized



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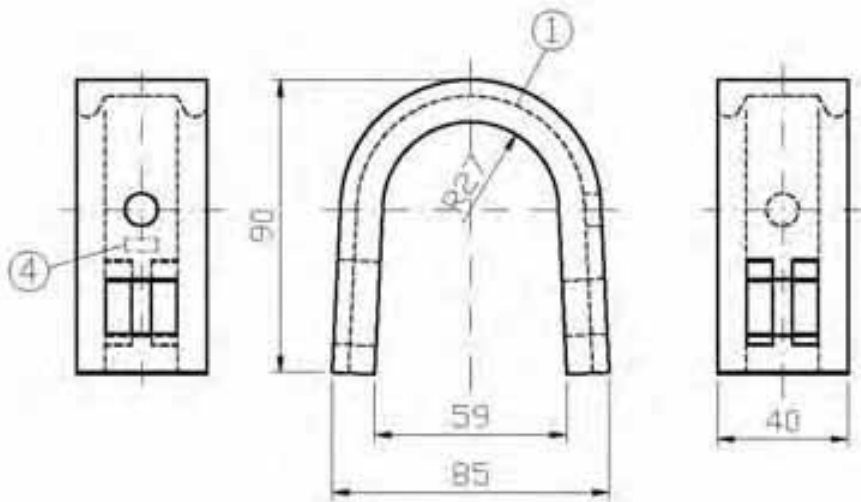
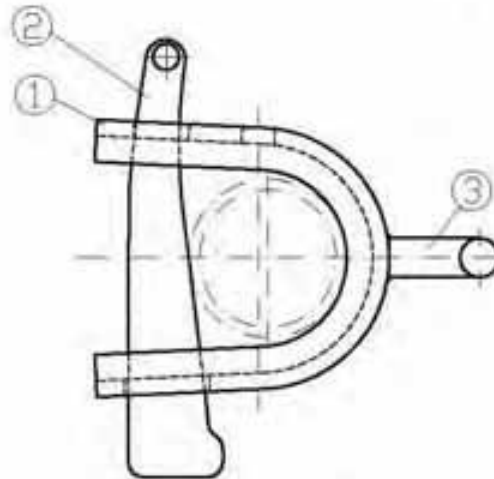
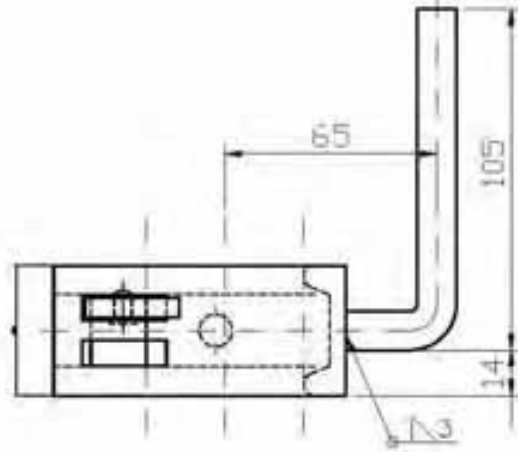
### ALBLITZ MODUL

#### Squared timber coupler

according to Z-8.1-862

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A709-A192\_ABM



- (1) Double bed profile 40x13x5x6.5 S235JR
- (2) Wedge 6mm S550MC
- (3) Rd 12 S235JR
- (4) Marking

galvanized



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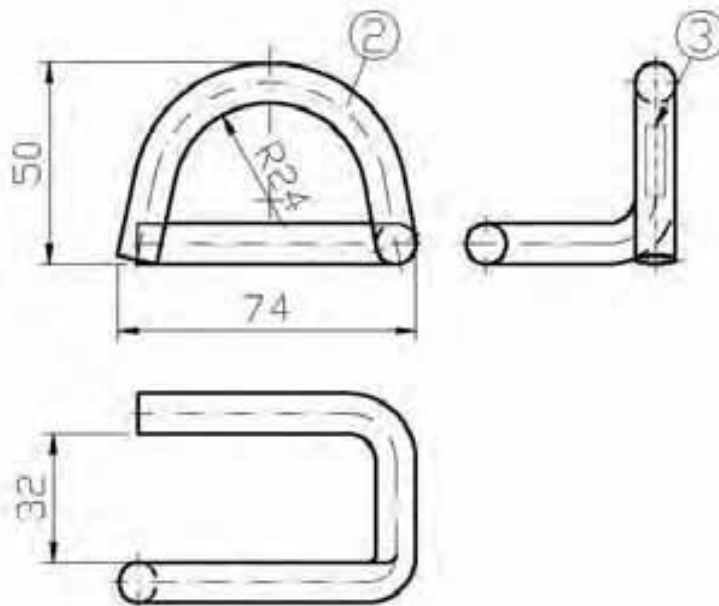
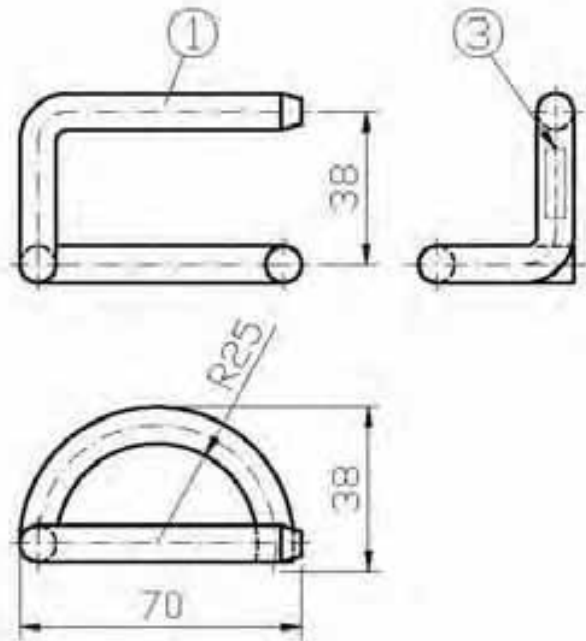
### ALBLITZ MODUL

Toeboard holder

according to Z-8.1-862

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Deutsches Institut für Bautechnik

A709-A194\_ABM



- (1) Rd  $\varnothing 9$  S235JR  
 (2) alternatively: Rd  $\varnothing 10$  S235JR  
 (3) Marking

galvanized



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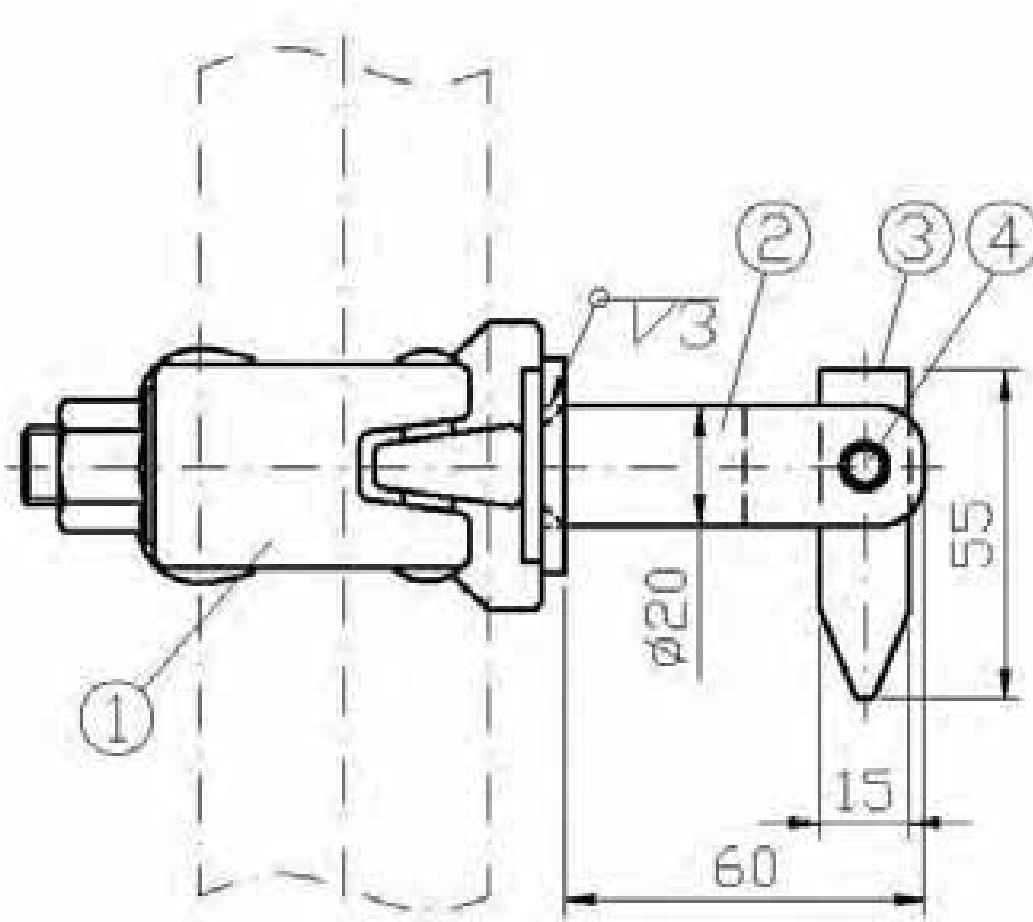
## ALBLITZ MODUL

### Locking clip

according to Z-8.1-862

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A709-A195\_ABM



- (1) Halfcoupler, class B
- (2) Tilting pin Ø20x60                    S235JR
- (3) Locking lug; s=4mm                    S235JR; galvanized
- (4) Clamping sleeve                        DIN 1481 – 6x18-steel, galvanized

galvanized



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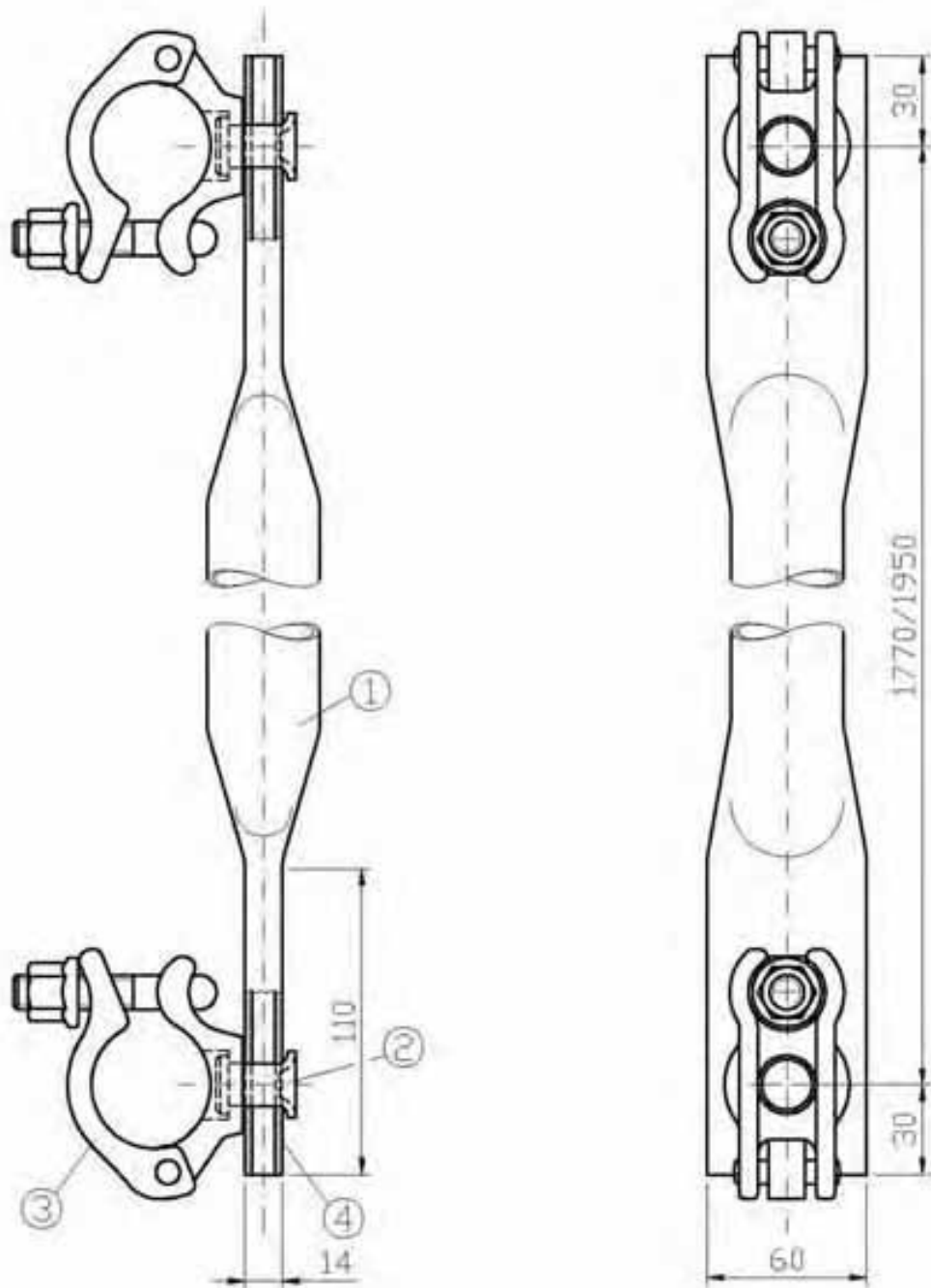
**ALBLITZ MODUL**

**Tilting pin lock coupler**

according to Z-8.1-862

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A709-A196\_ABM



- (1) Tube  $\varnothing 42.4 \times 2$
- (2) Rivet  $\varnothing 16 \times 3 \times 25$
- (3) Halfcoupler, class B
- (4) Marking

S235JRH  
QSt36

galvanized



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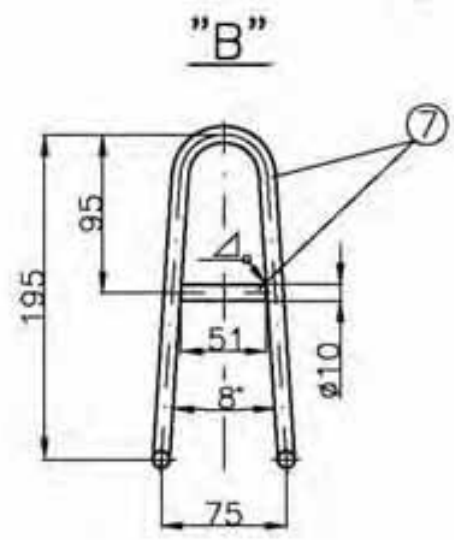
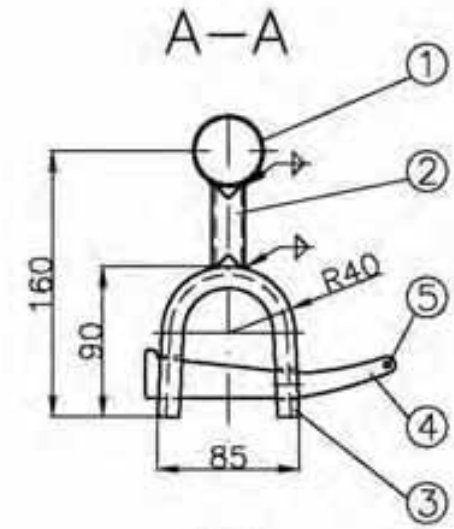
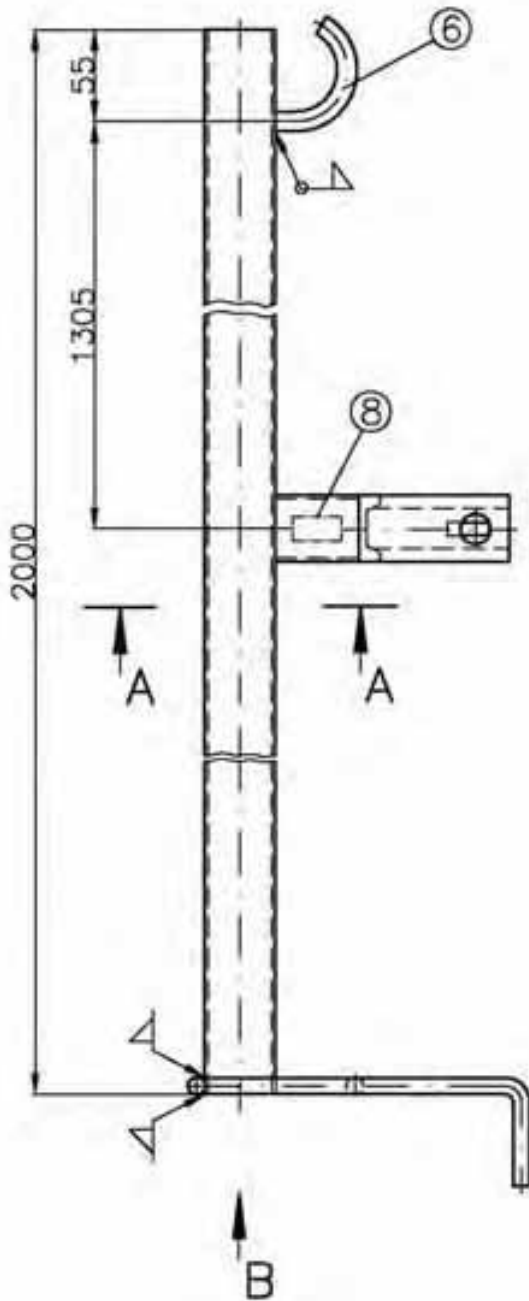
**ALBLITZ MODUL**

**Cross diagonal brace**

according to Z-8.1-862

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A709-A198\_ABM



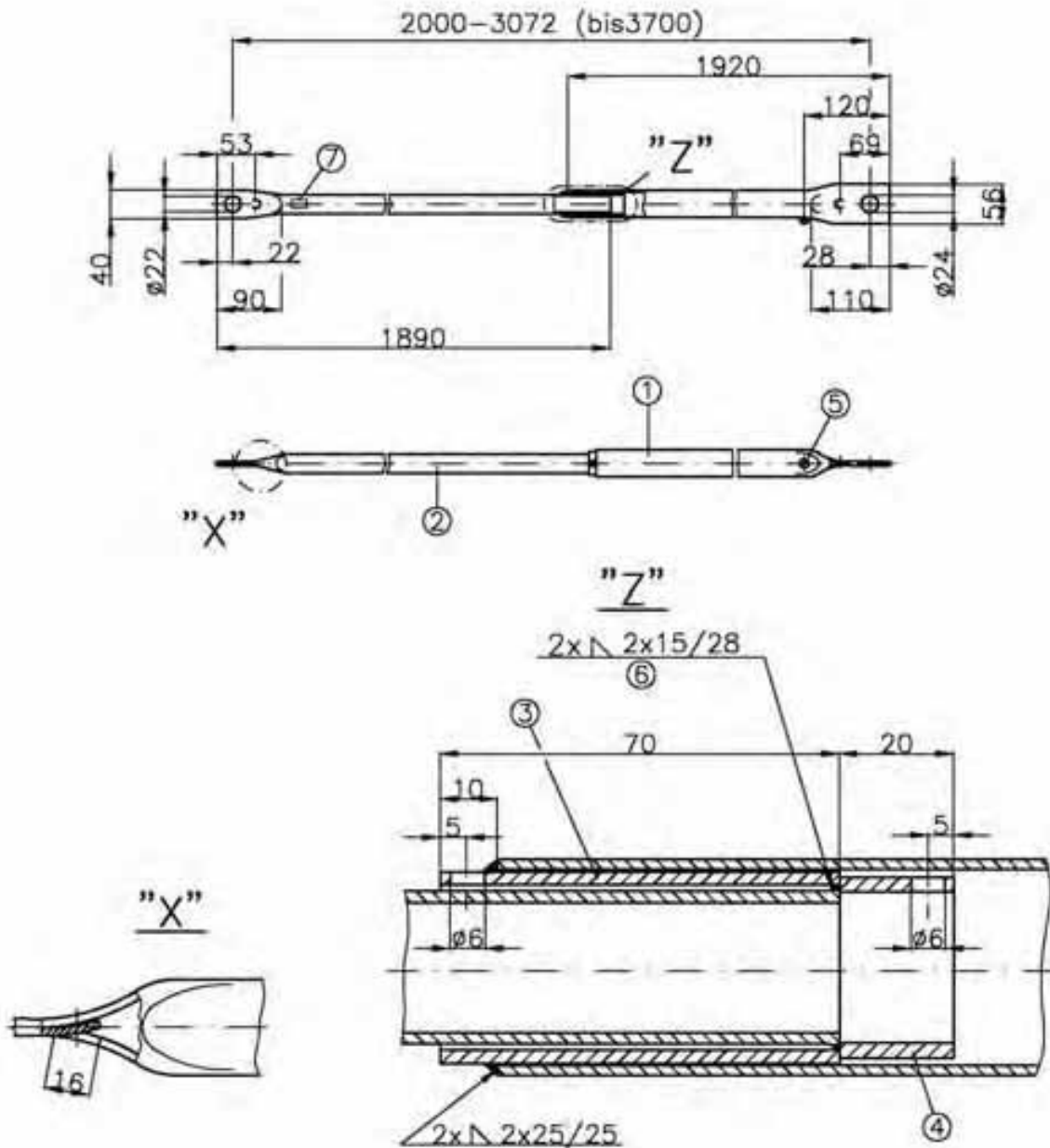
- |                                  |  |
|----------------------------------|--|
| (1) Tube 42.4x2                  | S235JRG2   |
| (2) K 40x20x2                    | S235JRH  |
| (3) Double bed profile 40x12x5x7 | S235JRH  |
| (4) Wedge plus II                | S550MC   |
| (5) Button-head rivet Ø5x10      | QSt 32-2 DIN 660, zinc-plated, with rivet head of rivet Ø4 |
| (6) Rd Ø12                       | S235JRG2   |
| (7) Rd Ø10                       | S235JRG2   |
| (8) Marking                      |  |

galvanized

**LFIX** GmbH  
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**ALBLITZ MODUL**  
**Advanced guardrail post 2.00m**  
 according to Z-8.1-862

Former design  
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 A705-A035\_ABM



- |   |                              |
|---|------------------------------|
| (1) R 38x2                                    | S235JRH                      |
| (2) R 26.9x2.6                                | S235JRH                      |
| (3) R 33.7x2.3                                | S235JRH                      |
| (4) R 31.8x2.6                                | S235JRH                      |
| (5) Self-tapping screw ST6.3x16               | DIN 7504-K-steel, galvanized |
| (6) Items 2 and 4, grind smooth after welding |                              |
| (7) Marking                                   |                              |

galvanized



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## ALBLITZ MODUL

### Telescopic guardrail

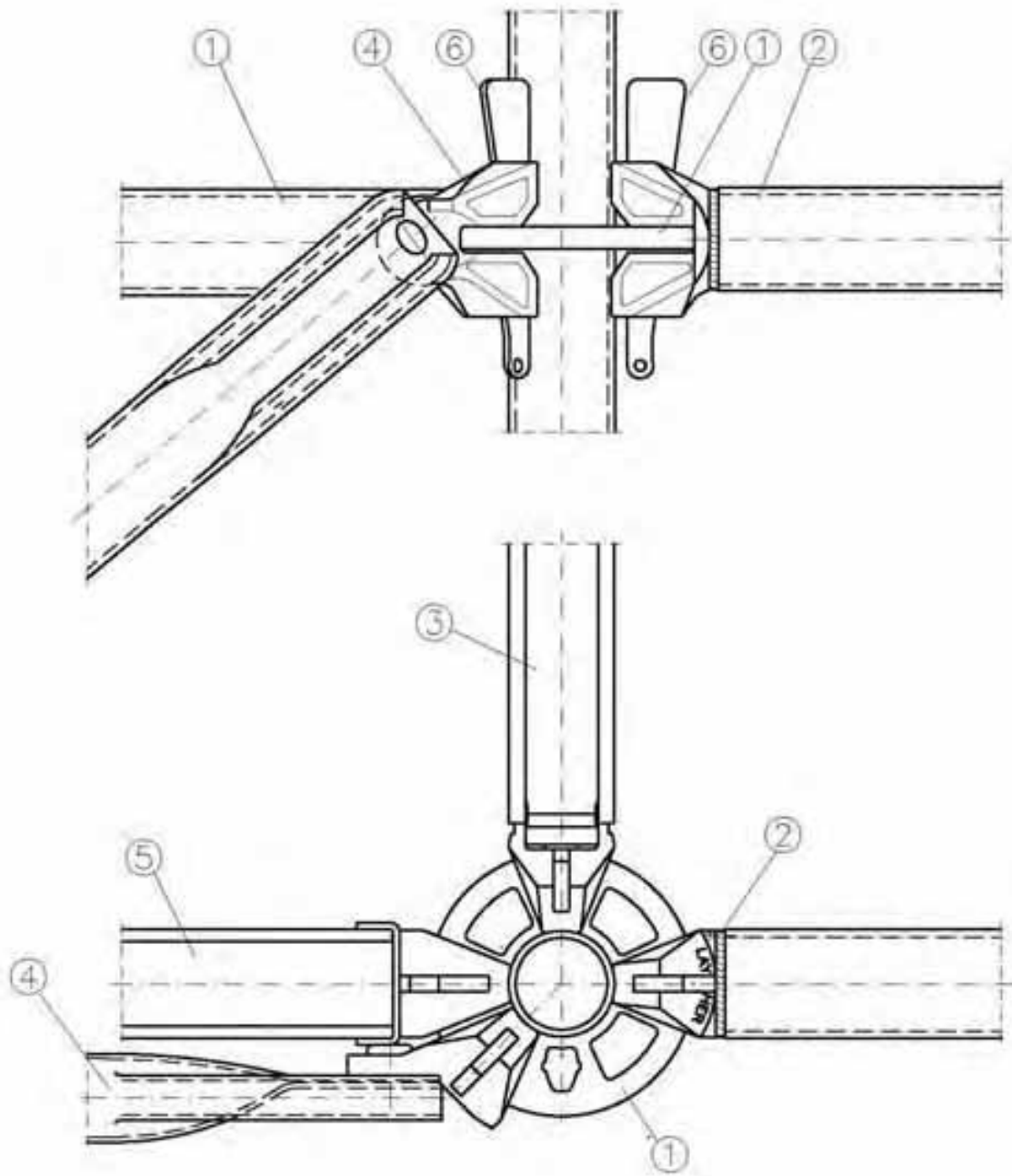
2.00m-3.07m

according to Z-8.1-862

### Former design

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of 7. May 2012  
Deutsches Institut für Bautechnik

A709-A036\_ABM



- (1) Perforated disc
- (2) Tube ledger
- (3) U-ledger
- (4) Vertical diagonal brace
- (5) U-bracket ledger
- (6) Wedge



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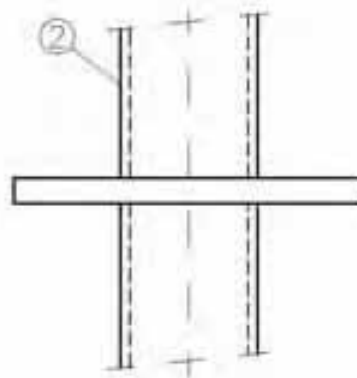
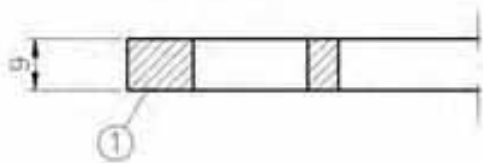
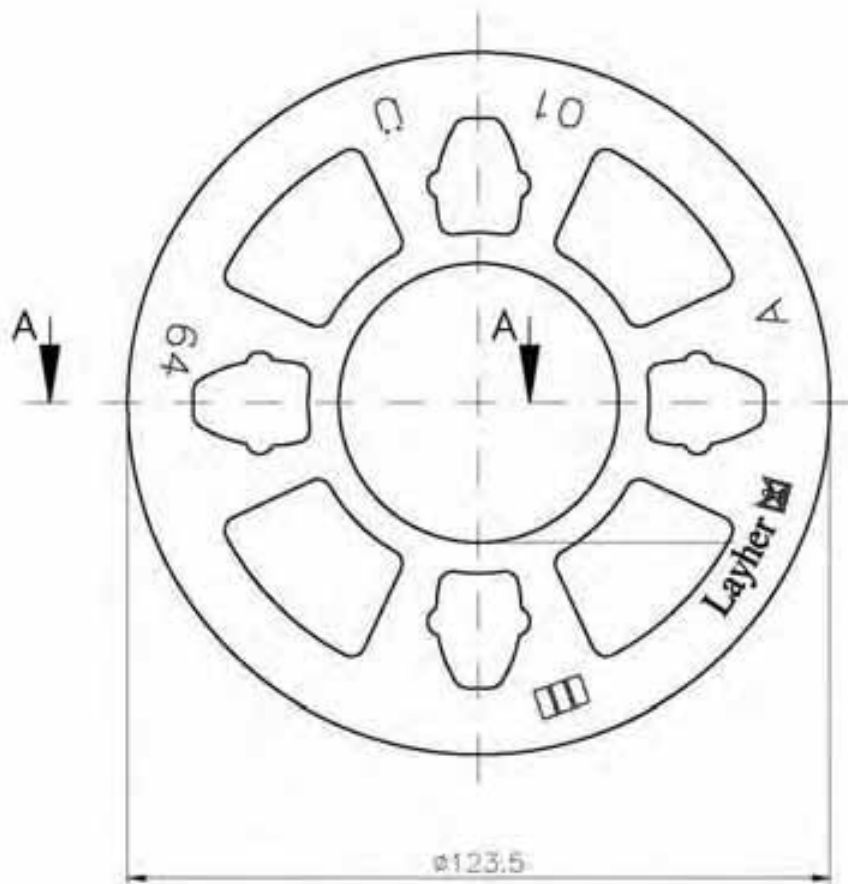
**ALBLITZ MODUL**  
**Scaffold connector**  
**Overview**

K2000+  
according to Z-8.22-64

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the national technical  
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Deutsches Institut für Bautechnik

ABM710\_B101





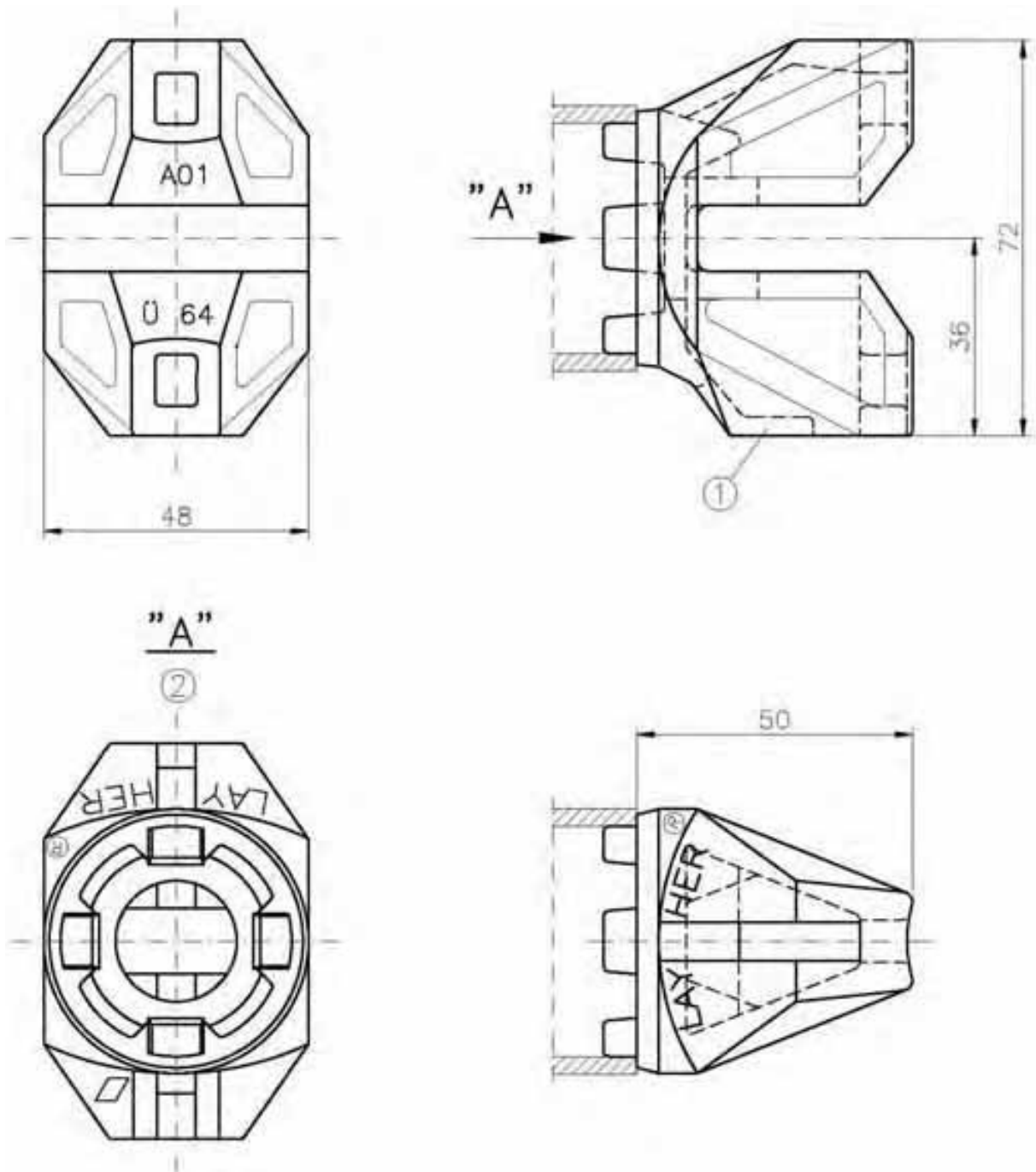
- (1) Perforated disc, punched  $\varnothing 123.5$  K2000+
- (2) Upright Tube



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**ALBLITZ MODUL**  
Scaffold connector  
Perforated disc, punched  $\varnothing 123.5$   
K2000+  
according to Z-8.22-64

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ABM710\_B105



- (1) Connecting head for O-ledger K2000+  
Wedge, see ABM710-B110  
(2) View "A" shown without tube



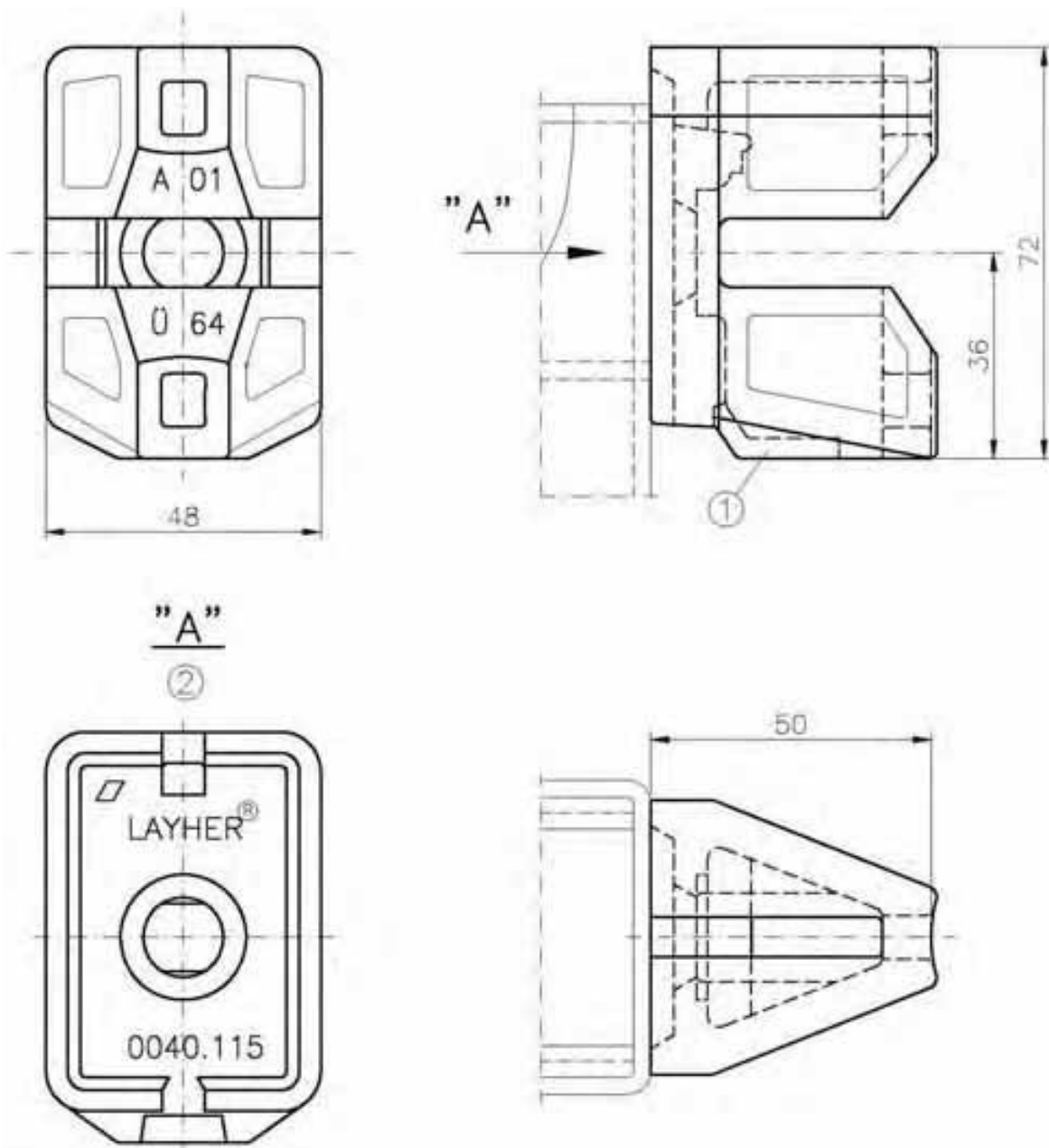
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**ALBLITZ MODUL**  
**Scaffold connector**  
**Connecting head for O-ledger**  
K2000+  
according to Z-8.22-64

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ABM710\_B106



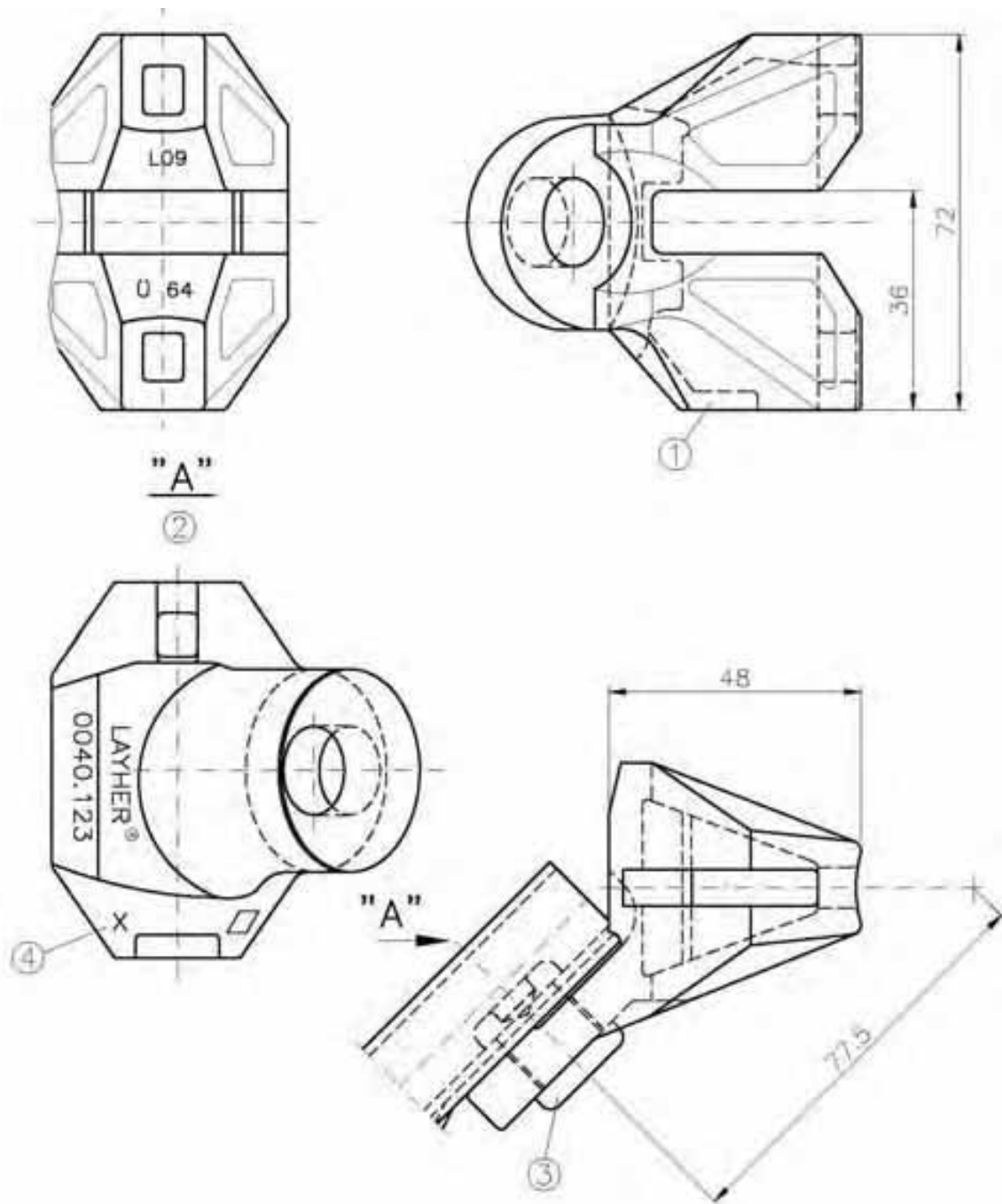


- (1) Connecting head for U-bracket K2000+  
Wedge, see ABM710-B110
- (2) View "A" shown without profiles

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**ALBLITZ MODUL**  
**Scaffold connector**  
**Connecting head for U-bracket**  
 K2000+  
 according to Z-8.22-64

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 ABM710\_B108



- (1) Connection for diagonal brace K2000+  
Wedge, see ABM710-B110
- (2) View "A" shown without tube
- (3) Rivet head  $\varnothing 22$
- (4) X=1= design, as shown  
X=2= design, mirror-inverted



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**ALBLITZ MODUL**  
Scaffold connector  
Connecting head for diagonal  
brace  
K2000+  
according to Z-8.22-64

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the national technical  
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ABM710\_B109



(1) Wedge t=6mm K2000+

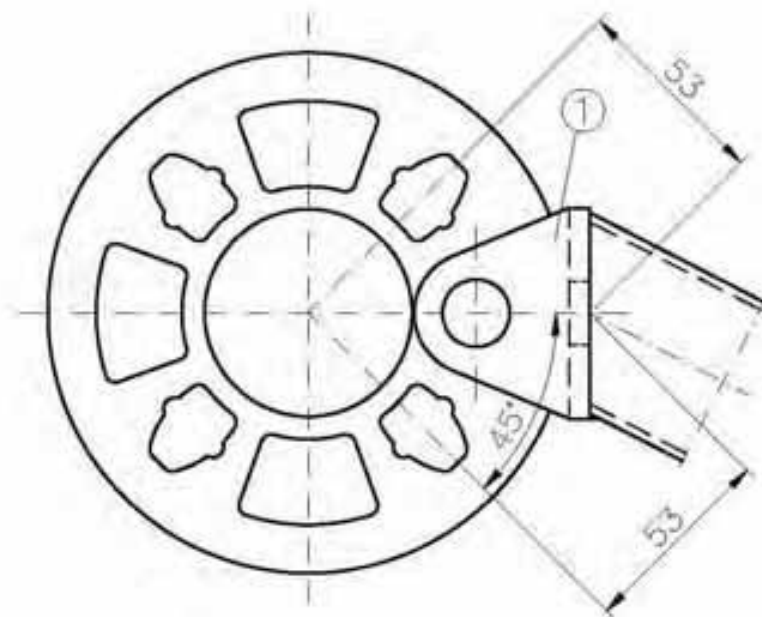
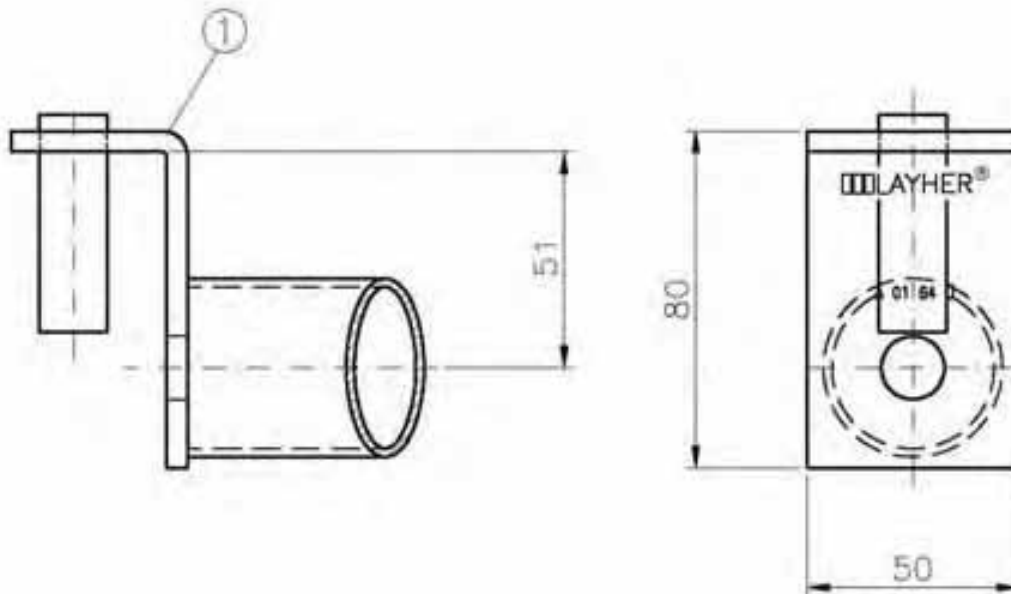


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**ALBLITZ MODUL**  
Scaffold connector  
**Wedge**  
K2000+  
according to Z-8.22-64

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ABM710\_B110



(1) Connecting head for horizontal diagonal brace K2000+

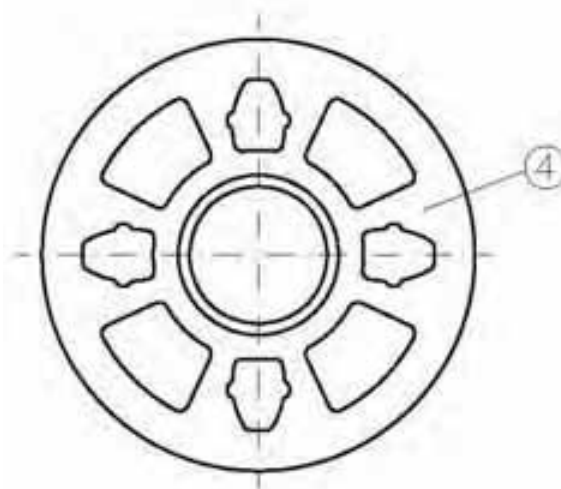
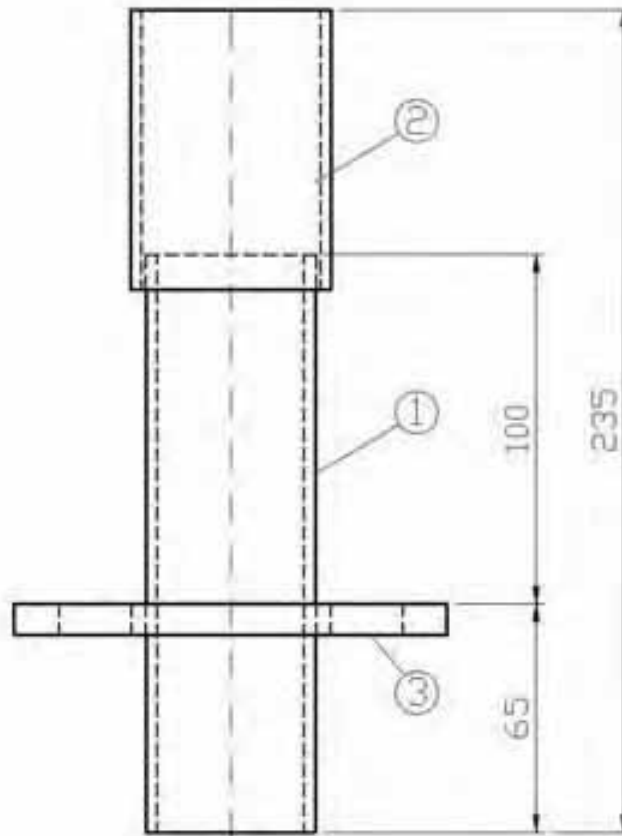


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**ALBLITZ MODUL**  
Scaffold connector  
**Connecting head for horizontal  
diagonal brace**  
K2000+  
according to Z-8.22-64

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ABM710\_B111



- (1) Tube                     $\varnothing 48.3 \times 3.2$                     EN 10219-S235JRH                    ReH $\geq 320\text{N/mm}^2$
- (2) Tube                     $\varnothing 57 \times 2.9$                     EN10219-S235JRH
- (3) Perforated disc,                    see ABM710-B105
- (4) Marking

Size [m]	Weight [kg]
-	1.6



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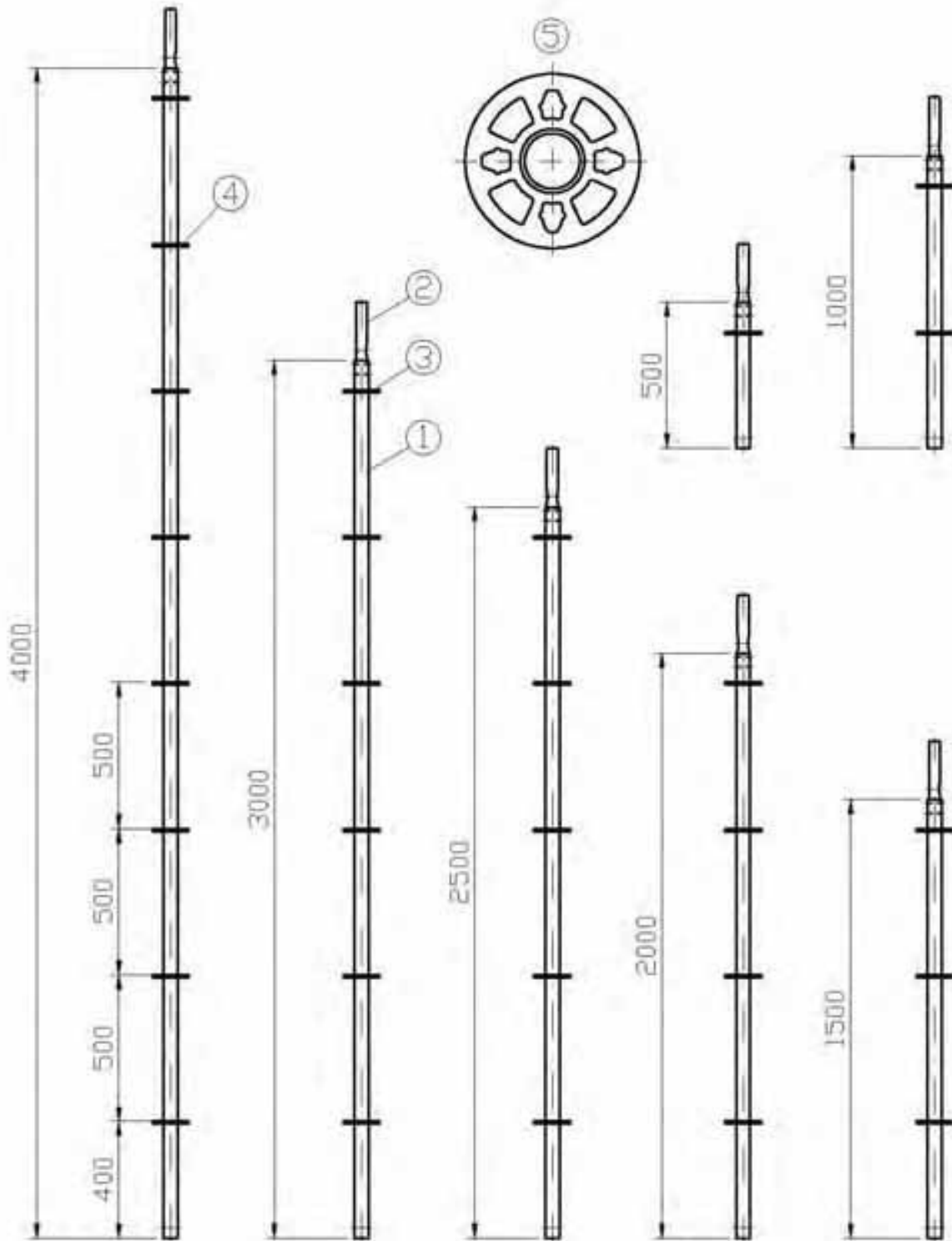
**ALBLITZ MODUL**

**Starter piece**

according to Z-8.22-64

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ABM710\_B031





- (1) Tube                     $\varnothing 48.3 \times 3.2$   
 (2) Spigot fitting         $\varnothing 38 \times 3.6$   
 (3) Perforated disc,  
 (4) Marking  
 (5) All perforated discs, congruent!

EN 10219-S235JRH     $\text{ReH} \geq 320 \text{ N/mm}^2$   
 EN 10219-S275JOH     $\text{ReH} \geq 320 \text{ N/mm}^2$   
 see ABM710-B105

Size [m]	Weight [kg]
0.5	2.9
1.0	5.5
1.5	7.8
2.0	10.2
2.5	12.2
3.0	14.6
4.0	19.1



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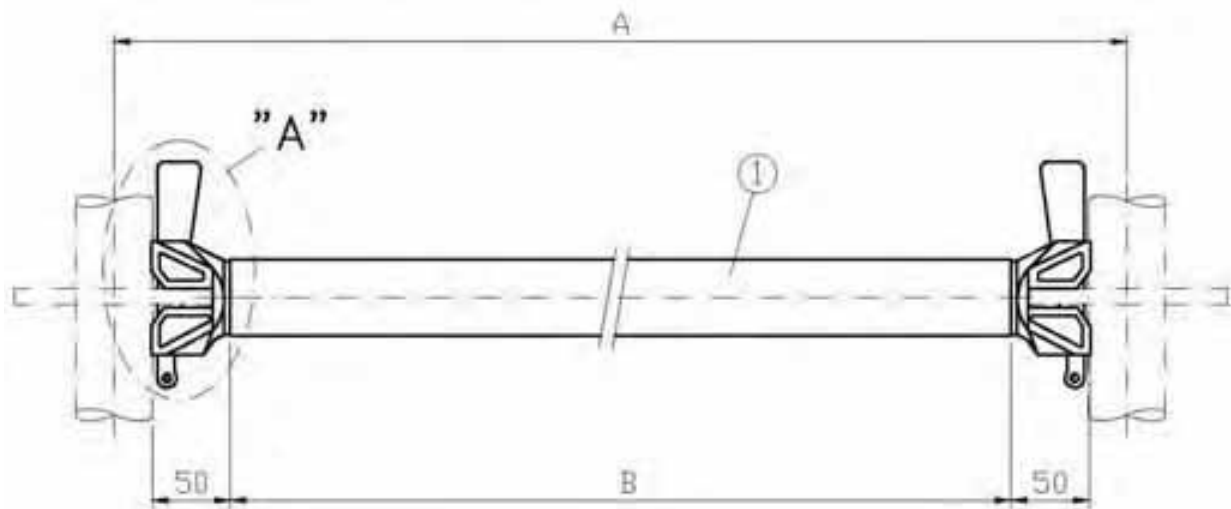
### ALBLITZ MODUL

**AR upright with spigot fitting**

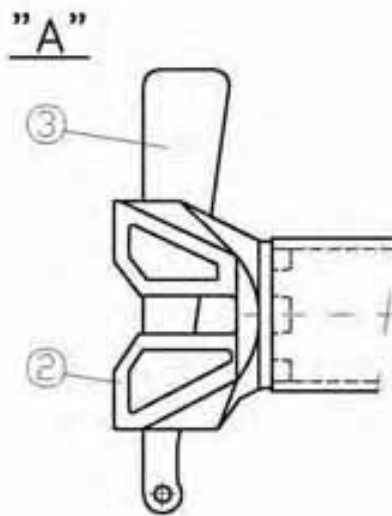
according to Z-8.22-64

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ABM710\_B032



A [mm]	B [mm]	Gew. [kg]
732	584	3,1
1036	888	4,4
1088	940	4,3
1400	1252	5,4
1572	1424	5,9
2072	1924	7,8
2572	2424	9,7
3072	2924	11,4
4144	3996	15,1



- (1) Tube                       $\varnothing 48.3 \times 3.2$                       EN 10219-S235JRH                       $ReH \geq 320 N/mm^2$   
 (2) Head piece,  
 (3) Marking                      see ABM710-B106



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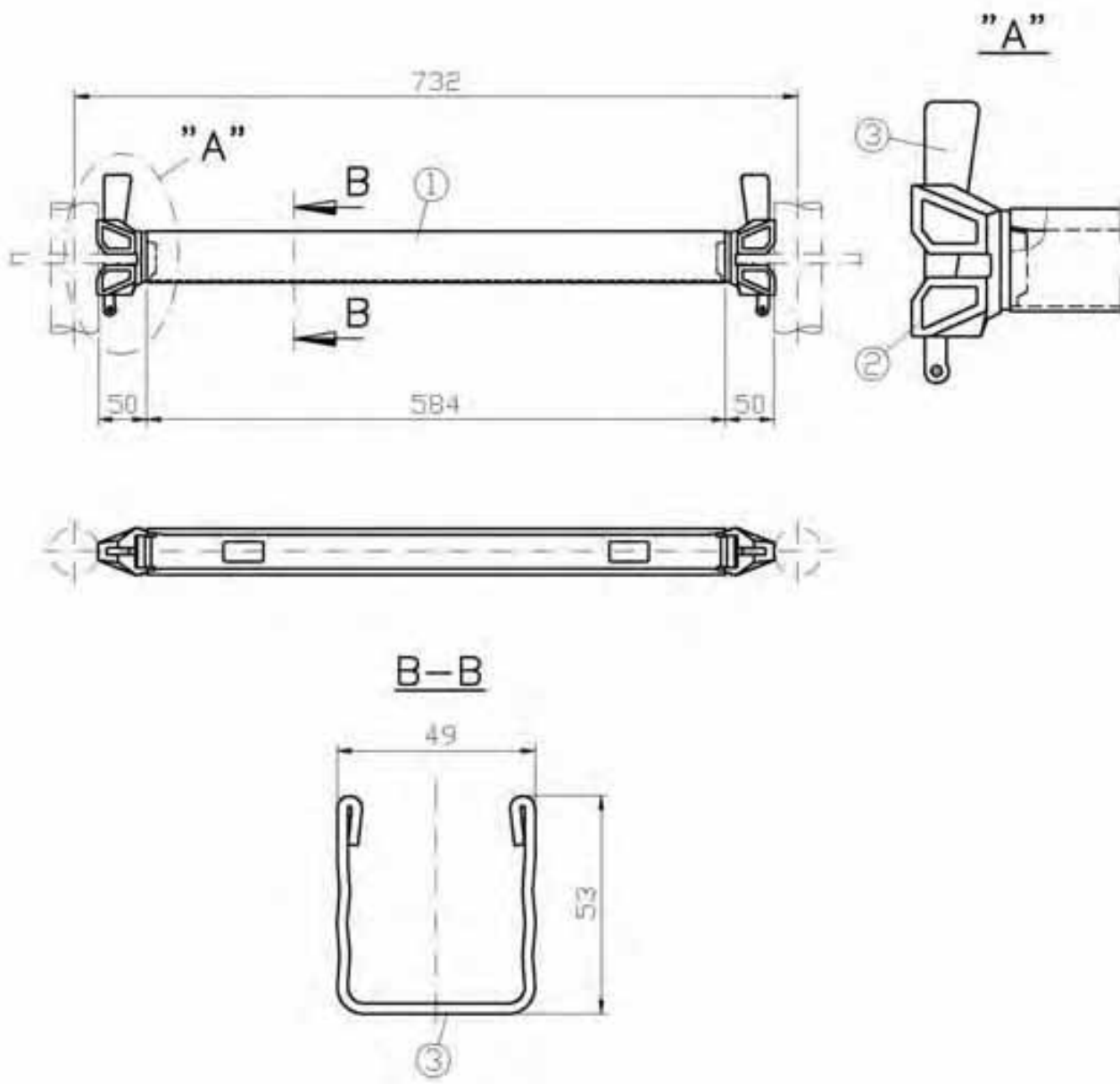
## ALBLITZ MODUL

**O-ledger 0.73-4.14m**

according to Z-8.22-64

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ABM710\_B033



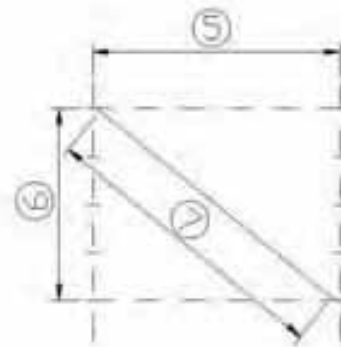
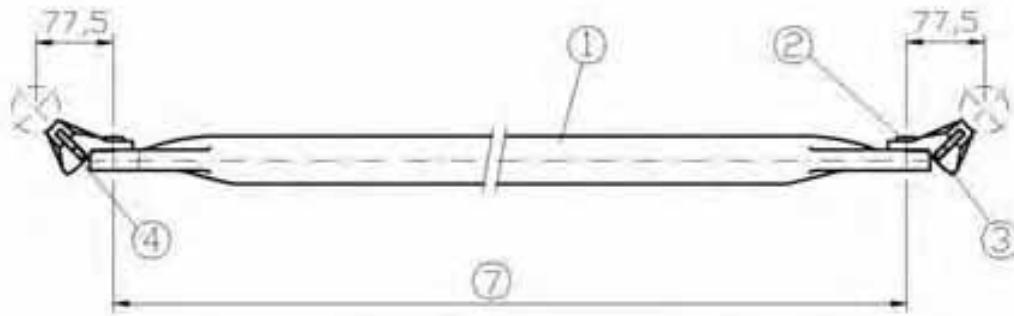
- (1) U-profile                      49x53x2.5                      EN 10025-2-S235JR
- (2) Head piece,                      see ABM710-B107
- (3) Marking

Size [m]	Weight [kg]
0.73	3.1

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**ALBLITZ MODUL**  
  
**U-ledge 0.73m**  
  
 according to Z-8.22-64

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 ABM710\_B034



⑤	⑥	⑦	⑧
1088	500	1059	4,0
1572	500	1503	5,7
2072	500	1981	7,2
2572	500	2468	8,4
3072	500	2960	9,6
732	1000	1155	4,2
1088	1000	1368	4,8
1572	1000	1734	6,3
2072	1000	2162	7,4
2572	1000	2616	8,8
3072	1000	3084	9,9
732	1500	1607	5,4
1088	1500	1767	5,8
1572	1500	2063	7,3
2072	1500	2434	8,2
2572	1500	2845	9,5
3072	1500	3280	10,5

⑤	⑥	⑦	⑧
732	2000	2082	6,8
1036	2000	2186	7,6
1088	2000	2207	7,0
1400	2000	2356	7,5
1572	2000	2451	7,7
2072	2000	2770	8,9
2572	2000	3137	9,5
3072	2000	3537	10,5

- (1) Tube                                     $\varnothing 48.3 \times 2.3$             EN 10219-S235JRH
- (2) Cylinder head rivet                 $\varnothing 16 \times 25$                 EN 10263-2
- (3) Head piece,                            see ABM710-B109
- (4) Marking
- (5) Bay length [mm]
- (6) Bay height [mm]
- (7) Size 'A' [mm]
- (8) Weight [kg]



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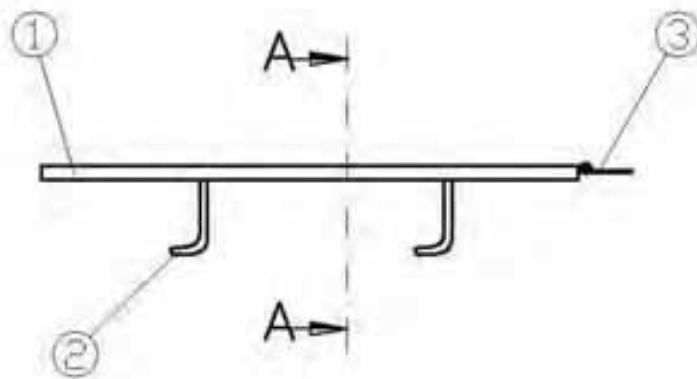
## ALBLITZ MODUL

### Diagonale brace

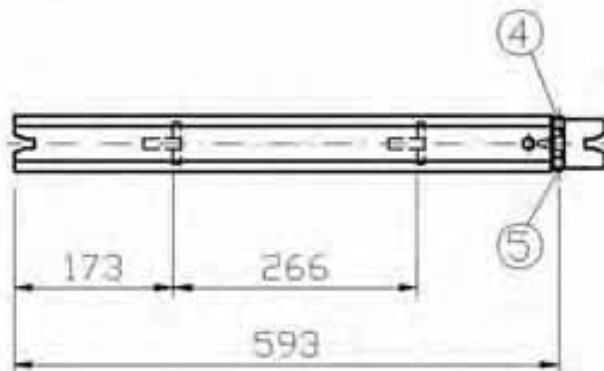
according to Z-8.22-64

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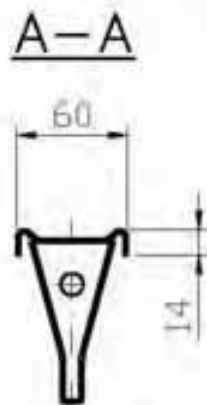
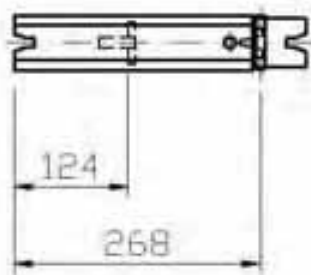
ABM710\_B036



0.73m



0.39m



- |                   |       |                        |
|-------------------|-------|------------------------|
| (1) Rail          | t=2.5 | EN 10025-S235JRC       |
| (2) Hook          | t=2.5 | EN 10111-DD13          |
| (3) Safety latch  | t=2.5 | EN 10111-DD13          |
| (4) Hexagon screw | M5x60 | Strength 8.8 ISO 898-1 |
| (5) Locking nut   | M5    | Strength 5 EN 20 898-2 |

Size [m]	Weight [kg]
0.39	0.6
0.73	1.3



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**ALBLITZ MODUL**

**U-plank retainer**

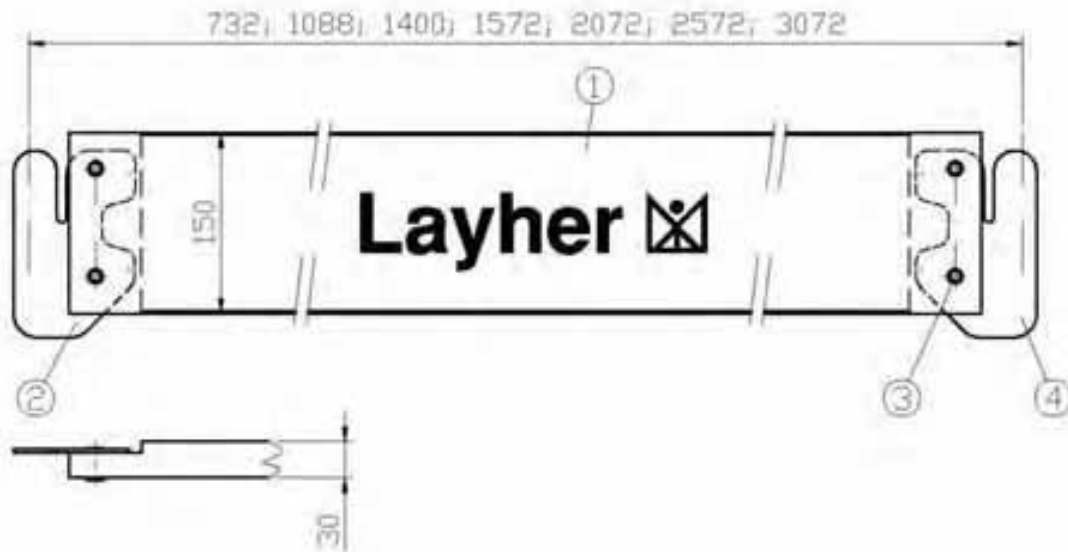
according to Z-8.22-64

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ABM710\_B037

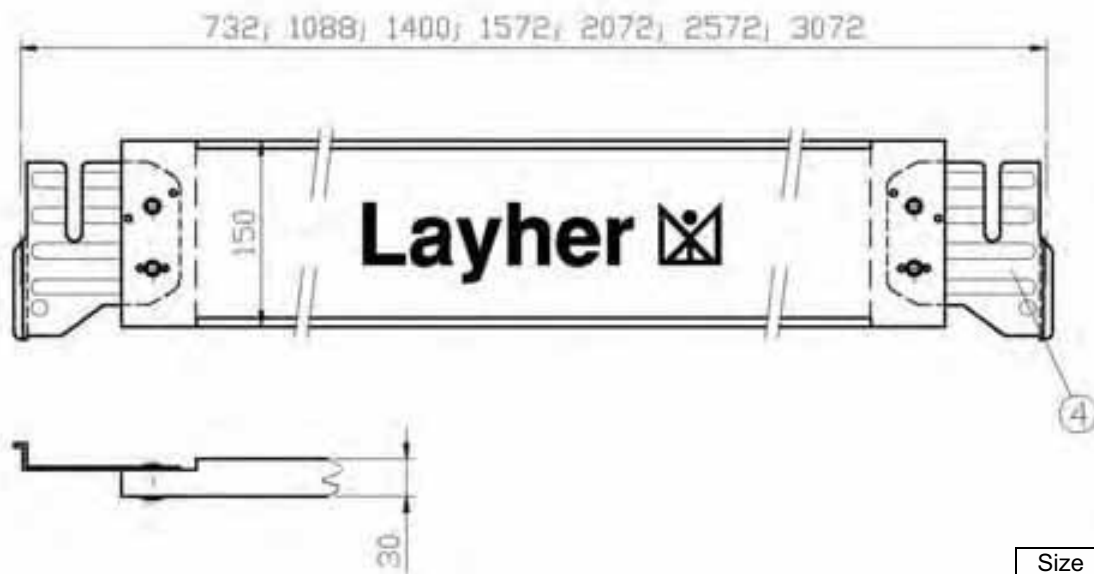
## AR U-toeboard, design I

(Fitting „straight“)



## AR U-toeboard, design II

(Fitting „cranked“)



- |                      |        |                  |
|----------------------|--------|------------------|
| (1) Wood             | 30x150 | DIN 4074-S10-Fi  |
| (2) Fitting          | t=2.5  | DIN 10326-S250GD |
| (3) Truss head rivet | ø8x30  | EN 10263-2       |
| (4) Marking          |        |                  |

Size [m]	Weight [kg]
0.73	1.5
1.09	2.5
1.40	3.4
1.57	3.5
2.07	4.3
2.57	5.7
3.07	6.3



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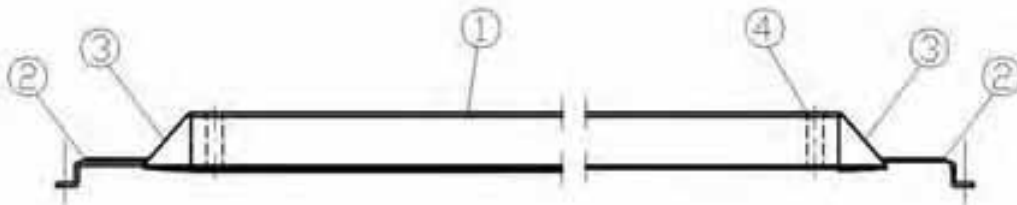
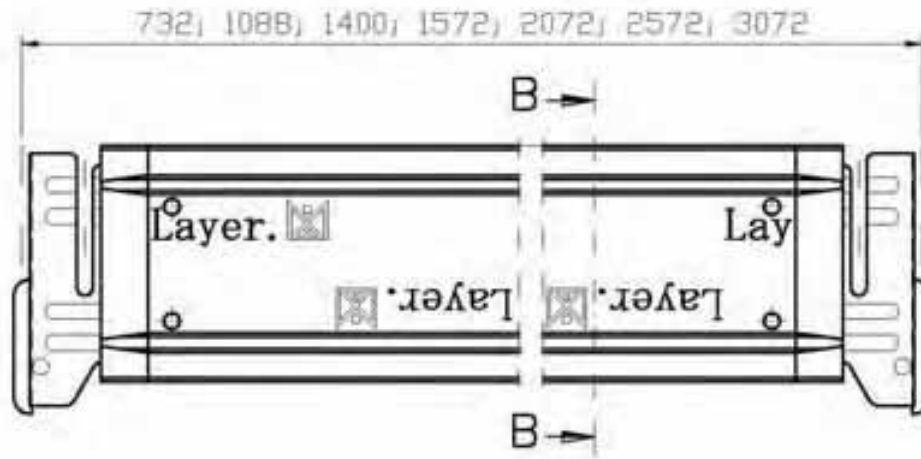
### ALBLITZ MODUL

AR U-toeboard, wood, design I  
AR U-toeboard, wood, design II

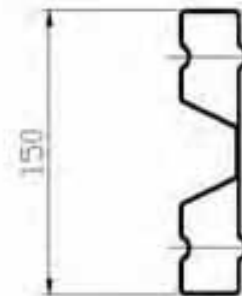
according to Z-8.22-64

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ABM710\_B038



B-B



- (1) Sheet metal, profiled      150x30      EN 10326-S250
- (2) Fitting                              t=2.5      EN 10326-S250
- (3) Plastic cap                        151x31
- (4) Tube rivet                         A 10x1x35      EN 10305-1-E235

Size [m]	Weight [kg]
0.73	1.8
1.09	2.5
1.40	3.1
1.57	3.4
2.07	4.4
2.57	5.4
3.07	6.3



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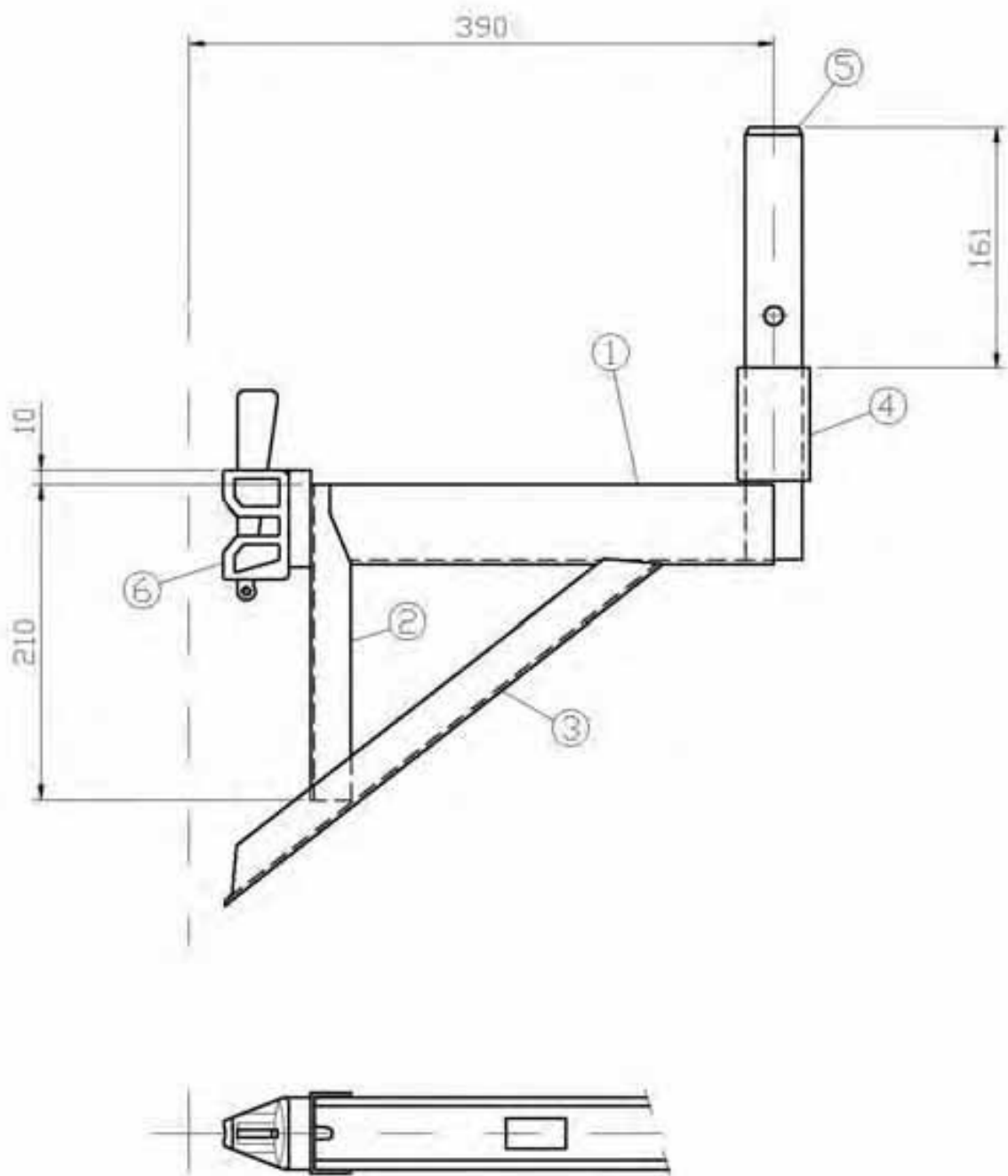
**ALBLITZ MODUL**

**U-toeboard, steel**

according to Z-8.22-64

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ABM710\_B039



- |                    |           |                   |
|--------------------|-----------|-------------------|
| (1) U-profile,     |           | see ABM710-B034   |
| (2) Supporting U   | 49x25x2.5 | EN 10025-2-S235JR |
| (3) Bracing U      | 54x27x2.5 | EN 10025-2-S235JR |
| (4) Tube           | ∅48.3x4   | EN 10219-S235JRH  |
| (5) Spigot fitting | ∅38x3.6   | EN 10219-S275JOH  |
| (6) Head piece,    |           | see ABM710-B008   |

Size [m]	Weight [kg]
0.39	3.9



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## ALBLITZ MODUL

### U-bracket

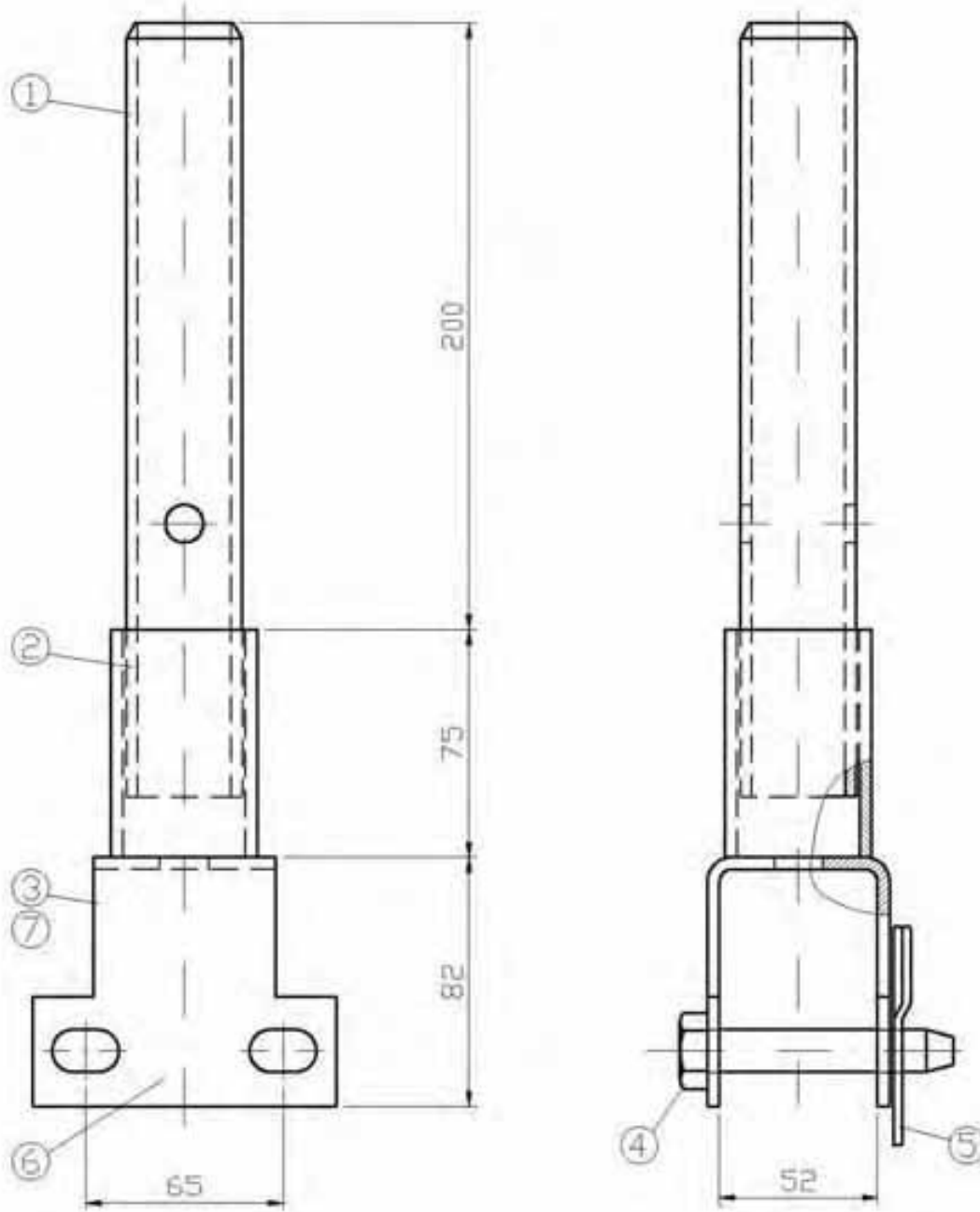
according to Z-8.22-64

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ABM710\_B040







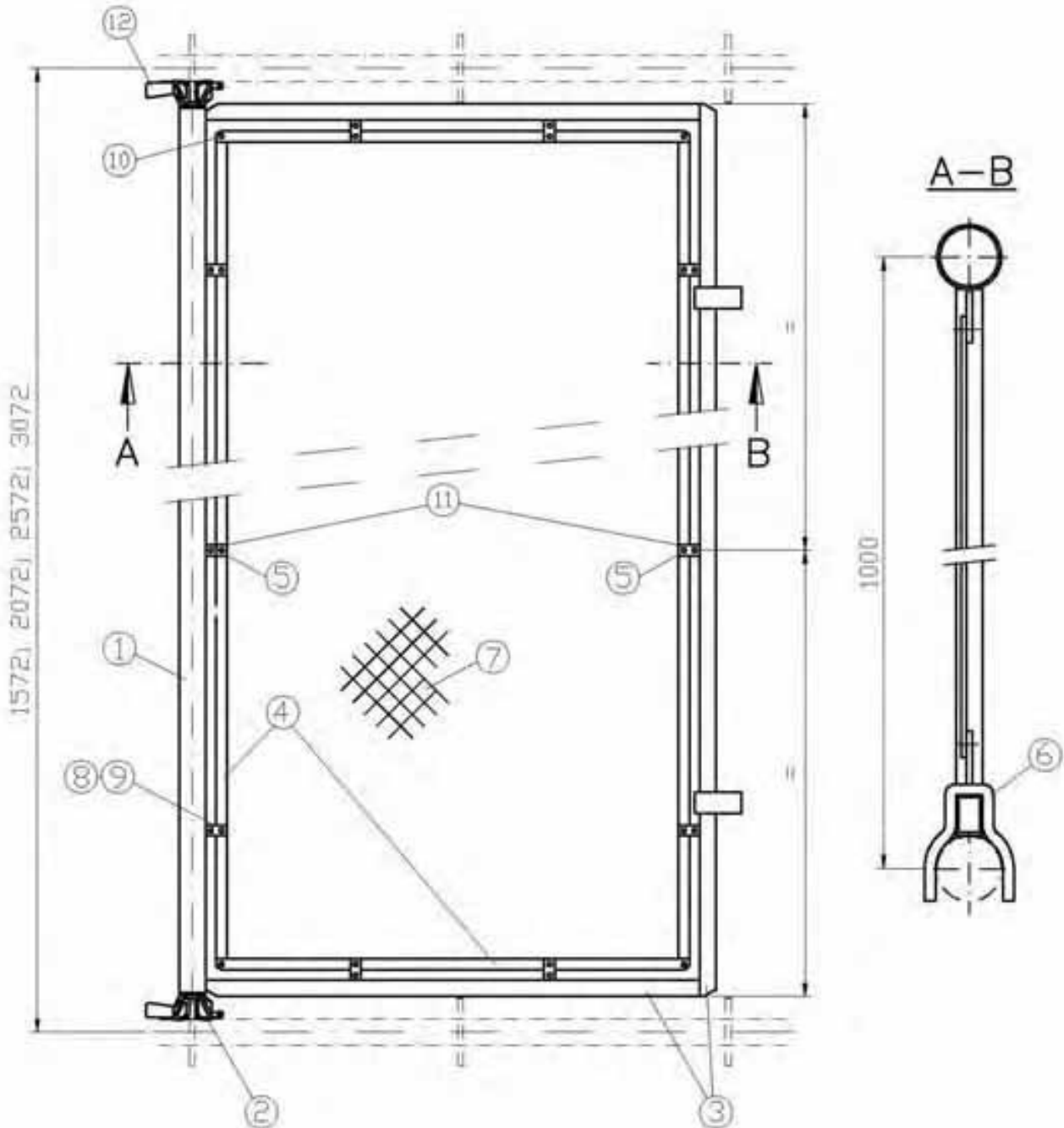
- (1) Spigot fitting       $\varnothing 38 \times 3.6$       EN 10219-S275JOH
- (2) Tube                 $\varnothing 48.3 \times 4.0$       EN 10219-S235JRH
- (3) U-bracket             $t=4$                 EN 10111-DD13
- (4) Bolt                  $\varnothing 14 \times 77$         Strength 8.8 ISO 898-1
- (5) Locking pin         2.8                 EN 11024
- (6) Marking
- (7) Shown without bolt and locking pin!

Size [m]	Weight [kg]
-	1.8


  
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**ALBLITZ MODUL**  
**Spigot fitting for lattice girder**  
 according to Z-8.22-64

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 ABM710\_B042



- |                                     |            |                        |
|-------------------------------------|------------|------------------------|
| (1) Tube                            | ∅48.3x2.3  | EN 10219-S235JRH       |
| (2) Head piece,                     |            | see ABM710-B106        |
| (3) Rectangular tube                | 30x20x2    | EN 10025-2-S235JR      |
| (4) Safety meshguard bar            | □ 20x4     | EN 10025-2-S235JR      |
| (5) Mounting lug                    | □ 20x4     | EN 10025-2-S235JR      |
| (6) Mounting bracket                | □ 40x8     | EN 10025-2-S235JR      |
| (7) Wire netting                    | 50x2.5x900 | DIN EN 10223-6         |
| (8) Hexagon screw                   | M6x16      | Strength 8.8 ISO 898-1 |
| (9) Locking nut                     | M6         | Strength 8 EN 20898-2  |
| (10) Blind rivet, stainless steel   | A5x16      | ISO 16585              |
| (11) at 1.57m, without a middle lug |            |                        |
| (12) Marking                        |            |                        |

Size [m]	Weight [kg]
1.57	16.5
2.07	19.5
2.57	23.0
3.07	26.3



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## ALBLITZ MODUL

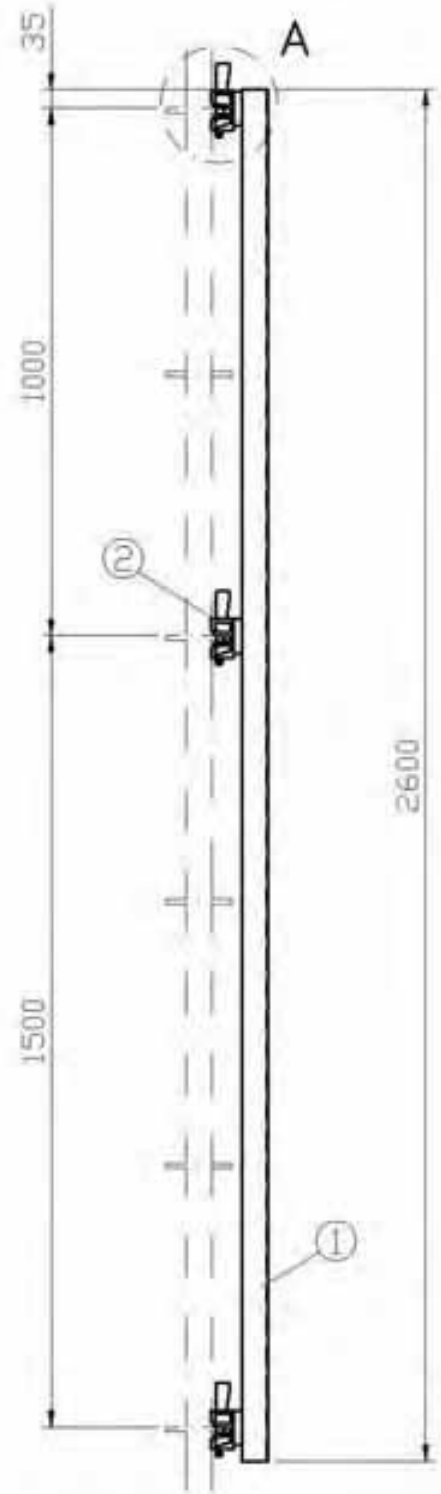
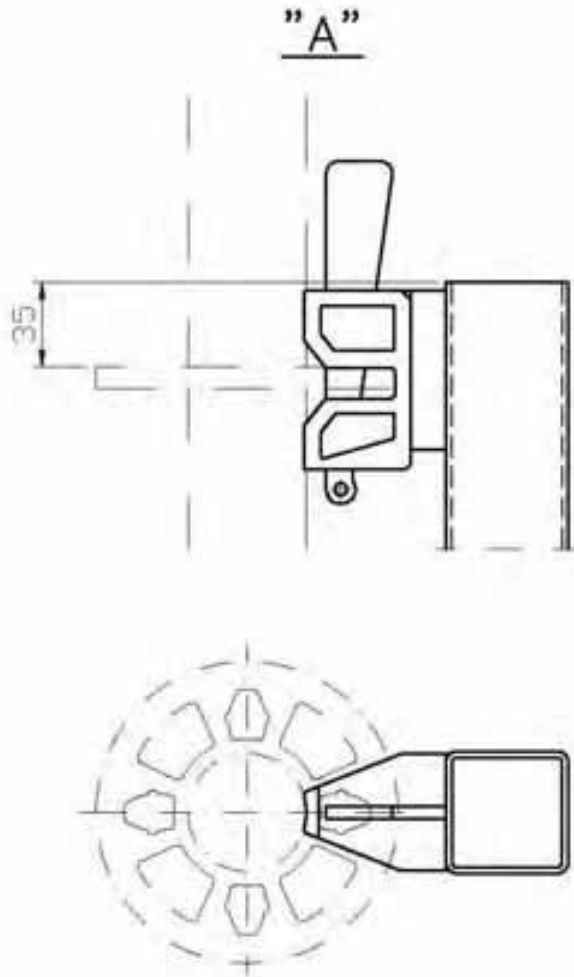
### Side safety meshguard

according to Z-8.22-64

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ABM710\_B044





- (1) Square tubing      50x2.5      EN 10025-2-S235JR  
 (2) Head piece,      see ABM710-B008



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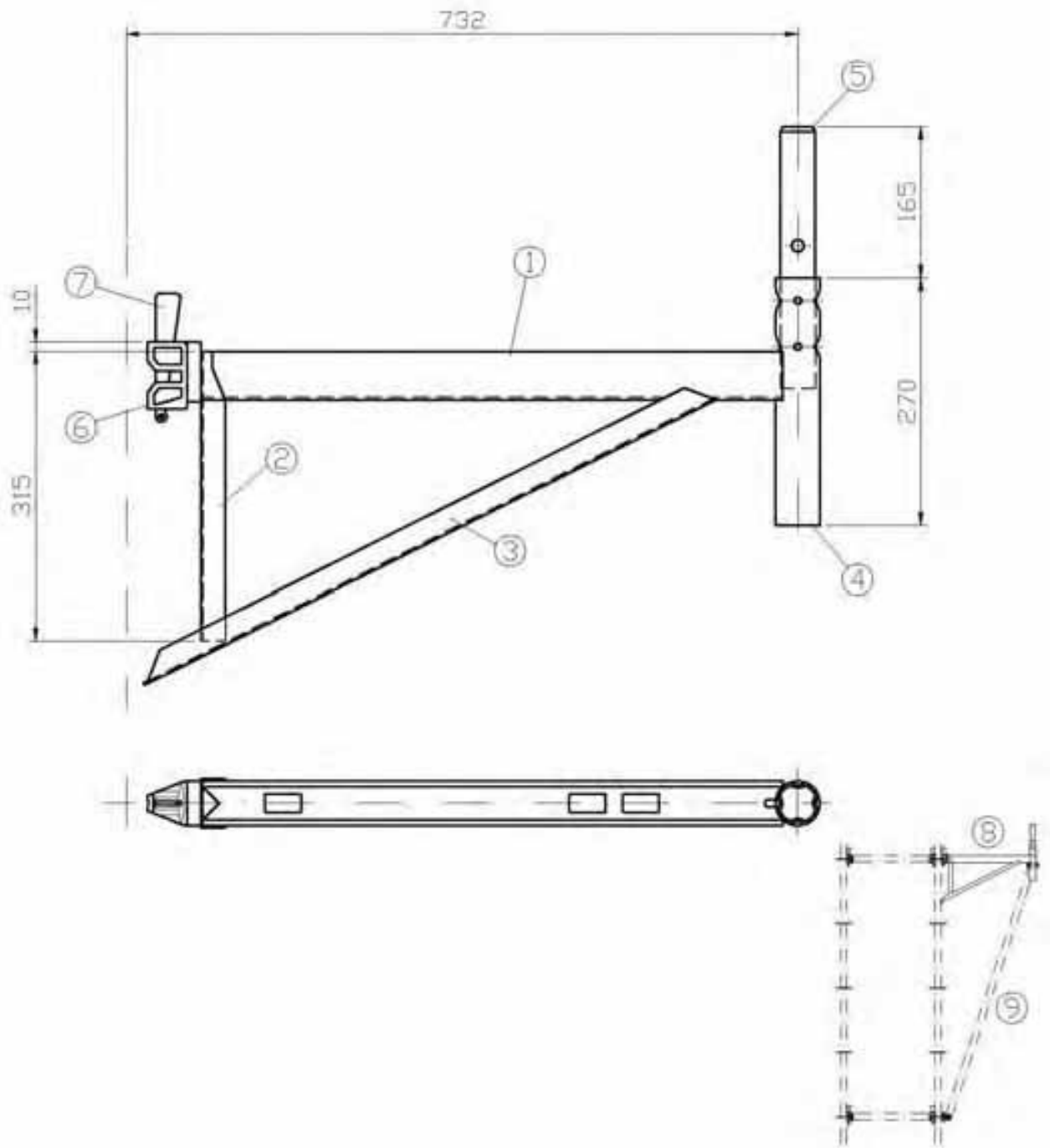
### ALBLITZ MODUL

Post with wedge heads

according to Z-8.22-64

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ABM710\_B068



- (1) U-profile                    49x53x2.5            EN 10025-2-S235JR
- (2) Supporting U                49x25x2.5            EN 10025-2-S235JR
- (3) Bracing U                    54x27x2.5            EN 10025-2-S235JR
- (4) Tube                         Ø48.3x3.2            EN 10219-S235JRH
- (5) Spigot fitting                Ø38x3.6              EN 10219-S275JOH
- (6) Head piece + wedge,        see ABM710-B008
- (7) Marking
- (8) Bracket
- (9) Bracket brace

ReH ≥ 320 N/mm<sup>2</sup>

Size [m]	Weight [kg]
0.39	3.9



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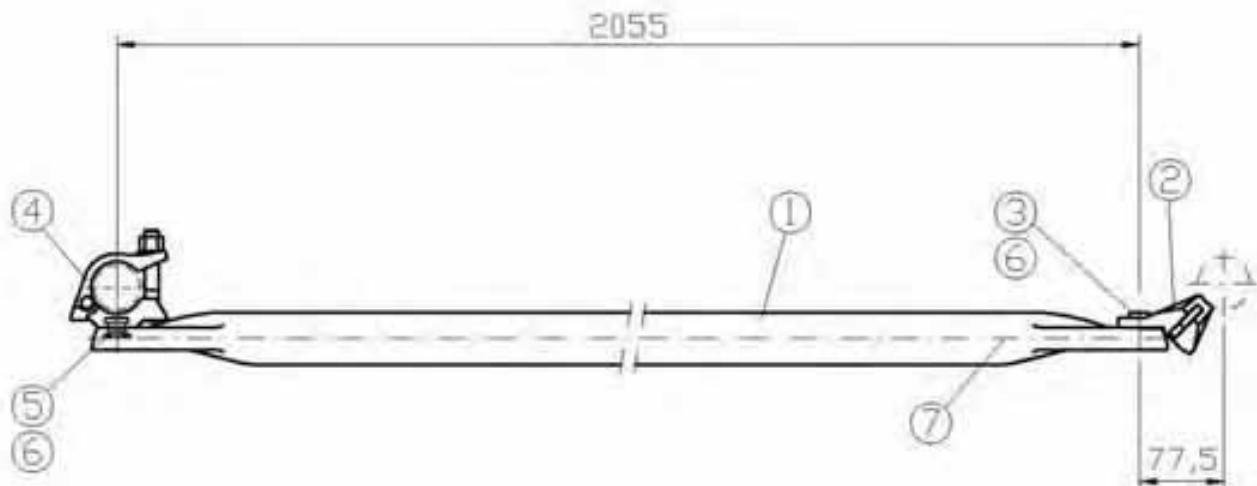
**ALBLITZ MODUL**

**U-bracket 0.73m**

according to Z-8.22-64

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ABM710\_B069



- (1) Tube Ø48.3x2.3 EN 10219-S235JRH
- (2) Head piece + wedge, see ABM710-B109
- (3) Cylinder head rivet Ø16x25 EN 10263-2
- (4) Halfcoupler with screw top acc. to approval z-8.331-882
- (5) Cylinder head rivet Ø16x20 EN 10263-2
- (6) riveted rotatable
- (7) Marking

Size [m]	Weight [kg]
2.05	8.8



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09603 Großschirma

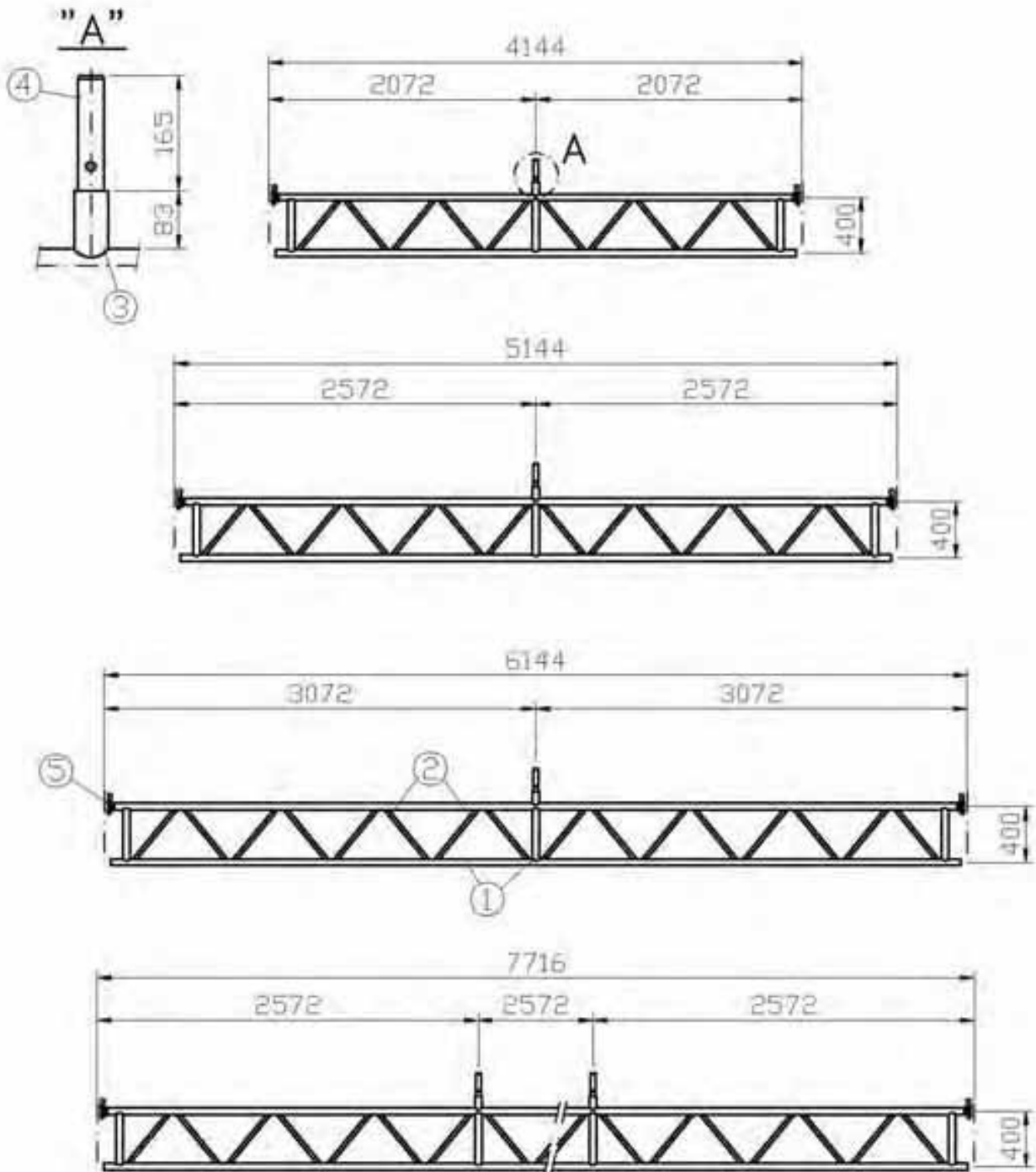
### ALBLITZ MODUL

#### Bracket brace 2.05m

according to Z-8.22-64

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Deutsches Institut für Bautechnik

ABM710\_B070



- |                         |           |                              |                          |
|-------------------------|-----------|------------------------------|--------------------------|
| (1) Tube                | ∅48.3x3.2 | EN 10219-S235JRH             | ReH≥320N/mm <sup>2</sup> |
| (2) Rectangular tube    | 30x20x2   | EN 10025-S235JR              |                          |
| (3) Tube                | ∅48.3x4.0 | EN 10219-S235JRH             |                          |
| (4) Spigot fitting      | ∅38x3.6   | EN 10219-S275JOH             |                          |
| (5) Head piece + wedge, |           | see ABM710-B106; ABM710-B110 |                          |
| (6) Marking             |           |                              |                          |

Size [m]	Weight [kg]
4.14	41.6
5.14	51.5
6.14	60.0
7.71	77.0



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## ALBLITZ MODUL

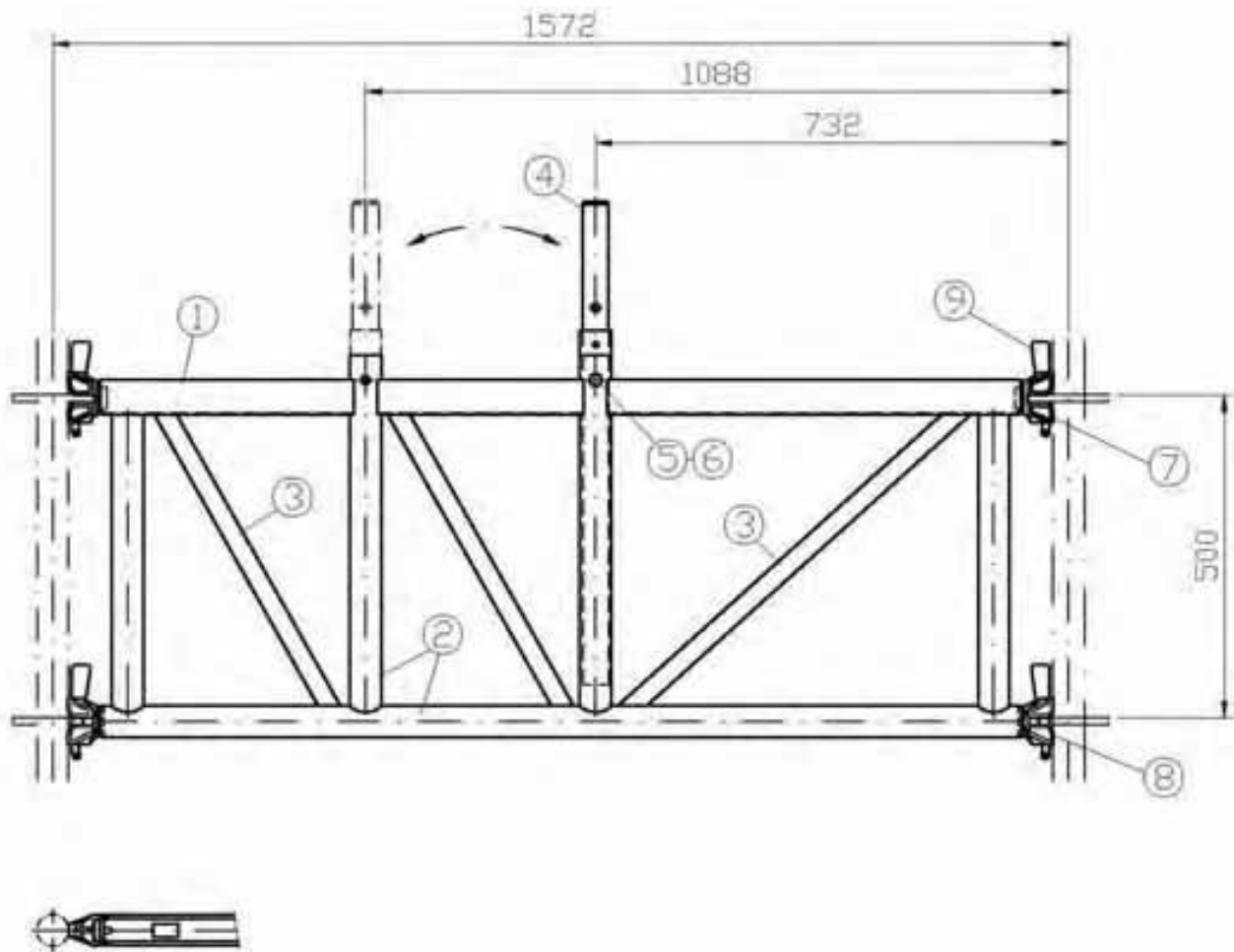
### O-lattice girder

according to Z-8.22-64

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the national technical  
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Deutsches Institut für Bautechnik

ABM710\_B071





- (1) U-profile, see ABM710-B034
- (2) Tube  $\text{Ø}48.3 \times 3.2$  EN 10219-S235JRH  $\text{ReH} \geq 320 \text{N/mm}^2$
- (3) Rectangular tube  $30 \times 20 \times 2$  EN 10025-2-S235JR
- (4) Spigot fitting  $\text{Ø}40 \times 3.5$  EN 10219-S235JRH
- (5) Hexagon screw M12x60 Strength 8.8 ISO 898-1
- (6) Hexagon nut M12 Strength 8 EN 20898-2
- (7) Head piece U + wedge, see ABM710-B107; ABM710-B110
- (8) Head piece D + wedge, see ABM710-B106; ABM710-B110
- (9) Marking

Size [m]	Weight [kg]
1.57	21.9



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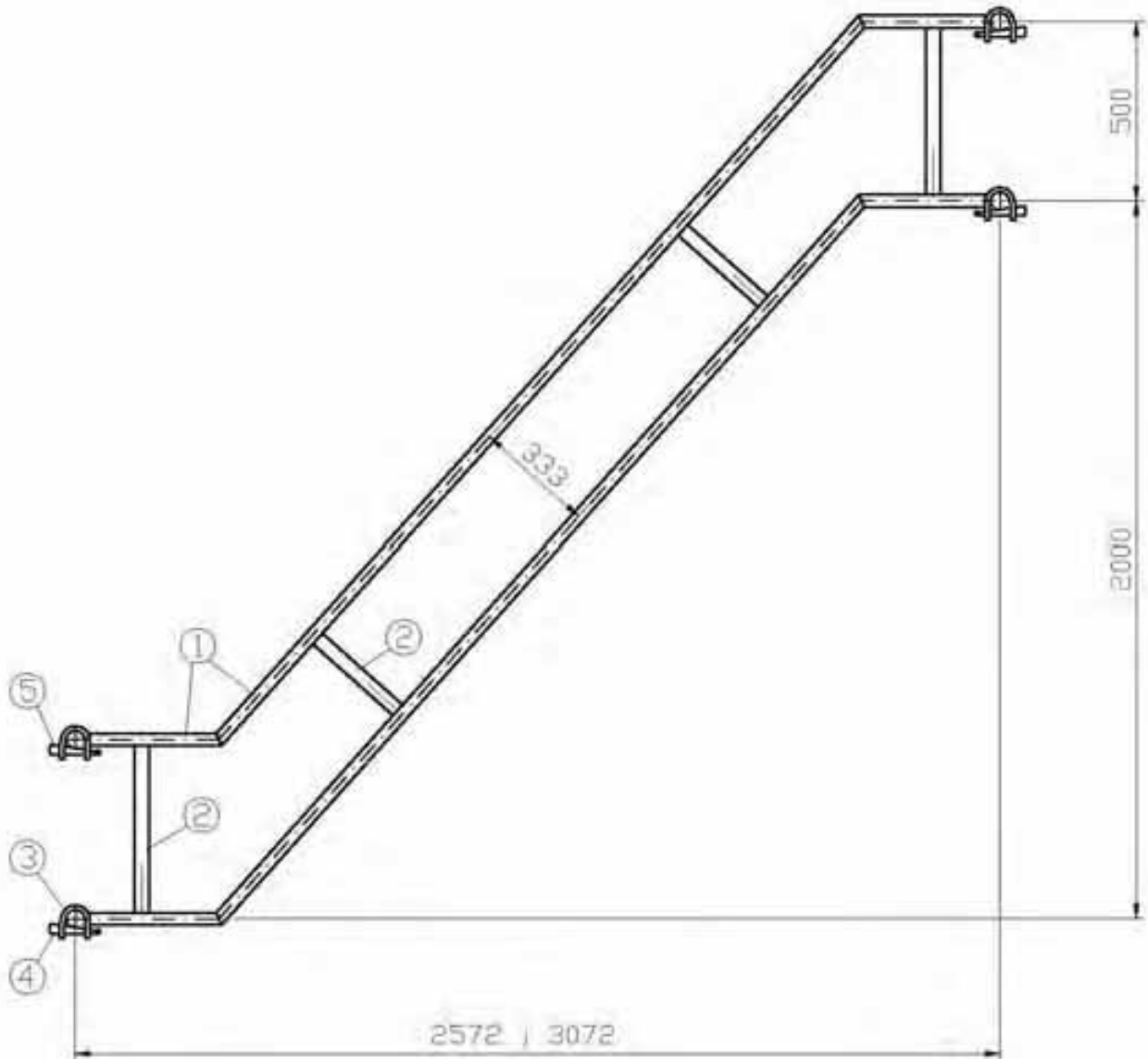
### ALBLITZ MODUL

#### U-passageway girder

according to Z-8.22-64

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ABM710\_B072



- |                      |            |                  |
|----------------------|------------|------------------|
| (1) Tube             | ∅33.7x2.25 | EN 10219-S235JRH |
| (2) Rectangular tube | 40x20x2    | EN 10025-S235JR  |
| (3) Locking U        | t=8        | EN 10025-S235JR  |
| (4) Wedge,           |            | see ABM710-B110  |
| (5) Marking          |            |                  |

Size [m]	Weight [kg]
2.57	18.1
3.07	20.1



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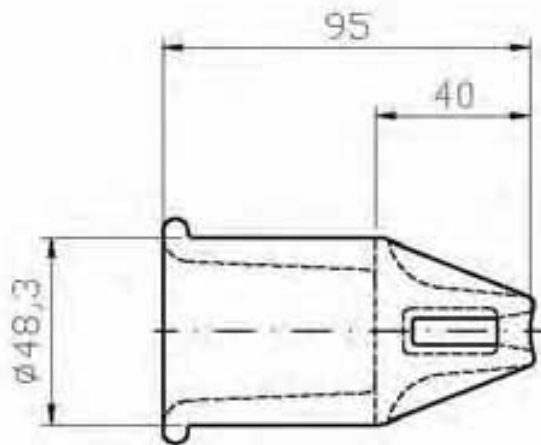
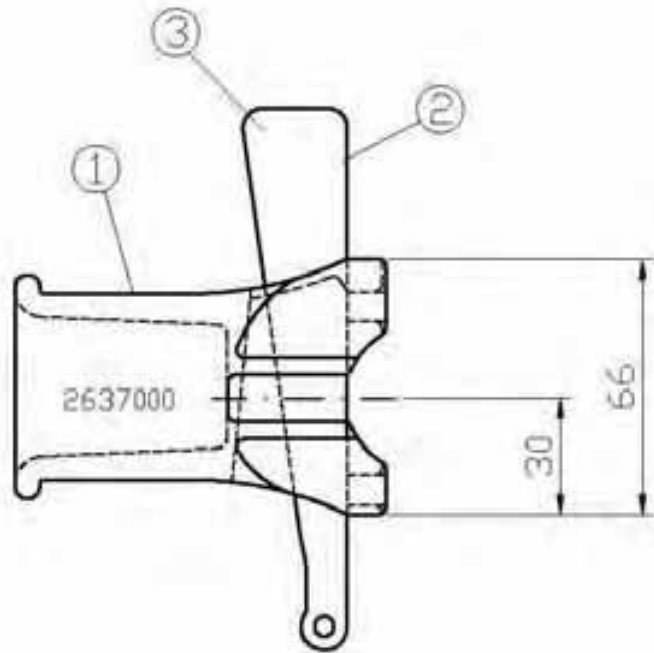
## ALBLITZ MODUL

### Stair guardrail

according to Z-8.22-64

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ABM710\_B073



- (1) Head piece
- (2) Wedge,
- (3) Marking

EN 1562-GJMW-450-7  
see ABM710-B110

Size [m]	Weight [kg]
	0.7



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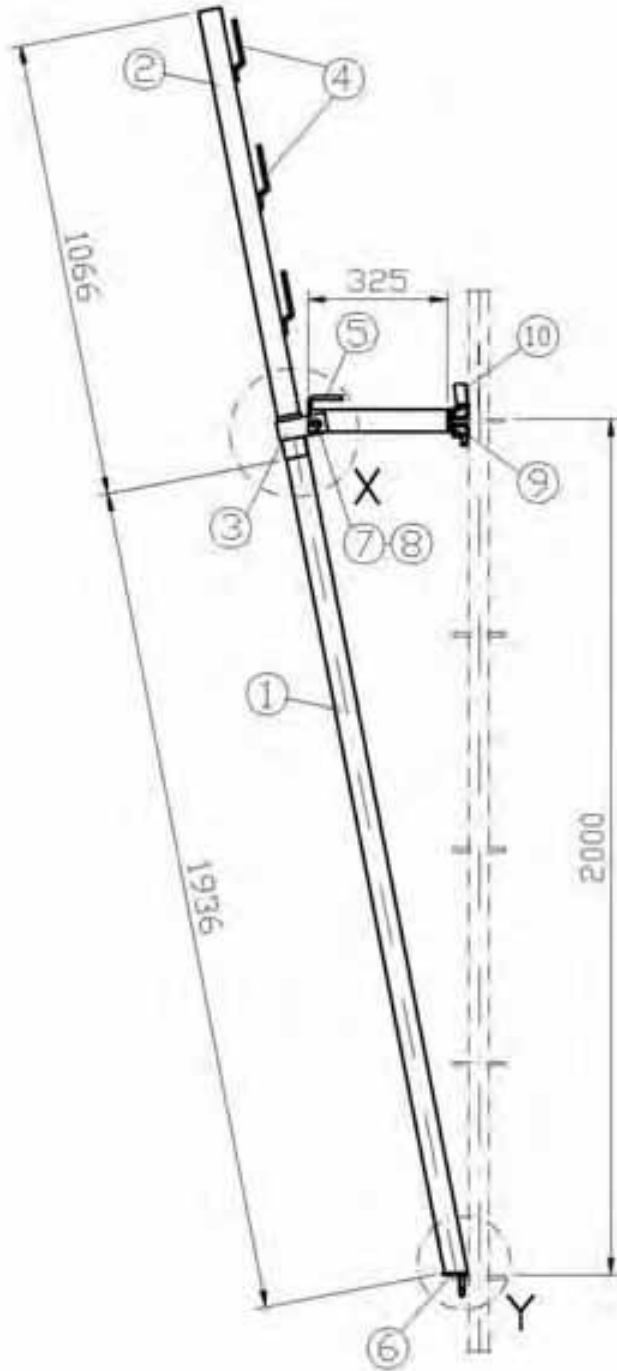
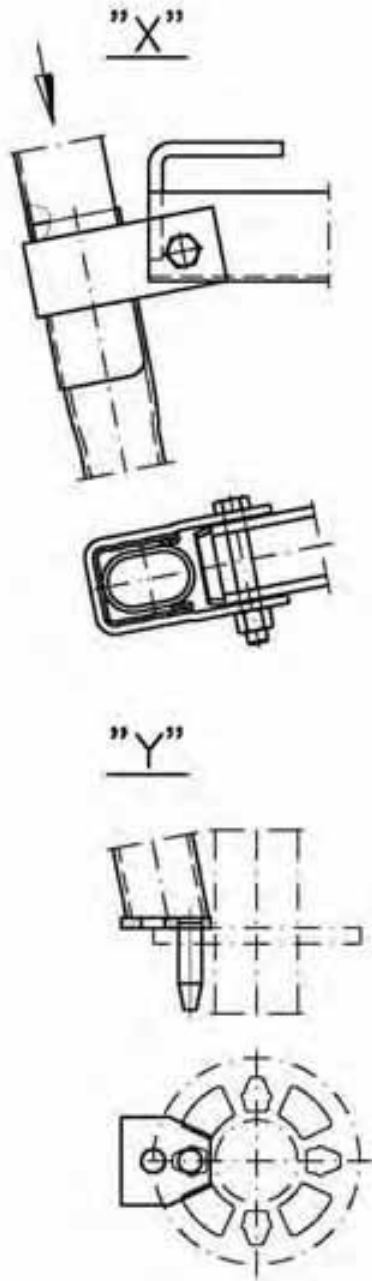
### ALBLITZ MODUL

Stair guardrail holder

according to Z-8.22-64

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ABM710\_B074



- |      |                     |           |                              |                          |
|------|---------------------|-----------|------------------------------|--------------------------|
| (1)  | Tube                | ∅48.3x3.2 | EN 10219-S235JRH             | ReH≥320N/mm <sup>2</sup> |
| (2)  | U-profile           | 49x53x2.5 | EN 10025-2-S235JR            |                          |
| (3)  | U-bracket           | 45x5      | EN 10025-2-S235JR            |                          |
| (4)  | Lug                 | 45x8      | EN 10025-2-S235JR            |                          |
| (5)  | Angle               | 40x8      | EN 10025-2-S235JR            |                          |
| (6)  | Plate with bolt     |           | EN 10025-2-S235JR            |                          |
| (7)  | Hexagon screw       | M12x80    | Strength 8.8                 | ISO 898-1                |
| (8)  | Locking nut         | M12       | Strength 8                   | EN 20898-2               |
| (9)  | Head piece + wedge, |           | see ABM710-B107; ABM710-B110 |                          |
| (10) | Marking             |           |                              |                          |

Size [m]	Weight [kg]
	14.6



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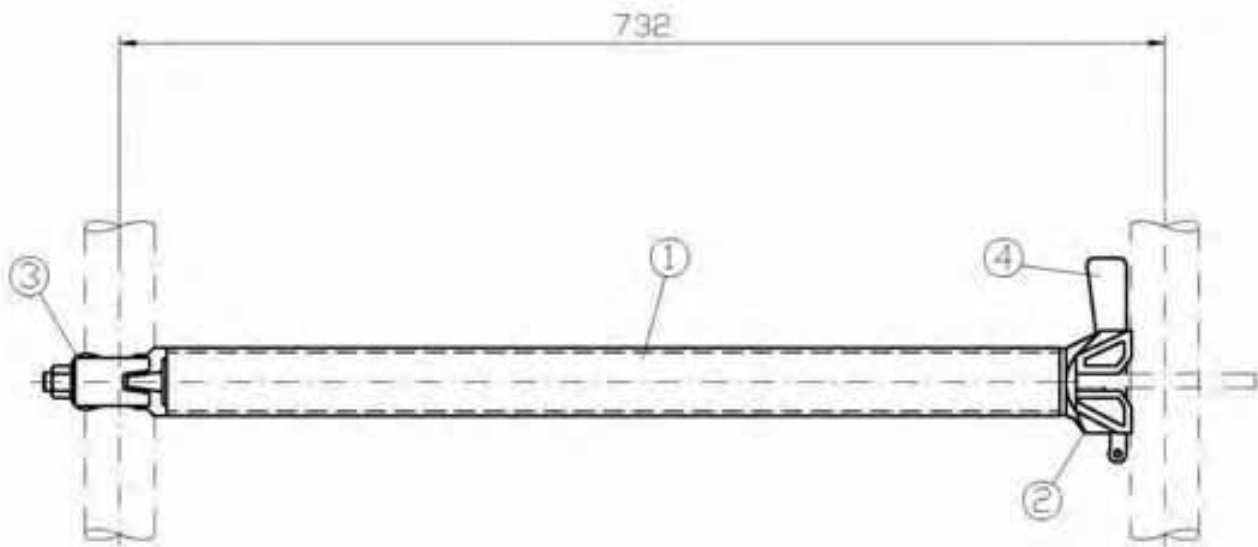
## ALBLITZ MODUL

### U-protective shelter bracket T7

according to Z-8.22-64

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ABM710\_B078



- (1) Tube Ø48.3x3.2 EN 10219-S235JRH ReH≥320N/mm<sup>2</sup>  
 (2) Head piece + wedge, see ABM710-B106 + ABM710-B110  
 (3) Halfcoupler with screw top acc. to approval Z-8.331-882  
 (4) Marking

Size [m]	Weight [kg]
0.73	3.4



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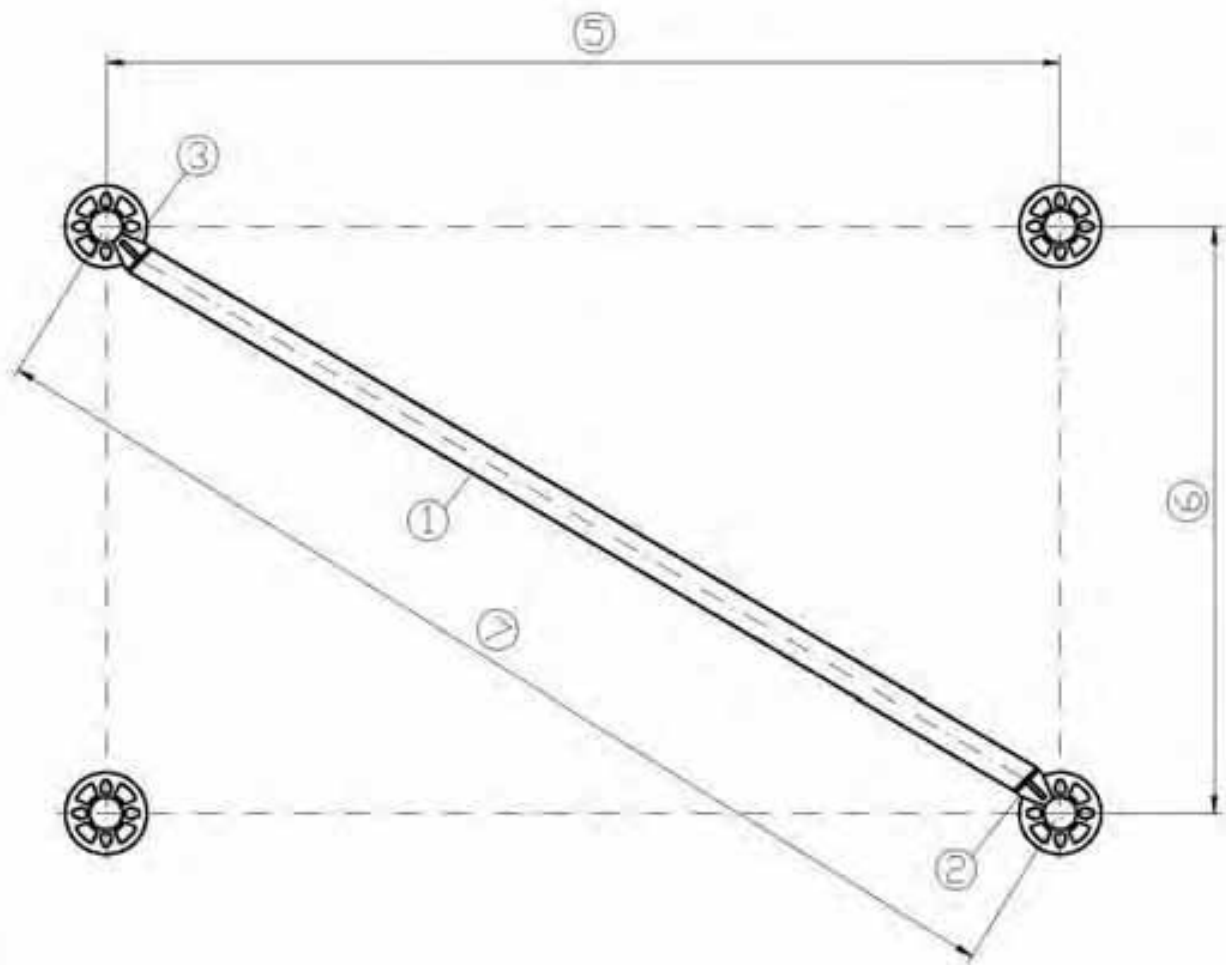
### ALBLITZ MODUL

**O-ledger with halfcoupler**

according to Z-8.22-64

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ABM710\_B079



④ ⑤x⑥	⑦	⑧
1,57x1,09	1912	6,9
2,07x1,09	2340	8,4
2,57x1,09	2793	9,7
3,07x1,09	3259	13,1
2,07x0,73	2198	9,0
2,57x0,73	2674	10,8
3,07x0,73	3158	12,3

- (1) Tube                                     $\varnothing 48.3 \times 2.7$                                     EN 10219-S235JRH     $ReH \geq 320 N/mm^2$   
(2) Head piece,                                    see ABM710-B106  
(3) Marking  
(4) Bay LxB [m]  
(5) L (Bay length)  
(6) B (Bay width)  
(7) Size 'A' [mm]  
(8) Weight [kg]



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09603 Großschirma

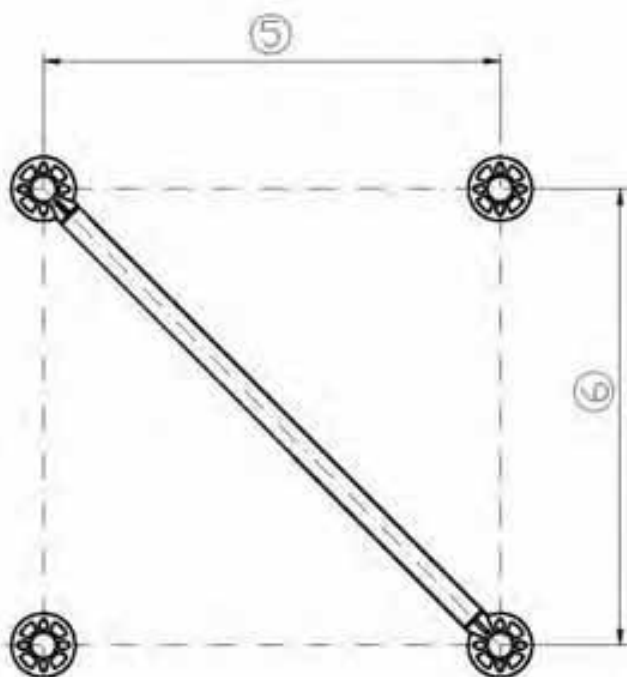
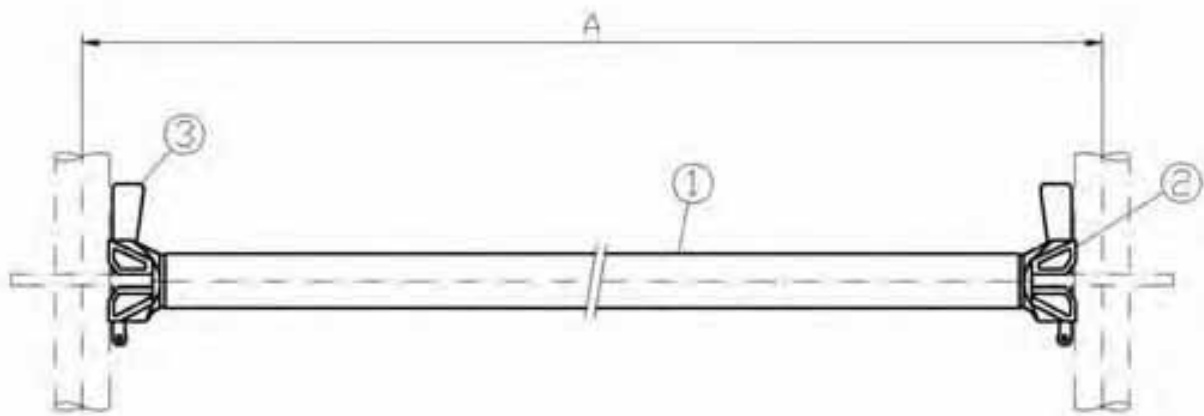
### ALBLITZ MODUL

**O-ledger HD**  
**bay length x bay width**

according to Z-8.22-64

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the national technical  
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ABM710\_B082



④ ⑤x⑥	⑦	⑧
1,09x1,09	1538	6,2
1,57x1,57	2223	8,7
2,00x2,00	2828	11,3
2,07x2,07	2930	11,5
2,57x2,57	3637	14,0
3,07x3,07	4344	15,8

- (1) Tube  $\varnothing 48.3 \times 3.2$  EN 10219-S235JRH  $ReH \geq 320 N/mm^2$   
 (2) Head piece, see ABM710-B106  
 (3) Marking  
 (4) Bay LxB [m]  
 (5) L (Bay length)  
 (6) B (Bay width)  
 (7) Size 'A' [mm]  
 (8) Weight [kg]



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09603 Großschirma

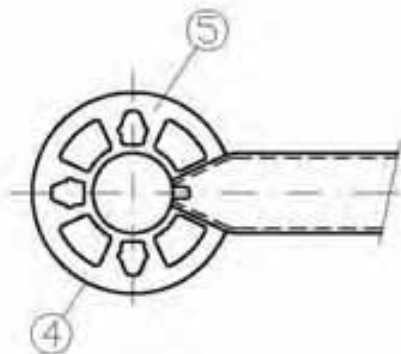
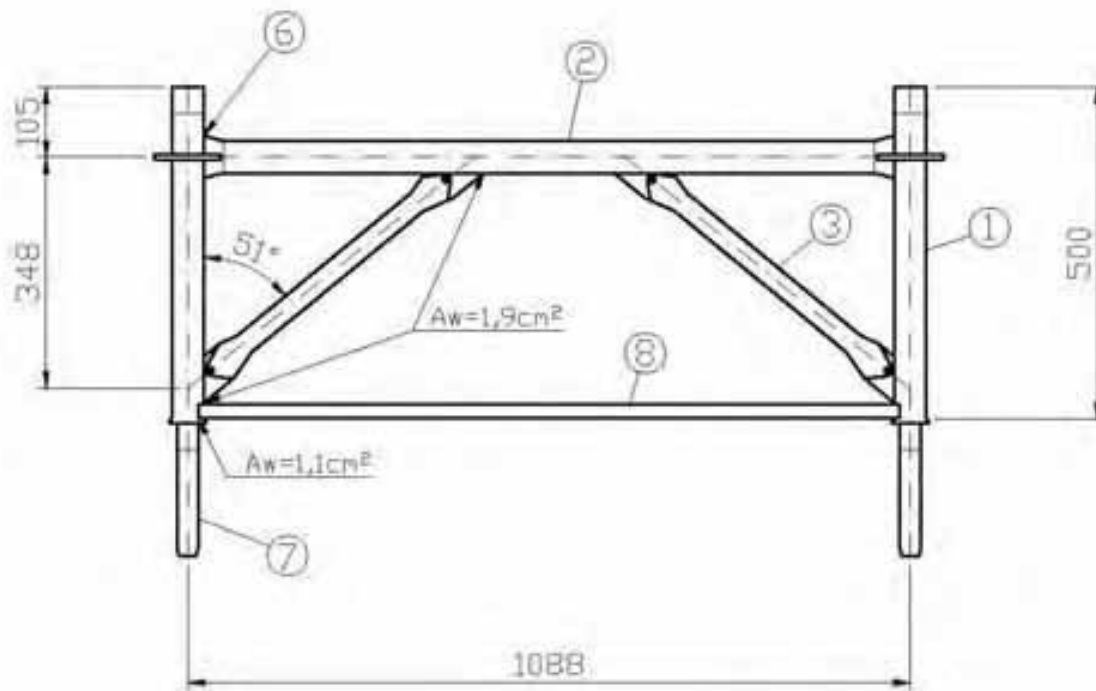
## ALBLITZ MODUL

**O-ledger HD**  
**bay length x bay width**

according to Z-8.22-64

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ABM710\_B083



⑥

max. torque  $M_{R,d} = 134 \text{ kNm}$   
 Normal force  $N_{R,d} = 89.5 \text{ kN}$   
 Lateral force  $V_{R,d} = 43.5 \text{ kN}$

$$M_{\text{red}} = \left(1 - \left[2 \times \frac{V_{\text{ed}}}{V_{\text{Rd}}} - 1\right]^2\right) \times M_{\text{ed}} \text{ für } V_{\text{ed}} > 0,5 \times V_{\text{Rd}}$$

$$M_{\text{red}} = M_{\text{ed}} \text{ für } V_{\text{ed}} \leq 0,5 \times V_{\text{Rd}}$$

$$M_{\text{ed}} \leq M_{\text{Rd}} \times \left(1 - \left[\frac{N_{\text{ed}}}{N_{\text{Rd}}}\right]^2\right)$$

- |                                |            |  |
|--------------------------------|------------|--|
| (1) Tube                       | Ø48.3x3.2  | EN 10219-S355J2H (S355MH)                              |
| (2) Tube                       | Ø48.3x2.7  | EN 10219-S235JRH $\text{ReH} \geq 320 \text{ N/mm}^2$  |
| (3) Tube                       | Ø33.7x2.25 | EN 10219-S235JRH                                       |
| (4) Perforated disc            |            | Version K2000+   |
| (5) Marking                    |            |  |
| (6) Spigot fitting, compressed |            | (acc. Z.8.1-16.2)                                      |
| (7) Rectangular tubing         | 40x20x2    | EN 10025-2-S235JR $\text{ReH} \geq 320 \text{ N/mm}^2$ |

Size [m]	Weight [kg]
0.50	13.0



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09603 Großschirma

### ALBLITZ MODUL

**AR TG-60 frame**

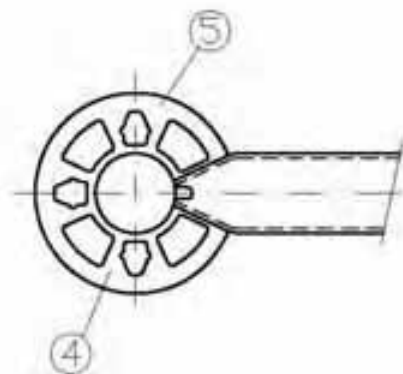
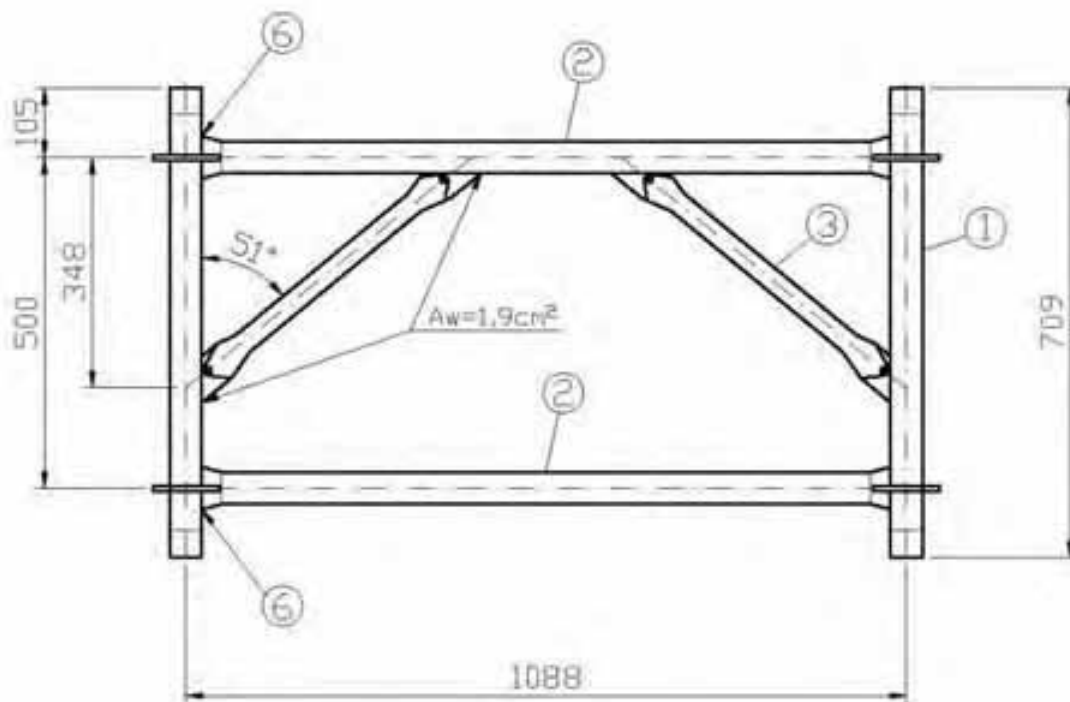
**0.50x1.09m**

according to Z-8.22-64

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ABM710\_B084





⑥

max. torque  $MR.d = 134 \text{ kNcm}$   
 Normal force  $NR.d = 89.5 \text{ kN}$   
 Lateral force  $VR.d = 43.5 \text{ kN}$

$$M_{red} = \left(1 - \left[2 \times \frac{V_{Ed}}{V_{Rd}} - 1\right]^2\right) \times M_{Ed} \text{ für } V_{Ed} > 0,5 \times V_{Rd}$$

$$M_{red} = M_{Ed} \text{ für } V_{Ed} \leq 0,5 \times V_{Rd}$$

$$M_{Ed} \leq M_{Rd} \times \left(1 - \left[\frac{N_{Ed}}{N_{Rd}}\right]^2\right)$$

- |                                  |            |                               |
|----------------------------------|------------|-------------------------------|
| (1) Tube                         | Ø48.3x3.2  | EN 10219-S355J2H (S355MH)     |
| (2) Tube                         | Ø48.3x2.7  | EN 10219-S235JRH ReH≥320N/mm2 |
| (3) Tube                         | Ø33.7x2.25 | EN 10219-S235JRH              |
| (4) Perforated discs, congruent! |            | Version K2000+                |
| (5) Marking                      |            |                               |

Size [m]	Weight [kg]
0.71	15.9



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## ALBLITZ MODUL

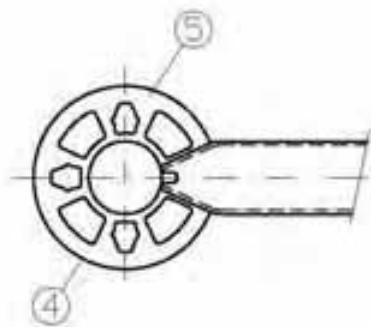
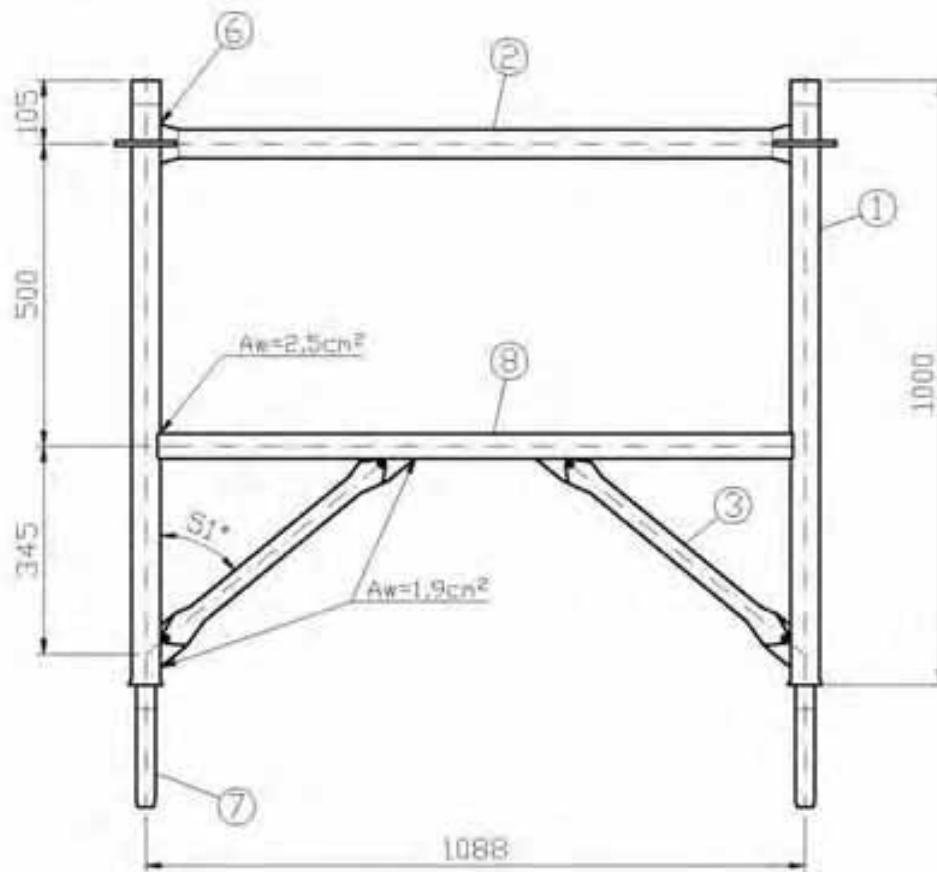
AR TG-60 frame

0.71x1.09m

according to Z-8.22-64

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ABM710\_B085



⑥ max. torque MR.d = 134 kNcm  
 Normal force NR.d = 89.5 kN  
 Lateral force VR.d = 43.5 kN

$$M_{\text{red}} = \left(1 - \left[2 \times \frac{V_d}{V_{\text{d,lim}}} - 1\right]^2\right) \times M_{\text{el}} \text{ f\u00fcr } V_d > 0,5 \times V_{\text{d,lim}}$$

$$M_{\text{red}} = M_{\text{el}} \text{ f\u00fcr } V_d \leq 0,5 \times V_{\text{d,lim}}$$

$$M_d \leq M_{\text{red}} < \left(1 - \left[\frac{V_d}{V_{\text{d,lim}}}\right]^2\right)$$

- |                                |            |   |
|--------------------------------|------------|---|
| (1) Tube                       | ∅48.3x3.2  | EN 10219-S355J2H (S355MH)                 |
| (2) Tube                       | ∅48.3x2.7  | EN 10219-S235JRH ReH≥320N/mm <sup>2</sup> |
| (3) Tube                       | ∅33.7x2.25 | EN 10219-S235JRH                          |
| (4) Perforated disc            |            | Version K2000+                            |
| (5) Marking                    |            |   |
| (6) Spigot fitting, compressed |            | (acc. Z-8.1-16.2)                         |
| (7) Tube                       | ∅42.4x2.5  | EN 10219-S235JRH                          |

Size [m]	Weight [kg]
1.00	17.7



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### ALBLITZ MODUL

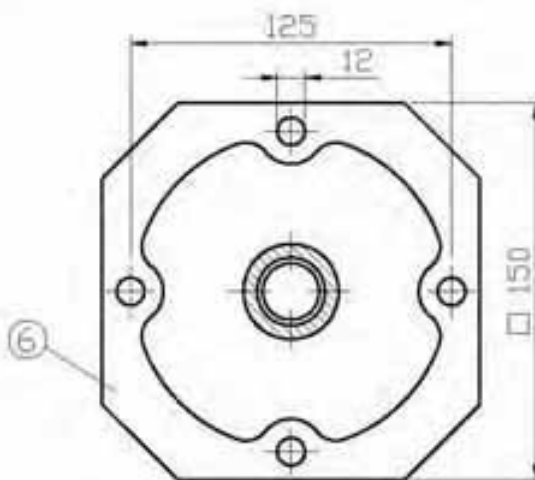
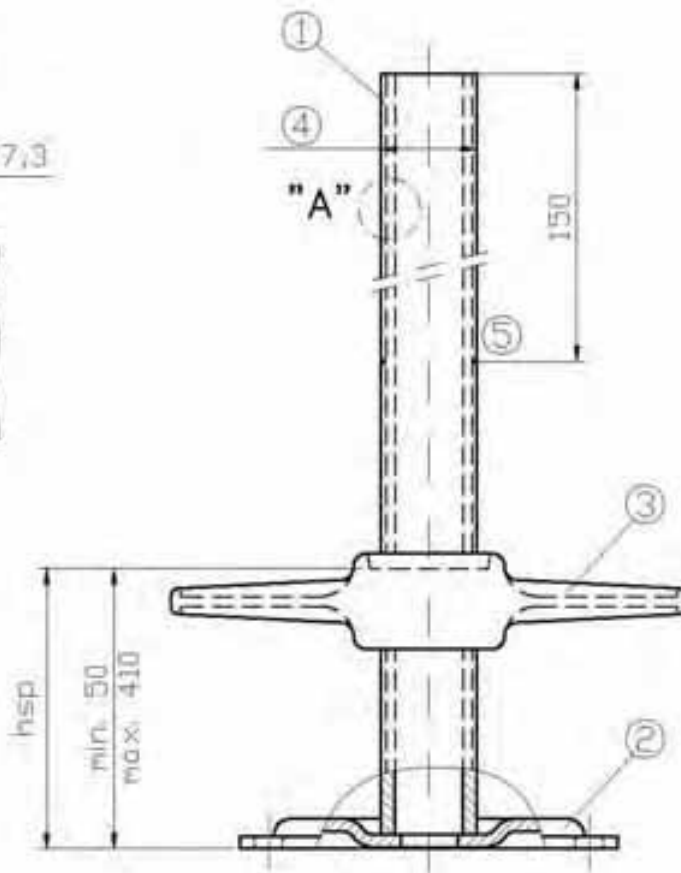
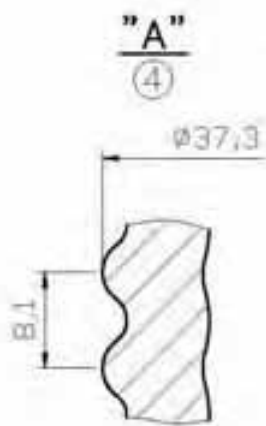
AR TG-60 frame

1.00x1.09m

according to Z-8.22-64

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ABM710\_B086



- |  |                             |   |
|--|-----------------------------|---|
| (1) Tube   | $\varnothing 38 \times 4.5$ | EN 10210-S235JRH  |
| (2) Base plate acc. too EN 74-3                  | $\square 150 \times 5$      | EN 10025-2-S235JR   |
| (3) Spindle nut                                  |                             | EN 1562-EN-GJMW-400-5<br>EN 1562-EN-GJMB-450-6<br>EN 1563-EN-GJS-400-15<br>EN 10293-GE240+N |
| (4) Special thread $\varnothing 38 \times 8.1$ , |                             | see detail  |
| (5) Thread, impassable due to a notch            |                             |   |
| (6) Marking                                      |                             |   |

Size [m]	Weight [kg]
0.60	3.6



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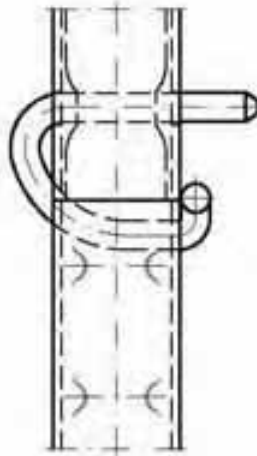
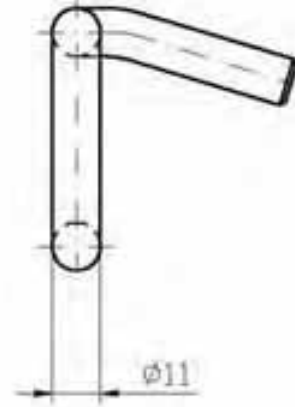
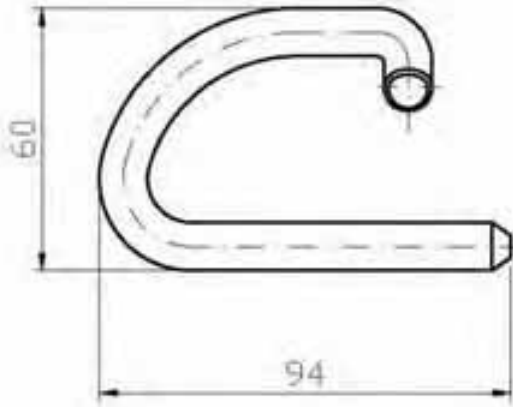
### ALBLITZ MODUL

#### Base jack 60

according to Z-8.1-16.2

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ABS710-A002\_ABm



Size [m]	Weight [kg]
	0.1

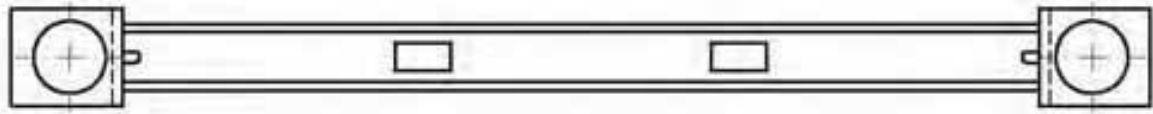
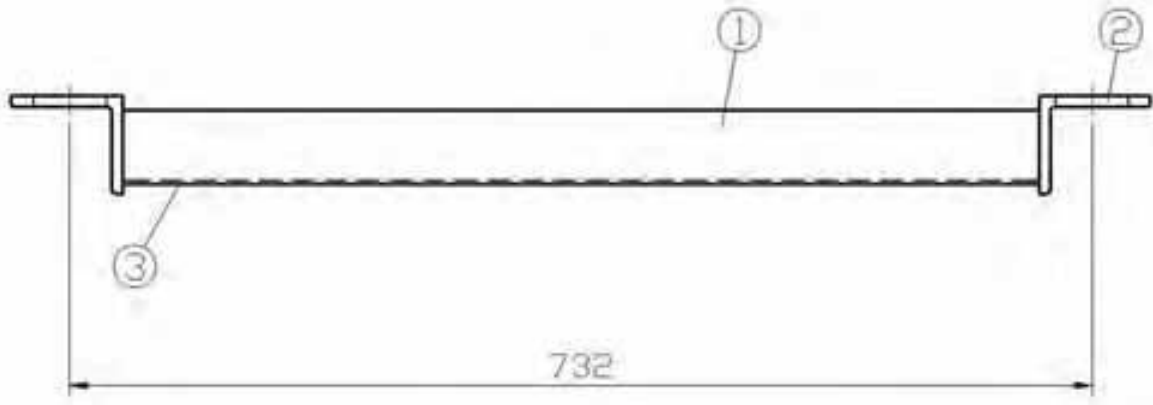
(1) Locking clip      Ø11      EN 10025-2-S235JR  
powder-coated, red

**ALFIX** GmbH  
63828 Edelbach  
09603 Großschirma

**ALBLITZ MODUL**  
**Locking clip, red Ø11mm**  
according to Z-8.1-16.2

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the national technical  
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ABS710-A009\_ABm





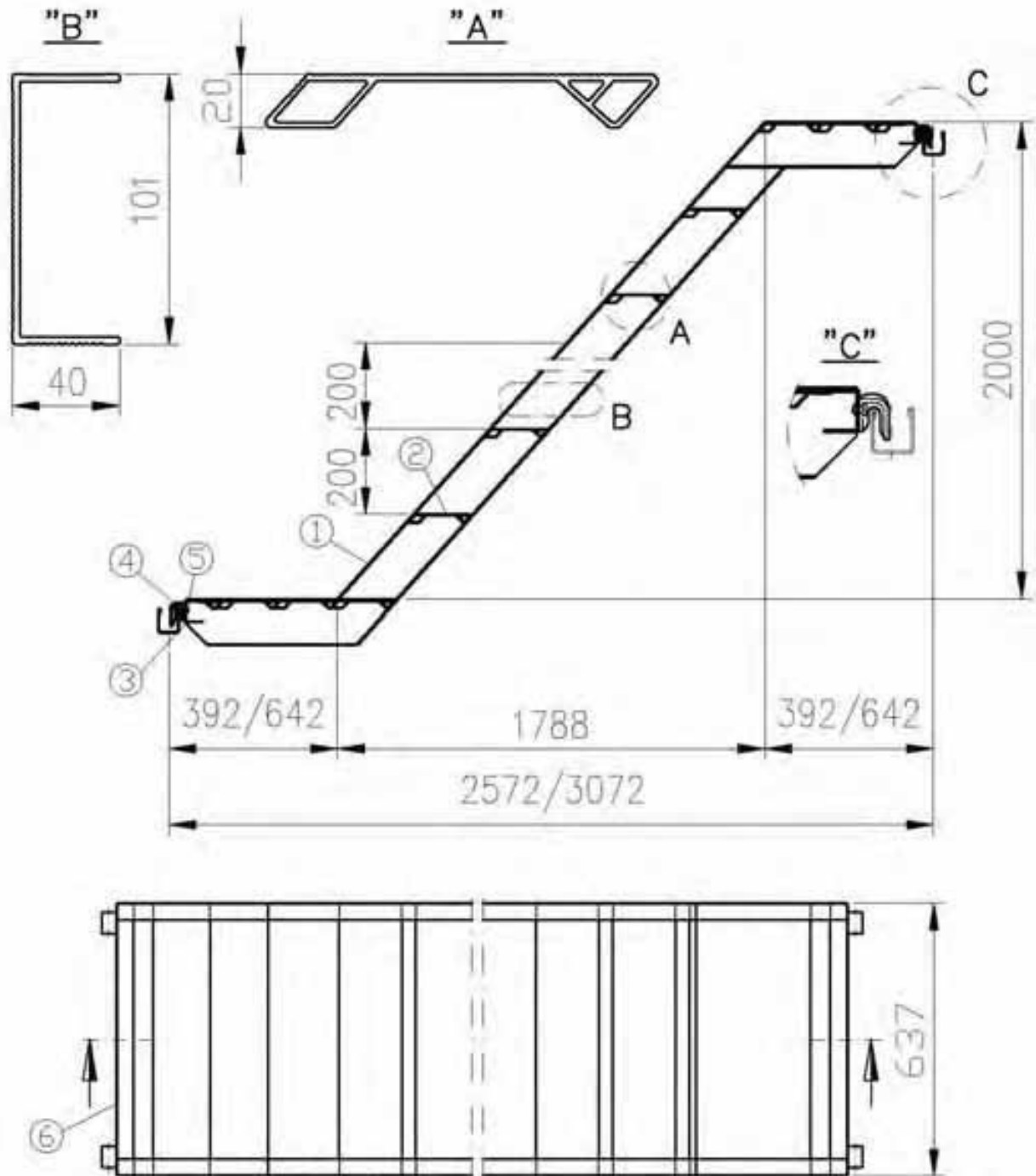
- (1) U-profile, see ABM710-B034
- (2) Angle L 80x65x8 EN 10025-2-S235JR
- (3) Marking

Size [m]	Weight [kg]
0.73	3.1

**LFIX** GmbH  
 63828 Edelbach  
 09603 Großschirma

**ALBLITZ MODUL**  
**U-lattice girder ledger 0.73m**  
 according to Z-8.1-16.2

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 ABS710-A089\_ABm



- |                      |           |                |  |
|----------------------|-----------|----------------|--|
| (1) Stair stringer   | 101x40    | EN AW-6082-T5  | EN 755-2   |
| (2) Stair step       | 140x20    | EN AW-6082-T5  | EN 755-2   |
| (3) U-cap            | 49x40x2.5 | EN AW-6063-T66 | EN 755-2   |
| (4) Claw             | t=4       | EN 10111 DD13  | ReH≥240N/mm <sup>2</sup> / Rm≥340N/mm <sup>2</sup> |
| (5) Truss head rivet | ∅8x18     | EN 10263-2     |  |
| (6) Marking          |           |                |  |

Size [m]	Weight [kg]
2.57	23.1
3.07	27.5

Useful load: 2 kN/m<sup>2</sup>



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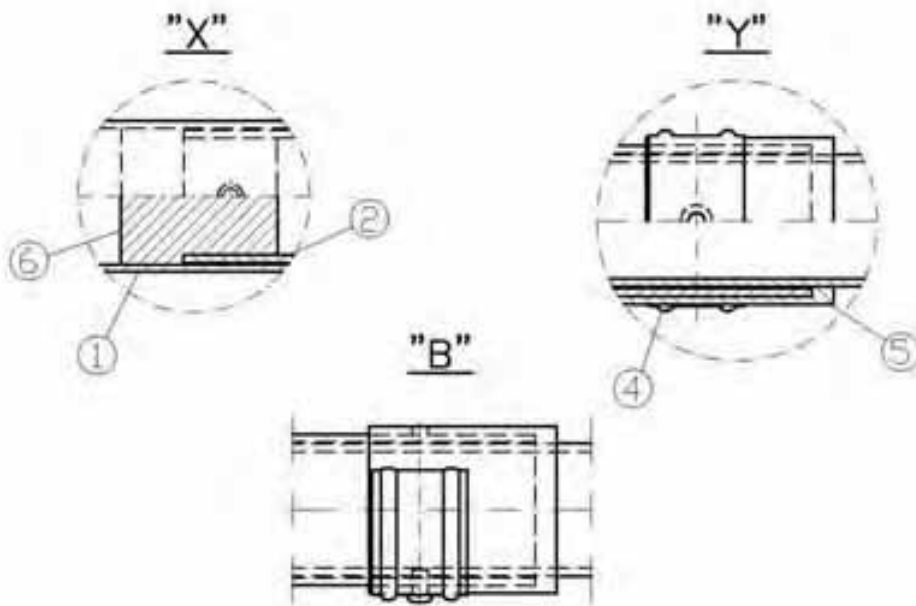
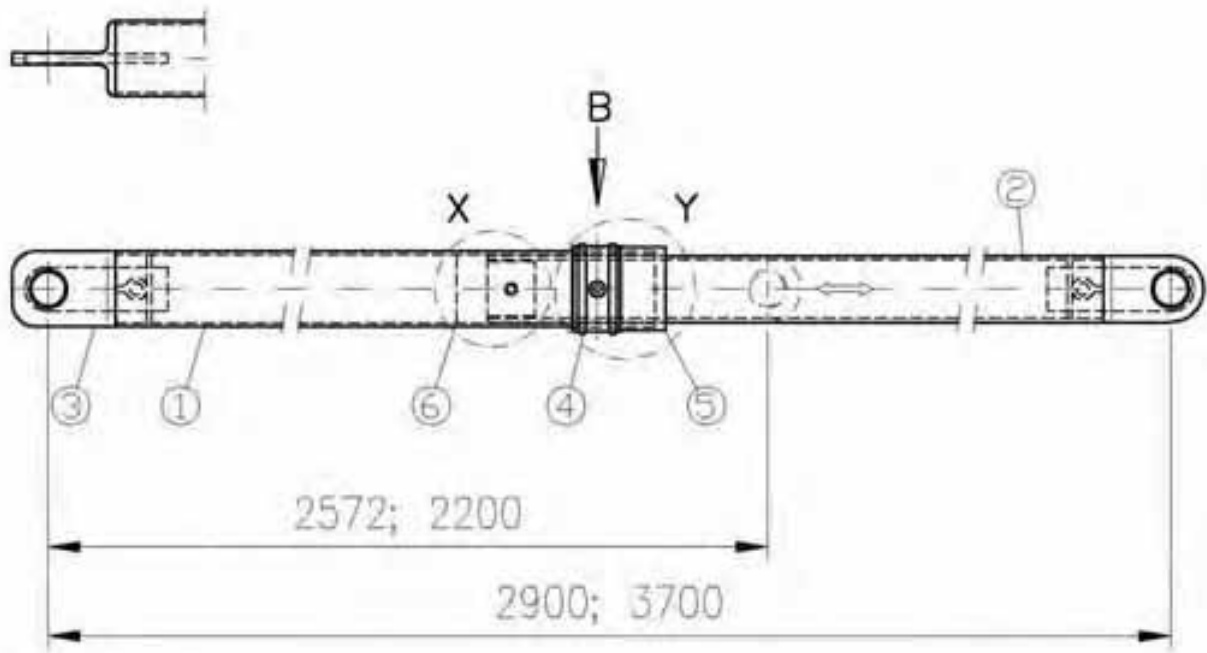
## ALBLITZ MODUL

### U-aluminium platform stairs T4

according to Z-8.1-16.2

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ABS710-A093\_ABm



(1) Tube	Ø48.3x2.4	EN AW-6063-T66	EN 755-2
(2) Profile	Ø42.3	EN AW-6082-T5	EN 755-2
(3) Guardrail fixture		PP with steel core	
(4) Spring cotter pin	30x1-C60S EN 10132-4	11SMnPb30+C	EN 10277-3
(5) Guiding cap	Ø48.3	PP	
(6) Internal guide	Ø35	PP	

Size [m]	Weight [kg]
2.57	3.2
3.07	4.0



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### ALBLITZ MODUL

#### Aluminium assembly guardrail

1.57/2.07m ; 2.57/3.07m

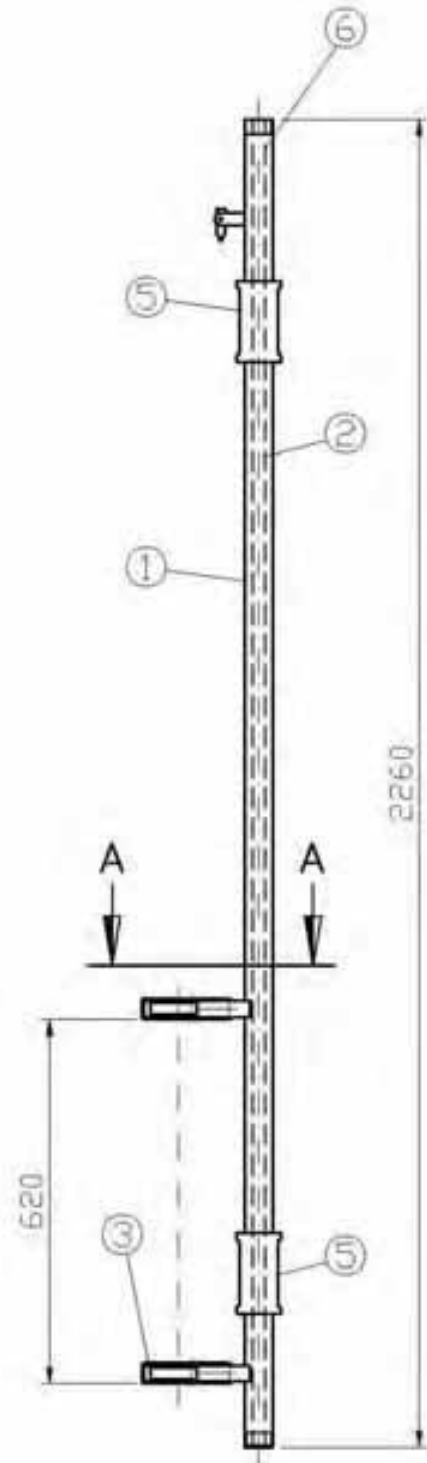
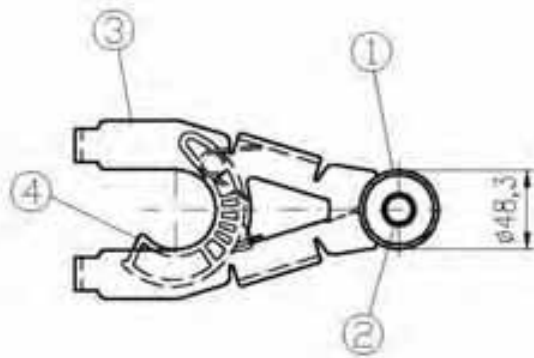
according to Z-8.1.16.2

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A-A



- |                    |           |                    |          |
|--------------------|-----------|--------------------|----------|
| (1) External tube  | ∅48.3x2.8 | EN AW-6082-T5      | EN 755-2 |
| (2) Internal tube  | ∅20x2     | EN AW-6063-T66     | EN 755-2 |
| (3) Snapping shell | t=4       | EN AW-5754-H24     | EN 485   |
| (4) Finger         |           | PP with steel core |          |
| (5) Handle         |           | Plastic            |          |
| (6) Marking        |           |                    |          |

Size [m]	Weight [kg]
-	4.1



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## ALBLITZ MODUL

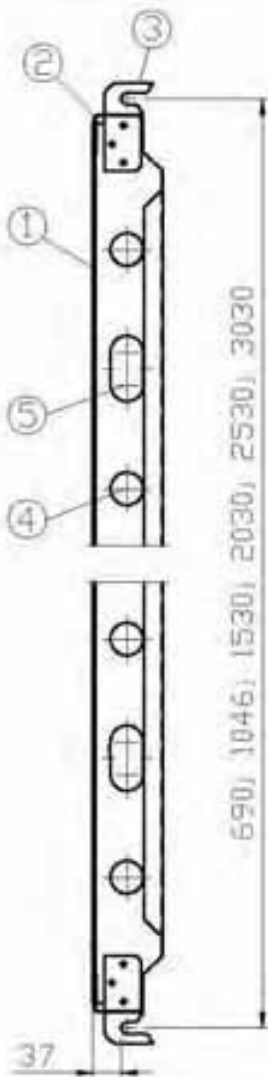
### Assembly post T5

according to Z-8.1-16.2

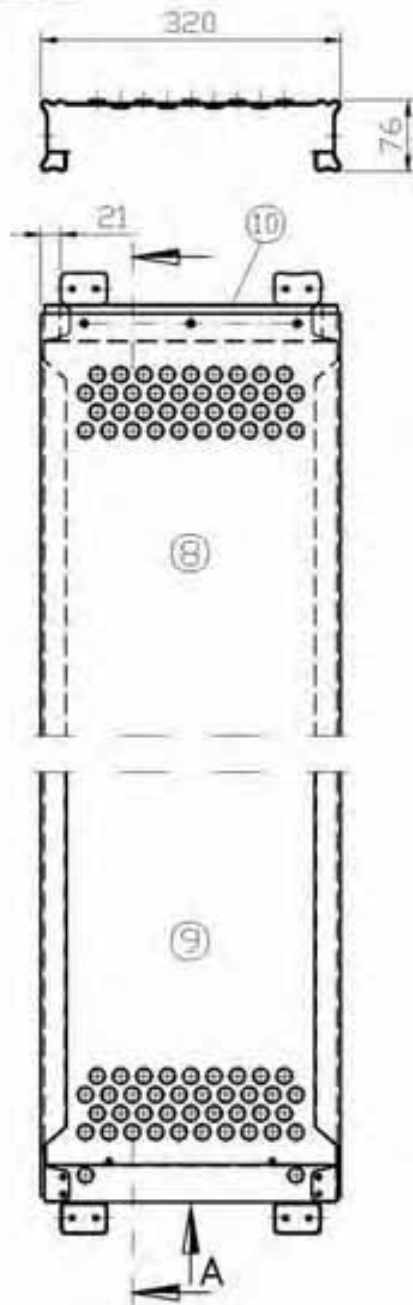
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(6)	(4)	(5)
0,73m	2	-
1,09m	2	2
1,57m	4	2
2,07m	6	4
2,57m	8	6
3,07m	10	8



"A" (7)



Design: spot-welded  
• = welding spots

- |      |                    |       |  |
|------|--------------------|-------|--|
| (1)  | Sheet metal lining | t=1.5 | EN 10025-2-S235JR  |
| (2)  | Cap                | t=1.5 | EN 10025-2-S235JR  |
| (3)  | Claw               | t=4   | EN 10111 DD13 $ReH \geq 240N/mm^2$ / $Rm \geq 340N/mm^2$ |
| (4)  | Number of holes 1  |       |  |
| (5)  | Number of holes 2  |       |  |
| (6)  | Bay length         |       |  |
| (7)  | Drawn without cap  |       |  |
| (8)  | View from above    |       |  |
| (9)  | View from below    |       |  |
| (10) | Marking            |       |  |

Use up to load class 4 (3.07m); 5 (2.57m); 6 (0.72; 1.09; 1.57; 2.07m)

Size [m]	Weight [kg]
0.73	6.0
1.09	8.4
1.57	11.6
2.07	15.0
2.57	18.2
3.07	21.5

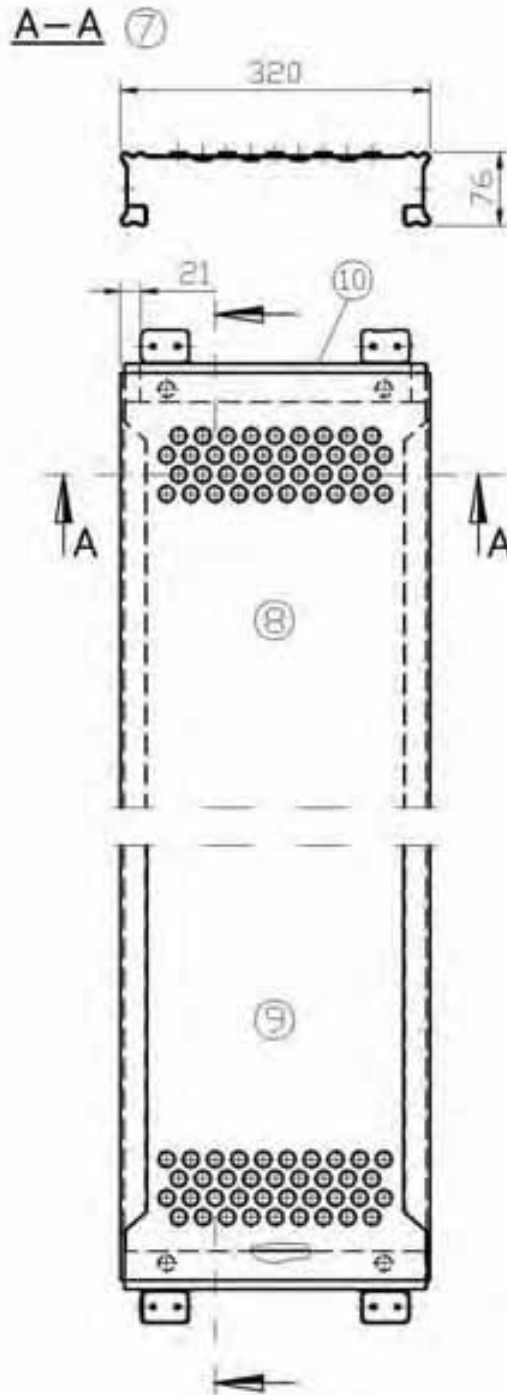
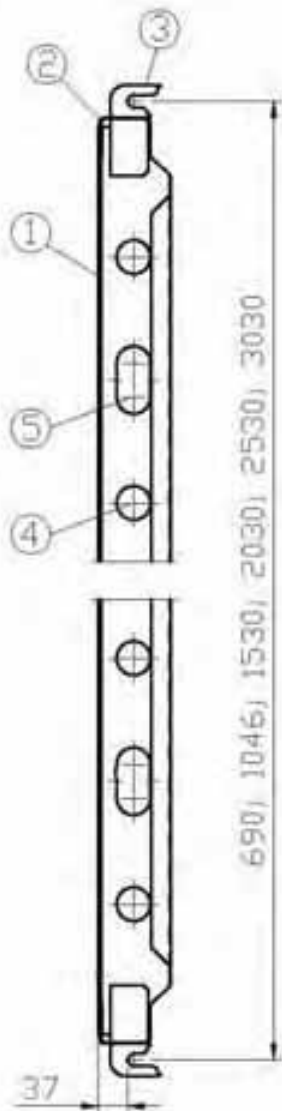


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**ALBLITZ MODUL**  
**U-steel plank T4**  
**0.73-3.07x0.32m**  
**spot-welded with web holes**  
according to Z-8.1-16.2

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(6)	(4)	(5)
0,73m	2	-
1,09m	2	2
1,57m	4	2
2,07m	6	4
2,57m	8	6
3,07m	10	8



Design: manually welded

- |      |                    |       |  |
|------|--------------------|-------|--|
| (1)  | Sheet metal lining | t=1.5 | EN 10025-2-S235JR  |
| (2)  | Cap                | t=1.5 | EN 10025-2-S235JR  |
| (3)  | Claw               | t=4   | EN 10111 DD13 ReH $\geq$ 240N/mm <sup>2</sup> / Rm $\geq$ 340N/mm <sup>2</sup> |
| (4)  | Number of holes 1  |       |  |
| (5)  | Number of holes 2  |       |  |
| (6)  | Bay length         |       |  |
| (7)  | Drawn without cap  |       |  |
| (8)  | View from above    |       |  |
| (9)  | View from below    |       |  |
| (10) | Marking            |       |  |

Use up to load class 4 (3.07m); 5 (2.57m); 6 (0.72; 1.09; 1.57; 2.07m)

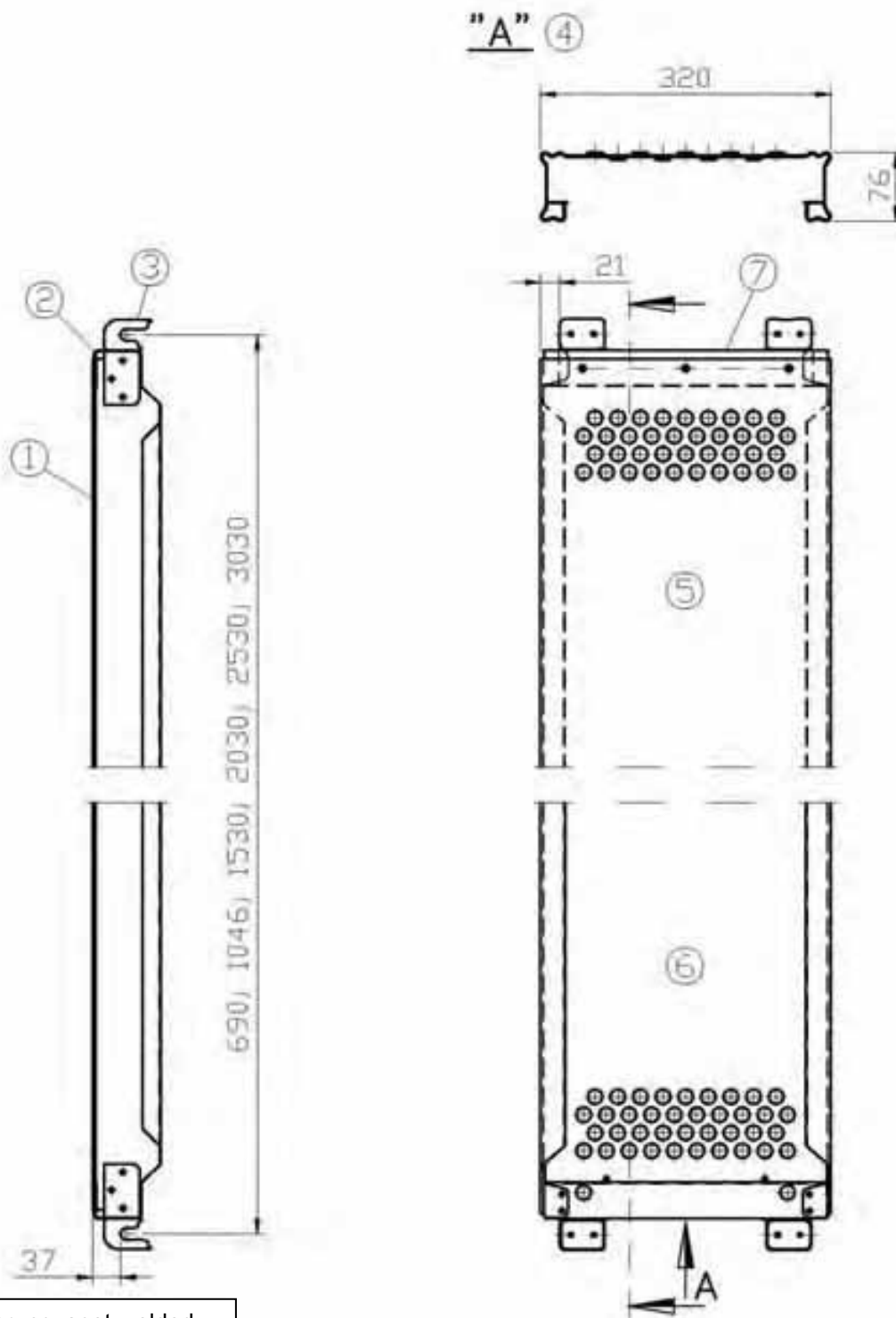
Size [m]	Weight [kg]
0.73	6.0
1.09	8.4
1.57	11.6
2.07	15.0
2.57	18.2
3.07	21.5



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**ALBLITZ MODUL**  
**U-steel plank T4**  
**0.73-3.07x0.32m, manually**  
**welded, with web holes**  
according to Z-8.1-16.2

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Ausführung: spot-welded  
• = weld spots

- (1) Sheet metal lining t=1.5 EN 10025-2-S235JR
- (2) Cap t=1.5 EN 10025-2-S235JR
- (3) Claw t=4 EN 10111 DD13 ReH $\geq$ 240N/mm<sup>2</sup> / Rm $\geq$ 340N/mm<sup>2</sup>
- (4) Drawn without cap
- (5) View from above
- (6) View from below
- (7) Marking

Use up to load class 4 (3.07m); 5 (2.57m); 6 (0.72; 1.09; 1.57; 2.07m)

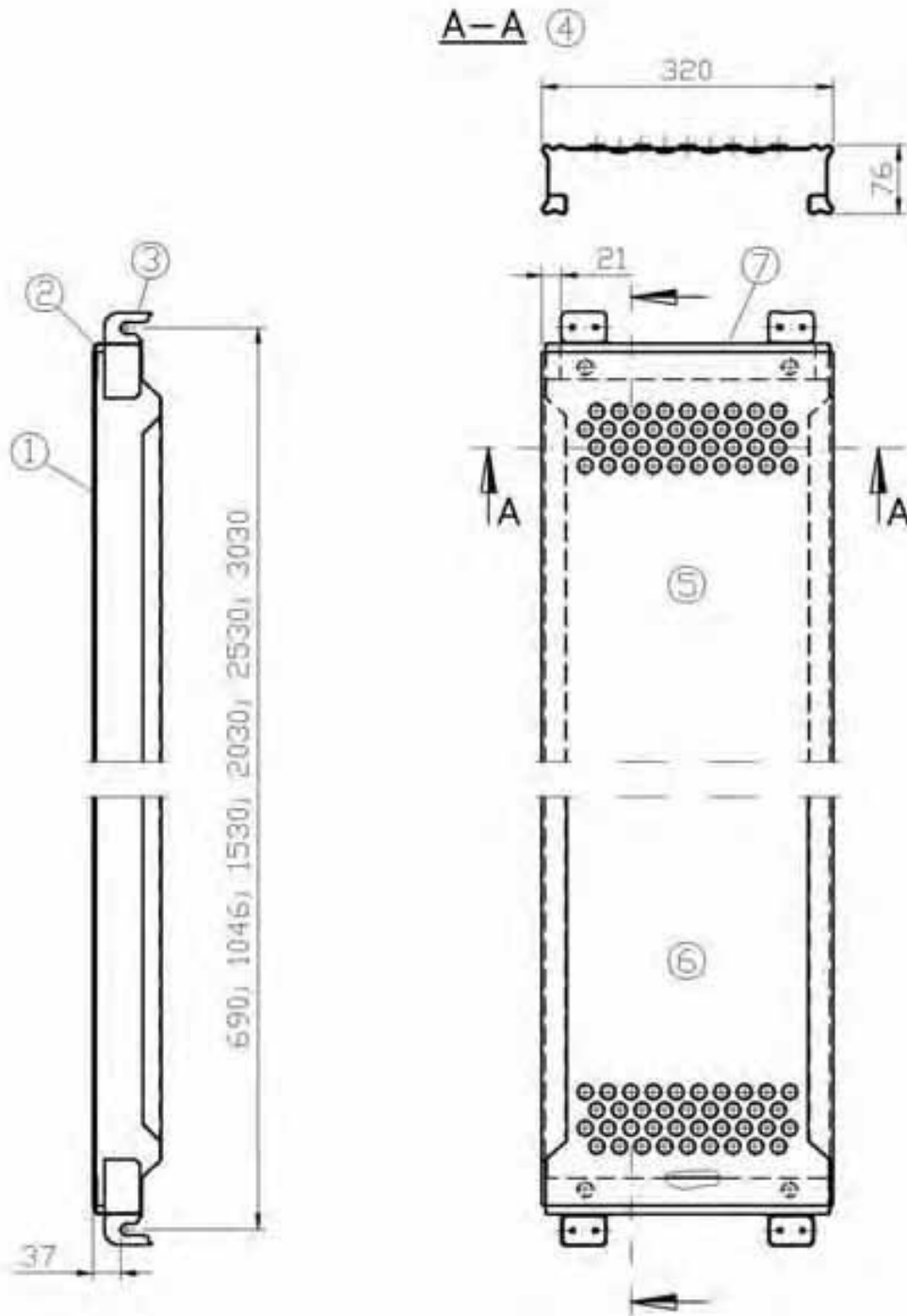
Size [m]	Weight [kg]
0.73	6.1
1.09	8.6
1.57	11.9
2.07	15.4
2.57	18.7
3.07	22.2



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09603 Großschirma

**ALBLITZ MODUL**  
**U-steel plank 0.73-3.07x0.32m**  
**spot-welded**  
according to Z-8.1-16.2

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Design: manually welded

- (1) Sheet metal lining t=1.5 EN 10025-2-S235JR
- (2) Cap t=1.5 EN 10025-2-S235JR
- (3) Claw t=4 EN 10111 DD13 ReH $\geq$ 240N/mm<sup>2</sup> / Rm $\geq$ 340N/mm<sup>2</sup>
- (4) Drawn without cap
- (5) View from above
- (6) View from below
- (7) Marking

Use up to load class 4 (3.07m); 5 (2.57m); 6 (0.72; 1.09; 1.57; 2.07m)

Size [m]	Weight [kg]
0.73	6.1
1.09	8.6
1.57	11.9
2.07	15.4
2.57	18.7
3.07	22.2



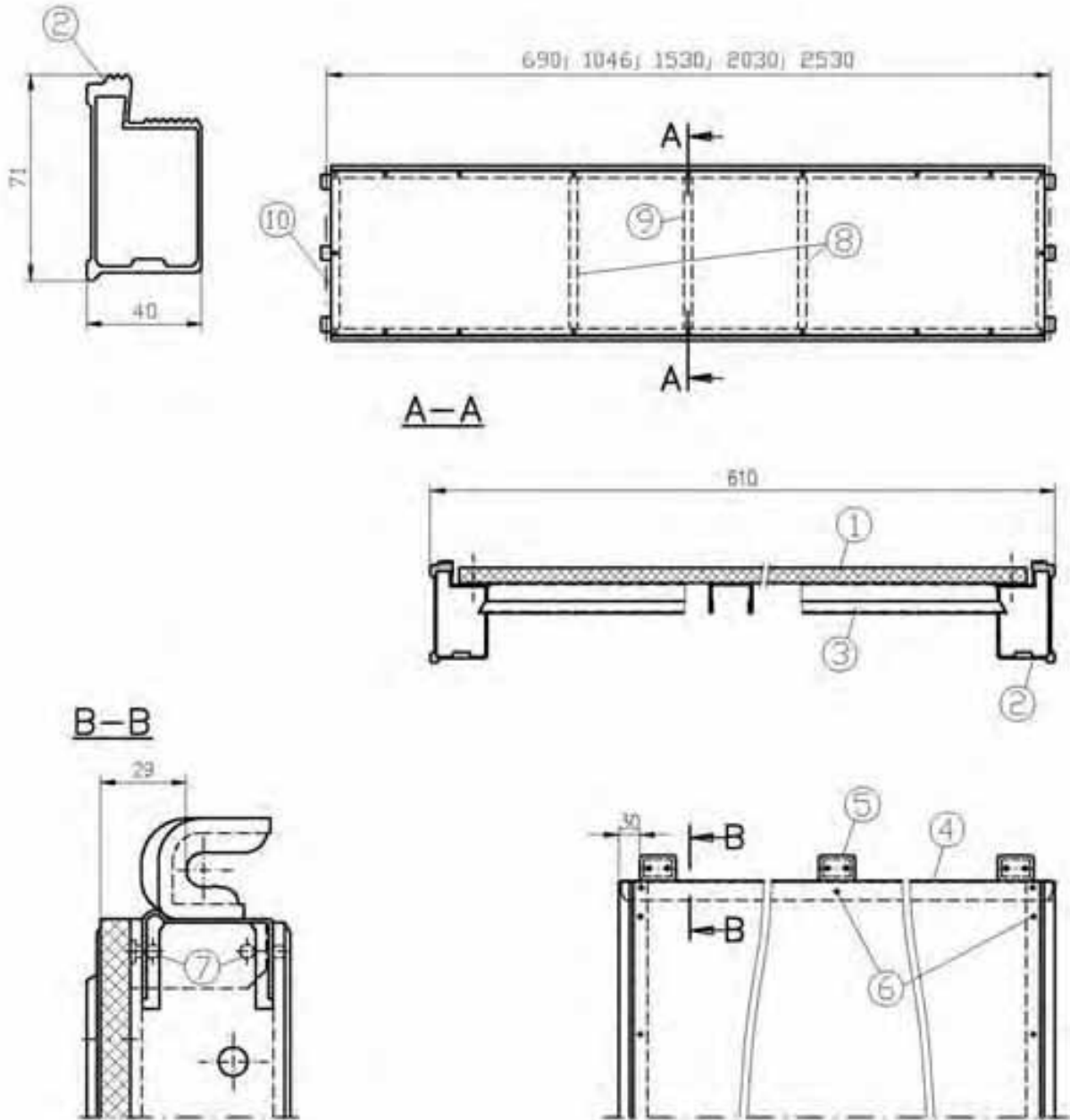
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09603 Großschirma

**ALBLITZ MODUL**  
**U-steel plank 0.73-3.07x0.32m**  
**manually welded**

according to Z-8.1-16.2

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ABS710-A116\_ABm



- |      |   |          |  |
|------|---|----------|--|
| (1)  | Plywood                                 | t=10.6   | BFU 100G acc. to approval Z-9.1-431  |
| (2)  | Brace                                   |          | EN AW-6063-T66 EN 755-2  |
| (3)  | Rung                                    | t=1.2    | EN 10327-2-DX52D   |
| (4)  | Cap                                     | t=1.5    | EN 10025-2-S235JR  |
| (5)  | Claw                                    | t=4      | EN 10111 DD13 ReH $\geq$ 240N/mm <sup>2</sup> / Rm $\geq$ 340N/mm <sup>2</sup> |
| (6)  | Blind rivet                             | A 4.8x23 | EN 10263-2   |
| (7)  | Blind rivet                             | A 4.8x12 | EN 10263-2   |
| (8)  | Middle strut 2x only at 2.57m           |          |  |
| (9)  | Middle strut 1x only at 1.57m and 2.07m |          |  |
| (10) | Marking                                 |          |  |

Size [m]	Weight [kg]
0.73	7.2
1.09	9.7
1.57	13.1
2.07	16.4
2.57	20.4

Use up to load class 3



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09603 Großschirma

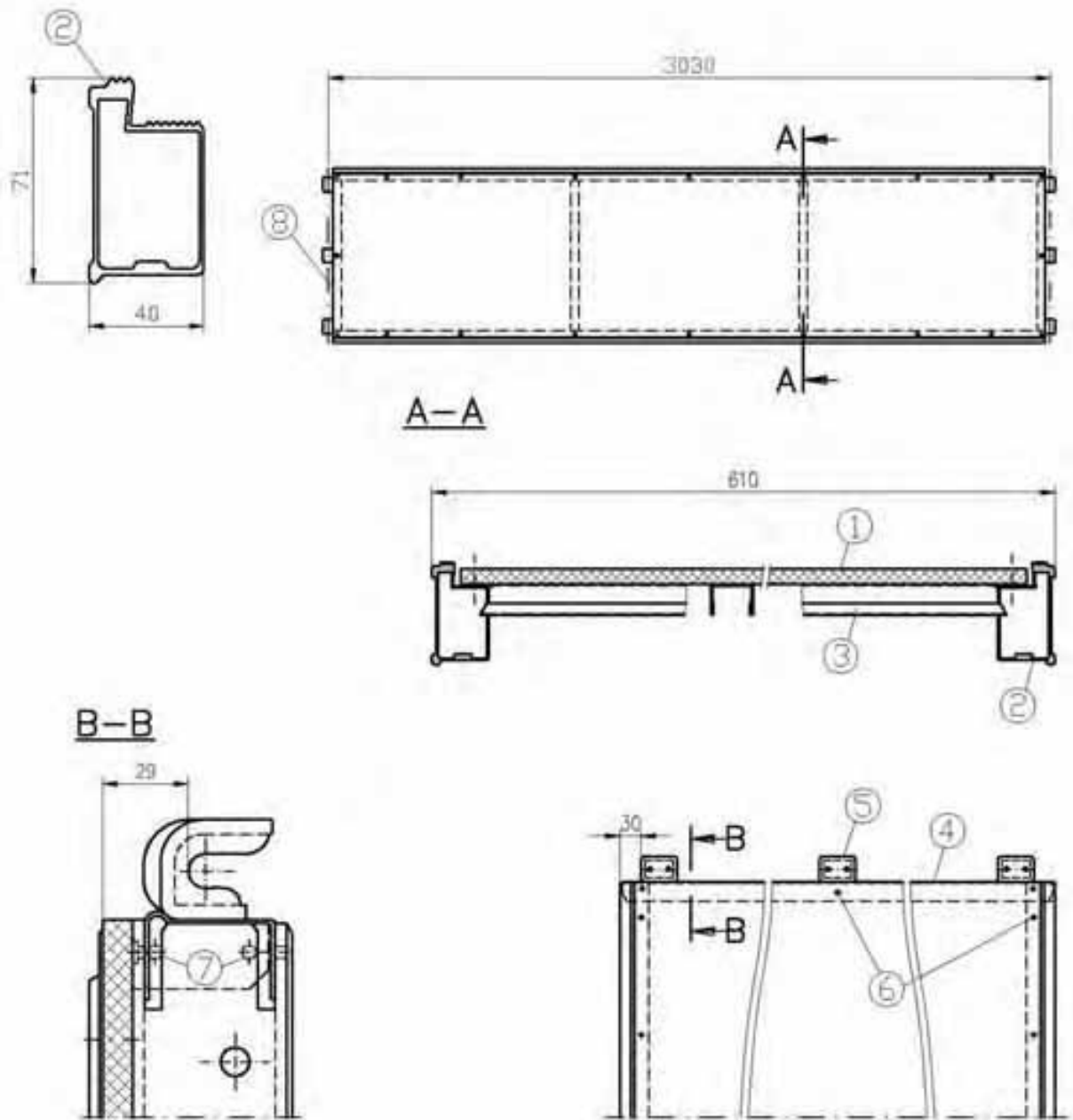
## ALBLITZ MODUL

**U-robust plank**  
**0.73-2.57 x 0.61m**

according to Z-8.1-16.2

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ABS710-A128\_ABm



- |                 |          |                   |  |
|-----------------|----------|-------------------|--|
| (1) Plywood     | t=10.6   | BFU 100 G         | acc. approval Z-9.1-431  |
| (2) Brace       |          | EN AW-6063-T66    | EN 755-2   |
| (3) Rung        | t=1.2    | EN 10327-2-DX52D  |  |
| (4) Cap         | t=1.5    | EN 10025-2-S235JR |  |
| (5) Claw        | t=4      | EN 10111 DD13     | ReH $\geq$ 240N/mm <sup>2</sup> / Rm $\geq$ 340N/mm <sup>2</sup> |
| (6) Blind rivet | A 4.8x23 | EN 10263-2        |  |
| (7) Blind rivet | A 4.8x12 | EN 10263-2        |  |
| (8) Marking     |          |                   |  |

Size [m]	Weight [kg]
3.07	25.0

Use up to load class 3



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09603 Großschirma

## ALBLITZ MODUL

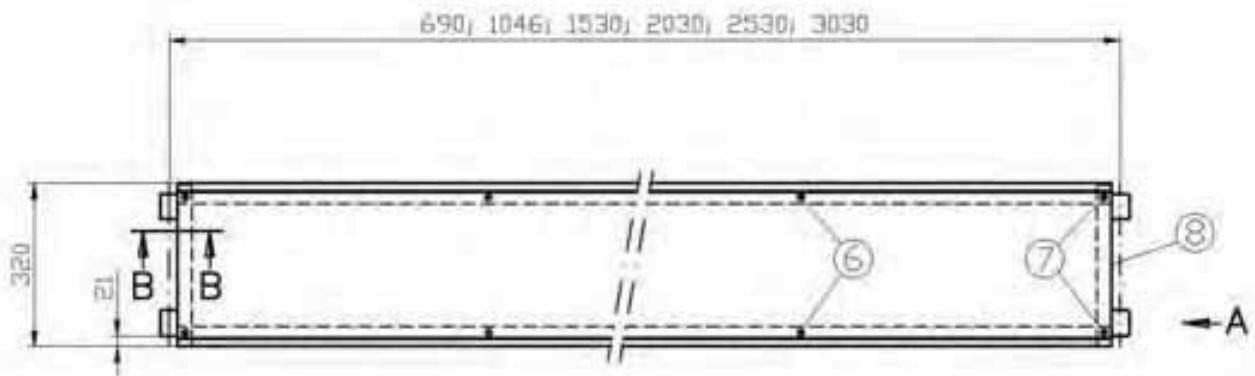
**U-robust plank**

**3.07 x 0.61m**

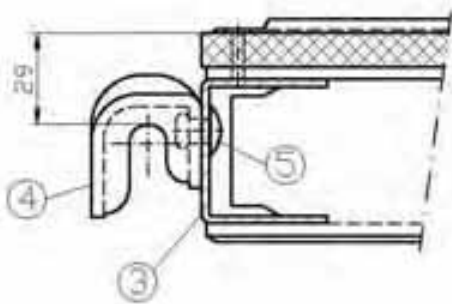
according to Z-8.1-16.2

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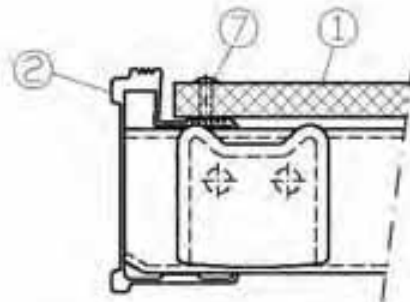
ABS710-A129\_ABM



**B-B**



**"A"**



- |                      |          |                |  |
|----------------------|----------|----------------|--|
| (1) Plywood          | t=10.6   | BFU 100 G      | acc. to approval Z-9.1-431                         |
| (2) Brace            |          | EN AW-6063-T66 | EN 755-2   |
| (3) Cap              | t=2.5    | EN AW-6063-T66 | EN 755-2   |
| (4) Claw             | t=4      | EN 10111 DD13  | ReH≥240N/mm <sup>2</sup> / Rm≥340N/mm <sup>2</sup> |
| (5) Truss head rivet | ∅8x18    | EN 10263-2     |  |
| (6) Blind rivet      | A 4.8x23 | EN 10263-2     |  |
| (7) Blind rivet      | A 4.8x12 | EN 10263-2     |  |
| (8) Marking          |          |                |  |

Size [m]	Weight [kg]
0.73	6.4
1.09	8.4
1.57	9.9
2.07	11.5
2.57	14.7
3.07	16.0

Use up to load class 3 (3.07m), 4 (2.57m), 5 (2.07m), 6 (0.73, 1.09, 1.57m)



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## ALBLITZ MODUL

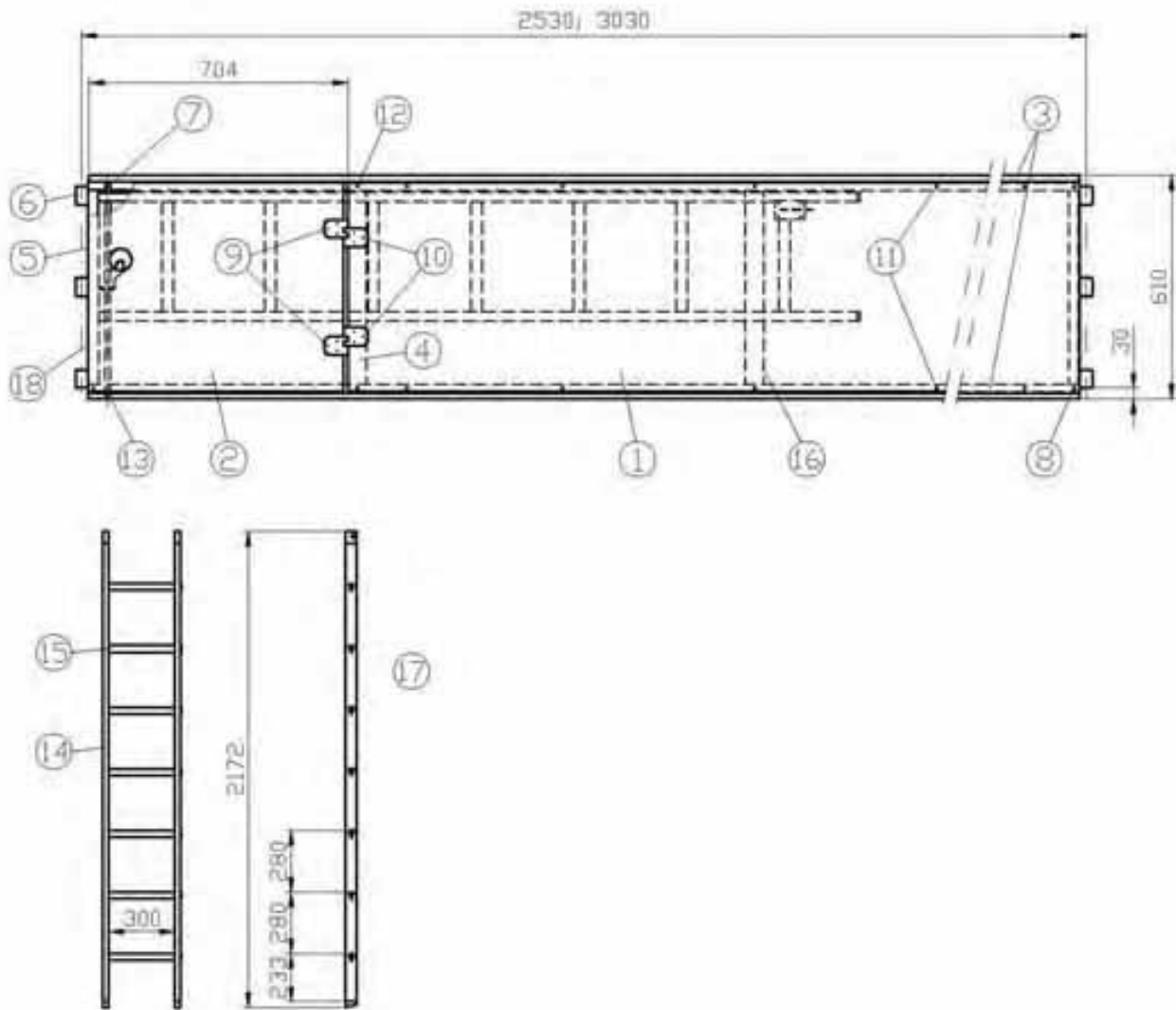
**U-robust plank**  
**0.73-3.07 x 0.32m**

according to Z-8.1-16.2

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ABS710-A130\_ABm





(1)	Plywood	t=10.6	BFU 100 G	acc. to approval Z-9.1-431
(2)	Hatch	t=1.2	BFU 100 G	acc. to approval Z-9.1-431
		W2-3.5/5	EN AW-5754-H114	EN 1386
(3)	Brace		EN AW-6063-T66	EN 755-2
(4)	Reinforcement	L 50x12x3	EN AW-6063-T66	EN 755-2
(5)	Cap	t=1.5	EN 10025-2 S235JR	
(6)	Claw	t=4	EN 10111 DD13	ReH≥240N/mm <sup>2</sup> / Rm≥340N/mm <sup>2</sup>
(7)	Reinforcement	U 45x20.5x1.5	EN 10025-2-S235JR	
(8)	Blind rivet	A 4.8x12	EN 10263-2	
(9)	Blind rivet	A 5x18.1	ISO 15977	
(10)	Blind rivet	A 4.8x23.2	ISO 15977	
(11)	Blind rivet	A 4.8x23	EN 10263-2	
(12)	Blind rivet	A 4.8x25	EN 10263-2	
(13)	Axis	∅12	EN 10025-2-S235JR	
(14)	Ladder beam	50x25	EN AW-6063-T66	EN 755-2
(15)	Ladder rung	∅12	EN AW-6060-T6	EN 755-2
(16)	Bracing	50x3	EN AW-6060-T66	EN 755-2
(17)	Ladder		acc. to EN 131	
(18)	Marking			

Size [m]	Weight [kg]
2.57	25.2
3.07	29.0

Use up to load class 3



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## ALBLITZ MODUL

**U-robust hatch type access**  
**2.57-3.07m x 0.61m with ladder**

according to Z-8.1-16.2

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ABS710-A132\_ABm

### C.1 General

The scaffolding system can be utilized in the standard design as working scaffold of load classes  $\leq 3$  with a system width of  $b = 0.732$  m and with bay widths of  $\ell \leq 3.07$  m in accordance with DIN EN 12811-1:2004-03, and as safety and roof safety scaffolding in accordance with DIN 4420-1:2004-03.

The uppermost horizontal level (scaffold layer) must not exceed 24 m, including spindle (jack) extension length, above ground level. According to the requirements of DIN EN 12811-1:2004-03, Section 6.2.9.2, in the standard version, the scaffolding system is designed for working operations in one scaffolding layer in front of an "open" façade (percentage of openings = 60 %) and in front of closed façades. When determining wind load, a service life factor of  $\chi = 0.7$  presuming a maximum service life of 2 years was taken into account. For the standard version, the sheeting of scaffold using nets or tarpaulins has not been proven.

Without any further proofs, the standard version must only be used if the loads acting within the bays do not exceed the respective live loads according to DIN EN 12811-1:2004-03, Table 3.

For the standard version of "ALBLITZ MODUL" scaffolding system, the following designation according to DIN EN 12810-1:2004-03 shall be used:

Scaffold EN 12810 – 3D – SW06/307 – H2 – A – LA

### C.2 Safety scaffold

In the standard version as a safety scaffold, the scaffolding system is verified and proofed for compliance with a fall heights of up to 2 m according to DIN 4420-1:2004-03. Hatch-type accesses must not be installed in brackets.

### C.3 Components

The scheduled components/parts are provided in Table C.1. Additionally, steel tubes of  $\varnothing 48,3 \cdot 3,2$  mm and couplings can be used for the horizontal bracing of bridging ledgers and for the connection of scaffold retainers and triangular ties to the standard couplers of posts according to DIN EN 12811-1:2004-03.

### C.4 Bracing

For horizontal bracing of the scaffold, the following components must be continuously connected at vertical spacings of 2 metres:

Tube ledgers 0.73 m in the "small hole" of the connecting or perforated disc, and each with:

- one aluminium frame platform RE; or
- two steel planks RE; or
- two steel planks AF RE

or

U-ledgers 0.73 m in the "small hole" of the connecting or perforated disc, and each with:

- one aluminium frame platform with plywood or
- one aluminium deck with plywood or
- two steel decks or
- two steel planks AF or
- two U-steel planks T4 or
- two U-steel decks or
- two U robust planks 0.32 m or
- one U robust plank 0.61 m

At a ladder access, hatch-type accesses according to section C.7 shall be used instead of planks and decks. Planks, decks, accesses must be secured against unintended lift-off by means of deck retainers.

For bracing the outer vertical level, tube ledgers as guardrail braces (1 m above deck surface) are to be continuously used in every scaffold bay.

Vertical starter pieces are to be built-in immediately above scaffold spindles (jacks). They must be interconnected using longitudinal ledgers within the inner and outer level parallel to the façade, and using transoms right-angled to the façade.

C.5 Anchoring

The anchoring must be carried out using scaffold retainers as per to Annex B, page 81.

The scaffold retainers are to be fixed as an anchoring pair at an angle of 90° (triangular tie) or as "short" scaffold retainers only at the inner vertical frame upright by means of standard couplers. The scaffold connectors, which are anchored using triangular ties, must be connected to the adjacent row of standards through tube ledgers (longitudinal ledgers) within the inner level, depending on the type of erection.

Triangular ties and scaffold retainers must be fixed in close proximity to the connectors (node points) formed by upright tubes and transoms.

The fixtures to be arranged in the structure façades for absorbing the anchor forces must be designed at least for the characteristic values of impacts ( $\gamma_F = 1.0$ ) [cf. Annex C].

Each row of uprights must be anchored at vertical spacings of 8 metres; in doing so, the anchoring of adjacent vertical frame rows is to be arranged vertically offset by half a spacing. The upright rows at the edge of a scaffold are to be anchored at vertical spacings of 4 metres. At the top and the second scaffold layer, each of the upright rows must be anchored.

C.6 Bridging

Bridging girders may be used for bridging gateways or similar if scaffold layers beneath bridging are omitted.

The bridging girders must be anchored at both the supporting area and the centre. Additionally, the girder must be braced through a horizontal latticework of tubes and couplers (cf. Annex C, pages 7 and 8).

C.7 Ladder passage

For an inner ladder passage, if tube ledgers are used, aluminium frame platforms with access hatch RE are to be applied, or, if U-ledgers are used, aluminium frame platforms with hatch-type access, aluminium hatch-type access decks with integrated ladder or U robust accesses with ladder.

C.8 Broadening bracket

At the inner side of scaffold, at all scaffold layers brackets of 0.39 m can be used.

Table C.1: Components of standard design

Designation	Annex B, page
Vertical starter piece	10
Vertical upright with spigot fitting 200	11
Tube ledger	13
U transom 0.73 m	15
Aluminium frame platform RE 1.57 m; 2.07 m	17
Aluminium frame platform RE 2.57 m; 3.07 m	18
Aluminium frame platform with access hatch RE 2.57 m	20
Aluminium frame platform with access hatch RE 3.07 m	21
Steel deck AF RE 0.32 m	23
Steel deck RE	26
Modular toeboard	28
Bracket 0.39 m RE	29
Wedge head coupler, turnable	29

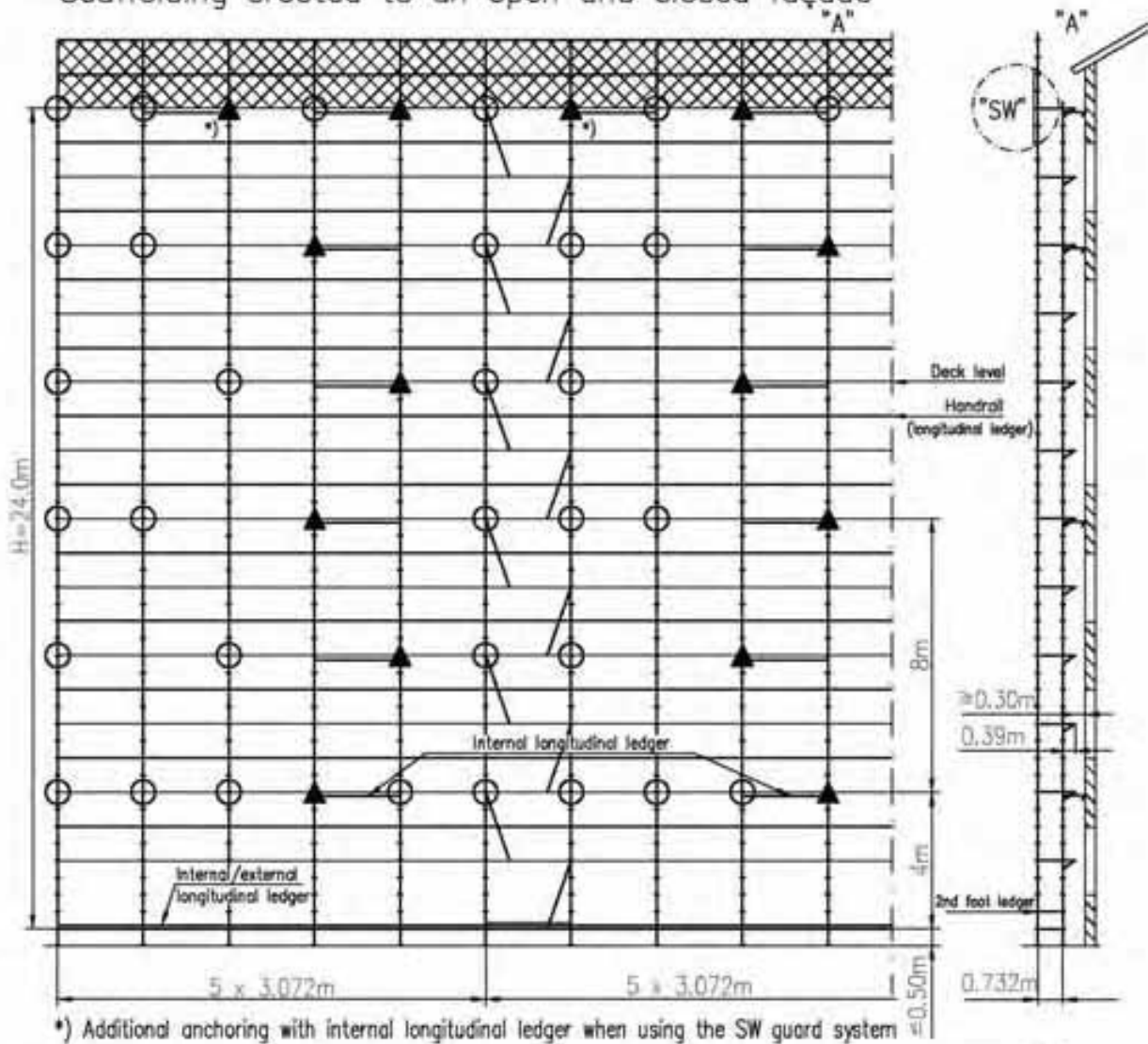
Table C.1: (continued)

Designation	Annex B, page
Modular bracket 0.39m	30
Modular safety net	31
Wedge head coupler, fixed	32
Modular deck retainer	33
Modular gap cover	34
Modular lattice girder 6.14 m	35
Modular lattice girder 4.14 m / 5.14 m	36
Modular lattice girder with spigot fitting 6.14 m	37
Modular lattice girder with spigot fitting 4.14 m / 5.14 m	38
Modular spigot fitting U	39
U-transom GT 0.73 m / 1.09m V	40
Tube transom GT 0.73 m / 1.09 m V	41
Modular spigot fitting	42
Wedge head coupler, fixed	52
Modular safety door	53
Aluminium frame platform with plywood 1.57 m; 2.07 m	62
Aluminium frame platform with plywood 2.57 m; 3.07 m	63
Aluminium frame platform with access hatch 2.57 m	65
Aluminium frame platform with access hatch 3.07. m	66
Modular gap cover	72
Modular aluminium toeboard	73
Modular double-end guardrail	80
Scaffold retainer	81
Base jack	83
Steel plank AF 0.32 m	84
Steel deck	85
Aluminium deck with plywood 2.57 m; 3.07 m	89
Aluminium deck with plywood 1.57 m; 2.07 m	90
Aluminium hatch-type access deck 3.07 m with ladder	92
Aluminium hatch-type access deck 2.57 m with ladder	93
Aluminium deck with plywood 3.07 m	96
Aluminium deck with plywood 1.57 m, 2.07 m, 2.57 m	97
Aluminium hatch-type access deck 3.07 m with ladder	99
Aluminium hatch-type access deck 2.57 m with ladder	100
Toeboard, end toeboard	102
Aluminium toeboard, aluminium end toeboard	103
Gap cover	105
Starter piece	124
AR upright with spigot fitting	125
O-ledger 0.73-3.07m	126
U-ledger 0.73 m	127
Diagonal brace	128

Table C.1: (continued)

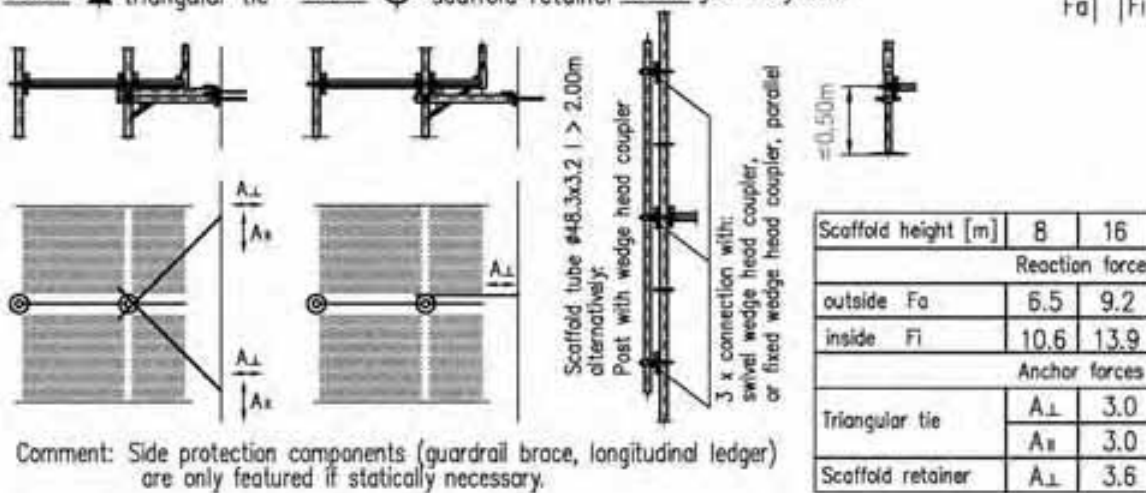
Designation	Annex B, page
U-plank/deck retainer	129
AR U-toeboard, wood, design I; AR U-toeboard, wood, design II	130
U-toeboard, steel	131
U-bracket	132
O-lattice girder	133
Spigot fitting for lattice girder	134
Safety side meshguard	135
Horizontal diagonal brace	136
Post with wedge heads	137
Base jack 60	151
Locking clip, red	152
U-lattice girder - ledger 0.73 m	154
Aluminium assembly guardrail 1.57/2.07m, 2.57/3.07m	156
Assembly post T5	157
U-steel deck T4 0.73-3.07m x 0.32 m, spot-welded, with holes for bridging decks	158
U-steel deck T4 0.73-3.07m x 0.32 m, hand-welded, with holes for bridging decks	159
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Standard design with internal bracket  
Scaffolding erected to an open and closed façade



\*) Additional anchoring with internal longitudinal ledger when using the SW guard system

Detail ▲ triangular tie    Detail ⊕ scaffold retainer    Detail guard system



Comment: Side protection components (guardrail brace, longitudinal ledger) are only featured if statically necessary.



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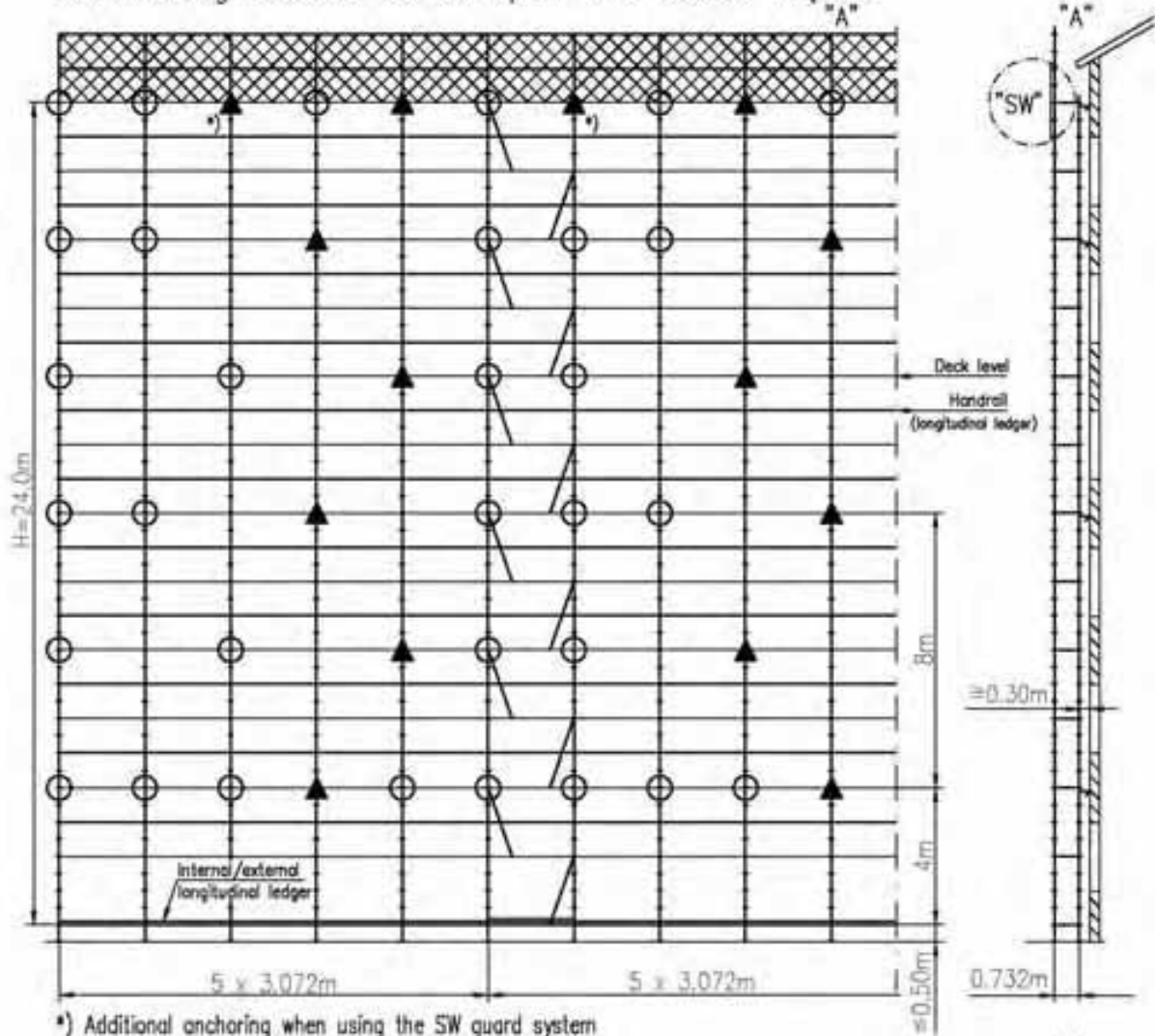
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**Scaffold EN12810  
3D-SW06/307-H2-A-LA**

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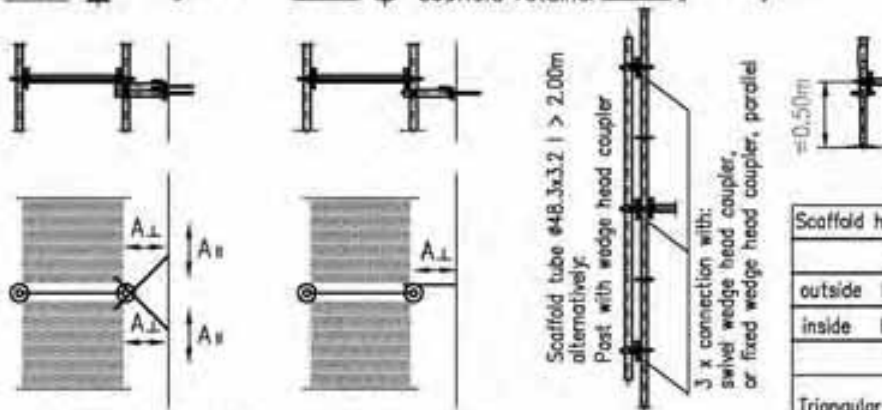
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Standard design without internal bracket  
Scaffolding erected to an open and closed façade



\*) Additional anchoring when using the SW guard system

Detail ▲ triangular tie    Detail ⊕ scaffold retainer    Detail guard system



Comment: Side protection components (guardrail brace, longitudinal ledger) are only featured if statically necessary.

Scaffold height [m]	8	16	24
Reaction forces [kN]			
outside Fa	6.5	9.2	12.0
inside Fi	4.8	6.3	7.9
Anchor forces [kN]			
Triangular tie	A <sub>L</sub>	2.4	2.4
	A <sub>H</sub>	2.4	2.4
Scaffold retainer	A <sub>L</sub>	3.6	3.6



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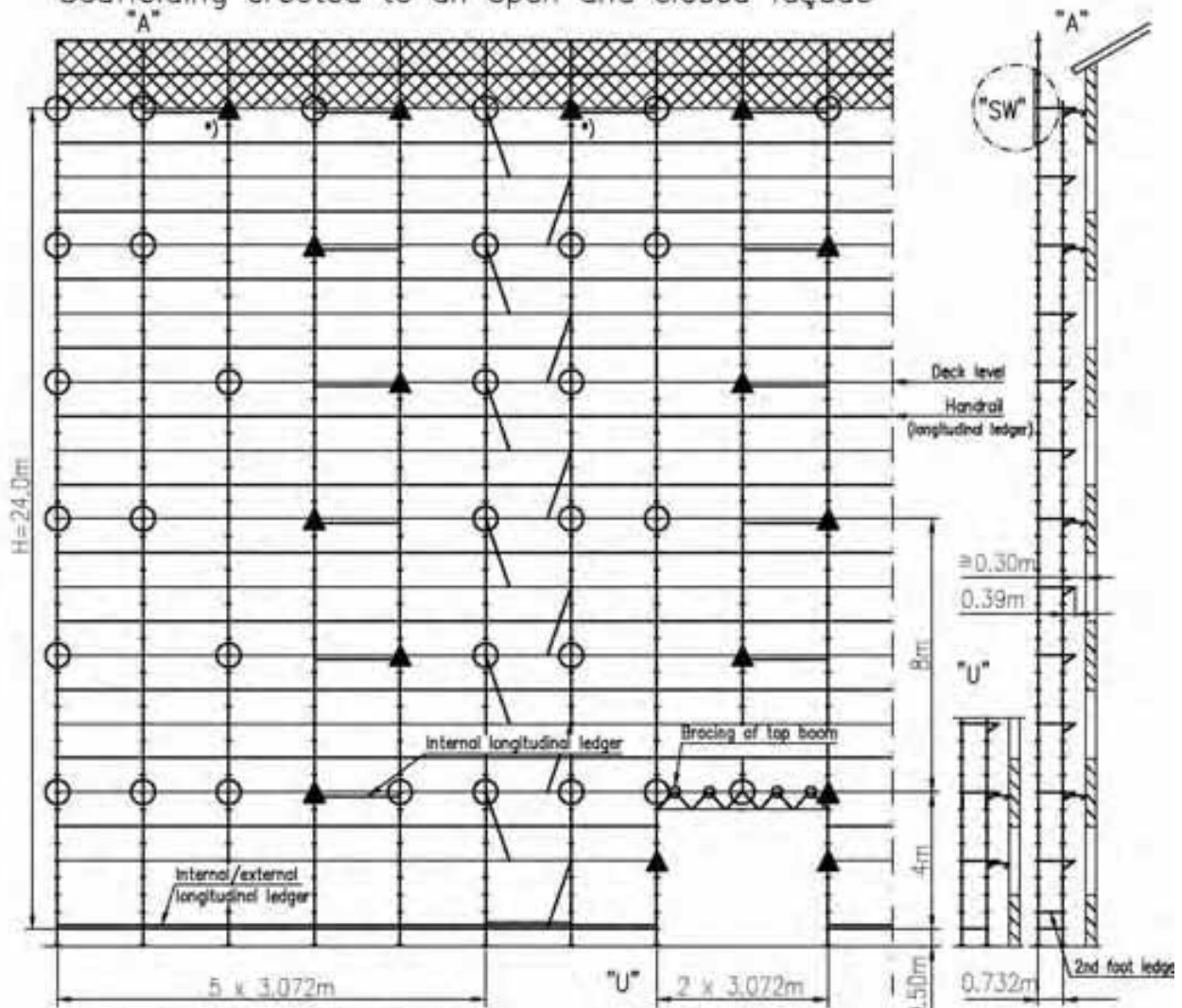
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**Scaffold EN12810**  
**3D-SW06/307-H2-A-LA**

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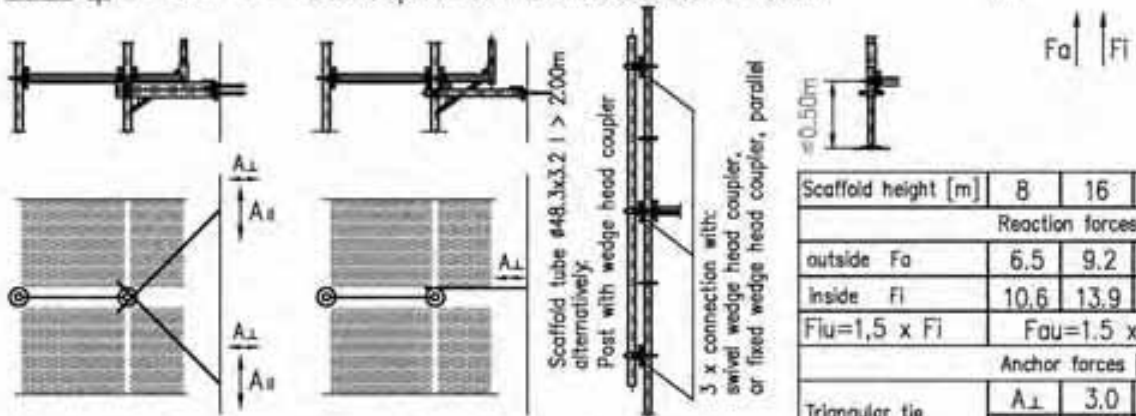
M710-C105\_ABM

Standard design with internal bracket: bridging of 2x3.072 m  
Scaffolding erected to an open and closed façade



\*) Additional anchoring with internal longitudinal ledger when using the SW guard system

Detail ▲ triangular tie    Detail ⊕ scaffold retainer    Detail guard system



Comment: Side protection components (guardrail brace, longitudinal ledger) are only featured if statically necessary.

Scaffold height [m]	B	16	24
Reaction forces [kN]			
outside $F_a$	6.5	9.2	12.0
inside $F_i$	10.6	13.9	17.2
$F_{iu}=1,5 \times F_i$	$F_{au}=1,5 \times F_a$		
Anchor forces [kN]			
Triangular tie	$A_{\perp}$	3.0	3.0
	$A_{\parallel}$	3.0	3.0
Scaffold retainer	$A_{\perp}$	3.6	3.6



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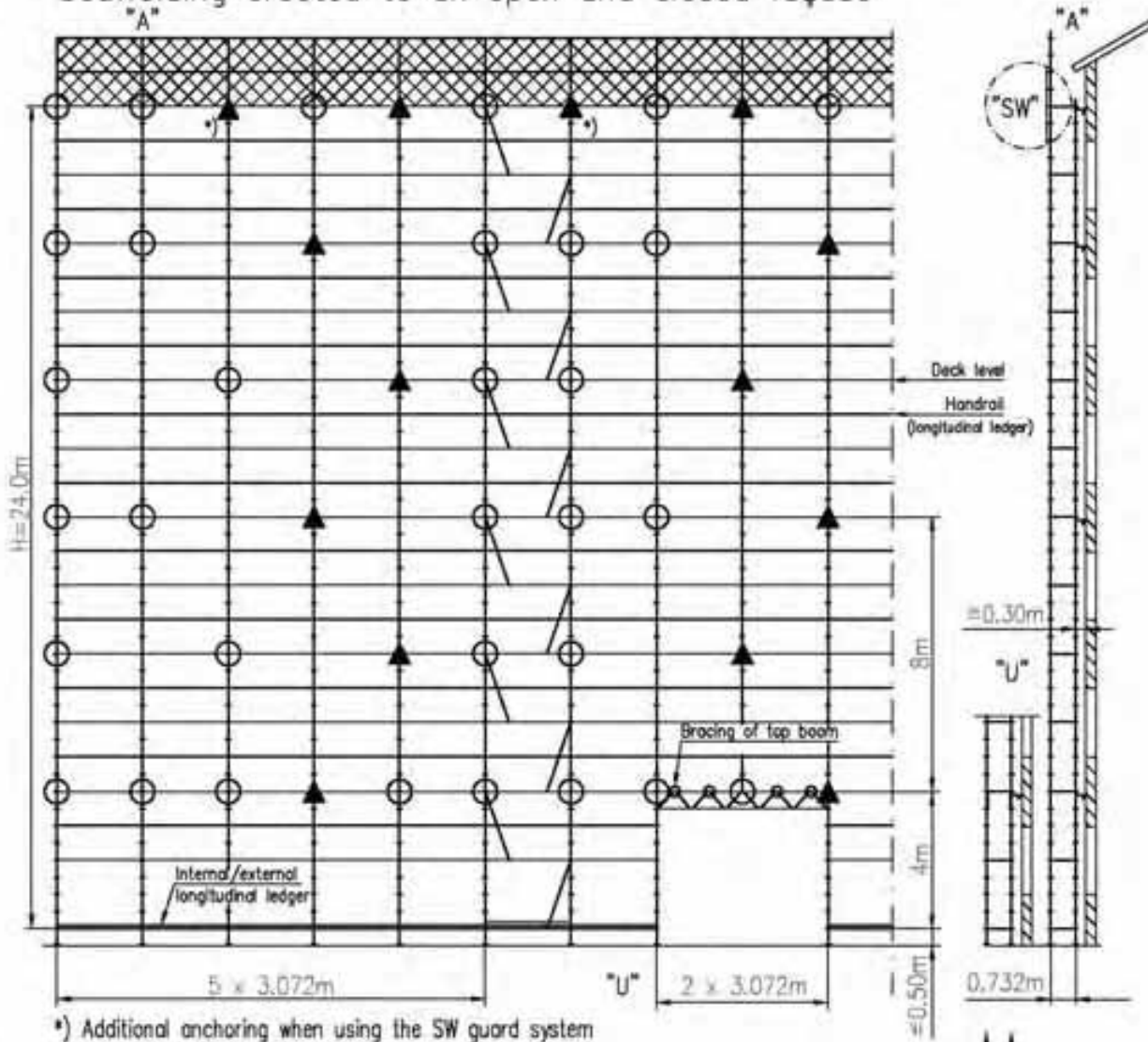
**Scaffold EN12810**  
**3D-SW06/307-H2-A-LA**

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Standard design without internal bracket: bridging of 2x3.072 m  
Scaffolding erected to an open and closed façade

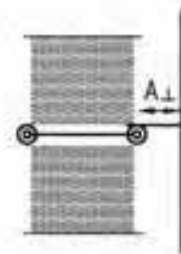
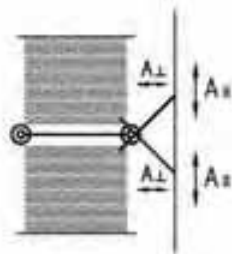
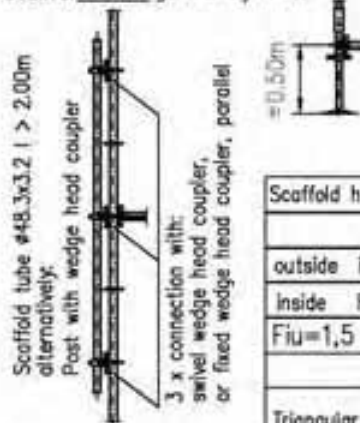


\*) Additional anchoring when using the SW guard system

Detail ▲ triangular tie

Detail ⊕ scaffold retainer

Detail guard system



Scaffold height [m]	8	16	24
Reaction forces [kN]			
outside Fa	6.5	9.2	12.0
inside Fi	4.8	6.3	7.9
$F_{iu} = 1,5 \times F_i$	$F_{au} = 1,5 \times F_a$		
Anchor forces [kN]			
Triangular tie	$A_{\perp}$	2.4	2.4
	$A_{\parallel}$	2.4	2.4
Scaffold retainer	$A_{\perp}$	3.6	3.6

Comment: Side protection components (guardrail brace, longitudinal ledger) are only featured if statically necessary.



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**ALBLITZ MODUL**

**Scaffold EN12810**

**3D-SW06/307-H2-A-LA**

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