VACONO*DECK* is a prefabricated internal floating roof (IFR) for fixed roof storage tanks. **It is an all aluminium construction and thus extremely light weight**. Originally designed in the United States, today **VACONO***DECK* offers an advanced design in technology and safety aspects. This makes it a unique and highly reliable floating roof enjoying an increasing popularity among tank owners worldwide.
Up to now over 3000 **VACONO***DECKs* have been installed worldwide.

The **VACONO***DECK* is designed to meet all known standards for internal floating roofs e.g.

API 650, App. H
TRbF 120 (German Standard)
BS 2654, App. E

as well as various individual oil company standards.

VACONO*DECK* is the only aluminium internal floating roof entirely designed and manufactured by an aluminium company with over 90 years experience in production of aluminium and aluminium alloys. The following is a description of the main features of the **VACONO***DECK* design.

1. Peripheral Ring

The peripheral ring is made from a specially designed large size extrusion. It is formed to fit the exact tank diameter, thereby ensuring a constant distance of 190 mm (7,5 inches) between the tank wall and the **VACONO***DECK* (rim gap). This improves the tight fit (efficiency) and the reliability of the peripheral seal. Installations in tanks as small as 3 m (10 ft) dia have proven the excellent bending properties of this special extrusion.

The peripheral ring for each individual tank is made up from a number of standard length 3,5 m (11 ft 6 inches) parts and two special length parts to give the correct circumference. **Dipping into the product by 150 mm (6 inches), the rim extrusion provides a consistent and reliable seal of the vapour space between liquid and the cover sheeting.**

It should be noted that **all openings in the deck** (gauging funnels, manholes, columns, negotiations devices etc.) **are equipped with the same 150 mm (6 inches) liquid seal. This means the vapour space is entirely isolated from the tank atmosphere**.

2. Tubular Floats and Supporting Structure

The tubular floats have a diameter of 203 mm (8 inches) and a maximum length of 5600 mm (18 ft 5 inches). The large number of individual floats means that there is only negligible loss of buoyancy should one unit fail. Furthermore, it allows the design overall to be rigid and homogeneous, coping with possible stress situations during normal tank operation. The distance between the float tube rows is 3 m (10 ft).

The tubular floats are closed by end caps, which overlap the tube ends allowing for a safe and reliable seam weld.

The connection pieces welded to the end cap are specially designed I-extrusions. Bending or torsional stresses do not act on the weld connection and therefore cannot cause the float to leak. Every float unit is leak tested by compressed air at 1,4 bar (20 psi), while submerged in water to reveal any hidden holes.

Tubular floats are installed in such a number that they provide a 100 % reserve buoyancy. The deck support channels are mounted above and across the float tubes at 90 degrees to the float lines and at a pitch of 1500 mm (59 inches), giving a strong overall structure.

All accessories e.g. funnels, manholes, gauging devices, column negotiation devices etc. are installed on separate supporting beams attached to the main structure for increased strength.

At each junction of a float unit a support leg is fitted providing adequate support while the **VACONO***DECK* is grounded. The high number of support legs also provides a better distribution of load. Legs can be designed for a fixed cover height or adjustable for **VACONO***DECK* grounded heights, normally between 0,9 - 1,8 m (3 ft - 6 ft).

The overall structural height of a VACONO*DECK* is 210 mm (8,2 ") - above liquid level - ensuring only little loss of tank capacity.

A **VACONO***DECK* can easily carry live loads anywhere on the cover, floating or standing on its legs. **There is no need to install walkways on the VACONO*DECK.***

3. Cover sheeting made of cladded materials

The **VACONO***DECK* cover sheet is supplied in a width of 1500 mm (59 inches) and has a standard thickness of 0,5 mm (0,0197 inches). An optional cover sheet thickness of 0,7 mm (0,0276 inches) is available on request. The pre-sized sheets are perforated on both sides to fit over the bolts, which are pre-fitted into the supporting channels. This ensures that the sheet is always correctly installed and that the prescribed overlap between adjacent sheet is constant.

The perforated sheets mean easy and reliable installation and reduce inspection time. The overlap of the adjacent sheets are pressed against the slightly curved upper part of the supporting beam by an inverted U-extrusion through a series of stainless steel bolt connections 250 mm (10 inches) apart.

Experiments show that this arrangement gives the best sealing as the pressure from the bolts act on the sheets through the two line contracts of the inverted U-extrusion.

Although aluminium is known as a corrosion resistant material, **pitting corrosion (spot corrosion eating into the material) can occur under certain unfavourable conditions**, which can lead to holes in the cover sheet material. Pitting corrosion will occur when rust particles from the tank roof fall on top of the cover sheets and together with humidity create a local electrolytic cell. As holes in the cover sheet would decrease the efficiency of an IFR installation, **a specially clad deck material is used in the VACONO*DECK* in order to eliminate this problem**. The cover sheet consists of an aluminium core, cladded on both sides with a thin layer of an aluminium alloy containing Zn. This three layer sheet is produced by roll bonding, ensuring a perfect metallurgical bond between the layers. The Zn-Aluminium alloy layer is 5 % of the total thickness on each side providing cathodic protection to the core material of the cladded sheet. Pitting corrosion will stop at the clad layer/core interface and thus the corrosion resistance of the sheet will be greatly improved while 30 % of the cladding remains.

4. Peripheral Seal - VACONO*SEAL*

VACONO*SEAL*: P; T (P = Polyurethane, non-conductive or conductive
T = PTFE, conductive)

The VACONO*DECK* standard seal is a wiper seal, made from polyurethane covered polyester web or PTFE covered glass fibre web with polyurethane foam core, offering excellent flexibility. Maintaining close contact with the tank wall it is highly efficient.

VACONO*SEAL*: RP; RT (RP = polyurethane, non-conductive or conductive
RT = PTFE, conductive)

To meet the increasing demand of high seal efficiency/pollution control, we can also provide a double seal system incorporating a primary seal and a secondary seal, offering similar benefits as a liquid mounted seal. Due to the materials used (polyurethane or PTFE-web) this seal type is compatible to hydrocarbon, petrochemicals and chemicals.

5. Material Selection

Dependent upon the product to be covered **VACONO***DECKS* can be manufactured from either of the following materials:

a) *Aluminium*
Aluminium structures made from high quality aluminium alloys with proven resistance to many hydrocarbon based products, with particular care being taken to use stainless steel bolts as well as other non sparking materials to ensure a sturdy and rigid structure.

b) *Stainless Steel*
Stainless steel structures made from ASTM A 316 Ti is especially recommended for use in covering highly aggressive chemicals where aluminium is not suitable.

Furthermore a combination of both materials can be offered as an alternative for products that behave aggressively towards aluminium in the liquid phase (e.g. floats and deck legs). Here stainless steel materials can be used while the aluminium parts stay in the vapour phase.

6. Safety Aspects

On degassing procedures, **no vapour or product can be absorbed or retained in the VACONO*DECK* structure** (no hidden pockets).

VACONO*DECK* is provided with a minimum of two stainless steel grounding cables between the deck and the tank roof, ensuring a safe path for the discharge of static electricity.

VACONO*DECK* can be operated in "closed tanks", retaining the P/V-valve system. This specification is mandatory in Germany where no air scoops or roof centre vents can be installed.

7. Manufacturing and Installation of VACONO*DECK*

The design of VACONO*DECK* is completely computerised.
Information obtained from the customer is used by our computers to produce a detailed print-out list which is employed as a basis for the manufacturing process, eliminating errors in supply and also allowing the customer to verify received goods easily.

All parts of VACONO*DECK* are designed to pass through the tank manhole eliminating costly work on the tanks structure. **All components are completely pre-fabricated** to allow quick and easy installation.

The VACONO*DECK* installation requires a minimum of work on the tank and usually **can be completed within a week** (depending on tank size and crew members).

A comprehensive installation manual is supplied with each **VACONO***DECK*.

8. Accessories

A large number of accessories can be supplied to suit various tank specifications.

Main accessories are

- Negotiation devices for columns, ladders, guide/dipping poles
- Float guide for automatic gauging device
- Funnel for temperature device (thermometer)
- Ladder platform
- Corrosion gauge
- Foam dams
- Inlet diffusers
- Floating suction units
- Peripheral air scoops for tank ventilation
- Roof centre cents

Other special accessories can also be supplied upon request.

Al-VACONO*DECK* - Material List

Parts	Dimensions (Material Thickness)	Material Designations DIN	AA
Seal		Polyurethane, Polyethylene PTFE (Teflon)	
Floater			
Tube	1,3 mm	AlMn1Mg1	3004
End Cap	2,5 mm	Al Mg 3	5754
Floater end brackets	2,0 mm	Al Mg 3	5754
Cover Sheets	0,5/0,7 mm		
Core		Al Mn 1 (hh)	3003-H26
Cladding	min. 5 % each side	Al Zn 1	7072
alternative:			
Cover Sheets uncladded -	0,58 mm	Al Mn 1 (hh)	3003-H16- -
Extruded Sections			
Rim profile	2,5 mm	Al Mg Si 0,5 F20-22	6060
Crossing profile (lower)	1,8 mm (3,0 mm)	Al Mg Si 0,5 F20-22	6060
Crossing-profile (upper)	3,0 mm (2,0 mm)	Al Mg Si 0,5 F20-22	6060
Cover Supports	42 ø x 3,0 mm	Al Mg Si 0,5 F20-22	6060
	42,4 ø x 1,5 mm	1.4301 (stainless steel)	
Negotiation Devices			
Gauging	1-1,5 mm	(flange 1,5 mm)	Al Mg 3 5754
	1,0 mm (flange 1,5 mm)	1.4301 (stainless steel)	
Manhole	1,5 mm (cover 5 mm)	Al Mg 3	5754
	1,0 mm (cover 3 mm)	1.4301 (stainless steel)	
Uni. Brackets	1,5 mm	Al Mg 3	5754
Bolts	M 8 x 20	1.4301 (stainless steel)	
	M 8 x 35 (cross-profile)	1.4301 (stainless steel)	
	M 8 x 55 (supports)	1.4301 (stainless steel)	
Nuts	M 8	Al Mg Si 1 F 23 (stainless steel optional)	6082

Inquiry / Order No.: ..... Date: .....
Customer: .....
.....
.....
.....
.....
Customer contact: ..... Telefax: .....

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Tank Description

Location: ..... existing / new
Tank No.: .....
Tank Diameter: .....
Shell Height: .....
Pressure Tank: Yes / No Pressure: .....
Product: Density: ..... max. Temperature: .....
Filling Rate: ..... m³/h
Size of inlet nozzle: .....
Suction Rate: ..... m³/h
Size of outlet nozzle: .....
Tank pit with: Earth wall / wall / double shell
Height: .....

Tank Roof

Roof Type: Cone / Dome / Other .....
Roof Construction: Framework / Strut Drawing.....
Roof Manhole: No. ..... Size .....

Tank Shell

Shell Type: Butt welded / Riveted / Lap welded
Clips inside: Yes / No
Reinforcing Ring: Yes / No
Shell Manhole: No. ..... Size .....
Fire fighting equipment: Yes / No Type .....
Size of nozzle: .....
Distance from roof: .....

Tank Bottom

Floor Type: cone down / cone up ..... mm
Heating Coils: Yes / No Drawing .....
Coating: Floor, shell up to ..... mm height

Accessories

Gauge Nozzle: No. ..... Size .....
Distance from tank wall: ..... mm
Gauge Pipe: No. ..... Size .....
Distance from
Tank wall: ..... mm

Auto Gauge:	No.	Size ..... Distance from Tank wall: ..... mm
Column:	No.	Size ..... Location .....
Temperature Control:	No.	..... Size Distance from Tank wall: ..... mm
Internal Ladder:	No.	Size ..... Distance from Tank wall: ..... mm
Others:	.....	
Floating Suction:	Yes / No Type	Size ..... Drawing .....
Skimmer Suction:	Yes / No Type	Size ..... Drawing .....
Jet Mixer: Distance from Tank bottom:	Yes / No ..... mm	Performance: .....
Mixer:	.....	

Note:Please supply drawings or sketches showing all relevant details!

ADDITIONAL INFORMATIONS:_____

_____

_____

_____

_____

_____

1.) = AUTOMATIC GAUGE

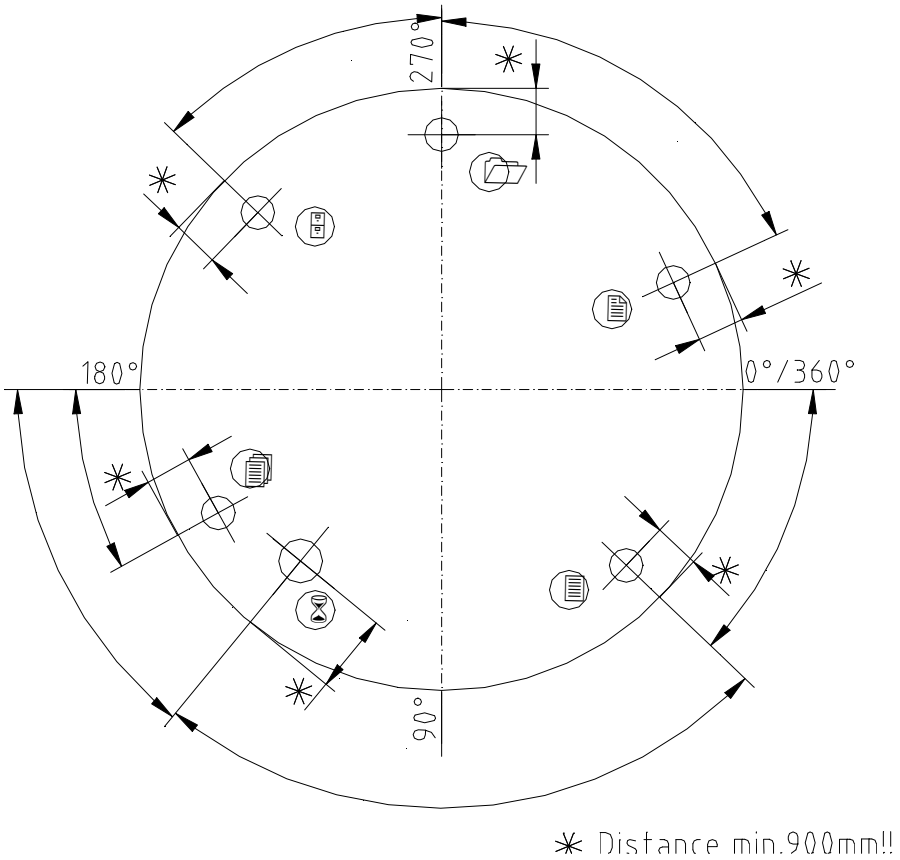
2.) = GAUGING FUNNEL

3.) = GAUGING PIPE

4.) = SAMPLING FUNNEL

5.) = TEMPERATURE CONTROL

6.) = ROOF MANHOLE



Economic evaluation of the savings on VACONO*DECK* installation based on API 2519

1. Company: ..... Date: .....
2. City: .....
3. Country: .....
4. Contact Person: .....
5. Telephone: ..... Telefax: .....

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units (English or Metric)

6. Tank Terminal: .....
7. Tank No.: .....
8. Tank Diameter: ..... ft (ME)
9. Tank Shell Height: ..... ft (ME)
10. Product stored: .....
11. Product Molecular Weight: ..... kg/kmol
12. Product Density: ..... lb/gal (kg/m3) at ....°F (°C)
13. Condensed Vapour Density: ..... lb/gal (kg/m3) at ....°F (°C)
14. True Vapour Pressure: ..... psia (bara) at .... °F (°C)
15. Average Annual Product Temp.: ..... °F (°C)
16. Average Daily Ambient Temp. Change: ..... °F (°C)
17. Annual Product Throughput: ..... bbl (mto) (m3)
18. Annual Tank Turnover: ..... times
19. Average Vapour Space Height (Outage)
    distance liquid level to tank roof: ..... ft (ME)
20. or liquid level: ..... ft (ME)

21. Inside Tank Shell Condition: light rust .....
    rust .....
    dense rust .....

22. Tank Paint Condition:

	Good	Poor
White		
Aluminium		
Grey		
Black		

23. Autom. Tank Gauging System: Yes/No
24. No. of Tank Columns: ..... (Structural shape or pipe)
25. Tank ladder inside: Yes/No

If any information is unknown, please enter your best estimate.

Note: Please circle the units chosen resp. fill in the desired units (English or Metric). Please refer to the line numbers when calling or telefaxing.

Example of Computer Calculations of Vapour Losses

Tank diameter:	12 m	Product stored:	Super gasoline
Tank height:	10 m	Product temperature:	15 °C
Average filling height:	50 %	Average temperature change:	10 °C

Total Annual Loss (in litres)

	10 turnovers/year	20 turnovers/year	30 turnovers/year
- Without VACONO*DECK*			
Breathing loss	8.641 l	8.641 l	8.641 l
Working loss	**20.347 l**	**40.694 l**	**61.041 l**
TOTAL	28.988 l	49.335 l	69.682 l
- With VACONO*DECK*			
Standing storage loss	2.799 l	2.799 l	2.799 l
Working loss	**10 l**	**19 l**	**29 l**
TOTAL	2.809 l	2.818 l	2.828 l

Total Annual Savings			
In litre	**26.179 l**	**46.517 l**	**66.854 l**
In %	**91,5 %**	**95,0 %**	**96,4 %**

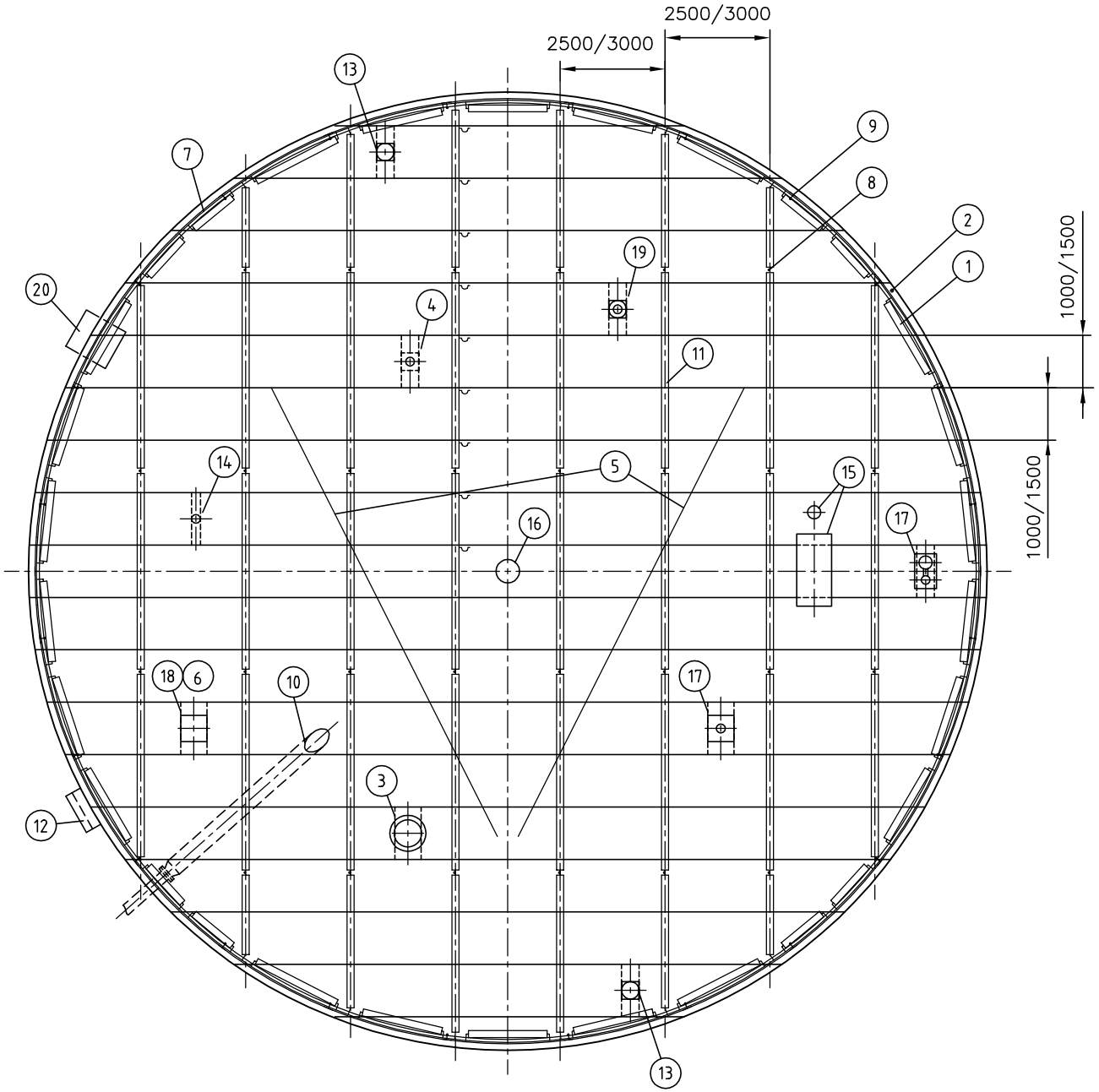
Example of Computer Calculations of Vapour Losses

Tank diameter:	25 m	Product stored:	Super gasoline
Tank height:	20 m	Product temperature:	13 °C
Average filling height:	50 %	Average temperature change:	7 °C

Total Annual Loss (in litres)

	5 turnovers/year	10 turnovers/year
- Without VACONO*DECK*		
Breathing loss	33.803 l	33.803 l
Working loss	**82.684 l**	**165.368 l**
TOTAL	116.487 l	199.171 l
- With VACONO*DECK*		
Standing storage loss	6.708 l	6.708 l
Working loss	**20 l**	**40 l**
TOTAL	6.728 l	6.748 l

Total Annual Savings		
In litre	**109.759 l**	**192.403 l**
In %	**94,9 %**	**97,0 %**



Pos.	Object	Drawing
20	Peripheral air scoop	SGB-03568-4; SGB-02578-4 SGB-00670-4; SGB-04882-4
19	Gauging funnel	SGB-00658-4 SGB-0390-4
18	Combination air valve- manhole	SGB-00662-4
17	Negotiating device	SGB-00401-4 SGB-0389-4
16	Centre roof ventilation	SGB-00651-4
15	Ladderplattform and corrosion gauge	SGB-04401-3
14	Vacuum valve	SGB-00668-4
13	Antirotation system	SGB-00652-4
12	Side overflow	SGB-00405-4 SGB-04881-4
11	Inner float	SGB-02411-4
10	Inlet diffuser	SGB-00657-4 SGB-00660-4
9	Peripheral leg fixed, adjustable	SGB-02412-4 SGB-02382-4
8	Inner leg fixed, adjustable	SGB-02413-4 SGB-02414-4
7	Foam dam	SGB-02417-4 SGB-03092-3
6	Manhole	SGB-00669-4
5	Antistatic system	SGB-00394-4
4	Float guide for autom. gauging device	SGB-04028-4; SGB-00659-4 SGB-04029-4; SGB-00404-4
3	Funnel for thermometer	SGB-00393-4
2	*VACONOSEAL* P; T; RP; RTS	SGB-70290-4 SGB-70291-4
1	Peripheral float	SGB-02410-4

See also SGB-02420-4; SGB-02421-4

VACONO*DECK*®

Orientation Drawing

×

Drawer: 07.01.98

VACONO Core Dome Seal Deck ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

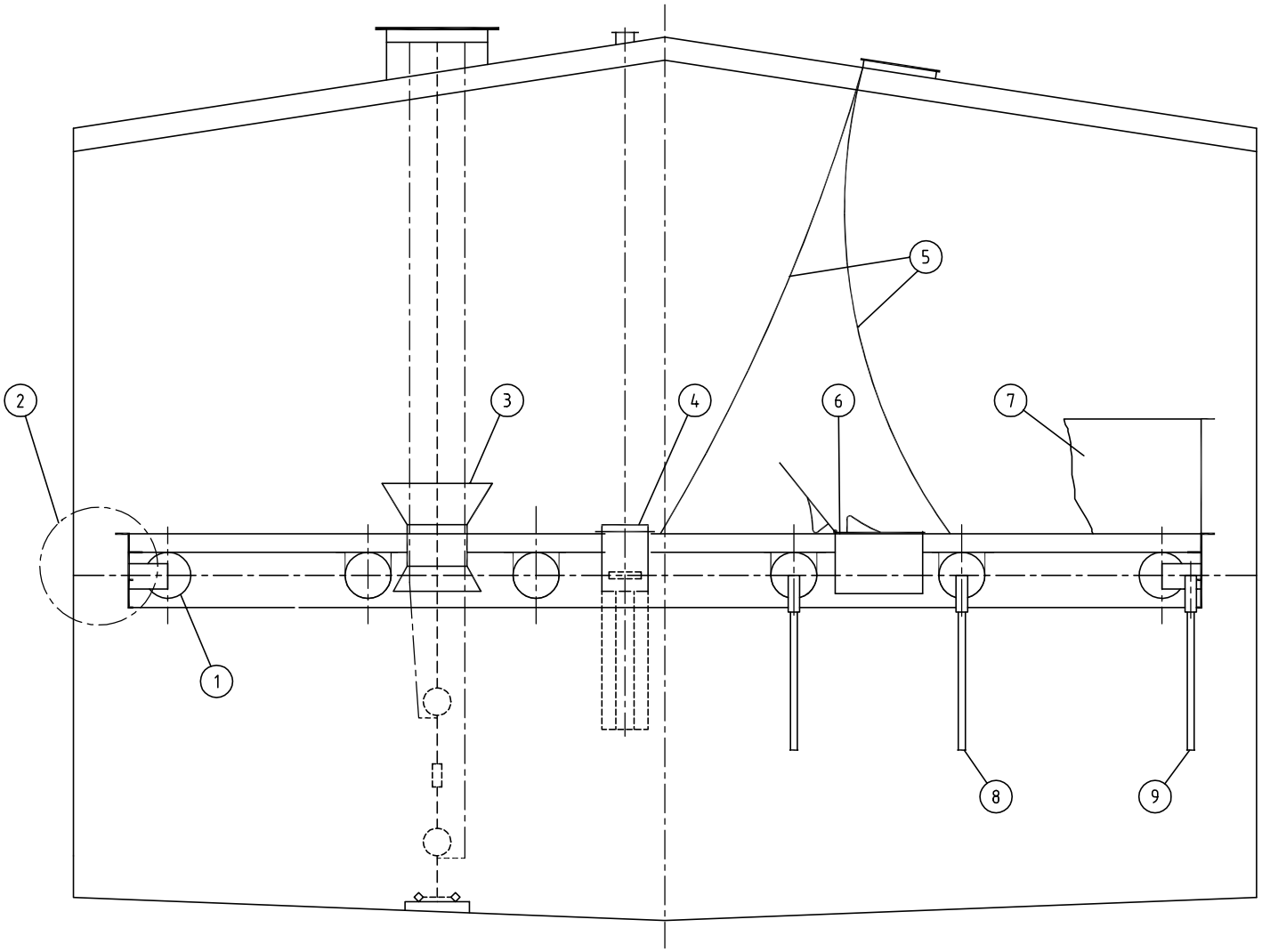
DRAWINGNUMBER
SGB-02419-3

CAD-Number
02419-3E

Reservation for modifications!

Rev.Datum:

Slide 6



Pos.	Object	Drawing
9	Peripheral leg fixed, adjustable	SGB-02412-4 SGB-02382-4
8	Inner leg fixed, adjustable	SGB-02413-4 SGB-02414-4
7	Foam dam	SGB-02417-4 SGB-03092-3
6	Manhole	SGB-00669-4
5	Antistatic system	SGB-00394-4
4	Float guide for autom. gauging device	SGB-04028-4; SGB-00659-4 SGB-04029-4; SGB-00404-4
3	Funnel for thermometer	SGB-00393-4
2	*VACONOSEAL* P; T; RP; RTS	SGB-70290-4 SGB-70291-4
1	Peripheral float	SGB-02410-4

See also SGB-02420-4

VACONO*DECK*®
Orientation Drawing
×

Drawer:	23.06.94	k.brunner

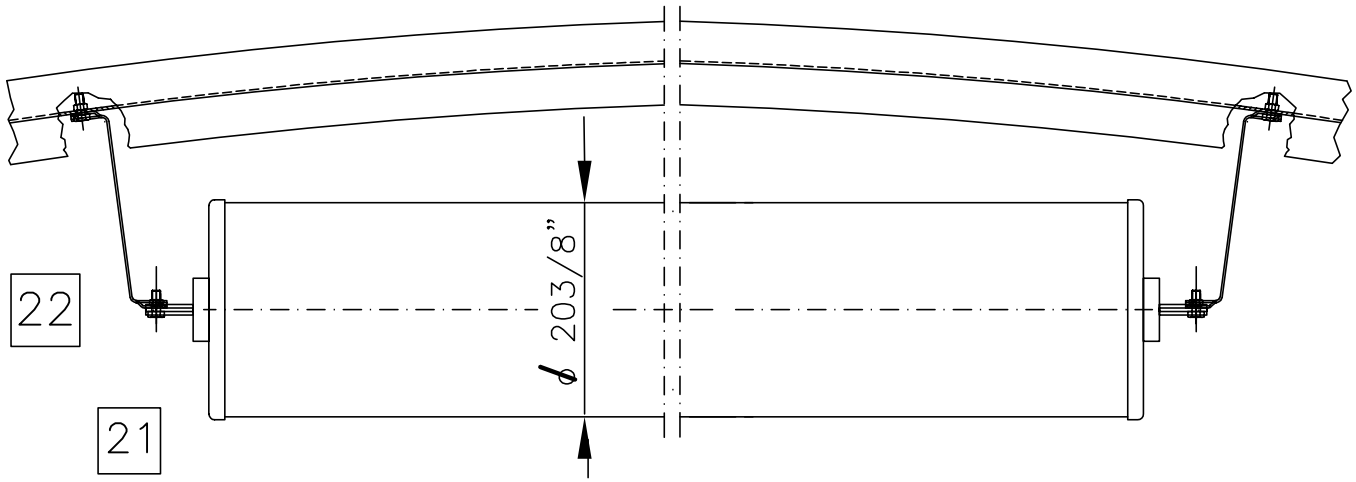
VACONO Core Dome Seal Deck *ALUMINIUM RHEINFELDEN GMBH*
D-79618 RHEINFELDEN/BADEN

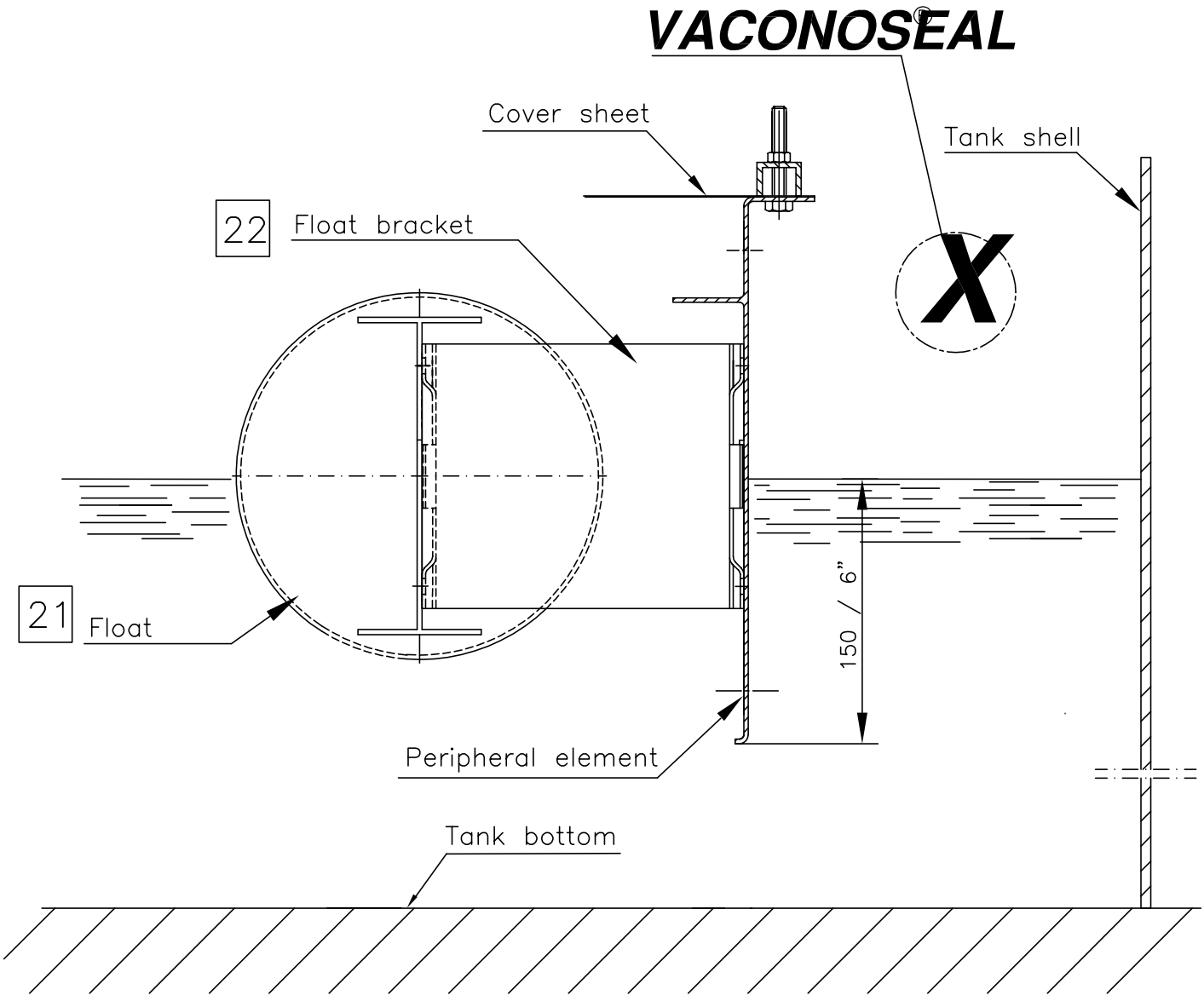
DRAWINGNUMBER
SGB-02421-4

CAD-Number
002421-3E

Reservation for modifications!

Rev.Datum:





Ordering No.

21

VACONO*DECK*®

Peripheral Float

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VACONO Core Dome Seal Deck ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

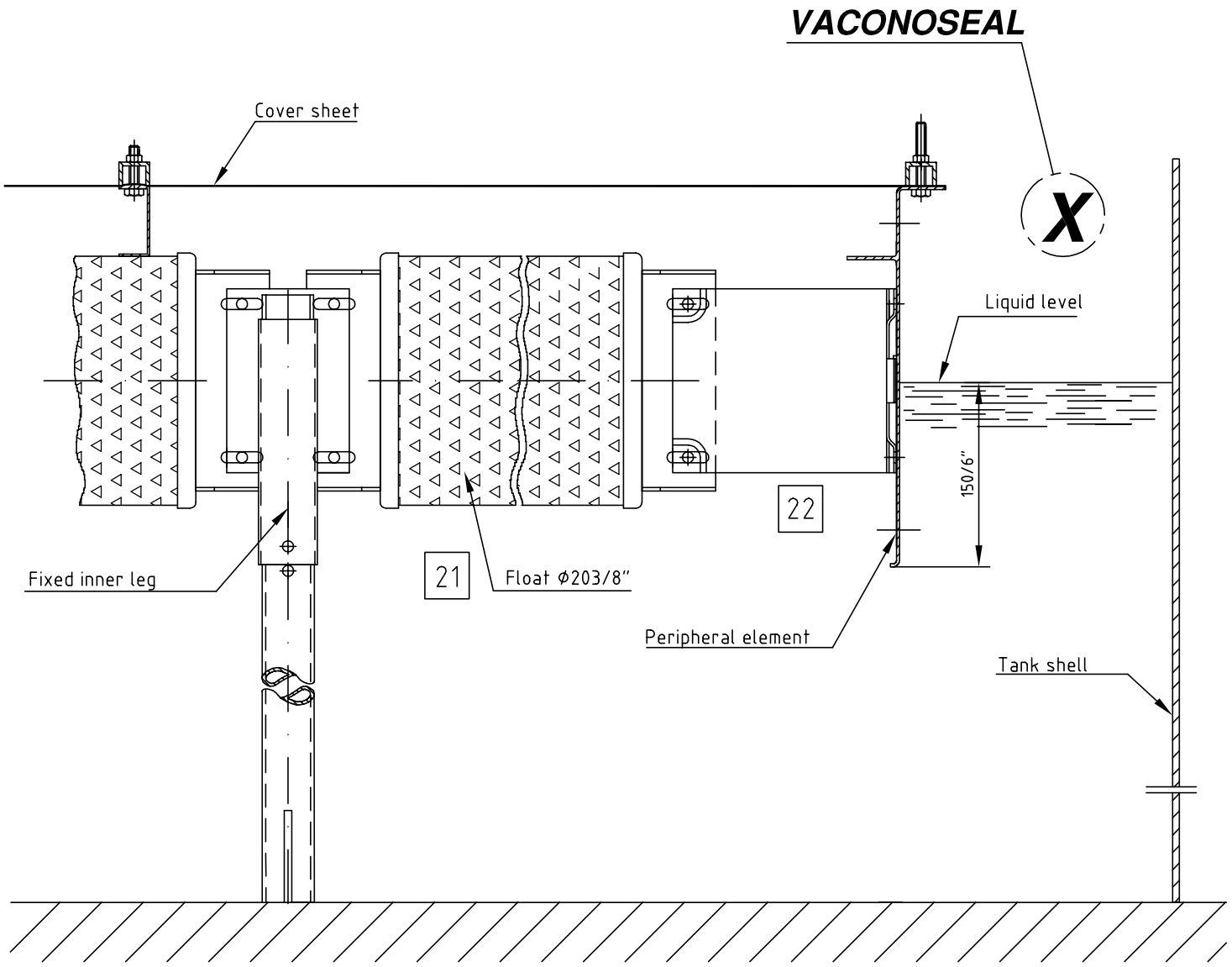
Drawer:	05.04.94	k.brunner

DRAWINGNUMBER
SGB-02410-4

CAD-Number
02410-4E

Reservation for modifications!

Rev.Datum:



Ordering No.

21

DOCUMENTATION

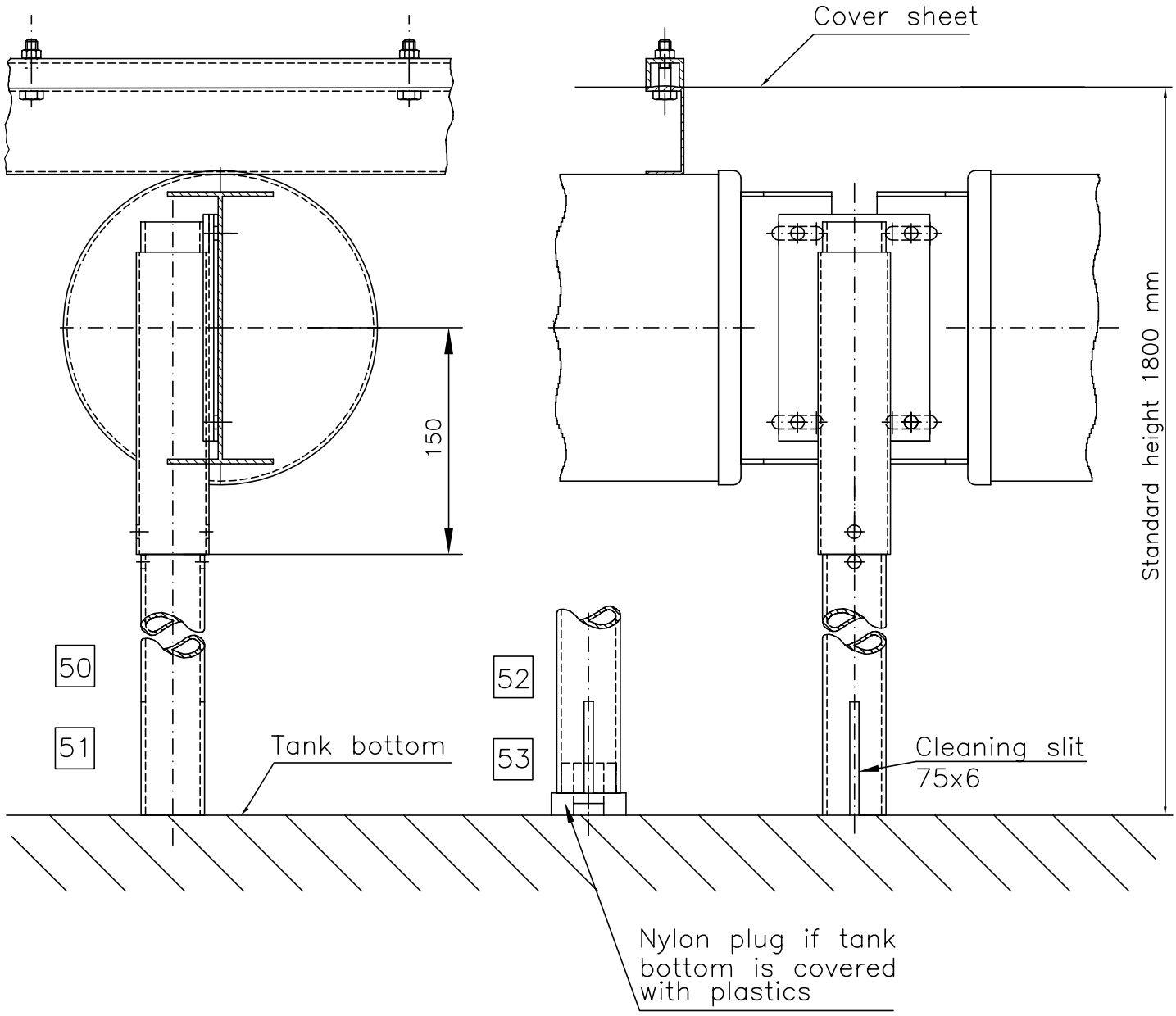
VACONO *DECK*

Inner Float

Scale	Drawn By	Checked By
%	04.05.94	17.12.98

Aluminium Rheinfelden GmbH – VACONO –
Friedrichstr. 80 D–79618 Rheinfelden

Drawing No.: SGB-02411-4



Ordering No.		
SS	51	53
Al	50	52

VACONO*DECK*®

Fixed

Inner Leg

VACONO Core Dorme Seal Deck — ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

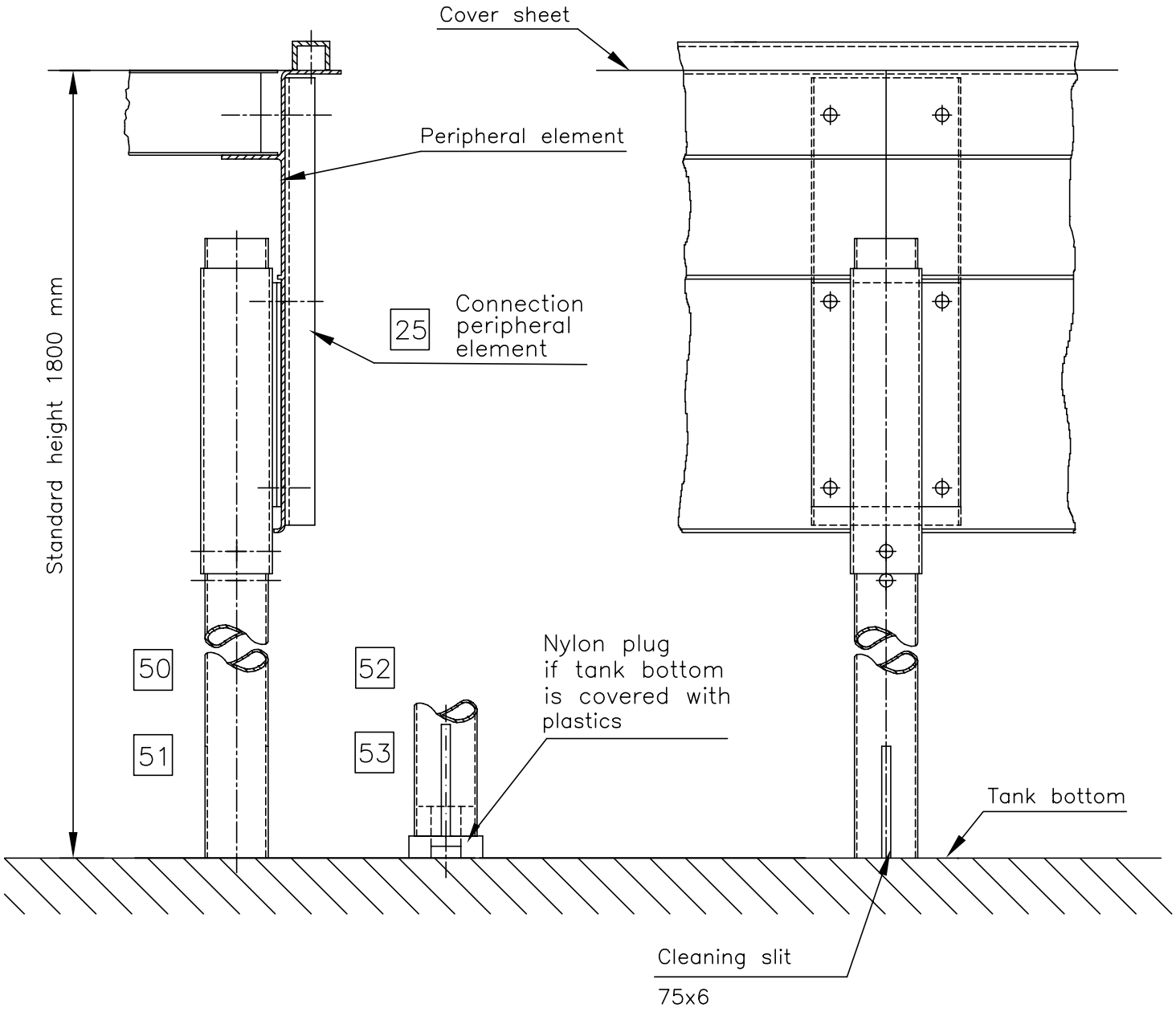
Drawer:	05.04.94	k.brunner

DRAWINGNUMBER
SGB-02413-4

CAD-Number
02413-4E

Reservation for modifications!

Rev.Datum:



Ordering No.

SS 53	51
AL 52	50

VACONO *DECK*®

Fixed Peripheral Leg

Drawer:	05.04.94	k.brunner

VACONO Core Dome Seal Deck

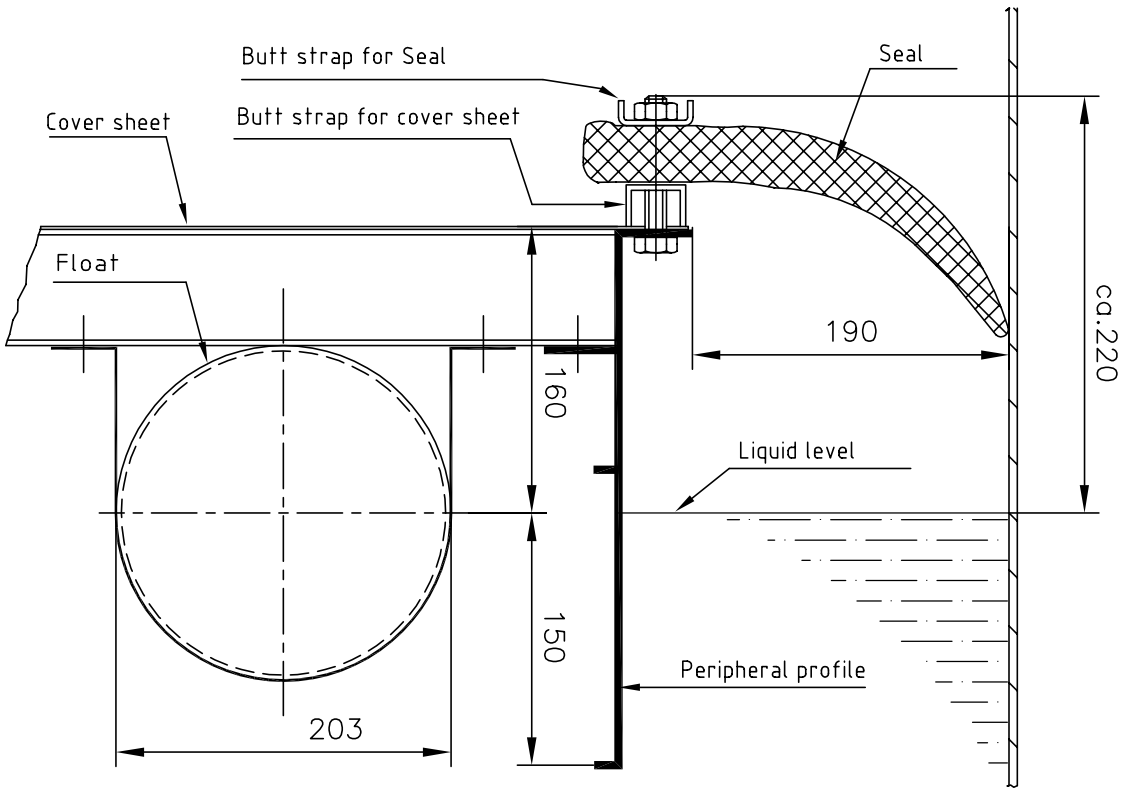
ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

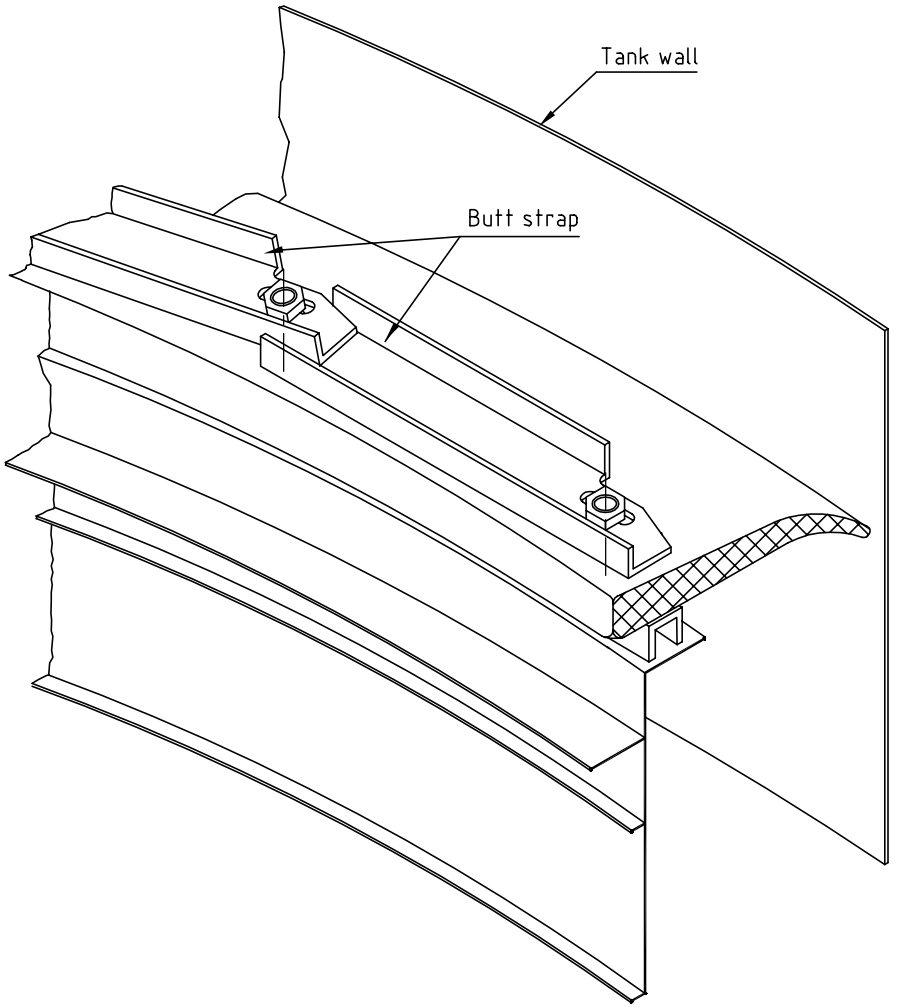
DRAWINGNUMBER
SGB-02412-4

CAD-Number
02412-4E

Reservation for modifications!

Rev.Datum:





Order No.:	*47*	
Material:	PE-Foam closed celled laminated, black, antistatic	
Size:	40/20x310	
		Reservation for modifications!

The vapor room below the cover sheets is shut off by the skirt of the peripheral profile.

VACONO *DECK*®
Vaconoseal
PE

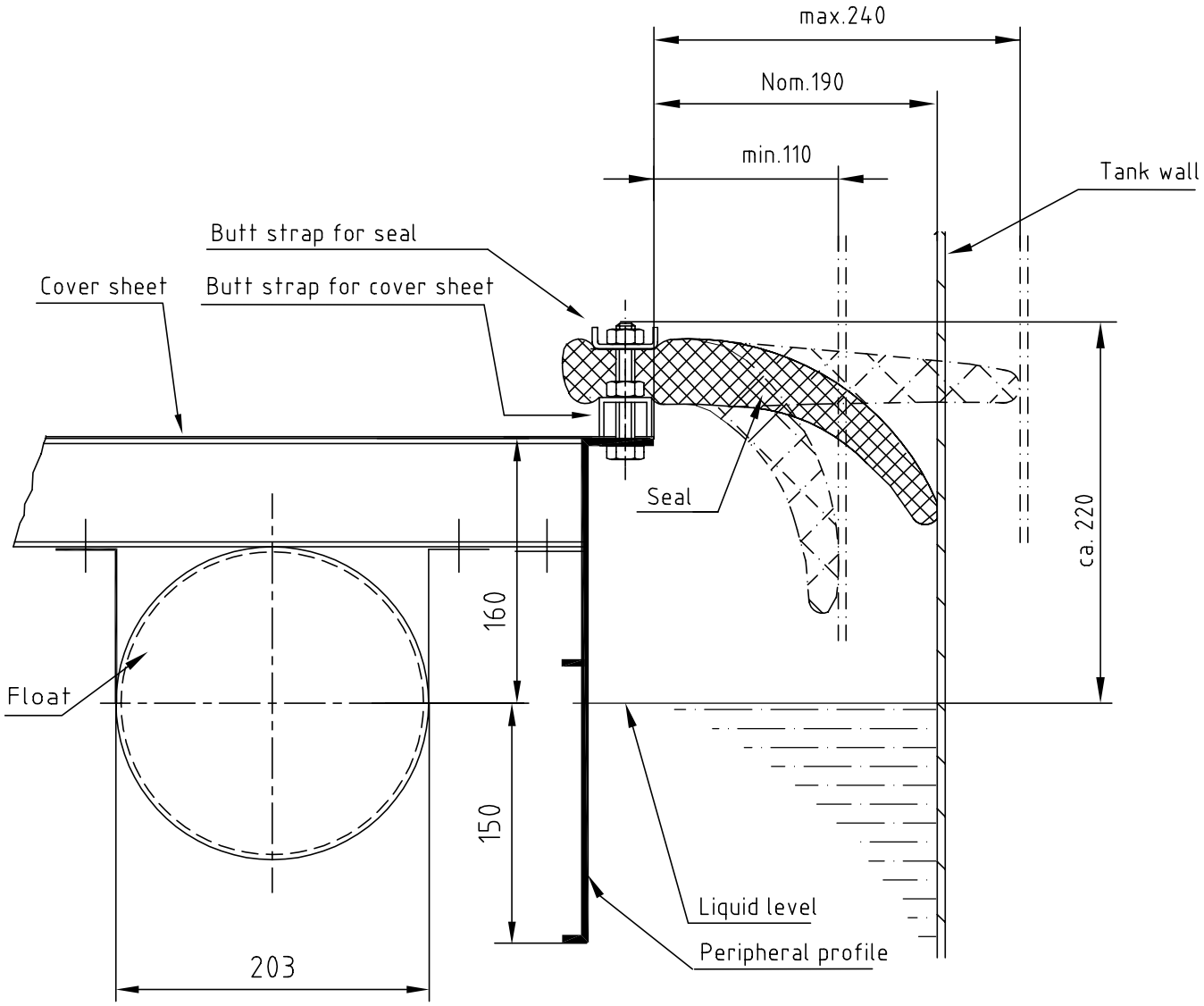
VACONO Core Dome Seal Deck
ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

Drawer:	27.07.95	k.brunner

DRAWINGNUMBER
SGB-71098-4

CAD-Number
71098-4e

Rev.Datum:



VACONO*DECK*®

VACONOSEAL "PE"

Min./Max. Rim Gap

Drawer:	11.03.97	k.brunner

VACONO Core Dome Seal Deck *ALUMINIUM RHEINFELDEN GMBH*
D-79618 RHEINFELDEN/BADEN

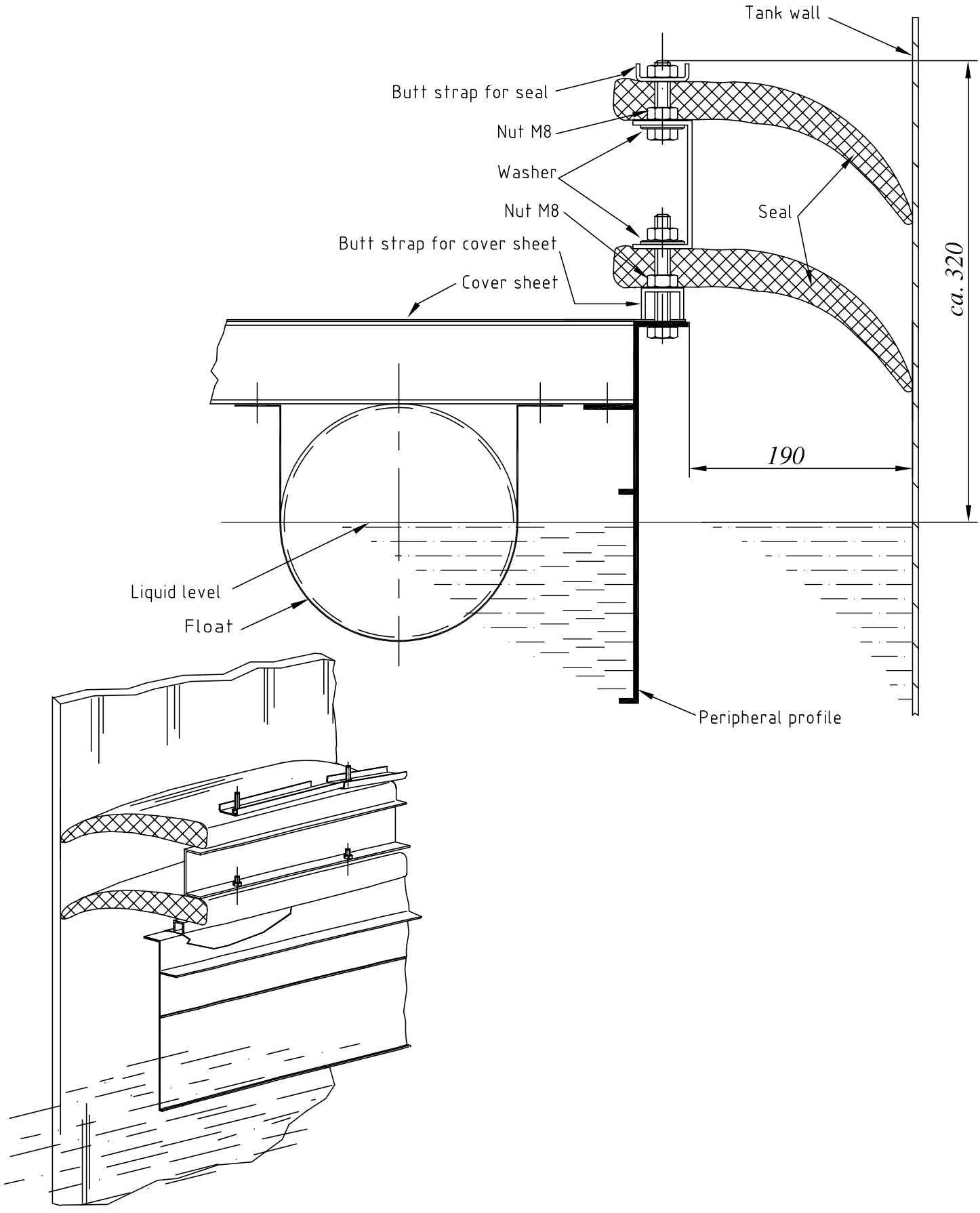
DRAWINGNUMBER
SGB-71203-4

CAD-Number
71203-4E

Reservation for modifications!

Rev.Datum:

VACONO*SEAL* "Double PE"



DOCUMENTATION

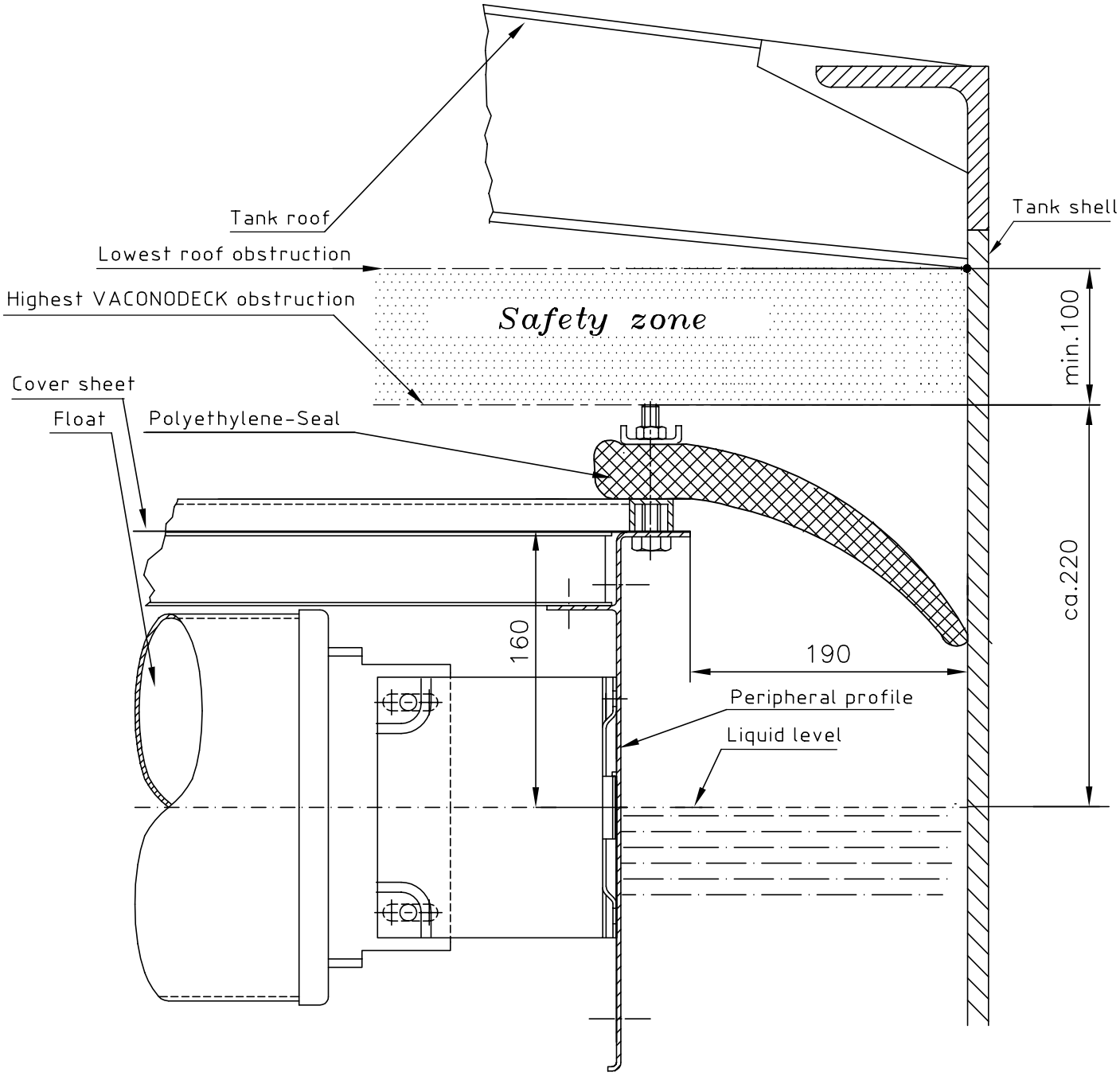
VACONO *DECK*

Double"PE"-Seal

Scale	Drawn By	Checked By
%	04.05.94	17.12.98

Aluminium Rheinfelden GmbH - VACONO -
Friedrichstr. 80 D-79618 Rheinfelden

Drawing No.: SGB-71122-4



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×	×	×		
×	×	×		
×	×	×		
Rev.	Date	Modification	Drawn	Chkd

Reservation for modifications

Documentation

VACONO*DECK*®

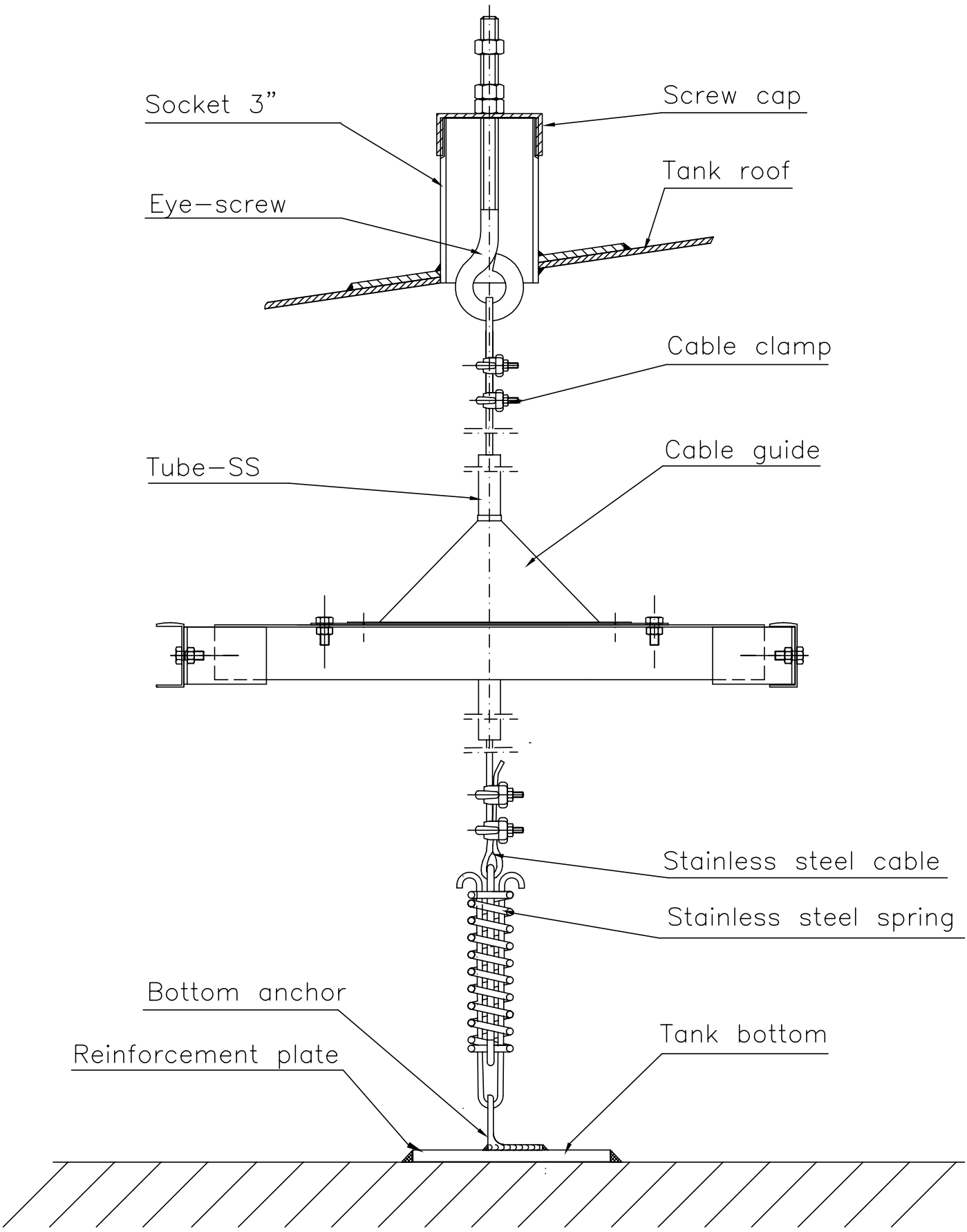
SAFETY ZONE "PE" SEAL

Aluminium Rheinfelden GmbH – VACONO –
Friedrichstr. 80 D–79618 Rheinfelden

Scale	Drawn By	Checked By
%	07.11.96	07.11.96

Drawing No.: SGB-52097-4

Rev.



Ordering No.

65

VACONO*DECK*®

Antirotation System

VACONO Core Dome Seal Deck

ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

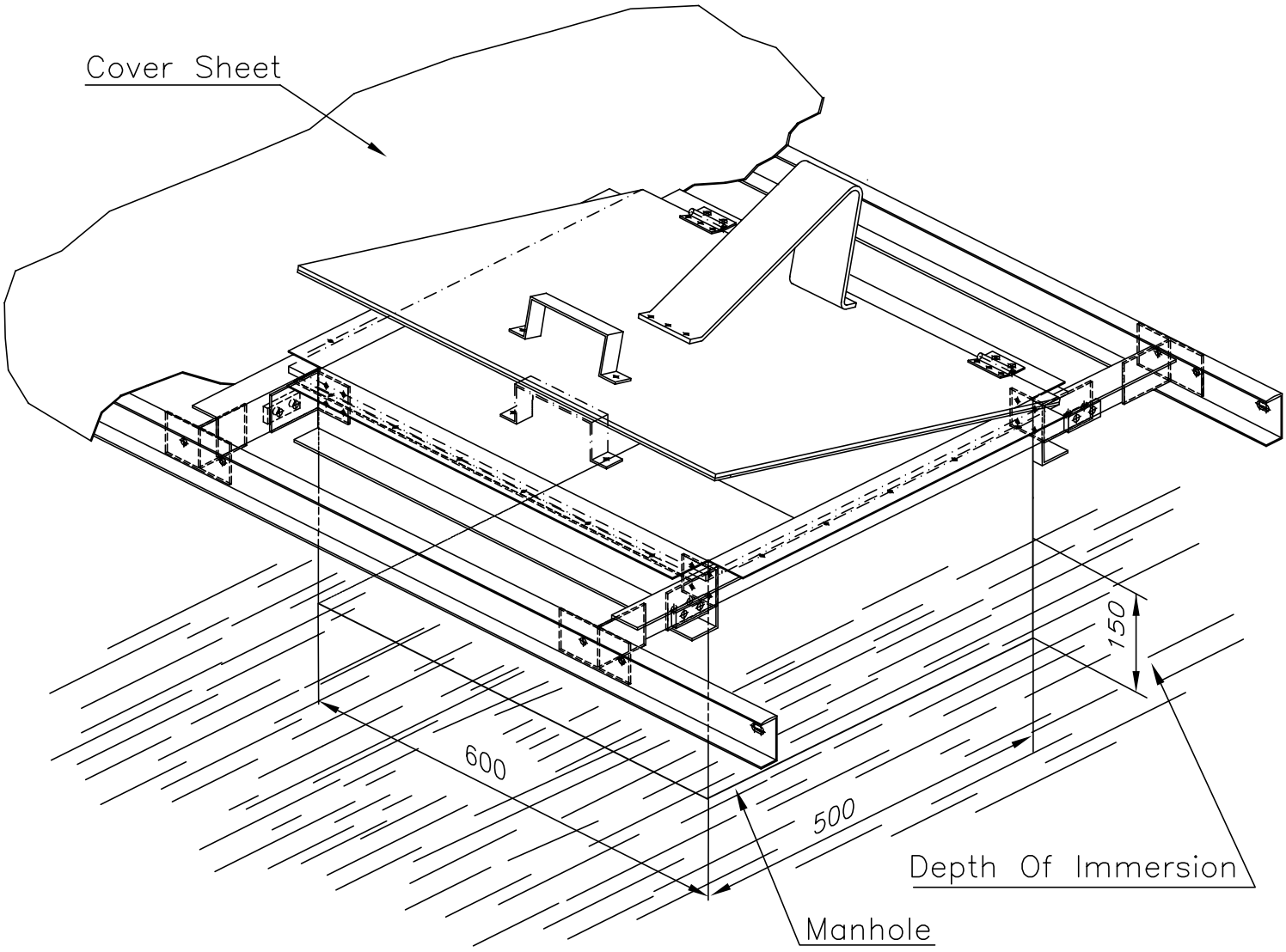
Drawer:	11.04.94	k.brunner

DRAWINGNUMBER
SGB-00399-4

CAD-Number
00399-4E

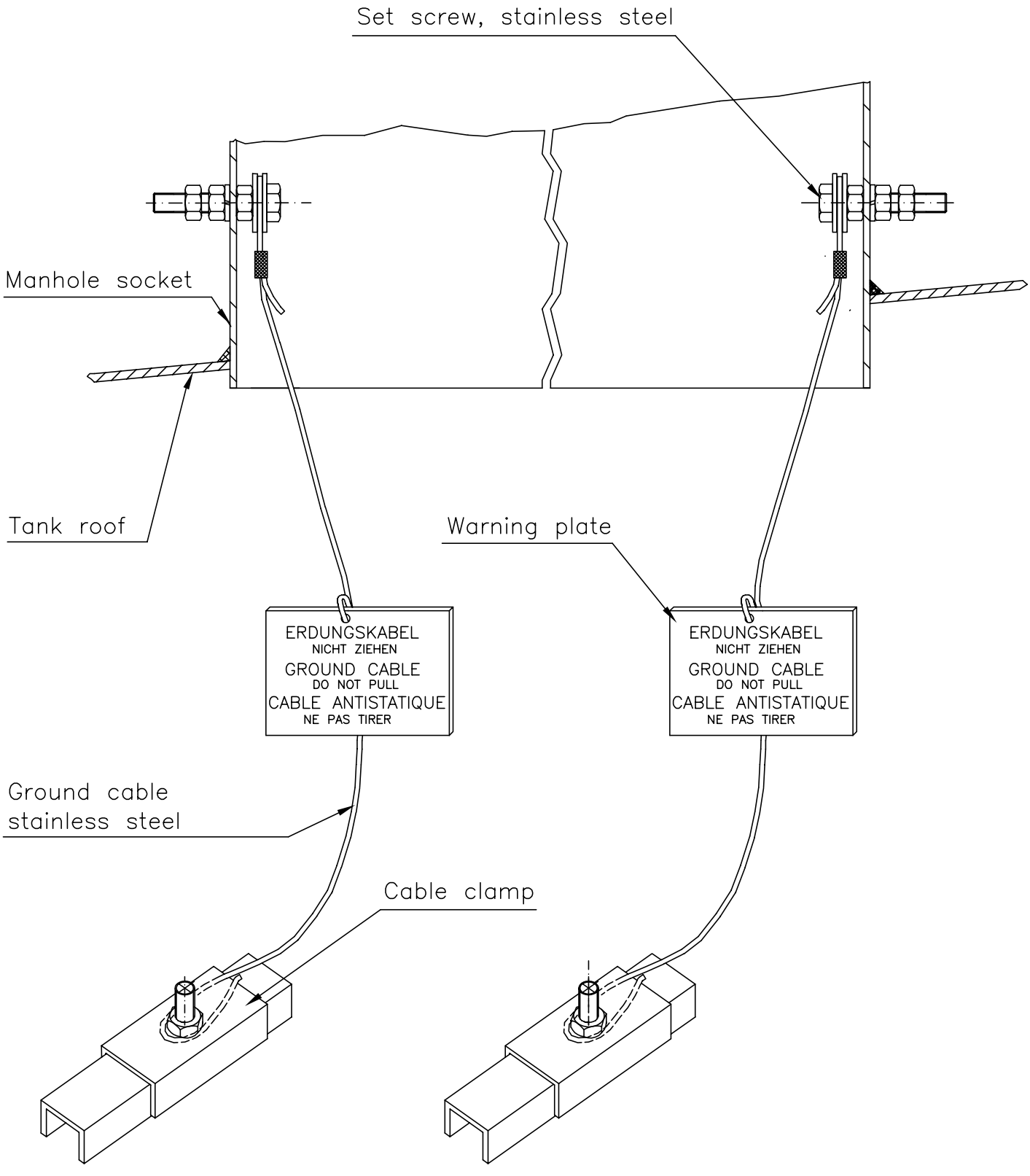
Reservation for modifications!

Rev.Datum:



Manhole installed always together with vacuum valve SGB–00668–4. Typ 73

Ordering No. AL 71 SS 115	**VACONO*DECK*®** Manhole ×	This drawing is our property and given for personal use only. It may not be copied or made available to others without our permission. The receiver is responsible for any misuse.
	VACONO Core Dome Seal Deck ALUMINIUM RHEINFELDEN GMBH D-79618 RHEINFELDEN/BADEN	Drawer: 25.05.94 k.brunner DRAWINGNUMBER SGB-00669-4
Reservation for modifications!	Rev.Datum:	CAD-Number 00669-4E



Ordering No.

67

VACONO *DECK*®

Antistatic System

×

Drawer:	11.04.94	k.brunner

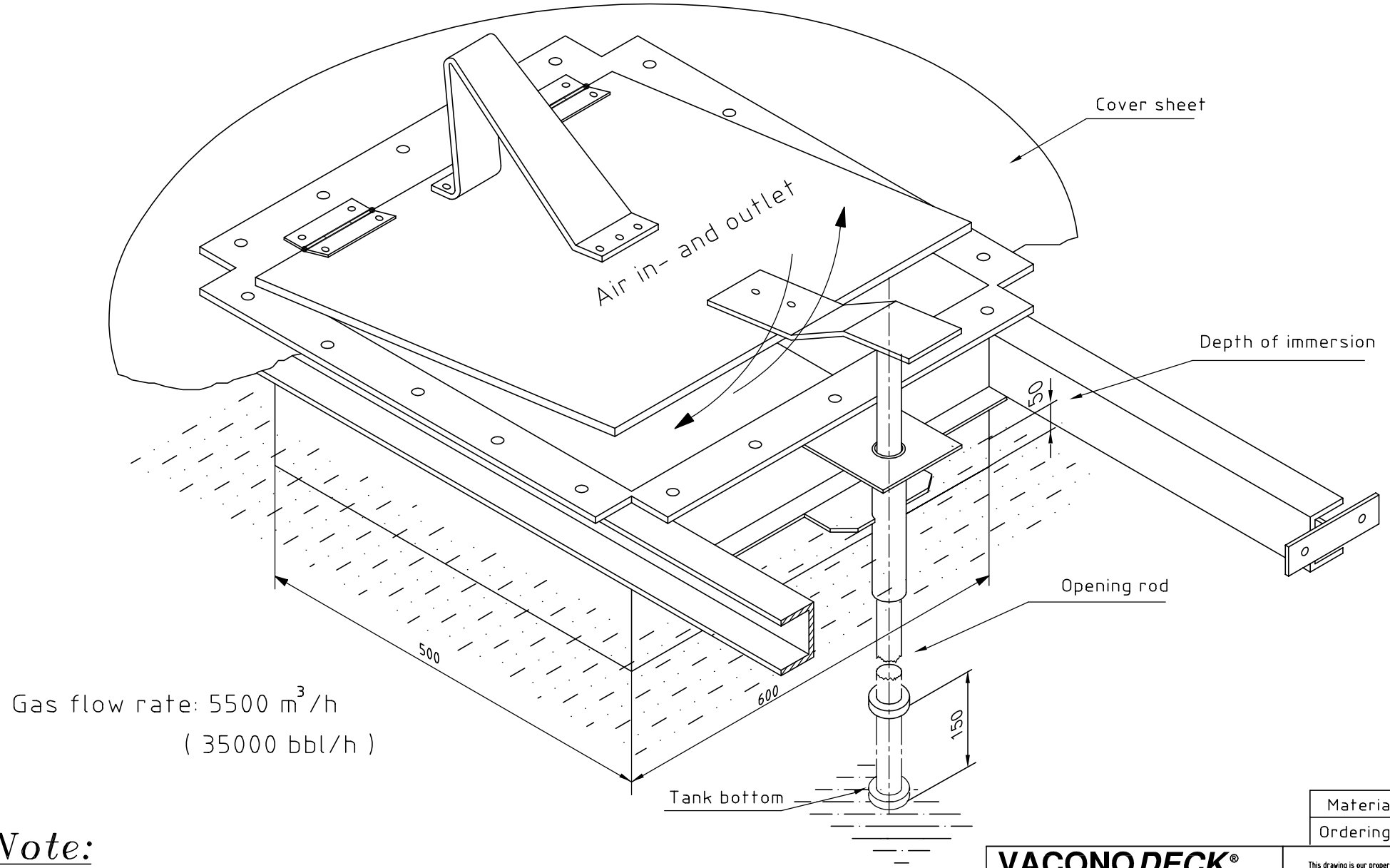
VACONO Core Dome Seal Deck *ALUMINIUM RHEINFELDEN GMBH*
D-79618 RHEINFELDEN/BADEN

DRAWINGNUMBER
SGB-00394-4

CAD-Number
00394-4E

Reservation for modifications!

Rev.Datum:



Gas flow rate: 5500 m^3/h

(35000 bbl/h)

Material:	S.S	Al
Ordering No.	114	68

Note:

Cover is opened during filling operation. It is closed when blanket is floating 150 mm above starting-point.
50 mm depth of immersion of the shaft effects an additional gas shutting. During emptying of the tank, cover will be opened 150 mm before blanket touches down on tank bottom, by that means formation of vacuum will be avoided.

VACONO *DECK*®
Vacuum Breaker-
Manhole Combination

Drawer:	30.03.94	k.brunner

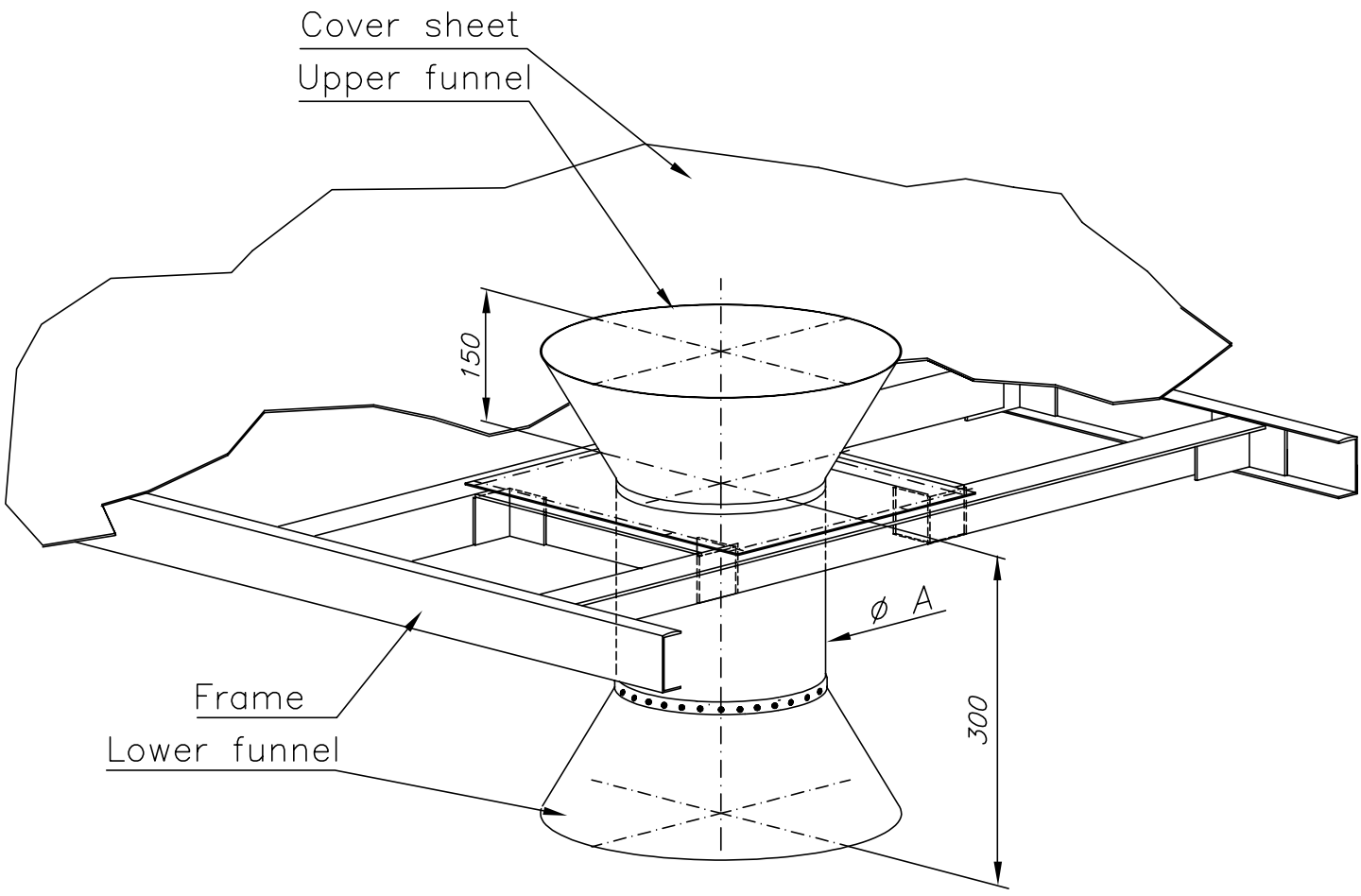
VACONO Core Dome Seal Deck *ALUMINIUM RHEINFELDEN GMBH*
D-79618 RHEINFELDEN/BADEN

DRAWINGNUMBER
SGB-00662-4

CAD-Number
00662-4E

Reservation for modifications!

Rev.Datum:



Ordering.–No.			
SS	118	117	116
A=	12”/300	10”/250	8”/200
AL	78	76	74

Reservation for modifications!

VACONO*DECK*®

Funnel

×

VACONO Core Dome Seal Deck

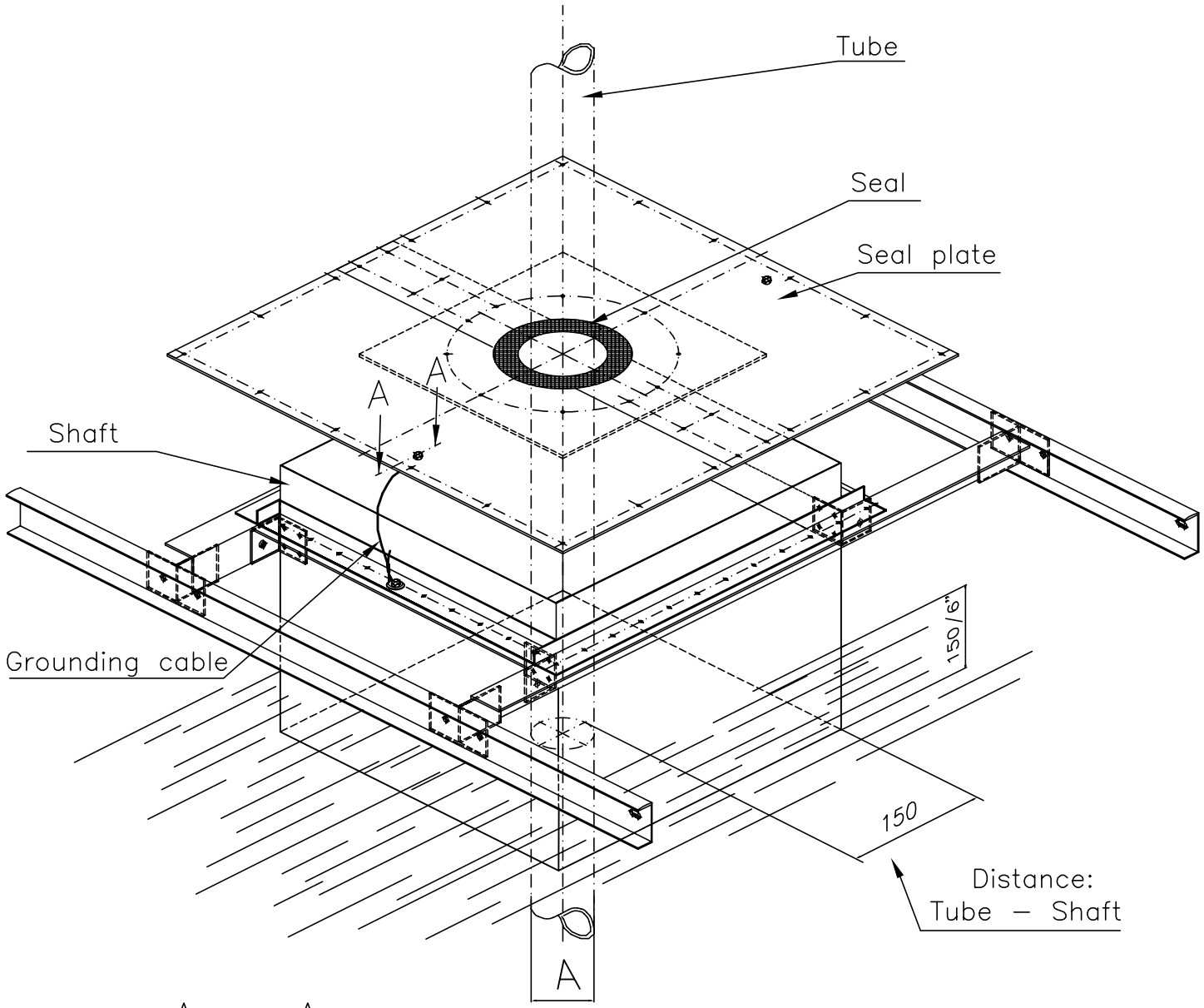
ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

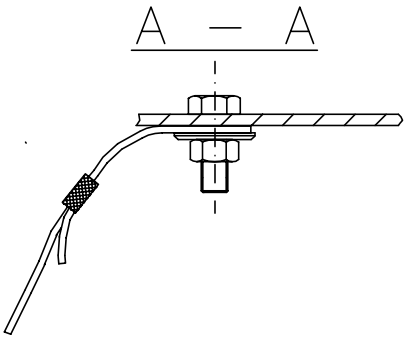
Rev.Datum:

Drawer:	21.09.94	k.brunner

DRAWINGNUMBER
SGB-00390-4

CAD-Number
00390-4E





Ordering No.					
SS	127	126	125	124	123
A	<ø600	<ø400	<ø300	<ø200	<ø100
AL	89	88	87	86	85

Reservation for modifications!

VACONO *DECK*®

Negotiation

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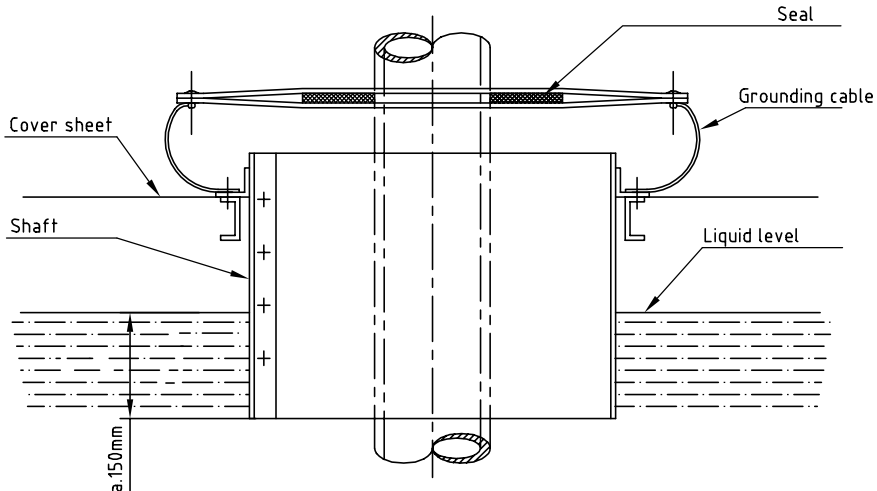
VACONO Core Dome Seal Deck ALUMINIUM RHEINFELDEN GMBH
D-79618 RHEINFELDEN/BADEN

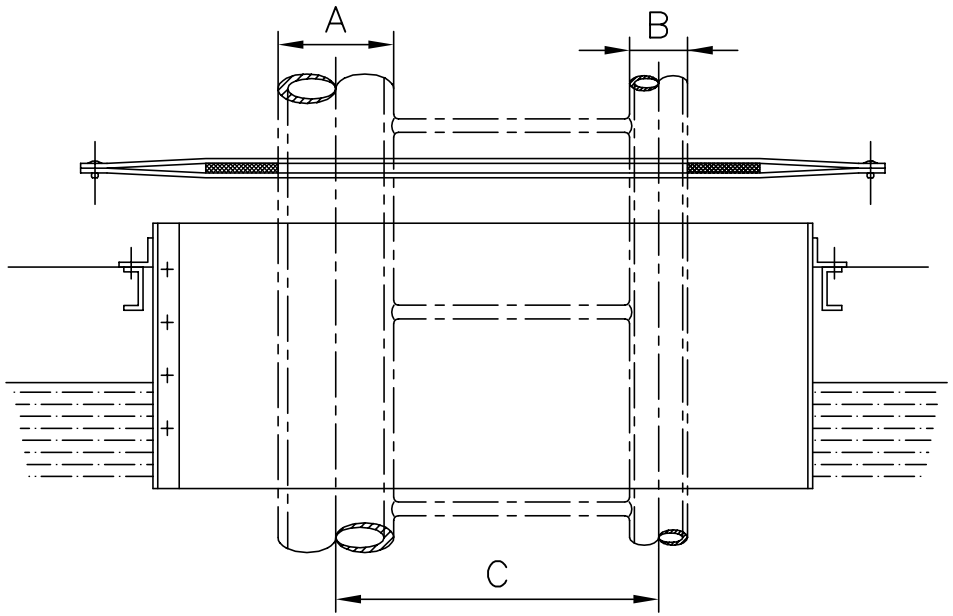
Rev.Datum:

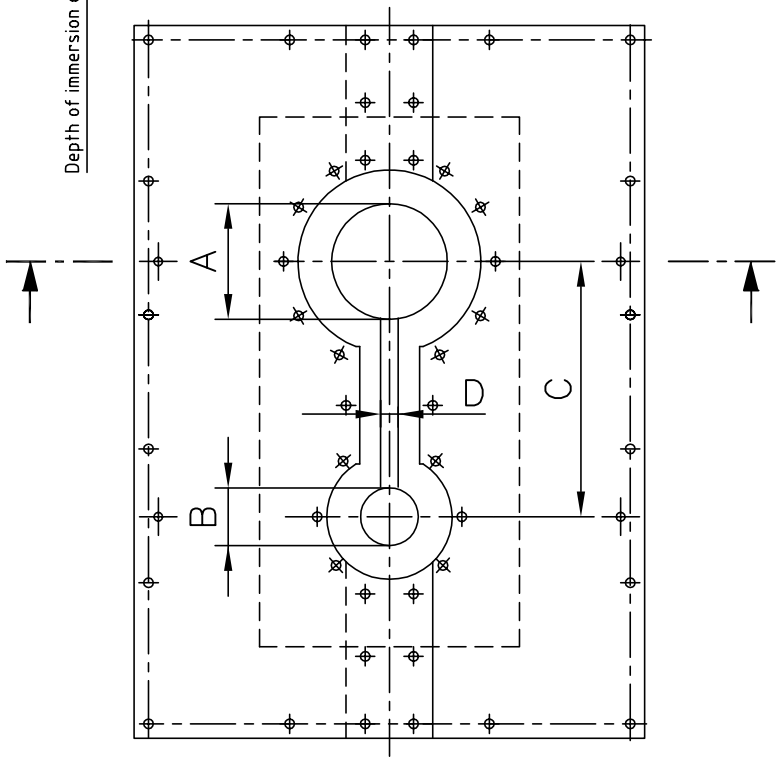
Drawer:	26.04.94	k.brunner

DRAWINGNUMBER
SGB-00401-4

CAD-Number
00401-4E







Indicate dimensions of A, B, C and D when ordering

VACONO*DECK*®

Ladder Negotiation Special

VACONO Core Dome Seal Deck — ALUMINIUM RHEINFELDEN GMBH, D-79618 RHEINFELDEN/BADEN

DRAWN	28.03.94	k.brunner

DRAWINGSNUMBER
SGB-00389-4

CAD-Number
00389-4D

Reservation for modifications

Rev.Datum:

CAD A3DOKU