OUTDOOR

ASME

Section VIII, Div.1

thorispherical head: DIN 28013

wall thickness:	6,0mm
min. wall thickness:	4,1mm
inside radius:	3208,8mm
cyl. height:	25mm
welding factor: v=	1,0
material:	AISI 304

cone

wall thickness:	7,0mm
min. wall thickness:	5,8mm
inside radius:	500mm
cyl. height:	80mm
welding factor: v=	0,85
material:	AISI 304

skirt

wall thickness:	10mm
inside diameter:	4000mm
cyl. height:	1230mm
material:	S235JR

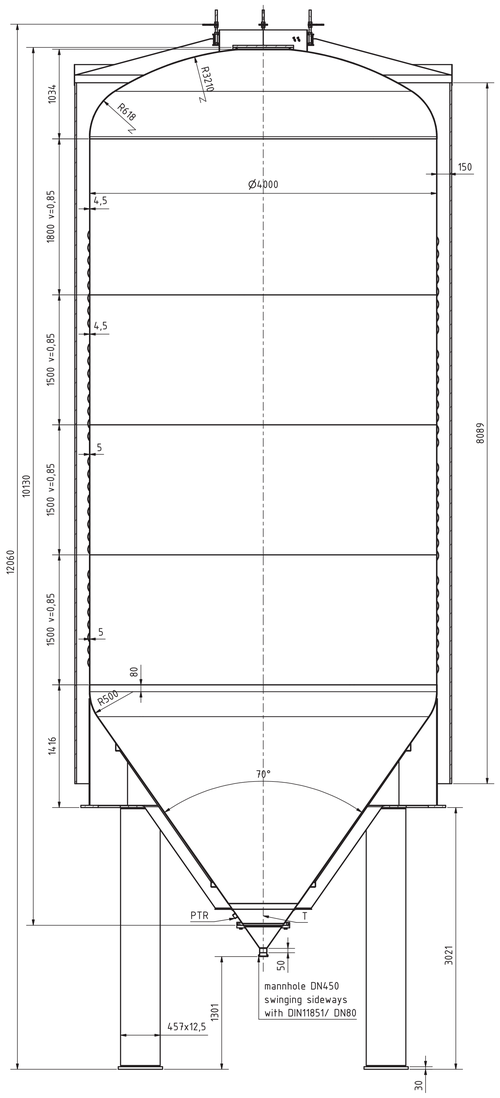
basering

inside diameter:	4210mm
outside diameter:	3810mm
height:	25mm
material:	S235JR

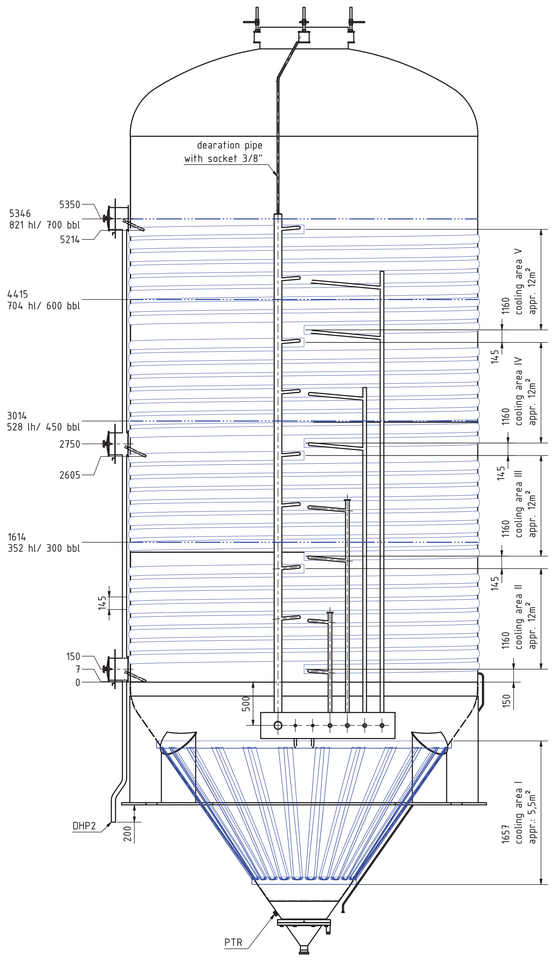
pipe leg

outside diameter :	Ø457mm
wall thickness:	12,5mm
material:	S355JR

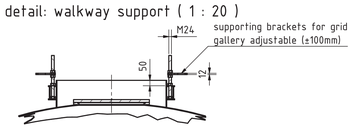
(1 : 25)

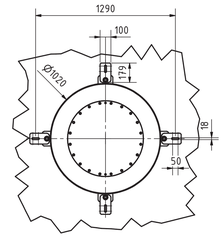


section without insulation (1 : 25)

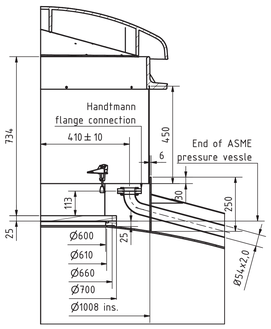


detail: walkway support (1 : 20)

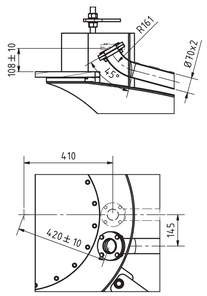




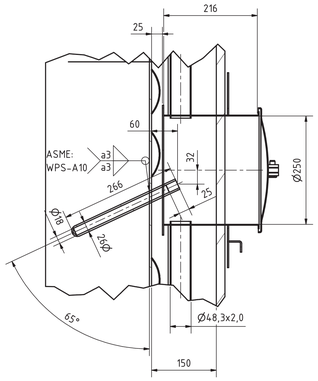
Dome/ CIP (1 : 10)



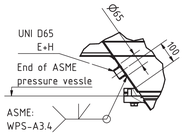
detail: dry hop pipe DHP 1 (1 : 10)



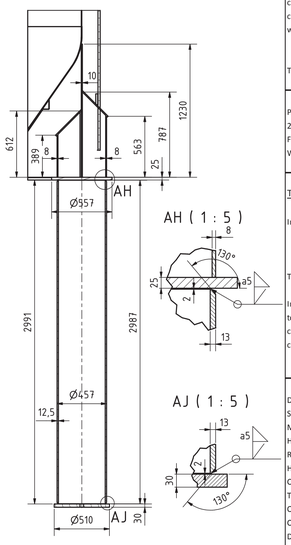
PT100 (1 : 5)



PTR (1 : 10)



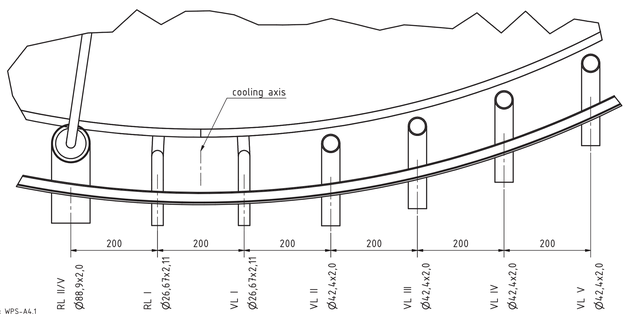
detail pipe leg (1 : 20)



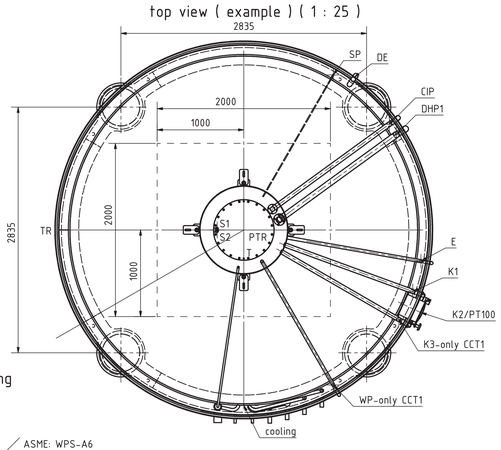
AH (1 : 5)

AJ (1 : 5)

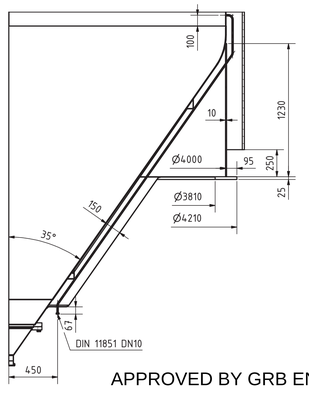
Cooling connection (1 : 5)



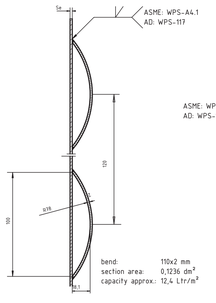
top view (example) (1 : 25)



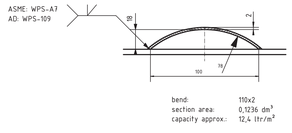
Sample pipe/ skirt (1 : 20)



Detail: Detail: cooling profile "100" cyl. part



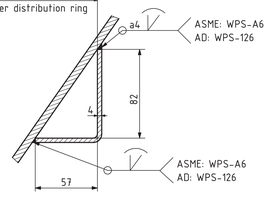
Detail: Detail: cooling profile "100" cone cooling



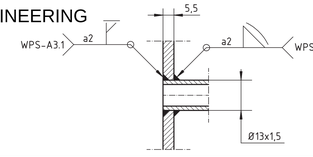
bend: 110x2 mm
section area: 0,1236 dm²
capacity approx.: 12,4 Ltr/m²

Detail: distribution ring

3400	upper distribution ring
1200	lower distribution ring



Detail:
welding - sample pipe



APPROVED BY GRB ENGINEERING
6/18/2015 @ 11:07AM

NB: according log of NB numbers

CERTIFIED BY: ZIEMANN CIMC ENRIC

NAME OF MANUFACTURER: ZIEMANN INT. GmbH

S/N: according log of Serial numbers

YEAR BUILT: 2015

ASME U

W

RT 4

TAG No.:

	MAWP kPa	°C	MDMT °C	kPa
VESSEL	-3,5/200 at	+30	-10 at	-3,5/200
JACKET I	300 at	+30	-10 at	300
JACKET II	300 at	+30	-10 at	300
JACKET III	300 at	+30	-10 at	300
JACKET IV	300 at	+30	-10 at	300
JACKET V	300 at	+30	-10 at	300
JACKET VI	at		at	

pipes and nozzles

Mark.	Description	DN	Size	DIN	Remarks
CIP	CIP-pipe	50	Ø54x2,0	11850	dome
E	drain pipe	32	Ø35x1,5	1127	dome
K1	cable pipe 1	40	Ø48,3x2,0	1127	dome
K2	cable pipe 2	40	Ø48,3x2,0	1127	PT100
K3	cable pipe 3	40	Ø48,3x2,0	1127	dome (only CCT1)
DE	drain pipe roof	50	Ø54x2,0	1127	
SP	sample pipe	10	Ø13,5x2,0	1127	
DHP1	dry hopping pipe 1	65	Ø70x2,0	11850	flanged at the top
WP	water pipe	25	Ø33,7x2	1127	dome (only CCT1)
OL	Outlet	80		11851	
VL I	cooling inlet I	20	Ø26,67x2,11	ASTM A 312	cone cooling
VL II	cooling inlet II	32	Ø42,4x2	1127	cyl. Part
VL III	cooling inlet III	32	Ø42,4x2	1127	
VL IV	cooling inlet IV	32	Ø42,4x2	1127	
VL V	cooling inlet V	32	Ø42,4x2	1127	
RL I	cooling outlet I	20	Ø26,67x2,11	ASTM A 312	cone cooling
RL II-V	cooling outlet II	80	Ø88,9x2	1127	cyl. part
PTR	pressure transmitter		UNI D65		cone
S1	swing cone hinge				
S2	swing dome cover				dome
T	name plate				
TR	transport position				

Tank explanation:

Working conditions:

	tank	cooling
design overpressure	2,0 bar	3,0 bar
test overpressure	2,6 bar	3,9 bar
vacuum resistance	350mm WC	
design temperature	-10°C/+30°C	-10°C/+30°C
earthquake loads	max. 0,725 x g	
location	outdoor	

cooling medium: Glycol -4,0°C

Surfaces:

top head:	the complete inner surface ground Ra <= 0,4µm
cyl. Part:	cold rolled material according DIN EN 10028-7; 2B
cone:	the complete inner surface ground Ra <= 0,4µm
welding seams:	internal welds ground Ra max. 0,8 µm
	external welds metallic bright

The tanks are completely pickled inside and outside and passivated.

Parts made of mild steel (S235JR/ S355JR) blasted to DIN EN ISO 8503-1 – Sa 2 1/2 and primed with 2 layers of Epoxid rust protection primer accord. ISO 12944-5/S3.17 – accord. Category C3/M
Final coat in RAL 5017 – Traffic Blue
Without any anchoring elements

Tank insulation: HR Polyurethane foam, CFC-free, min. 40 kg/m³

Insulation thickness	top head: 150mm	
	cyl. Part: 150mm	
	cone: 150mm	

The tanks protected 2-times by anticorrosive paint acc. Ziemann standard

Insulation cladding:

top head:	stainless steel, tightly welded conical roof	t=2,0mm
cyl. Part:	trapezoidal sheet of aluminium (20/125), RAL 9006	t=0,7mm
cone:	stainless steel, tightly welded, outer surface pickled	t=2,0mm

DESIGN CHECKED AGAINST ASME CODE EDITION 2013
SECTION VIII - DIVISION I
MATERIAL SA 240 GR 304; SECTION II PART A
HEAT TREATMENT: NONE
RADIOGRAPHIC EXAMINATION ACCORDING DRAWING No.: 1094081 Rev.0
HYDROTEST ACCORDING UG - 99
CHARPY IMPACT TEST EXEMPTED AS PER UHA - 51(d)
TOLERANCES ACCORDING UG 80 - 81, UW33, UW35
OUT OF ROUNDNESS <= 0,5%
CORROSION ALLOWANCE: NONE
DIMENSION: SI - UNITS
CODE CASES: NONE
CRN NUMBER: NONE
NB NUMBER: xxx - xxx

HORIZONTAL PROJECTION

Orientation of sockets exclusively as determind by the general layout

Serial number: 9618 - 9619 | Year of manufacture: 2015

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www.ziemann.com

Index	Revision	Date	Name
C		11.06.2015	CB
B	rev.	13.05.2015	CB
A	rev.	07.05.2015	CB
00	Erstanlage	21.04.2015	VS

	Date	Name
Drawn	11.06.2015	CB
Signed	17.06.2015	VS

Weight:
Material: S240 GR.304
Commission:
Project: 14300540

Client: GOLDEN ROAD BREWERY LA/ USA

Description: Cylindro-conical tank
Ø4000 MM INS.
TI = 1026HL = 874BBL

Scale	Drawing	Index	Sheet
1 : 20	1093840	C	1 / 1

A0

Consider protection mark according to DIN ISO 16016