OUTDOOR

ASME

Section VIII, Div.1

thorispherical head: DIN 28013

wall thickness:	6,0mm
min. wall thickness:	4,1mm
inside radius:	3210mm
cyl. height:	25mm
welding factor: E=	0,85
material:	AISI 304L

cone

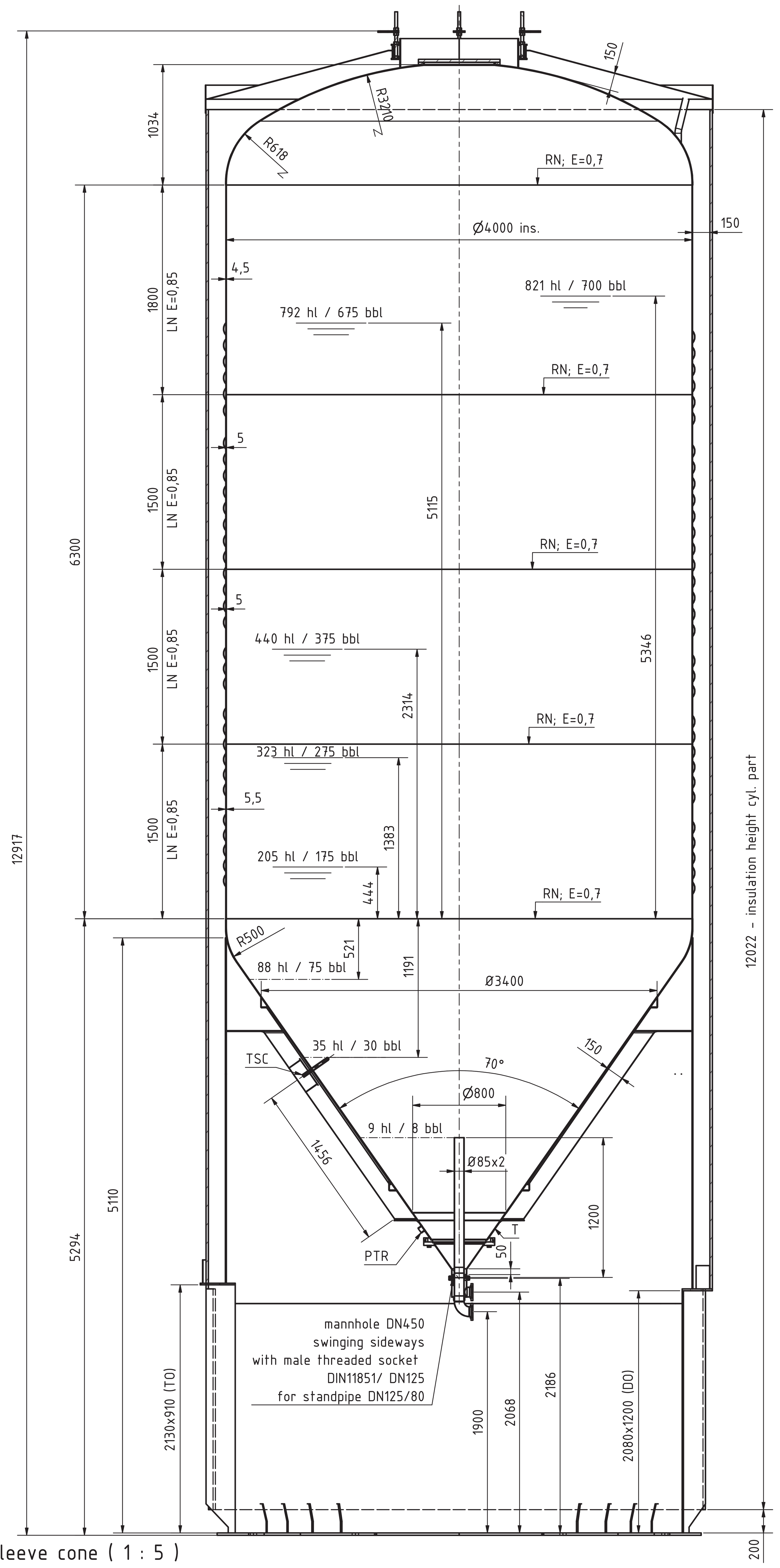
wall thickness:	7,0mm
min. wall thickness:	5,8mm
inside radius:	500mm
cyl. height:	80mm
welding factor: E=	0,85
material:	AISI 304L

skirt

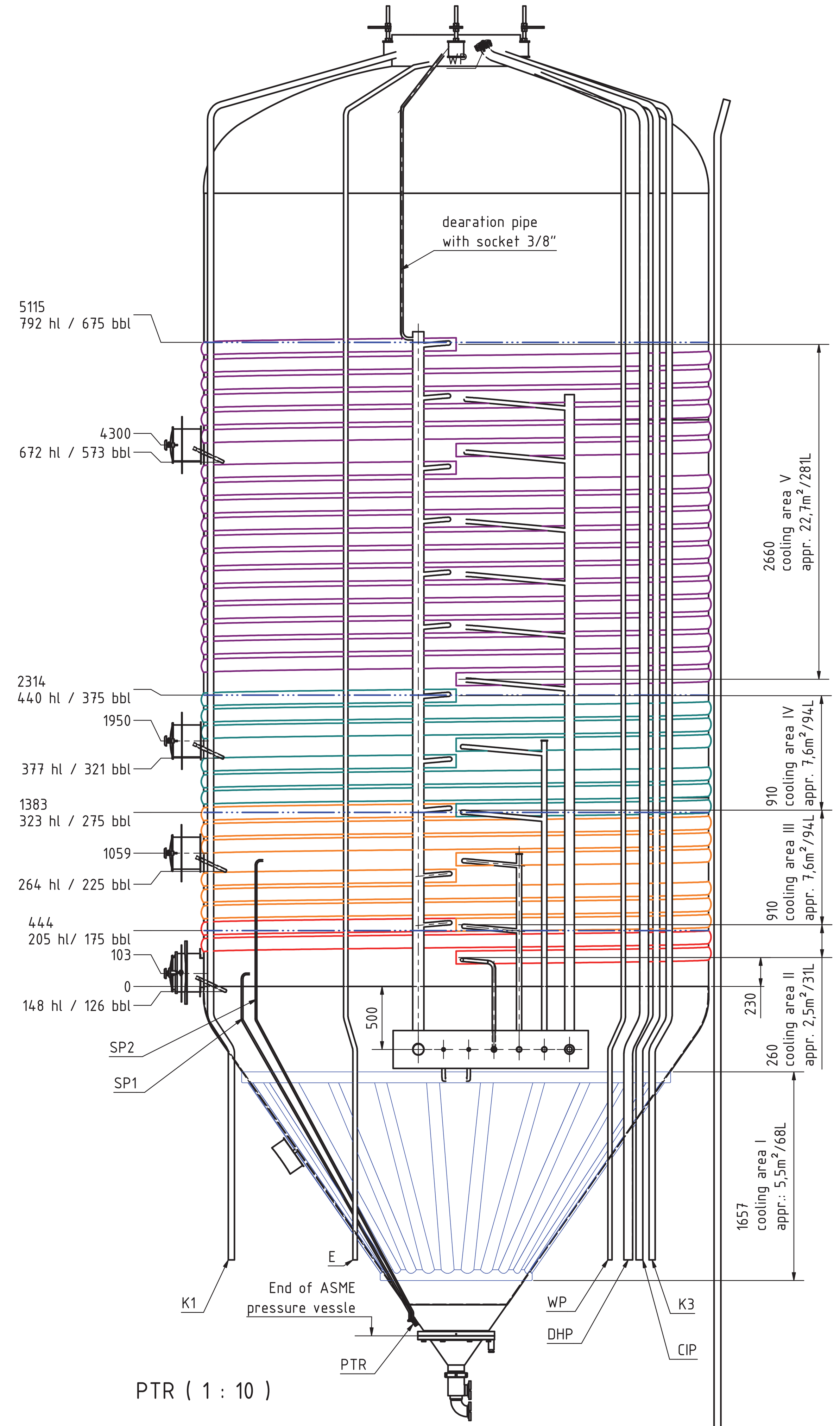
wall thickness:	8mm
inside diameter:	4000mm
cyl. height:	5110mm
material:	S235JR

basering

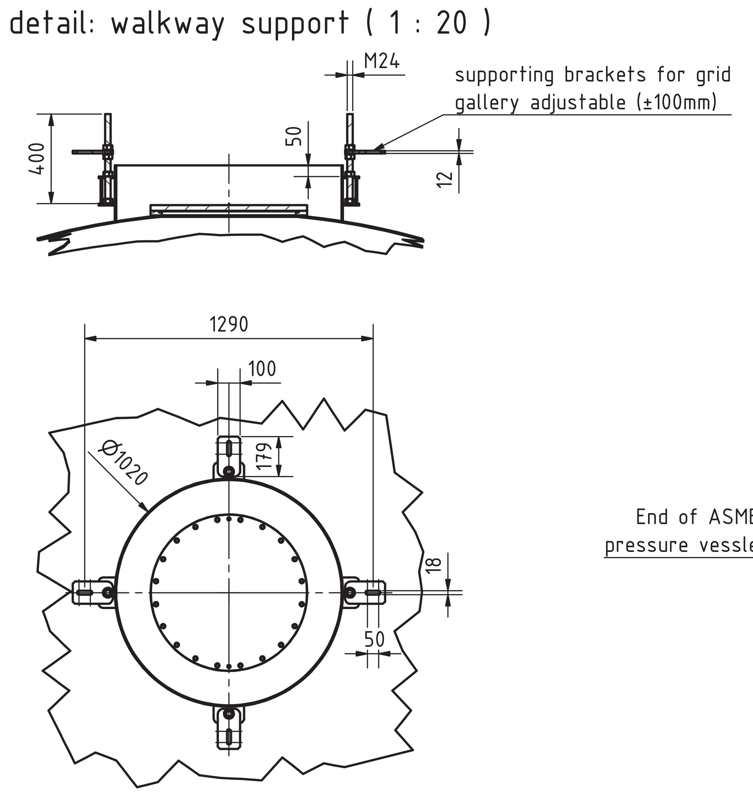
inside diameter:	4158mm
outside diameter:	3858mm
height:	20mm
material:	S235JR



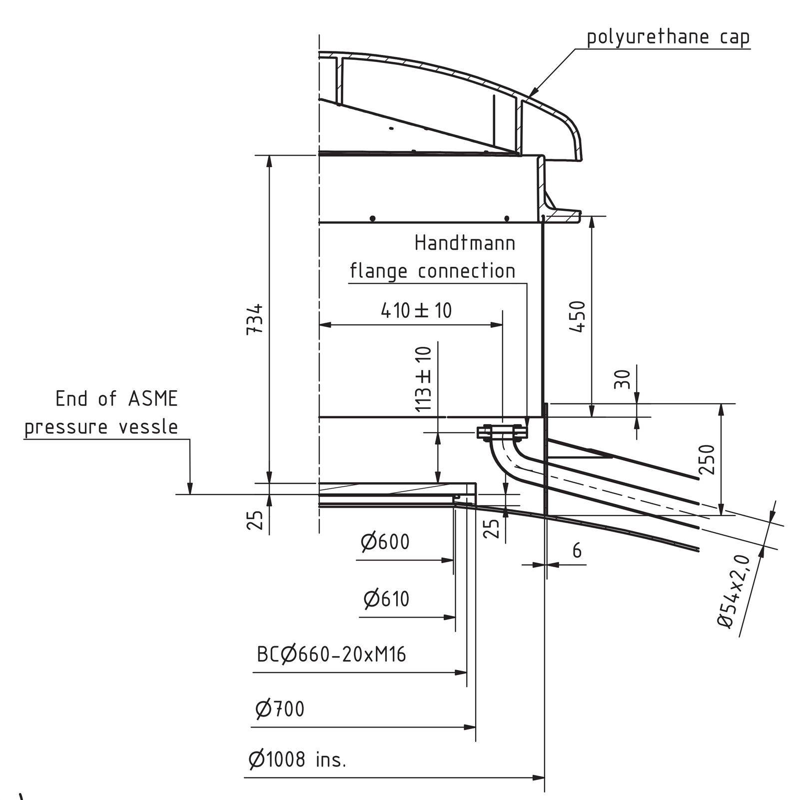
section without insulation (1 : 25)



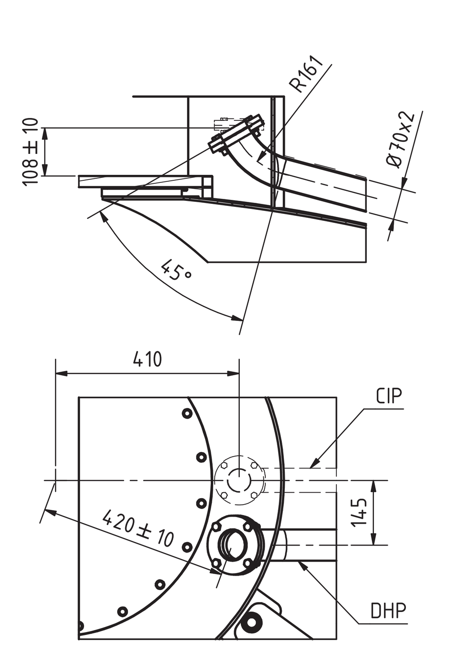
detail: walkway support (1 : 20)



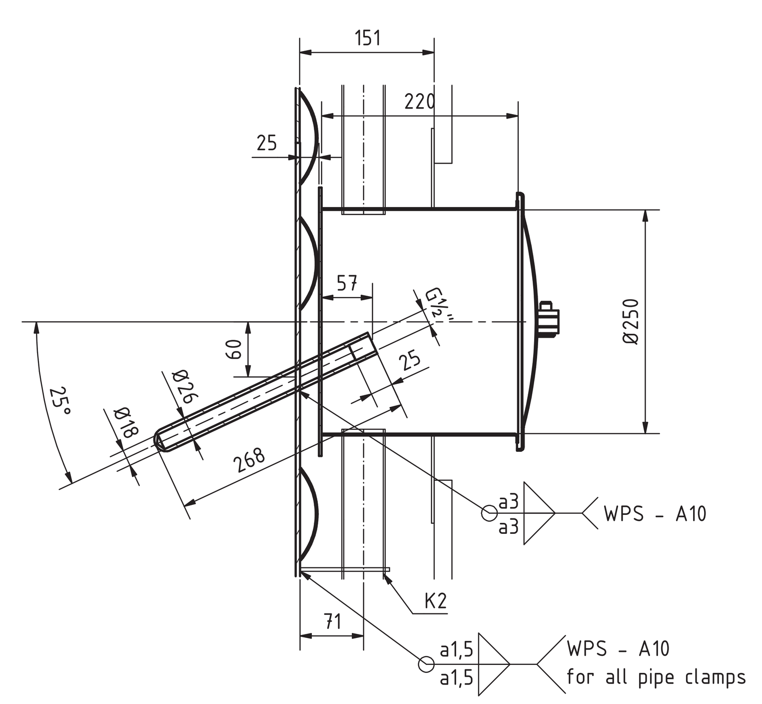
Dome/ CIP (1 : 10)



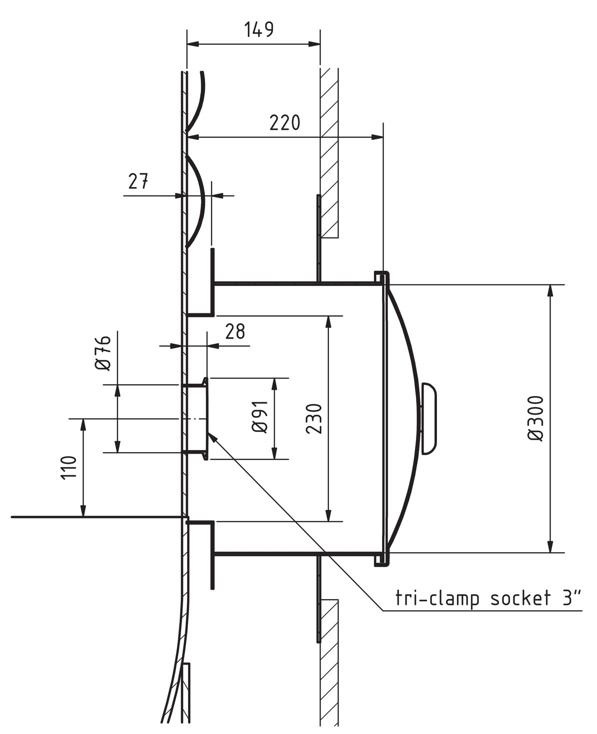
detail: dry hop pipe DHP 1 (1 : 10)



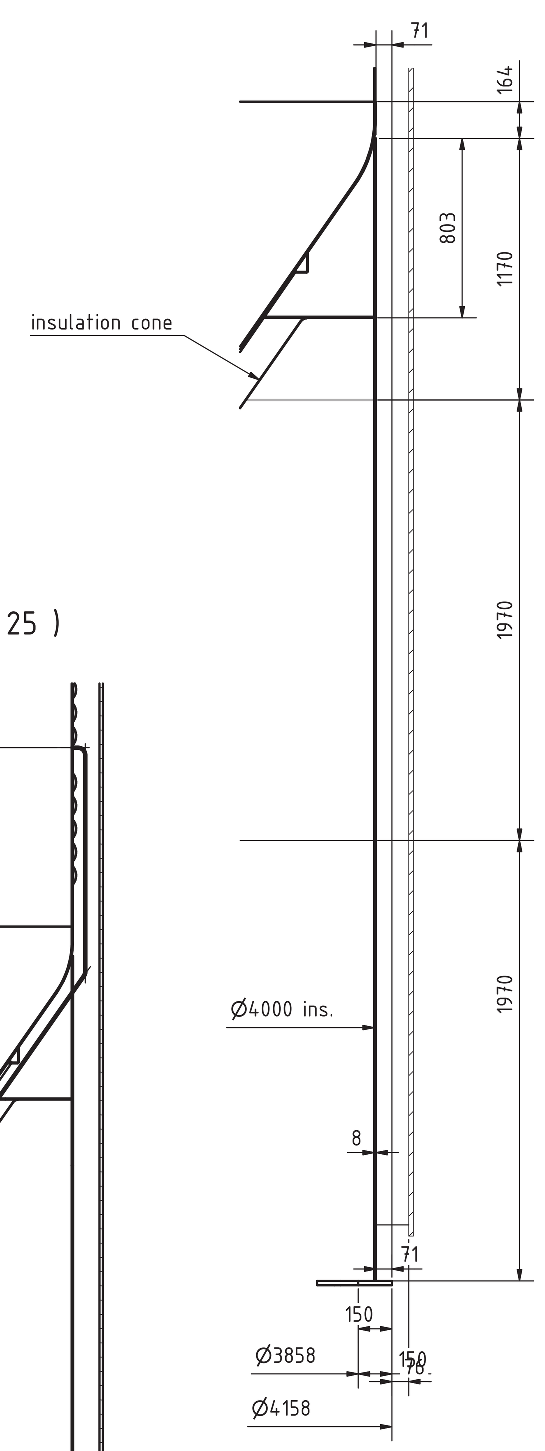
thermometer sleeve (1 : 5)
with protection case



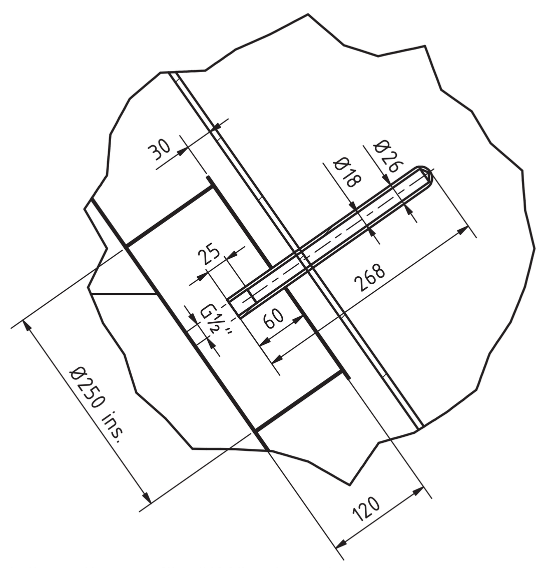
Detail: connection for (1 : 5)
carbonation stone



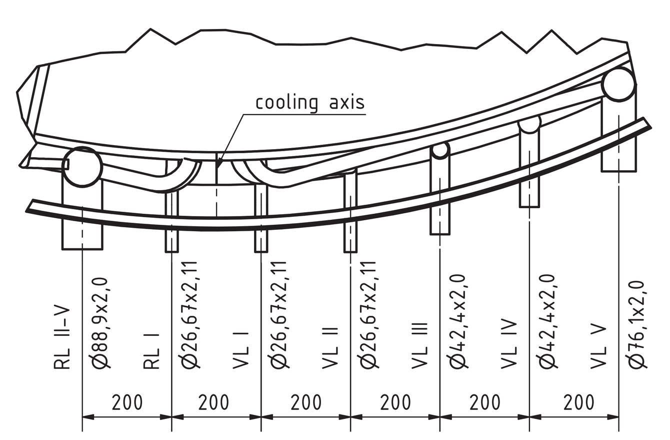
Detail: skirt (1 : 20)



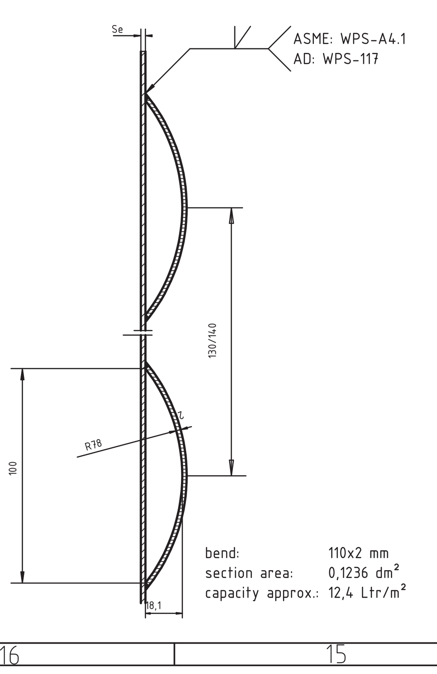
Detail: thermometer sleeve cone (1 : 5)



Cooling connection (1 : 10)

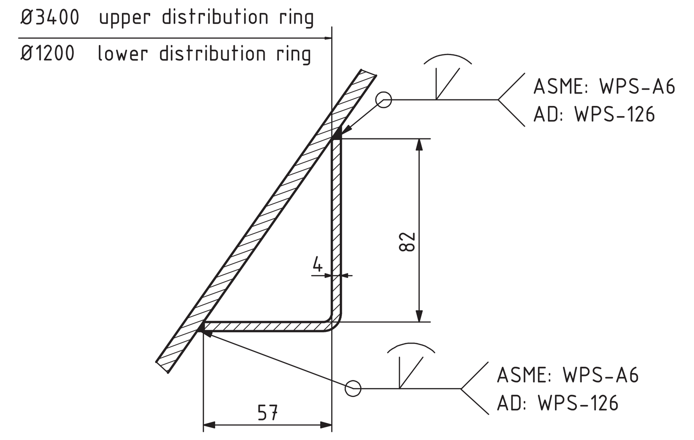


Detail: Detail: cooling profile "100" cyl. part

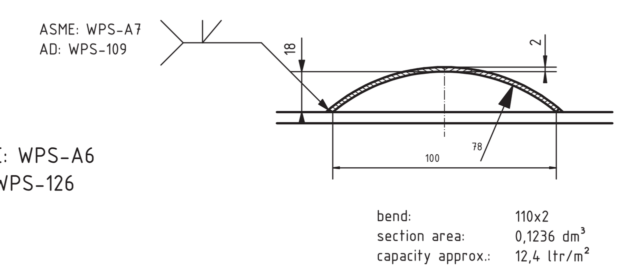


Detail: distribution ring

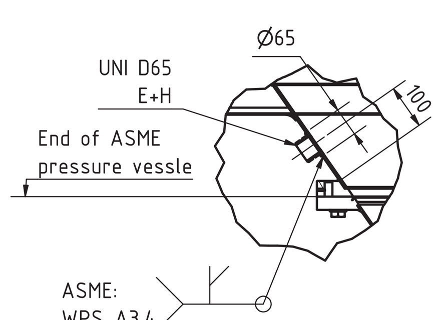
Ø3400 upper distribution ring
Ø1200 lower distribution ring



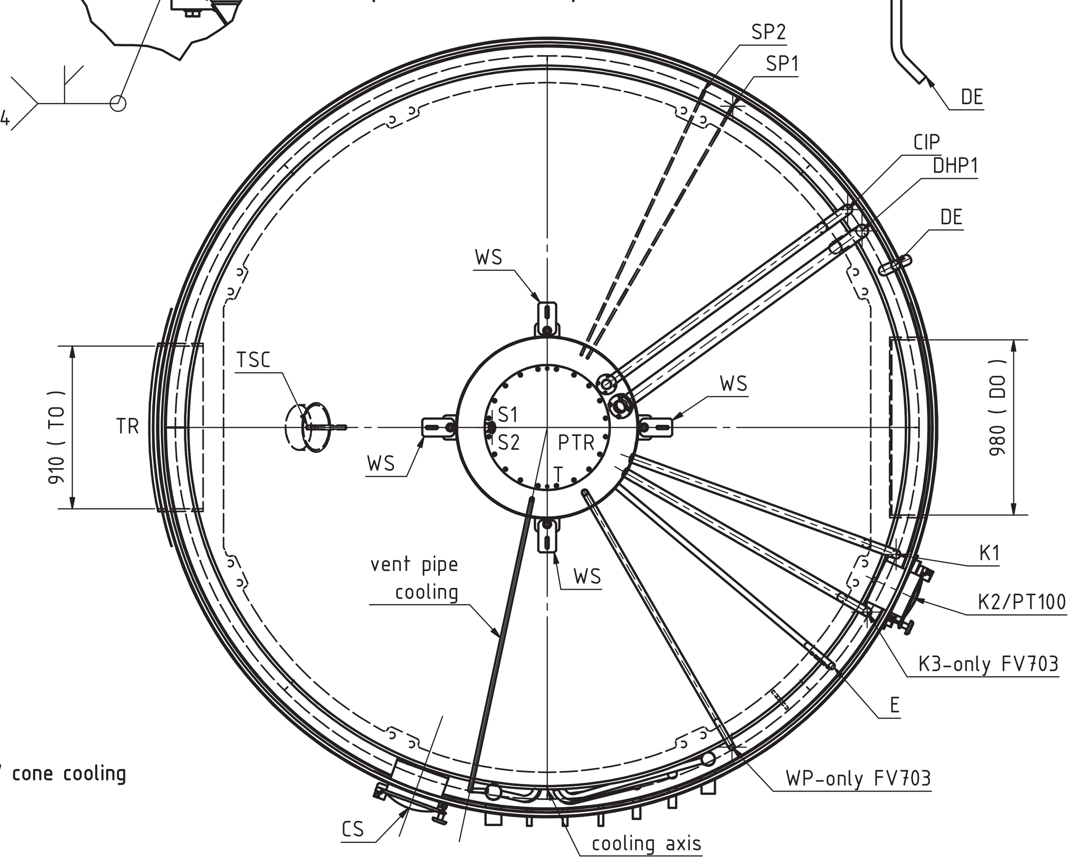
Detail: Detail: cooling profile "100" cone cooling



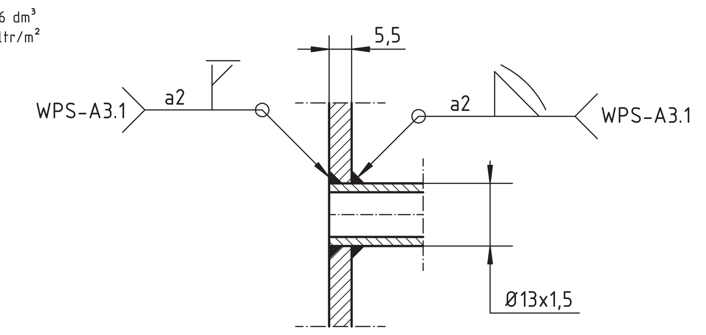
PTR (1 : 10)



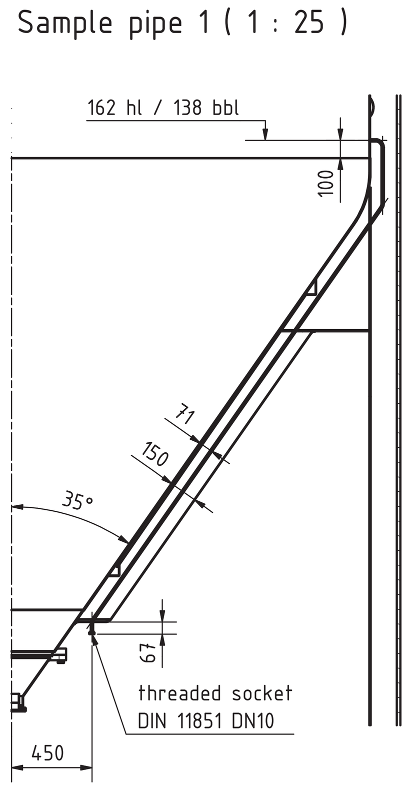
top view (example) (1 : 25)



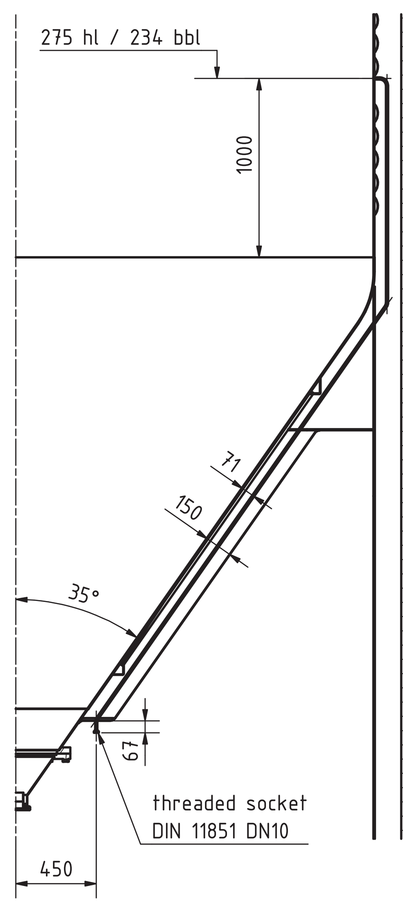
Detail:
welding - sample pipe



Sample pipe 1 (1 : 25)



sample pipe 2 (1 : 25)



NB	acc. log of NB n.	

ZIEMANN HOLVRIEKA

CERTIFIED BY:	ZIEMANN HOLVRIEKA GMBH
S/N	300785
YEAR BUILT:	2018

ASME U W RT 4 TAG NO.:

	MAWP KPA		MAWP °C	MDMT °C		MDMT KPA
VESSEL	-3,5/210	AT	+30	-10	AT	-3,5/210
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	10357	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 2	40	Ø48,3x2,0	1127	dome (only FV703)
DE	drain pipe roof	50	Ø54x2,0	1127	
SP1	sample pipe 1	10	Ø13x1,5	ASTM 312	
SP2	sample pipe 2	10	Ø13x1,5	ASTM 312	level 250 bbl
DHP	dry hopping pipe	65	Ø70x2,0	10357	flanged at the top
TSC	therm. sleeve cone				PT100
WP	water pipe	25	Ø33,7x2	1127	dome (only FV703)
OL	Outlet	125	Ø129x2	11851	stand pipe DN125/80
VL I	cooling inlet I	20	Ø26,67x2,11	ASTM 312	cone cooling
VL II	cooling inlet II	20	Ø26,67x2,11	ASTM 312	cyl. Part
VL III	cooling inlet III	32	Ø42,4x2	10217-7	
VL IV	cooling inlet IV	32	Ø42,4x2	10217-7	
VL V	cooling inlet V	65	Ø76,1x2	10217-7	
RL I	cooling outlet I	20	Ø26,67x2,11	ASTM A 312	cone cooling
RL II-V	cooling outlet II	80	Ø88,9x2	10217-7	cyl. part
WS	walkway support				
DO	door opening		2150x1200		
TO	tunnel opening		2130x910		
PTR	pressure transmitter		UNI D65		cone
CS	carbonation stone	3"	tri-clamp		process connection
S1	swing cone hinge				
S2	swing dome cover				dome
T	name plate				
TR	transport position				

Tank explanation:

Working conditions:

	tank	cooling
design overpressure	2,1 bar	3,0 bar
test overpressure	2,7 bar	3,9 bar
vacuum resistance	350mm WC	
design temperature	-10°C/+30°C	-10°C/+30°C
earthquake loads	max. 0,484 x g	
wind loads	max. 110 mph	
location	outdoor	
cooling medium:	Glycol -4,0°C	
cleaning temperature:	55°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) 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 2017
SECTION VIII - DIVISION I
MATERIAL SA 240 GR 304; SECTION II PART A
HEAT TREATMENT: NONE
NDE ACCORDING DRAWING No. :1198921 Rev.0
JOINT EFFICENCY: RN=CIRCUMFERENTIAL WELD; LN=LONGITUDINAL WELD
UPPER BOTTOM E=0,85; CYLINDRICAL PART RN: E=0,7 / LN: E=0,85, CONE E=0,85
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

HORIZONTAL PROJECTION

Orientation of sockets exclusively as determind by the general layout

Serial number: 300785 - 300786	Year of manufacture: 2018

ZIEMANN HOLVRIEKA GmbH
www.ziemann-holvrieka.com

Index	Revision	Date	Name
A	modified	22.03.2018	VS
00	-	12.03.2018	VS

Client: GOLDEN ROAD BREWERY LA/ USA

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

Drawn: 22.03.2018 | Material: S240 GR.304 | Project: 11300877-365 | Scale 1:25 | Drawing 1195812 | Index A | Sheet 1/1 | A0

Consider protection mark according to DIN ISO 16016

preliminary23.03.2018 08:50:14