PO 5014572

FILTRATTANK
75TA007
V=1200L

№ W1803201

Dwg.no A1803201.000

Client: BillerudKorsnäs Rockhammar AB

Vendor: Estanc AS

2018

DOCUMENTATION

FILTRATTANK 75TA007 V=1200L
Estanc AS Nº W1803201
BillerudKorsnäs Rockhammar AB

Part no.	Document name	Page
1	Tank manufacturer declaration	
2	Drawings and specifications	
3	Material certificates	
4	Welders and WPQR	
5	Manufacture inspections	
6	NDT documentation	
7	Other documents	

SÄILIÖN VALMISTAJAN VAKUUTUS
TANK MANUFACTURER DECLARATION

Asiakas ja osoite	**BillerudKorsnäs Rockhammar AB** **Inköp, SE-71880, Frövi, Sweden**		Customers name and address
Toimitus osoite			Delivery address
Valmistusnumero / Serial number (s)	**W1803201**	Valmistus vuosi / Year of construction	**2018**
Todistuksen numero ja tarkastus laitos			Certified inspection firm and address
Standardi numero / Standard number	**EN14015**	Materiaali / Material	**1.4307**

Säiliön tyypi / Type of tank

maanpäällinen (X) aboveground	maanalainen ( ) underground	lieriömäinen (X) cylindrical
vaakasuora ( ) horisontal	pystysuora (X) vertical	suorakulmainen ( ) rectangular
yksi vaippanen (X) single wall	kaksin vaippanen ( ) double wall	hitsattu (X) welded

Kapasiteeti (L) / Capacity (L)	**1200**	Laiten mitat (mm) / Dimensions (mm)	**D1100 x 1475**
Sallittu lämpötila (°C) / Temperature (°C)	**0 / 64**	Sallittu paine (mbar) / Pressure (mbar)	**-20 / 200**
Sisältö / Product	**slam / sludge; Gr.2**	Ominaispaino / Specific gravity	**1000**

Koeponnistus / Test pressure

Säiliö	ilma ( ) air	**24h**	vesi (X) water	Tank
Ulkovaippa	ilma ( ) air		vesi ( ) water	Intersitial space

Koeponnistus aika **05.10.2018** / Date of inspection

Pintakäsittely / Surface coating

Sisäpuolinen	**Acid pickling**	Inside	Ulkopuolinen	**Acid pickling**	Outside

Huomautus: / Remarks

Säiliö on valmistettu painelaitteiden turvallisuus säädösten mukaan

On tarkastettu, että säiliö on tiivis, eikä siinä ole pysyviä muodon muutoksia

Hitsaus ja pintakäsittely vastaa tilausta

This tank is produsd according to safety rules of pressure vessels.

It has been inspected that the tank is tight and there were no permanent deformation and structure.

Weldings and surface treatment of the tank are according to the orders.

Tarkastus laitos ja osoite / Certified inspection firm and address

Inspecta Estonia OÜ, Teaduspargi 8, Tallinn ( ) Estanc (X)

Valmistaja tehdäs / Manufacturer

ESTANC AS ärireg. nr. 10416492

Põrguvälja tee 5A, 75308, Rae vald, Harjumaa, Estonia

Sertifioitu tarastaja ja todistuksen numero / Sertified inspector and certificate number

Tõnis Tuuder **SS-164-17**

Päivämäärä ja allekirjoitus / Date and signature

T. Tuuder

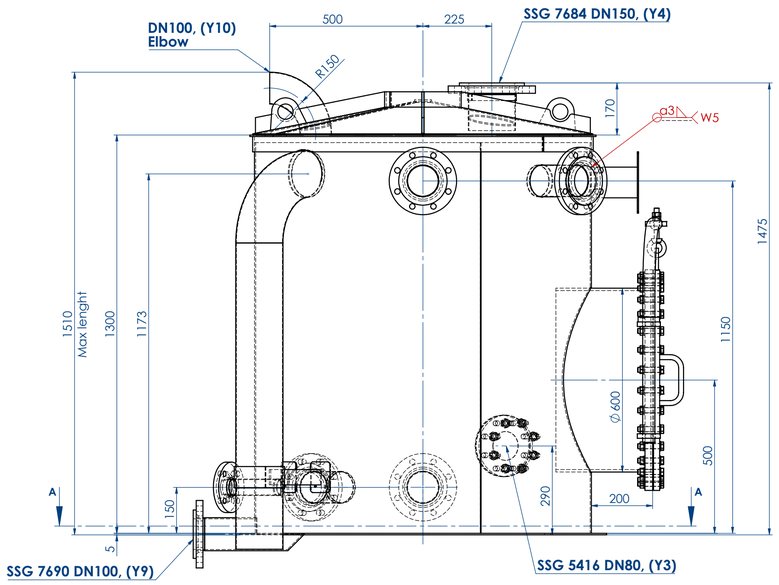
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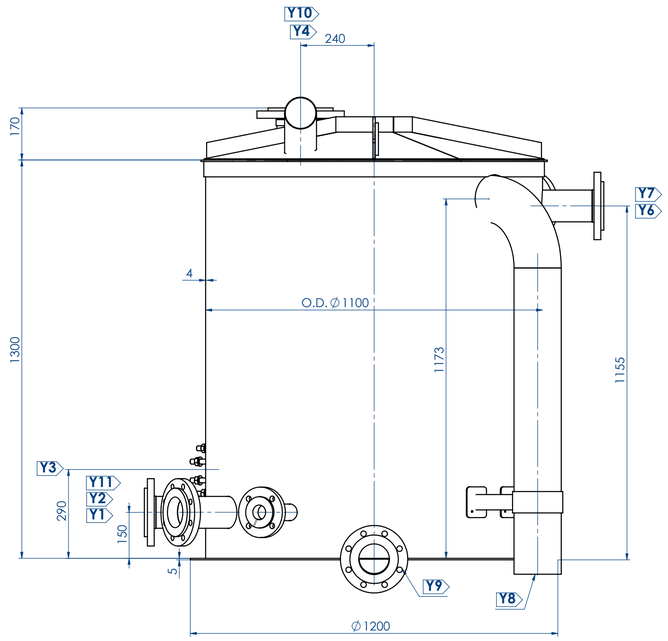
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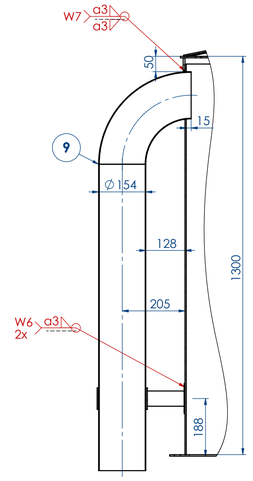
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26-10-2018

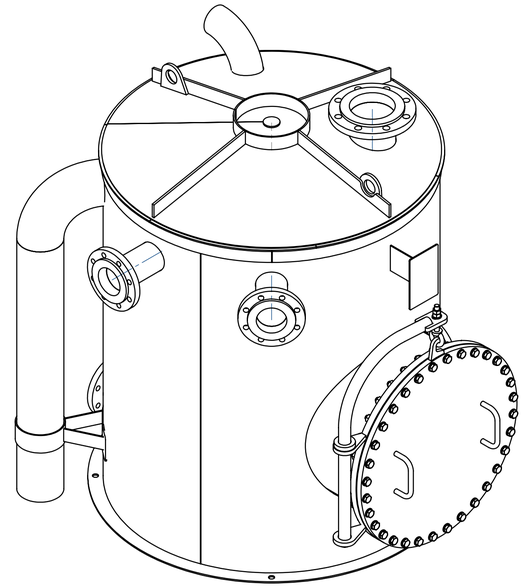
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REV.	CODE	DESCRIPTION	DATE	DESIGNER



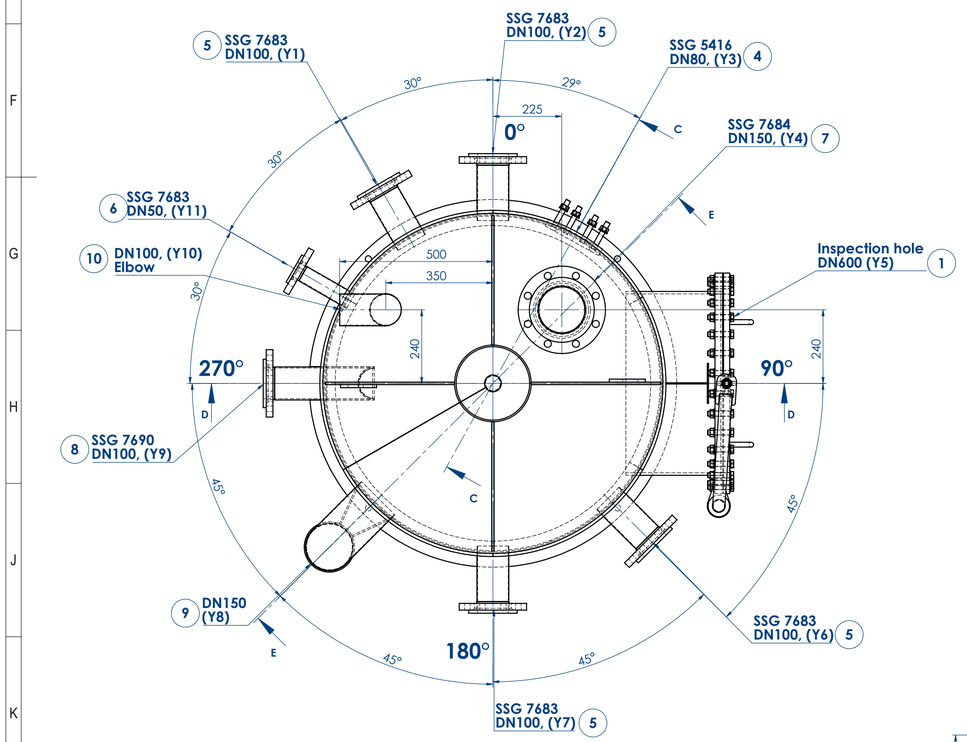


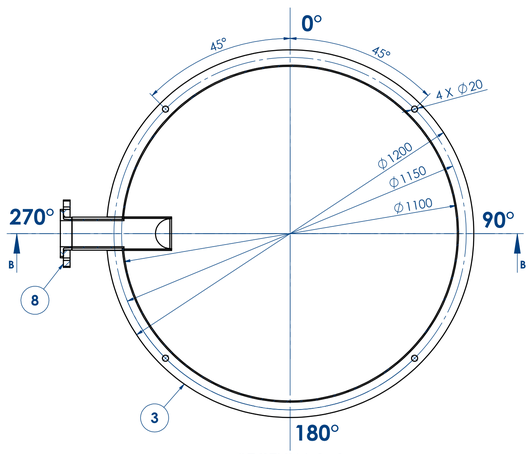


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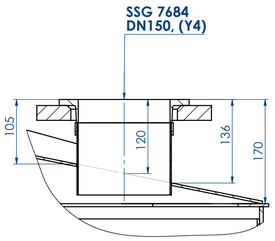


NOZZLE	DESCRIPTION	SIZE	PN	STANDARD	PIPE THICKNESS	MATERIAL
Y1	UTLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y2	UTLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y3	NIVÄMÄTNING	DN80	40	SSG 5416 E-21	Ø 200 x 25	1.4307
Y4	INLOPP/GIVARE	DN150	10/16	SSG 7684	Ø 154 x 2	1.4307
Y5	SIDOMANLUCKA	DN600		-	Ø 600 x 8	1.4307
Y6	INLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y7	INLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y8	ÖVERLÖP	DN150		-	Ø 154 x 2	1.4307
Y9	TÖMMNING	DN100	10/16	SSG 7690	Ø 108 x 4	1.4307
Y10	AVLUFTNING	DN100	10/16	SSG 7686	Ø 104 x 2	1.4307
Y11	INLOPP	DN50	10/16	SSG 7683	Ø 54 x 2	1.4307



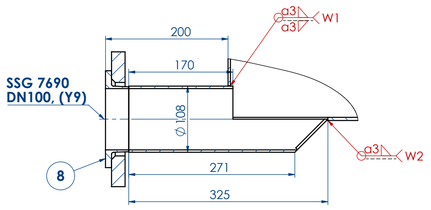


SECTION **A-A**

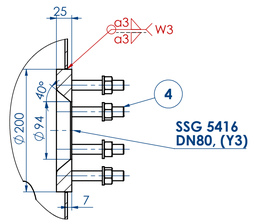


NOZZLE Y4
SCALE 1: 5

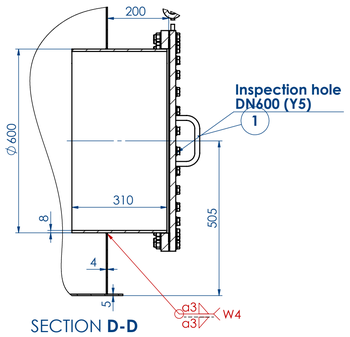
Design code	EN14015	
Volume	L	1200
Allowable pressure Ps max/min	bar (g)	0,2/-0.02
Operating pressure Po max/min	bar (g)	0,2/-0,02
Allowable temperature Ts max/min	°C	64/0
Operating temperature To max/min	°C	64/-0
Corrosion allowance c	mm	0
Minimum weld joint efficiency	-	-
Testing group	-	-
Test pressure Pt	bar (g)	24 H water
Contents	-	Slam / Sludge
Contents Group		2
Materials	Ladder & Rails	
	Shell	1.4307 EN10028-7
Insulation thickness	mm	None
Surface treatment	Inside	Acid pickling
	Outside	Acid pickling



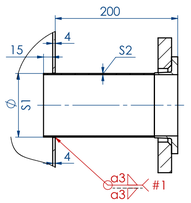
SECTION **B-B**
SCALE **1 : 5**



SECTION **C-C**
SCALE **1 : 5**



SECTION **D-D**



Nozzle	SIZE	S1 [mm]	S2 [mm]	Weld numbers pipe + shell
Y1	DN100	Ø 104	2	W8
Y2	DN100	Ø 104	2	W9
Y4	DN150	Ø 154	2	W10
Y6	DN100	Ø 104	2	W11
Y7	DN100	Ø 104	2	W12
Y10	DN100	Ø 104	2	W13
Y11	DN50	Ø 54	2	W14

POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
10	1		ELBOW 90°	DN100 D104 x 2 x 90° SSG7832E		1.4307 EN10253-4	1.21	
9	1	A1803201.102	ÖVERLÖP	DN150		1.4307	12	
8	1	A1803201.103	SSG7690 DN100	DN100		1.4307	8	
7	1	A1803201.105	SSG7684 DN150	DN150		1.4307	10	
6	1	A1803201.104	SSG7683 DN50	DN50		1.4307	4	
5	4	A1803201.101	SSG7683 DN100	DN100		1.4307	6	
4	1	A1803201.107	SSG5416-09, DN80 PN40	DN80		1.4307	6	
3	1	A1803201.200	SHELL WELDING	-		1.4307	223	-
2	1	A1803201.106	NAME PLATE SUPPORT	-		1.4307	1	
1	1	A1803201.100	MANHOLE DN600 (Type 4.2)	DN600		1.4307	142.3	

Quantity: 1	Weight: 433 kg	Remark: -		All sharp edges R1	Sheet: 1/1
Designed: J.Lillepõld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:10(A1)	Date: 25.06.2018	Working no. W1803201

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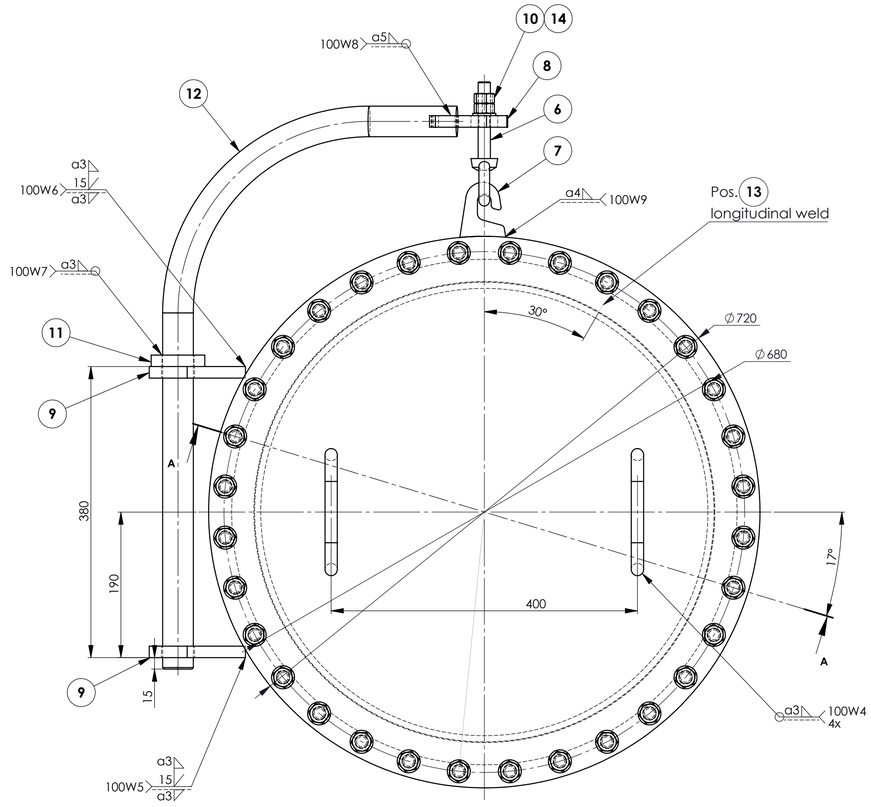
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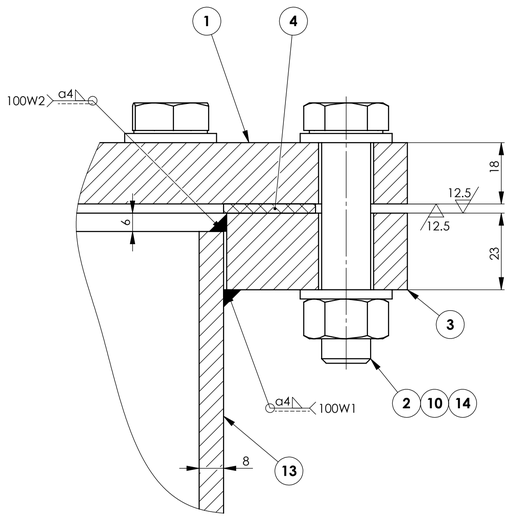
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Drawing no. A1803201.000_REV0

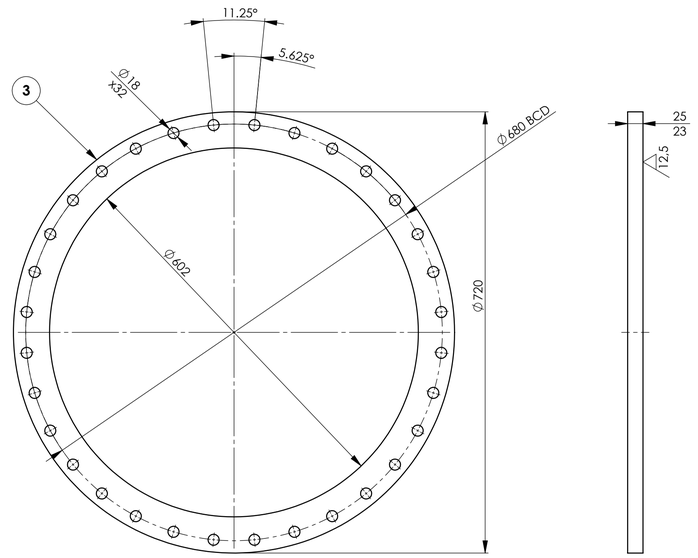
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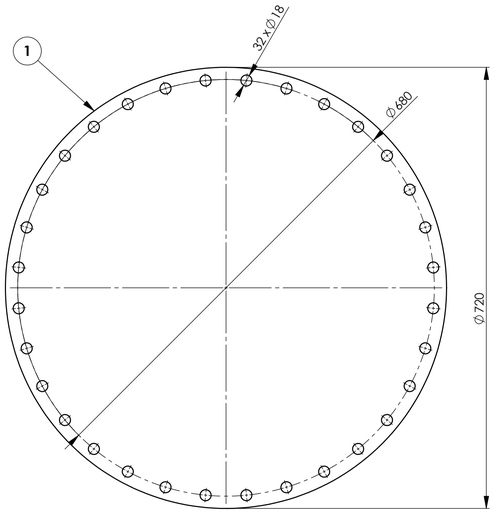
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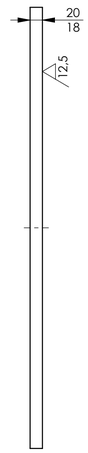


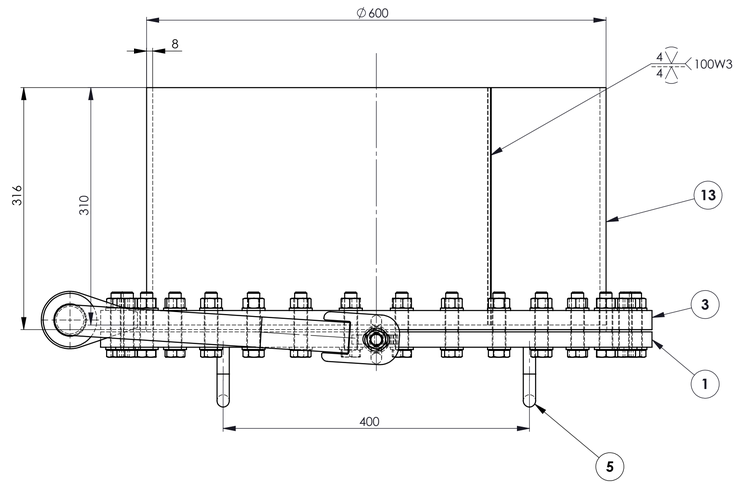


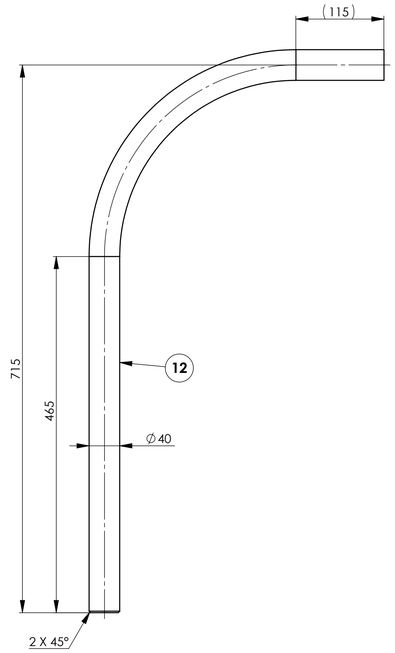
SECTION A-A
SCALE 1 : 1











Pos	QTY.	Detail	Dimensions	Material	Weight	Remarks
14	65	WASHER	M16 DIN 125	A2	0.0	B00350
13	1	SHELL	8 x 310 x 1856	1.4307 EN10028-7	36.4	OD600, LD+JV
12	1	ROUND BAR	D40 x 1013(+10)	1.4307 EN10028-7	9.7	P00673
11	1	RING	15 x D70 x d42	1.4307 EN10028-7	0.3	Q00082
10	34	NUT	M16 DIN934	*A2	*0.0	B00452
9	2	LUG	15 x 75 x 125,5	1.4307 EN10028-7	0.6	Q00108
8	1	LUG	15 x 65 x 100	1.4307 EN10028-7	0.5	Q00106
7	1	LUG	12 x 60 x 72	1.4307 EN10028-7	0.2	Q00109
6	1	LIFTING EYE BOLT	M16 x 100 (Dwg.: 9217)	A2	0.4	B03715+B02471
5	2	HANDLE	D16 x 78 x 166 (Dwg.: 9212)	1.4404	0.4	Q00088
4	1	GASKET	3 x D660/d600	Temasil HT	0.2	G99999; P1803201.103
3	1	FLANGE	25 x D720/d602	1.4307 EN10028-7	22.6	LD+JT
2	32	BOLT	M16 x 75 DIN 931	A2	*0.0	B01075
1	1	BLIND FLANGE	20 x D720	1.4307 EN10028-7	63.0	LD+JT

Quantity:	Weight: 142.3 kg	Remark: All sharp edges R1			Sheet: 1/1
Designed by: Designer	Checked by: J.Lehtme	Approved by - date:	Scale: 1:4(A1)	Date: 26.10.2015	Working no. Standard

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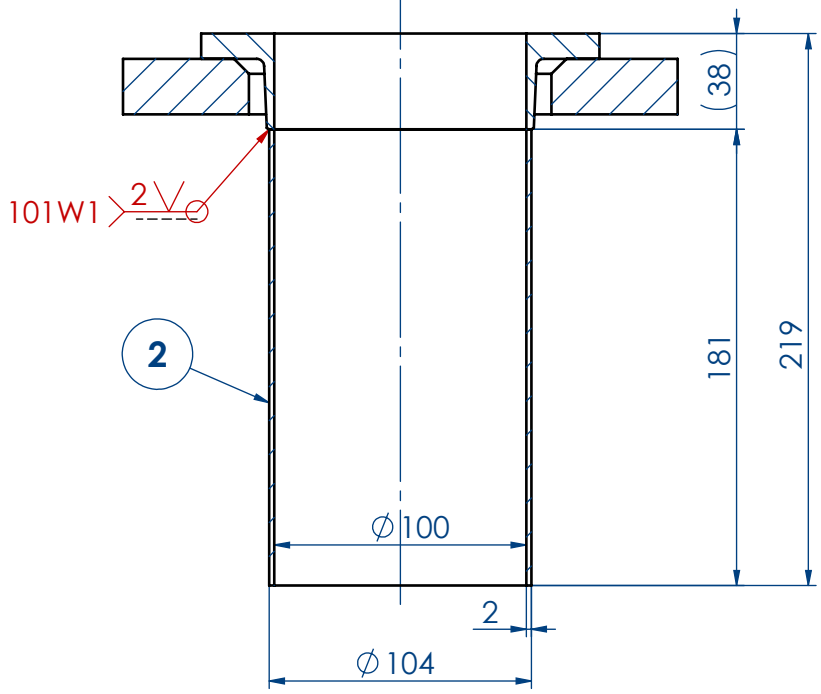
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Project: Standard

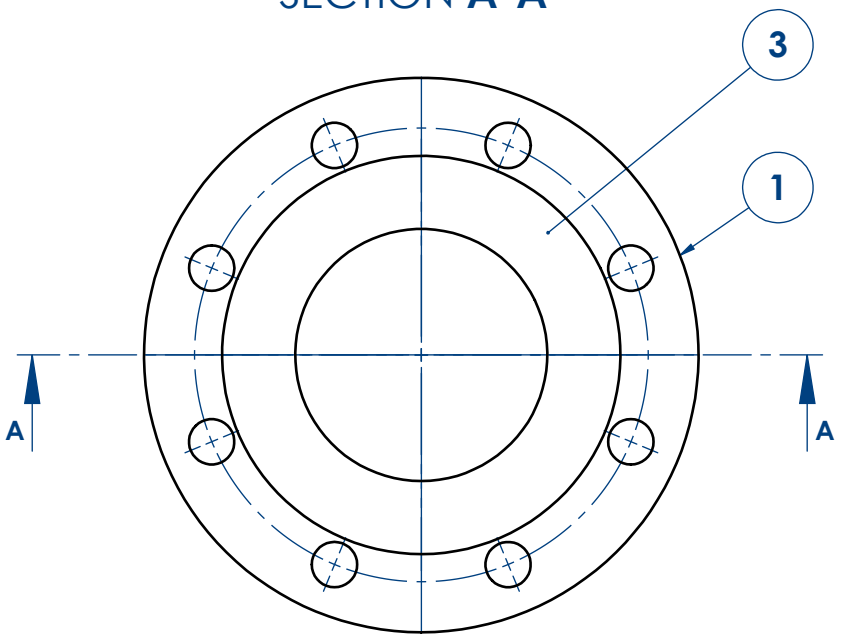
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Drawing sheet ISO 5457:1999 - A1

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



SECTION **A-A**



POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
3	1		WELDRING NECK	DN100 PN16 SS-EN1092-1:2007		1.4307	1.2	Type 35M
2	1		PIPE	D104 X 2 X 181	181	1.4307 EN10217-7	1	
1	1		LOOSE FLANGE	DN100 PN16 SS-EN1092-1:2007		1.4404	4.3	Type 02M

Quantity: 4	Weight: 6kg	Remark:			Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:3(A4)	Date: 29.06.2018	Working no. W1803201

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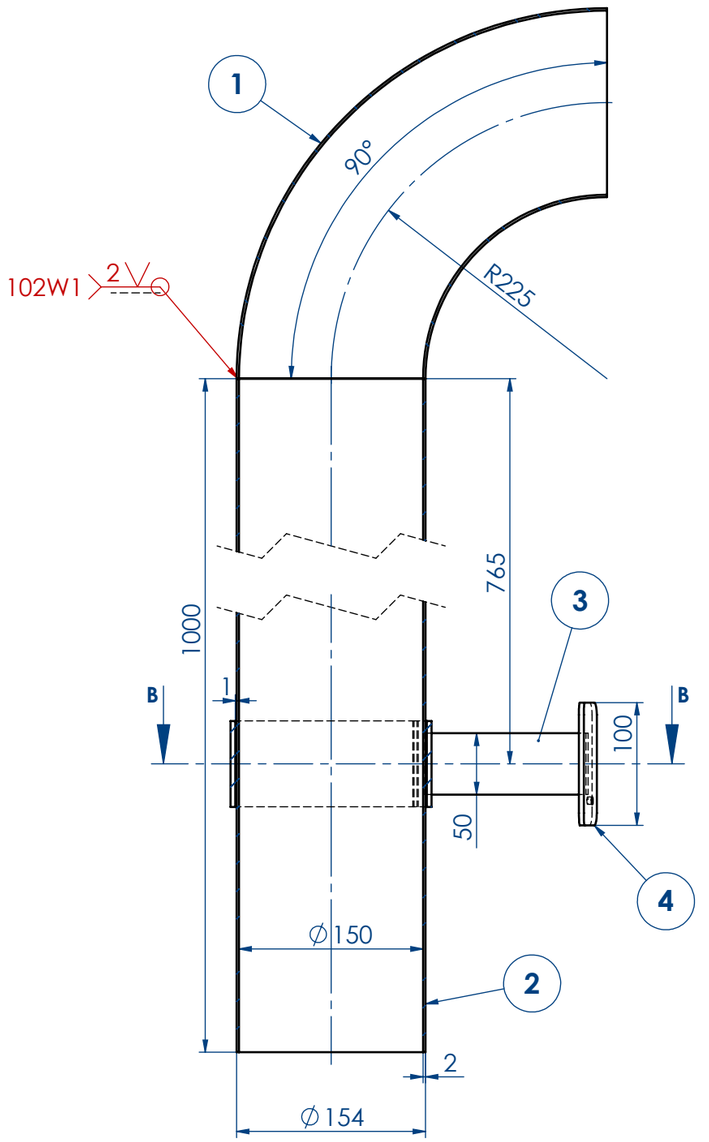
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Drawing no. A1803201.101_REV0

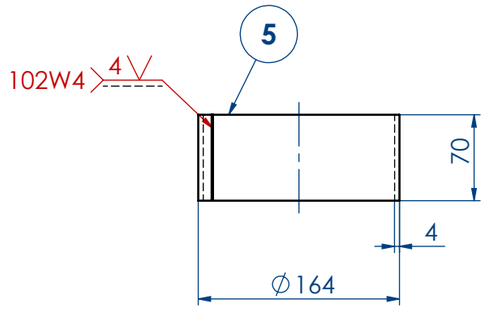
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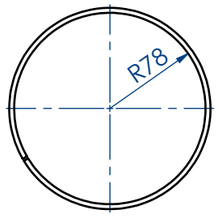
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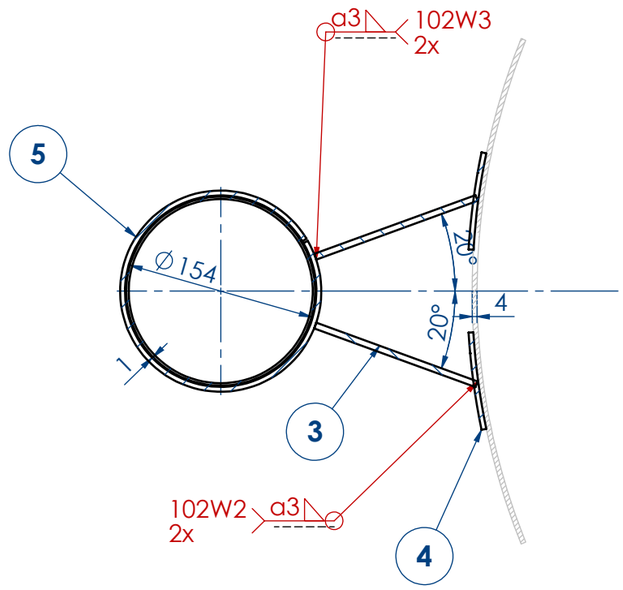
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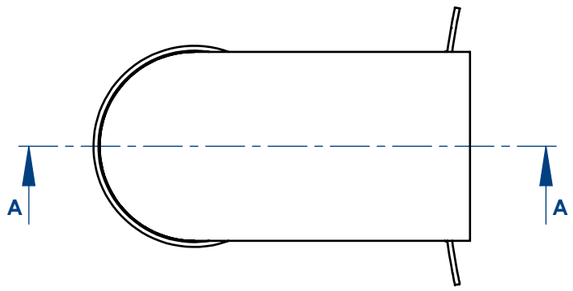
SECTION **A-A**







SECTION **B-B**



POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
5	1		SHELL	4 x 70 x 500		1.4307 EN10028-7	1	OD164
4	2		RE-PAD	4 x 80 x 100		1.4307 EN10028-7	0	LD+JV
3	2		PLATE	5 x 50 x 140		1.4307 EN10028-7	0	LD
2	1		PIPE	D154 X 2 X 1000	1000	1.4307 EN10217-7	8	
1	1		ELBOW 90°	DN100 D154 x 2 x 90° SSG7832E		1.4307 EN10253-4	2.70	

Quantity: 1	Weight: 12kg	Remark:			All sharp edges R1 / Sheet: 1/1
Designed: J.Lillepõld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:5(A3)	Date: 6.07.2018	Working no. W1803201

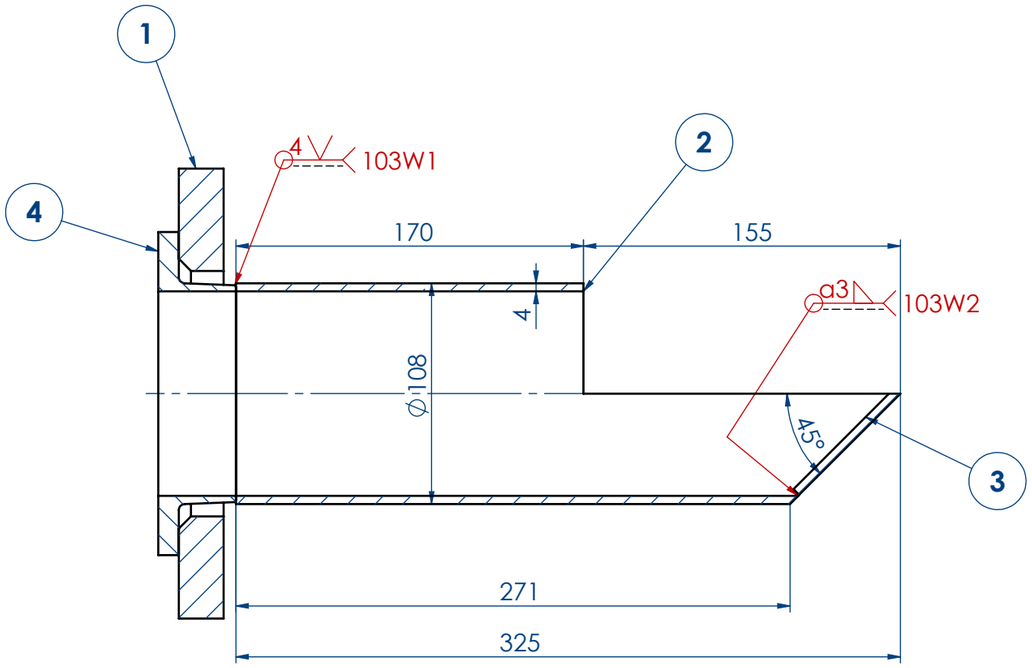
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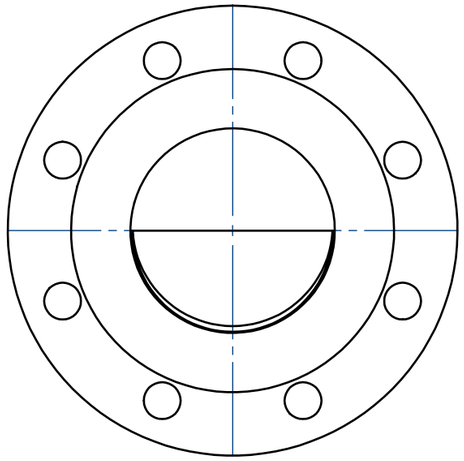
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Project: BILLERUDKORSNÄS

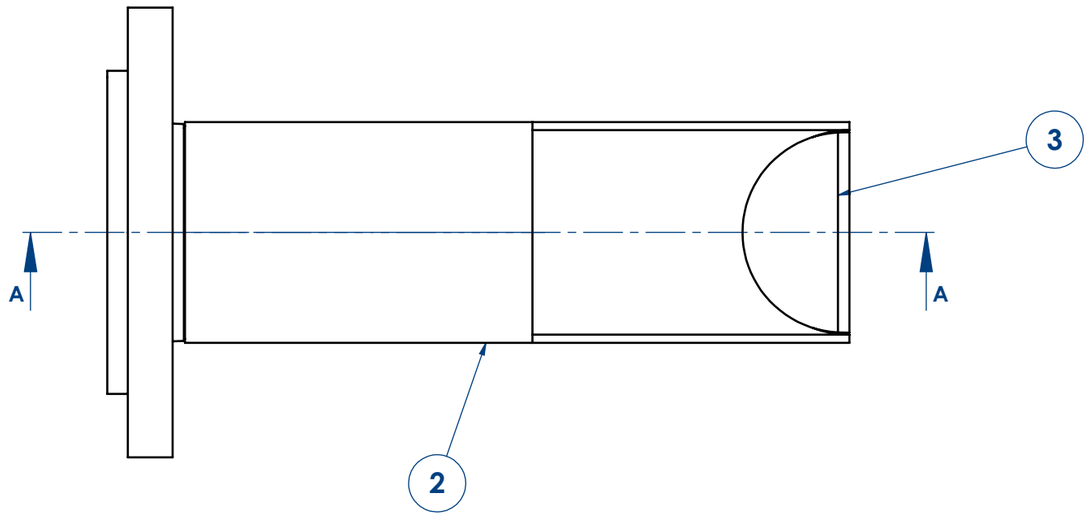
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REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER





SECTION **A-A**



POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
4	1		WELDRING NECK	DN100 PN16 SS-EN1092-1:2007		1.4307	1.2	Type 35M
3	1		PLATE	4 X 98 X 70		1.4307 EN10028-7	0	LD
2	1		PIPE	D108 X 4 X 325	325	1.4404 EN10217-7	2	
1	1		LOOSE FLANGE	DN100 PN16 SS-EN1092-1:2007		1.4404	4.3	Type 02M

Quantity: 1	Weight: 8kg	Remark:			All sharp edges R1 / Sheet: 1/1
Designed: J.Lillepõld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:3(A3)	Date: 9.07.2018	Working no. W1803201

ESTANC

Title: SSG7690 DN100

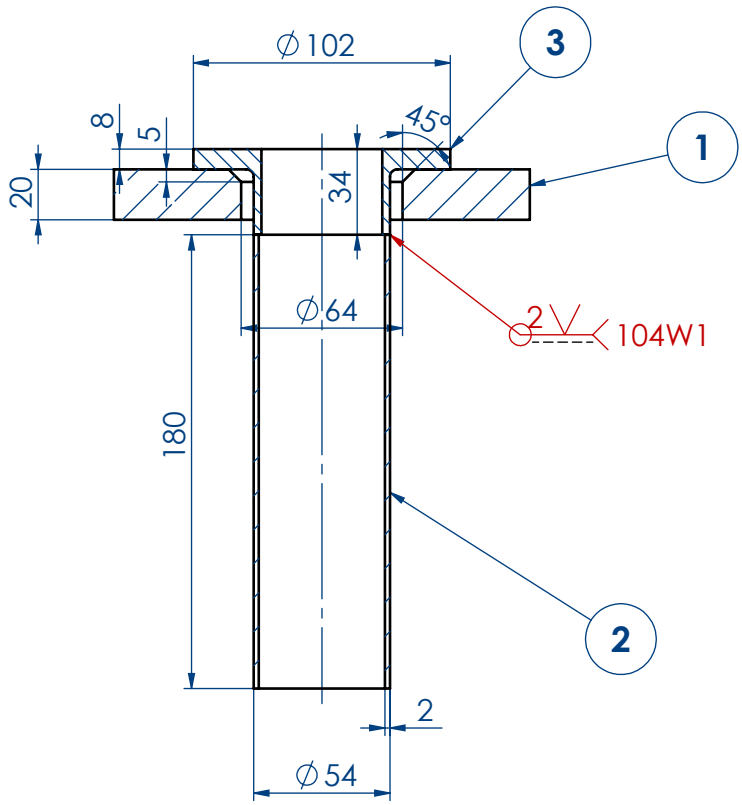
Project: BILLERUDKORSNÄS

Drawing no. A1803201.103_REV0

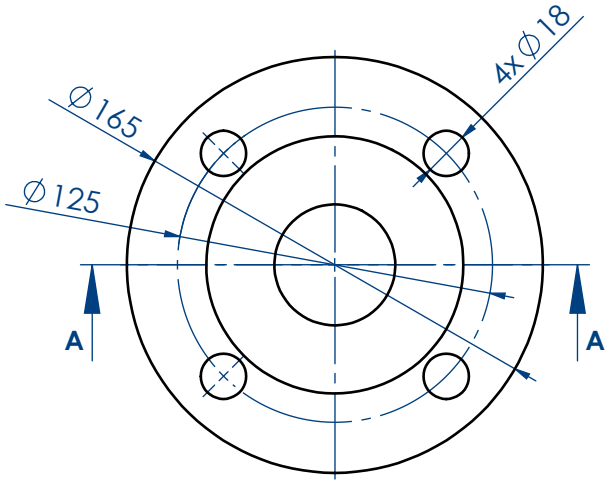
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Drawing sheet ISO 5457:1999 – A3

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



SECTION **A-A**



POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
3	1		WELDRING NECK	DN50 PN16 SS-EN1092-1:2007		1.4307	0.5	Type 35M
2	1		PIPE	D54 X 2 X 180	180	1.4307 EN10217-7	0	
1	1		LOOSE FLANGE			1.4307	2.7	Type 02M

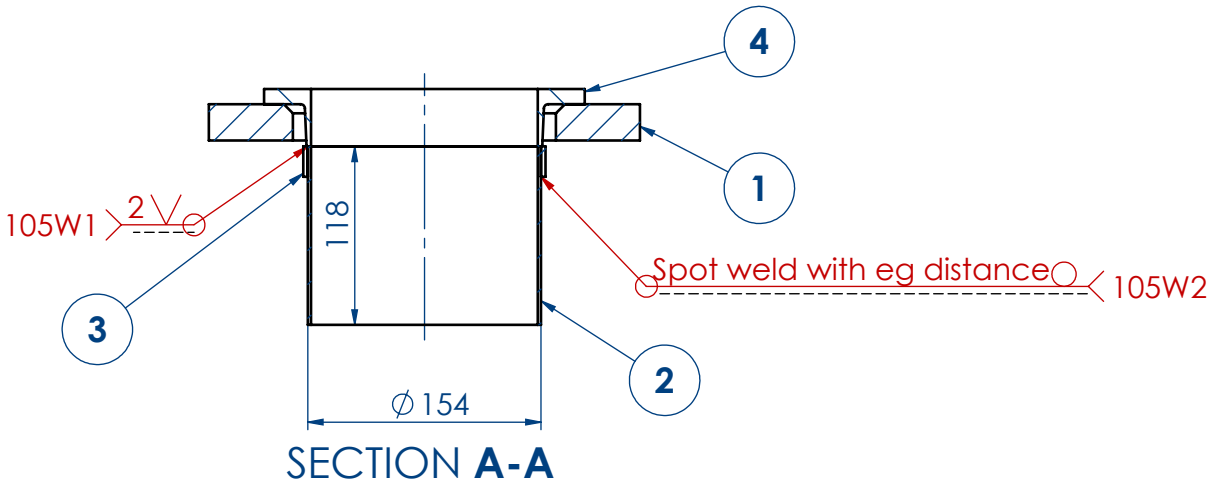
Quantity: 1	Weight: 4kg	Remark:			Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:3(A4)	Date: 9.07.2018	Working no. W1803201

Title: SSG7683 DN50

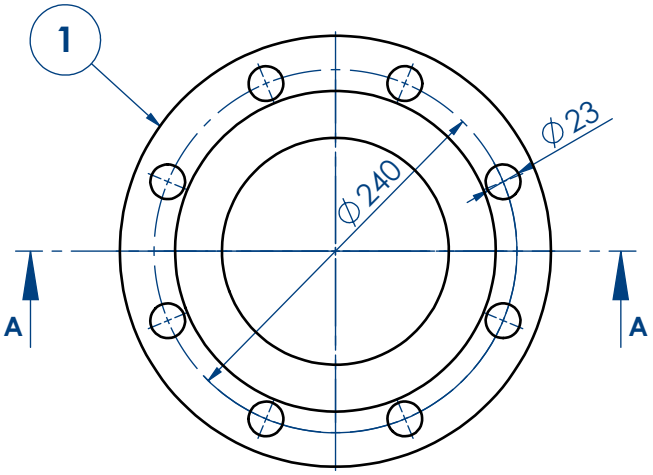
Project: BILLERUDKORSNÄS

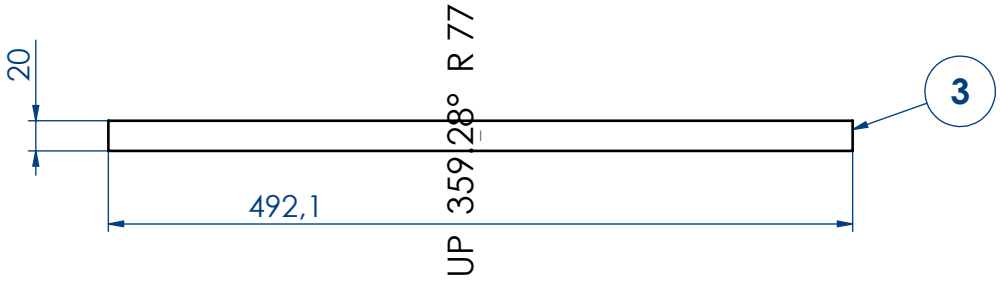
Drawing no. A1803201.104_REV0

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



SECTION **A-A**





POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
4	1		WELDRING NECK	DN150 PN16 SS-EN1092-1:2007		1.4307	1.8	Type 35M
3	1		SHELL	3 x 20 x 492		1.4307 EN10028-7	0	OD160
2	1		PIPE	D154 x 2 x 118	118	1.4307 EN10217-7	1	
1	1		LOOSE FLANGE	DN150 PN16 SS-EN1092-1:2007		1.4307	6.9	Type 02M

Quantity: 1	Weight: 10kg	Remark:		All sharp edges R1	Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:5(A4)	Date: 9.07.2018	Working no. W1803201

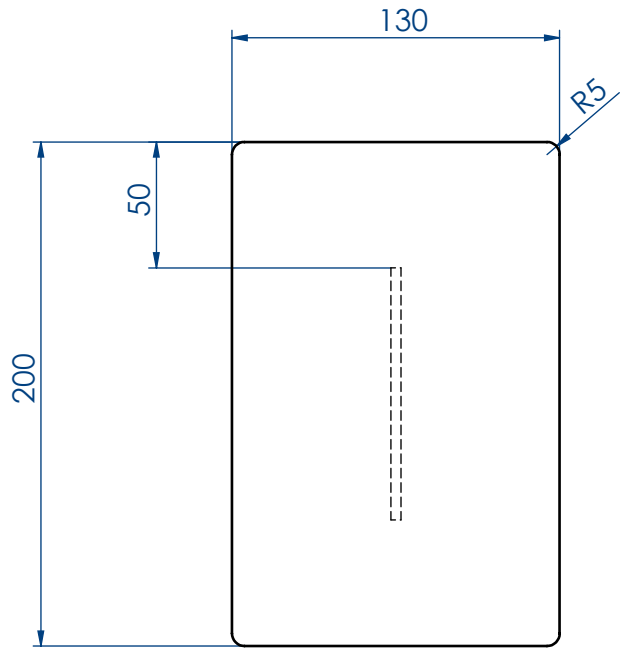
Title: SSG7684 DN150

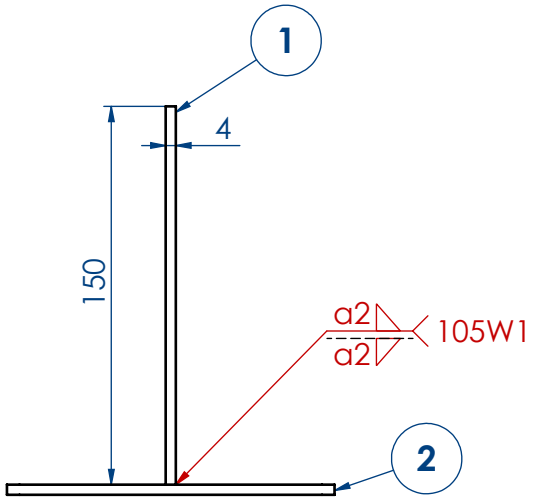
Project:	Drawing no.
BILLERUDKORSNÄS	A1803201.105_REV0

K:\Projektid\2018\W18032 BillerudKorsnäs AB, Tanks_2 Joonised_drawings\W1803201\3D\A1803201.105

Drawing sheet ISO 5457:1999 - A4

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER





POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
2	1		PLATE	4 x 130 x 200		1.4307 EN10028-7	1	LD
1	1		PLATE	4 x 100 x 150		1.4307 EN10028-7	0	LD

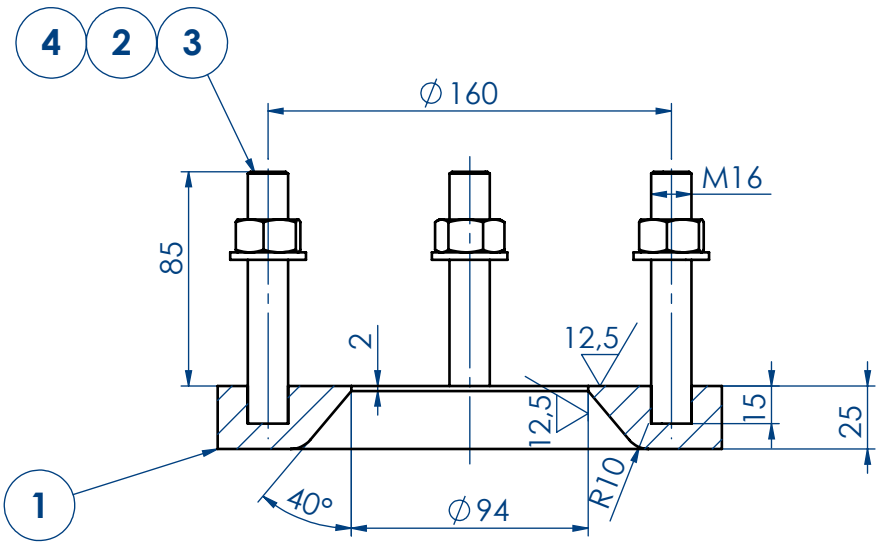
Quantity: 1	Weight: 1kg	Remark:			Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:3(A4)	Date: 9.07.2018	Working no. W1803201

Title: NAME PLATE SUPPORT

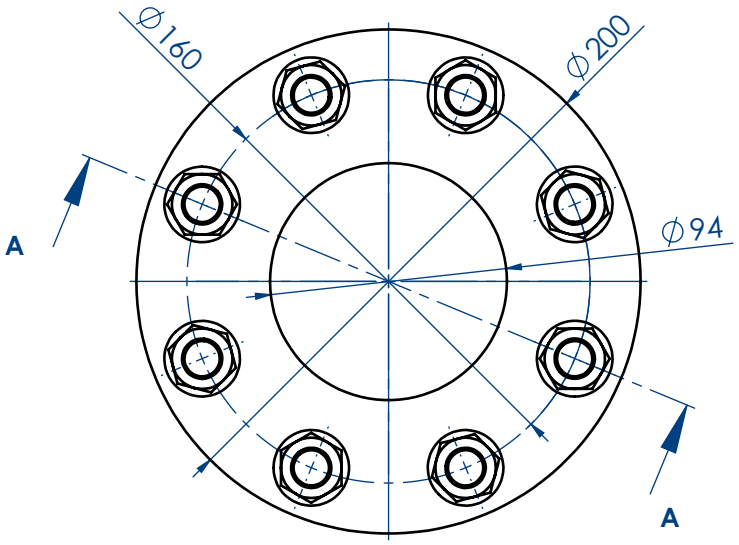
Project: BILLERUDKORSNÄS

Drawing no. A1803201.106_REV0

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



SECTION **A-A**



POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
4	8		WASHER	M16 DIN 125		A2	0.0	B00350
3	8		THREADED BAR	M16 x 100	100	1.4307 EN10272	0	
2	8		NUT	M16 DIN934		*A2	*0.0	B00452
1	1		FLANGE	D200 X D94 X 25		1.4307 EN10028-7	4	

Quantity: 1	Weight: 6kg	Remark:		All sharp edges R1	Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:3(A4)	Date: 9.07.2018	Working no. W1803201

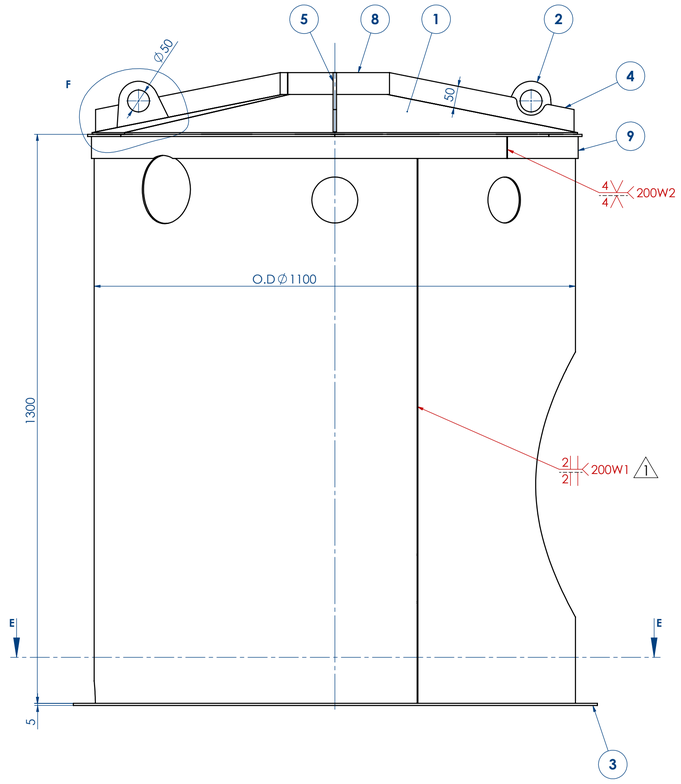
Title: SSG5416-09, DN80 PN40

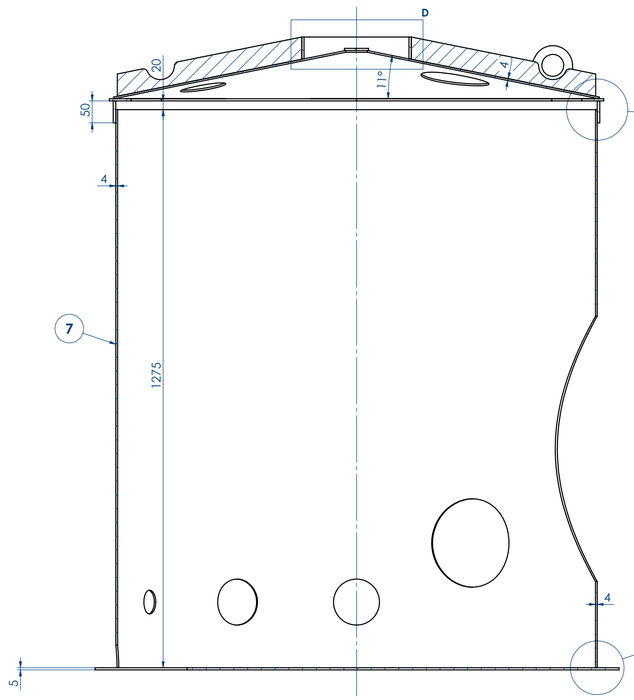
Project:	Drawing no.
BILLERUDKORSNÄS	A1803201.107_REV0

K:\Projektid\2018\W18032 BillerudKorsnäs AB, Tanks_2 Joonised_drawings\W1803201\3D\A1803201.107

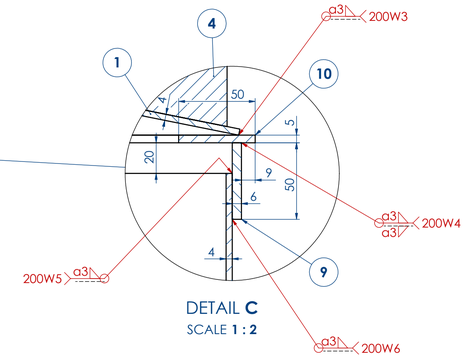
Drawing sheet ISO 5457:1999 - A4

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER
1	-	Changes shell welding.	21.08.2018	J.Lillepõld

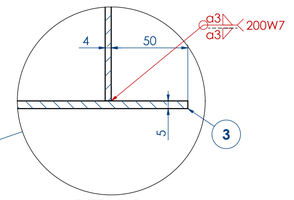




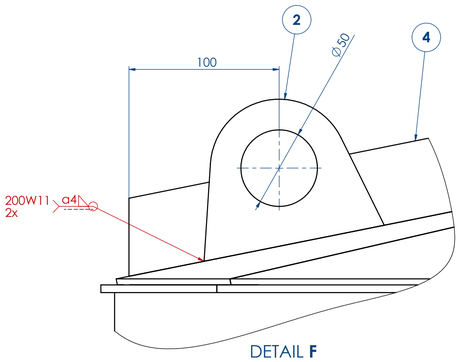
SECTION **A-A**



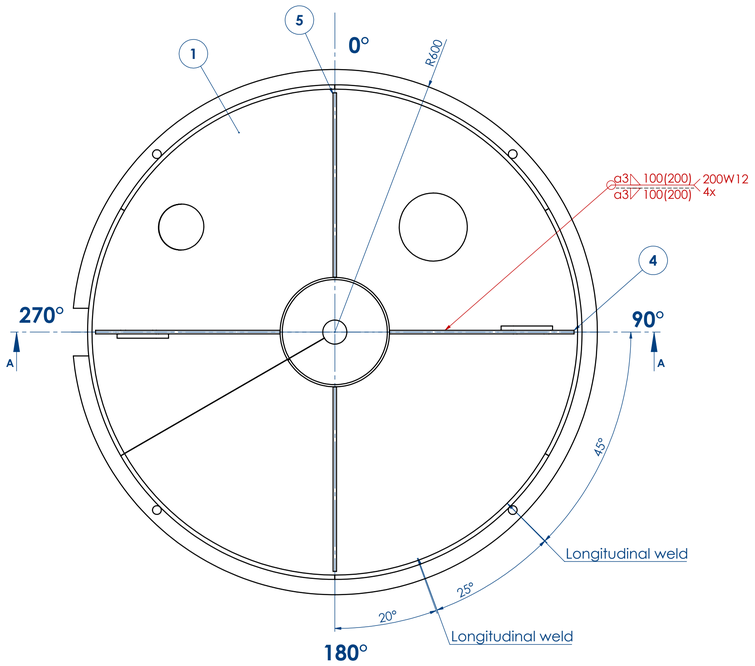
DETAIL **C**
SCALE **1 : 2**

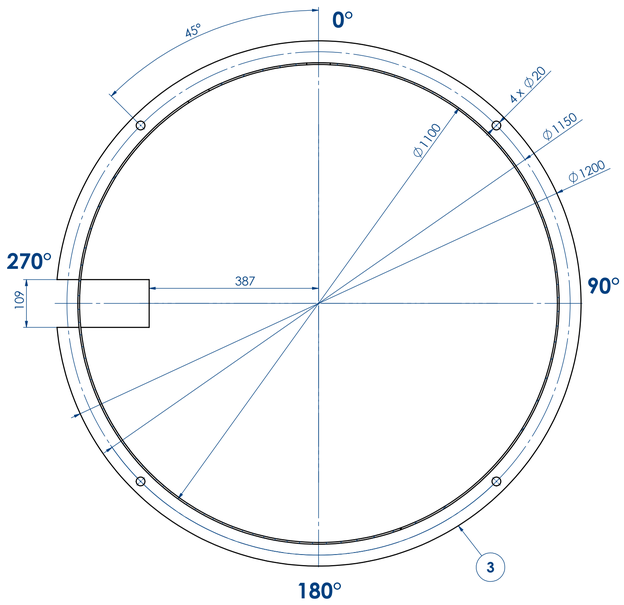


DETAIL **B**
SCALE **1 : 2**

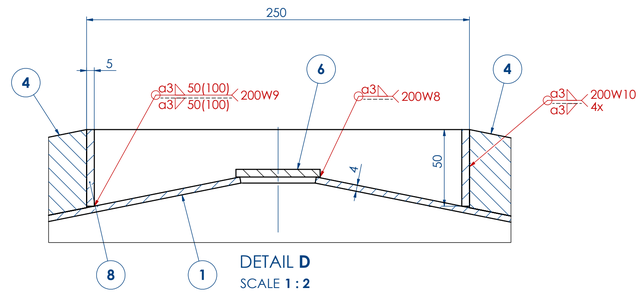


DETAIL **F**
SCALE **1 : 2**





SECTION **E-E**



DETAIL **D**
SCALE **1 : 2**

POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS
10	6		STIFFENING RING SECTION	5 x ID1030/OD1130 (60)		1.4307 EN10028-7	1	LD
9	1		SHELL	6 x 50 x 3472		1.4307 EN10028-7	8	OD1112 LD
8	1		SHELL	5 x 50 x 767		1.4307 EN10028-7	2	OD250 LD
7	1		SHELL	4 x 1275 x 3441		1.4307 EN10028-7	126	OD1100
6	1		ROUND PLATE	5 x D55		1.4307 EN10028-7	0	LD
5	2		PLATE	8 x 50 x 440		1.4307 EN10028-7	1	LD
4	2		PLATE	8 x 50 x 440		1.4307 EN10028-7	1	LD
3	1		PLATE	5 X D1200		1.4307 EN10028-7	44	LD
2	2		LIFTING LUG	10 x 95 x 120 (TYPE F)		1.4307 EN10028-7	0.5	
1	1		CONE	4 x D1110 x d50 (h=110)		1.4307 EN10028-7	30	LD

Quantity: 1	Weight: 223 kg	Remark: -		All sharp edges R1 / Sheet: 1/1
Designed: J.Lillepõld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:7(A1)	Date: 22.06.2018 / Working no. W1803201

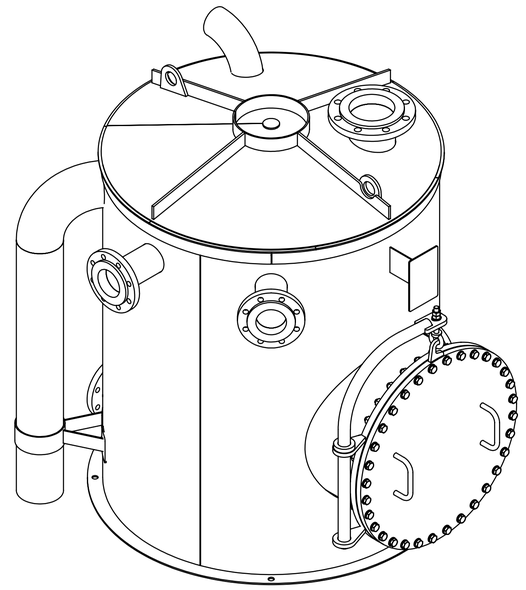
ESTANC

Title: SHELL WELDING

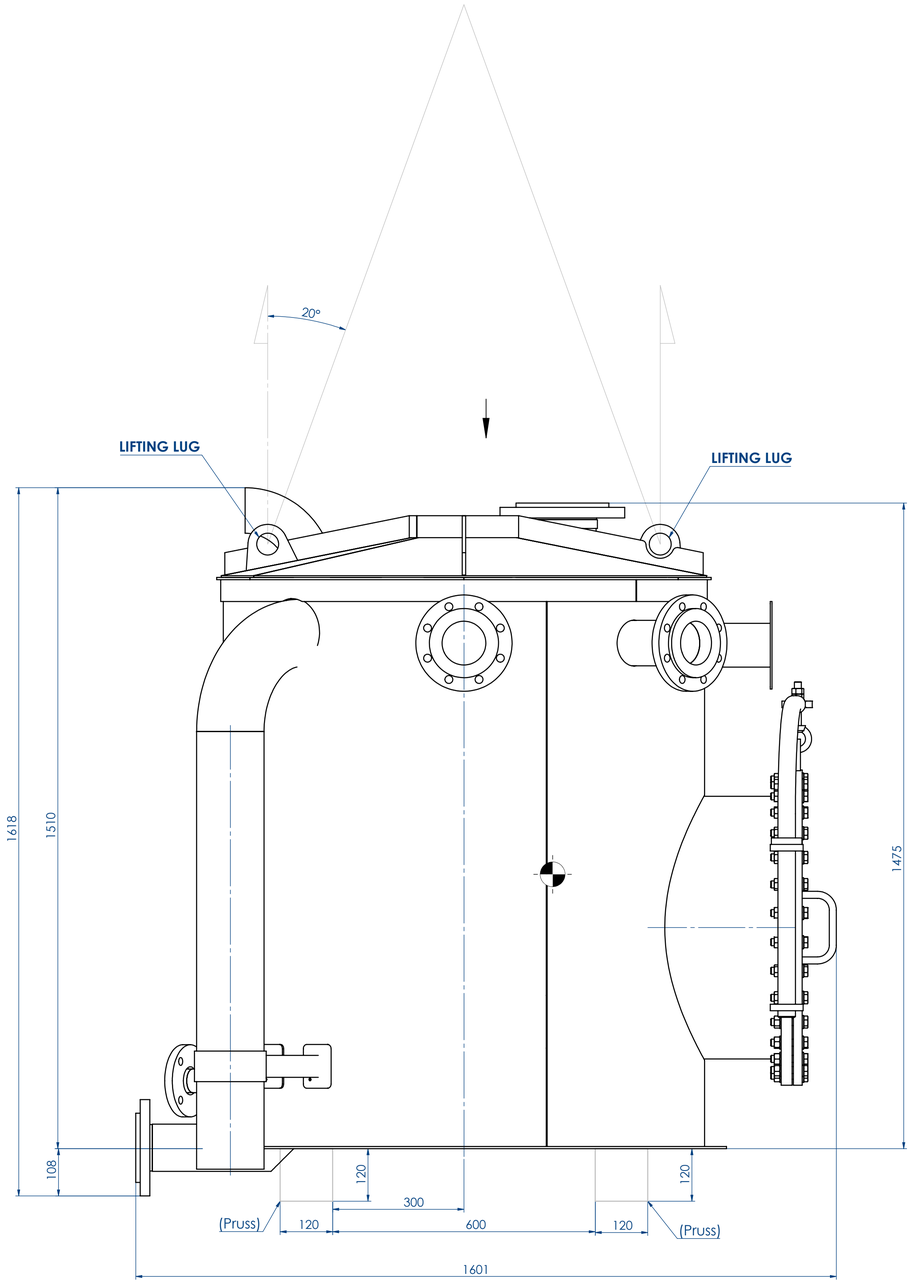
Project: BILLERUDKORSNÄS

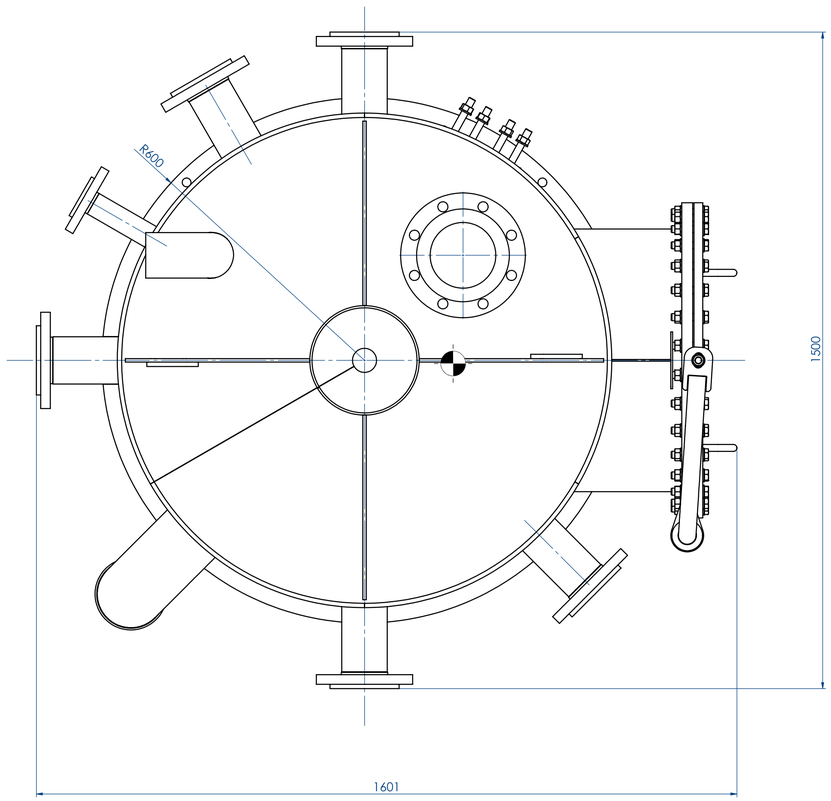
Drawing no. A1803201.200_REV1

REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



TOTAL WEIGHT 450kg





Quantity: 1	Weight: 433 kg	Remark: -		All sharp edges R1	Sheet: 1/1
Designed: J.Lillepõld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:7(A1)	Date: 22.08.2018	Working no. W1803201

ESTANC

Title: TRANSPORT AND LIFTING

Project: BILLERUDKORSNÄS

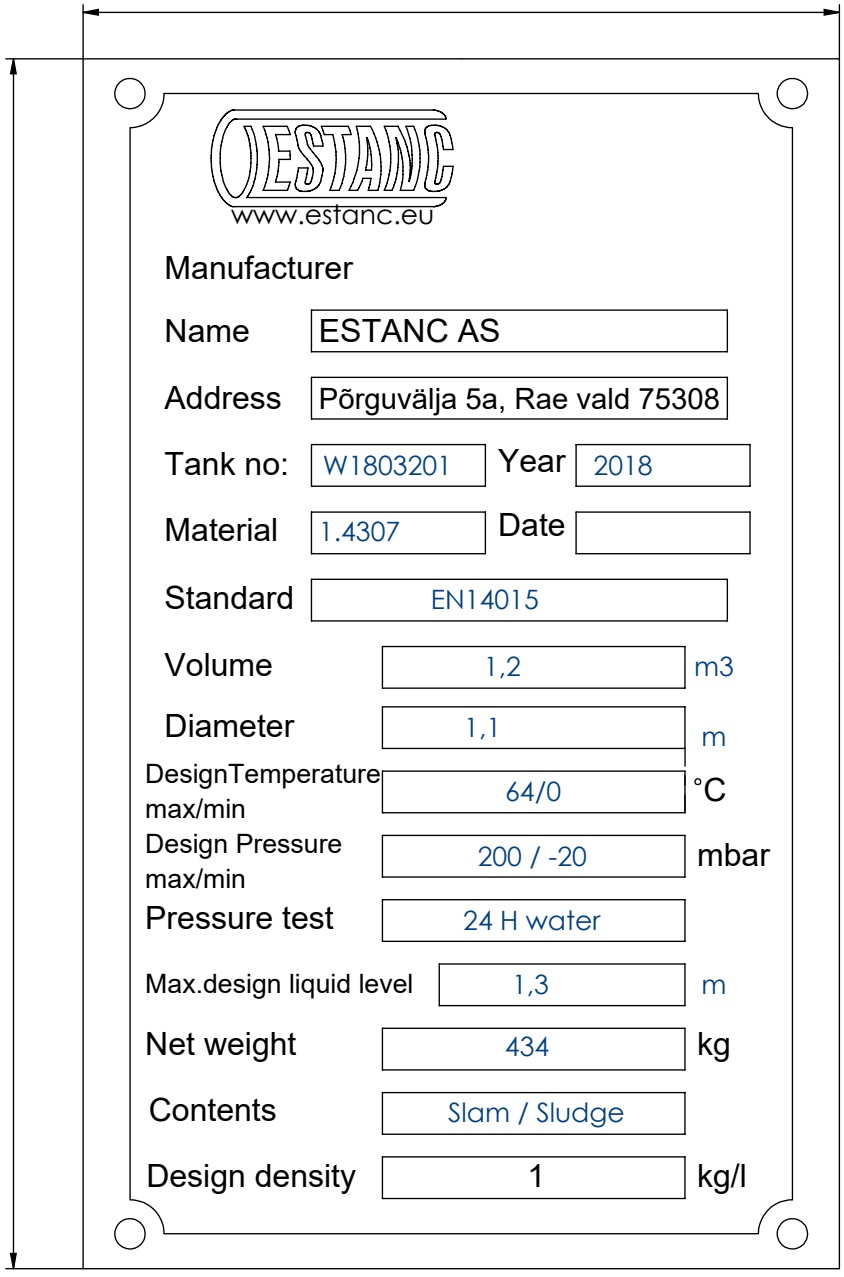
Drawing no. A1803201.300_REV0

K:\Projekt\2018\W1803\2 BillerudKorsnäs AB, Tankid_2 Joonised_drawings\W1803201\3D\A1803201.300

Drawing sheet ISO 5457:1999 - A1

REVISIONS			
REV.	DESCRIPTION	DATE	DESIGNER

ESTANC_EN14015_label



Stainless steel, thickness 2mm

Quantity: 1	Weight: 434kg	Remark: -		All sharp edges R1	Sheet: 1/1
Designed:	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:50(A4)	Date: 17.05.2018	Working no. W1803201

Title: NAMEPLATE

Project: BILLERUDKORSNÄS

Drawing no. P1803202.002_REV0

K:\Projektid\2018\W18032 BillerudKorsnäs AB, Tanks_2 Joonised_drawings\W1803201\3D\P1803202.002

Drawing sheet ISO 5457:1999 – A4

AS-BUILT LIST

	Project no.	W1803201	**List revision**	0
	Product	FILTRATTANK - 75TA007	**List created date**	22.10.2018
	Customer	BillerudKorsnäs AB	**List created by**	K. Fuchs
			Approved by	J. Lillepõld

Document No.	Pos	Original design	As-built	
A1803201.103 rev.0	2	Material 1.4404	Material 1.4432	Pipe
A1803201.102 rev.0	1	Material 1.4307	Material 1.4404	Elbow
A1803201.105 rev.0	1	Material 1.4307	Material 1.4404	Loose flange
A1803201.101 rev.0	1	Material 1.4404	Material 1.4432	Loose flange
A1803201.103 rev.0	1	Material 1.4404	Material 1.4432	Loose flange
A1803201.104 rev.0	1	N/A	Dimension DN50PN40	Loose flange
A1803201.107 rev.0	1	Material 1.4307	Material 1.4404	Flange

Changes described in this document do not compromise strenght, rigidity nor operation of the product.

ESTANC		HEAT LIST	Project no.	W1803201	Rev.	Date / Author
			Serial no.	W1803201	0	25.09.18/ K.Fuchs
		Client:	BillerudKorsnäs AB			
		Product:	FILTRATTANK - 75TA007			

Drw no	POS	Name	Dimension on drw.	Material on drw.	Heat	Pages no
A1803201.000	10	ELBOW 90°	DN100 D104 x 2	1.4307	704027	33
A1803201.100	1	BLIND FLANGE	20 x D720	1.4307	302063	7-13
A1803201.100	3	FLANGE	25 x D720/d602	1.4307	360494I	6
A1803201.100	13	SHELL	8 x 310 x 1856	1.4307	574724	5
A1803201.101	1	LOOSE FLANGE	DN100 PN16	1.4404	548544	30
A1803201.101	2	PIPE	D104 X 2	1.4307	SD27226	16
A1803201.101	3	WELDRING NECK	DN100 PN16	1.4307	547726	27
A1803201.102	1	ELBOW 90°	DN100 D154 x 2	1.4307	634019	32
A1803201.102	2	PIPE	D154 X 2	1.4307	0443108	14
A1803201.102	4	RE-PAD	4 x 80 x 100	1.4307	717014	3-4
A1803201.103	1	LOOSE FLANGE	DN100 PN16	1.4404	548544	30
A1803201.103	2	PIPE	D108 X 4	1.4404	311622	15
A1803201.103	4	WELDRING NECK	DN100 PN16	1.4307	547726	27
A1803201.104	1	LOOSE FLANGE	DN50 PN16	1.4307	355685	31
A1803201.104	2	PIPE	D54 X 2	1.4307	4233288	17
A1803201.104	3	WELDRING NECK	DN50 PN16	1.4307	408278	28
A1803201.105	1	LOOSE FLANGE	DN150 PN16	1.4307	49252	29
A1803201.105	2	PIPE	D154 X 2	1.4307	0443108	14
A1803201.105	4	WELDRING NECK	DN150 PN16	1.4307	547418	26

ESTANC		HEAT LIST	Project no.	W1803201	Rev.	Date / Author
			Serial no.	W1803201	0	25.09.18/ K.Fuchs
		Client:	BillerudKorsnäs AB			
		Product:	FILTRATTANK - 75TA007			

Drw no	POS	Name	Dimension on drw.	Material on drw.	Heat	Pages no
A1803201.106	1	PLATE	4 x 100 x 150	1.4307	717014	3-4
A1803201.107	1	FLANGE	D200 X D94 X 25	1.4307	29161	18-25
A1803201.200	1	CONE	4 x D1110 x d50 (h=110)	1.4307	717014	3-4
A1803201.200	3	PLATE	5 X D1200	1.4307	581826	2
A1803201.200	4	PLATE	8 x 50 x 440	1.4307	574724	5
A1803201.200	5	PLATE	8 x 50 x 440	1.4307	574724	5
A1803201.200	6	ROUND PLATE	5 x D55	1.4307	581826	2
A1803201.200	7	SHELL	4 x 1275 x 3441	1.4307	717014	3-4
A1803201.200	8	SHELL	5 x 50 x 767	1.4307	581826	2
A1803201.200	9	SHELL	6 x 50 x 3472	1.4307	73274	1
A1803201.200	10	STIFFENING RING	5 x ID1030/OD1130 (60)	1.4307	581826	2

Dimension or material changed

outokumpu

Certificate No. / Zeugnis Nr. / N° du certificat: 779684/001
Page / Seite / Page: 1(01)

INSPECTION CERTIFICATE 3.1
DIN EN 10204 3.1

Date Datum Date: 22.06.2017

Delivery address, Empfänger, Lieu de livraison
FL AMARI METALS OU

VALDEKU 109
11216 TALLINN
ESTONIA

AMARI METALS OU

VALDEKU 109
11216 TALLINN
ESTONIA

Requirements, Anforderungen, Exigences
EN 10088-4:2009
AD 2000 W2, W10 & EN 10028-7:2016
ASTM A240/A240M
ASME SA-240/SA-240M II A ED. 2015

Our Order No. / Unser Auftrag Nr. / Notre commande n°: 300429405

Your order, Ihre Bestellung, Votre commande: E70324 / TARVO MÄGI.

Product, Erzeugnisform, Produit: SHEET , STAINLESS STEEL

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur: outokumpu

Process / Erschmelzungsart / Mode de fusion: AOD

Inspector's stamp / Zeichen d. Sachverst. / Poicon de l'expert

Grade, Werkstoff, Nuance: 1.4307 1.4301 TYPE 304L

Tolerances Toleranzen, Tolérances: EN ISO 9444-2

Marking, Kennzeichnung, Marquage: 1.4307 1D

Marks, Versandzeichen, Marques:

Line Reihe Ligne	Item Position Poste	Charge-test No. Schmelze-Probe Nr. Coulée n°	Size, Abmessungen, Dimensions	Quantity Stückzahl Nombre	Weight, Gewicht, Poids	Finish Ausführung Fini EN/ASTM
1	1	73274 1	6,0 X 1500 X 6000 MM	14	6018 KG	1D/1

CE
14
0045-CPR-0567

Charge no. Schmelze Nr. Coulée n°	Chemical composition, Chemische Zusammensetzung, Composition chimiques											
	C %	Si %	Mn %	P %	S %	Cr %	Ni %	N %				
73274	0,021	0,47	1,47	0,034	0,002	18,2	8,1	0,053				

Line Reihe Ligne	Mechanical properties, Mechanische Eigenschaften, Caracteristiques mecaniques								Tensile test, Zugversuch, Essai de traction
	Sample ID Proben ID Échantillon	Rp0.2 MPa	Rp1.0 MPa	Rm MPa	A5 %	A50 %	%	Hardness Härte,Durate HBW	ISO 6892-1:2009 A224 SAMPLES PERPENDICULAR TO THE ROLLING DIRECTION
1	01	295	348	625	55	55		190	APPROVED ACC.TO AD2000-W0 WITH VERIFICATION OF THE UNIFORMITY OVER THE STRIP LENGTH. CERTIFIED ACC.TO PED 2014/68/EU BY TÜV NORD REG. NO. 0045. DOPS ACC. TO CPR AVAILABLE ON THE WEB PAGE BY STEEL NUMBER
	02	297	355	630	53	53		186	

Identity test, Verwechslungsprüfung, Controle d'identification: OK
Sizes. Abmessungen, Dimensions: OK
Surface, Oberfläche, Surface: OK
Test of intergran. corros, Prüfung auf interkrist. Korros, Test de corros. intercrist.
EN ISO 3651-2 A: OK

ASTM A240/A240M
ASME SA-240/SA-240M II A ED. 2015
TYPE 304
NACE MR0103/ISO 17945 AND
NACE MR0175/ISO 15156-1 / NACE MR0175/ISO 15156-3

We certify that the above mentioned products comply with the terms of the order contract.
Wir bestätigen, dass die Lieferung den Vereinbarungen der Bestellannahme entspricht.
Nous certifions ques les produits énumérés ci-dessus sont conformes aux prescriptions de la commande.

This test certificate is made by controlled ADP-system and is valid without signature.
Dieses Zeugnis wurde von einem überprüften Datenverarbeitungssystem erstellt und ist ohne Unterschrift gültig.
Ce certificat a été établi par un systeme informatique controlé et est valide sans signature.

Outokumpu Stainless Oy

Authorized inspector / Werkssachverständiger / Inspecteur autorisé: NANNA RIIKKULA

FI-95490 Tornio, Finland
Tel. +358 16 4521,email certificate.tornio@outokumpu.com,
www.outokumpu.com
Domicile: Tornio, Finland. Business Identity Code 0823315-9

outokumpu
high performance stainless steel

CERTIFICATE - ZEUGNIS - CERTIFICAT

EN 10204-3.1

2509865-EN

Invoice No. / Rechnung Nr. / N° de facture: 6610/1000678389
Page / Seite / Page: 1/1

Business Unit / QCM	Date Datum Date	Load, Ladung, Charge No	Acknowledged ID, Bestätigung, Commande ID
Avesta Works / Jerker Sterneland	11-Jun-2018	EE/171721	6610/300482788

Your ref, Ihre Ref., Votre ref
E80476

Buyer, Besteller, Acheteur
AMARI METALS OU
Räniliiva 9
EE 11216, TALLINN
ESTONIA

Consignee, Empfänger, Lieu de livraison
AMARI METALS OU

Requirements, Anforderungen, Exigences
ASTM A 240M-17
ASME BPVC SEC II PART A SA-240/SA-240M Ed 2017
EN 10088-2:2014
EN 10028-7:2016
AD 2000 W2, W10 & EN 10028-7
EN ISO 9444-2 / ASTM A480M

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poicon de l'expert	Grade, Werkstoff, Nuance
outokumpu	E+AOD	AJA	Outokumpu Core 304L/4307 TYPE 304 TYPE 304L 1.4301 1.4307

Product, Erzeugnisform, Produit
Stainless Steel Hot Rolled, Coil-Plate
finish 1D, cut edge

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / Unit / Menge / Einheit / Quantité	
1	2	581826-003	5,00 X 2000 X 4000 mm	4	1260 KG	

Chemical composition – Chemische Zusammensetzung – Composition chimiques

	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Nb	Cu	Co	N
Heat	.021	.34	1.13	.033	.001	18.07	8.03	.49	.003	.011	.43	.150	.064

Radioactive contamination check acc. IAEA recommendations: Approved

Test results – Prüfergebnisse – Results dessais (1N/mm² = 1 MPa) F = Front – Anfan – Debut B = Back – Ende – Fin T = Transverse – Quer – Travers

Test Ref		Temp °C	RP 0.2 N/MM2	RP 1.0 N/MM2	RM N/MM2	A5 %	2" %	HB HB
Min		+20	230	260	520	45	40	
Max					700			201
F	T	+20	318	378	631	57	56	183
B	T		308	370	629	55	55	178

Corrosion acc. ASTM A 262-E, EN ISO 3651-2A: Approved
Heat treatment / Solution annealed: Material temp minimum 1040 °C / Quenched (forced air + water)
Steel grade verification (PMI-spectroscopic): Approved
Marking, visual insp. and gauge measurement: Approved
Certified acc. Pressure Equipment Directive (2014/68/EU) by TÜV CERT-Certification body for pressure equipment of the TÜV NORD Systems; notified body, reg-no. 0045.

Outokumpu Stainless AB
Business Area Europe
AVESTA WORKS
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748
Telephone: + 46 (0)226 811 73
Fax: + 46 (0)226 816 46
V.A.T no: SE556001874801

This material is found to comply with order requirements

Joakim Johansson
Authorized Inspector

A04

aperam

Correspondentieadres:
Aperam Genk
Swinnenwijerweg 5, Poort Genk 7523
3600 Genk, Belgium
Tel. +32 (0)89 30 21 11

A01

MILL CERTIFICATE BS EN 10204/3.1
CERTIFICAT DE RECEPTION NF EN 10204/3.1
ABNAHMEPRUEFZEUGNIS DIN EN 10204/3.1

A02

Factory Production Control certified by TUV SUD Industrie Service Gmbh
with certificate nr 0036-CPR-M-043-2011.
In compliance with the Construction Product Regulation Nr 305/2011/EU.

Z05

N-Nr-N **17K0025608-CE V01** A03

Manufacturer's works order number
N° de la commande usine productrice
Werksauftragsnummer
80385965/01-59734/918/01 A08

Surveyor's mark
Cachet de l'expert
Stempel des
Werkssachverstaendigen
GNK1 Z03

Purchaser and/or consignee
Client et/ou destinataire
Besteller und/oder Empfaenger

APERAM SS&S POLAND SP. Z.O.O.
ul. H. Krupanka 97

41-103 SIEMIANOWICE SLASKIE
POLOGNE

A06

Purchaser's order number
N° de commande client
Kundenbestellnummer
706655463 A07

Product - Produit - Erzeugnis
COIL, HOT ROLLED, COLD REDUCED, SHOT BLASTED
COIL, LAMINE A CHAUD, REDUIT A FROID, GRENAILLE
COIL, WARMGEWALZT, KALT REDUZIERT, GESTRAHLT
B01

Customer article number
N.article client
Artikelnummer des Kunden
ART016809 A09

Steel designation B02
Désignation de l'acier
Stahlbezeichnung
EN 10088-4-2009 1.4307/1.4301

Finish
Présentation
Ausfuehrung
2E

Steelmaking process C70
Mode d'élaboration de l'acier - Stahlherstellungverfahren
Prod.proces: Electric arc furnace - VOD/AOD - Continuous casting
Proc.fabric.: Four à arc - VOD/AOD - Coulée continue
Fertigungsablauf: Elektro-Ofen - VOD/AOD - Stranggussanlage

Any supplementary requirements B03
Prescriptions supplémentaires - Zusätzliche Anforderungen

Product delivery condition
Etat de livraison du produit - Lieferzustand

Solution treated:
Hypertrempe: **1050 °C**
Loesungsgegl+abgeschreckt:

Forced air-water/air forcé-eau
Geblaese Luft-Wasser B04

Z06

Identification of the product B07
Identification du produit - Identifizierung des Erzeugnisses
MELTED IN BELGIUM, MADE IN BELGIUM

Coil n.
N.Bobine - Band Nr.
71701422

Heat n.
N.Coulée - Schmelz Nr.
717014

Dimensions
Dimensions - Abmessungen

Thickness B09
Epaisseur - Staerke
4.00 mm

Width B10
Largeur - Breite
2000.00 mm

Length B11
Longueur - Laenge

Number of pieces B08
Nb de pièces - Stueckzahl
1

Net weight B13
Poids net - netto Gewicht
18840 KG

CHEMICAL ANALYSIS - ANALYSE CHIMIQUE - CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	Ni	Cr	Mo	Ti	N	S	P						
Required -Exigé %mini Anforderung. %maxi	0.030	0.75	2.00	8.00 10.50	17.50 19.50			0.100	0.015	0.045						
Cast Analysis Analyse coulee Analyse Schmelze	0.023 C71	0.49 C72	1.53 C73	8.05 C74	18.05 C75	C76	C77	0.073 C78	0.002 C79	0.032 C80	C81	C82	C83	C84	C85	C86

Positive material identification carried out : OK
Tests de vérification de la conformité de la nuance fournie : OK
Verwechslungpruefung wurde durchgefuehrt : OK
C04 C93 D52

Location (1) | Direction (2)

MECHANICAL PROPERTIES - PROPRIETES MECANIQUES - MECHANISCHE WERTE EN ISO 6892-1 B / A-SA 370 C20

Room temperature - Température ambiante - Raumtemperatur | Test temperature (°C) : C03

			Yield or proof strength Limite d'élasticité Dehngrenze MPa		Tensile Strength Résistance à la traction Zugfestigkeit MPa	Elongation after fracture Allongement après rupt. Bruchdehnung %		Hardness Dureté Haerte	Yield or proof strength Limite d'élasticité Dehngrenze MPa		Tensile str. Résist. MPa Zugfestigkeit	Elongation % Allongement. Bruchdehnung
			Rp0.2%	Rp1%	Rm	A5	50mm	HRBW	Rp0.2%	Rp1%	Rm	A5
		Required Exigé Anforderung mini	230	260	540	45	45					
		maxi			700			92				
1	T	**Obtained** Obtenu	332	374	661	53	52	92				
2		Ergebnisse	C11	C14	C12	C13	C15	92 C31	C16	C17	C18	C19

Impact strength test Essai de résilience Kerbschlagzaehigkeitstest		Corrosion test Test de corrosion Korrosionstest	E0.2(T)/R(T) %					
C40	t(°c) C44		50					
	C42	EN ISO 3651/2 - A:OK D51	C50	C51	C52	C53	C54	C55	C05

Internal cleanliness: A: B: C: D: C57

Location of the sample (1)
Emplacement de l'échantillon
Lage des Probenabschnittes
1. Front - Début - Anfang
2. Back - Fin - Ende
3. Middle - Milieu - Mitte
C01

Direction of the test pieces (2)
Orientation des éprouvettes
Probenrichtung
T. Transverse - Travers - Quer
L. Longitudinal - Long - Laengs
C02

The delivery is in accordance with the order
La fourniture est conforme aux exigences de la commande
Die lieferung entspricht den Bestellbedingungen Z01

Packing list
Avis d'expédition **2017039802-20612**
LieferscheinNummer A10

Marking, inspection and measurement : without objection
Contrôle de marquage, d'aspect et de dimensions : satisfaisants
Pruefung der Stempelung, des Oberflaechenaspekts und der
Abmessungen : ohne Beanstandung
D01

Organisation inspection
Organisme et/ou service contrôle
Ueberwachungsabteilung A05

Quality Department

8/6/2017

The inspector
Le responsable
Der Werkssachverstaendige D. Raemaekers Z02

ZSQ701 - PS5

aperam

Correspondance address
Adresse de correspondance - Adresse für briefwechsel

Swinnenwijerweg 5, Poort Genk 7523
3600 Genk, Belgium
CE01

Annex to certificate **17K0025608-01 V01**
Annexe du CCPU
Anlage Zum Zeugnis
CE02

Certificate
CCPU - Zeugnis
17K0025608-CE V01
CE05

Certificate of Production Control Number
Numéro du certificat de contrôle de la production
Zeugnisnummer von Produktionskontrolle
0036-CPD-43-2011
CE03

CE 0036
CE06

Year 11
Année
Jahr
CE04

Manufacturer's works order number
N° de la commande usine productrice
Werksauftragsnummer

80385965/01-59734/918/01
CE07

Purchaser and/or consignee
Client et/ou destinataire
Besteller und/oder Empfaenger

APERAM SS&S POLAND SP. Z.O.O.
ul. H. Krupanka 97

41-103 SIEMIANOWICE SLASKIE
POLOGNE
CE08

Purchaser's order number
N° de commande client
Kundenbestellnummer
706655463
CE09

Customer article number
N° d'article client
Artikelnummer des Kundes
ART016809
CE10

Identification of the product
Identifictaion du produit - Identifizierung des Erzeugnisses

Coil n°
N° de bobine - Band Nr
71701422
CE11

Dimensions
Dimensions - Abmessungen

Thickness	**Width**	**Length**
Epaisseur - Dicke	Largeur - Breite	Longueur - Laenge
4.00 mm	2000.00 mm	
CE12	CE13	CE14

Stainless steel / Acier inoxydable / Rostfreier Stahl
CE15

EN10088-4
CE16

Intended uses : building constructions or civil engineering
Usages prévus : construction immobilière ou génie civil
Vorgesehene Verwendungen : Hochbauten und Ingenieurbauwerke
CE17

Declaration of performance :
Déclaration des performances : DOP.Nr.GNK.01.01/GNK.02.01
Leistungserklärung :
DoP available on website Aperam : www.aperam.com/europe/news-publications/documentation/certifications/approvals
CE18

Steel
Acier 1.4307/1.4301
Werkstoff
CE19

Cold rolled
Laminé à froid
Kaltgewalzt
CE20

Coil / bobine / Band
CE21

Elongation / Allongement / Bruchdehnung
Tensile strength / Résistance à la traction / Zugfestigkeit
Yield strength / Limite d'élasticité / Dehngrenze
Impact strength / Résistance au choc / Kerbschlagzähigkeit
Weldability / Aptitude au soudage / Schweisseignung
Durability / Durabilité / Dauerhaftigkeit
Characteristics expressed as indicated in the above mentioned DOP
Tolerances on dimension and shape / Tolérances sur les dimensions et sur forme / Grenzabmasse unf Formtoleranzen : EN ISO 9445
CE22

Regulated substance : no performance determined
Substance réglementée : aucune performance determinée
Regulierter Stoff: keine Leistung festgestellt
CE23

outokumpu
high performance stainless steel

CERTIFICATE - ZEUGNIS - CERTIFICAT

EN 10204-3.1

2486501-EN

Invoice No. / Rechnung Nr. / N° de facture: 6610/1000641935
Page / Seite / Page: 1/1

Business Unit / QCM	Date Datum Date	Load, Ladung, Charge No	Acknowledged ID, Bestätigung, Commande ID
Avesta Works / Johan Nordström	08-Feb-2018	EE/165489	6610/300466921

Your ref, Ihre Ref., Votre ref
E80094.

Buyer, Besteller, Acheteur
AMARI METALS OU
Räniliiva 9
EE 11216, TALLINN
ESTONIA

Consignee, Empfänger, Lieu de livraison
AMARI METALS OU

Requirements, Anforderungen, Exigences
ASTM A 240M-17
ASME BPVC SEC II PART A SA-240/SA-240M Ed 2017
EN 10088-2:2014
EN 10028-7:2016
EN 10088-4:2009
EN ISO 9444-2 / ASTM A480M

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poicon de l'expert	Grade, Werkstoff, Nuance
outokumpu	E+AOD	AJA	Outokumpu Core 304L/4307 TYPE 304 TYPE 304L 1.4301 1.4307

Product, Erzeugnisform, Produit
Stainless Steel Hot Rolled, Coil-Plate
finish 1D, cut edge

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / Unit / Menge / Einheit / Quantité / Unité
1	1	574724-004	8,00 X 2000 X 6000 mm	2	1517 KG

Chemical composition – Chemische Zusammensetzung – Composition chimiques

	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Nb	Cu	Co	N
Heat	.019	.30	1.14	.034	.001	18.24	8.07	.27	.003	.003	.30	.140	.067

Radioactive contamination check acc. IAEA recommendations: Approved

Test results – Prüfergebnisse – Results dessais (1N/mm² = 1 MPa) F = Front – Anfan – Debut B = Back – Ende – Fin T = Transverse – Quer – Travers

Test	Ref	Temp °C	RP 0.2 N/MM2	RP 1.0 N/MM2	RM N/MM2	A5 %	2" %	HB HB
Min		+20	230	260	520	45	40	
Max					700			201
F	T	+20	328	380	645	56	57	187
B	T		320	370	642	57	58	183

Corrosion acc. ASTM A 262-E, EN ISO 3651-2A: Approved
Heat treatment / Solution annealed: Material temp minimum 1040 °C / Quenched (forced air + water)
Steel grade verification (PMI-spectroscopic): Approved
Marking, visual insp. and gauge measurement: Approved
Certified acc. Pressure Equipment Directive (2014/68/EU) by TÜV CERT-Certification body for pressure equipment of the TÜV NORD Systems; notified body, reg-no. 0045.

Outokumpu Stainless AB
Business Area Europe
AVESTA WORKS
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748
Telephone: + 46 (0)226 811 73
Fax: + 46 (0)226 816 46
V.A.T no: SE556001874801

This material is found to comply with order requirements

Joakim Johansson
Authorized Inspector

CE 10
0045 – CPR – 0869
Declaration of Performance (DoP): See www.outokumpu.com/Avesta-DoP

Aperam Inox América do Sul S.A.

Head Office: Av. Carandaí, nº 1115, 23º Andar - Centro - Belo Horizonte - MG - 30130-915 - Brazil
Plant: Praça 1º de Maio, nº 9 - Centro - Timóteo - MG - 35180-018 - Brazil
Branches: Av. Mercedes Benz, nº 1.420 - Distrito Industrial - Campinas - SP - 13054-750 - Brazil
Rodovia RSC 453, Km 2,2 - S/N - Distrito Industrial - Caxias do Sul - RS - 95110-690 - Brazil

QUALITY CERTIFICATE

acc. to EN 10204-3.1.

Number: 1477803
APERAM Order: 73082803
Date: 16/04/2013
Invoice: ***708E13***

Customer:
APERAM STAINLESS SERVICES & SOLUTIO
SIGURDSGATAN 21, 8 TR SE-721 30
VASTERAS 721 30
Suecia
P.O.NR.: ORDER AMARI 109484

Ship to:
APERAM STAINLESS SERVICES & SOLUTIO NORDIC AB
SIGURDSGATAN 21, 8 TR SE-721 30
VASTERAS 721 30
Suecia

Steel grade: AISI 304L **Finish:** NR1- HOT ROLLED **Product:** PLATE **Process:** E
Dimensions: 25,00 mm x 1500 mm x 3000 mm
Marks:

Chemical composition

Heat nr.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Al %	Co %	Cu %	N PPM				
360494I	0,023	1,37	0,470	0,033	0,002	18,14	8,00	0,058	0,0036	0,180	0,0950	421				

Results

Test/Variable	U.M:	360494I065		360494I064		360494I066							
	Source:	360494I06		360494I06		360494I06							
		H	T	H	T	H	T	H	T	H	T	H	T
Tensile Strength	MPA		637,00		637,00		637,00						
Yield Strength 0.2%	MPA		271,00		271,00		271,00						
Yield Strength 1.0%	MPA		308,00		308,00		308,00						
Elongation 2"	%		53,00		53,00		53,00						
Austenit Grain Size			06/06		06/06		06/06						
Hardness RB	HRB	76,83	76,83	76,83	76,83	76,83	76,83						
Oxalic Test		DUAL	0	DUAL	0	DUAL	0						
Net Weight	MT	1,760		1,760		1,760							
Gross Weight	MT	1,810		1,810		1,810							

Heat & Lot identification (U.M.): **Ok**
Surface quality / dimensions: **Ok**
Heat treatment: Minimun Solution anneal temp.1900 F

Standards:

ASME SA480/SA480M 10	AD 2000 W 2 08	ASME SA240/SA240M 11
ASTM A480/A480M 11B	NACE/ANS MR0175 (ISO) 09	ASTM A262 10
DIN EN 10204-3.1 05	DIN EN 10028-7 082	ASTM A240/A240M 12A

Remarks: ALSO ACCORDING PED 97/23/EC - CORROSION TEST EN-ISO 3651-2 EN 10029 CLASS B S TANDARDS DIN 1.4307

a) Free from mercury contamination.
b) Material free of contamination from radioactivity. (Guarantee while stored under responsibility of Aperam Inox América do Sul S.A.).
c) The products supplied are in compliance with the requirements of the order and the product specification..
d) Quality management system certified acc to standard ISO 9001 - Certificate ABS QE Nº 30071.
e) Quality management system certified acc to standard ISO/TS 16949 - Certificate ABS QE Nº 38324.
f) Environmental management system certified acc to standard ISO 14001 - Certificate ABS QE Nº 65989.
g) Product and system certified according to standard AD2000 / MERKBLATT and PED (Directive 97/23/EC) by TÜVNORD (Notified Body Nr. 0045).
h) The manufacturer operates a Quality Management System complying to annex I, section 4.3 of the Directive 97/23/EC..
i)Country of Melt: Brazil. Country of manufacture: Brazil.



QA4

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

Tel.: +386 4 584 10 16
Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

10067959-20014016-43350

Prevzemni certifikat 3.1 / Inspection Certificate 3.1 / Abnahmeprüfzeugnis 3.1 EN 10204:2004 Št. dokumenta / Document No. / Bescheinigungs Nr. **10067959-20014016-43350** z / dated / vom **25.09.2017**	Prejemnik / Consignee / Empfänger HW-INOX GMBH REHHECKE 80 D-40885 RATINGEN-LINTORF GERMANY
Kupčeva št. naročila / Purchaser's order No. / Kundenbestell Nr. **4172**	Proizvajalčeva št. naročila / Manufacturer's works order No. / Werksauftrag Nr. **20014016** z / dated / vom **22.08.2017**
Št. Dobavnega lista / Packing list No. / Lieferschein Nr. **10067959** z / dated / vom **25.09.2017**	Kupčeva št. izdelka / Purchaser Article No. / Artikel Nr. des Kunden
Št. Računa / Account No. / Kontonummer **1720101019825**	Datum izdaje / Date of issue / Ausgabedatum **25.09.2017**

Izdelek / Product / Erzeugnis **DEBELA PLOČEVINA / HOT ROLLED PLATE / WARMGEWALZTES GROBBLECH**		**SINOXX 4307**
Zahteve / Requirements / Anforderungen	Oznaka jekla / Steel designation / Stahlbezeichnung	
EN 10028-7:2016	**1.4301**	**X5CrNi18-10**
EN 10088-2:2014	**1.4301**	**X5CrNi18-10**
EN 10088-4:2009	**1.4301**	**X5CrNi18-10**
EN 10028-7:2016	**1.4307**	**X2CrNi18-9**
EN 10088-2:2014	**1.4307**	**X2CrNi18-9**
EN 10088-4:2009	**1.4307**	**X2CrNi18-9**
AD 2000-Merkblatt W 0:2016		
AD 2000-Merkblatt W 10:2016		
AD 2000-Merkblatt W 2:2016		
ASME SA-240/SA-240M; BPVC.II. A-2015		**304L**
ASME SA-240/SA-240M; BPVC.II. A-2015		**304**
ASTM A 240/A 240M-16		**304**
ASTM A 240/A 240M-16		**304L**
PED-2014/68/EU		
Customer Grade		**WARMGEWALZTE ROSTRFREIEBLECHE W.RN. 1.4307**
Specifikacija kupca / Customer specification No. / Kundenspezifikation		
Dodatne zahteve / Suplementary requirements / Zusätzliche anforderung		
Dobavno stanje / Product delivery condition / Lieferzustand des Erzeugnisses **TOPILNO ŽARJENO, LUŽENO / SOLUTION ANNEALED, PICKLED / LÖSUNGSGEGLÜHT, GEBEIZT**		
Stanje površine / Surface finish / Oberflächenbehandlung **ASME Finish:No. 1 - on both sides** **ASTM Finish:No. 1 - on both sides** **EN Surface:1D - on both sides** **EN10163:B3**		

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
Diese Bescheinigung wurde durch ein geeignetes Datenverarbeitungs-system erstellt und ist gemaess EN 10204, abs.5 ohne Unterschrift gueltig.
This Certificate has been issued by a qualified Electronic Data System and is valid acc. to EN 10204, para.5 without Signature.
Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

Tel.: +386 4 584 10 16
Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

10067959-20014016-43350

Oznake izdelka / Marking of the product / Kenzeichnung des Erzeunisses						
Znak proizvajalca Manufacturer's mark Zeichen des Herstellers SIJ I ACRONI	Oznaka jekla Steel designation Stahlbezeichnung	Št. plošče Plate No. Tafel Nr .	Št. sarže Heat No. Schmelzen Nr.	Dimenzije izdelka Product dimensions Abmessungen des Erzegniss	Žig kontrolorja Stamp of the works inspector Stempel des Werkssachverständigen KK 4	Žig prevzemalca Stamp of the inspection representative Stempel des Abnahmebeauftragten
Dodatne Oznake / Other marks / Andere Kennzeichen						

Obseg dobave / Extent of material delivery / Umfang der Lieferung

Poz. Item. Pos.	Št. Sarže Heat No. Schmelzen Nr.	Št. plošče Plate No. Tafel Nr.	Teoretična teža Mass Masse (kg)	Teža neto Actual mass Ist Masse (kg)	Dimenzije izdelka Product dimension Maße des Erzeugnises (mm)	Št. kosov No. of pieces Stückzahl	Št. vzorca Sample No. Probe Nr.
30	**302063**	**173246370101**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246370102**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246380101**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246380102**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246390201**	**1920,00**	**1919,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246390202**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246390301**	**1920,00**	**1919,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246390302**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246400201**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246400202**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246410301**	**1920,00**	**1919,00**	**20,000 /2000 /6000**	**1**	**173246370101**
30	**302063**	**173246410302**	**1920,00**	**1920,00**	**20,000 /2000 /6000**	**1**	**173246370101**

Način izdelave jekla / Steelmaking process / Stahlherstellungsverfahren **E + VOD**

Pogoji toplotne obdelave / Heat treatment details / Wärmebehandlung Details
HEAT TREATMENT: SOLUTION ANNEALED AT 1070°C, HOLDING TIME 40 minutes, WATER QUENCHED
TOPLOTNA OBDELAVA: TOPILNO ŽARJENO PRI 1070°C, ČAS OGREVANJA 40 minut, GAŠENO VODA
WARMBEHANDLUNG: LOSUNGSGLUHEN BEI 1070°C, HALTEDAUER 40 Minuten, WASSER ABGESCHRECKT
Lot Numbers : 173246370101, 173246370102, 173246380101, 173246380102, 173246390201, 173246390202, 173246390301, 173246390302, 173246400201, 173246400202, 173246410301, 173246410302

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
Diese Bescheinigung wurde durch ein geeignetes Datenverarbeitungs-system erstellt und ist gemaess EN 10204, abs.5 ohne Unterschrift gueltig.
This Certificate has been issued by a qualified Electronic Data System and is valid acc. to EN 10204, para.5 without Signature.
Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

Tel.: +386 4 584 10 16
Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

10067959-20014016-43350

Mehanske lastnosti pri sobni temperaturi / Mechanical properties at room temperature / Mechanische Eigneschaften bei Raumtemperatur

Št. sarže Heat No. Schmelzen Nr.	Št.vzorca Sample No. Probe Nr.	Smer vzorca Sample orientation Proben lage			Meja plastičnosti Yield or proof strength Streck- oder Dehngrenze (MPa)		Nat. trdnost Tensile str. Zugfestigkeit (MPa)	Zg. meja plastičnosti Upper Yield strenght Obere Streckgrenze (MPa)	Kontrakcija Reduction of area Brucheinschnürung (%)	Raztezek Elongation Bruchdehnung (%)			Razmerje Ratio Beziehung	Trdota Hardness Härte
		T/L	T/B	1/2; 1/4; S2	Rp0,2	Rp1,0	Rm	Reh	Z	A5	A50	A80	Rp/Rm	HBW
Zahteve Requirements Anforderung	MIN				210,0	250,0	520,0			45,0	40,0			
	MAX						700,0							201
302063	**173246370101**	**T**			**320,0**	**355,0**	**597,0**			**56,0**	**59,0**			**167**

T- Prečno / Transverse / Quer **L**- Vzdolžno / Longitudinal / Langs **T**- Glava / Top / Kopf **B**- Noga / Bottom / Fuss
1/2 - Odvzem vzorca na sredini / Taking the sample at the center of product / Unter der Probe in der Mitte des Produkt
1/4 - Odvzem vzorca po deb 1/4 pod površino / Thickness 1/4 under the surface / Dicke 1/4 unter der Oberfläche
S2- Odvzem vzorca po deb 2 mm pod površino / Thickness 2 mm under the surface / Dicke 2 mm unter der Oberfläche

Preskus udarne žilavosti / Charpy impact test / Kerbsclagbiegeversuch (J)

Št. sarže Heat No. Schmelzen Nr.	Št. vzorca Sample No. Probe Nr.	Test temperature Temperature Prüftemperature (°C)	Smer vzorca Sample orientation Proben lage			Posamezne vrednosti Individual values Einzelwerte (J)			Povprečje Mean value Mittelwert (J)
		T	T/L	T/B	1/2; 1/4 ; S2	1	2	3	
Zahteve Requirements Anforderung	MIN					**60**	**60**	**60**	**60**
	MAX	**20**							
302063	**173246370101**	**20**	**T**			**393**	**389**	**393**	**392**

T- Prečno / Transverse / Quer **L**- Vzdolžno / Longitudinal / Langs **T**- Glava / Top / Kopf **B**- Noga / Bottom / Fuss
1/2 - Odvzem vzorca na sredini / Taking the sample at the center of product / Unter der Probe in der Mitte des Produkt
1/4 - Odvzem vzorca po deb 1/4 pod površino / Thickness 1/4 under the surface / Dicke 1/4 unter der Oberfläche
S2- Odvzem vzorca po deb 2 mm pod površino / Thickness 2 mm under the surface / Dicke 2 mm unter der Oberfläche

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
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Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

Tel.: +386 4 584 10 16
Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

10067959-20014016-43350

Kemična Analiza / Chemical Composition / Chemische Zusammensetzung

Št. Sarže/ Heat No./ Schmelzen Nr.	302063

%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Cu	%Al	%Mo	%V	%Ti
0,024	0,320	1,840	0,034	0,0005	18,12	8,19	0,400	0,015	0,310	0,091	0,005

%Nb	%N
0,018	0,0793

Dodatne zahteve: / Additional requirements: / Zusätzliche Anforderungen :
Št. sarže / Heat No. / Schmelzen Nr. : **302063**

Feritno število / Ferrite no. / Ferrit nr. **3,95**

Kontrola oznak, identifikacije, površine, oblike in dimenzij / Control of marking and identification, surface appearance, shape and dimensional properties/ Prüfung von Kennzeichnung, Identifizierung, Oberfläche, Form und Maße :
ASME SA 480 Ed.2015 OK
ASTM A480/A480M-16a OK
EN ISO 18286:2010 Flatness Class N OK
EN ISO 18286:2010 Thickness: OK OK
EN ISO 18286:2010 Width/Length Class B OK
EN 10029:1991 Flatness Class N OK
EN 10029:1991 Thickness Class B OK
EN 10029:1991 Width/Lenght : OK OK

Preizkus odpornosti na korozijo / Corrosion test / Korrosion test
Št. vzorca / Sample No. / Probe Nr. : **173246370101,**
Intergranular corrosion test acc.A262-E: OK / Interkristalline Korrosion nach A262-E: OK
Intergranular corrosion test acc.ISO-3651-2-A: OK / Interkristalline Korrosion nach ISO-3651-2-A: OK

Sulfide Stress Cracking Resistance v skladu z NACE MR0103: OK / ISO 17945: OK /Sulfide Stress Cracking Resistance in accordance with NACE MR0103: OK / ISO 17945: OK
Cracking resistance in accordance with ANSI/ NACE MR0175/ISO 15156-3: OK / Cracking resistance nach ANSI/ NACE MR0175/ISO 15156-3: OK

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
Diese Bescheinigung wurde durch ein geeignetes Datenverarbeitungs-system erstellt und ist gemaess EN 10204, abs.5 ohne Unterschrift gueltig.
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Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

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Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

Opombe / Remarks / Bemerkungen

Potrjujemo da dobavljeni izdelki ustrezajo zahtevam naročila / We confirm herewith that the delivered products comply with the purchase order / Es wird bestätigt, daß die Erzeugnisse den Bestellanforderungen entsprechen
Država porekla = Država izdelave taline = Država izdelave slaba - SLOVENIJA – EU / Country of Origin = Country of melt = Country of slab: SLOVENIA – EU / Herkunftsland = Land der schmelze = Land der Bramme – SLOVENIA – EG
Material ni kontaminiran z Živim srebrom. / Free from Known Contamination with Mercury. / Keine kontamination mit Quecksilbe.
Material je skladen z RoHS direktivo. Podrobnosti na: http://www.acroni.si/en/data/files/1370588262.pdf/ Material fully comply with RoHS directive, Details on: http://www.acroni.si/en/data/files/1370588262.pdf / Material ausgestattet mit RoHS-Richtlinien, Einzelheiten auf: http://www.acroni.si/en/data/files/1370588262.pdf

Sistem vodenja kakovosti je certificiran po ISO 9001. Št. Certifikata: 12 100 6200 TMS. Izdajatelj: TÜV SÜD Management Service GmbH. / Quality Management System is certified according to ISO 9001. Certificate no. 12 100 6200 TMS, issued by TÜV SÜD Management Service GmbH. / Qualitätsmanagementsystem zertifiziert nach ISO 9001. Zertifikat Nr. 12 100 6200 TMS der TÜV SÜD Management Service GmbH.

V soglasju s TÜV Bayern e. V. (08/1965)./ Im Einvernehmen mit dem TÜV Bayern e. V. (08/1965). /As agreed with TÜV Bayern e. V. (08/1965) /

Sopodpisovanje s strani TÜV Bayern Sachsen e. V. ni potrebno (dopis z dne 20.06.1996). / Gegenzeichnungsverzicht durch TÜV Bayern Sachsen e. V. mit Schreiben vom 20.06.1996. / Waiving of countersigning by TÜV Bayern Sachsen e. V. dated 20 June 1996.

Certificiran sistem vodenja kakovosti po direktivi 2014/68/EU, priloga I, točka 4.3 s strani TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, priglašeni organ-registracijska številka 0036 (okt. 2002)./ Zertifiziert nach DGRL 2014/68/EU, Anhang I, Abschnitt 4.3 durch TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, Benannte Stelle-Kennnummer 0036 (Oktober 2002). / Certified according to PED 2014/68/EU, Annex I, Paragraph 4.3 by TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, notified body-registration number 0036 (October 2002).

Meritve sevanja: NI RADIOAKTIVNEGA ONESNAŽENJA / Measuring Radiation: NO RADIOACTIVE CONTAMINATION / messen: KEINE ERHÖHTE RADIOAKTIVITÄT

Spektrometerska analiza PMI v skladu API RP 578: OK / Spectrometer Sorting Test PMI according API RP 578: OK / Spektrometer Sortiertest PMI nach API RP 578: OHNE BEANSTANDUNG

Vizualni pregled: OK / Visual inspection: OK / Sichtprüfung: OHNE BEANSTANDUNG

Priloga / Annex / Anbau :
Priloga / Annex / Anbau: 1: CE znak / CE marking / CE-Kennzeichnung
Priloga / Annex / Anbau: 1: CE znak / CE marking / CE-Kennzeichnung

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
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This Certificate has been issued by a qualified Electronic Data System and is valid acc. to EN 10204, para.5 without Signature.
Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Priloga/ Annex/ Anbau: 1

CE

0036

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44
SI-4270 Jesenice, Slovenija
12

ACR-4307-P_CPR_06-13

EN 10088-4:2009

Vroče valjana pločevina X2CrNi18-9 / 1.4307
Warmgewalztes Blech X2CrNi18-9 / 1.4307
Hot rolled plate X2CrNi18-9 / 1.4307

Predvidena uporaba: Kovinske konstrukcije ali sovprežne konstrukcije iz jekla in betona
Metallbauwerke oder in Metall-/ Betonverbundbauwerken
Metal structures or in composite metal and concrete structures.

Tolerance dimenzij in oblike
Grenzabmaβe und Formtoleranzen
Tolerances on Dimensions and shape

EN 18286, razred / Klasse / class : B/N

Raztezek / Dehnung / Elongation	Izraženo, kot je navedeno v izjavi o lastnostih Ausgedrückt als in der Leistungserklärung angegeben Expressed as indicated in the DoP
Natezna trdnost / Zugfestigkeit / Tensile strength Napetost tečenja / Streckgrenze / Yield strength	
Udarno delo / Kerbschlagarbeit / Impact strength	
Varivost CEV / Schweißeignung CEV / Weldability CEV	
Trajnost / Dauerhaftigkeit / Durability	

Regulirana snov: Ni preverjeno. / Regulierter Stoff: Keine Leistung festgestellt./ Regulated Substance: No performance determined

Priloga/ Annex/ Anbau: 1

CE

0036

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44
SI-4270 Jesenice, Slovenija
12

ACR-4301-P_CPR_06-13

EN 10088-4:2009

Vroče valjana pločevina X5CrNi18-10 / 1.4301
Warmgewalztes Blech X5CrNi18-10 / 1.4301
Hot rolled plate X5CrNi18-10 / 1.4301

Predvidena uporaba: Kovinske konstrukcije ali sovprežne konstrukcije iz jekla in betona
Metallbauwerke oder in Metall-/ Betonverbundbauwerken
Metal structures or in composite metal and concrete structures.

Tolerance dimenzij in oblike
Grenzabmaβe und Formtoleranzen
Tolerances on Dimensions and shape

EN 18286, razred / Klasse / class : B/N

Raztezek / Dehnung / Elongation	Izraženo, kot je navedeno v izjavi o lastnostih Ausgedrückt als in der Leistungserklärung angegeben Expressed as indicated in the DoP
Natezna trdnost / Zugfestigkeit / Tensile strength	
Napetost tečenja / Streckgrenze / Yield strength	
Udarno delo / Kerbschlagarbeit / Impact strength	
Varivost CEV / Schweißeignung CEV / Weldability CEV	
Trajnost / Dauerhaftigkeit / Durability	

Regulirana snov: Ni preverjeno. / Regulierter Stoff: Keine Leistung festgestellt./ Regulated Substance: No performance determined

MARCEGAGLIA

Marcegaglia
46040 via Bresciani 16-Gazoldo degli Ippoliti Mantova-Italy
Tel. +39 - 0376 685 Fax. +39 - 0376 685 600
www.marcegaglia.com

Stabilimento di Forlì:
via E.Mattei,20 47034 Forlimpopoli, Forlì-Cesena
tel+39.0543470111 fax+39.0543470105

Type: Inspection Certificate 3.1 EN 10204

THIS DOCUMENT WAS PRODUCED AUTOMATICALLY AND IS VALID WITHOUT SIGNATURE

Number: 10515270203 Issued On: 28/04/2015

WELDING PROCESS QUALIFICATION: ALL THE LASER WELDING PROCESS ARE QUALIFIED ACCORDING EUROPEAN PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC BY THE NOTIFIED BODY N.1233 EUROPED WITH WELDING PROCEDURE QUALIFICATION WPQR N° PM0907A001 Registration no. 10M203 AND WPQR N° PM907A002 Registration no. 11M017.

Customer
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Code: 0000018007

Consignee
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Delivery Nn 8305508540
Of 28/04/2015
Delivery note nr 1005006401

Quality Control
Q.M.D./Q.M. S.Toscano
Plant Of Forlì

Pages
19/29

Material
59003141

Description
TXT003 154x2x6000 TP304L LAS FLD CC

Test specification: EN 10217-7 TC1 EN 10357 ASTM A270
Stainless steel grade: TP 304L 1.4307/1.4301 X2CrNi18-9/X5CrNi18-10
Tolerances: ISO 1127 D3-T3

Welding process
LASER WELDING

Order Nr
1151011359/80

Part Number

Client Order
53816

Client Date
27/03/2015

Item	Identification Nr	Heat	Quantity MTL	Quantity KG	Quantity PZZ	Delivery conditions	Reworks
1	15W0004190	0443108	54	380	9	W2b CC	PICKLING

Identification Nr	Chemical Type	C (%)	Si (%)	Mn (%)	P (%)	S (%)	N (%)	Cr (%)	Ni (%)
								17.5	8
		0.03	1	2	0.045	0.015	0.11	19.5	10
15W0004190	RAW MATERIAL	.029	.310	1.750	.0300	.0010	.0570	18.060	8.020

Identification Nr	Type of mechanical test	Rp 0.2 [MPa]	Rp 1.0 [MPa]	Rm [MPa]	A5 (%)
		180	215	470	40
				670	
15W0004190	TUBE	399	439	649	43.6

MARCEGAGLIA FORLÌ PLANT SYSTEM CERTIFICATIONS
QUALITY SYSTEM CERTIFIED ACCORDING TO EN 9001:2008 AND ISO\TS 16949:009 AND ISO 3834-2:2005 AND A SAFETY SYSTEM CERTIFIED ACCORDING TO OHASAS 18001:2007.

MARCEGAGLIA FORLÌ PRODUCT CERTIFICATIONS
DVGW ACCORDING TO GW541 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4404 DIA FROM 15.00 TO 108.00MM AND GRADE 1.4521 FROM 15.00 TO 54.00MM.
TUV AD2000 W2\W10 AND PED ANNEX I, PARAGRAPH 4.3 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4301, 1.4306, 1.4307, 1.4401, 1.4404, 1.4541, 1.4571, 1.4435, 1.4436 THICKNESS FROM 0.80 TO 4.00MM AND DIAMETRS FROM 8.00 TO 283.00 MM.

NON DESTRUCTIVE TESTS

EDDY CURRENT TEST FOR THE VERIFICATION OF HYDRAULIC LEAKTIGHTNESS ACCORDING TO EN ISO 10893-1:2011: CONFORM
EDDY CURRENT TEST FOR THE DETECTION OF IMPERFECTIONS ACCORDING TO EN ISO 10893-2:2011: CONFORM
ANTIMIXING TEST: CONFORM
VISUAL INSPECTION AND DIMENSIONAL CONTROLS: CONFORM
ROUGHNESS Ra VALUES MEASURED FOR RAW MATERIAL MAX 0,8 um AND INTERNAL WELDING AREA MAX 1,6 um ACCORDING TO EN 10357 : CONFORM

DESTRUCTIVE TESTS

DRIFT EXPANDING TEST ACCORDING TO EN ISO 8493:2005: CONFORM
FLATTENING TEST ACCORDING TO EN ISO 8492:2004: CONFORM
RING EXPANDING TEST ACCORDING TO EN ISO 8496:2004: CONFORM
TENSILE TEST ACCORDING TO EN ISO 6892-1:2009
INTERGRANULAR CORROSION TEST ACCORDING TO EN ISO 3651-2:1998: CONFORM

Marking

Remarks:
CHEMICAL COMPOSITION ACCORDING TO EN 10028-7 TUBE TO EN 10217-7 TC1 DIN 11850 AND DIRECTIVE 97/23/EC (PED)
ANNEX I, PARAGRAPH 4.3 WELDING FACTOR V=1

WE CERTIFY THAT THE ABOVE MENTIONED PRODUCTS COMPLAY WITH THE TERMS OF ORDER CONTRACT AND THE STANDARDS RECALLED IN THE PRESENT TEST CERTIFICATE

TÜV SÜD

Product description
Longitudinally welded stainless steel pipe

Material
1.4432 acc. to EN 10028-7/316L

Technical requirements
EN 10217-7 TC1
Joint factor Z= 1,0

Melting process
E+ AOD

Product marking
OSTP Batch Dimension Material EN 10217-7 TC1 Z= 1,0

Extent of delivery

Dimension	Batch number	Starting material	Heat number	Deliv. cond.
108X4	3205994	Coil 1.4432/316L	311622	W2

Chemical composition (According to inspection certificate of steel manufacturer)

C [%]	Si [%]	Mn [%]	P [%]	S [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	N [%]	Cu [%]
0,017	0,380	1,270	0,032	0,001	16,80	10,80	2,550		0,045	

Test results (Test number ending with L= longitudinally and T= transversely)

Test no.	$R_{p0.2}$ [N/mm²]	$R_{p1.0}$ [N/mm²]	R_m [N/mm²]	A_5 [%]	Technological tests	Heat treatment
E0390L	372	415	613	52	Weld bend test	
E0391L	382	429	616	48	EN 910	

Intergranular corrosion test EN ISO 3651-2/A :	Accepted
Eddy current test EN 10246-3 E1H/EN 10246-2 :	Accepted
Dimensional inspection EN ISO 1127 D3/T3 :	Accepted
Visual inspection :	Accepted
Material dentification test :	Accepted

These components are manufactured according to
PED 97/23 EC Annex 1, chapter 3.1, 4.3 and 7.2

ISO 9001:2008 Quality Management System, certified by TÜV
Certified acc. to **PED 97/23/EC** Annex 1, chapter 3.1, 4.3 and 7.2, by TÜV Notified Body reg. no. 0045. **ADM 2000 W0** by TÜV, Pipes and fittings: cert.No. 07-202-1326 WZ-0562/11
The above mentioned product complies with the requirements of the standard above and the order.

OSTP Finland Oy Ab
P.O.Box 15, FIN-68601 JAKOBSTAD, Finland

QUALITY DEPARTMENT

Inspector Kjell Hagvik
This test certificate is made by controlled ADP-system and is valid without signature.

Tel.+ 358 6 7865111, Fax. + 358 6 7865222
Domicile: Jakobstad, Finland. Business ID 1731317-7

MARCEGAGLIA SPECIALTIES

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46040 via Bresciani 16-Gazoldo degli Ippoliti Mantova-Italy
Tel. +39 - 0376 685 1 Fax. +39 - 0376 685 600
www.marcegaglia.com

Stabilimento di Forlì:
via E.Mattei,20 47034 Forlimpopoli, Forlì-Cesena
tel+39.0543470111 fax+39.0543470105

Type Inspection Certificate 3.1 EN 10204

THIS DOCUMENT WAS PRODUCED AUTOMATICALLY AND IS VALID WITHOUT SIGNATURE

Number 10518196354 Issued On 26/03/2018

WELDING PROCESS QUALIFICATION: ALL THE LASER WELDING PROCESS ARE QUALIFIED ACCORDING EUROPEAN PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC BY THE NOTIFIED BODY N.1233 EUROPED WITH WELDING PROCEDURE QUALIFICATION WPQR N° PM0907A001 Registration no. 10M203 AND WPQR N° PM907A002 Registration no. 11M017. STILL VALID UNDER PED 2014/68/EU PER ARTICLE 48 CLAUSE 3.

Customer
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Code: 0000018007

Consignee
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Delivery Nn 8305806641
Of 26/03/2018
Delivery note nr 1005004078

Quality Control
Q.M.D./Q.M. S.Toscano
Plant Of Forlì

Pages 12/20

Material
59005251

Description
TXT014 104x2x6000 TP304L LAS LD

Test specification: AD2000-W2\W10 EN 10217-7 TC2 EN 10357 ASTM A270
Stainless steel grade: TP 304L 1.4307/1.4301 X2CrNi18-9/X5CrNi18-10
Tolerances: EN 10357 - DIN 11850

Welding process
LASER WELDING

Order Nr **1181033610/150**

Part Number

Client Order **56808**

Client Date **20/03/2018**

Item	Identification Nr	Heat	Quantity MTL	Quantity KG	Quantity PZZ	Delivery conditions	Reworks
1	18W9001511	SD27226	114	570	19	W2b CC	PICKLING

WE CERTIFY THAT THE ABOVE MENTIONED PRODUCTS COMPLAY WITH THE TERMS OF ORDER CONTRACT AND THE STANDARDS RECALLED IN THE PRESENT TEST CERTIFICATE

Identification Nr	Chemical Type	C (%)	Si (%)	Mn (%)	P (%)	S (%)	N (%)	Cr (%)	Ni (%)
								17.5	8
		0.03	1	2	0.045	0.015	0.11	19.5	10
18W9001511	RAW MATERIAL	.018	.425	1.554	.0313	.0008	.0377	18.169	8.069

Identification Nr	Type of mechanical test	Rp 0.2 [MPa]	Rp 1.0 [MPa]	Rm [MPa]	A5 (%)
		180	215	470	40
				670	
18W9001511	TUBE	395	434	636	44.3
18W9001511	TUBE	395	435	636	44.7

MARCEGAGLIA SPECIALTIES FORLIMPOPOLI PLANT SYSTEM CERTIFICATIONS QUALITY SYSTEM CERTIFIED ACCORDING TO EN 9001:2008 AND ISO\TS 16949:009 AND ISO 3834-2:2005 AND A SAFETY SYSTEM CERTIFIED ACCORDING TO OHASAS 18001:2007 AND AN ENVIROMENTAL SYSTEM CERTIFIED ACCORDING TO ISO 14001:2004.
MARCEGAGLIA SPECIALTIES FORLIMPOPOLI PRODUCT CERTIFICATIONS DVGW ACCORDING TO GW541 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4404 DIA FROM 15.00 TO 108.00MM AND GRADE 1.4521 FROM 15.00 TO 54.00MM.
TUV AD2000 W2\W10 AND PED ANNEX I, PARAGRAPH 4.3 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4301, 1.4306, 1.4307, 1.4401, 1.4404, 1.4541, 1.4571, 1.4435, 1.4436 THICKNESS FROM 0.80 TO 4.00MM AND DIAMETRS FROM 8.00 TO 283.00 MM. EHEDG FOR DAIRY TUBES TXT015. TIFQ - EUROPEAN DIRECTIVE 1935:2004 FOR DAIRY TUBES TXT003, TXT014, TXT015.

NON DESTRUCTIVE TESTS

EDDY CURRENT TEST FOR THE VERIFICATION OF HYDRAULIC LEAKTIGHTNESS ACCORDING TO EN ISO 10893-1:2011: CONFORM
EDDY CURRENT TEST FOR THE DETECTION OF IMPERFECTIONS ACCORDING TO EN ISO 10893-2:2011: CONFORM
ANTIMIXING TEST: CONFORM
VISUAL INSPECTION AND DIMENSIONAL CONTROLS: CONFORM
ROUGHNESS Ra VALUES MEASURED FOR RAW MATERIAL MAX 0,8 um AND INTERNAL WELDING AREA MAX 1,6 um ACCORDING TO EN 10357 : CONFORM

DESTRUCTIVE TESTS

DRIFT EXPANDING TEST ACCORDING TO EN ISO 8493:2005: CONFORM
FLATTENING TEST ACCORDING TO EN ISO 8492:2004: CONFORM
RING EXPANDING TEST ACCORDING TO EN ISO 8495:2004: CONFORM
TENSILE TEST ACCORDING TO EN ISO 6892-1:2009
INTERGRANULAR CORROSION TEST ACCORDING TO EN ISO 3651-2:1998: CONFORM

Marking

Remarks:
A countersign was give up with script of TUV BAYERN SACHSEN dated 01/02/1994. he issuing of 3.1 certificates happens in compliance to AD 2000 Merkblatt W2 paragraph 6.2.1 in accordance to TUV SUDDEUTSCHLAND.

ACCORDING TO TUV AD2000-MERKBLATT W0/TRD100; DIRECTIVE 2014/68/EU (PED) ; CHEMICAL COMPOSITION TO EN10088; TUBES TO EN 10217-7 TC2; WELD FACTOR V=1.

HYGIENIC QUALITY OF FOOD EQUIPMENT TIFQ Product compliant to Reg.EC No1935/2004

TÜV SÜD

OUTOKUMPU

CERTIFICATE EN 10204:2004/3.1

This inspection certificate fulfils the requirements of EN 10204:2004 type 3.1 and EN 10204:1991+A1:1995 type 3.1.B.

BUYER	DATE	CERTIFICATE NO
OUTOKUMPU BALTIC Oü VALDEKU 109 EE-11216 TALLINN ESTLAND	2010-06-14	N1009933/ 1
	MANUFACTURES ORDER NO 2010002707	ITEM 20
	BUYERS ORDER NO E99309	SHIPMENT 821104

PRODUCT FORM

LONGITUDINALLY WELDED STAINLESS STEEL TUBES, BASE MATERIAL EN 10028-7, WELD OUTSIDE GROUND, PICKLED, PLAIN ENDS, IN MILL LENGTHS,
HEAT TREATMENT 1080 C QUENCHED IN GAS

SPECIFICATION	MANUFACTURES MARK
EN 10217-7 Tc1	**OUTOKUMPU-N**

GRADE	MANUFACTURES GRADE	TOLERANCES
EN 1.4307	4307T	SS EN ISO 1127 D3 T3

TUBE MARKING

OUTOKUMPU-N; MADE IN SWEDEN; EN 1.4307/304L; EN 10217-7; W2A; TC1; Z=1,0; MAR-N1; 54,00 X 2,00; 4233288;

EXTENT OF DELIVERY

PCS	METER	DIMENSION		HEAT NO	TEST NO
1	6,00	54,00	2,00	4233288	A

CHEMICAL COMPOSITION

	C	SI	MN	P	S	CR	NI	N
HEAT ANALYSIS 1	0,020	0,400	1,60	0,031	0,001	18,30	8,10	0,049

TEST RESULT

	TEMP	RP0,2 MPa	RP1,0 MPa	RM MPa	A5 %
	20	180	215	470 670	40
A1 L	20	404	448	665	53

EDDY CURRENT TEST EN 10246-3 E1H / EN 10246-2	SATISFACTORY
FLARING TEST EN ISO 8493	SATISFACTORY
VISUAL AND DIMENSIONAL INSPECTION	SATISFACTORY
MATERIAL IDENTIFICATION TEST	SATISFACTORY
INTERGRANULAR CORROSION TEST EN ISO 3651-2:A	SATISFACTORY

TÜV CERT EN ISO 9001 : 2000
No. 44 100 075263

Certified acc: PED 97/23/EC and AD2000-W0/TRD 100 by TÜV Nord gruppe for pressure equipment NOB no: 0045
Certificate no: 07-202-3537WZ-0676/07 (no. 3537WL04770)
Procedures and personnel approved by notified bodies.
WPS/WPAR: EN 288 / WLD Personnel: EN 1418 / NDT: EN 473

MELTING PROCESS: E/AOD

Base material from PED 97/23/EC approved suppliers.

THE REQUIREMENTS ARE FULFILLED AS STIPULATED

INSPECTOR / MAR
Johan Gemmel

ISSUED BY
Yvonne Wannestrand

JTS039PE_ASTINTVOW_20100614_103539

OUTOKUMPU STAINLESS TUBULAR PRODUCTS
Torshälla Box 48 S-64421 Torshälla Sweden
Telephone no +46 16 34 96 52
Telefax +46 16 34 97 00
yvonne.wannestrand@outokumpu.com

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 001 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#010 - PRODUITS LIVRES - DELIVERED PRODUCTS - GELIEFERTEN GEGENSTÄNDE

Nuance - Grade - Werkstoff	Selon norme - According to - Entsprechend
X5CrNiMo17-12-2 (1.4401)	EN 10088-2:2014
X2CrNiMo17-12-2 (1.4404)	EN 10088-2:2014
UNS S31600 (316)	ASTM A 240/M ED.2017
UNS S31603 (316L)	ASTM A 240/M ED.2017
UNS S31600 (316)	ASME IIA ED.2017 SA 240/M
UNS S31603 (316L)	ASME IIA ED.2017 SA 240/M
X5CrNiMo17-12-2 (1.4401)	EN 10028-7:2016+AD2000W2+ADW10
X2CrNiMo17-12-2 (1.4404)	EN 10028-7:2016+AD2000W2+ADW10
X5CrNiMo17-12-2 (1.4401)	EN 10088-4:2009
X2CrNiMo17-12-2 (1.4404)	EN 10088-4:2009

Epaisseur - Thickness - Dicke	30.00 mm	Largeur - Width - Breite	2,000 mm	Longueur - Length - Länge	6,000 mm

Spécification - Specification - Spezifikation

Acc.to MTC Requirements HW-INOX Gmbh
Acc.to Certificate requirement (excel file) + Norsok MDS 630 - MDS S01
Acc.to ASTM A480 / ASME SA480

https://eservices.industeel.be

Etat thermique de livraison - Heat treatment state of delivery - Wärmebehandlung Lieferzustand

Hypertrempe à l'air (1050 °C - 1 min/mm) - Solution annealed and air quenched - Luft vergütet

Procédé d'élaboration - Melting process - Erschmelzungsart

Electric-arc furnace - VOD - Finish n°1 - 1D - HRAP

Nbre Nbr Stz	N° produit Product Erzeugnis	N° de coulée Ladle nr. Schmelze nr.	N° de lot de contrôle Inspection lot nr. Prüflos nr.	Nbre Nbr Stz	N° produit Product Erzeugnis	N° de coulée Ladle nr. Schmelze nr.	N° de lot de contrôle Inspection lot nr. Prüflos nr.
01	899620001	29161	899620.1001 / 899620.2003 / 899620.5001	01	899896002	28881	899896.1002 / 899896.5001

Total - Total - Gesamtzahl 002

This supply complies with the main requirements of PED 2014/68/EU relating to the basis materials regardless of the specific terms of service.
Cette fourniture est conforme aux exigences de la PED 2014/68/UE relatives aux matériaux de base indépendamment des conditions de services spécifiques.
NACE MR 0175 - ISO15156-3 (Last Ed.)
NACE MR 0103 - ISO17945 (Last Ed.)
No weld repair
Stamping according to "Plate stamping definition" / HW-Inox

CE

1148
06
20060925
EN 10088-4:2009
Produit laminé à chaud en acier de construction
Usages prévus: Construction de bâtiments et Génie civil
X5CrNiMo17-12-2 (1.4401)
X2CrNiMo17-12-2 (1.4404)

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 002 Sheet / Seite 008

ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#020 - ANALYSE CHIMIQUE DE COULEE - HEAT CHEMICAL COMPOSITION - SCHMELZE CHEMISCHE ZUSAMMENSETZUNG

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo
	%	%	%	%	%	%	%	%	%
Min.							10.000	16.500	2.000
28881	0.023	1.853	0.0384	0.0006	0.318	0.280	10.070	16.845	2.024
29161	0.030	1.846	0.0352	0.0006	0.292	0.282	10.076	16.803	2.036
Max.	0.030	2.000	0.0450	0.0150	0.750	0.750	13.000	18.000	2.500
	Nb	Ti	N	Al	Co				
	%	%	%	%	%				
Min.									
28881	0.007	0.001	0.0414	0.006	0.111				
29161	0.005	0.001	0.0319	0.007	0.080				
Max.	0.100	0.100	0.1000						

#041 - PMI - POSITIVE MATERIAL IDENTIFICATION - VERWECHSLUNGSPRÜFUNG

Non confusion de matière - Positive material identification - PMI Conform

Résultat du contrôle - Examination result - Prüfergebnis

Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 003 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#072 ESSAIS MECANIQUES - MECHANICAL TESTS - MECHANISCHE PRÜFUNGEN

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

Brinell HB Brinell HB - Brinell HB								HB10 Ind	HB10 Ind	HB10 Ind	HB10 Aver								
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	Brinell	Brinell	Brinell	Brinell								
							Min												
							Max	217	217	217	217								
899620.1001	000	T3/4	PSS	20	°C			186	182	183	184								
899896.1002	000	T3/4	PSS	20	°C			186	181	185	184								

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

DURETE NACE MR0103 HRC < 22 NACE MR0103 - NACE MR0103																			
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac													
899620.5001	000	T3/4	PSS	20	°C														
899896.5001	000	T3/4	PSS	20	°C														

Test result HRC < 22

Test result HRC < 22

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

NACE MR0175 / ISO 15156-3 NACE MR0175 / ISO 15156-3 - NACE MR0175 / ISO 15156-3																			
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni												
							Min												
							Max												
899620.5001	000	T3/4	PSS	20	°C														
899896.5001	000	T3/4	PSS	20	°C														

Test result HRC < 22

Test result HRC < 22

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 004 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531[illegible]5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

TRACTION A L' AMBIANTE - ROOM TEMPERATURE TENSILE TEST - ZUGVERSUCH BEI RT

Traction Tensile test - Zugversuch								Rp 0,2%	Rp1%	Rm	A Lo=50mm	A Lo=5,65V So
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	MPa	MPa	MPa	%	%
							Min	220	260	520	40	45
							Max			670		
899620.1001	000	T3/4	PST	20	°C			386	436	617	49	45
899896.1002	000	T3/4	PST	20	°C			410	459	619	56	46

TRACTION A L' AMBIANTE - ROOM TEMPERATURE TENSILE TEST - ZUGVERSUCH BEI RT

Traction Tensile test - Zugversuch								Rp 0,2%	Rp1%	Rm	A Lo=5,65V So
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	MPa	MPa	MPa	%
							Min	220	260	520	45
							Max			670	
899620.2003	000	P1/4	PST	20	°C			398	444	616	45

RESILIENCE - TOUGHNESS - KERBSCHLAGZÄHIGKEIT

KCV EN 10X10mm KCV EN 10X10mm - KCV EN 10X10mm								Energ Ind	Energ Ind	Energ Ind	Energ Ave
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	J	J	J	J
							Min	42	42	42	60
							Max				
899620.1001	000	T3/4	PST	20	°C			258	224	236	239
899896.1002	000	T3/4	PST	20	°C			263	256	239	253

RESILIENCE - TOUGHNESS - KERBSCHLAGZÄHIGKEIT

KCV EN 10X10mm KCV EN 10X10mm - KCV EN 10X10mm								Energ Ind	Energ Ind	Energ Ind	Energ Ave
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	J	J	J	J
							Min	42	42	42	60
							Max				
899620.2003	000	P1/4	PST	20	°C			250	236	247	244

Loc	1/4	Quart - 1/4 Width - 1/4 Breite
Loc	3/4	Trois-Quart - 3/4 Width - 3/4 Breite
Loc	P	Pied - Bottom - Fuß
Loc	T	Tête - Top - Kopf
Epr. Epaisseur	P	Peau - Rolled Surface - Walzfläche
Epr. Face	S	Supérieure - Upper face - obere
Epr. Sens	S	Standard - Standard - Standard
Epr. Sens	T	Travers - Transverse - Quer
Etat	000	Etat thermique de livraison - Heat treatment state of delivery - Wärmebehandlung Lieferustand
Epr.Ep./Face/Sens	PSS	Peau - Rolled Surface - Walzfläche / Supérieure - Upper face - obere / Standard - Standard - Standard
Epr.Ep./Face/Sens	PST	Peau - Rolled Surface - Walzfläche / Supérieure - Upper face - obere / Travers - Transverse - Quer

#082 ESSAIS TECHNOLOGIQUES - TECHNOLOGICAL TESTS - TECHNOLOGISCHE PRÜFUNGEN

CORROSION - CORROSION - KORROSION Sensibilisé - Sensitized -Sensibilisiert

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 005 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis — Plate(s)

Commande / Poste - Internal order - Werksbestellung — 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument — 80325318

EN ISO 3651-2 A
Test description - Prüfbeschreibung

N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac
899620.5001	001	T3/4	SSS	20	°C	
899896.5001	001	T3/4	SSS	20	°C	

Test result — Satisfactory as per specification

Test result — Satisfactory as per specification

CORROSION - CORROSION - KORROSION — Sensibilisé - Sensitized -Sensibilisiert

ASTM A262 E
ASTM A262 E - ASTM A262 E

N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac
899620.5001	002	T3/4	SSS	20	°C	
899896.5001	002	T3/4	SSS	20	°C	

Test result — Satisfactory as per specification

Test result — Satisfactory as per specification

Loc	3/4	Trois-Quart - 3/4 Width - 3/4 Breite
Loc	T	Tête - Top - Kopf
Epr. Epaisseur	S	Standard - Standard - Standard
Epr. Face	S	Supérieure - Upper face - obere
Epr. Sens	S	Standard - Standard - Standard
Etat	001	SENSI - Sensitization (From 350 °C at 220 °C/h to 700 °C (-10/+10) (min: 30 min) - Down to 350 °C at 220 °C/h - 1 Cycle) - SENSI
Etat	002	SENSI - Sensitization (From 350 °C at 220 °C/h to 675 °C (-25/+0) (min: 60 min) - Down to 350 °C at 220 °C/h - 1 Cycle) - SENSI
Epr.Ep./Face/Sens	SSS	Standard - Standard - Standard / Supérieure - Upper face - obere / Standard - Standard - Standard

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 006 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#101 - DIMENSIONNEL - DIMENSIONAL CHECK - MASSKONTROLLE

Cahier des charges Longueur - Specification Length -	ISO 18286 CLASSE A
Cahier des charges Largeur - Specification Width -	ISO 18286 CLASSE A
Cahier des charges Epaisseur - Specification Thickness -	ISO 18286

Résultat du contrôle - Examination result - Prüfergebnis

Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 007 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller	
Référence client - Purchase order - Kaufauftrag	45315-26479
Projet - Project - Projekt	
Industeel Belgium Site : Rue de Châtelet 266 6030 Marchienne-au-Pont	ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012 ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012
Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#111 - VISUEL-ETAT DE SURFACE - VISUAL EXAMINATION-SURFACE CONDITION - SICHTPRÜFUNG-OBERFLÄCHENZUSTAND

Norme applicable 1 - Applicable standard 1 -	EN 10163 CL.B S-CL.3
Résultat du contrôle - Examination result - Prüfergebnis	
Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften	

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 008 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531[illegible]5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#171 - PLANEITE - FLATNESS - EBENHEIT

Cahier des Charges Planéité - Flatness standard - Ebenheit norm	ISO 18286 CLASSE N - TYPE B
Résultat du contrôle - Examination result - Prüfergebnis	
Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften	

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J 4 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 5 st/pcs

Dimension/Nominal Pipe Size
DI 150 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-633436

Charge no
547418

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
547418	0,024	0,35	1,82	0,030	0,015	18,42	8,18	0,20	0,077		0,13	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
1270 E	301	351	604	53,5	55,9	68		147	176	135	152
1294 H	293	340	605	54	56,4	65		147	280	284	292

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 20,31

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

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SE-894 35 SJÄLEVAD
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E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J1 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 4 st/pcs

Dimension/Nominal Pipe Size
DI 100 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-648711

Charge no
547726

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
547726	0,023	0,41	1,65	0,029	0,021	18,31	8,14	0,25	0,080		0,099	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 C Querprobe ISO-V-Probe		
1287 E	305	354	611	54	56,40	67		148	143	188	150

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 20,41

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
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Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

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SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J3 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 1 st/pcs

Dimension/Nominal Pipe Size
DI 50 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
267475

Charge no
408278

Tillverkare/Maker
Olarra

Steel making process
EAF+ AOD

Country of origin
Spain

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
408278	0,018	0,34	1,42	0,035	0,029	18,00	8,10		,0845		0,17	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 C Querprobe ISO-V-Probe		
1160 E	321	373	609	51	53,20	71		149	182	156	146

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 19,35

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed
[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
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Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
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PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

VIRAJ PROFILES LIMITED (Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER :	Manufacturer's	(A03)MTR NO.	**12/1038215/30**
NORDIC FLANGES AB	Symbol (A04)	(Z02) DATE	**13.05.2018**
KAVELVAGEN 17		MATERIAL SPEC.	**ASTM A182/A182M-16 / ASME SA182 / SA182M-15**
SE-894 35 SJALEVAD			**EN 10222 - 5 - 2013**
SWEDEN		(B02) GRADE	**F316/316L/1.4401/1.4404**
		DIMENSIONAL SPEC.	**EN1092-1:2013**

(B01) : **STAINLESS STEEL FORGED FLANGES** | (B04) **DELIVERY CONDITION :**

ISO 9001:2015-TUV NORD REG.No-04100011170 EXPIRY DATE: 21.01.2019 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: 4500009182 | **(A08)Sales Order No. 30088348/000320** | **Article No:105465**

(B09-B11)ITEM DESCRIPTION	QUANTITY(PIECES)	HEAT NUMBER
150/154 TYPE 02M PN16 ID=165	**81**	**49252**

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N						
MIN						16.50	10.00	2.00								
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50								
HEAT	0.030	1.58	0.36	0.028	0.035	16.64	10.08	2.02	0.003	0.0750						
PROD.																

MECHANICAL PROPERTIES

Test specificaiton ASTM-A370

Sample location : Mid thick-forging	Test Temp : RT	Test Direction : Tr	Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Proof Strength		(C13)	Reduction of Area	(C32) Hardness	Charpy V-Notch 10x10x55mm (Values in Joules) & (Shear%)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=5D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN					
T	556.99	289.36	327.56	58.00	66.84	152	169	178	199	182

Other applicable Specifications :: NACE MR 0175 / ISO 15156 - 2015 & NACE MR 0103 - 2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment : Solution Annealed at 1080°C and water Quenched
Dimension : Conform with the specification (100% inspected)
Surfacequality : Satisfactory
PMI Test : No objection (100% tested with mobile spectro)
Corrosion Test : Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation : No carbide precipitation observed on grain boundaries
Radioactitivity Test : We here by certify that all the material is free from radioactive contamination
Mercury Contamination : Free from mercury contamination

we certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

VIJAY KUMAR PILLAI (GM, QAD)

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J6 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a
75803 RAE VALD HARJUMAA
ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Loose Flange 9 st/pcs

Dimension/Nominal Pipe Size
DN 100 ID113 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F316/316L
SEC II PART A EDITION 2018
EN 10222-5 (2017) 1.4432/1.4436

Dim. Standard
EN 1092-1:2007 TYPE 02M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-666352

Charge no
548544

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
548544	0,022	0,35	1,45	0,030	0,024	16,64	10,59	2,52	0,076		0,11	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
1329 H	337	381	592	50,5	52,70	72		145	262	255	242

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 26,17

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

Värmebehandlad/Heattreated min 1040°
[X] Släckglödgat / Solution annealed
[X] Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J7 Rev.
Datum/Date
31.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Loose Flange 1 st/pcs

Dimension/Nominal Pipe Size
DN 50 ID64 PN40

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDITION 2017
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 02M

Kontrollstämpel/Inspector's stamp

443

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
157435

Charge no
355685

Tillverkare/Maker
Olarra

Steel making process
EAF+ AOD

Country of origin
Spain

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
355685	0,017	0,34	1,43	0,036	0,028	18,00	8,10		0,091		0,13	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
0496 E	311	365	601	50,5	52,70	67		152	124	120	136

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 19,45

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed
[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nrm - SVW2K8R2G1DPRF - BRINDASEXPLOIT - CA-LBP667D-LOGIST - 20/07/2017 05:48:07 - Indice de revision A du 01/09/2011

PROFORM
Groupe GP SA

SAS au capital de 4 000 000 euros
rcs Lyon b 326 979 762
N° Siret : 326 979 762 00019
N° ident tva : fr 26 326 979 762
APE 2814 z

Parc d'activités des Sables - 4 à 8 route du Caillou - CS 50224 - 69630 - Chaponost - France
Tel.: +33 (0)4 72 67 13 00 - Fax. : +33 (0)4 72 67 13 19 - www.proform.fr - sales@proform.fr

CERTIFICAT DE RECEPTION

INSPECTION CERTIFICATE N° 1219247

ACCORDING TO EN 10204 3.1 (DIN EN 10204 3.1)

NOTRE REFERENCE *OUR REF*		VOTRE COMMANDE *YOUR ORDER*		Page
numéro	expédiée le	référence	reçue le	
197802/1	20/07/2017	56128	11/07/2017	10/18

Produit réalisé sous Système de Management de la Qualité certifié
LLOYD'S REGISTER LRQA
ISO 9001

ISO 9001 : 2008 LRQA	N° FQA0922612/A
TÜV	AD2000 - Merkblatt W0 / TRD100
TÜV	PED 97/23/CE Annexe 1 - § 4.3
EDF / FRAMATOME	Qualification RCCM
EN 9100 : 2009 LRQA	N° FQA0922612/B
GOODRICH	N° 56353 - QA 111
BOMBARDIER	SB/VC247 - QD 4.6-40
NADCAP	Soudage et ressuage / Welding & NDT
GOST R (TR)	C-FR.АГ06.В.00004

Client *Customer/Kunde*

KIMET OY
ILVESVUORENKATU 4
SF 01900 NURMIJARVI
FINLANDE

PRODUIT *PRODUCT / PRODUKT* **COLD FORMED**

Qté *Qty / Menge*	Désignation *Description / Bezeichnung*	Dimensions *Size / Abmessungen*	Rayon *radius / Radius*	Spécifications *Requirements / Anforderungen*	Nuance *Grade / Werkstoff*
12	BENDS 90* WELDED	154 x 2	225	EN 10253-4 Type A	316L / 1.4404

O.F.	Contrôle visuel et dimensionnel *Visual inspection and dimensional control / Sicht- u. Abmessungskontrolle ohne Beanstandung*	Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Hyper-trempe *Heat treatment / Wärmebehandlung*	PMI Contrôle non mélange *Identification test / Verwechslungsprüfung*	Marquage *Markierung / Marking*
133195	Ok	Ok		Ok	154x2 R225 W EN10253-4/A 1.4404/316L 634019- 133195 - TR

MATIERE *BASE MATERIAL / VORMATERIAL* *WELDING FACTOR V = 1.0*

Coulée *Heat / Schmelze*	N° CCPU *Cert. n° / Zeugnisnr.*	Tubiste *Material Supplier / Vormarterial Lieferant*	Spécifications *Requirements / Anforderungen*	Exécution *Execution / Lieferzustand*
634019	063985	AQUAP : QMOS 01 202	EN 10217-7 TC1 - DIN 11850	W0b

ANALYSE CHIMIQUE DU METAL DE BASE

CHEMICAL COMPOSITION / CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Co	Cu	N		
mini						16.5	10	2						
	0.020	**0.48**	**1.32**	**0.002**	**0.032**	**16.62**	**10.06**	**2.01**	**0.01**	**0.00**	**0.00**	**0.03**		
maxi	0.030	1	2	0.015	0,045	18	13.00	2.50	0.05			0.11		

CARACTERISTIQUES MECANIQUES - ESSAIS

MECHANICAL CHARACTERISTICS - TESTS / MECHANISCHE EIGENSCHAFTEN - PRÜFUNGEN

	Résistance rupture *Tensile str. / Zugfestigkeit* *1.0*	Limite élastique *Yield str. / Dehngrenze* *0,2 %*	Limite élastique *Yield str. / Dehngrenze* *1,0 %*	Allonge-ment *Elongation / Dehnung*	Dureté *Hardness / Härte* *HRB*
mini	490	190	225	40.00	
	644	**349**	**372**	**56**	**0**
maxi	690				

TESTS - CONTRÔLES

TESTS - CONTROLS / PRUFUNGEN

Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Contrôle soudure *Non destructive testing / Zertörungsfreie Prüfung*	Etanchéité *Leak test / Dichtheitsprüfung*	Visuel et dimensionnel *Sicht- u. Abmessungskontrolle / Visual and dimensional control*	Contrôle nuance *Grade / Werkstoff*	Corrosion *Corrosion / Korrosion*	Hyper-trempe *Heat treatment / Wärmebehandlung*
EN 10233	EN 10893-2	EN 10893-1	EN-1127	OK	EN 3651-2	

Les mini, maxi imprimés correspondent à la fourchette de tolérance des équivalences de nuances / The min and max values comply with the tolerance range of grade equivalences

AUTRES ESSAIS - REMARQUES *OTHER TESTS - REMARKS / WEITERE PRÜFUNGEN - BEMERKUNGEN*

Products decontaminated with controlled passivation and rinsing with pollution free recycled demineralised water.

The chemical analysis and mechanical characteristics conform to the Base Material Certificate supplied by the pipe manufacturer (parts manufactured by PROFORM) or by the fittings manufacturer (fittings re-sold by PROFORM).

This certificate has been printed by computer and as such is valid without a signature. Any alterations made to this certificate will render the document as false and fraudulent, and any persons connected with this falsification are liable to legal action.

20/07/2017
Factory Inspector
P. Lizé

G10PRF - CHAPONOST\EXPLOIT - Log\s-Nb-1 - 12/04/2018 08:03:19 - Indice de révision A du 01/09/2011

PROFORM
Groupe GP SA
N° Siret : 326 979 762 00019
N° ident tva : fr 26 326 979 762
APE 2814 z
Parc d'activités des Sables - 4 à 8 route du Caillou - CS 50224 - 69630 - Chaponost - France
Tel.: +33 (0)4 72 67 13 00 - Fax. : +33 (0)4 72 67 13 19 - www.proform.fr - sales@proform.fr

INSPECTION CERTIFICATE N° 1235250

ACCORDING TO EN 10204 3.1 (DIN EN 10204 3.1)

NOTRE REFERENCE *OUR REF*		VOTRE COMMANDE *YOUR ORDER*		Page
numéro	expédiée le	référence	reçue le	
202794/1	12/04/2018	56884 add.1	11/04/2018	1/1

Produit réalisé sous Système de Management de la Qualité certifié
LLOYD'S REGISTER LRQA
ISO 9001

ISO 9001 : 2008 LRQA	N° FQA0922612/A
TÜV	AD2000 - Merkblatt W0 / TRD100
TÜV	PED 2014/68/EU Annexe 1 - § 4.3
EDF / FRAMATOME	Qualification RCCM
EN 9100 : 2009 LRQA	N° FQA0922612/B
GOODRICH	N° 56353 - QA 111
BOMBARDIER	SB/VC247 - QD 4.6-40
NADCAP	Soudage et ressuage / Welding & NDT
GOST R (TR)	C-FR.АГ06.B.00004

Client *Customer/Kunde*

KIMET OY
ILVESVUORENKATU 4
SF 01900 NURMIJARVI
FINLANDE

PRODUIT *PRODUCT / PRODUKT* COLD FORMED

Qté *Qty / Menge*	Désignation *Description / Bezeichnung*	Dimensions *Size / Abmessungen*	Rayon *radius / Radius*	Spécifications *Requirements / Anforderungen*	Nuance *Grade / Werkstoff*
80	BENDS 90* WELDED	104 x 2	150	EN 10253-4 Type A	304L

O.F.	Contrôle visuel et dimensionnel *Visual inspection and dimensional control / Sicht- u. Abmessungskontrolle ohne Beanstandung*	Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Hyper-trempe *Heat treatment / Wärmebehandlung*	PMI Contrôle non mélange *Identification test / Verwechslungsprüfung*	Marquage *Markierung / Marking*
137625	Ok	Ok		Ok	104x2 R150 W EN10253-4/A 1.4307 / 304L 137625 - 704027 PL

MATIERE *BASE MATERIAL / VORMATERIAL* *WELDING FACTOR V = 1.0*

Coulée *Heat / Schmelze*	N° CCPU *Cert. n° / Zeugnisnr.*	Tubiste *Material Supplier / Vormarterial Lieferant*	Spécifications *Requirements / Anforderungen*	Exécution *Execution / Lieferzustand*
704027	110367	AQUAP : QMOS 01 202	EN 10217-7 TC1	W0b

ANALYSE CHIMIQUE DU METAL DE BASE

CHEMICAL COMPOSITION / CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Co	Cu	N		
mini						18	8							
	0.023	**0.42**	**1.55**	**0.004**	**0.033**	**18.05**	**8.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**		
maxi	0,035	1	2	0,03	0,045	20	11	0.50	0.05					

CARACTERISTIQUES MECANIQUES - ESSAIS

MECHANICAL CHARACTERISTICS - TESTS / MECHANISCHE EIGENSCHAFTEN - PRÜFUNGEN

	Résistance rupture *Tensile str. / Zugfestigkeit 1.0*	Limite élastique *Yield str. / Dehngrenze 0,2 %*	Limite élastique *Yield str. / Dehngrenze 1,0 %*	Allonge-ment *Elongation / Dehnung*	Dureté *Hardness / Härte HRB*
mini	515	205		35.00	
	688	**386**	**401**	**57**	**0**
maxi					

TESTS - CONTRÔLES

TESTS - CONTROLS / PRUFÜNGEN

Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Contrôle soudure *Non destructive testing / Zerstörungsfreie Prüfung*	Etanchéité *Leak test / Dichtheitsprüfung*	Visuel et dimensionnel *Sicht- u. Abmessungskontrolle / Visual and dimensional control*	Contrôle nuance *Grade / Werkstoff*	Corrosion *Corrosion / Korrosion*	Hyper-trempe *Heat treatment / Wärmebehandlung*
EN 10233	EN 10893-2	EN 10893-1	EN-1127	OK	EN 3651-2	

Les mini, maxi imprimés correspondent à la fourchette de tolérance des équivalences de nuances / The min and max values comply with the tolerance range of grade equivalences

AUTRES ESSAIS - REMARQUES *OTHER TESTS - REMARKS / WEITERE PRÜFUNGEN - BEMERKUNGEN*

Products decontaminated with controlled passivation and rinsing with pollution free recycled demineralised water.

The chemical analysis and mechanical characteristics conform to the Base Material Certificate supplied by the pipe manufacturer (parts manufactured by PROFORM) or by the fittings manufacturer (fittings re-sold by PROFORM).

This certificate has been printed by computer and as such is valid without a signature. Any alterations made to this certificate will render the document as false and fraudulent, and any persons connected with this falsification are liable to legal action.

12/04/2018
Factory Inspector
P. Lizé

outokumpu

Certificate No. / Zeugnis Nr. / N° du certificat: 1
Page / Seite / Page: 1(01)

779684/001

Date Datum Date: 22.06.2017

INSPECTION CERTIFICATE 3.1
DIN EN 10204 3.1

Delivery address, Empfänger, Lieu de livraison

FL AMARI METALS OU

VALDEKU 109
11216 TALLINN
ESTONIA

AMARI METALS OU

VALDEKU 109
11216 TALLINN
ESTONIA

Requirements, Anforderungen, Exigences

EN 10088-4:2009
AD 2000 W2, W10 & EN 10028-7:2016
ASTM A240/A240M
ASME SA-240/SA-240M II A ED. 2015

Our Order No. / Unser Auftrag Nr. / Notre commande n°: 300429405

Your order, Ihre Bestellung, Votre commande: E70324 / TARVO MÄGI.

Product, Erzeugnisform, Produit: SHEET , STAINLESS STEEL

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur: outokumpu

Process / Erschmelzungsart / Mode de fusion: AOD

Inspector's stamp / Zeichen d. Sachverst. / Poicon de l'expert

Grade, Werkstoff, Nuance: 1.4307 1.4301 TYPE 304L

Tolerances Toleranzen, Tolérances: EN ISO 9444-2

Marking, Kennzeichnung, Marquage: 1.4307 1D

Marks, Versandzeichen, Marques:

Line / Reihe / Ligne	Item / Position / Poste	Charge-test No. / Schmelze-Probe Nr. / Coulée n°	Size, Abmessungen, Dimensions	Quantity / Stückzahl / Nombre	Weight, Gewicht, Poids	Finish / Ausführung / Fini EN/ASTM
1	1	73274 1	6,0 X 1500 X 6000 MM	14	6018 KG	1D/1

CE
14
0045-CPR-0567

Charge no. / Schmelze Nr. / Coulée n°	Chemical composition, Chemische Zusammensetzung, Composition chimiques											
	C %	Si %	Mn %	P %	S %	Cr %	Ni %	N %				
73274	0,021	0,47	1,47	0,034	0,002	18,2	8,1	0,053				

Line / Reihe / Ligne	Mechanical properties, Mechanische Eigenschaften, Caracteristiques mecaniques								
	Sample ID / Proben ID / Échantillon	Rp0.2 MPa	Rp1.0 MPa	Rm MPa	A5 %	A50 %	%	Hardness / Härte,Durate HBW	
1	01	295	348	625	55	55		190	
	02	297	355	630	53	53		186	

Tensile test, Zugversuch, Essai de traction: ISO 6892-1:2009 A224 SAMPLES PERPENDICULAR TO THE ROLLING DIRECTION

APPROVED ACC.TO AD2000-W0 WITH VERIFICATION OF THE UNIFORMITY OVER THE STRIP LENGTH. CERTIFIED ACC.TO PED 2014/68/EU BY TÜV NORD REG. NO. 0045. DOPS ACC. TO CPR AVAILABLE ON THE WEB PAGE BY STEEL NUMBER

Identity test, Verwechslungsprüfung, Controle d'identification: OK
Sizes. Abmessungen, Dimensions: OK
Surface, Oberfläche, Surface: OK
Test of intergran. corros, Prüfung auf interkrist. Korros, Test de corros. intercrist.: EN ISO 3651-2 A: OK

ASTM A240/A240M
ASME SA-240/SA-240M II A ED. 2015
TYPE 304
NACE MR0103/ISO 17945 AND
NACE MR0175/ISO 15156-1 / NACE MR0175/ISO 15156-3

We certify that the above mentioned products comply with the terms of the order contract.
Wir bestätigen, dass die Lieferung den Vereinbarungen der Bestellannahme entspricht.
Nous certifions ques les produits énumérés ci-dessus sont conformes aux prescriptions de la commande.

This test certificate is made by controlled ADP-system and is valid without signature.
Dieses Zeugnis wurde von einem überprüften Datenverarbeitungssystem erstellt und ist ohne Unterschrift gültig.
Ce certificat a été établi par un systeme informatique controlé et est valide sans signature.

Outokumpu Stainless Oy

Authorized inspector / Werkssachverständiger / Inspecteur autorisé: NANNA RIIKKULA

FI-95490 Tornio, Finland
Tel. +358 16 4521,email certificate.tornio@outokumpu.com,
www.outokumpu.com
Domicile: Tornio, Finland. Business Identity Code 0823315-9

outokumpu
high performance stainless steel

CERTIFICATE - ZEUGNIS - CERTIFICAT

EN 10204-3.1

2509865-EN

Invoice No. / Rechnung Nr. / N° de facture: 6610/1000678389
Page / Seite / Page: 2 1/1

Business Unit / QCM	Date Datum Date	Load, Ladung, Charge No	Acknowledged ID, Bestätigung, Commande ID
Avesta Works / Jerker Sterneland	11-Jun-2018	EE/171721	6610/300482788

Your ref, Ihre Ref., Votre ref
E80476

Buyer, Besteller, Acheteur
AMARI METALS OU
Räniliiva 9
EE 11216, TALLINN
ESTONIA

Consignee, Empfänger, Lieu de livraison
AMARI METALS OU

Requirements, Anforderungen, Exigences
ASTM A 240M-17
ASME BPVC SEC II PART A SA-240/SA-240M Ed 2017
EN 10088-2:2014
EN 10028-7:2016
AD 2000 W2, W10 & EN 10028-7
EN ISO 9444-2 / ASTM A480M

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poicon de l'expert	Grade, Werkstoff, Nuance
outokumpu	E+AOD	AJA	Outokumpu Core 304L/4307 TYPE 304 TYPE 304L 1.4301 1.4307

Product, Erzeugnisform, Produit
Stainless Steel Hot Rolled, Coil-Plate
finish 1D, cut edge

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / Unit / Menge / Einheit / Quantité / Unité	
1	2	581826-003	5,00 X 2000 X 4000 mm	4	1260 KG	

Chemical composition – Chemische Zusammensetzung – Composition chimiques

	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Nb	Cu	Co	N
Heat	.021	.34	1.13	.033	.001	18.07	8.03	.49	.003	.011	.43	.150	.064

Radioactive contamination check acc. IAEA recommendations: Approved

Test results – Prüfergebnisse – Results dessais (1N/mm² = 1 MPa) F = Front – Anfan – Debut B = Back – Ende – Fin T = Transverse – Quer – Travers

Test Ref		Temp °C	RP 0.2 N/MM2	RP 1.0 N/MM2	RM N/MM2	A5 %	2" %	HB HB
Min		+20	230	260	520	45	40	
Max					700			201
F	T	+20	318	378	631	57	56	183
B	T		308	370	629	55	55	178

Corrosion acc. ASTM A 262-E, EN ISO 3651-2A: Approved
Heat treatment / Solution annealed: Material temp minimum 1040 °C / Quenched (forced air + water)
Steel grade verification (PMI-spectroscopic): Approved
Marking, visual insp. and gauge measurement: Approved
Certified acc. Pressure Equipment Directive (2014/68/EU) by TÜV CERT-Certification body for pressure equipment of the TÜV NORD Systems; notified body, reg-no. 0045.

Outokumpu Stainless AB
Business Area Europe
AVESTA WORKS
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748
Telephone: + 46 (0)226 811 73
Fax: + 46 (0)226 816 46
V.A.T no: SE556001874801

This material is found to comply with order requirements

Joakim Johansson
Authorized Inspector

A04

aperam

Correspondentieadres:
Aperam Genk
Swinnenwijerweg 5, Poort Genk 7523
3600 Genk, Belgium
Tel. +32 (0)89 30 21 11

A01

MILL CERTIFICATE BS EN 10204/3.1
CERTIFICAT DE RECEPTION NF EN 10204/3.1
ABNAHMEPRUEFZEUGNIS DIN EN 10204/3.1

A02

N-Nr-N **17K0025608-CE V01** A03

Factory Production Control certified by TUV SUD Industrie Service Gmbh
with certificate nr 0036-CPR-M-043-2011.
In compliance with the Construction Product Regulation Nr 305/2011/EU.

Z05

Manufacturer's works order number
N° de la commande usine productrice
Werksauftragsnummer
80385965/01-59734/918/01 A08

Surveyor's mark
Cachet de l'expert
Stempel des
Werkssachverstaendigen
GNK1 Z03

Purchaser and/or consignee
Client et/ou destinataire
Besteller und/oder Empfaenger

APERAM SS&S POLAND SP. Z.O.O.
ul. H. Krupanka 97

41-103 SIEMIANOWICE SLASKIE
POLOGNE

A06

Purchaser's order number
N° de commande client
Kundenbestellnummer
706655463 A07

Product - Produit - Erzeugnis
COIL, HOT ROLLED, COLD REDUCED, SHOT BLASTED
COIL, LAMINE A CHAUD, REDUIT A FROID, GRENAILLE
COIL, WARMGEWALZT, KALT REDUZIERT, GESTRAHLT
B01

Customer article number
N.article client
Artikelnummer des Kunden
ART016809 A09

Steel designation B02
Désignation de l'acier
Stahlbezeichnung
EN 10088-4-2009 1.4307/1.4301

Finish
Présentation
Ausfuehrung
2E

Steelmaking process C70
Mode d'élaboration de l'acier - Stahlherstellungverfahren
Prod.proces: Electric arc furnace - VOD/AOD - Continuous casting
Proc.fabric.: Four à arc - VOD/AOD - Coulée continue
Fertigungsablauf: Elektro-Ofen - VOD/AOD - Stranggussanlage

Any supplementary requirements B03
Prescriptions supplémentaires - Zusätzliche Anforderungen

Product delivery condition
Etat de livraison du produit - Lieferzustand

Solution treated:
Hypertrempe: **1050 °C**
Loesungsgegl+abgeschreckt:

Forced air-water/air forcé-eau
Geblaese Luft-Wasser B04

Z06

Identification of the product B07
Identification du produit - Identifizierung des Erzeugnisses
MELTED IN BELGIUM, MADE IN BELGIUM

Coil n.
N.Bobine - Band Nr.
71701422

Heat n.
N.Coulée - Schmelz Nr.
717014

Dimensions
Dimensions - Abmessungen

Thickness B09
Epaisseur - Staerke
4.00 mm

Width B10
Largeur - Breite
2000.00 mm

Length B11
Longueur - Laenge

Number of pieces B08
Nb de pièces - Stueckzahl
1

Net weight B13
Poids net - netto Gewicht
18840 KG

CHEMICAL ANALYSIS - ANALYSE CHIMIQUE - CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	Ni	Cr	Mo	Ti	N	S	P						
Required -Exigé %mini Anforderung. %maxi	0.030	0.75	2.00	8.00 10.50	17.50 19.50			0.100	0.015	0.045						
Cast Analysis Analyse coulee Analyse Schmelze	0.023 C71	0.49 C72	1.53 C73	8.05 C74	18.05 C75	C76	C77	0.073 C78	0.002 C79	0.032 C80	C81	C82	C83	C84	C85	C86

Positive material identification carried out : OK
Tests de vérification de la conformité de la nuance fournie : OK
Verwechslungpruefung wurde durchgefuehrt : OK
C04 C93 D52

Location (1)

MECHANICAL PROPERTIES - PROPRIETES MECANIQUES - MECHANISCHE WERTE EN ISO 6892-1 B / A-SA 370 C20

Room temperature - Température ambiante - Raumtemperatur | Test temperature (°C) : C03

Direction (2)

			Yield or proof strength Limite d'élasticité Dehngrenze MPa		Tensile Strength Résistance à la traction Zugfestigkeit MPa	Elongation after fracture Allongement après rupt. Bruchdehnung %		Hardness Dureté Haerte	Yield or proof strength Limite d'élasticité Dehngrenze MPa		Tensile str. Résist. MPa Zugfestigkeit	Elongation % Allongement. Bruchdehnung
			Rp0.2%	Rp1%	Rm	A5	50mm	HRBW	Rp0.2%	Rp1%	Rm	A5
		Required Exigé Anforderung mini	230	260	540	45	45					
		maxi			700			92				
1	T	**Obtained** Obtenu	332	374	661	53	52	92				
2		Ergebnisse	C11	C14	C12	C13	C15	92 C31	C16	C17	C18	C19

Impact strength test Essai de résilience Kerbschlagzaehigkeitstest		Corrosion test Test de corrosion Korrosionstest	E0.2(T)/R(T) %					
C40	t(°c) C44							
	C42	EN ISO 3651/2 - A:OK D51	50 C50	C51	C52	C53	C54	C55 C05

Internal cleanliness: A: B: C: D: C57

Location of the sample (1)
Emplacement de l'échantillon
Lage des Probenabschnittes
1. Front - Début - Anfang
2. Back - Fin - Ende
3. Middle - Milieu - Mitte
C01

Direction of the test pieces (2)
Orientation des éprouvettes
Probenrichtung
T. Transverse - Travers - Quer
L. Longitudinal - Long - Laengs
C02

The delivery is in accordance with the order
La fourniture est conforme aux exigences de la commande
Die lieferung entspricht den Bestellbedingungen Z01

Packing list
Avis d'expédition **2017039802-20612**
LieferscheinNummer A10

Marking, inspection and measurement : without objection
Contrôle de marquage, d'aspect et de dimensions : satisfaisants
Pruefung der Stempelung, des Oberflaechenaspekts und der
Abmessungen : ohne Beanstandung
D01

Organisation inspection
Organisme et/ou service contrôle
Ueberwachungsabteilung A05

Quality Department

8/6/2017

The inspector
Le responsable
Der Werkssachverstaendige D. Raemaekers Z02

aperam

Correspondance address
Adresse de correspondance - Adresse für briefwechsel

Swinnenwijerweg 5, Poort Genk 7523
3600 Genk, Belgium
CE01

Annex to certificate **17K0025608-01 V01**
Annexe du CCPU
Anlage Zum Zeugnis
CE02

Certificate
CCPU - Zeugnis
17K0025608-CE V01
CE05

Certificate of Production Control Number
Numéro du certificat de contrôle de la production
Zeugnisnummer von Produktionskontrolle
0036-CPD-43-2011
CE03

CE 0036
CE06

Year 11
Année
Jahr
CE04

Manufacturer's works order number
N° de la commande usine productrice
Werksauftragsnummer

80385965/01-59734/918/01
CE07

Purchaser and/or consignee
Client et/ou destinataire
Besteller und/oder Empfaenger

APERAM SS&S POLAND SP. Z.O.O.
ul. H. Krupanka 97

41-103 SIEMIANOWICE SLASKIE
POLOGNE
CE08

Purchaser's order number
N° de commande client
Kundenbestellnummer
706655463
CE09

Customer article number
N° d'article client
Artikelnummer des Kundes
ART016809
CE10

Identification of the product
Identifictaion du produit - Identifizierung des Erzeugnisses

Coil n°
N° de bobine - Band Nr
71701422
CE11

Dimensions
Dimensions - Abmessungen

Thickness
Epaisseur - Dicke
4.00 mm
CE12

Width
Largeur - Breite
2000.00 mm
CE13

Length
Longueur - Laenge
CE14

Stainless steel / Acier inoxydable / Rostfreier Stahl
CE15

EN10088-4
CE16

Intended uses : building constructions or civil engineering
Usages prévus : construction immobilière ou génie civil
Vorgesehene Verwendungen : Hochbauten und Ingenieurbauwerke
CE17

Declaration of performance :
Déclaration des performances : DOP.Nr.GNK.01.01/GNK.02.01
Leistungserklärung :
DoP available on website Aperam : www.aperam.com/europe/news-publications/documentation/certifications/approvals
CE18

Steel
Acier 1.4307/1.4301
Werkstoff
CE19

Cold rolled
Laminé à froid
Kaltgewalzt
CE20

Coil / bobine / Band
CE21

Elongation / Allongement / Bruchdehnung
Tensile strength / Résistance à la traction / Zugfestigkeit
Yield strength / Limite d'élasticité / Dehngrenze
Impact strength / Résistance au choc / Kerbschlagzähigkeit
Weldability / Aptitude au soudage / Schweisseignung
Durability / Durabilité / Dauerhaftigkeit
Characteristics expressed as indicated in the above mentioned DOP
Tolerances on dimension and shape / Tolérances sur les dimensions et sur forme / Grenzabmasse unf Formtoleranzen : EN ISO 9445
CE22

Regulated substance : no performance determined
Substance réglementée : aucune performance determinée
Regulierter Stoff: keine Leistung festgestellt
CE23

outokumpu
high performance stainless steel

CERTIFICATE - ZEUGNIS - CERTIFICAT

EN 10204-3.1

2486501-EN

Invoice No. / Rechnung Nr. / N° de facture: 6610/1000641935
Page / Seite / Page: 5 1/1

Business Unit / QCM	Date Datum Date	Load, Ladung, Charge No	Acknowledged ID, Bestätigung, Commande ID
Avesta Works / Johan Nordström	08-Feb-2018	EE/165489	6610/300466921

Your ref, Ihre Ref., Votre ref
E80094.

Buyer, Besteller, Acheteur
AMARI METALS OU
Räniliiva 9
EE 11216, TALLINN
ESTONIA

Consignee, Empfänger, Lieu de livraison
AMARI METALS OU

Requirements, Anforderungen, Exigences
ASTM A 240M-17
ASME BPVC SEC II PART A SA-240/SA-240M Ed 2017
EN 10088-2:2014
EN 10028-7:2016
EN 10088-4:2009
EN ISO 9444-2 / ASTM A480M

Mark of Manufacturer / Zeichen des Lieferwerkes / Signe de producteur	Process / Erschmelzungsart / Mode de fusion	Inspector's stamp / Zeichen des Sachverständigen / Poicon de l'expert	Grade, Werkstoff, Nuance
outokumpu	E+AOD	AJA	Outokumpu Core 304L/4307 TYPE 304 TYPE 304L 1.4301 1.4307

Product, Erzeugnisform, Produit
Stainless Steel Hot Rolled, Coil-Plate
finish 1D, cut edge

Line / Reihe / Ligne	Item / Position / Poste	Heat-Lot No / Schmelze-Lot Nr / Coulée n° - Lot No	Size / Abmessungen / Dimensions	Pieces / Stückzahl / Nombre	Quantity / Unit / Menge / Einheit / Quantité / Unité
1	1	574724-004	8,00 X 2000 X 6000 mm	2	1517 KG

Chemical composition – Chemische Zusammensetzung – Composition chimiques

	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Nb	Cu	Co	N
Heat	.019	.30	1.14	.034	.001	18.24	8.07	.27	.003	.003	.30	.140	.067

Radioactive contamination check acc. IAEA recommendations: Approved

Test results – Prüfergebnisse – Results dessais (1N/mm² = 1 MPa) F = Front – Anfan – Debut B = Back – Ende – Fin T = Transverse – Quer – Travers

Test	Ref	Temp °C	RP 0.2 N/MM2	RP 1.0 N/MM2	RM N/MM2	A5 %	2" %	HB HB
Min		+20	230	260	520	45	40	
Max					700			201
F	T	+20	328	380	645	56	57	187
B	T		320	370	642	57	58	183

Corrosion acc. ASTM A 262-E, EN ISO 3651-2A: Approved
Heat treatment / Solution annealed: Material temp minimum 1040 °C / Quenched (forced air + water)
Steel grade verification (PMI-spectroscopic): Approved
Marking, visual insp. and gauge measurement: Approved
Certified acc. Pressure Equipment Directive (2014/68/EU) by TÜV CERT-Certification body for pressure equipment of the TÜV NORD Systems; notified body, reg-no. 0045.

Outokumpu Stainless AB
Business Area Europe
AVESTA WORKS
SWEDEN
Regoffice: Stockholm SWEDEN, Regno: 556001-8748
Telephone: + 46 (0)226 811 73
Fax: + 46 (0)226 816 46
V.A.T no: SE556001874801

This material is found to comply with order requirements

Joakim Johansson
Authorized Inspector

CE 10
0045 – CPR – 0869
Declaration of Performance (DoP): See www.outokumpu.com/Avesta-DoP

6

Aperam Inox América do Sul S.A.

Head Office: Av. Carandaí, nº 1115, 23º Andar - Centro - Belo Horizonte - MG - 30130-915 - Brazil
Plant: Praça 1º de Maio, nº 9 - Centro - Timóteo - MG - 35180-018 - Brazil
Branches: Av. Mercedes Benz, nº 1.420 - Distrito Industrial - Campinas - SP - 13054-750 - Brazil
Rodovia RSC 453, Km 2,2 - S/N - Distrito Industrial - Caxias do Sul - RS - 95110-690 - Brazil

QUALITY CERTIFICATE

acc. to EN 10204-3.1.

Number: 1477803
APERAM Order: 73082803
Date: 16/04/2013
Invoice: ***708E13***

Customer:
APERAM STAINLESS SERVICES & SOLUTIO
SIGURDSGATAN 21, 8 TR SE-721 30
VASTERAS 721 30
Suecia
P.O.NR.: ORDER AMARI 109484

Ship to:
APERAM STAINLESS SERVICES & SOLUTIO NORDIC AB
SIGURDSGATAN 21, 8 TR SE-721 30
VASTERAS 721 30
Suecia

Steel grade: AISI 304L **Finish:** NR1- HOT ROLLED **Product:** PLATE **Process:** E

Dimensions: 25,00 mm x 1500 mm x 3000 mm

Marks:

Chemical composition

Heat nr.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Al %	Co %	Cu %	N PPM				
360494I	0,023	1,37	0,470	0,033	0,002	18,14	8,00	0,058	0,0036	0,180	0,0950	421				

Results

Test/Variable	U.M:	360494I065		360494I064		360494I066							
	Source:	360494I06		360494I06		360494I06							
		H	T	H	T	H	T	H	T	H	T	H	T
Tensile Strength	MPA		637,00		637,00		637,00						
Yield Strength 0.2%	MPA		271,00		271,00		271,00						
Yield Strength 1.0%	MPA		308,00		308,00		308,00						
Elongation 2"	%		53,00		53,00		53,00						
Austenit Grain Size			06/06		06/06		06/06						
Hardness RB	HRB	76,83	76,83	76,83	76,83	76,83	76,83						
Oxalic Test		DUAL	0	DUAL	0	DUAL	0						
Net Weight	MT	1,760		1,760		1,760							
Gross Weight	MT	1,810		1,810		1,810							

Heat & Lot identification (U.M.): **Ok**

Surface quality / dimensions: **Ok**

Heat treatment: Minimun Solution anneal temp.1900 F

Standards:

ASME SA480/SA480M 10
ASTM A480/A480M 11B
DIN EN 10204-3.1 05
AD 2000 W 2 08
NACE/ANS MR0175 (ISO) 09
DIN EN 10028-7 082
ASME SA240/SA240M 11
ASTM A262 10
ASTM A240/A240M 12A

Remarks: ALSO ACCORDING PED 97/23/EC - CORROSION TEST EN-ISO 3651-2 EN 10029 CLASS B S TANDARDS DIN 1.4307

a) Free from mercury contamination.
b) Material free of contamination from radioactivity. (Guarantee while stored under responsibility of Aperam Inox América do Sul S.A.).
c) The products supplied are in compliance with the requirements of the order and the product specification..
d) Quality management system certified acc to standard ISO 9001 - Certificate ABS QE Nº 30071.
e) Quality management system certified acc to standard ISO/TS 16949 - Certificate ABS QE Nº 38324.
f) Environmental management system certified acc to standard ISO 14001 - Certificate ABS QE Nº 65989.
g) Product and system certified according to standard AD2000 / MERKBLATT and PED (Directive 97/23/EC) by TÜVNORD (Notified Body Nr. 0045).
h) The manufacturer operates a Quality Management System complying to annex I, section 4.3 of the Directive 97/23/EC..
i)Country of Melt: Brazil. Country of manufacture: Brazil.

Paulo Sérgio Ribeiro
Qualified Inspector
Aperam South America

QA4

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
SI – 4270 Jesenice
Slovenia, EU

Tel.: +386 4 584 10 16
Fax: +386 4 584 10 71
E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

10067959-20014016-43350

Prevzemni certifikat 3.1 / Inspection Certificate 3.1 / Abnahmeprüfzeugnis 3.1 EN 10204:2004 Št. dokumenta / Document No. / Bescheinigungs Nr. **10067959-20014016-43350** z / dated / vom **25.09.2017**	Prejemnik / Consignee / Empfänger HW-INOX GMBH REHHECKE 80 D-40885 RATINGEN-LINTORF GERMANY
Kupčeva št. naročila / Purchaser's order No. / Kundenbestell Nr. **4172**	Proizvajalčeva št. naročila / Manufacturer's works order No. / Werksauftrag Nr. **20014016** z / dated / vom **22.08.2017**
Št. Dobavnega lista / Packing list No. / Lieferschein Nr. **10067959** z / dated / vom **25.09.2017**	Kupčeva št. izdelka / Purchaser Article No. / Artikel Nr. des Kunden
Št. Računa / Account No. / Kontonummer **1720101019825**	Datum izdaje / Date of issue / Ausgabedatum **25.09.2017**

Izdelek / Product / Erzeugnis **DEBELA PLOČEVINA / HOT ROLLED PLATE / WARMGEWALZTES GROBBLECH**		**SINOXX 4307**
Zahteve / Requirements / Anforderungen	Oznaka jekla / Steel designation / Stahlbezeichnung	
EN 10028-7:2016	**1.4301**	**X5CrNi18-10**
EN 10088-2:2014	**1.4301**	**X5CrNi18-10**
EN 10088-4:2009	**1.4301**	**X5CrNi18-10**
EN 10028-7:2016	**1.4307**	**X2CrNi18-9**
EN 10088-2:2014	**1.4307**	**X2CrNi18-9**
EN 10088-4:2009	**1.4307**	**X2CrNi18-9**
AD 2000-Merkblatt W 0:2016		
AD 2000-Merkblatt W 10:2016		
AD 2000-Merkblatt W 2:2016		
ASME SA-240/SA-240M; BPVC.II. A-2015		**304L**
ASME SA-240/SA-240M; BPVC.II. A-2015		**304**
ASTM A 240/A 240M-16		**304**
ASTM A 240/A 240M-16		**304L**
PED-2014/68/EU		
Customer Grade		**WARMGEWALZTE ROSTRFREIEBLECHE W.RN. 1.4307**
Specifikacija kupca / Customer specification No. / Kundenspezifikation		
Dodatne zahteve / Suplementary requirements / Zusätzliche anforderung		
Dobavno stanje / Product delivery condition / Lieferzustand des Erzeugnisses **TOPILNO ŽARJENO, LUŽENO / SOLUTION ANNEALED, PICKLED / LÖSUNGSGEGLÜHT, GEBEIZT**		
Stanje površine / Surface finish / Oberflächenbehandlung **ASME Finish:No. 1 - on both sides** **ASTM Finish:No. 1 - on both sides** **EN Surface:1D - on both sides** **EN10163:B3**		

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
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This Certificate has been issued by a qualified Electronic Data System and is valid acc. to EN 10204, para.5 without Signature.
Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Izdajatelj Certifikata:
Originator of Inspection Document:
Aussteller der Bescheinigung:

SIJ ACRONI, d.o.o.
KRT-KAKOVOST
Cesta Borisa Kidriča 44
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E-Mail: gorazd.kosec@acroni.si
W: http://www.acroni.si

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Oznake izdelka / Marking of the product / Kenzeichnung des Erzeunisses						
Znak proizvajalca Manufacturer's mark Zeichen des Herstellers SIJ I ACRONI	Oznaka jekla Steel designation Stahlbezeichnung	Št. plošče Plate No. Tafel Nr .	Št. sarže Heat No. Schmelzen Nr.	Dimenzije izdelka Product dimensions Abmessungen des Erzegniss	Žig kontrolorja Stamp of the works inspector Stempel des Werkssachverständigen KK 4	Žig prevzemalca Stamp of the inspection representative Stempel des Abnahmebeauftragten
Dodatne Oznake / Other marks / Andere Kennzeichen						

Obseg dobave / Extent of material delivery / Umfang der Lieferung

Poz. Item. Pos.	Št. Sarže Heat No. Schmelzen Nr.	Št. plošče Plate No. Tafel Nr.	Teoretična teža Mass Masse (kg)	Teža neto Actual mass Ist Masse (kg)	Dimenzije izdelka Product dimension Maße des Erzeugnises (mm)	Št. kosov No. of pieces Stückzahl	Št. vzorca Sample No. Probe Nr.
30	302063	173246370101	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246370102	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246380101	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246380102	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246390201	1920,00	1919,00	20,000 /2000 /6000	1	173246370101
30	302063	173246390202	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246390301	1920,00	1919,00	20,000 /2000 /6000	1	173246370101
30	302063	173246390302	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246400201	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246400202	1920,00	1920,00	20,000 /2000 /6000	1	173246370101
30	302063	173246410301	1920,00	1919,00	20,000 /2000 /6000	1	173246370101
30	302063	173246410302	1920,00	1920,00	20,000 /2000 /6000	1	173246370101

Način izdelave jekla / Steelmaking process / Stahlherstellungsverfahren **E + VOD**

Pogoji toplotne obdelave / Heat treatment details / Wärmebehandlung Details
HEAT TREATMENT: SOLUTION ANNEALED AT 1070°C, HOLDING TIME 40 minutes, WATER QUENCHED
TOPLOTNA OBDELAVA: TOPILNO ŽARJENO PRI 1070°C, ČAS OGREVANJA 40 minut, GAŠENO VODA
WARMBEHANDLUNG: LOSUNGSGLUHEN BEI 1070°C, HALTEDAUER 40 Minuten, WASSER ABGESCHRECKT
Lot Numbers : 173246370101, 173246370102, 173246380101, 173246380102, 173246390201, 173246390202, 173246390301, 173246390302, 173246400201, 173246400202, 173246410301, 173246410302

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Aussteller der Bescheinigung:

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Mehanske lastnosti pri sobni temperaturi / Mechanical properties at room temperature / Mechanische Eigneschaften bei Raumtemperatur

Št. sarže Heat No. Schmelzen Nr.	Št.vzorca Sample No. Probe Nr.	Smer vzorca Sample orientation Proben lage			Meja plastičnosti Yield or proof strength Streck- oder Dehngrenze (MPa)		Nat. trdnost Tensile str. Zugfestigkeit (MPa)	Zg. meja plastičnosti Upper Yield strenght Obere Streckgrenze (MPa)	Kontrakcija Reduction of area Brucheinschnürung (%)	Raztezek Elongation Bruchdehnung (%)			Razmerje Ratio Beziehung	Trdota Hardness Härte
		T/L	T/B	1/2; 1/4; S2	Rp0,2	Rp1,0	Rm	Reh	Z	A5	A50	A80	Rp/Rm	HBW
Zahteve Requirements Anforderung	MIN				210,0	250,0	520,0			45,0	40,0			
	MAX						700,0							201
302063	**173246370101**	**T**			**320,0**	**355,0**	**597,0**			**56,0**	**59,0**			**167**

T- Prečno / Transverse / Quer **L**- Vzdolžno / Longitudinal / Langs **T**- Glava / Top / Kopf **B**- Noga / Bottom / Fuss
1/2 - Odvzem vzorca na sredini / Taking the sample at the center of product / Unter der Probe in der Mitte des Produkt
1/4 - Odvzem vzorca po deb 1/4 pod površino / Thickness 1/4 under the surface / Dicke 1/4 unter der Oberfläche
S2- Odvzem vzorca po deb 2 mm pod površino / Thickness 2 mm under the surface / Dicke 2 mm unter der Oberfläche

Preskus udarne žilavosti / Charpy impact test / Kerbsclagbiegeversuch (J)

Št. sarže Heat No. Schmelzen Nr.	Št. vzorca Sample No. Probe Nr.	Test temperature Temperature Prüftemperature (°C)	Smer vzorca Sample orientation Proben lage			Posamezne vrednosti Individual values Einzelwerte (J)			Povprečje Mean value Mittelwert (J)
		T	T/L	T/B	1/2; 1/4 ; S2	1	2	3	
Zahteve Requirements Anforderung	MIN					**60**	**60**	**60**	**60**
	MAX	**20**							
302063	**173246370101**	**20**	**T**			**393**	**389**	**393**	**392**

T- Prečno / Transverse / Quer **L**- Vzdolžno / Longitudinal / Langs **T**- Glava / Top / Kopf **B**- Noga / Bottom / Fuss
1/2 - Odvzem vzorca na sredini / Taking the sample at the center of product / Unter der Probe in der Mitte des Produkt
1/4 - Odvzem vzorca po deb 1/4 pod površino / Thickness 1/4 under the surface / Dicke 1/4 unter der Oberfläche
S2- Odvzem vzorca po deb 2 mm pod površino / Thickness 2 mm under the surface / Dicke 2 mm unter der Oberfläche

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Kemična Analiza / Chemical Composition / Chemische Zusammensetzung											
Št. Sarže/ Heat No./ Schmelzen Nr.					302063						
%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Cu	%Al	%Mo	%V	%Ti
0,024	0,320	1,840	0,034	0,0005	18,12	8,19	0,400	0,015	0,310	0,091	0,005
%Nb	%N										
0,018	0,0793										

Dodatne zahteve: / Additional requirements: / Zusätzliche Anforderungen :
Št. sarže / Heat No. / Schmelzen Nr. : **302063**

Feritno število / Ferrite no. / Ferrit nr. **3,95**

Kontrola oznak, identifikacije, površine, oblike in dimenzij / Control of marking and identification, surface appearance, shape and dimensional properties/ Prüfung von Kennzeichnung, Identifizierung, Oberfläche, Form und Maße :
ASME SA 480 Ed.2015 OK
ASTM A480/A480M-16a OK
EN ISO 18286:2010 Flatness Class N OK
EN ISO 18286:2010 Thickness: OK OK
EN ISO 18286:2010 Width/Length Class B OK
EN 10029:1991 Flatness Class N OK
EN 10029:1991 Thickness Class B OK
EN 10029:1991 Width/Lenght : OK OK

Preizkus odpornosti na korozijo / Corrosion test / Korrosion test
Št. vzorca / Sample No. / Probe Nr. : **173246370101,**
Intergranular corrosion test acc.A262-E: OK / Interkristalline Korrosion nach A262-E: OK
Intergranular corrosion test acc.ISO-3651-2-A: OK / Interkristalline Korrosion nach ISO-3651-2-A: OK

Sulfide Stress Cracking Resistance v skladu z NACE MR0103: OK / ISO 17945: OK /Sulfide Stress Cracking Resistance in accordance with NACE MR0103: OK / ISO 17945: OK
Cracking resistance in accordance with ANSI/ NACE MR0175/ISO 15156-3: OK / Cracking resistance nach ANSI/ NACE MR0175/ISO 15156-3: OK

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
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10067959-20014016-43350

Opombe / Remarks / Bemerkungen

Potrjujemo da dobavljeni izdelki ustrezajo zahtevam naročila / We confirm herewith that the delivered products comply with the purchase order / Es wird bestätigt, daß die Erzeugnisse den Bestellanforderungen entsprechen
Država porekla = Država izdelave taline = Država izdelave slaba - SLOVENIJA – EU / Country of Origin = Country of melt = Country of slab: SLOVENIA – EU / Herkunftsland = Land der schmelze = Land der Bramme – SLOVENIA – EG
Material ni kontaminiran z Živim srebrom. / Free from Known Contamination with Mercury. / Keine kontamination mit Quecksilbe.
Material je skladen z RoHS direktivo. Podrobnosti na: http://www.acroni.si/en/data/files/1370588262.pdf/ Material fully comply with RoHS directive, Details on: http://www.acroni.si/en/data/files/1370588262.pdf / Material ausgestattet mit RoHS-Richtlinien, Einzelheiten auf: http://www.acroni.si/en/data/files/1370588262.pdf

Sistem vodenja kakovosti je certificiran po ISO 9001. Št. Certifikata: 12 100 6200 TMS. Izdajatelj: TÜV SÜD Management Service GmbH. / Quality Management System is certified according to ISO 9001. Certificate no. 12 100 6200 TMS, issued by TÜV SÜD Management Service GmbH. / Qualitätsmanagementsystem zertifiziert nach ISO 9001. Zertifikat Nr. 12 100 6200 TMS der TÜV SÜD Management Service GmbH.

V soglasju s TÜV Bayern e. V. (08/1965)./ Im Einvernehmen mit dem TÜV Bayern e. V. (08/1965). /As agreed with TÜV Bayern e. V. (08/1965) /

Sopodpisovanje s strani TÜV Bayern Sachsen e. V. ni potrebno (dopis z dne 20.06.1996). / Gegenzeichnungsverzicht durch TÜV Bayern Sachsen e. V. mit Schreiben vom 20.06.1996. / Waiving of countersigning by TÜV Bayern Sachsen e. V. dated 20 June 1996.

Certificiran sistem vodenja kakovosti po direktivi 2014/68/EU, priloga I, točka 4.3 s strani TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, priglašeni organ-registracijska številka 0036 (okt. 2002)./ Zertifiziert nach DGRL 2014/68/EU, Anhang I, Abschnitt 4.3 durch TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, Benannte Stelle-Kennnummer 0036 (Oktober 2002). / Certified according to PED 2014/68/EU, Annex I, Paragraph 4.3 by TÜV SÜDDEUTSCHLAND Bau und Betrieb GmbH, notified body-registration number 0036 (October 2002).

Meritve sevanja: NI RADIOAKTIVNEGA ONESNAŽENJA / Measuring Radiation: NO RADIOACTIVE CONTAMINATION / messen: KEINE ERHÖHTE RADIOAKTIVITÄT

Spektrometerska analiza PMI v skladu API RP 578: OK / Spectrometer Sorting Test PMI according API RP 578: OK / Spektrometer Sortiertest PMI nach API RP 578: OHNE BEANSTANDUNG

Vizualni pregled: OK / Visual inspection: OK / Sichtprüfung: OHNE BEANSTANDUNG

Priloga / Annex / Anbau :
Priloga / Annex / Anbau: 1: CE znak / CE marking / CE-Kennzeichnung
Priloga / Annex / Anbau: 1: CE znak / CE marking / CE-Kennzeichnung

To potrdilo, ki ga izdajamo z uporabo poslovno-informacijskega sistema, je v skladu EN 10204, ods.5 in velja brez podpisa.
Diese Bescheinigung wurde durch ein geeignetes Datenverarbeitungs-system erstellt und ist gemaess EN 10204, abs.5 ohne Unterschrift gueltig.
This Certificate has been issued by a qualified Electronic Data System and is valid acc. to EN 10204, para.5 without Signature.
Odgovorna oseba / Werkssachverstaendiger / Works Expert : Gorazd Kosec

Priloga/ Annex/ Anbau: 1

CE

0036

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44
SI-4270 Jesenice, Slovenija
12

ACR-4307-P_CPR_06-13

EN 10088-4:2009

Vroče valjana pločevina X2CrNi18-9 / 1.4307
Warmgewalztes Blech X2CrNi18-9 / 1.4307
Hot rolled plate X2CrNi18-9 / 1.4307

Predvidena uporaba: Kovinske konstrukcije ali sovprežne konstrukcije iz jekla in betona
Metallbauwerke oder in Metall-/ Betonverbundbauwerken
Metal structures or in composite metal and concrete structures.

Tolerance dimenzij in oblike
Grenzabmaße und Formtoleranzen
Tolerances on Dimensions and shape

EN 18286, razred / Klasse / class : B/N

Raztezek / Dehnung / Elongation	Izraženo, kot je navedeno v izjavi o lastnostih Ausgedrückt als in der Leistungserklärung angegeben Expressed as indicated in the DoP
Natezna trdnost / Zugfestigkeit / Tensile strength	
Napetost tečenja / Streckgrenze / Yield strength	
Udarno delo / Kerbschlagarbeit / Impact strength	
Varivost CEV / Schweißeignung CEV / Weldability CEV	
Trajnost / Dauerhaftigkeit / Durability	

Regulirana snov: Ni preverjeno. / Regulierter Stoff: Keine Leistung festgestellt./ Regulated Substance: No performance determined

Priloga/ Annex/ Anbau: 1

CE

0036

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44
SI-4270 Jesenice, Slovenija
12

ACR-4301-P_CPR_06-13

EN 10088-4:2009

Vroče valjana pločevina X5CrNi18-10 / 1.4301
Warmgewalztes Blech X5CrNi18-10 / 1.4301
Hot rolled plate X5CrNi18-10 / 1.4301

Predvidena uporaba: Kovinske konstrukcije ali sovprežne konstrukcije iz jekla in betona
Metallbauwerke oder in Metall-/ Betonverbundbauwerken
Metal structures or in composite metal and concrete structures.

Tolerance dimenzij in oblike
Grenzabmaße und Formtoleranzen
Tolerances on Dimensions and shape

EN 18286, razred / Klasse / class : B/N

Raztezek / Dehnung / Elongation	Izraženo, kot je navedeno v izjavi o lastnostih Ausgedrückt als in der Leistungserklärung angegeben Expressed as indicated in the DoP
Natezna trdnost / Zugfestigkeit / Tensile strength	
Napetost tečenja / Streckgrenze / Yield strength	
Udarno delo / Kerbschlagarbeit / Impact strength	
Varivost CEV / Schweißeignung CEV / Weldability CEV	
Trajnost / Dauerhaftigkeit / Durability	

Regulirana snov: Ni preverjeno. / Regulierter Stoff: Keine Leistung festgestellt./ Regulated Substance: No performance determined

MARCEGAGLIA

Marcegaglia
46040 via Bresciani 16-Gazoldo degli Ippoliti Mantova-Italy
Tel. +39 - 0376 685 Fax. +39 - 0376 685 600
www.marcegaglia.com

Stabilimento di Forlì:
via E.Mattei,20 47034 Forlimpopoli, Forlì-Cesena
tel+39.0543470111 fax+39.0543470105

Type Inspection Certificate 3.1 EN 10204

THIS DOCUMENT WAS PRODUCED AUTOMATICALLY AND IS VALID WITHOUT SIGNATURE

Number 10515270203 Issued On 28/04/2015

WELDING PROCESS QUALIFICATION: ALL THE LASER WELDING PROCESS ARE QUALIFIED ACCORDING EUROPEAN PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC BY THE NOTIFIED BODY N.1233 EUROPED WITH WELDING PROCEDURE QUALIFICATION WPQR N° PM0907A001 Registration no. 10M203 AND WPQR N° PM907A002 Registration no. 11M017.

Customer
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Code: 0000018007

Consignee
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Delivery Nn 8305508540
Of 28/04/2015
Delivery note nr 1005006401

Quality Control
Q.M.D./Q.M. S.Toscano
Plant Of Forlì

Pages
19/29

Material
59003141

Description
TXT003 154x2x6000 TP304L LAS FLD CC

Test specification: EN 10217-7 TC1 EN 10357 ASTM A270
Stainless steel grade: TP 304L 1.4307/1.4301 X2CrNi18-9/X5CrNi18-10
Tolerances: ISO 1127 D3-T3

Welding process
LASER WELDING

Order Nr
1151011359/80

Part Number

Client Order
53816

Client Date
27/03/2015

Item	Identification Nr	Heat	Quantity MTL	Quantity KG	Quantity PZZ	Delivery conditions	Reworks
1	15W0004190	0443108	54	380	9	W2b CC	PICKLING

Identification Nr	Chemical Type	C (%)	Si (%)	Mn (%)	P (%)	S (%)	N (%)	Cr (%)	Ni (%)
								17.5	8
		0.03	1	2	0.045	0.015	0.11	19.5	10
15W0004190	RAW MATERIAL	.029	.310	1.750	.0300	.0010	.0570	18.060	8.020

Identification Nr	Type of mechanical test	Rp 0.2 [MPa]	Rp 1.0 [MPa]	Rm [MPa]	A5 (%)
		180	215	470 670	40
15W0004190	TUBE	399	439	649	43.6

MARCEGAGLIA FORLÌ PLANT SYSTEM CERTIFICATIONS
QUALITY SYSTEM CERTIFIED ACCORDING TO EN 9001:2008 AND ISO\TS 16949:009 AND ISO 3834-2:2005 AND A SAFETY SYSTEM CERTIFIED ACCORDING TO OHASAS 18001:2007.

MARCEGAGLIA FORLÌ PRODUCT CERTIFICATIONS
DVGW ACCORDING TO GW541 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4404 DIA FROM 15.00 TO 108.00MM AND GRADE 1.4521 FROM 15.00 TO 54.00MM.
TUV AD2000 W2\W10 AND PED ANNEX I, PARAGRAPH 4.3 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4301, 1.4306, 1.4307, 1.4401, 1.4404, 1.4541, 1.4571, 1.4435, 1.4436 THICKNESS FROM 0.80 TO 4.00MM AND DIAMETRS FROM 8.00 TO 283.00 MM.

NON DESTRUCTIVE TESTS

EDDY CURRENT TEST FOR THE VERIFICATION OF HYDRAULIC LEAKTIGHTNESS ACCORDING TO EN ISO 10893-1:2011: CONFORM
EDDY CURRENT TEST FOR THE DETECTION OF IMPERFECTIONS ACCORDING TO EN ISO 10893-2:2011: CONFORM
ANTIMIXING TEST: CONFORM
VISUAL INSPECTION AND DIMENSIONAL CONTROLS: CONFORM
ROUGHNESS Ra VALUES MEASURED FOR RAW MATERIAL MAX 0,8 um AND INTERNAL WELDING AREA MAX 1,6 um ACCORDING TO EN 10357 : CONFORM

DESTRUCTIVE TESTS

DRIFT EXPANDING TEST ACCORDING TO EN ISO 8493:2005: CONFORM
FLATTENING TEST ACCORDING TO EN ISO 8492:2004: CONFORM
RING EXPANDING TEST ACCORDING TO EN ISO 8496:2004: CONFORM
TENSILE TEST ACCORDING TO EN ISO 6892-1:2009
INTERGRANULAR CORROSION TEST ACCORDING TO EN ISO 3651-2:1998: CONFORM

Marking

Remarks:
CHEMICAL COMPOSITION ACCORDING TO EN 10028-7 TUBE TO EN 10217-7 TC1 DIN 11850 AND DIRECTIVE 97/23/EC (PED)
ANNEX I, PARAGRAPH 4.3 WELDING FACTOR V=1

WE CERTIFY THAT THE ABOVE MENTIONED PRODUCTS COMPLAY WITH THE TERMS OF ORDER CONTRACT AND THE STANDARDS RECALLED IN THE PRESENT TEST CERTIFICATE

TÜV SÜD

Product description
Longitudinally welded stainless steel pipe

Material
1.4432 acc. to EN 10028-7/316L

Technical requirements
EN 10217-7 TC1
Joint factor Z= 1,0

Melting process
E+ AOD

Product marking
OSTP Batch Dimension Material EN 10217-7 TC1 Z= 1,0

Extent of delivery

Dimension	Batch number	Starting material	Heat number	Deliv. cond.
108X4	3205994	Coil 1.4432/316L	311622	W2

Chemical composition (According to inspection certificate of steel manufacturer)

C [%]	Si [%]	Mn [%]	P [%]	S [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	N [%]	Cu [%]
0,017	0,380	1,270	0,032	0,001	16,80	10,80	2,550		0,045	

Test results (Test number ending with L= longitudinally and T= transversely)

Test no.	$R_{p0.2}$ [N/mm²]	$R_{p1.0}$ [N/mm²]	R_m [N/mm²]	A_5 [%]	Technological tests	Heat treatment
E0390L	372	415	613	52	Weld bend test	
E0391L	382	429	616	48	EN 910	

Intergranular corrosion test EN ISO 3651-2/A :	Accepted
Eddy current test EN 10246-3 E1H/EN 10246-2 :	Accepted
Dimensional inspection EN ISO 1127 D3/T3 :	Accepted
Visual inspection :	Accepted
Material dentification test :	Accepted

These components are manufactured according to
PED 97/23 EC Annex 1, chapter 3.1, 4.3 and 7.2

ISO 9001:2008 Quality Management System, certified by TÜV
Certified acc. to **PED 97/23/EC** Annex 1, chapter 3.1, 4.3 and 7.2, by TÜV Notified Body reg. no. 0045. **ADM 2000 W0** by TÜV, Pipes and fittings: cert.No. 07-202-1326 WZ-0562/11
The above mentioned product complies with the requirements of the standard above and the order.

OSTP Finland Oy Ab
P.O.Box 15, FIN-68601 JAKOBSTAD, Finland

QUALITY DEPARTMENT

Inspector Kjell Hagvik
This test certificate is made by controlled ADP-system and is valid without signature.

Tel.+ 358 6 7865111, Fax. + 358 6 7865222
Domicile: Jakobstad, Finland. Business ID 1731317-7

Marcegaglia
46040 via Bresciani 16-Gazoldo degli Ippoliti Mantova-Italy
Tel. +39 - 0376 685 1 Fax. +39 - 0376 685 600
www.marcegaglia.com

Stabilimento di Forlì:
via E.Mattei,20 47034 Forlimpopoli, Forlì-Cesena
tel+39.0543470111 fax+39.0543470105

Type Inspection Certificate 3.1 EN 10204

THIS DOCUMENT WAS PRODUCED AUTOMATICALLY AND IS VALID WITHOUT SIGNATURE

Number 10518196354 Issued On 26/03/2018

WELDING PROCESS QUALIFICATION: ALL THE LASER WELDING PROCESS ARE QUALIFIED ACCORDING EUROPEAN PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC BY THE NOTIFIED BODY N.1233 EUROPED WITH WELDING PROCEDURE QUALIFICATION WPQR N° PM0907A001 Registration no. 10M203 AND WPQR N° PM907A002 Registration no. 11M017. STILL VALID UNDER PED 2014/68/EU PER ARTICLE 48 CLAUSE 3.

Customer
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Code: 0000018007

Consignee
KIMET OY
ILVESVUORENKATU 4
01900 NURMIJAERVI FI

Delivery Nn 8305806641
Of 26/03/2018
Delivery note nr 1005004078

Quality Control
Q.M.D./Q.M. S.Toscano
Plant Of Forlì

Pages 12/20

Material **59005251**

Description **TXT014 104x2x6000 TP304L LAS LD**

Test specification: AD2000-W2\W10 EN 10217-7 TC2 EN 10357 ASTM A270
Stainless steel grade: TP 304L 1.4307/1.4301 X2CrNi18-9/X5CrNi18-10
Tolerances: EN 10357 - DIN 11850

Welding process
LASER WELDING

Order Nr **1181033610/150**

Part Number

Client Order **56808**

Client Date **20/03/2018**

Item	Identification Nr	Heat	Quantity MTL	Quantity KG	Quantity PZZ	Delivery conditions	Reworks
1	18W9001511	SD27226	114	570	19	W2b CC	PICKLING

WE CERTIFY THAT THE ABOVE MENTIONED PRODUCTS COMPLAY WITH THE TERMS OF ORDER CONTRACT AND THE STANDARDS RECALLED IN THE PRESENT TEST CERTIFICATE

Identification Nr	Chemical Type	C (%)	Si (%)	Mn (%)	P (%)	S (%)	N (%)	Cr (%)	Ni (%)
								17.5	8
		0.03	1	2	0.045	0.015	0.11	19.5	10
18W9001511	RAW MATERIAL	.018	.425	1.554	.0313	.0008	.0377	18.169	8.069

Identification Nr	Type of mechanical test	Rp 0.2 [MPa]	Rp 1.0 [MPa]	Rm [MPa]	A5 (%)
		180	215	470	40
				670	
18W9001511	TUBE	395	434	636	44.3
18W9001511	TUBE	395	435	636	44.7

MARCEGAGLIA SPECIALTIES FORLIMPOPOLI PLANT SYSTEM CERTIFICATIONS QUALITY SYSTEM CERTIFIED ACCORDING TO EN 9001:2008 AND ISO\TS 16949:009 AND ISO 3834-2:2005 AND A SAFETY SYSTEM CERTIFIED ACCORDING TO OHASAS 18001:2007 AND AN ENVIROMENTAL SYSTEM CERTIFIED ACCORDING TO ISO 14001:2004.
MARCEGAGLIA SPECIALTIES FORLIMPOPOLI PRODUCT CERTIFICATIONS DVGW ACCORDING TO GW541 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4404 DIA FROM 15.00 TO 108.00MM AND GRADE 1.4521 FROM 15.00 TO 54.00MM.
TUV AD2000 W2\W10 AND PED ANNEX I, PARAGRAPH 4.3 LASER AND TIG WELDED TUBES STAINLESS STEEL GRADE 1.4301, 1.4306, 1.4307, 1.4401, 1.4404, 1.4541, 1.4571, 1.4435, 1.4436 THICKNESS FROM 0.80 TO 4.00MM AND DIAMETRS FROM 8.00 TO 283.00 MM. EHEDG FOR DAIRY TUBES TXT015. TIFQ - EUROPEAN DIRECTIVE 1935:2004 FOR DAIRY TUBES TXT003, TXT014, TXT015.

NON DESTRUCTIVE TESTS

EDDY CURRENT TEST FOR THE VERIFICATION OF HYDRAULIC LEAKTIGHTNESS ACCORDING TO EN ISO 10893-1:2011: CONFORM
EDDY CURRENT TEST FOR THE DETECTION OF IMPERFECTIONS ACCORDING TO EN ISO 10893-2:2011: CONFORM
ANTIMIXING TEST: CONFORM
VISUAL INSPECTION AND DIMENSIONAL CONTROLS: CONFORM
ROUGHNESS Ra VALUES MEASURED FOR RAW MATERIAL MAX 0,8 um AND INTERNAL WELDING AREA MAX 1,6 um ACCORDING TO EN 10357 : CONFORM

DESTRUCTIVE TESTS

DRIFT EXPANDING TEST ACCORDING TO EN ISO 8493:2005: CONFORM
FLATTENING TEST ACCORDING TO EN ISO 8492:2004: CONFORM
RING EXPANDING TEST ACCORDING TO EN ISO 8495:2004: CONFORM
TENSILE TEST ACCORDING TO EN ISO 6892-1:2009
INTERGRANULAR CORROSION TEST ACCORDING TO EN ISO 3651-2:1998: CONFORM

Marking

Remarks:
A countersign was give up with script of TUV BAYERN SACHSEN dated 01/02/1994. he issuing of 3.1 certificates happens in compliance to AD 2000 Merkblatt W2 paragraph 6.2.1 in accordance to TUV SUDDEUTSCHLAND.

ACCORDING TO TUV AD2000-MERKBLATT W0/TRD100; DIRECTIVE 2014/68/EU (PED) ; CHEMICAL COMPOSITION TO EN10088; TUBES TO EN 10217-7 TC2; WELD FACTOR V=1.

HYGIENIC QUALITY OF FOOD EQUIPMENT TIFQ Product compliant to Reg.EC No1935/2004

TÜV SÜD

OUTOKUMPU

CERTIFICATE EN 10204:2004/3.1

This inspection certificate fulfils the requirements of EN 10204:2004 type 3.1 and EN 10204:1991+A1:1995 type 3.1.B.

BUYER	DATE	CERTIFICATE NO
OUTOKUMPU BALTIC Oü VALDEKU 109 EE-11216 TALLINN ESTLAND	2010-06-14	**N1009933/ 1**
	MANUFACTURES ORDER NO 2010002707	ITEM 20
	BUYERS ORDER NO E99309	SHIPMENT 821104

PRODUCT FORM

LONGITUDINALLY WELDED STAINLESS STEEL TUBES, BASE MATERIAL EN 10028-7, WELD OUTSIDE GROUND, PICKLED, PLAIN ENDS, IN MILL LENGTHS,
HEAT TREATMENT 1080 C QUENCHED IN GAS

SPECIFICATION	MANUFACTURES MARK
EN 10217-7 Tc1	**OUTOKUMPU-N**

GRADE	MANUFACTURES GRADE	TOLERANCES
EN 1.4307	4307T	SS EN ISO 1127 D3 T3

TUBE MARKING

OUTOKUMPU-N; MADE IN SWEDEN; EN 1.4307/304L; EN 10217-7; W2A; TC1; Z=1,0; MAR-N1; 54,00 X 2,00; 4233288;

EXTENT OF DELIVERY

PCS	METER	DIMENSION		HEAT NO	TEST NO
1	6,00	54,00	2,00	4233288	A

CHEMICAL COMPOSITION

	C	SI	MN	P	S	CR	NI	N
HEAT ANALYSIS 1	0,020	0,400	1,60	0,031	0,001	18,30	8,10	0,049

TEST RESULT

	TEMP	RP0,2 MPa	RP1,0 MPa	RM MPa	A5 %
	20	180	215	470 670	40
A1 L	20	404	448	665	53

EDDY CURRENT TEST EN 10246-3 E1H / EN 10246-2	SATISFACTORY
FLARING TEST EN ISO 8493	SATISFACTORY
VISUAL AND DIMENSIONAL INSPECTION	SATISFACTORY
MATERIAL IDENTIFICATION TEST	SATISFACTORY
INTERGRANULAR CORROSION TEST EN ISO 3651-2:A	SATISFACTORY

TÜV CERT EN ISO 9001 : 2000
No. 44 100 075263

Certified acc: PED 97/23/EC and AD2000-W0/TRD 100 by TÜV Nord gruppe for pressure equipment NOB no: 0045
Certificate no: 07-202-3537WZ-0676/07 (no. 3537WL04770)
Procedures and personnel approved by notified bodies.
WPS/WPAR: EN 288 / WLD Personnel: EN 1418 / NDT: EN 473

MELTING PROCESS: E/AOD

Base material from PED 97/23/EC approved suppliers.

THE REQUIREMENTS ARE FULFILLED AS STIPULATED

INSPECTOR / MAR
Johan Gemmel

ISSUED BY
Yvonne Wannestrand

JTS039PF_ASTNYVOW_20100614_103539

OUTOKUMPU STAINLESS TUBULAR PRODUCTS
Torshälla Box 48 S-64421 Torshälla Sweden

Telephone no
+46 16 34 96 52

Telefax
+46 16 34 97 00

yvonne.wannestrand@outokumpu.com

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 001 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#010 - PRODUITS LIVRES - DELIVERED PRODUCTS - GELIEFERTEN GEGENSTÄNDE

Nuance - Grade - Werkstoff	Selon norme - According to - Entsprechend
X5CrNiMo17-12-2 (1.4401)	EN 10088-2:2014
X2CrNiMo17-12-2 (1.4404)	EN 10088-2:2014
UNS S31600 (316)	ASTM A 240/M ED.2017
UNS S31603 (316L)	ASTM A 240/M ED.2017
UNS S31600 (316)	ASME IIA ED.2017 SA 240/M
UNS S31603 (316L)	ASME IIA ED.2017 SA 240/M
X5CrNiMo17-12-2 (1.4401)	EN 10028-7:2016+AD2000W2+ADW10
X2CrNiMo17-12-2 (1.4404)	EN 10028-7:2016+AD2000W2+ADW10
X5CrNiMo17-12-2 (1.4401)	EN 10088-4:2009
X2CrNiMo17-12-2 (1.4404)	EN 10088-4:2009

Epaisseur - Thickness - Dicke	30.00 mm	Largeur - Width - Breite	2,000 mm	Longueur - Length - Länge	6,000 mm

Spécification - Specification - Spezifikation

Acc.to MTC Requirements HW-INOX Gmbh
Acc.to Certificate requirement (excel file) + Norsok MDS 630 - MDS S01
Acc.to ASTM A480 / ASME SA480

https://eservices.industeel.be

Etat thermique de livraison - Heat treatment state of delivery - Wärmebehandlung Lieferzustand

Hypertrempe à l'air (1050 °C - 1 min/mm) - Solution annealed and air quenched - Luft vergütet

Procédé d'élaboration - Melting process - Erschmelzungsart

Electric-arc furnace - VOD - Finish n°1 - 1D - HRAP

Nbre Nbr Stz	N° produit Product Erzeugnis	N° de coulée Ladle nr. Schmelze nr.	N° de lot de contrôle Inspection lot nr. Prüflos nr.	Nbre Nbr Stz	N° produit Product Erzeugnis	N° de coulée Ladle nr. Schmelze nr.	N° de lot de contrôle Inspection lot nr. Prüflos nr.
01	899620001	29161	899620.1001 / 899620.2003 / 899620.5001	01	899896002	28881	899896.1002 / 899896.5001

Total - Total - Gesamtzahl 002

This supply complies with the main requirements of PED 2014/68/EU relating to the basis materials regardless of the specific terms of service.
Cette fourniture est conforme aux exigences de la PED 2014/68/UE relatives aux matériaux de base indépendamment des conditions de services spécifiques.
NACE MR 0175 - ISO15156-3 (Last Ed.)
NACE MR 0103 - ISO17945 (Last Ed.)
No weld repair
Stamping according to "Plate stamping definition" / HW-Inox

CE

1148
06
20060925
EN 10088-4:2009
Produit laminé à chaud en acier de construction
Usages prévus: Construction de bâtiments et Génie civil
X5CrNiMo17-12-2 (1.4401)
X2CrNiMo17-12-2 (1.4404)

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004
Inspection Certificate 3.1 / EN 10204:2004
Prüfbescheinigung 3.1 / EN 10204:2004

Numéro de document Rev 00
Document number
Bescheinigungnummer
2018-107025

Page 002 / 008
Sheet
Seite

ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#020 - ANALYSE CHIMIQUE DE COULEE - HEAT CHEMICAL COMPOSITION - SCHMELZE CHEMISCHE ZUSAMMENSETZUNG

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo
	%	%	%	%	%	%	%	%	%
Min.							10.000	16.500	2.000
28881	0.023	1.853	0.0384	0.0006	0.318	0.280	10.070	16.845	2.024
29161	0.030	1.846	0.0352	0.0006	0.292	0.282	10.076	16.803	2.036
Max.	0.030	2.000	0.0450	0.0150	0.750	0.750	13.000	18.000	2.500
	Nb	Ti	N	Al	Co				
	%	%	%	%	%				
Min.									
28881	0.007	0.001	0.0414	0.006	0.111				
29161	0.005	0.001	0.0319	0.007	0.080				
Max.	0.100	0.100	0.1000						

#041 - PMI - POSITIVE MATERIAL IDENTIFICATION - VERWECHSLUNGSPRÜFUNG

Non confusion de matière - Positive material identification - PMI Conform

Résultat du contrôle - Examination result - Prüfergebnis

Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 003 Sheet / Seite 008

ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

#072 ESSAIS MECANIQUES - MECHANICAL TESTS - MECHANISCHE PRÜFUNGEN

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

Brinell HB Brinell HB - Brinell HB								HB10 Ind	HB10 Ind	HB10 Ind	HB10 Aver								
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	Brinell	Brinell	Brinell	Brinell								
							Min												
							Max	217	217	217	217								
899620.1001	000	T3/4	PSS	20	°C			186	182	183	184								
899896.1002	000	T3/4	PSS	20	°C			186	181	185	184								

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

DURETE NACE MR0103 HRC < 22 NACE MR0103 - NACE MR0103																			
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac													
899620.5001	000	T3/4	PSS	20	°C														
899896.5001	000	T3/4	PSS	20	°C														

Test result HRC < 22

Test result HRC < 22

DURETE SUR COUPON - HARDNESS ON SAMPLE - HÄRTE AUF COUPON

NACE MR0175 / ISO 15156-3 NACE MR0175 / ISO 15156-3 - NACE MR0175 / ISO 15156-3																			
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni												
							Min												
							Max												
899620.5001	000	T3/4	PSS	20	°C														
899896.5001	000	T3/4	PSS	20	°C														

Test result HRC < 22

Test result HRC < 22

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 004 / 008 Sheet Seite	ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis Plate(s)

Commande / Poste - Internal order - Werksbestellung 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument 80325318

TRACTION A L' AMBIANTE - ROOM TEMPERATURE TENSILE TEST - ZUGVERSUCH BEI RT

Traction Tensile test - Zugversuch								Rp 0,2%	Rp1%	Rm	A Lo=50mm	A Lo=5,65V So
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	MPa	MPa	MPa	%	%
							Min	220	260	520	40	45
							Max			670		
899620.1001	000	T3/4	PST	20	°C			386	436	617	49	45
899896.1002	000	T3/4	PST	20	°C			410	459	619	56	46

TRACTION A L' AMBIANTE - ROOM TEMPERATURE TENSILE TEST - ZUGVERSUCH BEI RT

Traction Tensile test - Zugversuch								Rp 0,2%	Rp1%	Rm	A Lo=5,65V So
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	MPa	MPa	MPa	%
							Min	220	260	520	45
							Max			670	
899620.2003	000	P1/4	PST	20	°C			398	444	616	45

RESILIENCE - TOUGHNESS - KERBSCHLAGZÄHIGKEIT

KCV EN 10X10mm KCV EN 10X10mm - KCV EN 10X10mm								Energ Ind	Energ Ind	Energ Ind	Energ Ave
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	J	J	J	J
							Min	42	42	42	60
							Max				
899620.1001	000	T3/4	PST	20	°C			258	224	236	239
899896.1002	000	T3/4	PST	20	°C			263	256	239	253

RESILIENCE - TOUGHNESS - KERBSCHLAGZÄHIGKEIT

KCV EN 10X10mm KCV EN 10X10mm - KCV EN 10X10mm								Energ Ind	Energ Ind	Energ Ind	Energ Ave
N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac	Uni	J	J	J	J
							Min	42	42	42	60
							Max				
899620.2003	000	P1/4	PST	20	°C			250	236	247	244

Loc	1/4	Quart - 1/4 Width - 1/4 Breite
Loc	3/4	Trois-Quart - 3/4 Width - 3/4 Breite
Loc	P	Pied - Bottom - Fuß
Loc	T	Tête - Top - Kopf
Epr. Epaisseur	P	Peau - Rolled Surface - Walzfläche
Epr. Face	S	Supérieure - Upper face - obere
Epr. Sens	S	Standard - Standard - Standard
Epr. Sens	T	Travers - Transverse - Quer
Etat	000	Etat thermique de livraison - Heat treatment state of delivery - Wärmebehandlung Lieferustand
Epr.Ep./Face/Sens	PSS	Peau - Rolled Surface - Walzfläche / Supérieure - Upper face - obere / Standard - Standard - Standard
Epr.Ep./Face/Sens	PST	Peau - Rolled Surface - Walzfläche / Supérieure - Upper face - obere / Travers - Transverse - Quer

#082 ESSAIS TECHNOLOGIQUES - TECHNOLOGICAL TESTS - TECHNOLOGISCHE PRÜFUNGEN

CORROSION - CORROSION - KORROSION Sensibilisé - Sensitized -Sensibilisiert

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 005 / 008 Sheet Seite

ArcelorMittal

Client - Purchaser - Besteller

Référence client - Purchase order - Kaufauftrag 4531/5-26479

Projet - Project - Projekt

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis — Plate(s)

Commande / Poste - Internal order - Werksbestellung — 1073778 / 000090

Bordereau de livraison - Delivery note - Lieferungsdokument — 80325318

EN ISO 3651-2 A
Test description - Prüfbeschreibung

N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac
899620.5001	001	T3/4	SSS	20	°C	
899896.5001	001	T3/4	SSS	20	°C	

Test result — Satisfactory as per specification

Test result — Satisfactory as per specification

CORROSION - CORROSION - KORROSION — Sensibilisé - Sensitized - Sensibilisiert

ASTM A262 E
ASTM A262 E - ASTM A262 E

N° lot QM	Etat	Loc	Epr.	T°	Uni	Mac
899620.5001	002	T3/4	SSS	20	°C	
899896.5001	002	T3/4	SSS	20	°C	

Test result — Satisfactory as per specification

Test result — Satisfactory as per specification

Loc	3/4	Trois-Quart - 3/4 Width - 3/4 Breite
Loc	T	Tête - Top - Kopf
Epr. Epaisseur	S	Standard - Standard - Standard
Epr. Face	S	Supérieure - Upper face - obere
Epr. Sens	S	Standard - Standard - Standard
Etat	001	SENSI - Sensitization (From 350 °C at 220 °C/h to 700 °C (-10/+10) (min: 30 min) - Down to 350 °C at 220 °C/h - 1 Cycle) - SENSI
Etat	002	SENSI - Sensitization (From 350 °C at 220 °C/h to 675 °C (-25/+0) (min: 60 min) - Down to 350 °C at 220 °C/h - 1 Cycle) - SENSI
Epr.Ep./Face/Sens	SSS	Standard - Standard - Standard / Supérieure - Upper face - obere / Standard - Standard - Standard

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 006 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller	
Référence client - Purchase order - Kaufauftrag	4531/5-26479
Projet - Project - Projekt	
Industeel Belgium Site : Rue de Châtelet 266 6030 Marchienne-au-Pont	ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012 ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012
Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#101 - DIMENSIONNEL - DIMENSIONAL CHECK - MASSKONTROLLE

Cahier des charges Longueur - Specification Length -	ISO 18286 CLASSE A
Cahier des charges Largeur - Specification Width -	ISO 18286 CLASSE A
Cahier des charges Epaisseur - Specification Thickness -	ISO 18286

Résultat du contrôle - Examination result - Prüfergebnis

Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 007 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller	
Référence client - Purchase order - Kaufauftrag	45315-26479
Projet - Project - Projekt	
Industeel Belgium Site : Rue de Châtelet 266 6030 Marchienne-au-Pont	ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012 ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012
Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#111 - VISUEL-ETAT DE SURFACE - VISUAL EXAMINATION-SURFACE CONDITION - SICHTPRÜFUNG-OBERFLÄCHENZUSTAND

Norme applicable 1 - Applicable standard 1 -	EN 10163 CL.B S-CL.3
Résultat du contrôle - Examination result - Prüfergebnis	
Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften	

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

Bodart

CERTIFICAT DE RECEPTION 3.1 / EN 10204:2004 Inspection Certificate 3.1 / EN 10204:2004 Prüfbescheinigung 3.1 / EN 10204:2004	Numéro de document Rev 00 Document number Bescheinigungnummer 2018-107025	Page 008 Sheet / Seite 008	ArcelorMittal

Client - Purchaser - Besteller	
Référence client - Purchase order - Kaufauftrag	45315-26479
Projet - Project - Projekt	

Industeel Belgium
Site : Rue de Châtelet 266 6030 Marchienne-au-Pont

ISO 9001 (Cert ES081397, Valid 14/09/2018) + MAQ REV 12 du 02/05/2012
ISO 9001 (Cert ES081397, Valid 14/09/2018) + QAM REV 12 of 02/05/2012

Produit - Product - Erzeugnis	Plate(s)
Commande / Poste - Internal order - Werksbestellung	1073778 / 000090
Bordereau de livraison - Delivery note - Lieferungsdokument	80325318

#171 - PLANEITE - FLATNESS - EBENHEIT

Cahier des Charges Planéité - Flatness standard - Ebenheit norm	ISO 18286 CLASSE N - TYPE B
Résultat du contrôle - Examination result - Prüfergebnis	
Conforme aux spécifications précitées - Conforming to above specifications - Entspricht der vorgenannten vorschriften	

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande.
We hereby certify that the above mentioned products are complying with the order requirements.
Wir bestätigen hiermit, dass die obengenannten Erzeugnisse den Bestellungvorschriften entsprechen.

JOEL BODART
13/03/2018
Gestionnaire Commande
Mill inspector
Werksbeauftragte

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J 4 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 5 st/pcs

Dimension/Nominal Pipe Size
DI 150 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-633436

Charge no
547418

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
547418	0,024	0,35	1,82	0,030	0,015	18,42	8,18	0,20	0,077		0,13	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
1270 E	301	351	604	53,5	55,9	68		147	176	135	152
1294 H	293	340	605	54	56,4	65		147	280	284	292

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 20,31

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

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SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J1 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a
75803 RAE VALD HARJUMAA
ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 4 st/pcs

Dimension/Nominal Pipe Size
DI 100 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-648711

Charge no
547726

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
547726	0,023	0,41	1,65	0,029	0,021	18,31	8,14	0,25	0,080		0,099	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 C Querprobe ISO-V-Probe			
1287 E	305	354	611	54	56,40	67		148	143	188	150	

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 20,41

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

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SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J3 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a
75803 RAE VALD HARJUMAA
ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Welding ring with collar 1 st/pcs

Dimension/Nominal Pipe Size
DI 50 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDDITION 2018
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W0/W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 35M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
267475

Charge no
408278

Tillverkare/Maker
Olarra

Steel making process
EAF+ AOD

Country of origin
Spain

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
408278	0,018	0,34	1,42	0,035	0,029	18,00	8,10		,0845		0,17	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
1160 E	321	373	609	51	53,20	71		149	182	156	146

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 19,35

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

VIRAJ PROFILES LIMITED (Forgings Div)
Survey No-140/1 & G-75 MIDC, Tarapur Ind.Area, Boisar, Dist.Palghar,Maharashtra-401506,INDIA
Email-vflqc@viraj.com,web.www.viraj.com(A01)

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

(A06)CUSTOMER : **NORDIC FLANGES AB** **KAVELVAGEN 17** **SE-894 35 SJALEVAD** **SWEDEN**	Manufacturer's Symbol (A04)	(A03)MTR NO.	**12/1038215/30**
		(Z02) DATE	**13.05.2018**
		MATERIAL SPEC.	**ASTM A182/A182M-16 / ASME SA182 / SA182M-15**
			EN 10222 - 5 - 2013
		(B02) GRADE	**F316/316L/1.4401/1.4404**
		DIMENSIONAL SPEC.	**EN1092-1:2013**

(B01) : **STAINLESS STEEL FORGED FLANGES** | (B04) **DELIVERY CONDITION :**

ISO 9001:2015-TUV NORD REG.No-04100011170 EXPIRY DATE: 21.01.2019 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PED (2014/68/EU) BY CERTIFICATION BODY FOR PRESSURE EQUIPMENT OF TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION NO. -0045)

(A07)ORDER NO: 4500009182	**(A08)Sales Order No. 30088348/000320**	**Article No:105465**

(B09-B11)ITEM DESCRIPTION	QUANTITY(PIECES)	HEAT NUMBER
150/154 TYPE 02M PN16 ID=165	**81**	**49252**

(C71-C92) CHEMICAL ANALYSIS

ELEMENT	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	%N						
MIN						16.50	10.00	2.00								
MAX	0.030	2.00	1.00	0.030	0.045	18.50	12.00	2.50								
HEAT	0.030	1.58	0.36	0.028	0.035	16.64	10.08	2.02	0.003	0.0750						
PROD.																

MECHANICAL PROPERTIES

Test specificaiton ASTM-A370

Sample location : Mid thick-forging	Test Temp : RT	Test Direction : Tr	Sample Shape Round		ASTM E10	

Test Values	(C12) Tensile Strength	(C11) Proof Strength		(C13)	Reduction of Area	(C32) Hardness	Charpy V-Notch 10x10x55mm (Values in Joules) & (Shear%)			
		Rp=0.2%	Rp = 1%	Elongation%			(C42) Single values			(C43)
	N/mm2	N/mm2	N/mm2	Lo=5D	%	BHN	1	2	3	AVG
Req.	515/690	205 MIN	225 MIN	35 MIN	50 MIN					
T	556.99	289.36	327.56	58.00	66.84	152	169	178	199	182

Other applicable Specifications :: NACE MR 0175 / ISO 15156 - 2015 & NACE MR 0103 - 2015 & MATERIAL CONFORMS TO W2/W9/W10

Melting Process : Electrical induction furnace & Argon Oxygen decarburization(IRS) Concast

Heat Treatment : Solution Annealed at 1080°C and water Quenched
Dimension : Conform with the specification (100% inspected)
Surfacequality : Satisfactory
PMI Test : No objection (100% tested with mobile spectro)
Corrosion Test : Passed IGC test in accordance with DIN EN ISO 3651-2 & ASTM A262 Practice E
Micro Observation : No carbide precipitation observed on grain boundaries
Radioactitivity Test : We here by certify that all the material is free from radioactive contamination
Mercury Contamination : Free from mercury contamination

we certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VF 1

(Z03)Inspector's Stamp

VIJAY KUMAR PILLAI (GM, QAD)

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J6 Rev.
Datum/Date
02.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a
75803 RAE VALD HARJUMAA
ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Loose Flange 9 st/pcs

Dimension/Nominal Pipe Size
DN 100 ID113 PN16

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F316/316L
SEC II PART A EDITION 2018
EN 10222-5 (2017) 1.4432/1.4436

Dim. Standard
EN 1092-1:2007 TYPE 02M

Kontrollstämpel/Inspector's stamp

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
A/17-666352

Charge no
548544

Tillverkare/Maker
AB Sandvik Materials Technology

Steel making process
EAF+ AOD

Country of origin
Sweden

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
548544	0,022	0,35	1,45	0,030	0,024	16,64	10,59	2,52	0,076		0,11	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
1329 H	337	381	592	50,5	52,70	72		145	262	255	242

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 26, 17

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nordic flanges

KAVELVÄGEN 17
SE-894 35 SJÄLEVAD
TELE + 46 660 29 97 00
E-MAIL info@nordicflanges.com
INTERNET www.nordicflanges.com

PROVNINGSINTYG/INSPECTION CERTIFICATE
EN 10204/3.1

Intyg nr/Certificate no
44314 /J7 Rev.
Datum/Date
31.08.2018

Köpare/Buyer KNR: 101399
ESTANC AS
Pildiküla

PÕRGUVÄLJA TEE 5a

75803 RAE VALD HARJUMAA

ESTONIA

Er referens/Your reference
OT181291-2

PRODUKT/PRODUCT

ITEM NO.
Artikel/Article
Loose Flange 1 st/pcs

Dimension/Nominal Pipe Size
DN 50 ID64 PN40

Märkning/Identification
NF

Tekn. fodran. Techn. specification (Standard)
ASME/ASTM SA/A 182/182 M-18 F304/304L
SEC II PART A EDITION 2017
EN 10222-5 (2017) 1.4307/1.4301
AD 2000 W2/W9/W10

Dim. Standard
EN 1092-1:2007 TYPE 02M

Kontrollstämpel/Inspector's stamp

443

BASE MATERIAL

Artikel/Article
BILLETS

Materialintyg/Material cert.
157435

Charge no
355685

Tillverkare/Maker
Olarra

Steel making process
EAF+ AOD

Country of origin
Spain

Analys/Chemical compositon %

Charge no	C	Si	Mn	P	S	Cr	Ni	Mo	N	Ti	Co	Cu
355685	0,017	0,34	1,43	0,036	0,028	18,00	8,10		0,091		0,13	

Provningsresultat / Result of testing

Test no	Rp 0,2 MPa	Rp 1,0 MPa	Rm MPa	A5 %	4D %	Z %		Hårdhet Hardness Brinell	Kerbschlagarbeit/Joule Charpy-Impact Test 20 °C Querprobe ISO-V-Probe		
0496 E	311	365	601	50,5	52,70	67		152	124	120	136

Korngränsfrätningsprov/Corrosion test enl./acc to:
EN ISO 3651-2 A / ASTM A 262 PR.E
[X] Satisfactory result

Godkänt för/Acceptable on
[X] Produkt
Product

100% Visual control
The surface has been examined and the dimensions verified.
Test on correct material has been made with a spectral unit.
Result:without complaints.

TILLVERKNING/MANUFACTURE

PRE-Value: 19,45

[ ] Kallformad/Cold formed
[X] Varmformad/Hot formed

[X] Värmebehandlad/Heattreated min 1040°
Släckglödgat / Solution annealed
Släckt i vatten / Quenched in water

Resultat av övrig provning/Result(s) of other testing

Result from Intergranual corrosion and mechancial testing are made after heat treatment and performed by NF Lab.
For material grade 316/316L material is acc.to NORSOK S01 REV.5 /M630
Material in accordance with NACE MR 0175/ISO15156-3/2015
NACE MR0103- 2015/ISO17945
100% PMI. Result approved Radioactivity < 0,1 Bq/g (equivalent to Co 60)
Forging reduction ratio min. 4:1
PED 2014/68/EU Annex 1 pt 4.3 compliance
Approved acc. to AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive 2014/68/EU by TUEV NORD, notified body, reg.no 0045
NORDIC FLANGES has an approved quality system acc. to ISO - 9001:2008 certified by DNV Nr.2000-SKM-AQ-004

Ställda fodringar enl.ovan har tillgodosetts.
The requirements as above are satisfied

NORDIC FLANGES AB QUALITY CONTROL

Kerstin Pettersson
QC Inspector.

nrm - SVW2K8R2G1DPRF - BRINDASEXPLOIT - CA-LBP667D-LOGIST - 20/07/2017 05:48:07 - Indice de revision A du 01/09/2011

PROFORM
Groupe GP SA

SAS au capital de 4 000 000 euros
rcs Lyon b 326 979 762
N° Siret : 326 979 762 00019
N° ident tva : fr 26 326 979 762
APE 2814 z

Parc d'activités des Sables - 4 à 8 route du Caillou - CS 50224 - 69630 - Chaponost - France
Tel.: +33 (0)4 72 67 13 00 - Fax. : +33 (0)4 72 67 13 19 - www.proform.fr - sales@proform.fr

CERTIFICAT DE RECEPTION 32

INSPECTION CERTIFICATE N° 1219247

ACCORDING TO EN 10204 3.1 (DIN EN 10204 3.1)

NOTRE REFERENCE *OUR REF*		VOTRE COMMANDE *YOUR ORDER*		Page
numéro	expédiée le	référence	reçue le	
197802/1	20/07/2017	56128	11/07/2017	10/18

Produit réalisé sous Système de Management de la Qualité certifié
LLOYD'S REGISTER LRQA
ISO 9001

ISO 9001 : 2008 LRQA	N° FQA0922612/A
TÜV	AD2000 - Merkblatt W0 / TRD100
TÜV	PED 97/23/CE Annexe 1 - § 4.3
EDF / FRAMATOME	Qualification RCCM
EN 9100 : 2009 LRQA	N° FQA0922612/B
GOODRICH	N° 56353 - QA 111
BOMBARDIER	SB/VC247 - QD 4.6-40
NADCAP	Soudage et ressuage / Welding & NDT
GOST R (TR)	C-FR.АГ06.В.00004

Client *Customer/Kunde*

KIMET OY
ILVESVUORENKATU 4
SF 01900 NURMIJARVI
FINLANDE

PRODUIT *PRODUCT / PRODUKT* COLD FORMED

Qté *Qty / Menge*	Désignation *Description / Bezeichnung*	Dimensions *Size / Abmessungen*	Rayon *radius / Radius*	Spécifications *Requirements / Anforderungen*	Nuance *Grade / Werkstoff*
12	BENDS 90* WELDED	154 x 2	225	EN 10253-4 Type A	316L / 1.4404

O.F.	Contrôle visuel et dimensionnel *Visual inspection and dimensional control / Sicht- u. Abmessungskontrolle ohne Beanstandung*	Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Hyper-trempe *Heat treatment / Wärmebehandlung*	PMI Contrôle non mélange *Identification test / Verwechslungsprüfung*	Marquage *Markierung / Marking*
133195	Ok	Ok		Ok	154x2 R225 W EN10253-4/A 1.4404/316L 634019- 133195 - TR

MATIERE *BASE MATERIAL / VORMATERIAL* *WELDING FACTOR V = 1.0*

Coulée *Heat / Schmelze*	N° CCPU *Cert. n° / Zeugnisnr.*	Tubiste *Material Supplier / Vormarterial Lieferant*	Spécifications *Requirements / Anforderungen*	Exécution *Execution / Lieferzustand*
634019	063985	AQUAP : QMOS 01 202	EN 10217-7 TC1 - DIN 11850	W0b

ANALYSE CHIMIQUE DU METAL DE BASE

CHEMICAL COMPOSITION / CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Co	Cu	N		
mini						16.5	10	2						
	0.020	**0.48**	**1.32**	**0.002**	**0.032**	**16.62**	**10.06**	**2.01**	**0.01**	**0.00**	**0.00**	**0.03**		
maxi	0.030	1	2	0.015	0,045	18	13.00	2.50	0.05			0.11		

CARACTERISTIQUES MECANIQUES - ESSAIS

MECHANICAL CHARACTERISTICS - TESTS / MECHANISCHE EIGENSCHAFTEN - PRÜFUNGEN

	Résistance rupture *Tensile str. / Zugfestigkeit* *1.0*	Limite élastique *Yield str. / Dehngrenze* *0,2 %*	Limite élastique *Yield str. / Dehngrenze* *1,0 %*	Allonge-ment *Elongation / Dehnung*	Dureté *Hardness / Härte* *HRB*
mini	490	190	225	40.00	
	644	**349**	**372**	**56**	**0**
maxi	690				

TESTS - CONTRÔLES

TESTS - CONTROLS / PRUFUNGEN

Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Contrôle soudure *Non destructive testing / Zertörungsfreie Prüfung*	Etanchéité *Leak test / Dichtheitsprüfung*	Visuel et dimensionnel *Sicht- u. Abmessungskontrolle / Visual and dimensional control*	Contrôle nuance *Grade / Werkstoff*	Corrosion *Corrosion / Korrosion*	Hyper-trempe *Heat treatment / Wärmebehandlung*
EN 10233	EN 10893-2	EN 10893-1	EN-1127	OK	EN 3651-2	

Les mini, maxi imprimés correspondent à la fourchette de tolérance des équivalences de nuances / The min and max values comply with the tolerance range of grade equivalences

AUTRES ESSAIS - REMARQUES *OTHER TESTS - REMARKS / WEITERE PRÜFUNGEN - BEMERKUNGEN*

Products decontaminated with controlled passivation and rinsing with pollution free recycled demineralised water.

The chemical analysis and mechanical characteristics conform to the Base Material Certificate supplied by the pipe manufacturer (parts manufactured by PROFORM) or by the fittings manufacturer (fittings re-sold by PROFORM).

This certificate has been printed by computer and as such is valid without a signature. Any alterations made to this certificate will render the document as false and fraudulent, and any persons connected with this falsification are liable to legal action.

20/07/2017
Factory Inspector
P. Lizé

G10PRF - CHAPONOST\EXPLOIT - Log\s-Nb-1 - 12/04/2018 08:03:19 - Indice de révision A du 01/09/2011

PROFORM
Groupe GP SA
N° ident tva : fr 26 326 979 762
APE 2814 z
Parc d'activités des Sables - 4 à 8 route du Caillou - CS 50224 - 69630 - Chaponost - France
Tel.: +33 (0)4 72 67 13 00 - Fax. : +33 (0)4 72 67 13 19 - www.proform.fr - sales@proform.fr

INSPECTION CERTIFICATE N° 1235250

ACCORDING TO EN 10204 3.1 (DIN EN 10204 3.1)

NOTRE REFERENCE *OUR REF*		VOTRE COMMANDE *YOUR ORDER*		Page
numéro	expédiée le	référence	reçue le	
202794/1	12/04/2018	56884 add.1	11/04/2018	1/1

Produit réalisé sous Système de Management de la Qualité certifié

ISO 9001 : 2008 LRQA	N° FQA0922612/A
TÜV	AD2000 - Merkblatt W0 / TRD100
TÜV	PED 2014/68/EU Annexe 1 - § 4.3
EDF / FRAMATOME	Qualification RCCM
EN 9100 : 2009 LRQA	N° FQA0922612/B
GOODRICH	N° 56353 - QA 111
BOMBARDIER	SB/VC247 - QD 4.6-40
NADCAP	Soudage et ressuage / Welding & NDT
GOST R (TR)	C-FR.АГ06.B.00004

Client *Customer/Kunde*

KIMET OY
ILVESVUORENKATU 4
SF 01900 NURMIJARVI
FINLANDE

PRODUIT *PRODUCT / PRODUKT* COLD FORMED

Qté *Qty / Menge*	Désignation *Description / Bezeichnung*	Dimensions *Size / Abmessungen*	Rayon *radius / Radius*	Spécifications *Requirements / Anforderungen*	Nuance *Grade / Werkstoff*
80	BENDS 90* WELDED	104 x 2	150	EN 10253-4 Type A	304L

O.F.	Contrôle visuel et dimensionnel *Visual inspection and dimensional control / Sicht- u. Abmessungskontrolle ohne Beanstandung*	Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Hyper-trempe *Heat treatment / Wärmebehandlung*	PMI Contrôle non mélange *Identification test / Verwechslungsprüfung*	Marquage *Markierung / Marking*
137625	Ok	Ok		Ok	104x2 R150 W EN10253-4/A 1.4307 / 304L 137625 - 704027 PL

MATIERE *BASE MATERIAL / VORMATERIAL* *WELDING FACTOR V = 1.0*

Coulée *Heat / Schmelze*	N° CCPU *Cert. n° / Zeugnisnr.*	Tubiste *Material Supplier / Vormarterial Lieferant*	Spécifications *Requirements / Anforderungen*	Exécution *Execution / Lieferzustand*
704027	110367	AQUAP : QMOS 01 202	EN 10217-7 TC1	W0b

ANALYSE CHIMIQUE DU METAL DE BASE

CHEMICAL COMPOSITION / CHEMISCHE ZUSAMMENSETZUNG

	C	Si	Mn	S	P	Cr	Ni	Mo	Ti	Co	Cu	N		
mini						18	8							
	0.023	0.42	1.55	0.004	0.033	18.05	8.01	0.00	0.00	0.00	0.00	0.08		
maxi	0,035	1	2	0,03	0,045	20	11	0.50	0.05					

CARACTERISTIQUES MECANIQUES - ESSAIS

MECHANICAL CHARACTERISTICS - TESTS / MECHANISCHE EIGENSCHAFTEN - PRÜFUNGEN

	Résistance rupture *Tensile str. / Zugfestigkeit 1.0*	Limite élastique *Yield str. / Dehngrenze 0,2 %*	Limite élastique *Yield str. / Dehngrenze 1,0 %*	Allonge-ment *Elongation / Dehnung*	Dureté *Hardness / Härte HRB*
mini	515	205		35.00	
	688	386	401	57	0
maxi					

TESTS - CONTRÔLES

TESTS - CONTROLS / PRUFÜNGEN

Essais mécaniques *Mechanical testings / Mechanische Prüfungen*	Contrôle soudure *Non destructive testing / Zerstörungsfreie Prüfung*	Etanchéité *Leak test / Dichtheitsprüfung*	Visuel et dimensionnel *Sicht- u. Abmessungskontrolle / Visual and dimensional control*	Contrôle nuance *Grade / Werkstoff*	Corrosion *Corrosion / Korrosion*	Hyper-trempe *Heat treatment / Wärmebehandlung*
EN 10233	EN 10893-2	EN 10893-1	EN-1127	OK	EN 3651-2	

Les mini, maxi imprimés correspondent à la fourchette de tolérance des équivalences de nuances / The min and max values comply with the tolerance range of grade equivalences

AUTRES ESSAIS - REMARQUES *OTHER TESTS - REMARKS / WEITERE PRÜFUNGEN - BEMERKUNGEN*

Products decontaminated with controlled passivation and rinsing with pollution free recycled demineralised water.

The chemical analysis and mechanical characteristics conform to the Base Material Certificate supplied by the pipe manufacturer (parts manufactured by PROFORM) or by the fittings manufacturer (fittings re-sold by PROFORM).

This certificate has been printed by computer and as such is valid without a signature. Any alterations made to this certificate will render the document as false and fraudulent, and any persons connected with this falsification are liable to legal action.

12/04/2018
Factory Inspector
P. Lizé

Inspection Certificate 3.1 according to EN 10204

GF ANAPOL
Allika tee 14
Rae vald, Harjumaa
EE-75312 Peetri alevik
Estland

Certificate No
121984

Order No	ELGA Order No	Specification	Data Sheet rev.
	KU0049997	AWS A5.22:E316LT0-4/-1 EN ISO 17633-A:T 19 12 3 L R M/C 3	13

Product	Batch No	Part No
Cromacore DW 316L 1,2 15KG WBS	N71681	95711012

All-weld metal chemical composition, wt.%

C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	Nb	N
0,021	0,52	1,59	0,023	0,005	18,86	12,43	2,71	0,05	0,07	0,005	0,018

Mechanical properties - All-weld metal.

Yield Strength MPa	Tensile Strength MPa	Elongation A5%	Impact value average J	Test temp. ºC
404	550	34		

Shielding gas: M21, Ar + 20% CO2

We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Veronica Bertilsson, QC Manager
Date: 2017-11-01

Welding List

Project no.	W1803201	Rev.	Date/NDT Date		Author/NDT Author	Pg 1 / 2	
Equipment serial no.	W1803201	2	01.10.2018	30.08.2018	Sergey Grigorash/Ivan Kovba		
Customer	BillerudKorsnäs Rockhammar AB	Standard	EN14015	1	22.08.2018	30.08.2018	Sergey Grigorash/Ivan Kovba
Name of the equipment	Filter tank 1,2m3	Test group	None/				
Drawing no.	A1803201.000	VT	100%				

Weld no.	WPS no.	Welding process	Welder no.	Date	RT %	UT %	MT %	PT %	Preheat	PWHT	Notes	Rev
100W1	37-3	136	E4						10°C	N/R°C		
100W2	37-3	136	E4					100	10°C	N/R°C		
100W3	37-1	136	E4		100				10°C	N/R°C		
100W4	37-3	136	E4						10°C	N/R°C		
100W5	37-31	136	E4						10°C	N/R°C		
100W5	37-3	136	E4						10°C	N/R°C		
100W6	37-31	136	E4						10°C	N/R°C		
100W6	37-3	136	E4						10°C	N/R°C		
100W7	37-3	136	E4						10°C	N/R°C		
100W8	37-3	136	E4						10°C	N/R°C		
100W9	37-3	136	E4						10°C	N/R°C		
101W1	13-1	141	E51					100	10°C	N/R°C		
102W1	13-1	141	E51					100	10°C	N/R°C		
102W2	52-16	135	E4						10°C	N/R°C		
102W3	26-9	141	E4						10°C	N/R°C		
102W4	26-2	141	E4						10°C	N/R°C		
103W1	26-2	141	E4					100	10°C	N/R°C		
103W2	26-9	141	E4					100	10°C	N/R°C		
104W1	13-1	141	E51					100	10°C	N/R°C		
105W1	13-1	141	E51					100	10°C	N/R°C		
105W2	26-33	141	E4						10°C	N/R°C		
106W1	26-10	141	E4						10°C	N/R°C		
200W1	52-10	135	E4		1			10	10°C	N/R°C		
200W2	37-1	136	E4						10°C	N/R°C		
200W3	52-16	135	E4					100	10°C	N/R°C	PT leak test	
200W4	52-3	135	E4					100	10°C	N/R°C	PT one side	
200W5	52-16	135	E4					100	10°C	N/R°C		

Welding List

Project no.	W1803201	Rev.	Date/NDT Date		Author/NDT Author	Pg 2 / 2		
Equipment serial no.	W1803201	2	01.10.2018	30.08.2018	Sergey Grigorash/Ivan Kovba			
Customer	BillerudKorsnäs Rockhammar AB	Standard	EN14015	1	22.08.2018	30.08.2018	Sergey Grigorash/Ivan Kovba	
Name of the equipment	Filter tank 1,2m3	Test group	None/					
Drawing no.	A1803201.000	VT	100%					

Weld no.	WPS no.	Welding process	Welder no.	Date	RT %	UT %	MT %	PT %	Preheat	PWHT	Notes	Rev
200W6	52-16	135	E4						10°C	N/R°C		
200W7	52-3	135	E4					100	10°C	N/R°C	PT from inside only	
200W8	52-16	135	E4					100	10°C	N/R°C		
200W9	52-3	135	E4						10°C	N/R°C		
200W10	52-3	135	E4					100	10°C	N/R°C	4X	
200W11	52-16	135	E4						10°C	N/R°C	2X	
200W12	52-3	135	E4						10°C	N/R°C	4X	
W1	52-3	135	E4					100	10°C	N/R°C		
W2	52-16	135	E4					100	10°C	N/R°C		
W3	52-3	135	E4					100	10°C	N/R°C		
W4	52-3	135	E4					100	10°C	N/R°C		
W5	26-9	141	E4						10°C	N/R°C		
W6	26-9	141	E4						10°C	N/R°C	2X	
W7	26-10	141	E4					100	10°C	N/R°C		
W8	26-10	141	E4					100	10°C	N/R°C		
W9	26-10	141	E4					100	10°C	N/R°C		
W10	26-10	141	E4					100	10°C	N/R°C		
W11	26-10	141	E4					100	10°C	N/R°C		
W12	26-10	141	E4					100	10°C	N/R°C		
W13	26-10	141	E4					100	10°C	N/R°C		
W14	26-10	141	E4					100	10°C	N/R°C		

	Welder list		Project no.	W1803201	Rev.	Date	Author
			Equipment serial no.	W1803201	1	01.10.2018	Sergey Grigorash
	Customer	BillerudKorsnäs Rockhammar AB	Standard	EN14015			
	Name of the equipment	Filter tank 1,2m3	Test group	None/			
	Drawing no.	A1803201.000	VT				

Welder no.	Welder name	Certificate no.	Valid to:	Remark	Rev
E4	Alexey Marmazinskiy	GSI-Balt-9606-1-180716-168	27.06.2021		
E4	Alexey Marmazinskiy	GSI-Balt-9606-1-180716-157	27.06.2021		
E4	Alexey Marmazinskiy	WQ-193-17	28.09.2020		
E4	Alexey Marmazinskiy	WQ-192-17	28.09.2020		
E4	Alexey Marmazinskiy	WQ-109-17	24.05.2019		
E4	Alexey Marmazinskiy	WQ-108-17	24.05.2019		
E51	Aleksei Grom	WQ-385-16	16.06.2019		

Keevitusprotseduuri heakskiitmise aruanne
Welding Procedure Qualification Record (WPQR)

Keevitusprotseduuri heakskiitmise aruande (WPQR) nr
Welding Procedure Qualification Record (WPQR) no: 09017

Sertifitseerija / Examining body:
Inspecta Estonia OÜ
Nobo 1336, PED 2014/68/EU

WPS number (WPS number): 52
Viite nr / Reference No: 5.2-5/17-052
Tootja (manufacturer): Estanc AS
Aadress (address): Silikaltsiidi 5C, 11216 Tallinn
Katsestandard (code/ testing standard): EVS-EN ISO 15614-1:2004+A1:2008+A2:2012/AC:2014, EVS-EN 13445-4:2014
Keevitamise kuupäev (date of welding): 25.08.2017

Tõendamise ulatus (range of qualification):

Keevitusprotsess (welding process):	135	(acc to EN ISO 4063)
Liite ja keevisõmbluse tüüp (type of joint and weld):	BW ss mb, bs; FW ml, sl	
Põhimetalli grupp ja alagrupp (parent material group/ sub group):	8.1 - 8	(acc to ISO/TR 15608)
Põhimetalli seinapaksus (parent material thickness) mm:	BW: 3-10; FW sl: 3 - 11,1/ 12,5 - 50; FW ml: 3 - 11,1 / ≥ 3	
Keevismetalli seinapaksus (weld metal thickness) mm:	-	
Keevisõmbluse a-mõõt (throat thickness) mm:	FW ml: Piirangud puuduvad / no restrictions FW sl: 2,25 - 4,5	
Ühe läbimiga /mitme läbimiga (single run/ multi run):	BW: ml FW: sl, ml	
Toru välisläbimõõt (outside pipe diameter) mm:	BW: >150 PA, PC(rotated); >500 FW: ≥ 30,15	
Lisametalli tähistus (filler material designation):	EN ISO 14343-A: G 19 12 3 L Si	
Lisametalli mark (filler material make):	Sandvik 19.12.3.LSi	
Lisametalli mõõt (filler material size) mm:	Ø1,0 (according 8.4.6 of EN ISO 15614-1)	
Kaitsegaas / räbusti (designation of shielding gas/ flux):	EN ISO 14175-M12-ArC2	
Juuregaas (designation of backing gas):	-	
Keevitusvool / polaarsus (type of welding current / polarity):	DC +	
Keevituskaare tüüp (mode of metal transfer):	Impulsskaar / pulse arc	
Soojussisestus (heat input) kJ/mm:	BW: (0,33 - 0,56) ±25% FW: (0,59 - 1,16) ±25%	
Keevitusasendid (welding positions):	Kõik, va PG, J-L045 / All, except PG, J-L045	
Eelkuumutuse temperatuur (preheat temperature) °C:	+10	
Läbimtevaheline temperatuur (interpass temperature) °C:	Max.+150	
Keevitusjärgne kuumutus (post-heating) °C:	-	
Keevitusjärgne termotöötlus (post-weld heat treatment):	-	
Muu informatsioon (other information):	-	

Tõendame, et kontroll-liited valmistati ette, keevitati ja katsetati kooskõlas eelpool toodud katsestandardi(te) nõuetega.
Certified that test welds prepared, welded and tested satisfactorily in accordance with the requirements of the code/ testing standard indicated above.

INSPECTA ESTONIA OÜ * kiwa * EESTI VABARIIK

Välja andmise koht (location of issue): Tallinn
Välja andmise aeg: (date of issue): 29.09.2017
Toomas Reha
Eksamineerija (nimi ja allkiri)
Examiner (name and signature)

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Teaduspargi 8, 12618 Tallinn
tel +372 6599470
estonia@inspecta.com

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EESTI AKREDITEERIMISKESKUS AK ESTONIAN ACCREDITATION CENTRE
Akrediteeritud PC005

Keevitusprotseduuri heakskiitmise aruanne
Welding Procedure Qualification Record (WPQR)

Keevitusprotseduuri heakskiitmise aruande (WPQR) nr
Welding Procedure Qualification Record (WPQR) no: 08917

Sertifitseerija / Examining body:
Inspecta Estonia OÜ
Nobo 1336, PED 2014/68/EU

Viite nr / Reference No: 5.2-5/17-050

WPS number (WPS number): 37
Tootja (manufacturer): Estanc AS
Aadress (address): Silikaltsiidi 5C, 11216 Tallinn
Katsestandard (code/ testing standard): EVS-EN ISO 15614-1:2004+A1:2008+A2:2012/AC:2014, EVS-EN 13445-4:2014
Keevitamise kuupäev (date of welding): 17.08.2017

Tõendamise ulatus (range of qualification):

Keevitusprotsess (welding process):	141+136 / 136	(acc to EN ISO 4063)
Liite ja keevisõmbluse tüüp (type of joint and weld):	141+136: BW ss nb, ss mb, bs; FW ml, sl 136: ss mb, bs	
Põhimetalli grupp ja alagrupp (parent material group/ sub group):	8.1 - 8	(acc to ISO/TR 15608)
Põhimetalli seinapaksus (parent material thickness) mm:	BW: 3,0 - 22,26; FW ml: 5,0 - 22,26 /≥ 5; FW sl: 5,5-22,14 / 12,5-50	
Keevismetalli seinapaksus (weld metal thickness) mm:	141: 2,1-3,9	
Keevisõmbluse a-mõõt (throat thickness) mm:	FW ml: Piirangud puuduvad / no restrictions FW sl: 3 - 6	
Ühe läbimiga /mitme läbimiga (single run/ multi run):	141: sl 136: sl, ml	
Toru välisläbimõõt (outside pipe diameter) mm:	FW: ≥ 30,15 BW: ≥ 57,15	
Lisametalli tähistus (filler material designation):	141: EN ISO 14343-A: G 19 12 3 L Si 136: EN ISO 17633-A T 19 12 3 L R M /C 3	
Lisametalli mark (filler material make):	141: Sandvik 19.12.3.Lsi 136: Cromacore DW 316L	
Lisametalli mõõt (filler material size) mm:	141: Ø 2,0 (according 8.4.6 of EN ISO 15614-1) 136: Ø 1,2	
Kaitsegaas / räbusti (designation of shielding gas/ flux):	141: EN ISO 14175-I1-Ar 136: EN ISO 14175-Z-ArC+NO-18/0,03	
Juuregaas (designation of backing gas):	EN ISO 14175-I1-Ar	
Keevitusvool / polaarsus (type of welding current / polarity):	141: DC- 136: DC+	
Keevituskaare tüüp (mode of metal transfer):	136: Vahekaar, pihuskaar /globular, spray transfer	
Soojussisestus (heat input) kJ/mm:	141: (0,71 - 1,54)±25% 136: (0,66 - 1,39)±25%	
Keevitusasendid (welding positions):	BW: PA, PC / FW: PA, PB, PD, PE, PF	
Eelkuumutuse temperatuur (preheat temperature) °C:	+10	
Läbimtevaheline temperatuur (interpass temperature) °C:	Max.+150	
Keevitusjärgne kuumutus (post-heating) °C:	-	
Keevitusjärgne termotöötlus (post-weld heat treatment):	-	
Muu informatsioon (other information):	-	

Tõendame, et kontroll-liited valmistati ette, keevitati ja katsetati kooskõlas eelpool toodud katsestandardi(te) nõuetega.
Certified that test welds prepared, welded and tested satisfactorily in accordance with the requirements of the code/ testing standard indicated above.

INSPECTA ESTONIA OÜ * EESTI VABARIIK * kiwa

Välja andmise koht (location of issue): Tallinn

Välja andmise aeg: (date of issue): 29.09.2017

Toomas Reha
Eksamineerija (nimi ja allkiri)
Examiner (name and signature)

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EESTI AKREDITEERIMISKESKUS AK ESTONIAN ACCREDITATION CENTRE
Akrediteeritud PC005

Keevitusprotseduuri heakskiitmise aruanne
Welding Procedure Qualification Record (WPQR)

Keevitusprotseduuri heakskiitmise aruande (WPQR) nr
Welding Procedure Qualification Record (WPQR) no: 08717

Sertifitseerija / Examining body:
Inspecta Estonia OÜ
Nobo 1336, PED 2014/68/EU

Viite nr / Reference No: 5.2-5/17-050

WPS number (WPS number): 26
Tootja (manufacturer): Estanc AS
Aadress (address): Silikaltsiidi 5C, 11216 Tallinn
Katsestandard (code/ testing standard): EVS-EN ISO 15614-1:2004+A1:2008+A2:2012/AC:2014, EVS-EN 13445-4:2014
Keevitamise kuupäev (date of welding): 18.08.2017

Tõendamise ulatus (range of qualification):

Keevitusprotsess (welding process):	141	(acc to EN ISO 4063)
Liite ja keevisõmbluse tüüp (type of joint and weld):	BW ss nb, ss mb, bs; FW ml, sl	
Põhimetalli grupp ja alagrupp (parent material group/ sub group):	8.1 - 8	(acc to ISO/TR 15608)
Põhimetalli seinapaksus (parent material thickness) mm:	BW: 3 ,0- 11,08; FW sl: 3,0-11,08 / 12,5-50; FW ml: 3,0-11,08 / ≥5,0	
Keevismetalli seinapaksus (weld metal thickness) mm:	-	
Keevisõmbluse a-mõõt (throat thickness) mm:	FW ml: Piirangud puuduvad / no restrictions FW sl: 1,75 - 3,3	
Ühe läbimiga /mitme läbimiga (single run/ multi run):	sl, ml	
Toru välisläbimõõt (outside pipe diameter) mm:	≥30,15	
Lisametalli tähistus (filler material designation):	EN-ISO 14343-A - W 19 12 3 Lsi	
Lisametalli mark (filler material make):	Sandvik 19.12.3.LSi	
Lisametalli mõõt (filler material size) mm:	Ø 2,0 (according 8.4.6 of EN ISO 15614-1)	
Kaitsegaas / räbusti (designation of shielding gas/ flux):	EN ISO 14175-I1-Ar	
Juuregaas (designation of backing gas):	EN ISO 14175-I1-Ar	
Keevitusvool / polaarsus (type of welding current / polarity):	DC-	
Keevituskaare tüüp (mode of metal transfer):	141	
Soojussisestus (heat input) kJ/mm:	BW root: (1,45-2,73) ±25%; BW fill: (0,92 - 2,57) ±25% FW: (0,97 - 2,83) +25%	
Keevitusasendid (welding positions):	Kõik, va PG, J-L045 / All, except PG, J-L045	
Eelkuumutuse temperatuur (preheat temperature) °C:	+10	
Läbimtevaheline temperatuur (interpass temperature) °C:	+150	
Keevitusjärgne kuumutus (post-heating) °C:	-	
Keevitusjärgne termotöötlus (post-weld heat treatment):	-	
Muu informatsioon (other information):	-	

Tõendame, et kontroll-liited valmistati ette, keevitati ja katsetati kooskõlas eelpool toodud katsestandardi(te) nõuetega.
Certified that test welds prepared, welded and tested satisfactorily in accordance with the requirements of the code/ testing standard indicated above.

INSPECTA ESTONIA OÜ * EESTI VABARIIK * kiwa

Välja andmise koht (location of issue): Tallinn

Välja andmise aeg: (date of issue): 29.09.2017

Toomas Reha
Eksamineerija (nimi ja allkiri)
Examiner (name and signature)

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CEOC INTERNATIONAL

EESTI AKREDITEERIMISKESKUS AK ESTONIAN ACCREDITATION CENTRE
Akrediteeritud PC005

Keevitusprotseduuri heakskiitmise aruanne
Welding Procedure Qualification Record (WPQR)

Inspecta

Keevitusprotseduuri heakskiitmise aruande (WPQR) nr
Welding Procedure Qualification Record (WPQR) no: **02517**

Sertifitseerija / Examining body:
Inspecta Estonia OÜ
Nobo 1336, PED 2016/68/EU

WPS number (WPS number): **13** Viite nr / Reference No: 5.2-5/17-014

Tootja (manufacturer): Estanc AS

Aadress (address): Silikaltsiidi 5c, Tallinn, Eesti/Estonia

Katsestandard (code/ testing standard): EVS-EN ISO 15614-1:2004+A1:2008+A2:2012/AC:2014

Keevitamise kuupäev (date of welding): 07.03.2017

Tõendamise ulatus *(range of qualification):*

Keevitusprotsess (welding process):	141 (TIG) (acc to EN ISO 4603)
Liite ja keevisõmbluse tüüp (type of joint and weld):	BW ss nb, ss mb, bs gg; T-joint BW ss nb, ss mb, bs gg; FW ml
Põhimetalli grupp ja alagrupp (parent material group and sub group):	8.1 – 8 (acc to ISO/TR 15608)
Põhimetalli seinapaksus (parent material thickness) mm:	BW: 2,1 – 6,0; FW: 2,1 – 6,0 T-joint BW: 2,1 – 6,0; FW: 2,1 – 6,0 / 3,0 – 50,0
Keevismetalli seinapaksus (weld metal thickness) mm:	-
Keevisõmbluse a-mõõt (throat thickness) mm:	piirangud puuduvad / no restrictions
Ühe läbimiga /mitme läbimiga (single run/ multi run):	ml
Toru välisläbimõõt (outside pipe diameter) mm:	≥ 30,1
Lisametalli tähistus (filler material designation):	EN-ISO 14343-A - W 19 12 3 LSi
Lisametalli mark (filler material make):	ERRE INOX ER316LSi
Lisametalli mõõt (filler material size) mm:	Ø2,0 (according 8.4.6 of EN ISO 15614-1)
Kaitsegaas / räbusti (designation of shielding gas/ flux):	EN-ISO 14175-Z-Ar+NO-0,03
Juuregaas (designation of backing gas):	EN-ISO 14175-Z-Ar+NO-0,03
Keevitusvool / polaarsus (type of welding current / polarity):	DC -
Keevituskaare tüüp (mode of metal transfer):	-
Soojussisestus (heat input) kJ/mm:	Juur/root: 0,64 – 1,87 Täide/fill: 0,49 – 1,34
Keevitusasendid (welding positions):	PA, PB, PC, PD, PE, PF, PH, H-L045
Eelkuumutuse temperatuur (preheat temperature) °C:	Min +10
Läbimtevaheline temperatuur (interpass temperature) °C:	Max +150 °C
Keevitusjärgne kuumutus (post-heating) °C:	-
Keevitusjärgne termotöötlus (post-weld heat treatment):	-
Muu informatsioon (other information):	-

Tõendame, et kontroll-liited valmistati ette, keevitati ja katsetati kooskõlas eelpool toodud katsestandardi(te) nõuetega.
Certified that test welds prepared, welded and tested satisfactorily in accordance with the requirements of the code/ testing standard indicated above.

Välja andmise koht (location of issue): Tallinn

Väljaandmise aeg (date of issue): 26.03.2017

German Vimb

Eksamineerija (nimi ja allkiri)
Examiner (name and signature)

INSPECTA ESTONIA OÜ
Inspecta
EESTI RIIK
EESTI AKREDITEERIMISKESKUS
AK
ESTONIAN ACCREDITATION CENTRE
Accredited PC005

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn, Estonia
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estonia@inspecta.com

CEOC INTERNATIONAL

Keevitaja kvalifikatsiooni sertifikaat nr. WQ-385-16
Welder´s qualification test certificate no.

Inspecta

Sertifitseerija / Examining body:	Inspecta Estonia OÜ
Teavitatud asutuse nr / Notified body No:	1336 PED 2014/68/EU

Märgistus/Designation:
EN ISO 9606-1 141 T BW FM5 S t2,0 D88,9 PC ss gb



Tootja keevitusprotseduuri spetsifikaat / WPS:	13-1
Keevitaja nimi/ Welder´s name:	**Aleksei Grom (E51)**
Identifitseering / Identification:	38001190343
Identifitseerimise meetod / Method of identification:	ID kaart B0163402
Sünniaeg ja –koht/Date and place of birth:	19.01.1980, Eesti / Estonia
Tööandja / Employer:	Estanc AS
Katsestandard / Testing Standard:	EN ISO 9606-1
Täiendav nurkõmbluse katse/Supplementary FW test:	ei / no
Tööalased teadmised / Job knowledge:	ei kontrollitud / not tested

Olulised muutujad / Essential parameters	Katsekeha / Test piece	Kvalifitseerimisulatus / Range of qualification
Keevitusprotsess / Welding process	141	141, 142, 143, 145
Sulametalli siirdeviis / Transfer mode	-	-
Plaat või toru / Plate or pipe	T	P, T
Liite tüüp / Type of weld	BW	BW
Materjali grupp (grupid) / Material group(s)	8.1 (1.4404)	-
Lisametall / Welding consumable	EN ISO 14343-A: W 19 12 3 LSi	S, M, nm
Lisamaterjali grupp(id)/Filler material group(s)	FM5	FM5
Kaitsegaas / Shielding gas	EN ISO 14175 - I1 - Ar	-
Abimaterjalid / Auxiliaries	EN ISO 14175-I1-Ar	-
Voolu tüüp, polaarsus / Type of current, polarity	DC-	DC-
Materjali paksus / Material thickness (mm)	2,0	2,0 - 4
Toru välisläbimõõt/Outside pipe diameter(mm)	88,9	≥44,5
Keevisõmbluse asend /Welding position	PC	PA, PC
Keevitamise üksikasjad / Weld details	ss gb	ss mb, bs, ss gb

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Visuaalne uuring / Visual testing	x	
Radiograafia/Radiographic testing	x	
Murdekatse / Fracture test		x
Paindekatse / Bend test		x
Tõmbekatse / Notch tensile test		x
Makroskoopiline uuring / Macroscopic examination		x

Eksamineerija nimi, allkiri/ Name and signature of examiner: Toomas Reha

Inspecta

Eksamineerimise aeg ja koht/ Place and date of examination: Tallinn 02.09.2016

Keevitamise aeg / Date of welding: 16.06.2016

Pikendamise meetod / Revalidation		Kehtiv kuni/ Valid until
9.3 a)	x	**16.06.2019**
9.3 b)		
9.3 c)		

Kvalifikatsiooni pikendamine eksamineerija poolt järgmiseks 2-ks aastaks (p. 9.3 b)
Revalidation for qualification by examiner for the following 2 years (p. 9.3 b)

Kuupäev / Date	Allkiri / Signature	Amet / Title

Kehtivuse kinnitus järgmiseks 6-ks kuuks tööandja/koordinaatori või eksamineerija poolt (vastavalt p. 9.2)
Conformation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2)

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title
16.12.2016	A Põld	IWE / Welding Coordinator
16.06.2017	A Põld	IWE / Welding Coordinator
16.12.2017 16.06.2018	A. Põld S. Grom	IWE / Welding Coordinator IWE/Welding Coordinator

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn
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GSI SLV Baltikum OÜ
Peterburi tee 90f
11415 Tallinn, Estonia

EN ISO/IEC 17024
PEC008

1 Welder's qualification test certificate / Certificate of Conformity

2 **Designation** **ISO 9606-1: 135 P BW FM5 S s12 PA bs**

3 **WPS-Reference** 52-1 **Certification body:** GSI-SLV Baltikum OÜ, NB 2709

4 **Welder's name** **Alexey Marmazinskiy (E4)** **Reference No.:** GSI-Balt-9606-1-180716-157

5 **Identification** 37804160315



6 **Method of identification** Personal Code

7 **Date and place of birth** 1978-04-16, Russia

8 **Employer** Estanc AS

9 **Code/Testing standard** EN ISO 9606-1:2017, PED 2014/68/EU

10 **Job knowledge** ~~acceptable~~ / not tested (delete as necessary)

11	Variables	Test piece	Range of qualification
12	Welding process(es)	135-P	135-P, 138-P
13	Type of current and polarity	DC+	-
14	Product type (Plate or Pipe)	P	P, T
15	Type of weld	BW	BW
16	Parent material group(s)	8.1 EN 10028-7: 1.4307	-
17	Filler material group(s)	FM5	FM5
18	Filler material (designation)	S ISO 14343-A: G 19 12 3 LSi	S, M
19	Shielding gas (es)	M12 ISO 14175-M12-ArCO-2	-
20	Auxiliaries	-	-
21	Material thickness/deposited thickness (mm)	12.0	≥ 3.00
22	Pipe outside diameter (mm)	-	fixed D≥ 500; PA rotated D≥ 75
23	Welding positions	PA	PA
24	Weld details	bs	ss mb, bs

25 **Additional information:** no

26	Type of test	Performed and accepted	Not tested
27	Visual testing	X	
28	Radiographic testing		X
29	Fracture test	X	
30	Bend test		X
31	Notch tensile test		X
32	Macroscopic examination		X
33	Additional tests *		X

Stamp: GSI SLV Baltikum OÜ, GSI SLV, Certifier PED, Dipl.-Eng. S.Berzon, Notified body 2709

Place: Tallinn, Estonia

Revalidation refer to: **9.3.a**

Date of welding: 2018.06.28

Valid until: **2021.06.27**

34 **Remarks:**
The requirements of the Pressure Equipment Directive 2014/68/ EU Approval of personnel Annex I, 3.1.2 were complied

Reg. No. 21/18ET

Dipl.-Eng. S.Berzon
Name and signature of the certifying

35

36 **Confirmation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2.)**

37

Date	Signature	Position or title

38 ***Append separate sheet if necessary**

39 **Translation on the back**

GSI SLV Baltikum OÜ
Peterburi tee 90f
11415 Tallinn, Estonia

EN ISO/IEC 17024
PEC008

Welder's qualification test certificate / Certificate of Conformity

2 **Designation** **ISO 9606-1: 135 T/P FW FM5 S t5.54/10 D60.3 PB ml**

3 **WPS-Reference** 52-8 **Certification body:** GSI-SLV Baltikum OÜ, NB 2709

4 **Welder's name** **Alexey Marmazinskiy (E4)** **Reference No.:** GSI-Balt-9606-1-180716-168

5 **Identification** 37804160315

6 **Method of identification** Personal Code

7 **Date and place of birth** 1978-04-16, Russia

8 **Employer** Estanc AS

9 **Code/Testing standard** EN ISO 9606-1:2017, PED 2014/68/EU

10 **Job knowledge** ~~acceptable~~ / not tested (delete as necessary)



11 Variables	Test piece	Range of qualification
12 Welding process(es)	135-P	135-P, 138-P
13 Type of current and polarity	DC+	-
14 Product type (Plate or Pipe)	T/P	P, T
15 Type of weld	FW	FW
16 Parent material group(s)	8.1 EN 10216-5: 1.4306 / EN 10028-7: 1.4307	-
17 Filler material group(s)	FM5	FM5
18 Filler material (designation)	S ISO 14343-A: G 19 12 3 LSi	S, M
19 Shielding gas (es)	M12 ISO 14175-M12-ArC-2	-
20 Auxiliaries	-	-
21 Material thickness/deposited thickness (mm)	5.54/10	≥ 3.00
22 Pipe outside diameter (mm)	60.3	≥ 30.15
23 Welding positions	PB	PA, PB
24 Weld details	ml	sl, ml

25 **Additional information:** no

26 Type of test	Performed and accepted	Not tested
27 Visual testing	X	
28 Radiographic testing		X
29 Fracture test	X	
30 Bend test		X
31 Notch tensile test		X
32 Macroscopic examination		X
33 Additional tests *		X

Stamp: GSI SLV Baltikum OÜ — GSI SLV — Certifier PED — Dipl.-Eng. S.Berzon — Notified body 2709

Place: Tallinn, Estonia

Revalidation refer to: **9.3.a**

Date of welding: 2018.06.28

Valid until: **2021.06.27**

34 **Remarks:**
The requirements of the Pressure Equipment Directive 2014/68/ EU Approval of personnel Annex I, 3.1.2 were complied

Reg. No. 22/18ET

Dipl.-Eng. S.Berzon
Name and signature of the certifying

35

36 **Confirmation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2.)**

37 Date	Signature	Position or title

38 ***Append separate sheet if necessary**

39 **Translation on the back**

Keevitaja kvalifikatsiooni sertifikaat nr. WQ-109-17
Welder´s qualification test certificate no.

Inspecta

Sertifitseerija / Examining body:	Inspecta Estonia OÜ
Teavitatud asutuse nr / Notified body No:	1336 PED 2014/68/EU

Märgistus/Designation:

EN ISO 9606-1 136 T FW FM5 R t10/6,2 D88,9 PB ml

Tootja keevitusprotseduuri spetsifikaat / WPS: 37-18



Keevitaja nimi/ Welder´s name:	**Alexey Marmazinsky (E4)**
Identifitseering / Identification:	37804160315
Identifitseerimise meetod / Method of identification:	I.D.Card B0048584
Sünniaeg ja –koht/Date and place of birth:	16.04.1978, Venemaa / Russia
Tööandja / Employer:	Estanc AS
Katsestandard / Testing Standard:	EN ISO 9606-1
Täiendav nurkõmbluse katse/Supplementary FW test:	ei / no
Tööalased teadmised / Job knowledge:	ei kontrollitud / not tested

Olulised muutujad / Essential parameters	Katsekeha / Test piece	Kvalifitseerimisulatus / Range of qualification
Keevitusprotsess / Welding process	136	136
Sulametalli siirdeviis / Transfer mode	Globular transfer	All modes, except dip transfer
Plaat või toru / Plate or pipe	T	P, T
Liite tüüp / Type of weld	FW	FW
Materjali grupp (grupid) / Material group(s)	8.1 (1.4307)	1 - 11
Lisametall / Welding consumable	EN ISO 17633-A: T 19 12 3 L R M/C 3	R, P, V, W, Y, Z
Lisamaterjali grupp(id)/Filler material group(s)	FM5	FM5
Kaitsegaas / Shielding gas	EN ISO 14175-M12-ArC-2	-
Abimaterjalid / Auxiliaries	-	-
Voolu tüüp, polaarsus / Type of current, polarity	DC+	DC+
Materjali paksus / Material thickness (mm)	10/6,2	≥ 3,0
Toru välisläbimõõt/Outside pipe diameter(mm)	88,9	≥44,45
Keevisõmbluse asend /Welding position	PB	PA, PB
Keevitamise üksikasjad / Weld details	ml	sl, ml

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Visuaalne uuring / Visual testing	x	
Radiograafia/Radiographic testing		x
Murdekatse / Fracture test		x
Paindekatse / Bend test		x
Tõmbekatse / Notch tensile test		x
Makroskoopiline uuring / Macroscopic examination	x	

Eksamineerija nimi, allkiri/ Name and signature of examiner: German Vimb

Eksamineerimise aeg ja koht/ Place and date of examination: Lasnamäe 27.06.2017

Keevitamise aeg / Date of welding: 24.05.2017

Pikendamise meetod / Revalidation		Kehtiv kuni/ Valid until
9.3 a)	x	**24.05.2020**
9.3 b)		
9.3 c)		

Kvalifikatsiooni pikendamine eksamineerija poolt järgmiseks 2-ks aastaks (p. 9.3 b)
Revalidation for qualification by examiner for the following 2 years (p. 9.3 b)

Kuupäev / Date	Allkiri / Signature	Amet / Title

Kehtivuse kinnitus järgmiseks 6-ks kuuks tööandja/koordinaatori või eksamineerija poolt (vastavalt p. 9.2)
Conformation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2)

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title
24.11.2017 24.05.2018	S.G. Pokl	IWE / Welding Coordinator IWE / welding coord-r

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn
tel +372 6599470, fax +372 6599 479

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TRUST & QUALITY www.inspecta.com

Keevitaja kvalifikatsiooni sertifikaat nr. WQ-108-17
Welder´s qualification test certificate no.

Inspecta

Sertifitseerija / Examining body:	Inspecta Estonia OÜ
Teavitatud asutuse nr / Notified body No:	1336 PED 2014/68/EU

Märgistus/Designation:
EN ISO 9606-1 136 P BW FM5 R t10 PC bs



Tootja keevitusprotseduuri spetsifikaat / WPS: 37-15

Keevitaja nimi/ Welder´s name: **Alexey Marmazinsky (E4)**
Identifitseering / Identification: 37804160315
Identifitseerimise meetod / Method of identification: I.D.Card B0048584
Sünniaeg ja –koht/Date and place of birth: 16.04.1978, Venemaa / Russia
Tööandja / Employer: Estanc AS
Katsestandard / Testing Standard: EN ISO 9606-1
Täiendav nurkõmbluse katse/Supplementary FW test: ei / no
Tööalased teadmised / Job knowledge: ei kontrollitud / not tested

Olulised muutujad / Essential parameters	Katsekeha / Test piece	Kvalifitseerimisulatus / Range of qualification
Keevitusprotsess / Welding process	136	136
Sulametalli siirdeviis / Transfer mode	Globular transfer	All modes, except dip transfer
Plaat või toru / Plate or pipe	P	P, T
Liite tüüp / Type of weld	BW	BW
Materjali grupp (grupid) / Material group(s)	8.1 (1.4307)	1 - 11
Lisametall / Welding consumable	EN ISO 17633-A: T 19 12 3 L R M/C 3	Juur/root: R; Täide/fill: P, R, V, W, Y, Z
Lisamaterjali grupp(id)/Filler material group(s)	FM5	FM5
Kaitsegaas / Shielding gas	EN ISO 14175-M12-ArC-2	-
Abimaterjalid / Auxiliaries	-	-
Voolu tüüp, polaarsus / Type of current, polarity	DC+	DC+
Materjali paksus / Material thickness (mm)	10	3,0 - 20
Toru välisläbimõõt/Outside pipe diameter(mm)	-	≥500 fixed; ≥75 rotating (PA, PC)
Keevisõmbluse asend /Welding position	PC	PA, PC
Keevitamise üksikasjad / Weld details	bs	ss mb, bs

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Visuaalne uuring / Visual testing	x	
Radiograafia/Radiographic testing	x	
Murdekatse / Fracture test		x
Paindekatse / Bend test		x
Tõmbekatse / Notch tensile test		x
Makroskoopiline uuring / Macroscopic examination		x

Eksamineerija nimi, allkiri/ Name and signature of examiner: German Vimb

Eksamineerimise aeg ja koht/ Place and date of examination: Tallinn 27.06.2017

Keevitamise aeg / Date of welding: 24.05.2017

Pikendamise meetod / Revalidation		Kehtiv kuni/ Valid until
9.3 a)	x	**24.05.2020**
9.3 b)		
9.3 c)		

Kvalifikatsiooni pikendamine eksamineerija poolt järgmiseks 2-ks aastaks (p. 9.3 b)
Revalidation for qualification by examiner for the following 2 years (p. 9.3 b)

Kuupäev / Date	Allkiri / Signature	Amet / Title

Kehtivuse kinnitus järgmiseks 6-ks kuuks tööandja/koordinaatori või eksamineerija poolt (vastavalt p. 9.2)
Conformation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2)

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title
24.11.2017 24.05.2018		IWE / Welding Coordinator IWE/welding coord-r

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn
tel +372 6599470, fax +372 6599 479

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Keevitaja kvalifikatsiooni sertifikaat nr. WQ-192-17
Welder´s qualification test certificate no.

Sertifitseerija / Examining body:	Inspecta Estonia OÜ
Teavitatud asutuse nr / Notified body No:	1336 PED 2014/68/EU

Märgistus/Designation:

EN ISO 9606-1 141 P BW FM5 S t5,54 D60,3 PC ss gb



Tootja keevitusprotseduuri spetsifikaat / WPS:	26-13
Keevitaja nimi/ Welder´s name:	**Alexey Marmazinsky (E4)**
Identifitseering / Identification:	37804160315
Identifitseerimise meetod / Method of identification:	I.D.Card B0048584
Sünniaeg ja –koht/Date and place of birth:	16.04.1978, Venemaa / Russia
Tööandja / Employer:	Estanc AS
Katsestandard / Testing Standard:	EN ISO 9606-1
Täiendav nurkõmbluse katse/Supplementary FW test:	ei / no
Tööalased teadmised / Job knowledge:	ei kontrollitud / not tested

Olulised muutujad / Essential parameters	Katsekeha / Test piece	Kvalifitseerimisulatus / Range of qualification
Keevitusprotsess / Welding process	141	141, 142, 143, 145
Sulametalli siirdeviis / Transfer mode	-	-
Plaat või toru / Plate or pipe	P	P, T
Keevisõmblusetüüp / Type of weld	BW	BW
Põhimetalli grupp(id) / Parent material group(s)	8.1 (1.4301)	1 - 11
Lisamaterjal (tähistus) / Filler material (designation)	EN ISO 14343-A: W 19 12 3 LSi	S, M, nm
Lisamaterjali grupp(id) / Filler material group(s)	FM5	FM5
Kaitsegaas / Shielding gas	EN ISO 14175 - I1 - Ar	-
Abimaterjalid / Auxiliaries	EN ISO 14175-I1-Ar	EN ISO 14175-I1-Ar
Voolu tüüp, polaarsus / Type of current, polarity	DC-	DC-
Materjali paksus / Material thickness (mm)	5,54	3,0 - 11,08
Pealesulatuspaksus / Deposited thickness (mm)	-	-
Toru välisläbimõõt/Outside pipe diameter(mm)	60,3	≥30,15
Keevitusasend /Welding position	PC	PA, PC
Keevitamise üksikasjad / Weld details	ss gb	ss mb, bs, ss gb
Ühe, mitme läbimiga / Single layer, multi-layer	-	-

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Visuaalne / Visual testing	x	
Radiograafia / Radiography	x	
Murdekatse / Fracture test		x

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Paindekatse / Bend test		x
Tõmbekatse / Notch tensile test		x
Makroskoopia / Macroscopy		x

Eksamineerimise aeg ja koht/ Place and date of examination: Tallinn 27.10.2017

Keevitamise aeg / Date of welding: 29.09.2017

Eksamineerija nimi, allkiri/ Name and signature of examiner: Toomas Reba

INSPECTA ESTONIA OÜ * kiwa EESTI VABARIIK

Pikendamise meetod / Revalidation		Kehtiv kuni/ Valid until
9.3 a)	x	**29.09.2020**
9.3 b)		
9.3 c)		

Kvalifikatsiooni pikendamine eksamineerija poolt järgmiseks 2-ks aastaks (p. 9.
Revalidation for qualification by examiner for the following 2 years (p. 9.3

Kuupäev / Date	Allkiri / Signature	Ametikoht / Title

Kehtivuse kinnitus järgmiseks 6-ks kuuks tööandja/koordinaatori või eksamineerija poolt (vastavalt p. 9.2)
Conformation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2)

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title
29.03.2018	S.G.	IWE/Weld.coord.

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn
tel +372 6599470
estonia@inspecta.com

CEOC INTERNATIONAL

EESTI AKREDITEERIMISKESKUS ESTONIAN ACCREDITATION CENTRE AK
Akrediteeritud PEC002

Keevitaja kvalifikatsiooni sertifikaat nr. WQ-193-17
Welder´s qualification test certificate no.

Sertifitseerija / Examining body:	Inspecta Estonia OÜ
Teavitatud asutuse nr / Notified body No:	1336 PED 2014/68/EU

Märgistus/Designation:

EN ISO 9606-1 141 P FW FM5 S t10/5,54 D60,3 PB ml



Tootja keevitusprotseduuri spetsifikaat / WPS:	26-9
Keevitaja nimi/ Welder´s name:	**Alexey Marmazinsky (E4)**
Identifitseering / Identification:	37804160315
Identifitseerimise meetod / Method of identification:	I.D.Card B0048584
Sünniaeg ja –koht/Date and place of birth:	16.04.1978, Venemaa / Russia
Tööandja / Employer:	Estanc AS
Katsestandard / Testing Standard:	EN ISO 9606-1
Täiendav nurkõmbluse katse/Supplementary FW test:	ei / no
Tööalased teadmised / Job knowledge:	ei kontrollitud / not tested

Olulised muutujad / Essential parameters	Katsekeha / Test piece	Kvalifitseerimisulatus / Range of qualification
Keevitusprotsess / Welding process	141	141, 142, 143, 145
Sulametalli siirdeviis / Transfer mode	-	-
Plaat või toru / Plate or pipe	P	P, T
Keevisõmblusetüüp / Type of weld	FW	FW
Põhimetalli grupp(id) / Parent material group(s)	8.1 (1.4301)	1 - 11
Lisamaterjal (tähistus) / Filler material (designation)	EN ISO 14343-A: W 19 12 3 LSi	S, M, nm
Lisamaterjali grupp(id) / Filler material group(s)	FM5	FM5
Kaitsegaas / Shielding gas	EN ISO 14175 - I1 - Ar	-
Abimaterjalid / Auxiliaries	-	-
Voolu tüüp, polaarsus / Type of current, polarity	DC-	DC-
Materjali paksus / Material thickness (mm)	10/5,54	≥3,0
Pealesulatuspaksus / Deposited thickness (mm)	-	-
Toru välisläbimõõt/Outside pipe diameter(mm)	60,3	≥30,15
Keevitusasend /Welding position	PB	PA, PB
Keevitamise üksikasjad / Weld details	-	-
Ühe, mitme läbimiga / Single layer, multi-layer	ml	sl, ml

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Visuaalne / Visual testing	x	
Radiograafia / Radiography		x
Murdekatse / Fracture test		x

Katse tüüp / Type of qualification test	Aktsepteeritud/ Accepted	Ei katsetatud/ Not tested
Paindekatse / Bend test		x
Tõmbekatse / Notch tensile test		x
Makroskoopia / Macroscopy	x	

Eksamineerimise aeg ja koht/ Place and date of examination: Tallinn 27.10.2017

Keevitamise aeg / Date of welding: 29.09.2017

Eksamineerija nimi, allkiri/ Name and signature of examiner: Toomas Reba

INSPECTA ESTONIA OÜ

Pikendamise meetod / Revalidation		Kehtiv kuni/ Valid until
9.3 a)	x	**29.09.2020**
9.3 b)		
9.3 c)		

Kvalifikatsiooni pikendamine eksamineerija poolt järgmiseks 2-ks aastaks (p. 9.5)
Revalidation for qualification by examiner for the following 2 years (p. 9.5)

Kuupäev / Date	Allkiri / Signature	Ametikoht / Title

Kehtivuse kinnitus järgmiseks 6-ks kuuks tööandja/koordinaatori või eksamineerija poolt (vastavalt p. 9.2)
Conformation of the validity by employer/welding coordinator or examining body for the following 6 months (refer to 9.2)

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title
29.03.2018	S.G.	Welding coord-r

Kuupäev / Date	Allkiri / Signature	Ametikoht või tiitel / Position or title

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Tallinn
tel +372 6599470
estonia@inspecta.com

CEOC INTERNATIONAL

EESTI AKREDITEERIMISKESKUS AK ESTONIAN ACCREDITATION CENTRE
Akrediteeritud PEC002

Estanc Ltd. Silikaltsiidi 5 C, Tallinn, 11216

VISUAL TESTING REPORT

Report № **W1803201-VTR**		Inspection object **Filtrattank**	
Serial № **W1803201**		Drawing № **A1803201.000 Rev.0**	
Date of inspection **11.09.2018**		Place of inspection **Jüri workshop**	
Customer **BillerudKorsnäs Rockhammar AB**	Customer project name	Customer project №	Customer serial №

Testing procedure **EVS EN ISO 17637**	Quality requirements **EVS EN 14015 – Table 32**		Extent of testing **100% in accessible places**
Base material **1.4307**	Type of joint **BW, FW**	Surface condition **as welded**	
Control stage ☐ **Before welding** ☐ **During welding** ☑ **After welding**			Heat treated -
Vewing conditions ☐ **Daylight** ☑ **Lighting** **Illuminance > 500 Lux**			
Instrument used ☑ **Flashlight** ☑ **Weld gauge** ☑ **Ruler** ☑ **Measuring tape** ☑ **Mirror** ☐ **Endoscope**			
Instrument information		Photo	
Other information			
Result of testing ☑ **Accepted** ☐ **Not accepted**		Remarks	

	ESTANC Supervisor		
Name	R. Tarassov		
Signature		ESTANC 008	
Certificate №	2-4.4.1/129 NDT/2016		
Date	11.09.2018		

ESTANC

ACID PICKLING REPORT

Equipment no: Estanc / Client	W1803201
Name of equipment or detail:	Filter tank 75TA007
Customer / name of project:	Billerud Korsnäs Rockhammar AB
Worker (cleaning):	----------
Date and sign (cleaning):	----------
Worker (acid pickling):	A.Einbek
Date and sign (acid pickling):	08.10.18
Worker (passivating):	----------
Date and sign (passivating):	----------
Name on cleaner:	----------
Batch no:	----------
Name of pickling gel, paste:	Polinox FL Aktiv Red
Batch no:	2.1808
Temperature:	+ 18.3c
Pickling time:	3.0 h
Name on passivator:	---------
Batch no:	---------
Temperature:	---------
Passivating time:	---------
Estanc inspector:	I. Kovba
Date and sign:	9.10.2018
Customer inspector:	
Date and sign:	

Estanc Ltd. Silikaltsiidi 5 C, Tallinn, 11216

HYDROSTATIC TEST REPORT

Report № **W1803201-HT**		Description **Filter tank 1,2m3**
Serial № **W1803201**		Drawing № **A1803201.000**
Customer **BillerudKorsnäs Rockhammar AB**	Customer project name/number	Customer serial № **75TA007**
Ref. Standard **EN14015**		Location **Jüri workshop**

Volume	L	**1200**
Max/min allowable pressure	bar(g)	**0,2/-0,02**
Max/min allowable temperature	°C	**64/0**

MAIN VESSEL:

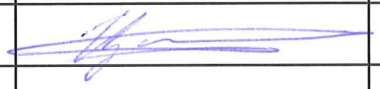
Test medium: **Water**	Temperature of content (°C): **17**

Date **04.10.2018**	Time **14.00**

Inspected:

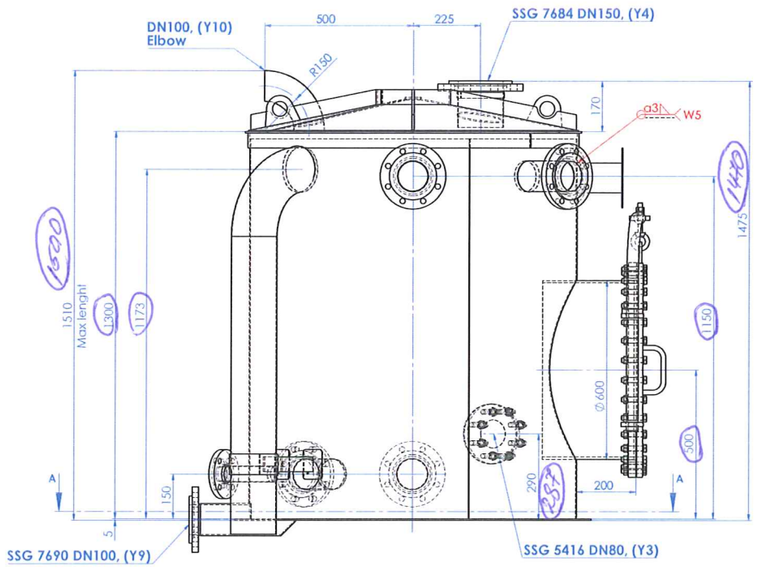
Date **05.10.2018**	Time **14.00**

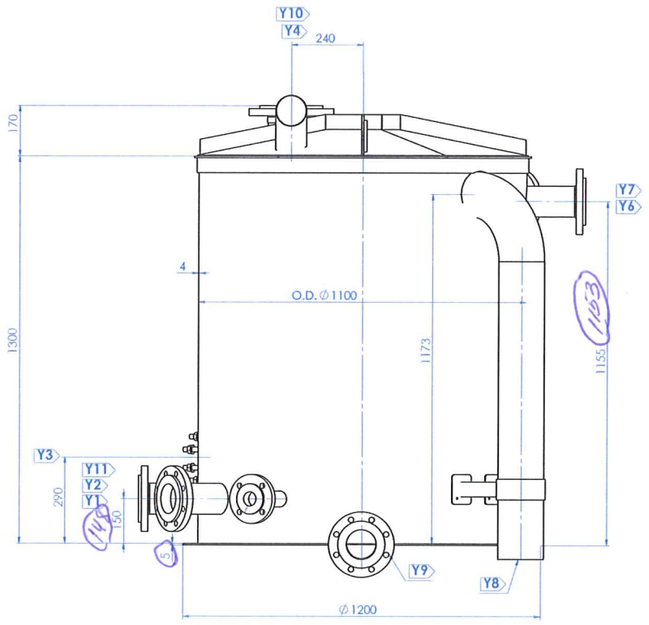
- No leakages and any mechanical damages
- Ready for the painting and insulation works

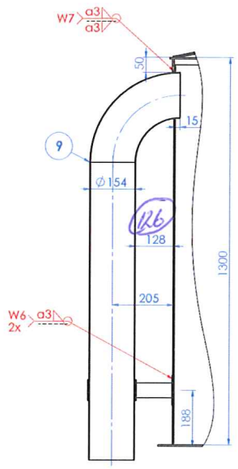
	ESTANC Supervisor	INSPECTOR	
Name	**R.Tsatiasvili**		
Signature			
Date	**08.10.2018**		

ESTANC
007

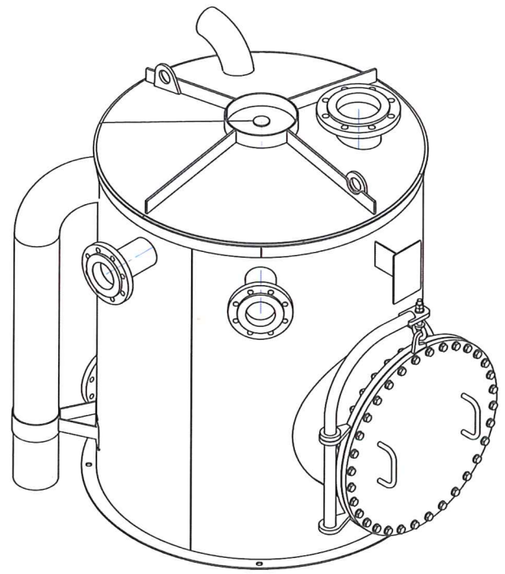
REVISIONS				
REV.	CODE	DESCRIPTION	DATE	DESIGNER



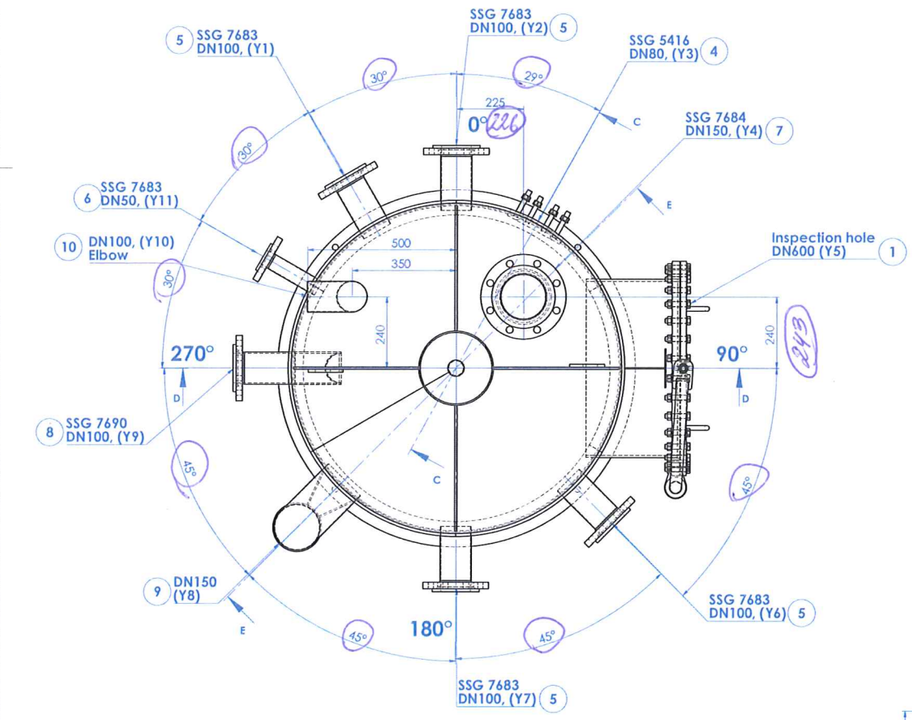


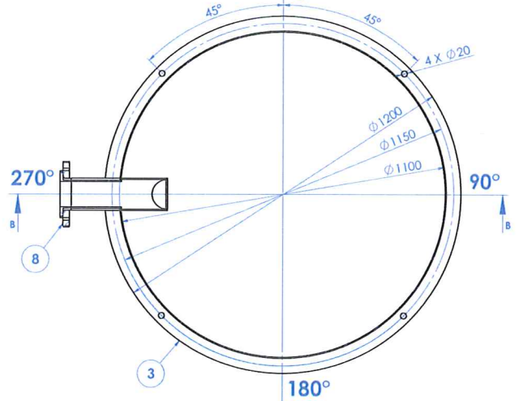


SECTION **E-E**



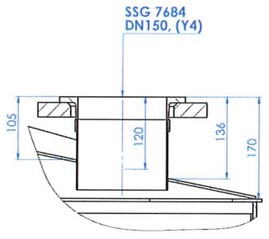
NOZZLE	DESCRIPTION	SIZE	PN	STANDARD	PIPE THICKNESS	MATERIAL
Y1	UTLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y2	UTLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y3	NIVÅMÄTNING	DN80	40	SSG 5416 E-21	Ø 200 x 25	1.4307
Y4	INLOPP/GIVARE	DN150	10/16	SSG 7684	Ø 154 x 2	1.4307
Y5	SIDOMANLUCKA	DN600		-	Ø 600 x 8	1.4307
Y6	INLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y7	INLOPP	DN100	10/16	SSG 7683	Ø 104 x 2	1.4307
Y8	ÖVERLÖP	DN150		-	Ø 154 x 2	1.4307
Y9	TÖMMNING	DN100	10/16	SSG 7690	Ø 108 x 4	1.4307
Y10	AVLUFTNING	DN100	10/16	SSG 7686	Ø 104 x 2	1.4307
Y11	INLOPP	DN50	10/16	SSG 7683	Ø 54 x 2	1.4307





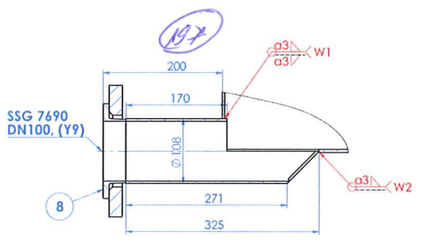
SECTION **A-A**

11.09.2018

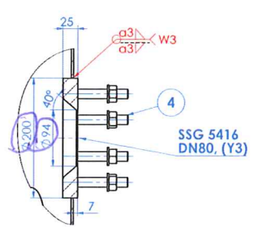


NOZZLE Y4
SCALE 1 : 5

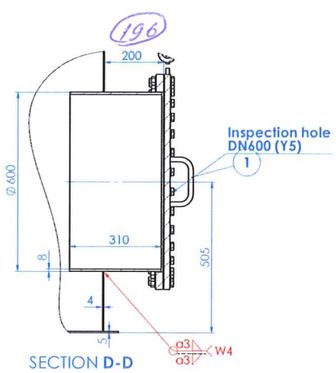
Design code		EN14015
Volume	L	1200
Allowable pressure Ps max/min	bar (g)	0,2/-0,02
Operating pressure Po max/min	bar (g)	0,2/-0,02
Allowable temperature Ts max/min	°C	64/0
Operating temperature To max/min	°C	64/-0
Corrosion allowance c	mm	0
Minimum weld joint efficiency	-	-
Testing group	-	-
Test pressure Pt	bar (g)	24 H water
Contents	-	Slam / Sludge
Contents Group		2
Materials	Ladder & Rails	
	Shell	1.4307 EN10028-7
Insulation thickness	mm	None
Surface treatment	Inside	Acid pickling
	Outside	Acid pickling



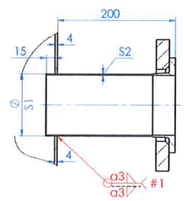
SECTION **B-B**
SCALE 1 : 5



SECTION **C-C**
SCALE 1 : 5



SECTION **D-D**



Nozzle	SIZE	S1 [mm]	S2 [mm]	Weld numbers pipe + shell
Y1	DN100	Ø 104	2	W8
Y2	DN100	Ø 104	2	W9
Y4	DN150	Ø 154	2	W10
Y6	DN100	Ø 104	2	W11
Y7	DN100	Ø 104	2	W12
Y10	DN100	Ø 104	2	W13
Y11	DN50	Ø 54	2	W14

10	1		ELBOW 90°	DN100 D104 x 2 x 90° SSG7832E		1.4307 EN10253-4	1.21	
9	1	A1803201.102	ÖVERLÖP	DN150		1.4307	12	
8	1	A1803201.103	SSG7690 DN100	DN100		1.4307	8	
7	1	A1803201.105	SSG7684 DN150	DN150		1.4307	10	
6	1	A1803201.104	SSG7683 DN50	DN50		1.4307	4	
5	4	A1803201.101	SSG7683 DN100	DN100		1.4307	6	
4	1	A1803201.107	SSG5416-09, DN80 PN40	DN80		1.4307	6	
3	1	A1803201.200	SHELL WELDING	-		1.4307	223	-
2	1	A1803201.106	NAME PLATE SUPPORT	-		1.4307	1	
1	1	A1803201.100	MANHOLE DN600 (Type 4.2)	DN600		1.4307	142.3	
POS	QTY	DRAWING NR.	DESCRIPTION	DIMENSIONS	L	MATERIAL	MASS	REMARKS

Quantity: 1	Weight: 433 kg	Remark: -		All sharp edges R1	Sheet: 1/1
Designed: J.Lillepöld	Checked: P.Urbanus	Approved: P.Urbanus	Scale: 1:10(A1)	Date: 25.06.2018	Working no. W1803201

ESTANC

Title: FILTRATTANK 75TA007

Project: BILLERUDKORSNÄS

Drawing no. A1803201.000_REV0

SERTIFIKĀTS

Sertifikāts/ Certificate

Nr./No. 2-4.4.1/292 NDT/2017

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

The Certification Body of AS Inspecta Latvia, a Certificaton Body for Persons accredited for compliance with standard EN ISO/IEC 17024

Personu sertificēšanas institūcija apliecina, ka
The certification body for persons hereby certifies that

VADIM NIKANOROV

Dzimšanas datums/ Date of birth: 17.12.1977

pamatojoties uz atbilstību standarta EN ISO 9712 un AS "Inspecta Latvia" nesagraujošās testēšanas speciālistu sertificēšanas procedūras (10.10.2014) prasībām, ir kompetents veikt nesagraujošo testēšanu, izmantojot

due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.10.2014, AS Inspecta Latvia), is competent to perform

RADIOGRĀFIJAS METODI (RT, 2. LĪMENIS)
RADIOGRAPHIC TESTING (RT, LEVEL 2)

Sertifikāta derīguma termiņš/The validity of the certificate:
29.11.2017-29.11.2022

Rūpnieciskais sektors (-os): **MS** (vispārīgais multisektors)
Industrial sector (-s): **MS** (general multisector)

Produktu sektors (-os): **C** (lējumi); **F** (kalumi); **W** (metinājumi); **T** (caurules un caurulītes); **WP** (velmējumi)
Product sector (-s): **C** (castings); **F** (forgings); **W** (welded products); **T** (tubes and pipes); **WP** (wrought products)

Ierobežojumi (ja piemērojami)/Scope of limitations (if applicable): Nav/ No

Sertificēšanas institūcija kiwa AS Inspecta Latvia

Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Vadim Nikanorov
Sertificētā persona/
Certified person

Rīgā, 2017. gada 20. decembrī / Riga, 20 December, 2017
Sertifikāta izsniegšanas vieta un datums/ The place and date of issue of the certificate

LATAK S3-475

AS Inspecta Latvia
Skanstes iela 54A, Rīga
LV-1013, Latvija

T. +371 67 607 900
F. +371 67 607 901
latvia@inspecta.com

www.inspecta.com/lv

Inspecta Latvia
Trust, Quality & Progress

SERTIFIKĀTS

Sertifikāts/ Certificate

Nr./No. 2-4.4.1/292PED/ 292NDT/2017

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

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due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.06.2016), AS Inspecta Latvia), is competent to perform

RADIOGRĀFIJAS METODI (RT, 2. LĪMENIS)
RADIOGRAPHIC TESTING (RT, LEVEL 2)

Sertifikāta derīguma termiņš/The validity of the certificate:
29.11.2017-29.11.2022

AS "Inspecta Latvia" (paziņotā iestāde Nr. 1412) ir sertificējusi šo personu kā atbilstošu Eiropas Parlamenta un Padomes Direktīvas 2014/68 ES I pielikuma 3.1.2. pantā noteiktajām prasībām.

AS Inspecta Latvia (Notified Body No. 1412) has certified this person for compliance with the requirements laid down in Directive 2014/68 EU (Annex I, Section 3.1.2).

Sertificēšanas institūcija kiwa AS Inspecta Latvia

Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Vadim Nikanorov
Sertificētā persona/
Certified person

Rīgā, 2017. gada 20. decembrī/ Riga, 20 December, 2017
Sertifikāta izsniegšanas vieta un datums/ The place and date of issue of the certificate

LATAK-S3-475

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latvia@inspecta.com

www.inspecta.com/lv

Inspecta Latvia
Trust, Quality & Progress

NDT TECHNIQUES AND ACCEPTANCE CRITERIA

Appendix 1

Work no.	W1803201
Client:	BillerudKorsnäs AB
Serial no:	W1803201
Product:	Filter tank 1,2m3
Date:	6.09.2018
Author:	I.Kovba

EN 14015:2004 NDT methods, techniques, designation, acceptance criteria

NDT Methods (abbreviations)	Techniques	Designation	Acceptance Criteria
Visual inspection (VT)	EN ISO 17637:2011 (EN970)	EN ISO 6520-1	EN 14015:2004, Table 32
Radiography (RT)	EN 17636 (EN 1435) , EN ISO 5579 (EN 444)	EN ISO 6520-1	EN 14015:2004, Table 32
Ultrasonic Testing (UT)	EN ISO 17640 (EN 1714)	EN ISO 6520-1	EN 14015:2004, Table 32
Penetrant Testing (PT)	EN ISO 3452-1 (EN 571-1)	EN ISO 6520-1	EN 14015:2004, Table 32
Magnetic Particle Testing (MT)	EN ISO 17638 (EN 1290)	EN ISO 6520-1	EN 14015:2004, Table 32
Vacuum box test (VbT)	EN 1593	EN ISO 6520-1	EN 14015:2004, Table 32

Welding List NDT

Project no.	W1803201	Rev.	Date/NDT Date		Author/NDT Author	Pg 1 / 1		
Equipment serial no.	W1803201	1	22.08.2018	30.08.2018	Sergey Grigorash/Ivan Kovba			
Customer	BillerudKorsnäs Rockhammar AB	Standard	EN14015					
Name of the equipment	Filter tank 1,2m3	Test group	None/					
Drawing no.	A1803201.000	VT	100%					

Weld no.	WPS no.	Welding process	Welder no.	Date	RT %	UT %	MT %	PT %	Preheat	PWHT	Notes	Rev
W1	299-3	135						100	10°C	N/R°C		
W2	299-2	135						100	10°C	N/R°C		
W3	299-3	135						100	10°C	N/R°C		
W4	299-3	135						100	10°C	N/R°C		
W7	183-4	141						100	10°C	N/R°C		
W8	183-4	141						100	10°C	N/R°C		
W9	183-4	141						100	10°C	N/R°C		
W10	183-4	141						100	10°C	N/R°C		
W11	183-4	141						100	10°C	N/R°C		
W12	183-4	141						100	10°C	N/R°C		
W13	183-4	141						100	10°C	N/R°C		
W14	183-4	141						100	10°C	N/R°C		
100W2	253-14	136						100	10°C	N/R°C		
100W3	253-28	136			100				10°C	N/R°C		
101W1	13-1	141						100	10°C	N/R°C		
102W1	13-1	141						100	10°C	N/R°C		
103W1	183-1	141						100	10°C	N/R°C		
103W2	183-3	141						100	10°C	N/R°C		
104W1	13-1	141						100	10°C	N/R°C		
105W1	13-1	141						100	10°C	N/R°C		
200W1	299-9	135			1			10	10°C	N/R°C		
200W3	299-2	135						100	10°C	N/R°C	PT leak test	
200W4	299-3	135						100	10°C	N/R°C	PT one side	
200W5	299-2	135						100	10°C	N/R°C		
200W7	299-3	135						100	10°C	N/R°C	PT from inside only	
200W8	299-2	135						100	10°C	N/R°C		
200W10	299-3	135						100	10°C	N/R°C	4X	

Tellimuse nr / Order No	Teostamise kp / Date of testing
2570-18	11.09.2018
Protokolli nr / Report No	Protokolli kp / Report date
106-18-0221	11.08.2018

KATSEPROTOKOLL / TEST REPORT
Kapillaarkontroll / Liquid penetrant examination

Tellija / Purchaser	Tellija aadress / Purchaser address	Katse teostamise koht / Place of inspection
Estanc AS	Põrguvälja tee 5a, Rae vald, Harjumaa	Juri

Kontrollitav koht / Inspection object

BillerudKorsnäs AB, work no. W1803201, Filter tank 1,2m3

Drawings: A1802301.000 rev.0, A1802301.100 rev.0, A1802301.101 rev.0, A1802301.102 rev.0, A1802301.103 rev.0, A1802301.104 rev.0, A1802301.105 rev.0, A1802301.200 rev.1

Joonise nr / Drawing No	Rev.	Põhimaterjal / Base material	Nominaalmõõtmed / Nominal dimensions
See above	-	1.4307	See drawings

Pinna töötlus / Surface condition	Temperatuur / Temperature	Termiline töötlus / Heat treatment condition
AS welded	~18 °C	[-] Termiliselt töödeldud / Heat treated

Kontrolli juhend / Inspection procedure	Rev.	Kvaliteedi nõue / Quality requirement	Kontrolli ulatus / Scope of examination
EVS-EN ISO 3452-1:2013/ QMW-403	11	EN 14015:2004, Table 32	See welding list W1803201 rev.1*

Katseviis / Testing type	Meetod / Indication of method	Puhastusaine / Cleaning fashion of method	Valgustus / Light
[X] Pinnakatse / Surface test [-] Läbitungivkatse / Penetrating test	[X] Värviline / Colored [-] Fluorestseeruv / Fluorescent	[-] Vesi / Water cleaning [X] Lahusti / Solvent	Daylight, spotlight > 500lux

Eelpuhastuse meetod / Pre-cleaning method	Kapillaarvedelik / Penetrant	Partii / Batch	Mõju aeg / Penetration time	Eemaldi / Remover	Partii / Batch
BYCOTEST C10	BYCOTEST RP20	1604228	30 min	BYCOTEST C10	180304

Järelpuhastus / Past exam. cleaning	Ilmuti / Developer	Partii / Batch	Mõju aeg / Development time
-	BYCOTEST D30plus	171111	15 / 40 min

Märkused / Supplementary data

Visual inspection was carried out before liquid penetrant examination.

Vaatluse tulemused ja defektid / Observations and defects

All minor indications were repaired and re-inspected.

***W1-W4, W7-W14, 100W2, 101W1, 102W1, 103W1, 103W2, 104W1, 105W1, 200W1, 200W3, 200W4, 200W5, 200W7, 200W8, 200W10**









Tulemused / Results of inspection

[X] **Keevisliide/katseobjekt vastab katsetatud lõigul hindamistasemega määratud nõuetele. / Tested/examined part of the welded joint/test object is in compliance with criteria stated by the acceptance level**

[-] **Keevisliide/katseobjekt ei vasta katsetatud lõigul hindamistasemega määratud nõuetele. / Tested/examined part of the welded joint/test object is not in compliance with the criteria stated by the acceptance level**

Hinnang on antud ainult käesoleva katsemeetodi rakendatavuse ulatuses st. hinnangu andmisel ei võeta arvesse defekte, mida ei ole võimalik käesoleva meetodiga tuvastada. / The statement is limited to the scope of current method and statement does not cover imperfections that are not detectable with current method.

Kontrollija nimi / Name of inspector	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov		2-4.4.1/088NDT/2015, level2

Antud protokoll on sisult võrdväärne originaaliga, originaalprotokoll on allkirjastatud. / Content of this report is same as original, original report is signed.

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Talinn, Eesti
Tel +372 659 9470
estonia@kiwa.com

EAK EESTI AKREDITEERIMISKESKUS ESTONIAN ACCREDITATION CENTRE
EN ISO/IEC 17025
L034

KATSEPROTOKOLL / TEST REPORT
Radiograafia / Radiographic examination

Tellimuse nr / Order No	Teostamise kp / Date of testing
2570-18	03.09.2018
Protokolli nr / Report No	Protokolli kp / Report date
106-18-0222	11.09.2018

Tellija / Purchaser	Tellija aadress / Purchaser address	Katse teostamise koht / Place of inspection
Estanc AS	Põrguvälja tee 5A, Rae vald	Juri

Kontrollitav objekt / Inspection object

BillerudKorsnäs AB, work no. W1803201, Filter tank 1,2m3
Drawings: A1803201.100 rev.0, A1803201.200 rev.1

Joonise nr / Drawing No	Rev.	Põhimaterjal / Base material	Termiline töötlus / Heat treatment condition
See above	-	jaan.07	- Termiliselt töödeldud / Heat treated
Kontrolli juhend / Inspection procedure	Rev.	Kvaliteedi nõue / Quality requirement	Kontrolli ulatus / Scope of examination
EVS-EN ISO 17636-1:2013 / QMW-401	9	EN 14015:2004, Table 32	See welding list W1803201 rev.1

Kasutatud seadmed / Used equipment	Seadme nr / Equipment No	Fookuse mõõtmed / Size of focal spot	Film + võimendusekraan / Film+ amp. plate
Yxlon Smart 225/4	116	3mm	Carestream Industrex T200 / 0,02 Pb

Pildi klass / X-ray class	Indikaator / Penetrameter	Asukoht / Position	Filmide arv / Film quantity	Optiline tihedus / Density Min	Max
B	IQI 13FEEN	SS	3	2,6	4,3

		Läbimõõt ja materjalipaksus / Diameter and wall thickness mm	Õmblus / Groove type	Keevitusprotsess / Welding process	Keevitusasend / Welding position	Vahemaa / SFD mm	Pinge / Voltage kV	Valgustusaeg / Exposure min	Valgustus moodus / X-ray arrangement
Kasutatud meetod / Insp.technique	1	4	V	135	-	500	140	0:50/1:05	EN ISO17636-1 Fig.2
Kasutatud meetod / Insp.technique	2	8	X	135	-	780	140	02:40	EN ISO17636-1 Fig.2
Kasutatud meetod / Insp.technique	3	-	-	-	-	-	-	-	-
Kasutatud meetod / Insp.technique	4	-	-	-	-	-	-	-	-

Keevitaja tunnus / Welder stamp	Tähised filmil / Film marking	Keevisliite nr / Joint No	Kasutatud meetod / Inspection	Indikaator / Indicator	Filmi suurus / Film size	Vead / Defects	Vastavushinnang / Statement of compliance* Täidab / Fulfill	Ei täida / Not fulfil	Märkused / Notes
-	EST W1803201 200W1	200W1	1	W17	100x120	-	X	-	03.09.2018
-	EST W1803201 200W1/1	200W1	1	W17	100x120	-	X	-	03.09.2018
-	EST W1803201 100W3	100W3	2	W15	100x480	-	X	-	03.09.2018

Keevisliite vead / Defects in welds

2011- Poorid / Porosity
2015, Pikipoorid / Worm holes
301, 302, 303 Räbu ja mittemetalsed lisandid õmbluses / Slag and non-metal inclusions
304 Võõrmetalli suletised / Metallic inclusions
401 Liitedefekt / Lack of fusion
402 Läbikeevitamatus / Lack of penetration
100 Praod / Cracks
101 Pikipragu / Longitudinal crack
102 Põikkpragu / Transversal crack
104 Kraatri pragu / Crater crack
2024 Kahanemis(kraater)tühik / Crater pipe
5011, Sisselõige / Undercut
507 Servade nihe / Linear misalignment
515 Puudulik juur / Root concavity
601 Suütamisjälg / Stray arc
604, 605 Löömise ja lihvimise defektid / Chipping and grinding defects
602 Pritsmed / Spatter

Koodid ISO 6520 kohaselt / Codes acc to ISO 6520

*** "Täidab" - Keevisliide-katseobjekt vastab katsetatud lõigul hindamistasemega määratud nõuetele. /**
"Fulfill" means that the welded joint/test object is in compliance with criteria stated by the acceptance level..

"Ei täida" - Keevisliide-katseobjekt ei vasta katsetatud lõigul hindamistasemega määratud nõuetele. /
"Not fulfill" means that the welded joint/test object is not in compliance with the criteria stated by the acceptance level

Hinnang on antud ainult käesoleva katsemeetodi rakendatavuse ulatuses st. hinnangu andmisel ei võeta arvesse defekte, mida ei ole võimalik käesoleva meetodiga tuvastada. / The statement is limited to the scope of current method and statement does not cover imperfections that are not detectable with current method.

Kontrollija nimi / Name of inspector	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov		2-4.4.1/292NDT/2017 , level 2
Klassifitseerija nimi / Name of classifier	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov		2-4.4.1/292NDT/2017 , level 2

Antud protokoll on sisult võrdväärne originaaliga, originaalprotokoll on allkirjastatud. / Content of test report is same as original, original report is signed.

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Talinn, Eesti
Tel +372 659 9470
estonia@kiwa.com

EN ISO/IEC 17025
L034

Tellimuse nr / Order No	Teostamise kp / Date of testing
2570-18	03.09.2018
Protokolli nr / Report No	Protokolli kp / Report date
106-18-0222	11.09.2018

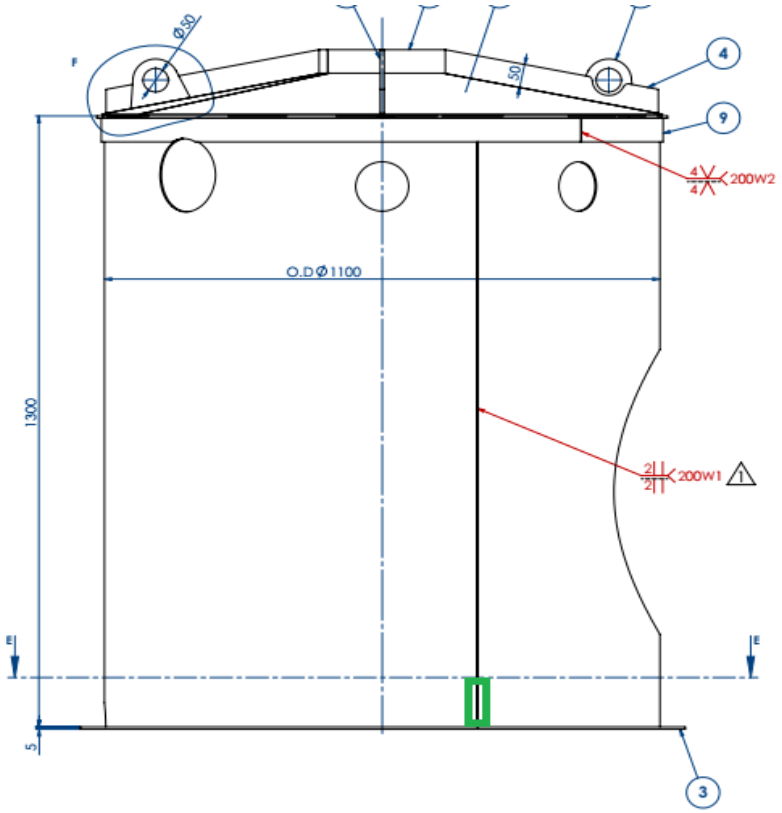
KATSEPROTOKOLL / TEST REPORT
Radiograafia / Radiographic examination

Tellija / Purchaser	Tellija aadress / Purchaser address	Katse teostamise koht / Place of inspection
Estanc AS	Põrguvälja tee 5A, Rae vald	Juri

Kontrollitav objekt / Inspection object

BillerudKorsnäs AB, work no. W1803201, Filter tank 1,2m3
Drawings: A1803201.100 rev.0, A1803201.200 rev.1

Joonis



Keevisliite vead / Defects in welds

2011-2014	Poorid / Porosity	100	Praod / Cracks	507	Servade nihe / Linear misalignm.
2015, 2016	Pikipoorid / Worm holes	101	Pikipragu / Longitudinal crack	515	Puudulik juur / Root concavity
301, 302, 303	Räbu ja mittemetalsed lisandid õmbluses / Slag and non-metal	102	Põikkpragu / Transversal crack	601	Süütamisjälg / Stray arc
304	Võõrmetalli suletised / Metallic	104	Kraatri pragu / In craters	604, 605	Löömise ja lihvimise defektid / Chipping and grinding defects
401	Liitedefekt / Lack of fusion	2024	Kahanemis(kraater)tühik / Crater pipe	602	Pritsmed / Spatter
402	Läbikeevitamatus / Lack of	5011, 5012	Sisselõige / Undercut		

Koodid ISO 6520 kohaselt / Codes acc to ISO 6520

*** "Täidab" - Keevisliide-katseobjekt vastab katsetatud lõigul hindamistasemega määratud nõuetele. / "Fulfill" means that the welded joint-test object is in compliance with criteria stated by the acceptance level.**

"Ei täida" - Keevisliide-katseobjekt ei vasta katsetatud lõigul hindamistasemega määratud nõuetele. / "Not fulfill" means that the welded joint-test object is not in compliance with the criteria stated by the acceptance level

Hinnang on antud ainult käesoleva katsemeetodi rakendatavuse ulatuses st. hinnangu andmisel ei võeta arvesse defekte, mida ei ole võimalik käesoleva meetodiga tuvastada. / The statement is limited to the scope of current method and statement does not cover imperfections that are not detectable with current method.

Kontrollija nimi / Name of inspector	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov		2-4.4.1/292NDT/2017 , level 2
Klassifitseerija nimi / Name of classifier	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov		2-4.4.1/292NDT/2017 , level 2

Antud protokoll on sisult võrdväärne originaaliga, originaalprotokoll on allkirjastatud. / Content of this report is same as original, original report is signed.

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Talinn, Eesti
Tel +372 659 9470
estonia@kiwa.com

EN ISO/IEC 17025
L034

KATSEPROTOKOLL / TEST REPORT
Kapillaarkontroll / Liquid penetrant examination

Tellimuse nr / Order No	Teostamise kp / Date of testing
2570-18	11.09.2018
Protokolli nr / Report No	Protokolli kp / Report date
106-18-0223	11.08.2018

Tellija / Purchaser	Tellija aadress / Purchaser address	Katse teostamise koht / Place of inspection
Estanc AS	Põrguvälja tee 5a, Rae vald, Harjumaa	Juri

Kontrollitav koht / Inspection object

BillerudKorsnäs AB, work no. W1803201, Filter tank 1,2m3 200W3

Joonise nr / Drawing No	Rev.	Põhimaterjal / Base material	Nominaalmõõtmed / Nominal dimensions
A1802301.200	1	1.4307	See drawings

Pinna töötlus / Surface condition	Temperatuur / Temperature	Termiline töötlus / Heat treatment condition
AS welded	~18 °C	[-] Termiliselt töödeldud / Heat treated

Kontrolli juhend / Inspection procedure	Rev.	Kvaliteedi nõue / Quality requirement	Kontrolli ulatus / Scope of examination
EVS-EN ISO 3452-1:2013/ QMW-403	11	No leakages allowed	See welding list W1803201 rev.1*

Katseviis / Testing type	Meetod / Indication of method	Puhastusaine / Cleaning fashion of method	Valgustus / Light
[-] Pinnakatse / Surface test [X] Läbitungivkatse / Penetrating test	[X] Värviline / Colored [-] Fluorestseeruv / Fluorescent	[-] Vesi / Water cleaning [x] Lahusti / Solvent	Daylight, spotlight > 500lux

Eelpuhastuse meetod / Pre-cleaning method	Kapillaarvedelik / Penetrant	Partii / Batch	Mõju aeg / Penetration time	Eemaldi / Remover	Partii / Batch
BYCOTEST C10	BYCOTEST RP20	1604228	15 / 180 min	BYCOTEST C10	180304

Järelpuhastus / Past exam. cleaning	Ilmuti / Developer	Partii / Batch	Mõju aeg / Development time
-	BYCOTEST D30plus	171111	15 / 180 min

Märkused / Supplementary data

Visual inspection was carried out before liquid penetrant examination.

Vaatluse tulemused ja defektid / Observations and defects





Tulemused / Results of inspection

[X] **Keevisliide/katseobjekt vastab katsetatud lõigul hindamistasemega määratud nõuetele. / Tested/examined part of the welded joint/test object is in compliance with criteria stated by the acceptance level**

[-] **Keevisliide/katseobjekt ei vasta katsetatud lõigul hindamistasemega määratud nõuetele. / Tested/examined part of the welded joint/test object is not in compliance with the criteria stated by the acceptance level**

Hinnang on antud ainult käesoleva katsemeetodi rakendatavuse ulatuses st. hinnangu andmisel ei võeta arvesse defekte, mida ei ole võimalik käesoleva meetodiga tuvastada. / The statement is limited to the scope of current method and statement does not cover imperfections that are not detectable with current method.

Kontrollija nimi / Name of inspector	Allkiri / Signature	Pädevus / Competence
Vadim Nikanorov	kiwa 106	2-4.4.1/088NDT/2015, level2

Antud protokoll on sisult võrdväärne originaaliga, originaalprotokoll on allkirjastatud. / Content of this report is same as original, original report is signed.

Inspecta Estonia OÜ
Teaduspargi 8, 12618 Talinn, Eesti
Tel +372 659 9470
estonia@kiwa.com

EAK EESTI AKREDITEERIMISKESKUS ESTONIAN ACCREDITATION CENTRE
EN ISO/IEC 17025
L034

Sertifikāts/Certificate
Nr./No. 2-4.4.1/088PED/ 088NDT/2015

Inspecta

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

The Certification Body of AS Inspecta Latvia, a Certificaton Body for Persons accredited for compliance with standard EN ISO/IEC 17024

SERTIFIKĀTS

CERTIFICATE

Personu sertificēšanas institūcija apliecina, ka
The certification body for persons hereby certifies that

VADIM NIKANOROV

Dzimšanas datums/ Date of birth: 17.12.1977
Personas kods/ Personal ID No. 37712170281

pamatojoties uz atbilstību standarta EN ISO 9712 un AS "Inspecta Latvia" nesagraujošās testēšanas speciālistu sertificēšanas procedūras (10.10.2014) prasībām, ir kompetents veikt nesagraujošo testēšanu, izmantojot
due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.10.2014, AS Inspecta Latvia), is competent to perform

AR PENETRĀCIJAS METODI (PT, 2. LĪMENIS)
PENETRANT TESTING - PT, LEVEL 2

Sertifikāta derīguma termiņš/The validity of the certificate: **01.12.2015 – 01.12.2020**

AS "Inspecta Latvia" (paziņotā iestāde Nr. 1412) ir sertificējusi šo personu kā atbilstošu Eiropas Parlamenta un Padomes Direktīvas 97/23/EK I pielikuma 3.1.3. pantā noteiktajām prasībām./AS Inspecta Latvia (Notified Body No. 1412) has certified this person for compliance with the requirements laid down in Directive 97/23/EC (Annex I, Section 3.1.3).

AKCIJU SABIEDRĪBA Inspecta SERTIFICĒŠANAS INSTITŪCIJA INSPECTA LATVIA

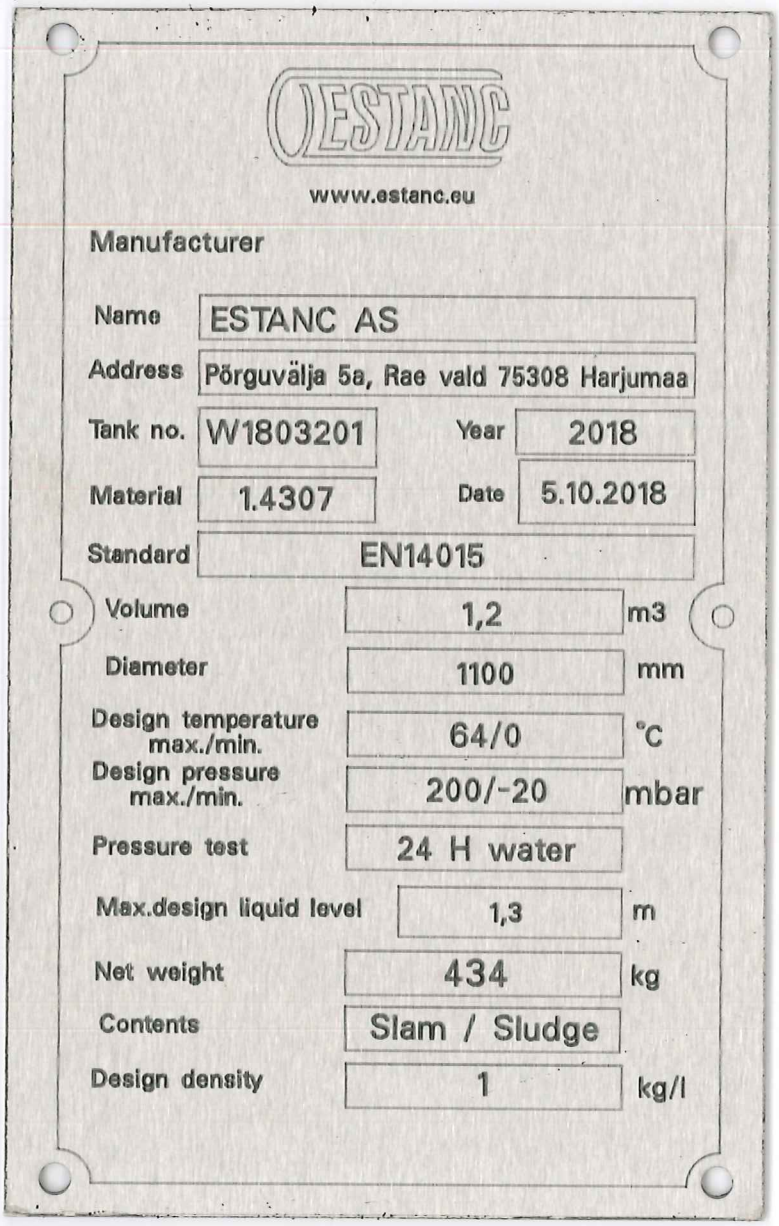
Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Vadim Nikanorov
Sertificētā persona/
Certified person

Rīgā, 2015. gada 18. decembrī Riga, 18 December 2015
Sertifikāta izsniegšanas vieta un datums/ The date and time of issue of the certificate

AS Inspecta Latvia
Skanstes str. 54A, Riga
LV-1013, Latvia
Phone: +371 67 607 900

LATAK-S3-475 CEOC INTERNATIONAL


ESTANC
www.estanc.eu
Manufacturer
Name
ESTANC AS
Address
Põrguvälja 5a, Rae vald 75308 Harjumaa
Tank no.
W1803201
Year
2018
Material
1.4307
Date
5.10.2018
Standard
EN14015
Volume
1,2
m3
Diameter
1100
mm
Design temperature max./min.
64/0
°C
Design pressure max./min.
200/-20
mbar
Pressure test
24 H water
Max.design liquid level
1,3
m
Net weight
434
kg
Contents
Slam / Sludge
Design density
1
kg/l

BUREAU VERITAS
Certification

Certification

Awarded to

Estanc AS

Silikaltsiidi 5c, 11216 Tallinn, Estonia
Põrguvälja tee 5a, Pildiküla, 75308 Rae vald, Estonia

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

STANDARD

ISO 9001:2015

SCOPE OF CERTIFICATION

DESIGN, PRODUCTION, SALE AND ERECTION OF PRESSURE VESSELS, HEAT EXCHANGERS AND STEEL CONSTRUCTIONS.

Certification cycle start date: 4 April, 2017

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 3 April, 2020

Original Certification date: 25 April, 2005

Certificate Number: EST31517A *Version:* 1 *Revision date:* 4 April, 2017

Tiit Hindreus

Accredited MSC004



Certification body address: Bureau Veritas Eesti OÜ, Tartu mnt 24-22, 10115 Tallinn, Estonia

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call +372 6676610

CERTIFICATE

Sertifikaat / Certificate

QW-006-18

Väljastatud *Issued*	17.04.2018	**Asendab** *Replaces*	15-03-008-13
Kehtiv kuni *Valid until*	17.04.2023	**Esmalt väljastatud** *First issued*	20.01.2003

Inspecta Estonia OÜ tõendab, et
Inspecta Estonia OÜ has granted this certificate as proof that the quality system for the welding works of

ESTANC AS

Põrguvälja tee 5a, Pildiküla, Rae vald, Harju maakond 75308, EESTI
Põrguvälja 112, Pildiküla, Rae parish, Harju county 75308, ESTONIA

keevitustööde kvaliteedisüsteem vastab alltoodud standardi nõuetele
complies with the requirements of the standard

EN-ISO 3834-2:2005

Sertifikaat kehtib lisas esitatud ulatuses.
Certificate is valid to the scope of activity set in Annex.

Sertifikaat kehtib tingimusel, et asutuse keevitustööde kvaliteedisüsteem vastab pidevalt eelmainitud standardi nõuetele ja on Inspecta Estonia OÜ regulaarse järelevalve all.
This certificate will remain valid on condition that the quality system for the welding works of the organization remains in compliance with the aforementioned standard and certification rules of Inspecta Estonia OÜ.

Tallinn 17.04.2018

Tõnu Roosaar
Tegevjuht / *Manager*

INSPECTA ESTONIA OÜ * EESTI VABARIIK *

Inspecta Estonia OÜ
Teaduspargi 8
12618 Tallinn
EESTI
Tel. +372 659 9470
estonia@inspecta.com
www.inspecta.com/et

CEOC INTERNATIONAL

EESTI AKREDITEERIMISKESKUS EAK ESTONIAN ACCREDITATION CENTRE
EN ISO/IEC 17065
PC005

Sertifikaadi lisa/*Annex of Certificate* QW-006-18

TEGEVUSULATUS / SCOPE OF ACTIVITY

Tootmise koht / ***Place of manufacture***	Põrguvälja tee 5a, Pildiküla, Rae vald, Harju maakond, EESTI *Põrguvälja 112, Pildiküla, Rae parish, Harju county, ESTONIA*
Tootetüübid / ***Type of products***	Ohtliku aine mahutid, survemahutid, katlad, korstnad, mahutid ja seadmestikus toiduainetööstusele *Vessels for dangerous fluids, pressure vessels, boilers, chimneys, vessels and assemblies for food industry*
Toote standardid / ***Product standard***	SFS 2735, EN 12285-1, EN 12285-2, EN 13445, EN 12952, EN 13480, EN 13094, EN 14015, EN 13084, EN 1090, AD2000
Põhimaterjali grupid / ***Parent materials groups***	1.1,1.2,1.4, 5.1, 5.2, 5.3, 7.1, 8.1, 8.2, 10.1, 10.2, 43, 44, 45 **CEN ISO/TR 15608**
Keevitusprotsessid ja lisaprotsessid / ***Welding and allied processes***	111, 141, 142, 131, 135, 136, 138, 121, 122, 123, 721, 783 **EN ISO 4063**
Volitatud keevitustööde koordinaator(id) / ***Authorised welding co-ordinator(s)***	**Nimi /** ***Name*** Sergey Grigorash (RWC) Andres Põld (deputy)
	Tase / ***Level*** Tase C - Laialdased tehnilised teadmised *Level C - Comprehensive technical knowledge (IWE Diploma)*

Ettevõtte poolt keevitustöödel kasutatavad standardid
Documents for welding works used by manufacturer

Keevitajad ja keevitusoperaatorid / ***Welders and welding operators***	EN ISO 9606-1, EN ISO 9606-4, EN ISO 14732
Keevitustööde koordineerimine / ***Welding coordination personnel***	EN ISO 14731
Mittepurustava katsetuse personal / ***Non-destructive testing personnel***	EN ISO 9712
Keevitusprotseduuri spetsifikaadid (WPS) / ***Welding procedure specifications (WPS)***	EN ISO 15609-1, EN ISO 15609-5
Keevitusprotseduuride sertifitseerimine / ***Qualification of the welding procedures***	EN ISO 15614-1, EN ISO 15614-7, EN ISO 15614-8, EN ISO 15613, EN ISO 14555
Keevitusjärgne termotöötlus / ***Post-weld heat treatment***	EN ISO 17663
Kontroll ja katsetamine / ***Inspection and testing***	EN ISO 17635, EN ISO 5817, EN ISO 13920, EN 12285-1, EN 12285-2, SFS 2735, EN 13445-4 ja 5, EN 12952-6, EN 13480-4/-5, EN 14015, EN 13084
Seadmete kalibreeimine ja valideerimine / ***Calibration and validation of equipment***	EN ISO 17662

Tallinn 17.04.2018

Tõnu Roosaar
Tegevjuht / *Manager*

INSPECTA ESTONIA OÜ * EESTI VABARIIK *

Inspecta Estonia OÜ
Teaduspargi 8
12618 Tallinn
EESTI
estonia@inspecta.com
www.inspecta.com/et

BUREAU VERITAS
Certification

Certification

Awarded to

Estanc AS

Silikaltsiidi 5c, 11216 Tallinn, Estonia
Põrguvälja tee 5a, Pildiküla, 75308 Rae vald, Estonia

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

STANDARD

ISO 14001:2015

SCOPE OF CERTIFICATION

DESIGN, PRODUCTION, SALE AND ERECTION OF PRESSURE VESSELS, HEAT EXCHANGERS AND STEEL CONSTRUCTIONS.

Certification cycle start date: 4 April, 2017

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 3 April, 2020

Certificate Number: EST31517B *Version:* 1 *Revision date:* 4 April, 2017

Tiit Hindreus

Accredited MSC004



Certification body address: Bureau Veritas Eesti OÜ, Tartu mnt 24-22, 10115 Tallinn, Estonia

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call +372 6676610

BUREAU VERITAS
Certification

Certification

Awarded to

Estanc AS

Silikaltsiidi 5c, 11216 Tallinn, Estonia
Põrguvälja tee 5a, Pildiküla, 75308 Rae vald, Estonia

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

STANDARD

OHSAS 18001:2007

SCOPE OF CERTIFICATION

DESIGN, PRODUCTION, SALE AND ERECTION OF PRESSURE VESSELS, HEAT EXCHANGERS AND STEEL CONSTRUCTIONS.

Certification cycle start date: 4 April, 2017

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 3 April, 2020

Certificate Number: EST31517S *Version:* 1 *Revision date:* 4 April, 2017

Tiit Hindreus

Accredited MSC004



Certification body address: Bureau Veritas Eesti OÜ, Tartu mnt 24-22, 10115 Tallinn, Estonia

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call +372 6676610

Sertifikāts/Certificate
Nr./No. 2-4.4.1/210PED/ 210NDT/2017

Inspecta

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

The Certification Body of AS Inspecta Latvia, a Certificaton Body for Persons accredited for compliance with standard EN ISO/IEC 17024

SERTIFIKĀTS
CERTIFICATE

Personu sertificēšanas institūcija apliecina, ka
The certification body for persons hereby certifies that

REVAZI TSATIAŠVILI

Dzimšanas datums/ Date of birth: 13.06.1992
Personas kods/ Personal ID No. 39206130890

pamatojoties uz atbilstību standarta EN ISO 9712 un AS "Inspecta Latvia" nesagraujošās testēšanas speciālistu sertificēšanas procedūras (10.06.2016) prasībām, ir kompetents veikt nesagraujošo testēšanu, izmantojot
due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.06.2016, AS Inspecta Latvia), is competent to perform

VIZUĀLO METODI (VT, 2. LĪMENIS)
VISUAL TESTING - VT, LEVEL 2

Sertifikāta derīguma termiņš/The validity of the certificate: **10.04.2017 – 10.04.2022**

AS "Inspecta Latvia" (paziņotā iestāde Nr. 1412) ir sertificējusi šo personu kā atbilstošu Eiropas Parlamenta un Padomes Direktīvas 2014/68 ES I pielikuma 3.1.2. pantā noteiktajām prasībām./AS Inspecta Latvia (Notified Body No. 1412) has certified this person for compliance with the requirements laid down in Directive 2014/68 EU (Annex I, Section 3.1.2).

AKCIJU SABIEDRĪBA Inspecta SERTIFICĒŠANAS INSTITŪCIJA INSPECTA LATVIA

Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Revazi Tsatiašvili
Sertificētā persona/
Certified person

Rīgā, 2017. gada 03. maijā/ Riga, 03 May 2017
Sertifikāta izsniegšanas vieta un datums/ The date and time of issue of the certificate

AS Inspecta Latvia
Skanstes str. 54A, Riga
LV-1013, Latvia
Phone: +371 67 607 900

LATAK-S3-475

CEOC INTERNATIONAL

Sertifikāts/Certificate
Nr./No. 2-4.4.1/129PED/ 129NDT/2016

Inspecta

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

The Certification Body of AS Inspecta Latvia, a Certificaton Body for Persons accredited for compliance with standard EN ISO/IEC 17024

SERTIFIKĀTS

CERTIFICATE

Personu sertificēšanas institūcija apliecina, ka
The certification body for persons hereby certifies that

ROMAN TARASSOV

Dzimšanas datums/ Date of birth: 27.05.1990
Personas kods/ Personal ID No. 39005272213

pamatojoties uz atbilstību standarta EN ISO 9712 un AS "Inspecta Latvia" nesagraujošās testēšanas speciālistu sertificēšanas procedūras (10.10.2014) prasībām, ir kompetents veikt nesagraujošo testēšanu, izmantojot
due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.10.2014, AS Inspecta Latvia), is competent to perform

VIZUĀLO METODI (VT, 2. LĪMENIS)
VISUAL TESTING - VT, LEVEL 2

Sertifikāta derīguma termiņš/The validity of the certificate: **14.03.2016 – 14.03.2021**

AS "Inspecta Latvia" (paziņotā iestāde Nr. 1412) ir sertificējusi šo personu kā atbilstošu Eiropas Parlamenta un Padomes Direktīvas 97/23/EK I pielikuma 3.1.3. pantā noteiktajām prasībām./AS Inspecta Latvia (Notified Body No. 1412) has certified this person for compliance with the requirements laid down in Directive 97/23/EC (Annex I, Section 3.1.3).

AKCIJU SABIEDRĪBA Inspecta SERTIFICĒŠANAS INSTITŪCIJA INSPECTA LATVIA

Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Roman Tarassov
Sertificētā persona/
Certified person

Rīgā, 2016. gada 07. aprīlī/ Riga, 07 April 2016
Sertifikāta izsniegšanas vieta un datums/ The date and time of issue of the certificate

AS Inspecta Latvia
Skanstes str. 54A, Riga
LV-1013, Latvia
Phone: +371 67 607 900

LATAK-S3-475

CEOC INTERNATIONAL

Sertifikāts/ Certificate
Nr./No. 2-4.4.1/129 NDT/2016

Inspecta

AS "Inspecta Latvia" Sertificēšanas institūcija - personu sertificēšanas institūcija, kas akreditēta personu sertificēšanai atbilstoši standarta EN ISO/IEC 17024 prasībām

The Certification Body of AS Inspecta Latvia, a Certificaton Body for Persons accredited for compliance with standard EN ISO/IEC 17024

SERTIFIKĀTS

CERTIFICATE

Personu sertificēšanas institūcija apliecina, ka
The certification body for persons hereby certifies that

ROMAN TARASSOV

Dzimšanas datums/ Date of birth: 27.05.1990
Personas kods/ Personal ID No. 39005272213

pamatojoties uz atbilstību standarta EN ISO 9712 un AS "Inspecta Latvia" nesagraujošās testēšanas speciālistu sertificēšanas procedūras (10.10.2014) prasībām, ir kompetents veikt nesagraujošo testēšanu, izmantojot
due to his/her compliance with the requirements of standard EN ISO 9712 and the procedure for the certification of non-destructive testing personnel (10.10.2014, AS Inspecta Latvia), is competent to perform

VIZUĀLO METODI (VT, 2. LĪMENIS)
VISUAL TESTING (VT, LEVEL 2)

Sertifikāta derīguma termiņš/The validity of the certificate: **14.03.2016 – 14.03.2021**

Rūpnieciskais sektors (-os): **MS** (vispārīgais multisektors)
Industrial sector (-s): **MS** (general multisector)

Produktu sektors (-os): **C** (lējumi); **F** (kalumi); **W** (metinājumi); **T** (caurules un caurulītes); **WP** (velmējumi)
Product sector (-s): **C** (castings); **F** (forgings); **W** (welded products); **T** (tubes and pipes); **WP** (wrought products)

Ierobežojumi (ja piemērojami)/Scope of limitations (if applicable): Nav/ No

AKCIJU SABIEDRĪBA Inspecta SERTIFICĒŠANAS INSTITŪCIJA INSPECTA LATVIA

Mārtiņš Maskavs
Sertificēšanas institūcijas vadītājs/
Head of the Certification Body

Roman Tarassov
Sertificētā persona/
Certified person

Rīgā, 2016. gada 07.aprīlī/ Riga, 07 April 2016
Sertifikāta izsniegšanas vieta un datums/ The date and time of issue of the certificate

AS Inspecta Latvia
Skanstes str. 54A, Riga
LV-1013, Latvia
Phone: +371 67 607 900

LATAK-S3-475

CEOC INTERNATIONAL

CERTIFICATE

Certificate No

SS-164-17

Inspecta Estonia OÜ certifies that the competence of

TÕNIS TUUDER

Personal code 37608172232

has passed exam and his competence complies with the requirements laid down for

person in charge of pressure equipment works

Provisions:

pressure vessel and stationary vessel for dangerous liquids, without rights for designing of pressure equipment works

Basis:''Equipment safety act''

Current certificate is an English duplicate for certificate No SS-164-17 issued 05.10.2017

German Vimb
head of the conformity assessment department

INSPECTA ESTONIA OÜ * kiwa * EESTI VABARIIK

Tallinn **12.10.2017**

Valid until **05.10.2022**

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CEOC INTERNATIONAL

EESTI AKREDITEERIMISKESKUS AK ESTONIAN ACCREDITATION CENTRE
Akrediteeritud PEC002

Vorm nr EPI004P 09.17

INSTALLATION

Transport position, lying.

It is **not** allowed to lift the tank by using the nozzles as lifting lugs.

Tank lifting only from lifting lugs or with slings.

The tank must be used by its purpose for keeping permissible product.

Tank must install so that height level and nozzle positions are correct.

Be careful during lifting that no nozzles, supports etc. will be damaged by unexpected movements, crashes or such like.

Tank must installed according installation project using carefulness and good installation.

Make sure the flange connections of the various fittings and accessories are properly secured.

If tank surface temperature is more than 55°C it needs to be insulated, protected or use of protection. Estanc As doesn`t install the tank and so is not responsible for possible damages during installation.

OPERATION

Before tank using you must check attachment of the flange bolts.

Flange attachments cannot open during using the tank.

Tank must use in the limit of design data shown on the main drawing.

Tank running-in must perform without damaging it.

You cannot use tank without safety valve.

Estanc As is not responsible for troubles be due to wrong tank using.

SERVICE

Before servicing you must ensure that the tank is empty and pressureless.

After opening flange attachment you must change new gasket.

When changing the product kept in the tank, the preparation of tank for another product must be made according to the requirements determined in tank maintenance instructions and product requirements.

Before closing the tank you must ensure that the tank is clean and there are no loose parts.

You must ensure that safety valve is unbroken.

Flange gaskets must installate carefully before tightening the bolts.

INSTALLATION

Transportläge: liggande.

Behållaren **får inte** lyftas i kopplingar.

Lyft behållaren endast i lyftöglor eller med lyftremmar.

Behållaren ska endast användas för förvaring av de produkter som den är avsedd för.

Behållaren ska installeras så att dess höjdnivå och kopplingar har rätt placering.

Var försiktig vid lyft av behållaren för att inte skada kopplingar, stödbeslag o.d. vid oavsiktliga rörelser och sammanstötningar.

Behållaren ska installeras enligt installationsanvisning, med noggrannhet och med iakttagande av god installationssed.

Försäkra dig om att olika flänskopplingar och beslag sitter fast på ett korrekt och säkert sätt.

Om behållarytans yttertemperatur är högre än 55°C, ska behållaren värmeisoleras eller skyddas mot eventuell brännskaderisk.

Estanc AS installerar inte själv behållare och tar därför inget ansvar för eventuella installationsskador.

ANVÄNDNING

Innan behållaren tas i bruk måste flänsens bultförband kontrolleras.

Under tiden när behållaren används får inte flänsförband öppnas.

Behållaren får användas inom gränsen av de tekniska data som tillverkaren har angivit.

Skada inte behållaren när du förbereder behållaren för ibruktagning.

Behållaren får inte användas utan skyddsventil.

Estanc AS tar inget ansvar för funktionsstörningar som har orsakats av felaktig användning av behållaren.

UNDERHÅLL

Innan underhållsarbeten på behållaren försäkra dig om att behållaren är tom och inte trycksatt.

Efter att ett flänsförband har öppnats måste dess tätning bytas.

När ni ändrar produkt som förvaras i behållaren, måste förberedelser för den nya produktens förvaring i behållaren göras enligt reglerna som beskrivs i behållarens underhållsanvisning och i den nya produktens specifikationer.

Innan du stänger behållaren försäkra dig om att behållaren är ren och att inga detaljer är lösa.

Försäkra dig om att skyddsventilen fungerar.

Montera flänsens tätningar noggrant innan du spänner tankens bultförband.