

Ref.: TP01758

DOSSIER CONSTRUCTEUR

Client:

PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:**Référence Lumox:**

29878/29924 PONTICELLI

Date de commande:

23/12/2021

Description / Type:

TUYAUTERIE POUR 82523753

Code d'article:

82523837

Quantité:

1 pc(s)

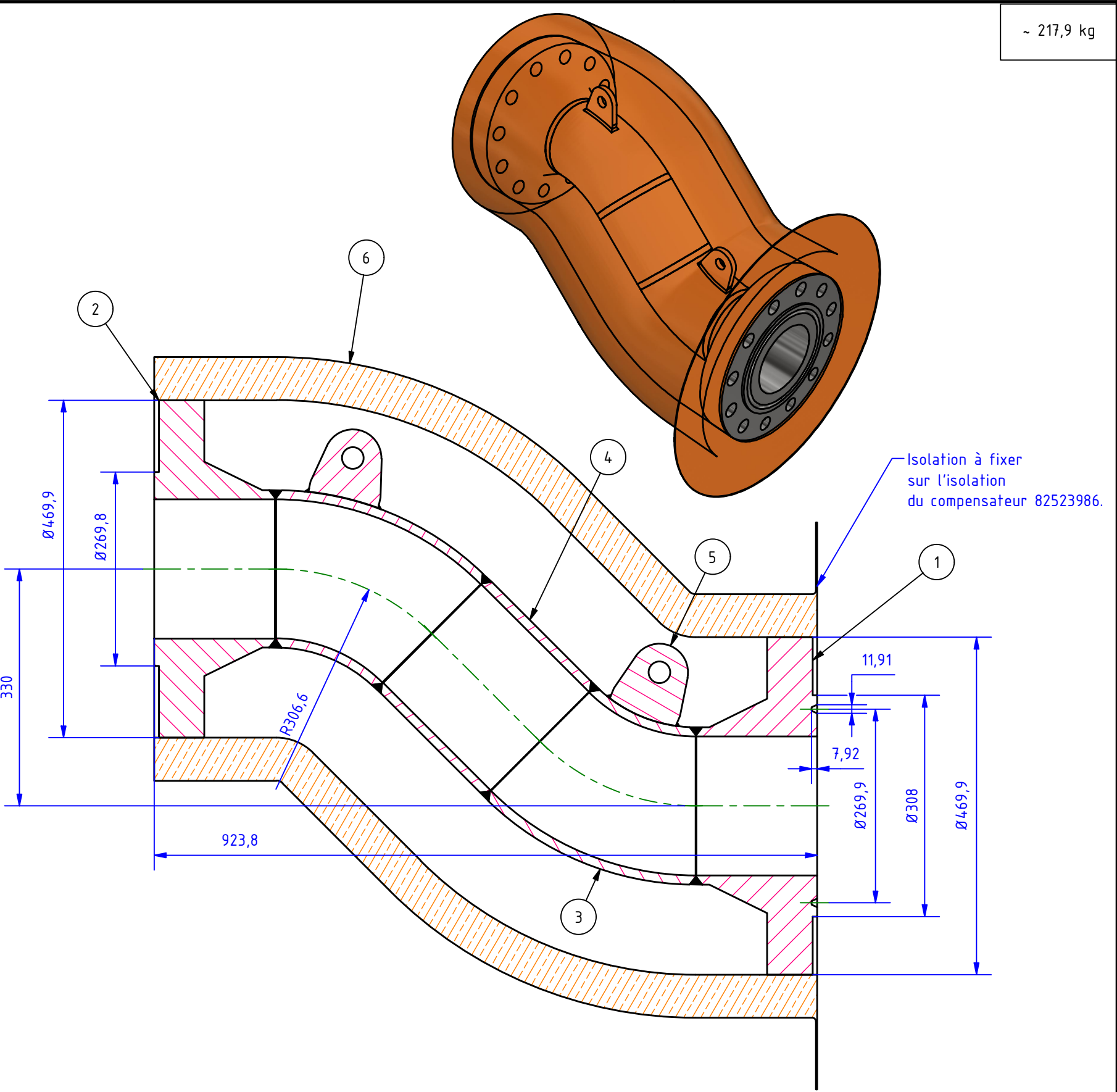
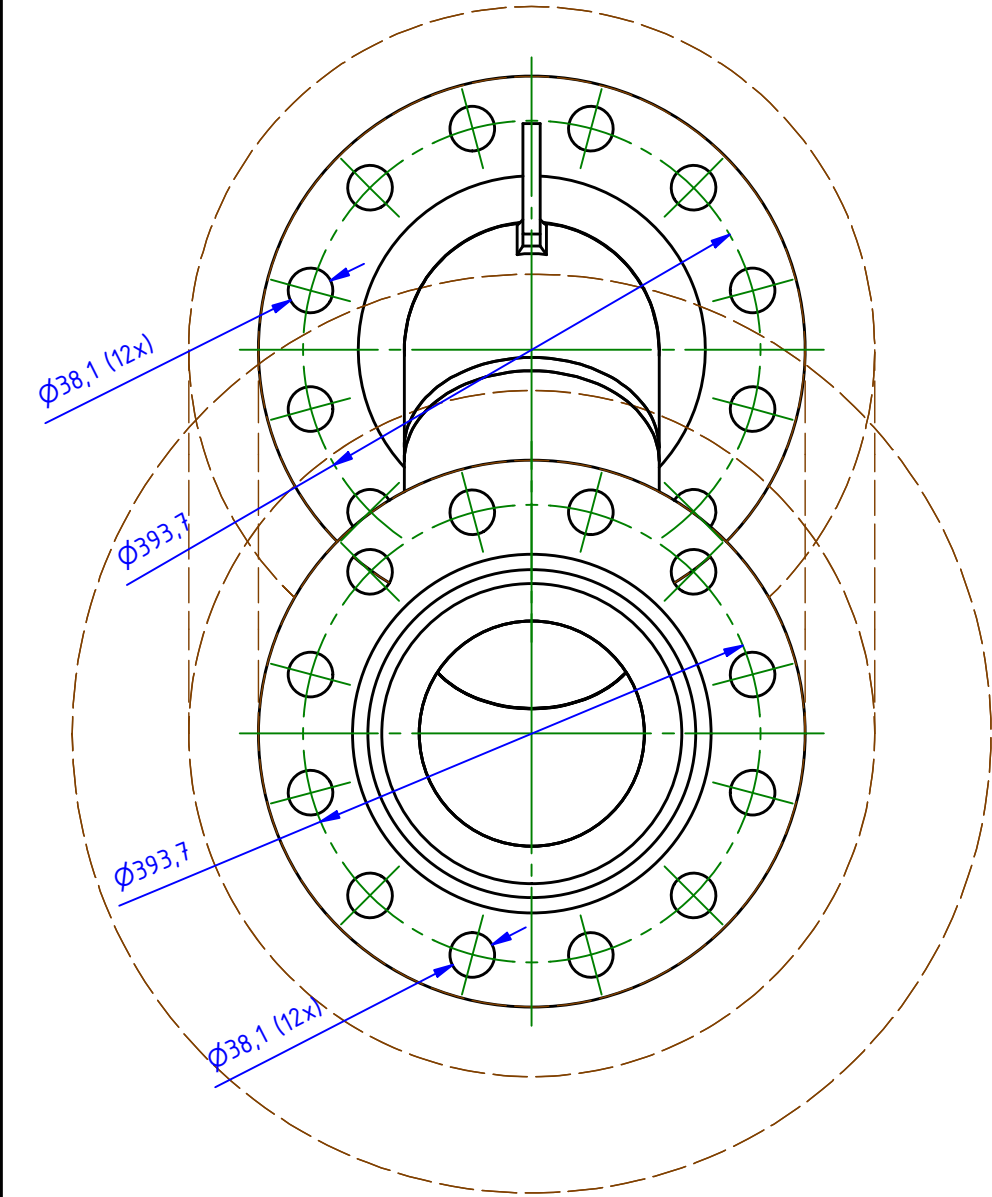
DOCUMENTS INCLUS

- Plan AutoCAD
- CE - Déclaration de conformité svt. DESP
- Certificat d'épreuve hydrostatique
- Certificat de contrôle dimensionnel
- Certificat d'examen visuel
- Certificat d'examen radiographique
- EN 10204 3.1 Certificat(s) de réception

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

CONDITIONS DE FONCTIONNEMENT	
TEMPERATURE DE SERVICE :	
PRESSION DE SERVICE :	
TEMPERATURE DE CALCUL :	377°C
PRESSION DE CALCUL :	100 barg
PRESSION D'EPREUVE :	195,5 barg durant min.
FLUIDE :	Air
TYPE DE FLUIDE :	G
GROUPE :	2
CLASSIFICATION DESP. :	Cat.III Mod.H

~ 217,9 kg



6	1	Paquet d'isolation		
5	2	Oeillet de levage		AISI 316L
4	1	Tube 8" Sch80S		AISI 316L
3	2	Coude 45° 8" Sch80S		AISI 316L
2	1	Bride ASA 900lbs 8" WN RF		AISI 316L
1	1	Bride ASA 900lbs 8" WN RTJ		AISI 316L
POS.	QTE	DESIGNATION	REMARQUES	MATIERE
LISTE DES PIECES				

PLAN DE PRINCIPE

	Nom	Date	
Dessiné	ND	29/10/21	
Contrôlé			
Approuvé	CVR	29/10/21	
Référence Lumox:			Titre :
Client:			TUYAUTERIE POUR 82523753
Référence client:			N° Art. :
Echelle: NTS			Format: A3
			82523837



15 rue Antoine Balard
ZI du Vert Galant
95310 SAINT-OUEN-L'AUMONE
Tél: (+33) 01 34 64 46 29
Fax: (+33) 01 34 64 29 94
contact@lumox.fr
www.lumox.fr

Ref.: TP01758

CE - DECLARATION DE CONFORMITE SUIVANT DESP 2014/68/EU

Client:

PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:**Référence Lumox:**

29878/29924 PONTICELLI

Date de commande:

23/12/2021

Description / Type:

TUYAUTERIE POUR 82523753

Code d'article:

82523837

Quantité:

1 pc(s)

Fabriquant:

Creon BVBA
Koeweidestraat 31
1785 Merchtem
Belgium

Code de construction:

EJMA Standard 9th ed.

Catégorie:

III

Module appliqué:

H

Organisme notifié:

APRAGAZ (0029)
Chée de Vilvorde 156
BE-1120 Brussels

Numéro du certificat:

16/BE/3904-1-REV 0

Déclaration:

Par la présente, nous affirmons que le produit décrit ci-dessus a été fabriqué en conformité avec la CE Directive 2014/68/EU.

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

CERTIFICAT D'EPREUVE HYDROSTATIQUE

Client: PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:

Référence Lumox: 29878/29924 PONTICELLI
Date de commande: 23/12/2021
Description / Type: TUYAUTERIE POUR 82523753
Code d'article: 82523837
Quantité: 1 pc(s)

Procédure de qualité: I10_07 / I10_13
Fluide d'épreuve: eau
Pression d'épreuve: 190,63 barg
Température d'épreuve: ambiante
Durée de l'épreuve: 15 min.
Date d'épreuve: 6/04/2022
Résultat: ni fuites, ni déformations plastiques

Déclaration: Par la présente, nous affirmons que le produit décrit ci-dessus a été soumis à un test d'épreuve hydrostatique et que le résultat du test a été trouvé satisfaisant.

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

CERTIFICAT DE CONTROLE DIMENSIONNEL

Client:

PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:**Référence Lumox:**

29878/29924 PONTICELLI

Date de commande:

23/12/2021

Description / Type:

TUYAUTERIE POUR 82523753

Code d'article:

82523837

Quantité:

1 pc(s)

Procédure de qualité:

I10_19

Plan de fabrication:

82523837

Date d'examination:

6/04/2022

Déclaration:

Par la présente, nous affirmons que le produit décrit ci-dessus a été soumis à un contrôle dimensionnel, en fin de fabrication et à froid, et que toutes les cotes et tolérances ont été respectées.

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

CERTIFICAT D'EXAMEN VISUEL SUIVANT EN ISO 17637

Client:

PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:**Référence Lumox:**

29878/29924 PONTICELLI

Date de commande:

23/12/2021

Description / Type:

TUYAUTERIE POUR 82523753

Code d'article:

82523837

Quantité:

1 pc(s)

Procédure de qualité:

I10_19

Plan de fabrication:

82523837

Date d'examination:

6/04/2022

Déclaration:

Par la présente, nous affirmons que le produit décrit ci-dessus a été soumis à un examen visuel, en fin de fabrication, et que toutes les soudures et l'aspect général ont été trouvés satisfaisant.

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

CERTIFICAT D'EXAMEN RADIOGRAPHIQUE

Client:

PONTICELLI FRERES
10 RUE GASTON MONMOUSSEAU LE RONDEAU BP 109
38130 ECHIROLLES
FRANCE

Référence client:**Référence Lumox:**

29878/29924 PONTICELLI

Date de commande:

23/12/2021

Description / Type:

TUYAUTERIE POUR 82523753

Code d'article:

82523837

Quantité:

1 pc(s)

Organisme notifié:

Noedisk Svejse Kontrol A/S
Hammeren 5
DK - 6715 Esbjerg N

Norme:

ISO 17636-B / ISO 10675-1 lvl 1

Plan de fabrication:

82523837

Soudures examinées:

W3 - Soudure circonférentielle de tube à tube 100%


Déclaration:

Par la présente, nous affirmons que le produit décrit ci-dessus a été soumis à un examen radiographique et que les soudures examinées satisfont aux exigences de la norme appliquée.

Dieter Van Isterdael
QUALITY MANAGER
LUMOX

Radiography / Radiografi

[illegible]

Rep. marked / Rep. mærket	Enclosures / Bilag	Inspector / Inspektør	Cert. No. / nr.
<input type="checkbox"/> On object / På emnet <input type="checkbox"/> On sketch / På skitse	No. / Antal 0		1125-N2-RT
Remarks / Bemærkninger			Date / Dato
			01.04.2022
		Inspector / Inspektør Peter R. Jørgensen	Cert. No. / nr. 1125-N2-RT
		Assistant / Assistent	Cert. No. / nr.

Note: The grey fields supply available, relevant information for guidance only. The giving of such information in this Field Report should not be considered as verification of its accuracy.

Note: Oplysningerne i de grå felter er til information og angives kun i den udstrækning, de er tilgængelige og relevante. Deres angivelse på nærværende markrapport kan ikke betragtes som en verifikation af deres rigtighed.

NIHON

CHECKED BY
ARCUS

INSPECTION CERTIFICATE

EN 10204 3.1

CERTIFICATE NO. A2009004

PAGE: 1/1

DATE: 2020/9/10

Nihon Pipe Corp

No. 142 Ln. 159 Weixin Rd. Wanda Township

Pingtung County, Taiwan

COMMODITY:	STAINLESS STEEL SEAMLESS PIPE	CUSTOMER:	
STANDARD:	EN10216-5 TC1, ASTM A312	ORDER NO.	GC21060rOA0000008
CONDITION:	COLD FINISHED, ANNEALED AND PICKLED(>1050℃)	SHIPPER:	NIHON PIPE CORP

No	Grade	Size		Chemical Composition(%)		Min	C	Si	Mn	P	S	Ni	Cr	Mo	N
		OD × WT × LG (mm)	OD × WT (in)	Quantity (pc's)	Heat No										
1	1.4401/4 TP316/L	101.60x8.08 x6000~7000	3 1/2"xSCH80S	5	31 70	N200427AS05	0.022	0.45	0.55	0.037	0.008	10.09	16.55	2.05	0.00
2	1.4401/4 TP316/L	114.30x3.05 x6000~7000	4"xSCH10S	60	374.91	N200427AS05	0.022	0.45	0.55	0.037	0.008	10.09	16.55	2.05	0.00
3	1.4401/4 TP316/L	114.30x6.02 x6000~7000	4"xSCH40S	5	31 78	N200427AS05	0.022	0.45	0.55	0.037	0.008	10.09	16.55	2.05	0.00
* 4	1.4401/4 TP316/L	219.10x12.70 x6000~7000	8"xSCH80S	3	18 75	N200427AS05	0.022	0.45	0.55	0.037	0.008	10.09	16.55	2.05	0.00

No	Mill Work No.	T S	0.2% Y S	Elongation	Hardness	Flattening	Flaring	I C Test	Hydrostatic	Eddy
		MPa	MPa	%	Test	Test	Test			
		> 515	> 205	> 35	90 HRB					Current
1	206-08	575	255	46	72	GOOD	GOOD	GOOD	GOOD	Test
2	206-08	570	255	45	72	GOOD	GOOD	GOOD	GOOD	
3	206-08	575	250	47	72	GOOD	GOOD	GOOD	GOOD	
4	206-08	585	295	49	72	GOOD	GOOD	GOOD	GOOD	

Total Length: -	Total Quantity: -	Total Mass: -
-----------------	-------------------	---------------

THE ABOVE MATERIAL ARE COMPLY WITH THE FOLLOWING REQUIREMENTS.

A

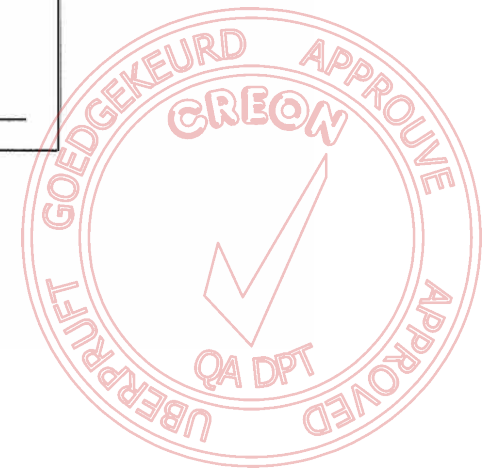
- 1) EDDY CURRENT TEST TO ASTM E426
- 2) NACE MR0175 and NACE MR0103(HARDNESS ONLY)
- 3) EU DIRECTIVE 2014/68/EU(PED) ANNEX 1 PARAGRAPH 4.3 APPROVED BY LRQA UNDER CERTIFICATE NO. TWN0207101
- 4) FREE FROM MERCURY AND RADIATION CONTAMINATION
- 5) ALL MATERIAL NO WELDING REPAIR
- 6) ASME BPVC SECTION II Part A, SA-312/SA-312M
- 7) ALL MATERIALS ARE 100% PMI TESTED

B. THIS CERTIFICATION IS IN ACCORDANCE WITH EN10204 2004-3.1

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AND IS FULLY IN COMPLIANCE. THE CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.

MANAGER, QUALITY ASSURANCE SECTION

Buis - Embout - Pipe 1/1





HERTECANT
FLANGES

Tel.: +32 (0) 15 22 49 10

www.hertecantflanges.com

CERTIFICATE
EN 10204 - 3.1

No
22701375-1

Date
16/03/2022

Your order
PUR-BIW00460SC/BKW00919

Our order
56255

Buyer: ARCUS BELGIUM NV 'T HOFVELD 6 F C2 1702 Groot-Bijgaarden België		Requirements: ASME B16.5 Rockwell HRC acc to NACE MR 01-75/01-03 - ISO15156 ASME SA 182 SECT II PART A ED 2021, YEAR ASTM 2021								
Grade: F316L/F316 ASTM A 182 / ASME SA 182		Heat treatment: solution annealed at 1050 °C quenched in water	Brand mark 	Inspectors stamp 						
Marking: Heat + Prod.number / Description / Mark + Inspector stamp S22538 P76788 WELD-NECK 8" 80S CLASS 900 316L R.F.		Quantity: 1								
Mechanical properties:										
	Rp 0,2 % [N/mm2]	Rp 1,0 [N/mm2]	Rm [N/mm2]	Elongation (50mm) % (5D) %	Reduction of area [%]	Impact test 20° [J] Avg			Lateral expansion	
TANG	268	319	547	64.6	81	347	339	405	364	2.89-2.76-3.12
HARDNESS HB BRINELL 2.5/187.5 KG RESULTS:						178-181				

Chemical analysis (%) :											
C	Si	Mn	P	S	Cr	Mo	Ni	Ti	N	Cu	Al
0.020	0.34	1.71	0.031	0.002	17.05	2.07	10.13		0.056	0.17	0.004
B	Co	Nb	W	V	Ta	Fe					
	0.20										
Melting process / Producer			EAF+AOD/STAVANGER								
Inspection and gauge measurement: No remarks				100% PMI test: Result :No remarks				IGC test : ASTM A262 Pract. E: No remarks			
Certified acc. PED 2014/68/EU Annex 1, § 4.3 by certification Body -0036- of TÜV SÜD Industrie Service GMBH - Certificate Nr. 286/2006/MUC The product mentioned herein complies with the specification and customers requirements. Materials are free from mercury. Country of origin of the flanges is Belgium. Materials are free of radio-active contamination.							Works inspector: <div>QUALITY CONTROL DEPARTMENT</div> Vets				

HERTECANT FLANGES N.V.
Lossing 22
2260 Heultje - Westerlo (Belgium)
BTW/VAT/TVA N° BE 0466 169 726

Tel.: +32 (0) 15 22 49 10
www.hertecantflanges.com

Bank Belgium:
ING Lummen
IBAN BE89 3630 8481 1685
SWIFT-code: BBRUBEBB

KBC Westerlo
IBAN BE34 7330 4069 7590
SWIFT-code: KREDBEBB

Flens - Bride - Flange 1/1



MAC Piping Materials Sdn. Bhd.

Company No : 1250791-W

Lot 8095, Jalan Sungai Rasau 32,

Kawasan 16, Sungai Rasau, 41300 Klang,

Selangor Darul Ehsan, Malaysia

Tel : +603-3344 9733 Fax : +603-3344 9722

Website : www.macpiping.com

Email : enquiry@macppiping.com

07/202/9030/WZ/2302/18

07/202/9030/WP/2302/18

PED2014/68/EU

TUV SUD Asia Pacific
ISO 9001 : 2015
Certificate Registration
No. : TUV100 13 4226

CHECKED BY
ARCUS

MILL TEST REPORT

IN ACCORDANCE TO EN 10204 3.1

CERTIFICATE NO : MAC9202102 (4) DATE : 18/11/2021

INVOICE NO. : INVE00548

CONTRACT NO. : SO-000663

SHIPPER : MAC PIPING MATERIALS SDN BHD

PURCHASE ORDER N : PUR-IOV02826FF

CUSTOMER : ARCUS NEDERLAND B.V.

PRODUCT : STAINLESS STEEL BUTT WELD FITTINGS (SEAMLESS)

SPECIFICATION : ASTM A403/A403 M

MATERIAL GRADE : **WP316/316L-S (SEAMLESS)**

NO.	DESCRIPTION OF GOODS (PRODUCT, SIZE, SCHEDULE, GRADE)	PO No.	QUANTITY (PCS)	WEIGHT (KGS)	HEAT NUMBER	ROOM TEMPERATURE			HARD- NESS TEST (HRB)	NON- DESTRUCTIVE TEST (NDT)					CHEMICAL COMPOSITION (wt%)								
						Y.S.	T.S.	EL %		RT	UT	MT	PT	ET	C	Si	Mn	P	S	Ni	Cr	Mo	
						N mm ²	N mm ²	(L)							X 100			X 1000			X 100		
						205	515	28							AVR						-	-	-
								187							3.0	100	200	45	30	1400	1800	300	MIN
1	ELBOW 45 2" SCH 10S 316/L (S)	PUR-IOV02826FF	215	49.45	53DM705	266	581	62	70	N/A	N/A	N/A	N/A	N/A	2.0	38	108	34	1	1003	1656	202	
2	ELBOW 45 2" SCH 40S 316/L (S)	PUR-IOV02826FF	155	52.70	53DK343	273	585	55	78	N/A	N/A	N/A	N/A	N/A	1.4	30	82	35	2	1007	1625	204	
3	ELBOW 45 3" SCH 10S 316/L (S)	PUR-IOV02826FF	96	61.44	53DL811	278	575	60	77	N/A	N/A	N/A	N/A	N/A	1.3	32	93	30	1	1003	1636	203	
4	ELBOW 45 3" SCH 10S 316/L (S)	PUR-IOV02826FF	4	2.56	53DK115	262	580	58	77	N/A	N/A	N/A	N/A	N/A	1.4	35	94	34	1	1010	1632	202	
5	ELBOW 45 3" SCH 40S 316/L (S)	PUR-IOV02826FF	6	6.48	53DK145	287	575	55	78	N/A	N/A	N/A	N/A	N/A	2.4	34	81	36	2	1007	1642	206	
6	ELBOW 45 3" SCH 40S 316/L (S)	PUR-IOV02826FF	59	63.72	53DK345	275	582	58	72	N/A	N/A	N/A	N/A	N/A	2.2	36	135	27	3	1008	1632	202	
7	ELBOW 45 3/4" SCH 40S 316/L (S)	PUR-IOV02826FF	202	8.08	53UR55A	281	598	61	71	N/A	N/A	N/A	N/A	N/A	2.4	49	123	31	3	1018	1622	217	
8	ELBOW 45 6" SCH 10S 316/L (S)	PUR-IOV02826FF	50	129.00	53DK813	272	583	58	77	N/A	N/A	N/A	N/A	N/A	1.7	33	104	34	1	1003	1621	203	
9	ELBOW 45 6" SCH 40S 316/L (S)	PUR-IOV02826FF	25	131.25	53DJ848	270	579	58	72	N/A	N/A	N/A	N/A	N/A	1.7	42	93	38	1	1002	1645	201	
10	ELBOW 45 8" SCH 80S 316/L (S)	PUR-IOV02826FF	10	155.50	53UR542	310	599	49	75	N/A	N/A	N/A	N/A	N/A	2.1	52	108	33	3	1008	1654	219	

NOTE :

Y.S = Yield Strength
T.S = Tensile Strength
E.L = Elongation In 50mm
(or 4D), min, %
1Ksi = 1,000 Psi
1Mpa = 1N/mm² = 0.145038 Ksi
L =
Shape & length of 50.8mm

SCH = Schedule
R.T = Radiography Test
U.T = Ultrasonic Test
M.T = Magnetic Practice Test
E.T = Electromagnetic Test
P.T = Dye Penetrant Test

Note

* HEAT TREATMENT : 1080 DEGREE CELSIUS QUENCHED IN WATER

* Products conform to ASME B16.9 2018 and ASME Sec II Part A-2019 SA-403/SA-403M 2019,

Cold formed, annealed and quenched, bevelled ends to ASME B16.25,

* Materials are in accordance to NACE MR 0175 (ISO 17945 -2015)

& NACE MR 0103 -2015.(Latest Edition)

* Intergranular Corrosion Test are in Accordance to ASTM A262 Practice E : Passed

* Surface and dimension check has been carried out 100% to all products

* Pickled and Passivated

* Material has been made and tested in accordance with above specification and the requirement called for the order

* Material in accordance with purchase specification ARCUS ES-ASLM Rev.6

* Products are mercury free and free from mercury contamination

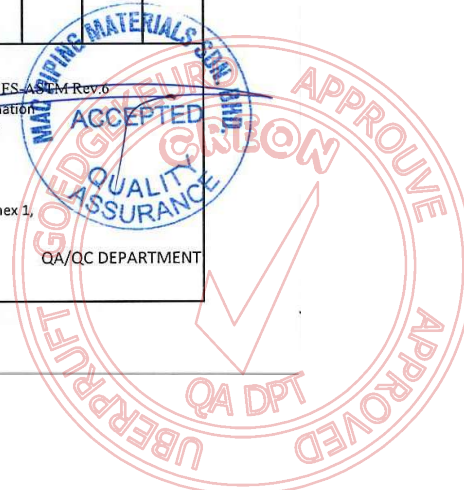
* Raw material manufacturer has detected it to be free from radioactive contamination.

* All fittings are confirmed 100% P.M.I tested

* Stainless steelmaking : Electric arc furnace

* Certified according to AD2000 W0 and PED2014/68/EU Annex 1, Paragraph 4.3

* Country of Origin Malaysia



CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd

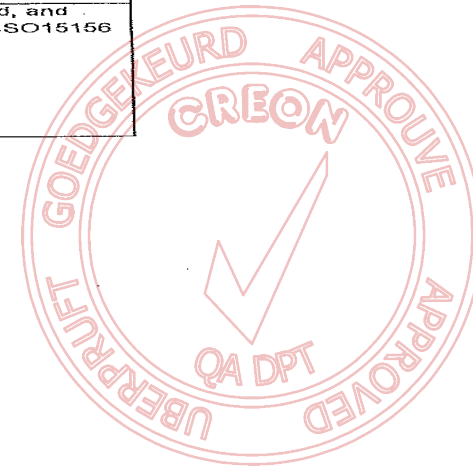
ADD: NO. 356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
Contract No. : MAC21010301-12
Specification : A/SA 312-11 A/SA376 B36.19M-04
Steel Grade : TP 316/316L
Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20210703-06
Surface Finished : ANNEALED & PICKLED
Production Tech : Cold Finished
Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)							
		C	Mn	Si	P	S	Ni	Cr	Mo
Spec.	min.						10.00	16.00	2.00
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00
N210529AW9		0.020	1.08	0.38	0.034	0.001	10.03	16.66	2.02
Batch No.		Quantity							
		Size							
		2" Sch10S			54	PCS	1434	KG	359 M
Test No.		Mechanical Properties							Hydrostatic Test
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	ASTM A999/999M
Spec.	min.	205	515	35	90	GOOD	GOOD	1050 22min	N/A
	max.				70				
		Acc to ASTM A370-11							
Nondestructive Examination					Inter-granular Corrosion				
Eddy Current Test		Ultrasonic Test			Acc to ASTM A262-13 E PRACTICE				
Acc to ASTM E26-11a		Acc to ASTM E213-09							
GOOD		/			GOOD				
Additional Remarks:									
1. Dimension & Surface: Good					2. Country of Origin: China				
3. Hardness acc. to NACE MR 0175					4. Meets the specification MIL-P-24691, free of Mercury & radiation.				
5. 100% PMI tested and passed					6. No weld repair				
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19, A/SA312, A/SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.									
MAC HEAT NUMBER 53DM705					2021-07-03 Date				

Bocht - Coude - Elbow 2/11



CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co.,Ltd

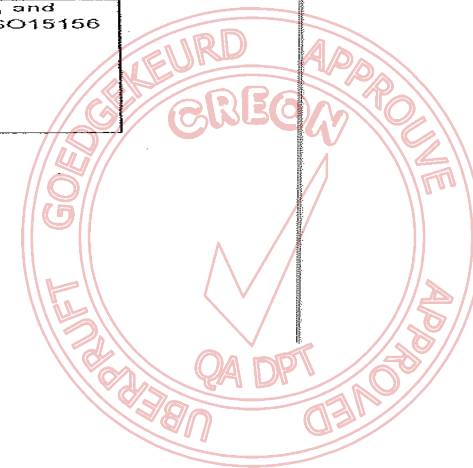
ADD:NO.356 LVGU AVENUE,SHUIGE INDUSTRIAL ZONE,LISHUI,CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
Contract No. : MAC21010301-03
Specification : A/SA 312-11 A/SA376 B36.19M-04
Steel Grade : TP 316/316L
Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20210116-10
Surface Finished : ANNEALED & PICKLED
Production Tech : Cold Finished
Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)							
		C	Mn	Si	P	S	Ni	Cr	Mo
Spec.	min.						10.00	16.00	2.00
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00
09-1693		0.014	0.82	0.30	0.035	0.002	10.07	16.25	2.04
Batch No.		Size			Quantity				
		2" Sch40S			74	PCS	2630	KG	468 M
Test No.		Mechanical Properties							Hydrostatic Test
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	ASTM A999/999M
Spec.	min.	205	515	35					
	max.				90				
		273	585	55	78	GOOD	GOOD	1050 22min	N/A
		Acc to ASTM A370-11							
Nondestructive Examination				Inter-granular Corrosion					
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE					
Acc to ASTM E426-11a		Acc to ASTM E213-09							
GOOD		/		GOOD					
Additional Remarks:									
1.Dimension & Surface: Good					2.Country of Origin: China				
3.Hardness acc. to NACE MR 0175					4.Meets the specification MIL-P-24691, free of Mercury & radiation.				
5. 100% PMI tested and passed					6. No weld repair				
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19,A/SA312, A/ SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.									
MAC HEAT NUMBER 53DK343									
2021-01-16 Date									
Quality Technology Director									

Bocht - Coude - Elbow 3/11



CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd

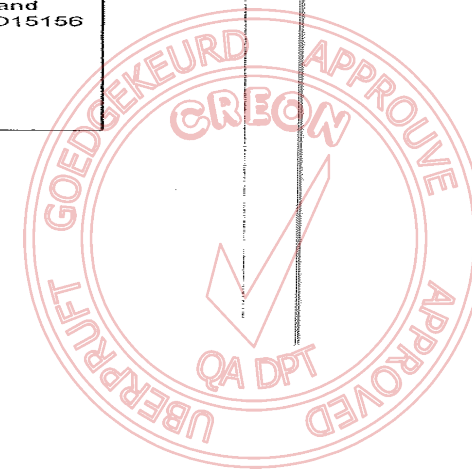
ADD: NO.356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
Contract No. : MAC21010301-11
Specification : A/SA 312-11 A/SA376 B36.19M-04
Steel Grade : TP 316/316L
Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20210517-12
Surface Finished : ANNEALED & PICKLED
Production Tech : Cold Finished
Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)							
		C	Mn	Si	P	S	Ni	Cr	Mo
Spec.	min.						10.00	16.00	2.00
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00
N201017AV12		0.013	0.93	0.32	0.030	0.001	10.03	16.36	2.03
Batch No.		Size			Quantity				
		3" Sch10S			77	PCS	3359	KG	511M
Test No.		Mechanical Properties							
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	Hydrostatic Test ASTM A999/B999M
Spec.	min.	205	515	35	90				
	max.				77	GOOD	GOOD	1050 22min	N/A
		Acc to ASTM A370-11							
Nondestructive Examination				Inter-granular Corrosion					
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE					
Acc to ASTM E426-11a		Acc to ASTM E213-09							
GOOD		/		GOOD					
Additional Remarks:									
1.Dimension & Surface: Good				2.Country of Origin: China					
3.Hardness acc. to NACE MR 0175				4.Meets the specification MIL-P-24691, free of Mercury & radiation.					
5. 100% PMI tested and passed				6. No weld repair					
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19,A/SA312, A/ SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.									
MAC HEAT NUMBER 53DL811				2021-05-17 Date		Quality Technology Director			

Bocht - Coude - Elbow 4/11



CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd

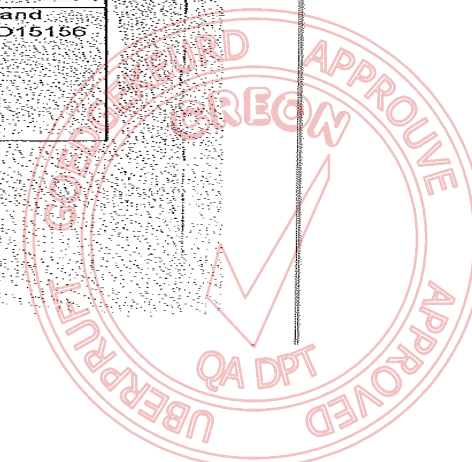
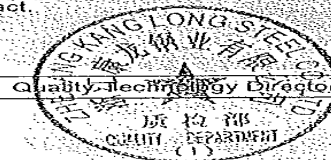
ADD: NO.356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA

MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1 B

Customer : MAC PIPING MATERIALS SDN BHD
 Contract No. : MAC20010501-18
 Specification : A/SA 312-11 A/SA376 B36.19M-04
 Steel Grade : TP 316/316L
 Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20201209-17
 Surface Finished : ANNEALED & PICKLED
 Production Tech : Cold Finished
 Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)								
		C	Mn	Si	P	S	Ni	Cr	Mo	
Spec.	min.						10.00	16.00	2.00	
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00	
N200728AS11		0.014	0.94	0.350	0.034	0.001	10.10	16.32	2.02	
Batch No.		Size				Quantity				
		3" Sch10S				7B	PCS	3194	KG	486M
Test No.		Mechanical Properties								
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment C	Hydrostatic Test	
Spec.	min.	205	515	35					ASTM A999/999M	
	max				90					
		262	580	58	77	GOOD	GOOD	1050 22min	N/A	
		Acc to ASTM A370-11								
Nondestructive Examination				Inter-granular Corrosion						
Eddy Current Test Acc to ASTM E426-11a		Ultrasonic Test Acc to ASTM E213-09		Acc to ASTM A262-13 E PRACTICE						
GOOD		/		GOOD						
Additional Remarks:										
1. Dimension & Surface: Good				2. Country of Origin: China						
3. Hardness acc. to NACE MR 0175				4. Meets the specification MIL-P-24691, free of Mercury & radiation.						
5. 100% PMI tested and passed				6. No weld repair						
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19, A/SA312, A/SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions, and complies with the terms of the Contract.										
MAC HEAT NUMBER 53DK115				2020-12-09 Date						
				Quality Technology Director						



Bocht - Coude - Elbow 5/11

CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd

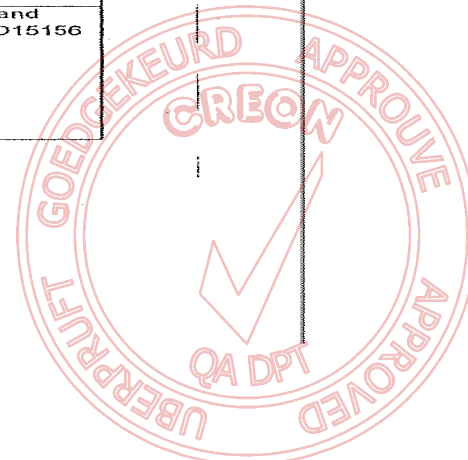
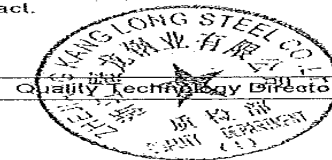
ADD:NO.356 LVGU AVENUE,SHUIGE INDUSTRIAL ZONE,LISHUI,CHINA

MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
 Contract No. : MAC20010501-16
 Specification : A/SA 312-11 A/SA376 B36.19M-04
 Steel Grade : TP 316/316L
 Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20201129-04
 Surface Finished : ANNEALED & PICKLED
 Production Tech : Cold Finished
 Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)								
		C	Mn	Si	P	S	Ni	Cr	Mo	
pec.	min.						10.00	16.00	2.00	
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00	
03-052		0.024	0.81	0.34	0.036	0.002	10.07	16.42	2.06	
Batch No.		Size				Quantity				
		3" Sch40S				87	PCS	6408	KG	556 M
Test No.		Mechanical Properties							Hydrostatic Test	
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	ASTM A999/999M	
Spec.	min.	205	515	35						
	max.				90					
		287	575	55	78	GOOD	GOOD	1050 22min	N/A	
		Acc to ASTM A370-11								
Nondestructive Examination				Inter-granular Corrosion						
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE						
Acc to ASTM E426-11a		Acc to ASTM E213-09								
GOOD		/		GOOD						
Additional Remarks: 1.Dimension & Surface: Good 2.Country of Origin: China 3.Hardness acc. to NACE MR 0175 4.Meets the specification MIL-P-24691, free of Mercury & radiation. 5. 100% PMI tested and passed 6. No weld repair We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19, A/SA312, A/SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract. MAC HEAT NUMBER 53DK145 2020-11-29 Date										



Bocht - Coude - Elbow 6/11

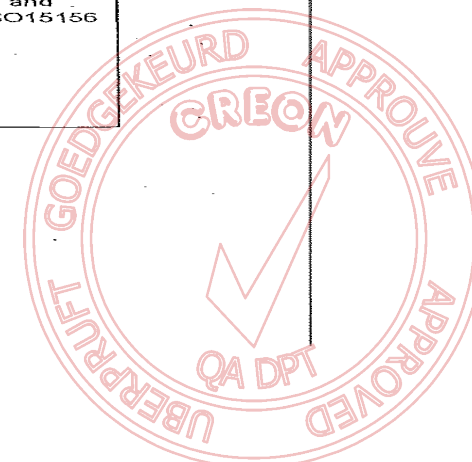
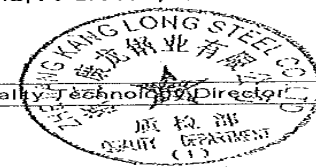
CHECKED BY
ARCUS



Zhejiang Kanglong Steel Co.,Ltd
 ADD:NO.356 LVGU AVENUE,SHUIGE INDUSTRIAL ZONE,LISHUI,CHINA
 MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer	: MAC PIPING MATERIALS SDN BHD	Cert No.	: KL20210115-10
Contract No.	: MAC21010301-02	Surface Finished	: ANNEALED & PICKLED
Specification	: A/SA 312-11 A/SA376 B36.19M-04	Production Tech	: Cold Finished
Steel Grade	: TP 316/316L	Stainless steel making	: Electric arc furnace
Description	: STAINLESS STEEL SEAMLESS PIPE		

Heat No.		Chemical Composition (%)							
		C	Mn	Si	P	S	Ni	Cr	Mo
Spec.	min.						10.00	16.00	2.00
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00
Y201025C40		0.022	1.35	0.36	0.027	0.003	10.08	16.32	2.02
Batch No.		Size			Quantity				
		3" Sch40S			47	PCS	3433	KG	298 M
Test No.		Mechanical Properties							Hydrostatic Test
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	ASTM A999/999M
Spec.	min.	205	515	35	90	GOOD	GOOD	1050	N/A
	max.								
		275	582	58	72			22min	
		Acc to ASTM A370-11							
Nondestructive Examination				Inter-granular Corrosion					
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE					
Acc to ASTM E426-11a		Acc to ASTM E213-09							
GOOD		/		GOOD					
Additional Remarks:									
1.Dimension & Surface: Good					2.Country of Origin: China				
3.Hardness acc. to NACE MR 0175					4.Meets the specification MIL-P-24691, free of Mercury & radiation.				
5. 100% PMI tested and passed					6. No weld repair				
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19,A/SA312, A/ SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.									
MAC HEAT NUMBER 53DK345									
					2021-01-15				
					Date				
					Quality Technology Director				



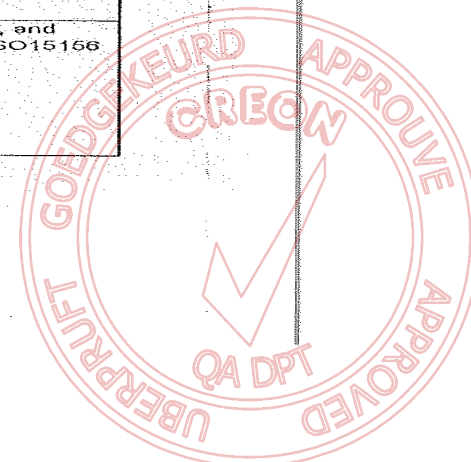
CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd
ADD: NO.356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
Contract No. : MAC200112-25
Specification : A/SA 312-1.1 A/SA376 B36.19M-04
Steel Grade : TP 316/316L
Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20200808-05
Surface Finished : ANNEALED & PICKLED
Production Tech : Cold Finished

Heat No.		Chemical Composition (%)								
Spec.	min.	C	Mn	Si	P	S	Ni	Cr	Mo	
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00	
GJ8220		0.024	1.23	0.49	0.031	0.003	10.18	16.22	2.17	
Batch No.		Size			Quantity					
		3/4" Sch40S			114	PCS	1173	KG	685 M	
Test No.		Mechanical Properties								
Spec.	min.	Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	Hydrostatic Test	
	max.	205	515	35	90					ASTM A999/999M
		281	598	61	71	GOOD	GOOD	1050 22min	N/A	
		Acc to ASTM A370-11								
Nondestructive Examination					Inter-granular Corrosion					
Eddy Current Test Acc to ASTM E426-11a			Ultrasonic Test Acc to ASTM E213-09		Acc to ASTM A262-13 E PRACTICE					
GOOD			/		GOOD					
Additional Remarks										
1.Dimension & Surface: Good					2.Country of Origin: China					
3.Hardness acc. to NACE MR 0175					4.Meets the specification MIL-P-24691, free of Mercury & radiation.					
5. 100% PMI tested and passed					6. No weld repair					
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19,A/SA312, A/ SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.										
MAC HEAT NUMBER 53UR55A					2020-08-08- Date					
					Quality Technology Director					



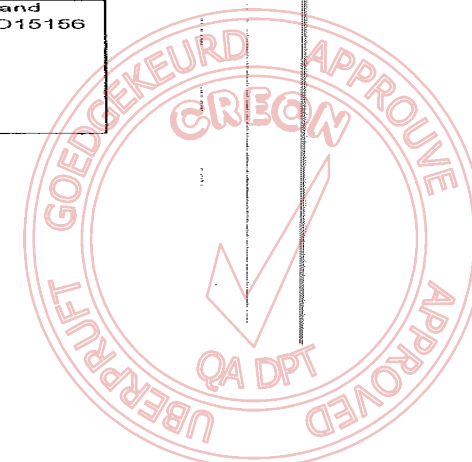
CHECKED BY
ARCUS



Zhejiang Kanglong Steel Co.,Ltd
 ADD:NO.356 LVGU AVENUE,SHUIGE INDUSTRIAL ZONE,LISHUI,CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer	: MAC PIPING MATERIALS SDN BHD	Cert No.	: KL20210330-12
Contract No.	: MAC21010301-07	Surface Finished	: ANNEALED & PICKLED
Specification	: A/SA 312-11 A/SA376 B36.19M-04	Production Tech	: Cold Finished
Steel Grade	: TP 316/316L	Stainless steel making	: Electric arc furnace
Description	: STAINLESS STEEL SEAMLESS PIPE		

Heat No.		Chemical Composition (%)								
		C	Mn	Si	P	S	Ni	Cr	Mo	
Spec.	min.						10.00	16.00	2.00	
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00	
N201013AV11		0.017	1.04	0.33	0.034	0.001	10.03	16.21	2.03	
Batch No.		Size				Quantity				
		6" Sch10S				28	PCS	2667	KG	190 M
Test No.		Mechanical Properties							Hydrostatic Test ASTM A999/999M	
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C		
Spec.	min.	205	515	35						
	max.				90					
		272	583	58	77	GOOD	GOOD	1050 22min	N/A	
		Acc to ASTM A370-11								
Nondestructive Examination				Inter-granular Corrosion						
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE						
Acc to ASTM E426-11a		Acc to ASTM E213-09								
GOOD		/		GOOD						
Additional Remarks: 1.Dimension & Surface: Good 2.Country of Origin: China 3.Hardness acc. to NACE MR 0175 4.Meets the specifiction MIL-P-24691, free of Mercury & radiation. 5. 100% PMI tested and passed 6. No weld repair We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19,A/SA312, A/SA376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.										
MAC HEAT NUMBER 53DK813				2021-03-30		Date				



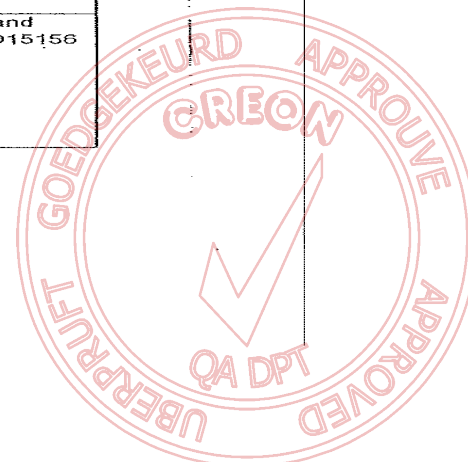
CHECKED BY
ARCUS

Zhejiang Kanglong Steel Co., Ltd
ADD: NO.356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
Contract No. : MAC20010501-14
Specification : A/SA 312-11 A/SA376 B36.19M-04
Steel Grade : TP 316/316L
Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20201026-13
Surface Finished : ANNEALED & PICKLED
Production Tech : Cold Finished
Stainless steel making : Electric arc furnace

Heat No.		Chemical Composition (%)									
		C	Mn	Si	P	S	Ni	Cr	Mo		
Spec.	min.						10.00	16.00	2.00		
	max	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00		
0114S07		0.017	0.93	0.42	0.038	0.001	10.02	16.45	2.01		
Batch No.		Size				Quantity					
		6" Sch40S				20	PCS	3693	KG	131M	
Test No.		Mechanical Properties									
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	Hydrostatic Test		
Spec.	min.	205	515	35	90	GOOD	GOOD	1050	ASTM A999/999M		
	max.										
		270	579	58	72			22min	N/A		
		Acc to ASTM A370-11									
Nondestructive Examination				Inter-granular Corrosion							
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE				ACCEPTED			
Acc to ASTM E426-11a		Acc to ASTM E213-09						QUALITY			
GOOD		/		GOOD				REFERENCE			
Additional Remarks:											
1.Dimension & Surface: Good					2.Country of Origin: China						
3.Hardness acc. to NACE MR 0175					4.Meets the specification MIL-P-24691, free of Mercury & radiation.						
5. 100% PMI tested and passed					6. No weld repair						
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19, A/SA312, A/SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions. and complies with the terms of the Contract.											
MAC HEAT NUMBER 53DJ848					2020-10-26 Date						



Bocht - Coude - Elbow 10/11

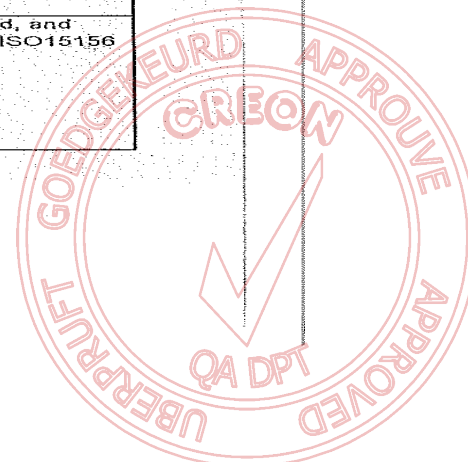


Zhejiang Kanglong Steel Co., Ltd
 ADD: NO.356 LVGU AVENUE, SHUIGE INDUSTRIAL ZONE, LISHUI, CHINA
MILL TEST/INSPECTION REPORT 1 to EN 10204 3.1. B

Customer : MAC PIPING MATERIALS SDN BHD
 Contract No. : MAC190112-43
 Specification : A/SA 312-11 A/SA376 B36.19M-04
 Steel Grade : **TP 316/316L**
 Description : STAINLESS STEEL SEAMLESS PIPE

Cert No. : KL20190805-05
 Surface Finished : ANNEALED & PICKLED
 Production Tech : Cold Finished

Heat No.		Chemical Composition (%)							
		C	Mn	Si	P	S	Ni	Cr	Mo
Spec.	min.						10.00	18.00	2.00
	max.	0.035	2.00	1.00	0.045	0.030	14.00	18.00	3.00
E90740		0.021	1.08	0.52	0.033	0.003	10.08	16.54	2.19
Batch No.		Quantity							
		Size							
		8" Sch80S			8	PCS	3300	KG	49M
Test No.		Mechanical Properties						Hydrostatic Test	
		Yield Strength Mpa	Tensile Strength Mpa	Elongation A(%)	Hardness Test HRB	Flaring Test	Flattening Test	Heat Treatment °C	ASTM A999/999M
Spec.	min.	205	515	35					
	max.				90				
		310	599	49	75	GOOD	GOOD	1050 22min	N/A
		Acc to ASTM A370-11							
Nondestructive Examination				Inter-granular Corrosion					
Eddy Current Test		Ultrasonic Test		Acc to ASTM A262-13 E PRACTICE					
Acc to ASTM E426-11a		Acc to ASTM E213-09							
		GOOD		GOOD					
Additional Remarks:									
1.Dimension & Surface: Good 2.Country of Origin: China									
3.Hardness acc. to NACE MR 0175 4.Meets the specification MIL-P-24691, free of Mercury & radiation.									
5. 100% PMI tested and passed 6. No weld repair									
We hereby certify that we are ISO9001-2008 certificated company and the products were manufactured, sampled, tested, and inspected in accordance with and meets with the specifications of ASTM B36.19, A/SA312, A/SA 376, ASTM A999 and ISO15156 and EN 10204 Type "3.1" latest revisions, and complies with the terms of the Contract.									
MAC HEAT NUMBER									
53UR542									
				2019-08-05					
				Date					



Bocht - Coude - Elbow 11/11