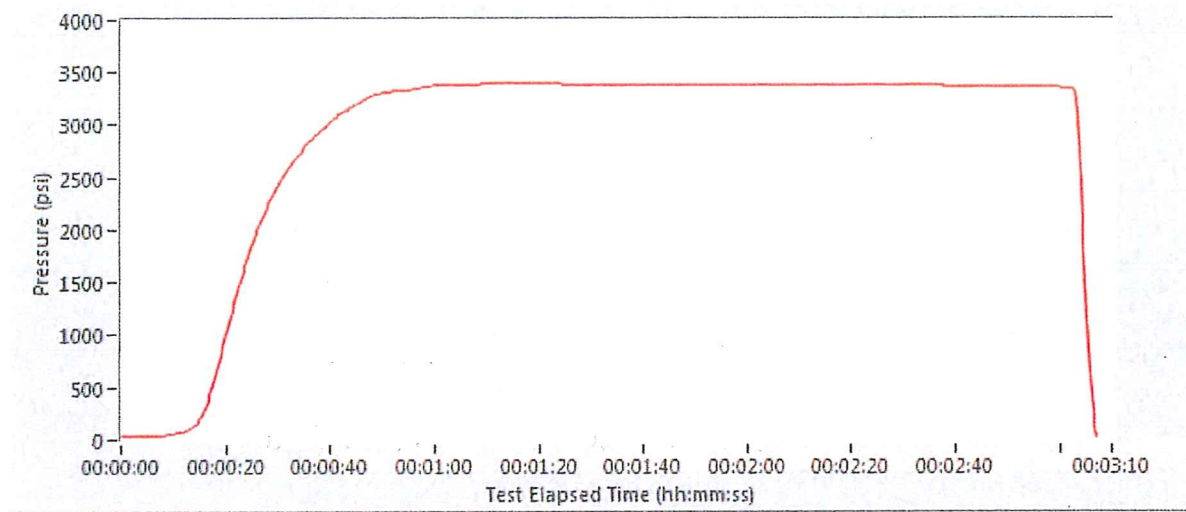


Hydrostatic Test Report

Date: Oct-07-2022

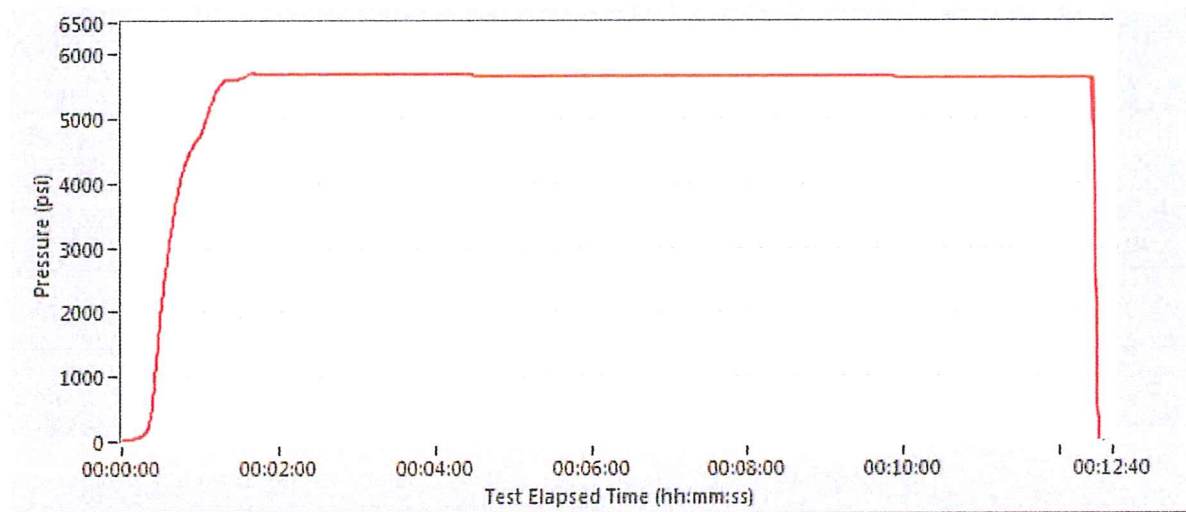
Serial No.: 2K14827
 Assembly Code: C2DS40667-85
 CVS Work Order No.: 0184989
 Customer Order No.: 0312158
 Customer: Priority Projects Ltd.

Hydrostatic Seat Test
 Per ANSI FCI 70-2-2013, ASME B16.34-2017



Conclusion and Comments: SEAT HELD @ 3300 PSI

Hydrostatic Shell Test
 Per ASME B16.34-2017



Conclusion and Comments: NO BODY LEAKS

THIS REPORT CERTIFIES THE EQUIPMENT DESCRIBED ABOVE HAS BEEN HYDRO-STATICALLY TESTED IN ACCORDANCE WITH SPECIFICATIONS. TESTS CONDUCTED AT CVS CONTROLS LTD. PERMANENT RECORDS LOCATED IN ADMINISTRATION. COPIES IN QUALITY ASSURANCE DEPARTMENT.

Tested By: Chelsea Drangsholt
 Chelsea Drangsholt

Date: Oct-07-2022

Q.C. Inspector: Dan Heisler
 Dan Heisler

Date: Oct-07-2022



Ascometal

ASCOMETAL LES DUNES SAS
au capital de 10.000.000 euros
834 894 909 RCS Dunkerque
Siège social: Usine des DUNES
F-59495 LEFFRINCKOUCKE

CVS2K-1108



Département Métallurgie Qualité
Usine des Dunes - Boite postale 41
59941 Dunkerque Cedex 2
Téléphone : 03 28 29 60 00
Télécopie : 03 28 29 60 03

DOCUMENT DE CONTROLE

Inspection Documents / Prüfbescheinigungen

Inspection Certificate 3.1
EN 10204
2004

Livraison 80265365 / 000021
N° Contrôle 030000486975

Date 21.12.2021
Date d'édition 21.12.2021

ORDRE DE FABRICATION WORKS ORDER NUMBER / WERKBESTELLUNG	58334DF	COULEE CAST / SCHMELZE	58334	DESTINATAIRE DOCUMENT DOCUMENT FOR / EMPFANGER	
AFFAIRE SUIVIE PAR YOUR CONTACT IS / BEARBEITER	Caroline LABOURE			Société	
N/REFERENCE ASCOMETAL ORDER / WERKBESTELLUNG	1028346 / 000110 (70101783)			RYERSON	
Y/REFERENCE Y PURCHASE ORDER / IHRE ZEICHE	4501098590/2749010420*01D21 (03.05.2021)			7945, CORONET ROAD	
QUANTITE QUANTITY / MENGE	4,595 TO	NUANCE GRAD / WERKSTOFF	AISI4130	EDMONTON ALB T6E 4N7	Canada
PRODUIT PRODUCT DESCRIPTION / BESCHREIBUNG	AISI4130 ROL.ROUNDS PEELED 8,094 IN NOR.HAR.TP.SR				MARQUE
SPECIFICATION CLIENT SPECIFICATION / SPEZIFIKATION	RYERSON RY4130NQT				
IND REP / ENTWURF	5	DATE DATE / DATUM	19.08.2019	CCU	D000011165
SPECIFICATIONS SUPP.	CONSULTATION 31069A				

VERIFIED
TRUE COPY

CVS
Q.C
INSPECTED

Analyse chimique de coulée / Ladie analysis / Schmelzeanalyse

Elément (%)	Element	Teil	C	Mn	Si	Cr	Ni	Mo	Cu	P	S	Al
Mini	Spec min	Min	0,280	0,400	0,150	0,800		0,150				
Valeur	Actual	Werte	0,313	0,552	0,271	1,065	0,236	0,234	0,188	0,010	0,005	0,028
Maxi	Spec max	Max	0,330	0,600	0,350	1,100	0,250	0,250	0,350	0,025	0,025	

Elément	Element	Teil	V
Mini	Spec min	Min	
Valeur	Actual	Werte	0,020
Maxi	Spec max	Max	0,020

Contraintes groupées / combination of elements		Mini	Valeur
Elément			0,016
S+P			

Calcul	Element	Teil	DI
Mini	Spec min	Min	3,30
Valeur	Actual	Werte	3,85
Maxi	Spec max	Max	

DESCRIPTION: **2" D BONNET**

CVS P.O. **93208** I.I.R # **65551**

MTR # **CVS2K-1108**

BATCH # **108** DATE# **06/27/2022**

Jominy / Jominy / Hartbarkeit ergebnisse

Distance (1/16 In)	Distance	Distance	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10
Unité	Unit	Einheit	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc
Mini	Spec min	Min										
Valeur	Actual	Werte	52,6	51,7	50,8	49,7	48,2	46,4	43,3	41,2	39,1	37,5
Max	Spec max	Max										

Distance	Distance	Distance	J12	J14	J16	J18	J20	J24	J28	J32
Unité	Unit	Einheit	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc
Mini	Spec min	Min								
Valeur	Actual	Werte	34,8	33,9	32,5	31,7	31,3	29,1	27,3	25,9
Max	Spec max	Max								

Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande, respectent la directive européenne 2000/53/CE du 18 septembre 2000 et présentent un niveau de radioactivité au plus égal à la radioactivité ambiante.

We hereby certify the above mentioned products are complying with the order requirements, are respectful of the September, 18th 2000 - 2000/53/CE - european directive, and have a radioactivity level which does not exceed what present in the environment.

Wir bestätigen hiermit dass die obengenannten Erzeugnisse den Bestimmungsvorschriften, der EU-Richtlinie 2000/53/CE von 18 September 2000 entsprechen und die gelieferten Produkte keine Radioaktivität, die höher ist als natürliche Strahlung der Umwelt, aufweisen.

GENERAL CONDITIONS OF SALE - September 2020 edition - in your possession and available, for the record, on our website (<http://www.ascometal.com/ascometal-au-service-de-vos-performances/cvsl>), containing inter alia a **RETENTION OF TITLE CLAUSE (ART. 8)** and applying to all sales made by an Ascometal@ group company.

VIRAJ PROFILES LIMITED



Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist.- PALGHAR, MAHARASHTRA -401 506, INDIA,
e-mail- viraj@viraj.com

TEST CERTIFICATE

CUSTOMER	ORDER NO	PACKING LIST NO	INSPECTION NO	DATE
		64/75029920/12	100013646867	31.03.2021
			GRADE	HEAT No
			316/316L	61207

BUNDLE NO :
1101428791 ,1101428792 ,

DESCRIPTION
STAINLESS STEEL BRIGHT BARS

COLD DRAWN POLISHED - 2H

SIZE	SHAPE	TOLERANCE	LENGTH	PIECES	WEIGHT
1 3/16"	ROUND	ASTM A484	12' - 14'	43	1,993.000 LB

CHEMICAL ANALYSIS

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%Co	%N2
0.0190	1.500	0.350	0.0230	0.0400	16.800	10.080	0.500	2.030	0.160	0.0700

TEST RESULTS

0.2% yield strength ksi	Tensile Strength ksi	Elongation %	Reduction Of Area %	Hardness BHN	Grain Size NOS
79.0	96.0	42.0	70.0	196.0	6.0

SPECIFICATION:

MATERIAL CONFIRMS TO DIN EN 10088-3:2014, WNR 1.4401/1.4404, EN 10272 COND-A & ASTM A182/A182M-19a, ASTM A276/A276M-17 COND A, ASTM A479/A479M-19 COND A, ASTM A193/A193M-19, B8M CL-1, A320/A320M-18a, B8M CL-1, ASTM A484/A484M-19, A388/A388M-19, ASME-SA182-14, SA479-15, SA 193-11 B8M CL-1, SA320-11 B8M CL-1, ASTM A314-2019, IGC SATISFACTORY AS PER ASTM A 262-10 PRACTICE E. AMS 5648L/AMS 5653H(EXCEPT MARKING), QQ-S-763F, NACE MR0103/ISO 17945-2015, NACE-MR0175/ISO-15156-2015, SAE-AMS-S-7720A, MIL-S-862 B, AISI 316/316L & UNS#S31600/S31603. CERTIFICATION AS PER EN 10204-3.1.

REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MICRO-FREE FROM CONTINUOUS CARBIDE NETWORK ON GRAIN BOUNDARIES. MACRO:GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 01 HRS, WATER QUENCHED. MELT SOURCE:AOD. WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION. COUNTRY OF MELTING & MANUFACTURING: INDIA.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.

DESCRIPTION: 2" D 3/4" PLUG	
CVS P.O. 92108	I.I.R # 64994
MTR # CVS2K-9086	
BATCH # 86	DATE# 05/16/2022



[Signature]
WORKS INSPECTOR
K R K MURTHY



CVS2K-9086



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

CVS2K-10082

METALLURGICAL TEST REPORT

C288489
6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 689457 6 Mail To: Ship To: Date: 5/05/2021 Page: 1
ASA ALLOYS #100, 112 STRATHMOOR DRIVE #100, 112 STRATHMOOR DRIVE Steel: 316/316L
Customer: 007226 003 SHERWOOD PARK, AB T8H 2B7 SHERWOOD PARK, AB T8H 2B7 Finish: ST

Your Order: P051203 NAS Order: IN 0289044 01 Heat Treat Code: 64.153 Corrosion: ASTM A262/15 Prac A/E OK
Red Ratio: 14.4 : 1

VERIFIED TRUE COPY

CVS Q.C. INSPECTED

PRODUCT DESCRIPTION:
Round Bar, Annealed, Smooth Turned, Cold Finished
UNS S31600/S31603, EN 10204 3.1, ASTM A484/20B
ASTM A276/17, ASTM A479/20, ASTM A182/20 CHEM ONLY,
ASME SA479/19, ASME SA182/20 CHEM ONLY, GRAIN SIZE = 6-8
AMS 5648/M, AMS 5653/J, AMS-QQS-763/D, QQS:763/F
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/18 CL 1 GR B8M
ASME SA193/19 CL 1 GR B8M (EXC PAR 7.3.1)
ASTMA193/20 CL 1 GR B8M (EXC PAR 6.2.1)

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity	Code
BL8245 6		2.2500		1,153	144.00		5		1

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/20

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
L48X	US	.014	.36	16.72	.32	1.37	2.040	.035	10.60	.029
		S %	SI %							
		.0280	.21							

MECHANICAL PROPERTIES

Product Id	Id	HB	No.	.2YS	UTS	KSI	RA	%	Elong	%	4D
BL8245 6	R L	149.0		35.34	84.47		76.65		56.0		

DESCRIPTION: 2" D 3/4" SEAT RING
CVS P.O. 91093 I.I.R.# 63663
MTR # CVS2K-10082
BATCH # 82 DATE# 01/25/2022

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.



DYNAMIC ENGINEERING
S.F.NO.9/3, SITE.NO.14, LGB NAGAR, 2nd STREET EXTENSION,
SARAVANAMPATTI POST, COIMBATORE-641 035, TN, INDIA.

TEST CERTIFICATE
AS PER EN 10204 3.1



T.C.No : DYN4826

Customer : CVS CONTROLS LTD

Inv.No: DYN284/21-22, 30.03.2022

T.C. Date : 30.03.2022

Po.No : 90749/10.04.21, 91107/10.26.21

Heat No : E356, E451, E437

Specification : ASTM A352 GR.LCC

CHEMICAL COMPOSITION %

Element	C	Mn	Si	P	S	Cr	Ni	Mo	Cu					
STD	Min	...	...	...	...	...	...	...	...
	Max	0.250	1.200	0.600	0.040	0.045	0.500	0.500	0.200	0.300				
Heat	E356	0.212	0.966	0.379	0.027	0.015	0.213	0.171	0.052	0.022				
Heat	E451	0.204	0.936	0.379	0.015	0.008	0.126	0.042	0.008	0.016				
Heat	E437	0.230	0.981	0.429	0.021	0.014	0.204	0.074	0.030	0.020				
Heat	...	...	...	...	...	...	...	...	...	...

HEAT TREATMENT: QUENCHING Raised to 920° C, Soaked for 4 Hrs and then Quench in water

TEMPERING: Rased to 680°C, Soaked for 6 Hrs and then Atmospheric Air Cooled

MECHANICAL PROPERTIES

Specification	Yield Strength	Tensile Strength	% Elongation	% Reduction	Hardness	Bend Test		Impact Test In (Joules)				
						L°	D	(at -46° C)			AVG	
	Mpa	Mpa	in 50 mm	in Area	BHN			Single Value 16J			20	
STD	Min	275	485	22.00	35.00	...	...	...	Single Value 16J			20
	Max	...	655	...	...	237	...	...	...			...
Heat	E356	376	560	33.20	61.39	170	...	...	38	34	32	34.67
Heat	E451	354	553	32.40	61.68	169	...	...	40	36	34	36.67
Heat	E437	360	544	31.60	61.46	169	...	...	38	36	36	36.67
Heat	...	...	...	...	...	...	...	...	...	...	...	...

ITEM DESCRIPTION

SL.No	Description	Drawing Number	Heat No.	Qty
30	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	E356	2
31	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	E451	2
32	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	E437	2

REMARKS : NIL

We Confirm the material was manufactured, sample tested and found satisfactory as per material specification ASTM A 352 Gr.LCC. Casting are visually inspected acceptable as per MSS SP 55 Type II -XII a, Radio Active Contamination not found in the castings.

Prepared By:

Checked By:

VERIFIED
TRUE COPY

for DYNAMIC ENGINEERING

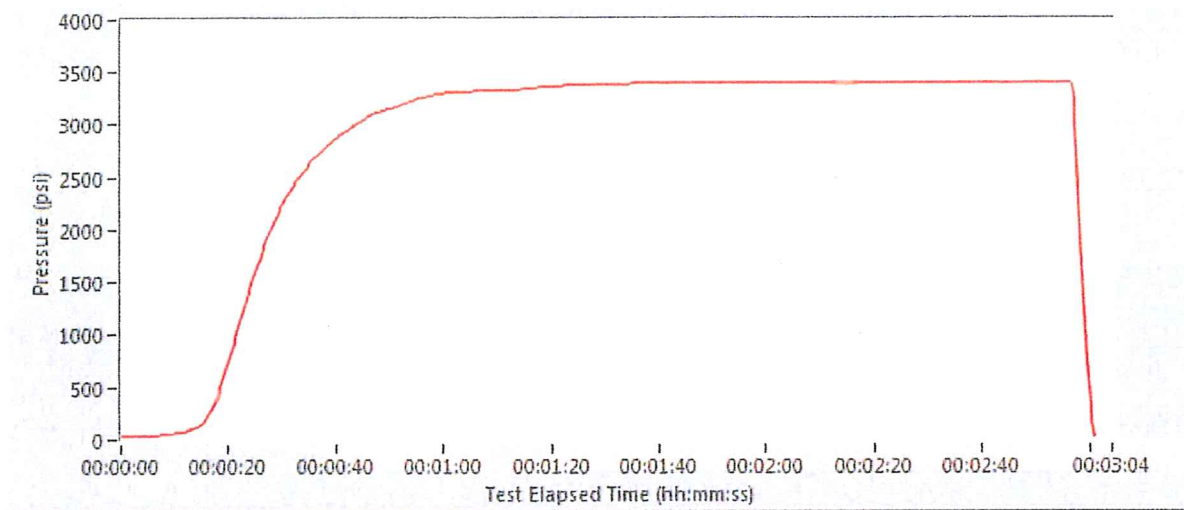
Authorized Signature

Hydrostatic Test Report

Date: Oct-07-2022

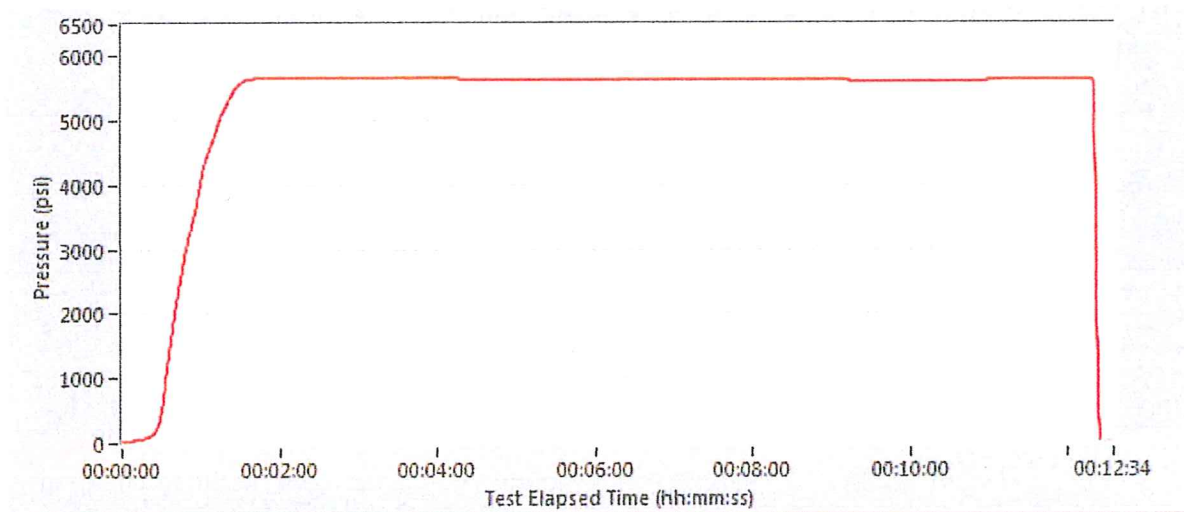
Serial No.: 2K14828
 Assembly Code: C2DS40667-85
 CVS Work Order No.: 0184989
 Customer Order No.: 0312158
 Customer: Priority Projects Ltd.

Hydrostatic Seat Test
 Per ANSI FCI 70-2-2013, ASME B16.34-2017



Conclusion and Comments: SEAT HELD @ 3300 PSI

Hydrostatic Shell Test
 Per ASME B16.34-2017



Conclusion and Comments: NO BODY LEAKS

THIS REPORT CERTIFIES THE EQUIPMENT DESCRIBED ABOVE HAS BEEN HYDRO-STATICALLY TESTED IN ACCORDANCE WITH SPECIFICATIONS. TESTS CONDUCTED AT CVS CONTROLS LTD. PERMANENT RECORDS LOCATED IN ADMINISTRATION. COPIES IN QUALITY ASSURANCE DEPARTMENT.

Tested By: Chelsea Drangsholt
 Chelsea Drangsholt

Date: Oct-07-2022

Q.C. Inspector: Dan Heisler
 Dan Heisler

Date: Oct-07-2022



Ascometal

ASCOMETAL LES DUNES SAS
au capital de 10.000.000 euros
834 894 909 RCS Dunkerque
Siège social: Usine des DUNES
F-59495 LEFFRINCKOUCHE

CVS2K-1108



Département Mécanique Qualité
Usine des Dunes - Boite postale 41
59941 Dunkerque Cedex 2
Téléphone : 03 28 29 60 00
Télécopie : 03 28 29 60 03

DOCUMENT DE CONTROLE

Inspection Documents / Prüfbescheinigungen

Inspection Certificate 3.1
EN 10204
2004

Livraison 80265365 / 000021
N° Contrôle 030000486975

Date 21.12.2021
Date d'édition 21.12.2021

ORDRE DE FABRICATION WORKS ORDER NUMBER / WERKBESTELLUNG	58334DF	COULEE 58334 CAST / SCHMELZE	DESTINATAIRE DOCUMENT DOCUMENT FOR / EMPFANGER
AFFAIRE SUIVIE PAR YOUR CONTACT IS / BEARBEITER	Caroline LABOURE		Société RYERSON
N/REFERENCE ASCOMETAL ORDER / WERKBESTELLUNG	1028346 / 000110 (70101783)		7945, CORONET ROAD
V/REFERENCE V PURCHASE ORDER / IHRE ZEICHE	4501098590/2749010420*01D21 (03.05.2021) 70101783		EDMONTON ALB T6E 4N7
QUANTITE QUANTITY / MENGE	4,595 TO	NUANCE AISI4130 GRAD / WERKSTOFF	Canada
PRODUIT PRODUCT DESCRIPTION / BESCHREIBUNG	AIS14130 ROL.ROUNDS PEELED 8,094 IN NOR.HAR.TP.SR		
SPECIFICATION CLIENT SPECIFICATION / SPEZIFIKATION	RYERSON RY4130NQT		
IND REV / ENTWURF	5	DATE DATE / DATUM	19.08.2019
SPECIFICATIONS SUPP.	CONSULTATION 31069A		CCU D000011165

VERIFIED
TRUE COPY

CVS
Q.C
INSPECTED

Analyse chimique de coulée / Ladle analysis / Schmelzeanalyse

Elément (%)	Element	Teil	C	Mn	Si	Cr	Ni	Mo	Cu	P	S	Al
Mini	Spec min	Min	0,280	0,400	0,150	0,800		0,150				
Valeur	Actual	Werte	0,313	0,552	0,271	1,065	0,236	0,234	0,188	0,010	0,005	0,028
Maxi	Spec max	Max	0,330	0,600	0,350	1,100	0,250	0,250	0,350	0,025	0,025	

Elément	Element	Teil	V
Mini	Spec min	Min	
Valeur	Actual	Werte	0,020
Maxi	Spec max	Max	0,020

Contraintes groupées / combination of elements
Elément S+P

Mini Valeur 0,016

Calcul	Element	Teil	DI
Mini	Spec min	Min	3,30
Valeur	Actual	Werte	3,85
Maxi	Spec max	Max	

DESCRIPTION: **2" D BONNET**

CVS P.O. **93208** I.I.R # **65551**

MTR # **CVS2K-1108**

BATCH # **108** DATE# **06/27/2022**

Jominy / Jominy / Hartbarkeit ergebnisse

Distance (1/16 In)	Distance	Distance	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10
Unité	Unit	Einheit	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc
Mini	Spec min	Min										
Valeur	Actual	Werte	52,6	51,7	50,8	49,7	48,2	46,4	43,3	41,2	39,1	37,5
Max	Spec max	Max										

Distance	Distance	Distance	J12	J14	J16	J18	J20	J24	J28	J32
Unité	Unit	Einheit	HRc	HRc	HRc	HRc	HRc	HRc	HRc	HRc
Mini	Spec min	Min								
Valeur	Actual	Werte	34,8	33,9	32,5	31,7	31,3	29,1	27,3	25,9
Max	Spec max	Max								

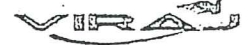
Nous certifions que les produits ci-dessus sont conformes aux prescriptions de la commande, respectent la directive européenne 2000/53/CE du 18 septembre 2000 et présentent un niveau de radioactivité au plus égal à la radioactivité ambiante.

We hereby certify the above mentioned products are complying with the order requirements, are respectful of the September, 18th 2000 - 2000/53/CE - european directive, and have a radioactivity level which does not exceed what present in the environment.

Wir bestätigen hiermit dass die obengenannten Erzeugnisse den Bestimmungsvorschriften, der EU-Richtlinie 2000/53/CE von 18 September 2000 entsprechen und die gelieferten Produkte keine Radioaktivität, die höher ist als natürliche Strahlung der Umwelt, aufweisen.

GENERAL CONDITIONS OF SALE - September 2020 edition - in your possession and available, for the record, on our website (<http://www.ascometal.com/ascometal-au-service-de-vos-performances/cvul>), containing Inter alia a RETENTION OF TITLE CLAUSE (ART. 8) and applying to all sales made by an Ascometal@ group company.

VIRAJ PROFILES LIMITED



Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist.- PALGHAR, MAHARASHTRA -401 506, INDIA,
e-mail- vielqc@viraj.com

TEST CERTIFICATE

CUSTOMER	ORDER NO	PACKING LIST NO	INSPECTION NO	DATE
		64/75029920/12	100013646867	31.03.2021
			GRADE	HEAT No
			316/316L	61207

BUNDLE NO :
1101428791, 1101428792,

DESCRIPTION

STAINLESS STEEL BRIGHT BARS

COLD DRAWN POLISHED - 2H

SIZE	SHAPE	TOLERANCE	LENGTH	PIECES	WEIGHT
1 3/16"	ROUND	ASTM A484	12' - 14'	43	1,993.000 LB

CHEMICAL ANALYSIS

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%Co	%N2
0.0190	1.500	0.350	0.0230	0.0400	16.800	10.080	0.500	2.030	0.160	0.0700

TEST RESULTS

0.2% yield strength ksi	Tensile Strength ksi	Elongation %	Reduction Of Area %	Hardness BHN	Grain Size NOS
79.0	96.0	42.0	70.0	196.0	6.0

SPECIFICATION:

MATERIAL CONFIRMS TO DIN EN 10088-3:2014, WNR 1.4401/1.4404, EN 10272 COND-A & ASTM A182/A182M-19a, ASTM A276/A276M-17 COND A, ASTM A479/A479M-19 COND A, ASTM A193/A193M-19, B8M CL-1, A320/A320M-18a, B8M CL-1, ASTM A484/A484M-19, A388/A388M-19, ASME SA182-14, SA479-15, SA 193-11 B8M CL-1, SA320-11 B8M CL-1, ASTM A314-2019, IGC SATISFACTORY AS PER ASTM A 262-10 PRACTICE E. AMS 5648L/AMS 5653H (EXCEPT MARKING), QQ-S-763F, NACE MR0103/ISO 17945-2015, NACE-MR0175/ISO-15156-2015, SAE-AMS-S-7720A, MIL-S-862 B, AISI 316/316L & UNS#S31600/S31603. CERTIFICATION AS PER EN 10204-3.1.

REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MICRO: FREE FROM CONTINUOUS CARBIDE NETWORK ON GRAIN BOUNDARIES. MACRO: GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 01 HRS, WATER QUENCHED. MELT SOURCE: AOD. WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION. COUNTRY OF MELTING & MANUFACTURING: INDIA.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.

CVS2K-9086

DESCRIPTION: **2" D 3/4" PLUG**

CVS P.O. **92108** I.I.R # **64994**

MTR # **CVS2K-9086**

BATCH # **86** DATE# **05/16/2022**



[Signature]
WORKS INSPECTOR
K R K MURTHY

VERIFIED
TRUE COPY



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

CVS2K-10082

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

C288489

Certificate: 689457 6 Mail To: Ship To: Date: 5/05/2021 Page: 1
ASA ALLOYS #100, 112 STRATHMOOR DRIVE #100, 112 STRATHMOOR DRIVE Steel: 316/316L
Customer: 007226 003 SHERWOOD PARK, AB T8H 2B7 SHERWOOD PARK, AB T8H 2B7 Finish: ST

Your Order: P051203 NAS Order: IN 0289044 01 Heat Treat Code: 64.153 Corrosion: ASTM A262/15 Prac A/E OK
Red Ratio: 14.4 : 1

VERIFIED TRUE COPY

CVS Q.C INSPECTED

REMARKS:
COMPLIES W/REQUIREMENTS OF DEAR 252.225-7009 EU DIRECTIVE 2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

ROUND BAR, Annealed, Smooth Turned, Cold Finished
UNS S31600/S31603, EN 10204 3.1, ASTM A484/20B
ASTM A276/17, ASTM A479/20, ASTM A182/20 CHEM ONLY,
ASME SA479/19, ASME SA182/20 CHEM ONLY, GRAIN SIZE = 6-8
AMS 5648/M, AMS 5653/J, AMS-QQS-763/D, QQS-763/F
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/18 CL 1 GR B8M
ASME SA193/19 CL 1 GR B8M(EXC PAR 7.3.1)
ASTMA193/20 CL 1 GR B8M(EXC PAR 6.2.1)

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BL8245 6		2.2500		1,153	144.00		5	1

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/20

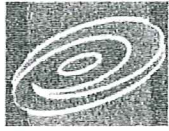
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	NI %	N %	P %
L49X	US	.014	.36	16.72	.32	1.37	2.040	.035	10.60	.029
		S %	SI %							
		.0280	.21							

MECHANICAL PROPERTIES

Product Id	Condition	HB	No.	.2YS KSI	UTS KSI	RA %	Elong %	4D
BL8245 6	RL	149.0		35.34	84.47	76.65	56.0	

DESCRIPTION: 2" D 3/4" SEAT RING
CVS P.O. 91093 U.R.# 63663
MTR # CVS2K-10082
BATCH # 82 DATE# 01/25/2022

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.



DYNAMIC ENGINEERING
S.F.NO.9/3, SITE.NO.14, LGB NAGAR, 2nd STREET EXTENSION,
SARAVANAMPATTI POST, COIMBATORE-641 035, TN, INDIA.

TEST CERTIFICATE
AS PER EN 10204 3.1



T.C.No : DYN4730

Customer : CVS CONTROLS LTD

Inv.No : DYN258/21-22 DT : 28.02.2022

T.C. Date : 28.02.2022

Po.No : 90167/08.27.21, 90749/10.04.21

Heat No : D332, SF1480, SF1517

Specification : ASTM A352 GR.LCC

CHEMICAL COMPOSITION %

Element	C	Mn	Si	P	S	Cr	Ni	Mo	Cu					
STD	Min	...	...	...	...	...	...	...	...
	Max	0.250	1.200	0.600	0.040	0.045	0.500	0.500	0.200	0.300				
Heat	D332	0.191	1.036	0.415	0.020	0.015	0.160	0.081	0.016	0.015				
Heat	SF1480	0.220	0.830	0.410	0.020	0.016	0.500	0.130	0.046	0.025				
Heat	SF1517	0.215	0.978	0.425	0.019	0.012	0.166	0.075	0.023	0.021				
Heat	...	...	...	...	...	...	...	...	...	...

HEAT TREATMENT: QUENCHING Raised to 920° C, Soaked for 4 Hrs and then Quench in water

TEMPERING: Rased to 680°C, Soaked for 6 Hrs and then Atmospheric Air Cooled

MECHANICAL PROPERTIES

Specification	Yield Strength	Tensile Strength	% Elongation	% Reduction	Hardness	Bend Test		Impact Test In (Joules)								
						Mpa	Mpa	in 50 mm	in Area	BHN	L°	D	(at -46° C)			AVG
													Single Value 16J			
STD	Min	275	485	22.00	35.00	...	...	...	Single Value 16J			20	
	Max	...	655	...	...	237	...	...	...			...
Heat	D332	369	552	29.60	61.66	164	...	...	34	32	32	32.67		
Heat	SF1480	366	562	40.00	44.00	182	...	...	48	50	46	48.00		
Heat	SF1517	363	558	32.80	61.26	163	...	...	28	30	34	30.67		
Heat	...	...	...	...	...	...	...	...	...	...	...	...

ITEM DESCRIPTION

SL.No	Description	Drawing Number	Heat No.	Qty
49	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	D332	3
50	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	SF1480	3
51	2" D 900/1500#RF CAST BODY-LCC	CVS2K1500RFSB R.3	SF1517	1

REMARKS : NIL

We Confirm the material was manufactured, sample tested and found satisfactory as per material specification ASTM A 352 Gr.LCC. Casting are visually inspected acceptable as per MSS SP 55 Type II -XII a, Radio Active Contamination not found in the castings.

Prepared By:

Checked By:

for DYNAMIC ENGINEERING

VERIFIED
TRUE COPY

Authorised Signature