

8440 ROPER ROAD
EDMONTON, ALBERTA, CANADA
T6E 6W4
Phone : 780-440-1475
Fax : 780-440-1629

PRODUCT INFORMATION PAGE

For

CENOVUS c/o Vista-IMV JV Corporation
Suite B29, 6020-2nd Street S.E
Calgary, Alberta, Canada
T2H 2L8

Item #	F1RWS10F51
Heat	525689
Page 1 of 3	

Customer Name	CENOVUS	Customer PO#	FCF-502595--VI-2401B
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Maass Flange Corporation

6202 Lumberdale Rd
Houston, Texas 77092



Material Test Certification Certificate Conforms to EN 10204/3.1

ISO 9001:2000

Certified

Sold to: EDGEN MURRAY ALLOY PRODUCTS GROUP-HOUSTON
8300 BREEN RD.
HOUSTON, TX 77064

Cust. P.O.#: 2158020B
Order#: 187810

Item 7

Qty	Part Number	Part Description	Heatcode	HeatNumber	Material									
2	25110001112	D-FIN F51-F60 10.00 150 RF WN STD	F74	525689	F51-F60									
C	Mn	P	S	Si	Ni	Cr	Mo	N	Cu	Ti	V	Co	Ta	W
0.017	0.750	0.021	0.0030	0.470	5.410	22.350	3.120	0.1600						
Cb	Cb+Ta	Al	Fe	Tensile	Yield	Elong.%	R of A %	BHN	Grain					
				106,575	71,148	33.00	63.00	232.00						

CVN: CVN @ -50F; 113, 129, 117 ft-lbs; L/E 74, 70, 69 mils; shear 100, 100, 100%; A923-B @ -40F; 128, 127, 181 ft-lbs; L/E 69, 69, 86 mils; shear 75, 75, 75%

Heat Treatment: Solution annealed at 1950F/1065C for 1.5 hr/in thickness and water quenched.

Specification: UNS S31803/S32205; A/SA182/M-09a F51/F60; NACE MRO175 & MRO103-2007; B16.5-2009 as applicable. No weld repair performed.

DIN EN 10222-5 1.4462. Melt practice EAF-AOD. Material is free from mercury contamination.

UnMade in the USA

MTR: EAF/AOD; A923-A @ 400X unaffected structure; A923-C loss rate 8.447 MDD; E562 ferrite @ 500x, 46.63% +/- 1.91%

Item 8

Qty	Part Number	Part Description	Heatcode	HeatNumber	Material									
1	25104002112	D-FIN F51-F60 4.00 300 RF WN STD	F64	E91341	F51-F60									
C	Mn	P	S	Si	Ni	Cr	Mo	N	Cu	Ti	V	Co	Ta	W
0.024	1.300	0.021	0.0010	0.460	5.570	22.490	3.250	0.1830				.10		
Cb	Cb+Ta	Al	Fe	Tensile	Yield	Elong.%	R of A %	BHN	Grain					

CVN: CVN @ -50F/-46C, 180, 107, 93J; L/E 67, 43, 40 mils; shear 85, 60, 50%;

Heat Treatment: Solution annealed at 1950F/1065C for 1.5 hr/in thickness and water quenched.

Specification: UNS S31803/S32205; A/SA182/M-09a F51/F60; NACE MRO175 & MRO103-2007; B16.5-2009 as applicable. No weld repair performed.

DIN EN 10222-5 1.4462. Melt practice EAF-AOD. Material is free from mercury contamination.

UnMade in the USA

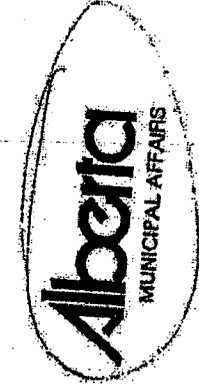
MTR: EAF-AOD; PRE 36.13; A923-A micro exam @400x unaffected structure; E562 ferrite @ 500x 39.56%, +/- 3.22%

We certify that the material represented by this document has been tested and inspected and is in conformance with the purchase order, drawing(s) and specification requirements.

Approved by

Harold Acord

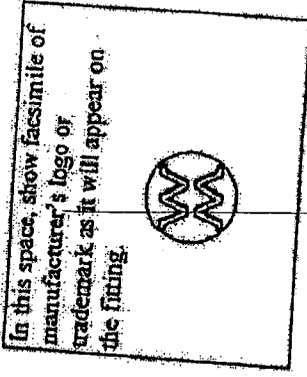
Harold Acord
Quality Assurance Inspector



ALBERTA (MANASS USA)
(1) **ABSA**

Alberta Boilers Safety Association

AB-11 01/05



STATUTORY DECLARATION Registration of Fittings

I, David Cook

Vice President

of Maass Flange Corporation
(company title, e.g. vice president, plant manager, chief engineer) (must be in a position of authority)

located at 6202 Lumberdale Road, Houston, Texas 77062-92
(name of manufacturer)

(plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

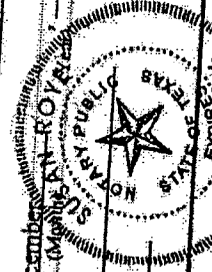
☒ comply with the requirements of Attachment A

☐ materials of construction, pressure/temperature ratings and identification marking of the fittings, or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with which specifies the dimensions,
materials of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, Germanisher Lloyd Cert. GmbH as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are Pipe Flanges
In support of this application, the following information, calculations and/or test data are attached:
Catalogs

DECLARED before me at Maass Flange Corp. in the United States of America
this 16th day of December, 2003

(print) David H. Cook
(sign) David H. Cook
(A Commissioner of Oaths)



(Signature of Applicant)

For Office Use Only

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category B51.5, B16.47, & B16.36 Flanges, etc.

Registration Number: 0 B 6 4 72 - 2

Date Registered: JUL 15 2004

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Boiler Discipline.
(For the Administrator/Chief Inspector of Alberta)
Expiry Date: July 15, 2011