

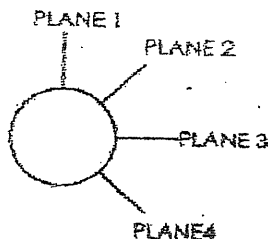
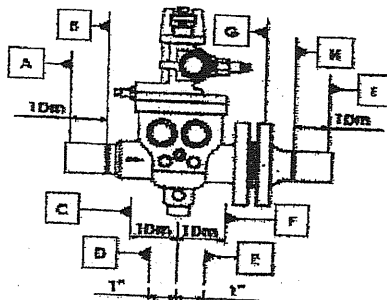


CANALTA CONTROLS LTD.

Meter Tube / Orifice Fitting Inspection Report

FITTING: Part Number 360RFD040-W00WPT Serial Number D033494 Date 09-16-08
Body Heat Number 806 P Top Housing Heat Number 1238D Overall Length 13 7/8
Line Size 3 Schedule 80 ANSI Class 600 Flange Type RFXW Material WCB

METER TUBE: Part Number _____
Overall Length 71 3/8" U/S Length 38 1/8" D/S Length 33" Plate To Conditioner/Vanes 24"



INSPECTED TO:

AGA 3 2nd EDITION (85 Ed.) ☐

AGA 3 4th EDITION (00 Ed.) ☒

METER TUBE / ORIFICE FITTING INTERNAL DIAMETER:

PLANE	UPSTREAM POINTS				DOWNSTREAM POINTS					
	A	B	C	D	E	F	G	H	I	J
1	2.899	2.900	2.905	2.899	2.899	2.899	2.900	2.885	2.897	
2	2.905	2.898	2.905					2.889	2.901	
3	2.894	2.897	2.902					2.888	2.902	
4	2.894	2.905	2.903					2.890	2.894	
AVERAGE			2.904	2.899	2.894	2.899	2.900			
TEMP.										
ROUGHNESS			65	65	65	65				
INT	K9	K9	100	100	100	100				
Q.C.	JH	JH	WE	WE	WE	WE	DM	DM	DM	

PRESSURE TAP TESTS:

0.375" ☒

0.500" ☐

	TOP				BOTTOM			
	U/S RIGHT	U/S LEFT	D/S RIGHT	D/S LEFT	U/S RIGHT	U/S LEFT	D/S RIGHT	D/S LEFT
TAP SIZE	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
TAP LOCATION	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
PRESSURE TEST	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
INSPECTOR	WE	WE	WE	WE	WE	WE	WE	WE

ECCENTRICITY:

	RIGHT	LEFT		TOP	BOTTOM
HORIZONTAL			VERTICAL		
HORIZONTAL TOLERANCE			VERTICAL TOLERANCE		
HORIZONTAL ECC.	0.009		VERTICAL ECC.	0.035	
INSPECTOR	0.005			0.005	
	WE				

PLATE SEAL GAP AND ORIFICE PLATE:

Plate Seal Gap 0.562" ☒ 0.688" ☐ 0.813" ☐ 0.875" ☐

	Top	Bottom	Right	Left
SEAL GAP WIDTH	PASS	PASS	PASS	PASS
ORIFICE PLATE THICKNESS	PASS	PASS	PASS	PASS
PLATE WITH SEAL	PASS	PASS	PASS	PASS
INSPECTOR	WE	WE	WE	WE

Plate Carrier Width 5.372
Plate Carrier Height 6.085
Orifice Plate Heat Number HT06-DM1986
Orifice Plate Bore 1.500"
Orifice Plate Material 316SS
Edge Sharpness Sharp ☒ Dull ☐
Inspector DL

HYDRO TEST RESULTS:

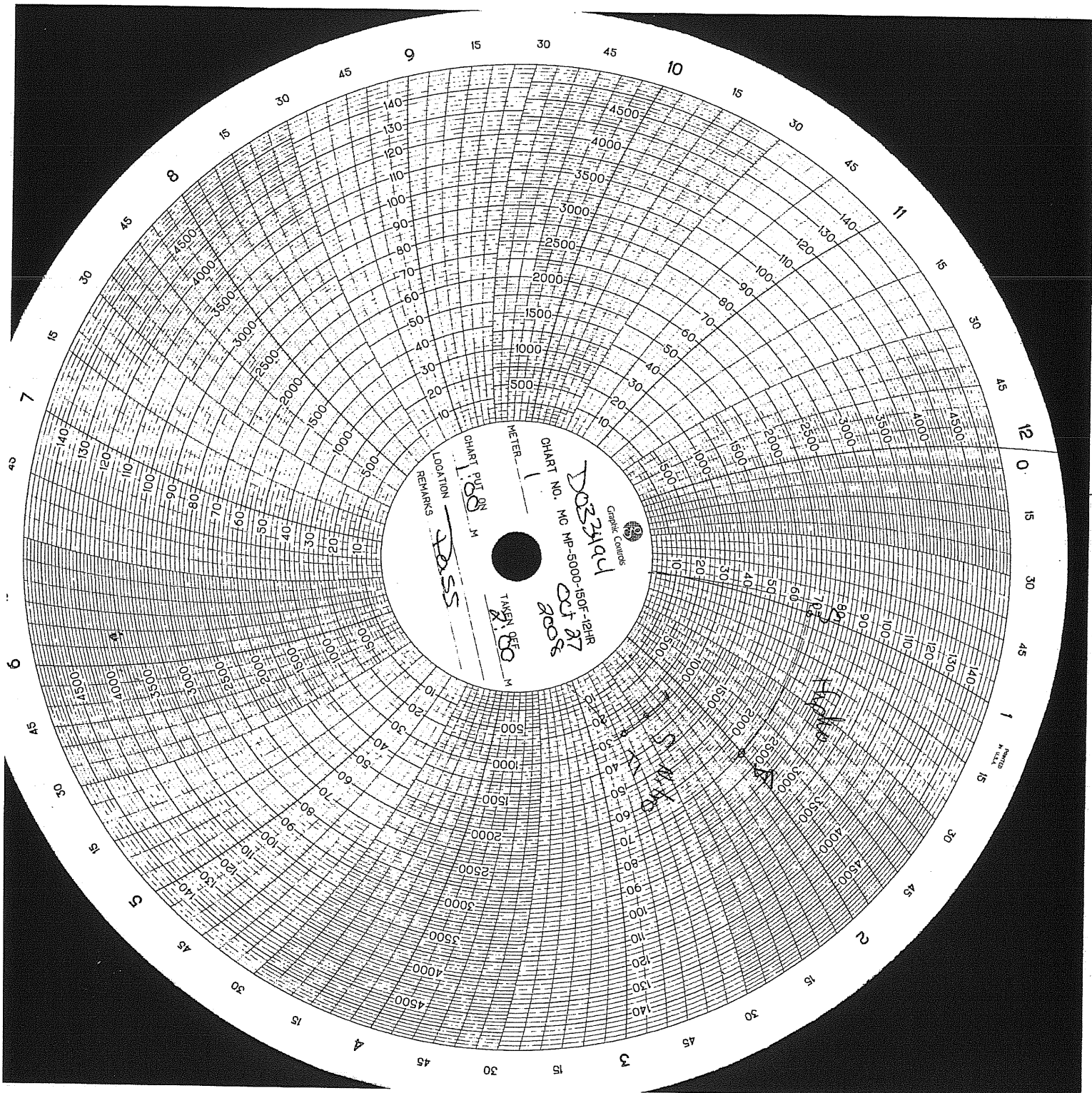
Test Pressure (PSI) 2240 Station 1 Duration (minutes) 60 Technician BL Witness DL PASS ☒ FAIL ☐

PNEUMATIC TEST RESULTS:

Test Pressure (PSI) 970 Station 1 Duration (minutes) 15 Technician BL Witness DL PASS ☒ FAIL ☐

BLANK PLATE SEAL TEST RESULTS:

Vacuum applied to D/S ☐ Maximum Pressure/Vacuum Applied 5.5 PSI Station 1
Pressure Applied to U/S ☐ PASS ☒ FAIL ☐ Technician BL Witness DL





Canalta Controls Ltd.

6770-65 Ave
Red Deer, AB T4P 1A5
Canada
Ph: (403) 342-4494
Fax: (403) 346-7110
email: canalta@canaltacontrols.com

DUAL CHAMBER ORIFICE FITTING DATASHEET

GENERAL	1	TAG NO.			
	2	LINE NO.			
	3	LINE SIZE/SCH.		3" SCH80	
	4	DESIGN STANDARD		API 14.3/AGA 3 4th (2000) Ed, Part 2	
	5	QUANTITY		12	
ORIFICE PLATE	6	MATERIAL		316SS	
	7	THICKNESS	IN	0.125	
	8	BETA (β)= d/D (Installed)		0.52	
	9	BORE DIA "d"	IN	1.500	
	10	MAX ALLOWABLE BETA (β)= d/D		0.75	
	11	MAX ALLOWABLE ORIFICE BORE DIA "i"	IN	2.125	
	12	VENT	DRAIN	No No	
	13	CARRIER RING	MATERIAL	K-STYLE 316SS	
ORIFICE FITTING	14	PLATE HOLDER MATERIAL		CF8M 316SS	
	15	BODY MATERIAL		A216 WCB	
	16	BODY SIZE & RATING		3" 600RF	
	17	SEAL GAP		0.562"	
	18	TRIM MATERIAL		316SS	
	19	BODY STYLE		Flange x Weld	
	20	SEAT STYLE		Grease	
	21	TAP HOLE DIA	IN	0.375	
	22	INSIDE DIAMETER	IN	2.900	
	23	STUD BOLT MATERIAL		A193 B7M	
	24	NUT MATERIAL		A194 2HM	
	25	DESIGN STANDARD		B16.34-2004	
	26	TAP LOCATION		1.000" From Plate Face	
	27	TAP CONNECTION STYLE		1/2" NPT	
	28	SHAFT ORIENTATION		LEFT	
	29	NO. OF TAPS		4	
	METER TUBE	30	TUBE MATERIAL		A106B
		31	OUTER CONNECTIONS		3" 600RF
32		FLANGE MATERIAL		A105N	
33		STUD BOLT MATERIAL		A193 B7M	
34		FLOW CONDITIONER	TYPE/MATERIAL	YES TBR / 316SS	
35		CONDITIONER/VANE CONNECTION		3" -PINNED	
36		NUT MATERIAL		A194 2HM	
37		GASKET MATERIAL		316SS Flexitallic Gasket	
SERVICE CONDITIONS	38	DESIGN STANDARD		B31.3-2006	
	39	FLUID AND STATE			
	40	CORROSIVE COMPONENT			
	41	MIN FLOW :	MAX FLOW :		
	42	NORMAL FLOW:			
	43	INLET PRESS. (PSIG)	DESIGN PRESS. (PSIG)		
	44	MAX DIFFERENTIAL " W.C			
	45	DESIGN TEMP °F	OPERATING TEMP. °F		

Customer:	PAINTEARTH
Customer PO#:	53590
Ref#:	MR360080-SRTRCAS

Quote #:	
SHT.	1 of 1
WO #:	12687
Line ID:	1 & 2

Drawing:	DCA-PC-F	
DIMENSIONS (INCHES)	OAL	72
	UL1	15
	UL2	24
	DL	33
	N1	12
	N2	8
Overall Length Tolerance +/- 1/4"		

	Non-Destructive Testing
Radiography	100% (Paintearth Welds) ASME B31.3 Severe
MPI	No
Liquid Penetrant	No
Hardness	No
Hydrotest	1 Hour @ 2220
Corrosion Allowance	1/8"
PWHT	yes
CWP (PSIG)	1480

WPS: CCL-1N (RT/LT-FCAW)
or CCL5 (LT-SMAW)
or CCL6 (RT-SMAW)

APPROVED

By WELDING_SHOP at 1:29 pm, Oct 14, 2008

CONNECTIO NS	N1		N2		N3	
	STYLE	T.O.L	STYLE	T.O.L	STYLE	T.O.L
	SIZE	0.75"	SIZE	1"	SIZE	1"
	RATING	3000#	RATING	3000#	RATING	3000#
	ORIENTATION	0°	ORIENTATION	0°	ORIENTATION	0°
	MATERIAL	A105N	MATERIAL	A105N	MATERIAL	A105N

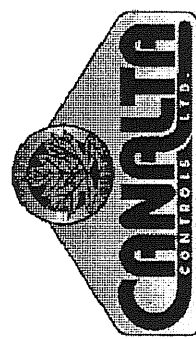
NOTES :

Rev	Description	By	Date
0	Issued For Construction	SK	11-Sep-2008

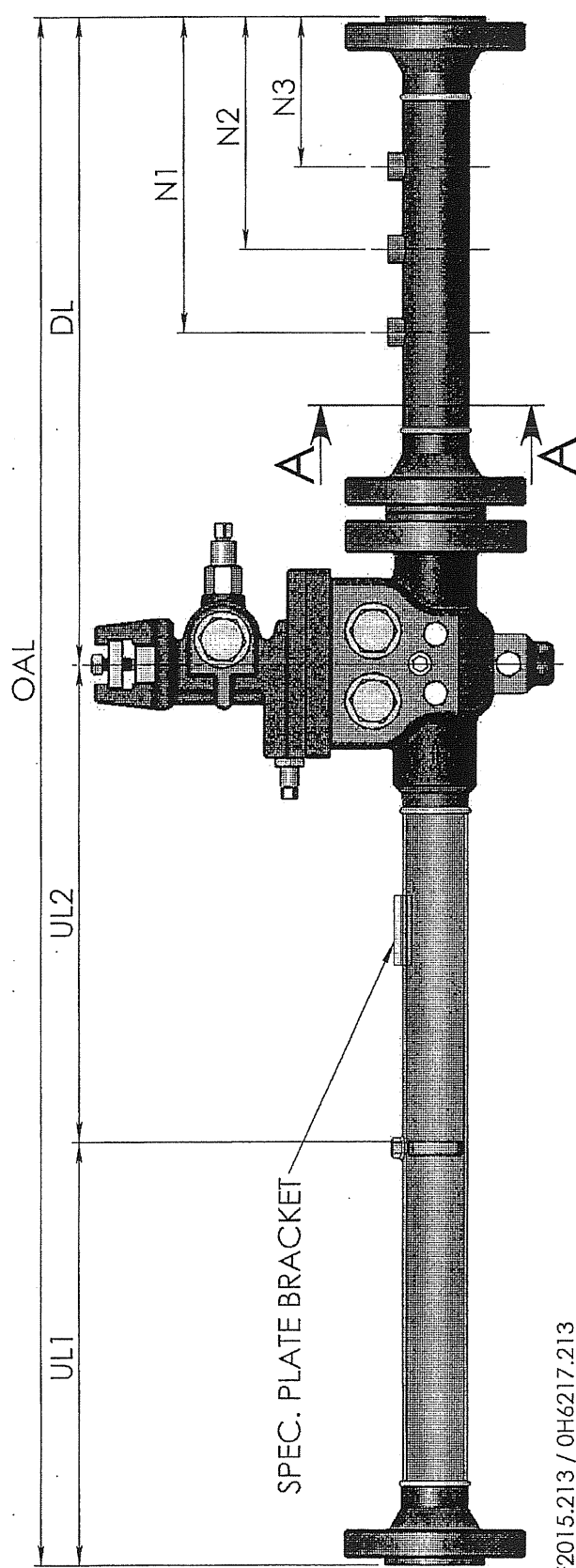
CUSTOMER APPROVAL
Signature:
Printed Name:

Refer to datasheet for specifications

Dwg #: DCA-PC-F

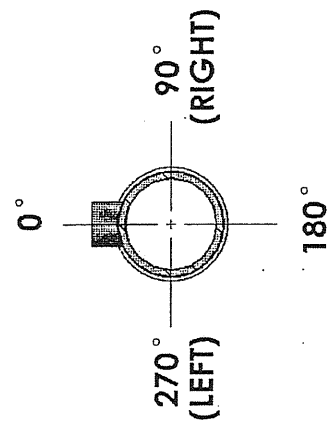


Canalta
Dual Chamber
Orifice Fitting 2" - 14"
150 - 900 ANSI
PIN STYLE FLOW CONDITIONER

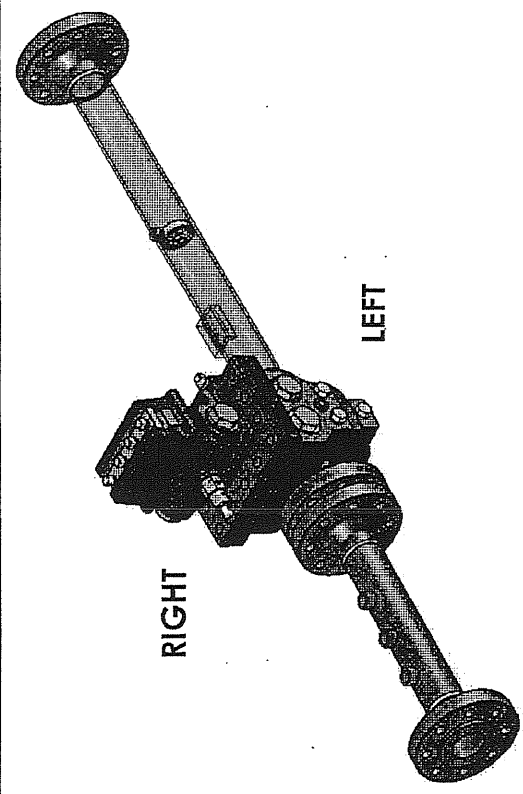


SPEC. PLATE BRACKET

CRN: 0F2015.213 / 0H6217.213



A - A
T.O.L ORIENTATION



CLIENTE / Customer / Client

VAN LEEUWEN PIPE AND TUBE - CAN
2876-64TH AVENUE
EDMONTON - ALBERTA T6P 1R1
CANADA

CERTIFICADO DE INSPECCION

Works Certificate - Certificat d'Usine

DIN EN 10204 / 3.1
ISO 10474 / 3.1

FECHA: 06/09/2008
Date: 108498
N.º: No.

PRODUCTO
Article - Produit
FLANGES
VOTRE PEDIDO N.º
Your Order No. 43000593 (19.05.06)
VOTRE COTE N.º

NORMAS APLICABLES
Requirements - Normes Applicables
ASME B16.5-96

MATERIAL CORRESPONDIENTE
Material Correspondent - Quatre
ASTMA A105N-05
ASME SA105N-05

MODO DE FUSION (*)
Steel Making - Elaboration de l'acier
E = Elec. Y = Oxigeno básico
NACE MR-01-76/03
CAN/CSA-Z245.12
Gr.248 CAT 1

PARTIDA Item Poste	CANTIDAD Quantity Quantité	DESCRIPCION Description Description	OBSERVACIONES Remarks Observations	COLADA N.º Heat No N.º-Coulée	RESISTENCIA T.Strength Tensile Rupt N/mm²	LONGITUD Y.Strength Yield Rupt N/mm²	ALARGAMIENTO Elongation Allongement % d	ESTRICCION Red. Area Striction %	RESILIENCIA Impact test Resilience Joules	PROBETA Specimen	DUREZA Hardness Dureté HB
1 4965	280	WN 3 900LB S40 RF A105N	NE	208A6	514	317	32.80	64.00			148
7 4907	1 400	WN 3 900LB S80 RF A105N	NE	273A6	520	317	32.80	63.00			161
19 24051	120	WN 3 900LB S80 RF A105N	NE	278A6	520	321	33.70	66.50			151
38 24120	25	WN 4 600LB SXXS RF A105N	NE	264A6	515	317	32.80	64.00			148
38 24142	15	BLIND 4 1500LB RF A105N	NE	241V6	517	330	34.20	67.00			151
39 24146	28	BLIND 3 900LB RF A105N	NE	278A6	520	321	33.70	66.50			151

COMPOSICION QUIMICA - STEEL MARKER'S LADLE ANALYSIS - ANALYSE CHIMIQUE

COLADA N.º Heat No N.º-Coulée	C %	SI %	Mn %	P %	S %	Cr %	NI %	Mo %	Nb %	V %	Cu %	CEQ %
241V6	0.180	0.220	0.830	0.014	0.001	0.190	0.080	0.040	0.007	0.001	0.220	0.385
264A6	0.180	0.230	0.840	0.012	0.002	0.080	0.080	0.020	0.007	0.001	0.200	0.360
273A6	0.180	0.220	0.810	0.013	0.003	0.070	0.080	0.010	0.008	0.002	0.220	0.351
278A6	0.200	0.240	0.850	0.029	0.004	0.130	0.080	0.030	0.008	0.004	0.200	0.393
278A6	0.200	0.210	0.870	0.009	0.001	0.070	0.080	0.040	0.007	0.001	0.210	0.387

(*) OBSERVACIONES:
Remarks
Observations

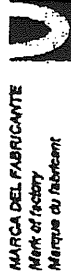
N.º NORMALIZED AT 600 C AND ALLOWED TO COOL IN STILL AIR



U.L.M.A. FORJA, S.COOP.

Bº Zubillaga, 3 - Apdo. 14
20580 OIATU (Gipuzkoa) SPAIN
Tel.: 34 - 943 786532
Fax: 34 - 943 781808
E-mail: ulma@ulmaplating.com

53921



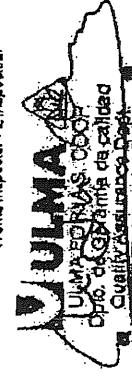
MARCA DEL FABRICANTE
Mark of factory
Marque du fabricant

DEPARTAMENTO QUALITY ASSURANCE
Section
Department

- Las dimensiones y la condición superficial se hallaron satisfactorias
- Dimension and surface condition were found acceptable
- Les dimensions et l'état de surface sont satisfaisants

- Los materiales checked cumplen las normas aplicables
- Manufacturing requirements are satisfied
- Les normes applicables sont respectées

EL INSPECTOR
Works Inspector - L'inspecteur





江苏奔球制管有限公司
JIANGSU BENQIU TUBE-MAKING CO.,LTD.

产品质量证明书

INSPECTION CERTIFICATION

QR15.1-03

编号 No:

2007050122

共 1 页 第 1 页

合同编号 Contract No		钢号 Steel Grade		20		总捆数 Total Bundles(件)		3														
订货单位 Customer		张家港市华友钢管有限公司		标准 Specification		ASTM A106Gr. B		总重量 Total Weight(kg)		6300												
产品名称 Product		冷拔无缝钢管		长度范围 Length Scope(mm)		6000		许可证号 License														
规格 Size(mm)		88.9*7.62		交货状态 Delivery Condition		热处理		签发日期 Date of Issue		2007年05月10日												
序号 No	炉号 Heat No	批号 Lot No	捆数 Bundles	支数 Pieces	重量 Weight (kg)	化学成份 % Chemical Composition								机械性能 Mechanical Properties								
						C	Mn	Si	S	P	Cr	Ni	Cu	Mo	V	Als	屈服强度 (YS)Rel N/mm ²	抗拉强度 (TS)Rm N/mm ²	伸长率 (EL) A (%)	收缩率 (RE) Z (%)	硬度 Harness ()	
1	07-133	705603A	1	27	2500	0.19	0.51	0.19	0.009	0.017	0.06	0.03	0.10					340/335	495/480	32/33		
2	07-133	705603A	1	15	1394	0.19	0.51	0.19	0.009	0.017	0.06	0.03	0.10					340/335	495/480	32/33		
3	07-133	705603A	1	27	2496	0.19	0.51	0.19	0.009	0.017	0.06	0.03	0.10					340/335	495/480	32/33		
4																						
5																						
金相 Metallography																						
序号 No	晶粒度 (级) Grain Size		带状组织 (级) Bands		魏氏组织 (级) W		显微组织 Micro Tissue		低倍 检验		脱碳 Decarburized Layer(mm)		非金属夹杂物 (级) Non-Metallic Inclusions (Grade)									
											内表 Inside		外表 Outside		A		B		C		D	
1																						
2																						
3																						
4																						
5																						
压扁 Flattening		扩口 Expansion		冷弯 Cold bend		顶锻 Forging Test		涡流探伤 ET		超声探伤 UT		水压试验 Hydrostatic Test		表面缺陷 Surface Defects								
合格								合格														
说明 Note		二、产品其余检验项目均经检验符合产品技术条件要求 二、有异时请标明钢号、炉(批)号、规格、发货日期,并保留供货状态的实物																				



地址: 江苏省张家港市金港镇江海中路
Jianghai Middle Road Jingang Town Zhangjiagang City Jiangsu Province
电话 (Tel): 0512-58375005 传真 (Fax): 0512-58375008

邮政编码 (P.C) 215632
签发人: _____
Issued by: _____

证书审核人: _____
Chief of Quality Inspection Station:



SHANDONG FLYING CASTING & FORGING CO., LTD.

804 ROOM, No. 1 BUILDING 18 MIDDLE DONGHAI ROAD QINGDAO CHINA

TEL: +86 532 85064444 / 85061468

E-MAIL: kjx@plumbingchina.com

FAX: +86 532 85062336

WEB: www.chinaplumbing.com

CERTIFICATE OF INSPECTION AND TEST EN10204 3.1B

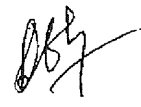
INV NO.: G06048 P/I NO.: RPF06048R1

ASTM A105N FITTINGS ASME B16.11

DESCRIPTION		SIZE	QTY	HEAT NO.	CHEMICAL COMPOSITION										PHYSICAL TEST							
					C%	Mn%	P%	S%	Si%	Cu%	Ni%	V%	Cr%	Mo%	YIELD POINT	TENSILE STRENGTH	ELONGATION	Hardness	Reduction of Area	Result		
ASTM A105N Forged Steel, Class 3000, Threaded Fittings, NPT					≤0.35	0.60-1.05	≤0.040	≤0.050	≤0.35	≤0.40	≤0.40	≤0.40	≤0.08	≤0.30	≤0.12	(MPA)	(MPA)	(%)				
ASME B16.11 Spec- Black Color																						
NPT Thread-O-Lets																						
1/2"					10000	H1213	0.19	0.61	0.033	0.032	0.25	0.01	0.01	0.01	0.01	0.01	327	487	35	165	31	OK
NPT Thread-O-Lets																						
3/4"					10000	H1213	0.19	0.61	0.033	0.032	0.25	0.01	0.01	0.01	0.01	0.01	327	487	35	165	31	OK
NPT Thread-O-Lets																						
1"					5000	H1213	0.19	0.61	0.033	0.032	0.25	0.01	0.01	0.01	0.01	0.01	327	487	35	165	31	OK
NPT External Hex Plugs																						
1/2"					25000	H1213	0.19	0.61	0.033	0.032	0.25	0.01	0.01	0.01	0.01	0.01	327	487	35	165	31	OK
NPT Internal Hex Plug																						
1/2"					5000	H1213	0.19	0.61	0.033	0.032	0.25	0.01	0.01	0.01	0.01	0.01	327	487	35	165	31	OK

INSPECTOR: CHUN ZHANG

SHANDONG FLYING CASTING & FORGING COMPANY LIMITED
Authorized Signature

	FLOW LINK SYSTEMS (P) LTD FOUNDRY UNIT-II Previously Velmurugan Alloys (P) LTD 65 / 2 – A, B & C, PUDUPALAYAM B.P.O AVINASHI TK, COIMBATORE – 641 654 INDIA.		TEST CERTIFICATE (EN 10204 - 3.1)		TC NO : F-2988 DATE : 26-07-2008						
	CUSTOMER TRADEWIND PARTS CORP., UNIT #1, 6759- 65, AVENUE, RED DEER, ALBERTA-T4P 1X5, CANADA.		SPECIFICATION REFERENCE 1. ASTM A216-07 Gr.WCB 2. NACE MR 0175		MELT NO. 806F FOUNDRY MARK FLS						
PURCHASE ORDER NO. & DATE CEC080321			ORDER ACCEPTANCE NO. & DATE 08 – 236								
CHEMICAL COMPOSITION %											
SPECIFICATION	C	Si	S	P	Mn	Ni	Cr	Mo	V	Cu	*RE
Minimum	--	--	--	--	--	--	--	--	--	--	--
Maximum	0.30	0.60	0.045	0.040	1.00	0.50	0.50	0.20	0.03	0.30	1.0
Achieved	0.21	0.48	0.014	0.021	0.96	0.03	0.11	0.01	0.010	0.02	0.18
HEAT TREATMENT NORMALISING: Temperature raised to 920°C, Soaked for 3 hours and then atmospheric air-cooled.											
MECHANICAL PROPERTIES											
SPECIFICATION	Y.S. (KSI)	UTS (KSI)	% ELONG. in 50mm (4d) / in-50mm-(5d)	% RED IN AREA	NOTCH TOUGHNESS		BEND TEST		(BHN)		
					(at - °C) J Values Avg.		ANGLE	D			
Minimum	36	70	22	35	--	--	--	--	--	--	--
Maximum	--	95	--	--	--	--	--	--	--	--	237
Achieved	42.0	74.8	36.3	58.7	--	--	--	--	--	--	145
DETAIL OF CASTINGS											
SNO.	DESCRIPTION			DRAWING NO / REV.		PART NO		POURED QTY			
1	3" MODEL DC BODY			360DC04 / 14		--		02			
2	2" MODEL DC BODY			260DC04 – TT / 11		--		01			
REMARKS : 1. The above stated KSI values have been calculated based on original tested N/MM ² values. 2. *RE = Ni + Cr + Mo + V + Cu											
CERTIFIED THAT 1. THE ABOVE GIVEN DETAILS ARE CORRECT. 2. THE MATERIAL CONFORMS TO ABOVE SPECIFICATION. THE PARTS WERE MANUFACTURED, TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND CERTIFIED IN ACCORDANCE WITH EN 10204 3.1					 N. DHANABALAN MANAGER-QUALITY ASSURANCE MANUFACTURER'S AUTHORIZED INSPECTOR						
Prepared by : MP/-		Checked by : Chemist									

RADIOGRAPHIC INSPECTION REPORT

DATE: OCT 23/08 PAGE 1 OF 1

JOB #: 5304-3478 P.O. # 11408

CLIENT: CANALTA CONTROLS

CODE: R0200

LOCATION: RED DEER

PAINT EARTH ENERGY WO# 12687#2

DEFECT LEGEND				CODE LEGEND				TECHNIQUES			
IF - INCOMPLETE FUSION	P - POROSITY	C - CRACK		1. ASME B31.3 NORMAL	5. ASME B31.1			1. SINGLE WALL EXPOSURE	3. SINGLE WALL VIEWING		
IP - INCOMPLETE PENETRATION	HL - HIGH / LOW	AC - ARC BURNS		2. ASME B31.3 SEVERE	6. CSA Z 662			2. DOUBLE WALL EXPOSURE	4. DOUBLE WALL VIEWING		
UC - UNDERCUTTING	IC - INTERNAL CONCAVITY	EP - EXCESSIVE PENETRATION		3. ASME VIII DIV 1 UW 51	7. API 650						
S - SLAG	LC - LOW COVER	SH - SHRINKAGE		4. ASME VIII DIV UW 52	8. OTHER						
BT - BURN THROUGH	HB - HOLLOW BEAD	1 - SLIGHT, 2 - MEDIUM, 3 - SEVERE									

FILM #	LOCATION	THK	DIA.	WLD R SYM	IF	IP	UC	S	BT	P	IC	LC	TECH #	CODE #	ACC.	REMARKS	REJ
1	✓-1		3/32	3	C								3/3	2	✓	D033399	
2	2														✓	D033429	
3	3														✓	D033429	
4	4														✓	D033399	
5	5														✓	D033399	
6	6														✓	D033429	
7	7														✓	D033430	
8	8														✓	D033430	
9	9														✓	D033429	
10	10														✓	D033399	
11	11														✓	D033494	
12	12														✓	D033375	
13	13														✓	D033421	
14	14														✓	D033421	
15	15														✓	D033375	
16	16														✓	D033494	
17	17									1					✓	D033430	
18	18														✓	D033430	
19	19														✓	D033494	
20	20									1					✓	D033375	
21	21														✓	D033421	
22	22														✓	D033421	
23	23														✓	D033375	
24	24														✓	D033494	
25																	

No. of Exp.	Film Brand & Design	Screen Type & Thickness	No. of Film per Cassette	Type of Energy	Physical Size	Activity or K.V.	Maximum Source Side Object To Film Distance	Minimum Source to Object Distance	Material	Thickness			IQI		Exp. Time (mAs)
										Base	Weld	R.F.	Type	Size	
3	AGFA D19	Lead - 0.010	1	11492	27mm	250	contact	P1	AS	AS	AS	AS	ASTM	B	

This Certificate or Report is valid only for that work which was specifically requested. The Company is not responsible for any views or opinions expressed by employees performing this work which fall outside contract terms or reference. All Certificates and / or reports are the result of work performed in conformance with applicable specifications and standards to the best of our ability and intent. However, the Company not be responsible for deviation within the normal limits of accuracy in accordance with the standard practices. Final Code Acceptance shall require Client and Manufacturer Representative's signatures.

A.M.		P.M.		TOTAL HOURS	KILOMETERS	SUBSISTENCE		FILM	
TIME IN	TIME OUT	TIME IN	TIME OUT	S.T.		MANDAY	OT / MEALS		
				3	hrs.			24-3" welds	
				O.T.	hrs.				

Film Interpretation is done in accordance with the specified code, to the best of my professional ability.

Radiographer: NEAL FLEMING SNT/CGSB Level: II RT, MS, PT Reg No.: 10617 Assistant: LUKE ANDERSON

The above interpretation is a professional opinion, final film interpretation is the responsibility of the client.

I am in full agreement with the contents of this report and accept receipt of the associated film. Client Representative: YIPER H