



**CERTIFICADO DE CALIDAD
QUALITY CERTIFICATE**

FECHA/DATE: 27/Abr/10
 No. CERTIFICADO: 31855
 CLIENTE/CUSTOMER: LION TUBE S DE R.L. DE C.V.
 DIRECCION/ADDRESS: AV. CIRCUITO MEXICO NUM. 205
 FACTURA/INVOICE:

PEDIDO

PART	METROS	CLAVE	DESCRIPCION	ORDEN	ESPECIFICACION
1	183.00	PL4410	PIPE 304/L CON/COSTURA 4" CBD 10		ASTM A-312 VERSION 2008-A
2	305.00	PL411/240	PIPE 304/L CON/COSTURA 1 1/2" CBD 40		ASTM A-312 VERSION 2008-A
3	427.00	PL63/410	PIPE 316/L CON/COSTURA 3/4" CBD 10		ASTM A-312 VERSION 2008-A
4	30.50	PL6440	PIPE 316/L CON/COSTURA 4" CBD 40		ASTM A-312 VERSION 2008-A
5	42.70	PL621/210	PIPE 316/L CON/COSTURA 2 1/2" CBD 10		ASTM A-312 VERSION 2008-A

CHEMICAL ANALYSIS

PART	COLADA	C	Mn	P	S	Si	Cr	Ni	Mo	N	Cu
1	YU160089	0.027	1.460	0.031	0.004	0.370	18.190	8.100	0.300	0.041	0.410
2	YU159731	0.028	1.460	0.033	0.007	0.380	18.090	8.090	0.130	0.040	0.180
3	VLL020334	0.017	0.860	0.030	0.003	0.570	16.450	10.240	2.100	0.012	0.000
4	VLL020505	0.013	0.960	0.036	0.001	0.590	16.720	10.130	2.050	0.014	0.000
5	VLL011946	0.023	1.470	0.034	0.009	0.360	18.220	8.080	0.000	0.036	0.000

**PRUEBAS MECANICAS
MECHANICAL TEST**

PART	COLADA	TENSION		CEDEN		ALARG. DUREZA		APLAS DOBLES		PEST ABOC.	
		P.S.I.	P.S.I.	P.S.I.	P.S.I.	f	HRB				
1	YU160089	87462	87000	43935	44378	53	82	OK	N/A	N/A	800psi
2	YU159731	95602	95990	41035	40834	52	83	OK	N/A	N/A	1434psi
3	VLL020334	95833	95410	37700	38043	53	70	OK	N/A	N/A	2371psi
4	VLL020505	84662	84390	40745	41053	51	79	OK	N/A	N/A	1580psi
5	VLL011946	88348	88015	40310	41378	49	81	OK	N/A	N/A	

800psi
 1434psi
 52 83
 1580psi

PRUEBA HIDROSTATICA (HIDROSTATIC TEST) SI/YES () NO (X)

TEST PRESSURE RESULT:

CORRIENTES PARASITAS (EDDY CURRENT TEST) SI/YES (X) NO ()

RESULT: SATISFACTORY

EL MATERIAL FUE TRATADO TERMICAMENTE DE ACUERDO CON ASTM A-312
 VERSION 08-A, ASME-SA 312

CERTIFICAMOS QUE EL MATERIAL AQUI DESCRITO CORRESPONDE AL NUMERO DE COLADA
 Y COMPOSICION TAL COMO LO PROPORCIONA EL PROVEEDOR DE LA MATERIA PRIMA,
 ESTANDO DE ACUERDO CON LOS REQUISITOS DE LA NORMA CORRESPONDIENTE.

WE CERTIFY THAT THE MATERIALS DESCRIBED HERE CORRESPOND TO THE HEAT NUMBER
 AND CHEMICAL COMPOSITION AS FURNISHED BY THE PRODUCING MANUFACTURER WITH
 THE REQUIREMENTS OF THE SPECIFICATIONS NOTED.

PLEASE ANAHUAC Y CIAS. S.A. DE C.V.
 FECHA: 12 Mayo 2010
 FIRMA: E. RUIZ