

CERTIFICATE OF QUALITY

Inspection Certificate EN 10204-3.1:2004

Certificate No. 2009062506

Customer :	Suministros Inoxidables Internacionales, S.A. de C.V.
Order No :	2085-A
Article :	Forged Flange
Specification :	EN10222-5 and/or ASTM/ASME A/SA182:2006 AD 2000 W2. W9, W10
Material grade :	EN10222-5 1.4404 and/or A/SA 182 F316/316L
Delivery condition :	1050~1120°Cx1~2h Solution treatment and quenched in water 1050~1120°Cx1~2h
Melting process :	Electric furnace
Marking :	Material size, PN, DN, Heat-Batch No.
Surface Accordance:	125-250 RMS
Material Accordance:	NACE MR01-75/03

A. Content of the delivery

Item No.	Quantity	Description	Heat No	Batch No	Specimen No.
15	100	150# SORF 1"	090109112	090519-02	090109112/090519-02
16	150	150# SORF 2"	090109112	090519-02	090109112/090519-02
17	50	150# SORF 6"	09A0305192	090306-02	09A0305192/090306-02

B. Chemical analysis

Heat-Batch No.	C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	N%
EN10222-5: 1.4404	≤0.030	≤1.00	≤2.00	≤0.045	≤0.015	16.5-18.5	2.0-2.5	10-13.0	≤0.11
A/SA182: F316/316L	≤0.030	≤1.00	≤2.00	≤0.045	≤0.030	16-18.0	2.0-3.0	10-15.0	-
090109112/090519-02	0.023	0.46	1.02	0.042	0.003	16.60	2.10	10.10	0.053
09A0305192/090306-02	0.022	0.42	0.85	0.035	0.002	16.65	2.06	10.07	0.061

C. Mechanical properties tests Position of specimen : Tangential

Specimen	TestTemp	Proof Strength N/mm ²		Tensile Strength	Elongation(Tr)	Reduction of Area	Impact energy (ISO-V)			
		R _{p0.2}	R _{p1.0}	R _m N/mm ²	A%	ψ%	1	2	3	Avg
EN10222-5: 1.4404	RT	≥190	≥225	490-690	≥35%	≥50%	-	-	-	-
A/SA182: F316/316L	RT	≥170	-	≥485	≥30%	≥50%	-	-	-	-
090109112/090519-02	RT	255	-	560	62	80	-	-	-	-
09A0305192/090306-02	RT	270	-	575	74	80	-	-	-	-

D. Visual and dimensional inspection : without complaint

Intergranular corrosion test according to DIN ISO EN 3651-2 & ASTM A-262 : without complaint

PMI Test : without complaint

E. The material is manufactured according to a Quality management system approved and registered to ISO 9001 & PED

97/23/EC by TUV Rheinland.

F. The material is manufactured Mercury Free and free from Mercury contamination.

SOLSA ANAHUACI S.A. DE C.V.

CONTROL DE CALIDAD

FECHA: 26 Ene 2010

CÓDIGO: 00000190

Firma: Enrique R. Z

.....
AUTHORIZED SIGNATURE