

**INSPECTION CERTIFICATE
EN 10204:2004 / 3.1**

Number: 735383
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Rev:

Created on:
Date: 11.07.2022

Modified on:

SCHOELLER-BLECKMANN Edelstahlrohr GmbH
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**SS-T8-S-065-20
PO 8008025**

CUSTOMER DESCRIPTION

CLIENT SOLD TO

TSS
TUBACEX SERVICE SOLUTIONS, S.A.U
POLIGONO INDUSTRIAL SARATXO
01470 AMURRIO
ESPAÑA

SOLD TO:TUBACEX AMERICA, INC.
SOLD P.O. REF.:621642
SOLD ORDER REF.:379371
COPY NUMBER: 005

CLIENT ORDER: I009784

SALES ORDER:

MATERIAL:SEAML. STAINL. STEEL TUBES/PIPES/TUBOS INOXIDABLES SIN SOLDADURA/TUBES INOX SANS SOUDURE/NAHTLOSE EDELSTAHLROHRE
BRIGHT ANNEALED / RECOCIDO BRILLANTE / RECUIT BRILLANT / BLANKGEGLÜHT, PASSIVATED AS PER ASTM A380 / PASIVADO SEGUN ASTM A380 / PASSIVÉ (ASTM A380) / PASSIVIERT (ASTM A380)
GRADE / ACERO / GRADE / WERKSTOFF: S31600,S31603,TP316,TP316L,1.4401,1.4404,
STANDARD / NORMA / STANDARD / LIEFERUNG NACH: AD 2000 W2/01.2020 EINBAUROHRE
ASME SECT.II PART.A SA213/SA213M-2021 ED.
ASTM A213/A213M-19A
ASTM A269/A269M-15a
EN 10297-2:2005
EN 10216-5:2021 TC1
AD 2000 W10/05.2016
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE A
HYDROSTATIC TEST AT 350 BAR
HARDNESS MAX. 80 HRB
NORSOK M630 REV.6 MDS S01 REV.5
ANSI/NACE MR0103/ISO 17945:2015
ANSI/NACE MR0175/ISO15156-3:2015
TRB 100 FEBRUAR 1995
TRD 100 MAI 1991
EDDY CURRENT TESTED ACC. TO ISO 10893-1
TOLERANCES / TOLERANCIAS / TOLERANCES / TOLERANZEN NACH: ASTM A269/A269M-15a
EN ISO 1127/03.97 D4/T3
FIXED LENGTHS / LARGOS FIJOS / LONGUEUR FIXE / GENAULÄNGE 6.096 MM
PLAIN ENDS / LISOS / EXTRÉMITÉ D'EQUERRE / GLATTE ENDEN,
DIMENSIONS/DIMENSIONES/DIMENSIONS/DIMENSIONS: 12,70 X 1,65/1,63 MM/1/2 "ODX16 BWG/SWG/1/2 "OD X 0,065 "/0,064 "
COLD FINISHED/LAMINADOS EN FRIO/KALTGEFORMT/LAMINES A FROID

Sales Item	Client Item	Delivery No	Lot No.	Heat No	Pieces	Weight	Tot Lgth	Un Lgth
90		8170095971	291328	58681	273	1.673,310 LB	5.460,007 FT	20,000-0,000 FT



Certified Management
System acc. to
ISO 9001, ISO 14001 and
ISO 45001 by LRQA

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

Riegler
FR. N. RIEGLER

(WORKS INSPECTOR)

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TSS S.A.U as commercial operation intermediary certifies that this certificate is a true copy of the manufacturer original certificate. TSS S.A.U makes a copy of the original certificate without changing the properties specified in the original purchase order and the product specification referenced.

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RAW MATERIAL

Heat Nr:	Supplier	Method
58681	ACERALAVA (SPAIN)	Electric furnace+AOD

CHEMICAL COMPOSITION (%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	N
L	58681	1	0,008	1,48	0,370	0,027	0,0060	11,21	16,78	2,15	0,0670
C	58681	1	0,009	1,53	0,410	0,026	0,0060	11,17	16,86	2,19	0,0700

HEAT TREATMENT

HIPERTEMPLADOS A 1100 °C , 10 min , J
SOLUTION ANNEALED AT 1100 °C , 10 min , JET
HYPERTREMPE 1100 °C , 10 min , J
LOESUNGSGEGLUEHT 1100 °C , 10 min , Jet

TENSILE TEST

Lot No	Sample	T	Rp0.2	Rp1.0	Rm	A2"	A5
		°C	KSI	KSI	KSI	%	%
Min		20	30	35	75	35	40
Max		20		100			
291328	1	20	46	50	82	41	43
	2	20	45	49	83	45	48
	3	20	46	50	85	45	48
	4	20	47	51	85	44	47
	5	20	47	51	86	48	52
	6	20	45	49	84	45	48
	7	20	45	49	85	48	51
	8	20	43	47	82	50	53
	9	20	46	50	84	48	51
	10	20	43	47	83	50	54
	11	20	46	50	86	49	53
	12	20	45	49	84	52	56
	13	20	44	48	82	49	52
	14	20	45	49	83	47	51
	15	20	43	47	83	49	52
	16	20	45	50	85	49	52
	17	20	47	51	84	42	45
	18	20	45	49	84	47	51
	19	20	45	49	84	45	48

HARDNESS TEST

Lot No	Sample	HRB	HV
Min			
Max		80	150
291328	1	78	149
	2	79	150

**METALURGICAL TESTS/ENSAJOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS
METALLURGIQUES**



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System acc. to
ISO 9001, ISO 14001 and
ISO 45001 by LRQA

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INTERGRANULAR CORROSION TEST ACC. TO ASTM A262 PRACT."E": SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A ASTM A262 PRACT.E:
SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND ASTM A262
PRACT.E: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM A262 PRACT.E:SATISFAISANT

INTERGRANULAR CORROSION TEST ACC. TO DIN 50914/DIN EN ISO 3651-2 MET.A:
SATISFACTORY
ENSAYO DE CORROSION INTERGRANULAR DE ACUERDO A DIN 50914/ DIN EN ISO
3651-2 MET.A: SATISFACTORIO
BESTÄNDIGKEIT GEGEN INTERKRISTALLINE KORROSION ENTSPRECHEND DIN 50914/
DIN EN ISO 3651-2 VERF.A: IN ORDNUNG
ESSAI DE CORR. INTERGR. SELON ASTM DIN 50914/DIN EN ISO 3651-2 MET.A:
SATISFAISANT

**NON-DESTRUCTIVE TESTS/ENSAYOS NO DESTRUCTIVOS/ZERSTÖRUNGSFREIE
PRÜFUNGEN/ESSAIS NON DESTRUCTIFS**

POSITIVE MATERIAL IDENTIFICATION TEST ON EACH TUBE/PIPE BY
"X-RAY-FLUORESCENCE-ANALYZER": SATISFACTORY
VERIFICACION DEL GRADO DE ACERO EN CADA TUBO MEDIANTE
"ANALIZADOR DE FLUORESCENCIA DE RAYOS X": SATISFACTORIO
VERWECHSLUNGSsprUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESSENZ-ANALYSATOR": IN ORDNUNG
VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR
"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 350 bar, 5100 PSI DURING 6 SEC
ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 350 bar, 5100 PSI DURANTE 6 SEC
EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 350 bar, 5100 PSI HALTEZEIT 6 SEC
JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 350 bar, 5100 PSI PENDANT 6 SEC
SUR CHAQUE TUBE: SATISFAISANT

100% EDDY CURRENT TEST AT ISO 10893-1: SATISFACTORY
100% ENSAYO DE CORRIENTES INDUCIDAS DE ACUERDO A
ISO 10893-1: SATISFACTORIO
100% WIRBELSTROM PRUEFUNG NACH ISO 10893-1: IN ORDNUNG
100% CONTROLE COURANTS FOUCault D'APRES ISO 10893-1: BIEN

**TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECHNOLOGISCHE
PRÜFUNGEN/TECHNOLOGICAL TESTS**

FLARING TEST: SATISFACTORY
ABOCARDADO S.NORMA: SATISFACTORIO



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AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG
ESSAI D'APLATISSEMENT: SATISFAISANT

THE TUBES/PIPES CONFORM ALSO TO
ANSI/NACE MR0103/ISO 17495:2015
ANSI/NACE MR0175/ISO15156-3:2015

BESICHTIGUNG UND NACHMESSUNG: IN ORDNUNG
INSPECTION AND CHECKING OF DIMENSIONS: SATISFACTORY
INSPECTION ET CONTROL DES DIMENSIONS: SATISFAISANT

DIE ANZAHL DER PRÜFUNGEN ENTSPRICHT DEN
ZULÄSSIGEN LOSGRÖSSEN IN FERTIGUNGSLÄNGEN.
THE NUMBER OF TESTS IS BASED ON THE SIZE OF THE
MANUFACTURING LOT BEFORE CUTTING TO LENGTHS.

DIE WERKSTOFFWERTE ENSPRECHEN PUNKT 7.5 DER DRUCKGERÄTERICHTLINIE
2014/68/EU, ANHANG 1, MIT EINER BRUCHDEHNUNG VON MINDESTENS 14 % IM
ZUGVERSUCH UND EINER KERBSCHLAGARBEIT VON MINDESTENS 27 J AN EINER
ISO-V-KERBSCHLAGPROBE BEI 20° C.

MATERIAL CHARACTERISTICS COMPLY WITH POINT 7.5 OF ANNEX I TO PRESSURE
EQUIPMENT DIRECTIVE 2014/68/EU BY HAVING AN ELONGATION AFTER RUPTURE AT
TENSILE TEST NO LESS THAN 14 % AND A BENDING RUPTURE ENERGY AT IMPACT
TEST NO LESS THAN 27 J AT 20°C.

MARKING

SCHOELLER BLECKMANN / TUBACEX GROUP - SBS 12,70 X 1,65/1,63 MM/1/2 "ODX16 BWG/SWG/1/2 "OD X 0,065 "/0,064 "
ASME SA213 ASTM A213 ASTM A269 EN 10216-5 TC1 EN 10297-2 S31600 S31603TP316 TP316L 1.4401 1.4404 CFA CD AW
SMLS HEAT/ PMI-AV LOT NO/ MADE IN AUSTRIA T/A ZFP

REMARKS

MECHANICAL TESTS WERE PERFORMED IN LONGITUDINAL DIRECTION IF NOT
OTHERWISE STATED.

NO WELD REPAIR HAS BEEN PERFORMED ON THE MATERIAL.

MATERIAL MANUFACTURER APPROVED WITH CERTIFICATE NR. 245/2004/MUC BY TÜV SÜDDEUTSCHLAND (NOTIFIED BODY 0036) TO
ISSUE CERTIFICATES OF SPECIFIC PRODUCT CONTROL IN ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.



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REMARKS

MATERIAL IS FREE OF RADIOACTIVE CONTAMINATION



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