

SCHOELLER-BLECKMANN Edeltahlrohr GmbH
2630 Ternitz, Rohrstrasse 1
Austria

TL: +43 2630 316-810
FAX: +43 2630 316-894
E-MAIL: wolfgang.hecher@sber.co.at

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.:621934-8008026 SOLD ORDER REF.:387525 COPY NUMBER: 012
--	--

CLIENT ORDER: I009409

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: 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 10216-5:2013 TC1
EN 10297-2:2005
AD 2000 W10/05.2016
CORROSION TESTED ACC. TO ASTM A262 PRACTICE E
CORROSION TESTED ACC. TO EN ISO 3651-2 PRACTICE A
EDDY CURRENT TESTED ACC. TO ISO 10893-1
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
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
70		8170096706	292203	58729	475	2.910,104 LB	9.500,000 FT	20,000-0,000 FT



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

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

M. Borzacchini
HR. M. BORZACCHINI

(WORKS INSPECTOR)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

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.

RAW MATERIAL

Heat Nr:	Supplier	Method
58729	ACERALAVA (SPAIN)	Electric furnace+AOD
58732	ACERALAVA (SPAIN)	Electric furnace+AOD

CHEMICAL COMPOSITION (%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	N
L	58729	1	0,005	1,49	0,300	0,028	0,0070	11,30	16,69	2,17	0,0698
L	58732	1	0,016	1,60	0,380	0,028	0,0080	11,31	16,83	2,17	0,0605
C	58729	1	0,008	1,55	0,340	0,027	0,0080	11,23	16,71	2,19	0,0720
C	58732	1	0,015	1,68	0,420	0,027	0,0080	11,32	16,90	2,20	0,0630

HEAT TREATMENT

HIPERTEMLADOS A 1100 °C , 10 min , J
SOLUTION ANNEALED AT 1100 °C , 10 min , JET
HYPERTREMPES 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		
289224	1	20	46	49	85	49	52
	2	20	46	50	84	43	46
292203	1	20	40	44	84	49	53
	2	20	39	44	83	47	50

HARDNESS TEST

Lot No	Sample	HRB	HV
Min			
Max		80	150
289224	1	79	150
	2	78	149
292203	1	75	140
	2	77	144

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

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:



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

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

M. Borzacchini
HR. M. BORZACCHINI

(WORKS INSPECTOR)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

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
VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT
"RÖNTGEN-FLUORESZENZ-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 5 SEC ON EACH TUBE/PIPE: SATISFACTORY
ENSAYO HIDROSTÁTICO A 350 bar, 5100 PSI DURANTE 5 SEC EN CADA TUBO: SATISFACTORIO
WASSERDRUCKPRÜFUNG BEI 350 bar, 5100 PSI HALTEZEIT 5 SEC JE ROHR: IN ORDNUNG
ESSAI DE PRESSION HYDROSTATIQUE À 350 bar, 5100 PSI PENDANT 5 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: O.B.
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
AUFWEITVERSUCH: IN ORDNUNG
ESSAI D'EVASEMENT: SATISFAISANT

FLATTENING TEST: SATISFACTORY
APLASTADO S.NORMA: SATISFACTORIO
RINGFALTVERSUCH: IN ORDNUNG



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

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

HR. M. BORZACCHINI

(WORKS INSPECTOR)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

ESSAI D'APLATISSEMENT: SATISFAISANT

BESICHTIGUNG UND NACHMESSUNG: IN ORDNUNG

INSPECTION AND CHECKING OF DIMENSIONS: SATISFACTORY

INSPECTION ET CONTROL DES DIMENSIONS: SATISFAISANT

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 TP316 TP316L1.4401 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.

MATERIAL IS FREE OF RADIOACTIVE CONTAMINATION



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

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

HR. M. BORZACCHINI

(WORKS INSPECTOR)

SCHOELLER-BLECKMANN Edeldstahlrohr GmbH
2630 Ternitz, Rohrstrasse 1
Austria

TL: +43 2630 316-810
FAX: +43 2630 316-894
E-MAIL: wolfgang.hecher@sber.co.at

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.:621934-8008026 SOLD ORDER REF.:387525 COPY NUMBER: 002
--	--

CLIENT ORDER: I010456

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: 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-22
ASTM A269/A269M-15a
EN 10297-2:2005
EN 10216-5:2021 TC1
AD 2000 W10/01.2020
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 10305-1:2010 (8.5.1.4)
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
190		8170099474	294823	59647	25	154,324 LB	500,000 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)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system, and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

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.

RAW MATERIAL

Heat Nr: 59647 **Supplier:** ACERALAVA (SPAIN) **Method:** Electric furnace+AOD

CHEMICAL COMPOSITION (%)

*L: Ladle C:Products

*	Heat	Seq	C	Mn	Si	P	S	Ni	Cr	Mo	N
L	59647	1	0,010	1,49	0,360	0,027	0,0080	11,05	16,71	2,14	0,0595
C	59647	1	0,012	1,55	0,380	0,027	0,0080	11,02	16,59	2,14	0,0620

HEAT TREATMENT

HIPERTEMPLADOS A 1100 °C , 10 min , J
SOLUTION ANNEALED AT 1100 °C , 10 min , JET
HYPERTEMPES 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		
294823	1	20	45	49	82	49	53
	2	20	46	50	83	52	55

HARDNESS TEST

Lot No	Sample	HRB	HV
Min			
Max		80	150
294823	1	78	147
	2	77	144

METALURGICAL TESTS/ENSAYOS METALÚRGICOS/METALLURGISCHE PRÜFUNGEN/ESSAIS

METALLURGIQUES

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



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

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

Riegler

FR. N. RIEGLER

(WORKS INSPECTOR)

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

**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

VERWECHSLUNGSPRUEFUNG AN JEDEM ROHR MIT

"RÖNTGEN-FLUORESZENZ-ANALYSATOR": IN ORDNUNG

VERIFICATION DE LA NUANCE SUR CHAQUE TUBE PAR

"X-RAY-FLUORESCENCE-ANALYZER": SATISFAISANT

HYDROSTATIC PRESSURE TESTED AT 350 bar DURING 6 SEC

ON EACH TUBE/PIPE: SATISFACTORY

ENSAYO HIDROSTÁTICO A 350 bar DURANTE 6 SEC

EN CADA TUBO: SATISFACTORIO

WASSERDRUCKPRÜFUNG BEI 350 bar HALTEZEIT 6 SEC

JE ROHR: IN ORDNUNG

ESSAI DE PRESSION HYDROSTATIQUE À 350 bar 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: O.B.

100% CONTROLE COURANTS FOUCAULT D'APRES ISO 10893-1: BIEN

**TECHNOLOGICAL TESTS/ENSAYOS TECNOLÓGICOS/TECNOLOGISCHE
PRÜFUNGEN/TECHNOLOGICAL TESTS**

FLARING TEST: SATISFACTORY

ABOCARDADO S.NORMA: SATISFACTORIO

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



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

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

Riegler

FR. N. RIEGLER

(WORKS INSPECTOR)

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 TP316 TP316L1.4401 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.

MATERIAL IS FREE OF RADIOACTIVE CONTAMINATION



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

We hereby certify that the material herein described has been manufactured, sampled, tested, and inspected in accordance with above standards and specifications and satisfies order's requirements. This certificate is issued by a computerized system and it is valid without original signature. In case the owner of the certificate would release as a copy of it, he must attest its conformity to the issued, assuming the responsibility for any unlawful or TUBACEX, not allowed use. Any forgery or falsification of this certificate shall legally prosecuted.

**SCHOELLER-BLECKMANN
EDELSTAHLROHR GMBH**

Riegler

FR. N. RIEGLER

(WORKS INSPECTOR)