



Tipton Road
 Dudley
 West Midlands
 DY1 4SQ
 United Kingdom
 Tel. +44 (0)121 557 1188
 Email: stainlessfittings@sfluk.co.uk

Test Certificate

Customer Name & Code Example Material Certificate

 Customer Order No ****
 Our Order No ****
 Despatch Date ****
 Internal Ref No ****

Certificate To: EN10204:2004 3.1

Material Grade 316L

Surface Finish SAT POL OD, 0.38um MAX ID AFTER ELECTROPOLISH, SF4

Qty Description Product Code
 2 1.5" EQ SHT OUT TEE DT-4.1.2-5 *****

Spec. ASTM A240

Heat No	C	Si	S	P	Mn	Cr	Ni	Mo	Ti	Co
36904	0.024	0.560	0.006	0.032	1.470	17.000	10.100	2.030	0.000	0.000

Notes	Yield Tensile N/mm	Ultimate Tensile N/mm	Elongation A%	Reduction Of Area %	Hardness
316L	292	594	52		86 HRB

Spec. ASTM A479

Heat No	C	Si	S	P	Mn	Cr	Ni	Mo	Ti	Co
6J066501A	0.022	0.390	0.008	0.027	1.800	16.870	10.020	2.020	0.000	0.000

Notes	Yield Tensile N/mm	Ultimate Tensile N/mm	Elongation A%	Reduction Of Area %	Hardness
316L	272	600	57	68	78 HRB

Spec. ASTM A269/A270

Heat No	C	Si	S	P	Mn	Cr	Ni	Mo	Ti	Co
889582	0.013	0.410	0.012	0.029	1.520	16.640	10.080	2.180	0.000	0.000

Notes	Yield Tensile N/mm	Ultimate Tensile N/mm	Elongation A%	Reduction Of Area %	Hardness
316L	267	573	55.8		81.4 HRB

Stainless Fittings certify that the items above have been manufactured, procured, inspected and tested in accordance with our ISO 9001 registered Quality System and conform to the stated specification. The items comply with the customer order requirement as acknowledged by Stainless Fittings Limited.

To guard against the remote possibility that Transmissible Spongiform Encephalopathy (TSE) may be passed into the supply chains of products for human consumption, Stainless Fittings has undertaken an audit of materials, manufacturing processes and process consumables. Stainless Fittings declare that the materials used in process contact products supplied do not contain animal derivatives in any part of their design.

Release Authority
 Signed:

WELD LOG



Customer
Example Log

Customer Order No.

Drawing/Part No.

Special Instructions

SFL Sales No.

W/O Ref Number

Number off
1

Weld Standards (tick)
 ASME IX

SAT POL OD
0.38UM MAX ID EP SF4

BOROSCOPE

General Weld Information								Manual weld		Orbital Weld		Component Id		Weld inspection			
Date	Weld identity No.	Weld and check by Initial	Gas Type	Diam or Length of weld	Open or Enclosed Purge	Wld M/c Ser No	Welder Qual. Ref.	Welder Procedure Qual. Ref.	Butt or Fillet wire cast no	Fixed or Rotate position	Orb Head set Ser No.	Weld prog No.	Item 1 Ident	Item 2 Ident	Visual Scope + video Pressure Dye Pen X-Ray	Insp check initial	Inspector comment reference or result of inspection
****	1	**	ARGON	1.50"	E	60	BW2	BW2	B	R			FERRULE	TEE	S	**	OK
****	2	**	ARGON	1.50"	E	60	BW2	BW2	B	R			FERRULE	TEE	S	**	OK
****	3	**	ARGON	1.50"	E	51	BW4	BW4			48	S021	FERRULE	TEE	S	**	OK
****	4	**	ARGON	1.50"	E	51	BW4	BW4			48	S021	FERRULE	TEE	S	**	OK
****	5	**	ARGON	1.50"	E	51	BW4	BW4			48	S021	FERRULE	TEE	S	**	OK
****	6	**	ARGON	1.50"	E	51	BW4	BW4			48	S021	FERRULE	TEE	S	**	OK

Comments, rejections or reflow information

Welder Name(s) _____

Inspector Name(s) _____

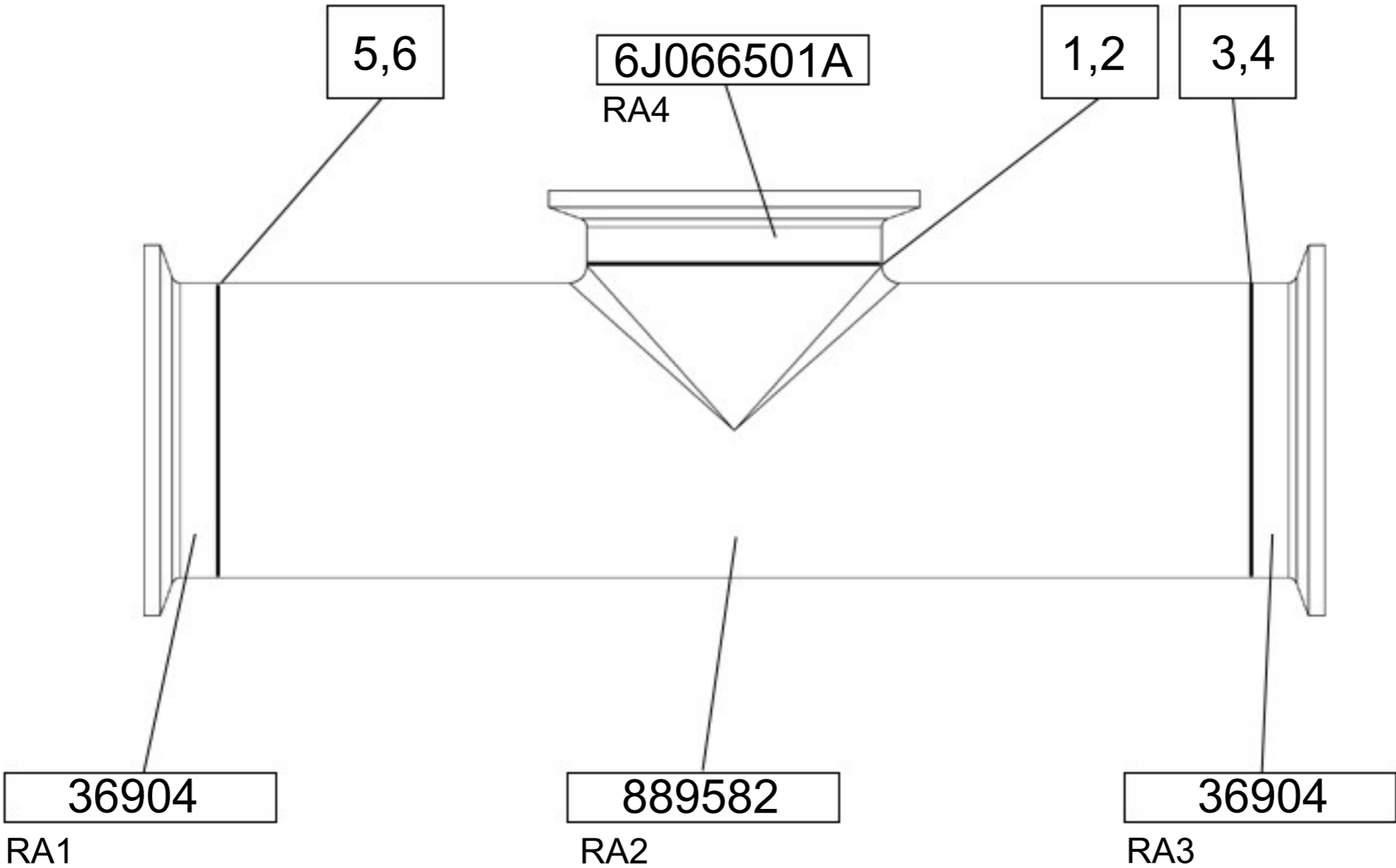
WELD MAP

Drawing/Part No.

Example Weld Map

SFL Sales Order

Works order



APPROXIMATED SHAPE AND VISUAL INDICATIONS ONLY - NOT TO SCALE
For weld parameter details see the Weld Log of the same reference numbers.
Additional important information may be available on an Engineering Drawing



Appointed
Notified
Body under
the PED
N° 0037



E1

WELDING PROCEDURE APPROVAL TEST CERTIFICATE

- | | | |
|----|---|-----------------------------------|
| 1 | | |
| 2 | | Page 1 of 3 |
| 3 | Manufacturer's Welding Procedure | Inspecting Authority ZC/WP/090745 |
| 4 | Reference No. ASME/PQR/BW2 | Reference No. SS42524906/4 |
| 5 | Manufacturer: STAINLESS FITTINGS LTD | |
| 6 | Address: TIPTON ROAD
DUDLEY
WEST MIDLANDS | |
| | DY1 4SQ | |
| 7 | Code / Testing Standard: | ASME IX |
| 8 | Date of Welding: | |
| 9 | RANGE OF QUALIFICATION | |
| 10 | Welding Process: | PULSED GTAW MANUAL |
| 11 | Joint Type: | GROOVE, FILLET |
| 12 | Parent Metal Groups Sub Groups: | PN°1 |
| 13 | Parent Metal Thickness (mm): | 1.5mm - 3.3mm |
| | Weld Metal Thickness (mm): | 3.3mm MAX |
| | Throat Thickness (mm): | 3.3mm MAX |
| | Single run / Multi run: | SINGLE |
| 14 | Pipe Outside Diameter (mm): | ALL |
| 15 | Filler Metal Type / Designation: | NOT APPLICABLE (AUTOGENOUS) |
| | Filler Material Make: | NOT APPLICABLE |
| | Filler Material Size: | NOT APPLICABLE |
| 16 | Designation of Gas / Flux: | ARGON (99.99%) |
| | Designation of Backing Gas: | ARGON (99.99%) |
| 17 | Type of Welding Current / Polarity: | DCEN PULSED |
| | Mode of Metal Transfer: | NOT APPLICABLE |
| | Heat Input: | NOT APPLICABLE |
| 18 | Welding Position(s): | ALL |
| 19 | Preheat Temperature: | AMBIENT 5°C MIN |
| | Post-Heating: | NONE |
| 20 | Post Weld Heat Treatment: | NOT APPLICABLE |
| 21 | OTHER INFORMATION | |

22 Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code / testing standard indicated above.

23 Location: BIRMINGHAM Date of Issue:

24
25



ZURICH

SAFed/CEOC Member Company

Name and Sign of Inspecting Authority
C DUFFELL
204, Great Bridge Street
West Bromwich B70 0DE
Tel: 0121 520 5868
(CEOC Member Organization)
ZURICH ENGINEERING

Übersetzung des vorgedruckten
Formblatt-Textes auf der Rückseite

Translation of printed test on
the reverse side

Traduction des rubriques imprimées au
verso

Note: This is a Welding Procedure Qualification Record and is applicable to the named manufacturer alone.
This qualification is not a Standard Welding Procedure and may not be reproduced in whole or part and used as such.



Appointed
Notified
Body under
the PED
N° 0037



E1

WELDING PROCEDURE APPROVAL TEST CERTIFICATE

3 *Manufacturer's Welding Procedure*
4 *Reference No* ASME/PQR/BW4
5 *Manufacturer:* STAINLESS FITTINGS LTD
6 *Address:* TIPTON ROAD
DUDLEY
WEST MIDLANDS

Inspecting Authority ZC/NP/120269
Reference No. SS42528527/1

DY1 4SQ

7 *Code / Testing Standard:* ASMEIX 2010
8 *Date of Welding:*
9 **RANGE OF QUALIFICATION**
10 *Welding Process:* ORBITAL GTAW PULSED MACHINE
11 *Joint Type:* GROOVE
12 *Parent Metal Groups Sub Groups:* PN°8
13 *Parent Metal Thickness (mm):* 1.5mm - 3.3mm
Weld Metal Thickness (mm): 3.3mm MAX
Throat Thickness (mm): N/A
Single run / Multi run: SINGLE
14 *Pipe Outside Diameter (mm):* ALL
15 *Filler Metal Type / Designation:* NOT APPLICABLE (AUTOGENOUS)
Filler Material Make: NOT APPLICABLE
Filler Material Size: NOT APPLICABLE
16 *Designation of Gas / Flux:* ARGON (99.99%) ENCLOSED HEAD
Designation of Backing Gas: ARGON (99.99%)
17 *Type of Welding Current / Polarity:* DCEN PULSED
Mode of Metal Transfer: NOT APPLICABLE
Heat Input: NOT APPLICABLE
18 *Welding Position(s):* ALL
19 *Preheat Temperature:* AMBIENT 5°C MIN
Post-Heating: NOT APPLICABLE
20 *Post Weld Heat Treatment:* NOT APPLICABLE
21 **OTHER INFORMATION**

22 *Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code / testing standard indicated above.*

23 *Location:* BIRMINGHAM

Date of Issue:

Name and Signature

R WILD

Inspecting Authority

(GEOC Member Organization)

ZURICH ENGINEERING SAFed/CEOC Member Company

Zurich Laboratory Services

204, Great Bridge Street

West Bromwich B70 0DE

Tel: 0121 520 5868

Übersetzung des vorgedruckten
Formblatt-Textes auf der Rückseite

Translation of printed test
on the reverse side

Traduction des rubriques imprimées
au verso



ASME IX WELDER PERFORMANCE QUALIFICATION (WPQ).
ASME Boiler and Pressure Vessel Code, Section IX, QW301

Employer STAINLESS FITTINGS LTD, TIPTON ROAD, WEST MIDLANDS, DY1 4SQ
 Welder's Name :
 Identification:
 Method of Identification :
 Date of Welding

Certificate Ref : ASME/WPQ/000794 Rev 0
 Reference Number: IC-2789

Test Description

Identification of WPS followed: ASME/PQR/BW2-WQ
 Specification and type/grade or UNS number of base metal(s): ASTM A213 TP 316L

Test Coupon: Production Weld
 Thickness (mm): 1.65mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding Processes(es)	GTAW with filler	GTAW with filler
Type (i.e. Manual, Semi-Automatic) used	Manual	Manual
Backing (with/without)	Without	Without, with =>25mm
<input type="checkbox"/> Plate <input checked="" type="checkbox"/> Pipe (Pipe diameter)	50.8mm	P N° 1-15F,34,41-49
Base Metal P- or S- number to P- or S- number	P N° 8 to P N° 8	Groove, Fillet
Joint Type	Single V Groove	-
Filler metal or electrode specification(s) (SFA)	N/A	-
Filler metal or electrode classifications(s)	N/A	-
Filler metal F-Number(s)	N/A	-
Consumable insert (GTAW or PAW)	N/A	-
Filler type (solid/metal or flux cored/powder)	N/A	-
Deposit thickness for each process (mm)	1.65mm	3.3mm Max
Fillet Weld base material thickness	1.65mm	All
Position Qualified (2G, 6G, 3F etc.)	Horizontal(2G)	F, H
Vertical progression (uphill or downhill)	N/A	-
Type of fuel gas (OFW)	N/A	-
Inert gas backing (GTAW, PAW, GMAW)	With	With
Transfer mode	N/A	-
GTAW current type/polarity	DCEN	DCEN

Test Results

Visual examination of completed weld; QW-302.4

- Transverse face and root bends; QW-462.3 (a)
- Longitudinal bends; QW-462.3 (b)
- Side bends; QW-462.3 (b)
- Pipe/Pipe bend specimen, corrosion-resistant overlay; QW-462.5 (c/d)
- Pipe/Plate specimen, macro test for weld overlay; QW-462.5 (b/e)
- RT or UT; Alternative Volumetric Examination Results; QW-191
- Fillet welds in Plate/pipe; QW-462.4 (b/c) (Fracture)
- Fillet welds Macro examination; QW-184

- Acceptable
- Not Required
- Not Required
- Not Required
- Not Required
- Acceptable
- Not Required
- Not Required

Welding Supervised by:

Inspection Body: WQ Inspection & Certification Ltd

Certified by:

Date of Issue:



Test Result: RT002449

We certify that the statements in this record are correct and that the test coupons were prepared, welded and tested in accordance with the requirements of section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

QW-322 - Confirmation of continuity is required every six months (see reverse)

Test qualification certificate for welding operators or weld setters

Page 1 of 1

Manufacturer's welding procedure specification ASME/PQR/BW4

Certificate Ref: ISO/OP000215 Rev 1

Reference No. (if applicable)

Reference No. IC-2789

Name of welding operator or weld setter:

Identification:

Method of Identification:

Date and Place of Birth:

N/A

Employer:

STAINLESS FITTINGS LTD

Code / Testing Standard:

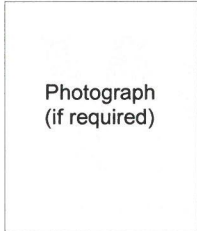
ASME IX 2021

Functional knowledge test (Mandatory):

Acceptable

Job Knowledge:

Not Tested



	Weld Test Details	Range of qualification
Welding process(es) Welding equipment Welding unit	GTAW - P AMI M217 Power Source AMI 08-4000 Enclosed Head	GTAW-P Types as test Types as test
Details for mechanized welding Visual control / visual remote control Automatic arc length control Automatic joint tracking Welding position Single run / multi run Material backing Consumable insert	Direct Visual Control Without Without Special Position (SP) single PASS without - gas backed without	Direct Visual Control - with, without sp, f single PASS with, without - gas backed without

Additional information is available on attached sheet and / or welding procedure Specification No: ASME/PQR/BW4

<p>The qualification is based on:</p> <p>-welding procedure test <input type="checkbox"/></p> <p>-pre-production welding test <input type="checkbox"/></p> <p>-standard test piece <input checked="" type="checkbox"/></p> <p>-production test or production sample testing <input type="checkbox"/></p>	<p>Name and Signature</p> <p>Examiner or examining body: WQ Inspection & Certification Ltd</p> <p>Date of welding of test piece</p> <p>Location: West Midlands</p> <p>Validity of qualification until: N/A, see below</p>
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Requalification 5.3 c) Valid until:

Confirmation of the validity by examiner or examining body for the following 6 months (refer to 5.3.c)

Date	Signature	Position or Title

Test Results	RT002448
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Certificate of Proficiency

BS EN ISO 17637 Non-destructive testing of welds, visual testing of fusion-welded joints

CSWIP CERT NO

This is to certify that:

VISUAL INSPECTOR
CERTIFICATION EXAMPLE

has demonstrated proficiency in fusion welding inspection as a Visual Welding Inspector in accordance with the CSWIP requirements published in Document CSWIP-WI-6-92, 12th Edition May 2012 and amendments in force on the examination date.

Date of issue

Date of expiry

Signed

A handwritten signature in black ink, appearing to read 'S. J. ...', written over a horizontal line.

(For CSWIP)

**NEW EMPLOYERS SHOULD ALWAYS ASK TO SEE THE CERTIFICATE HOLDER'S
TWI CERTIFICATION LTD IDENTITY CARD, AND VERIFY CERTIFICATE VALIDITY AT WWW.CSWIP.COM**

PLEASE READ THE NOTES OVERLEAF

Photocopies are unauthorised by
TWI Certification Ltd

Issued by:
TWI Certification Ltd, Granta Park, Great Abington, Cambridge CB21 6AL, UK

The use of the UKAS Accreditation Mark indicates accreditation in respect of those activities covered by Accreditation Certificate No. 025
This certificate is the property of TWI Certification Ltd and must be surrendered on request



Manufacturers of high purity equipment

Email: stainlessfittings@sfluk.co.uk
Website: www.sfluk.co.uk

Example Certificate

Surface Roughness Test Certificate

Customer Order No.

SFL Reference No.

Item Type and
Requirement

1.5" EQUAL OUTLET TEE DT-4.1.2-5
SATEEN POLISH OD, 0.38um MAX ID, ELECTROPOLISHED

Number of items

2

Test Equipment

Instrument used:

Mitutoyo SURFTEST SJ-210

Calibration:

Mitutoyo Precision Reference Specimen

Item Setting and Results

Eval Length

Cut off Length

ID Result

4.0mm

8.0mm

Less than 0.38um

Signature :

Date

The above information is correct at the date goods dispatched from SFL

Stainless Fittings Ltd



Manufacturers of high purity equipment

Tipton Road, Dudley
West Midlands. DY1 4SQ
United Kingdom
Tel: +44 (0) 121 557 1188



Email: stainlessfittings@sfluk.co.uk
Website: www.sfluk.co.uk

1 of 2

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 1 0.157 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 2 0.153 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 3 0.121 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 4 0.151 μm

2 of 2

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 1 0.173 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 2 0.223 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 3 0.219 μm

Mitutoyo SURFTTEST
SJ-210

Date
Time

Calc. Result

Ra 4 0.164 μm

ISO 9001
BUREAU VERITAS
Certification



BRITISH STAINLESS
STEEL ASSOCIATION

A  stainless **technologies** Company

Registered Office: Dains, 15, Colmore Row, Birmingham B3 2BH
Registered in England and Wales No. 6377506 VAT Reg No. 918 0132 50
Stainless Fittings Ltd is part of the Stainless Technologies Group of Companies



Manufacturers of high purity equipment

Email: stainlessfittings@sfluk.co.uk
Website: www.sfluk.co.uk

STAINLESS STEEL FERRITE TEST CERTIFICATE

Customer: Example Test Certificate
Customer Order Number: ****
Despatch Date: ****

COMPONENTS TESTED:



WELDED COMPONENTS



MACHINED COMPONENT

PROCEDURE:

1. Evacuate furnace to $<1 \times 10^{-3}$ mBar before heat on and maintain during cycle.
2. Ramp in accordance with furnace operation sheet to 1050°C.
3. Hold at 1050°C +/-10°C for 60 minutes (-0 mins, +6 mins).
4. Gas fan quench (Nitrogen) to below 60°C.

PERCENTAGE FERRITE TEST RESULTS:

Maximum test value: Less than 3%

<u>Component Identity</u>	<u>Part No</u>	<u>Size</u>	<u>Works Order</u>	<u>Qty</u>
1.5"EQ OUTLET TEE	****	1.5"	****	2

CALIBRATED EQUIPMENT USED: Fischer Feritscope MP3
Probe GAB1.3Dfe
Test area free of magnetic influence

STAINLESS FITTINGS HEREBY CERTIFY THAT THE RESULTS RECORDED ABOVE ARE FROM ITEMS THAT HAVE BEEN SELECTED FROM BATCHES SPECIFICALLY CONTROLLED FOR THIS CONTRACT.

Certificate release authority

Date

CERTIFICATE TO BS EN 10204 2.2



Manufacturers of high purity equipment

Email: stainlessfittings@sfluk.co.uk
Website: www.sfluk.co.uk

TEST CERTIFICATE HYDROSTATIC PRESSURE TEST CERTIFICATE

Customer: Example Test Certificate

Customer Order Number: ****

Despatch Date: ****

PART NUMBER	DESCRIPTION	QUANTITY
****	1.5"EQ OUTLET TEE	2

TEST SPECIFICATION: BY ORDER AGREEMENT

HYDROSTATIC TEST PRESSURE & DURATION AT AMBIENT TEMPERATURE:
TESTED TO 10 BAR G, PRESSURE MAINTAINED FOR 15 MINS

RESULT: NO VISIBLE LEAKAGE

CALIBRATED EQUIPMENT USED: Ref No. ****

STAINLESS FITTINGS HEREBY CERTIFY THAT ITEMS ABOVE HAVE BEEN TESTED AND CHECKED AND CONFORM TO THE SPECIFICATION STATED ON THIS CERTIFICATE.

Signed

Release Authority

Certificate Date

CERTIFICATE TO BS EN 10204 2.2